



A recent ZEW study recommends to make adjustments to the financing of the EU coronavirus-related debt.

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Research Findings

Multinationals Use Digital Infrastructure to Relocate Profits

Supplement M&A Report

M&A Index Shows First Signs of Recovery

Economic Policy Analysis

E-Government: Germany on Course to Success?

EU Debt Issuance for “Next Generation EU” at Risk of Becoming Permanent

According to the own resources decision currently under negotiation, the EU would secure an entitlement to financial contributions from its Member States until 2058, which it does not even remotely need to finance the coronavirus recovery plan. A recent study by ZEW Mannheim quantifies this excess cover at ten times of what would actually be needed to repay the debt from the coronavirus “Next Generation EU” recovery plan totalling 750 billion euros.

According to the author of the study, the mismatch between the greatly increased limit on its own resources until 2058 and the coronavirus package raises problematic questions. Politically, this is a signal that Europe is already making way for additional possibilities of incurring debt totalling several billion euros for future purposes other than the COVID-19 pandemic.

This excess cover poses high liability risks for the budget of solvent Member States.

The calculations are based on the planned financing of the 750-billion-euro coronavirus recovery plan through the issuance of EU bonds. The study by ZEW Mannheim shows that, in fact, more than 820 billion euros in COVID-19-related debt will be taken on by 2026, as amounts are increased annually at a constant rate of two per cent. In order to finance the debt incurred by the pandemic, the EU will be entitled to request additional contributions from its Member States of up to 0.6 per cent of their total gross national income until 2058, in addition to the regular own resources ceiling. This additional margin provides financial security for the debt service which has to be financed from the EU budget. The ZEW study calculates the capacity to

repay this debt resulting from the additional margin. The findings are dependent on expected economic growth. Even in the worst case scenario where the European Union experiences no real economic growth until 2058, more than four trillion euros of debt could still be paid off thanks to this additional margin. In fact, the European Union only requires 430 billion euros for the coronavirus recovery plan, since remaining funds are issued as loans which are to be paid off by Member States seeking financial assistance themselves.

Even if other very unfavourable assumptions were to come to fruition, such as other Member States exiting the EU after Brexit or the loans not being repaid by some Member States as agreed, a substantial imbalance still remains in place. Contributions made by Germany alone would suffice until 2058 to clear debt incurred for Next Generation EU altogether.

The emerging new type of EU bonds which will be issued by the Commission to finance Next Generation EU will have a similar risk profile as the widely debated Eurobonds that Germany has always rejected. Germany and the other solvent Member States may be held fully liable to Member States that are unable or unwilling to repay their share in Next Generation EU debt. In fact, due to the EU budget's wide access to additional contributions made by its Member States, there is no effective upper limit of liability assumed by a country like Germany. Hence, Next

Generation EU loans are more risky for Germany than the European Stability Mechanism which strictly limits Germany's liability to a specific amount.

Government should add clarifying notes to the own resources decision

The study of ZEW Mannheim additionally points out a further consequence of the excess EU repayment capacity. Since the additional contribution margin remains in place until 2058, there is a strong incentive to delay debt repayment and instead use this leeway for current expenditure for decades to come.

Ideally, the German Bundestag should press for an amendment to the own resources decision towards a smaller additional contribution margin. The minimum would be to oblige the German government to a contract note requiring a minimum repayment per year of Next Generation EU debt from the outset. If the parliament does not make the necessary adjustments now, there is a high likelihood that the coronavirus-induced 'temporary' EU debt issuance will turn out to be a permanent change.

The study is available to download (in German only) at:
http://ftp.zew.de/pub/zew-docs/gutachten/HEINEMANN_Friedrich_Eigenmittelbeschluss_Stellungnahme.pdf

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Awareness Campaigns Hardly Contribute Towards Flood Protection

Natural disasters such as floods are becoming increasingly more common as a consequence of climate change. Several federal state governments in Germany have therefore initiated large-scale awareness campaigns in cooperation with the insurance industry. The aim is to make households more aware of this matter so they can cover themselves against damages caused by floods. A recent study by ZEW Mannheim shows, however, that these campaigns have hardly had an effect on private flood protection or insurance decision-making.

Researchers conducted two independent analyses, exploiting the fact that different federal states initiated the campaign at different points in time between 2009 and 2017. First, they investigated whether or not awareness campaigns have an effect on the adoption of coping strategies (e.g. private safeguards or insurance cover against natural hazards) at household level. The campaigns ultimately show no impact on the way in which households take precautionary measures. They did not take increased private flood precautions or take out insurance cover against natural hazards. Furthermore, there appeared to be no significant effects even when including other factors such as home ownership, income or risk of flooding.

The researchers analysed data from insurers on damages caused by flooding and insurance penetration on federal state level as a further step in their investigation. According to the authors of the study, the awareness campaigns also displayed no significant impacts on a long-term basis. This shows that these campaigns only have limited effectiveness in Germany concerning actual flood protection and coping strategies taken by households. As possible alternatives to the awareness campaigns which have thus far had little effect, targeted financial incentive programmes for flood protection of vulnerable households in flood risk areas could come into question.

The study is composed of two independent empirical analyses. The researchers initially compared data from the federal states of Brandenburg, Rhineland-Palatinate and Saarland with the remaining federal states. To be able to do so, they surveyed over 6,700 households in the years preceding and following the start of the campaign in 2013. A comparison of data on damages caused by flooding and insurance penetration in Germany's sixteen federal states between 2002 and 2018 took place in the second study.

The study is available for download at: www.zew.de/PU81885

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A recent study shows that international corporations use their digital infrastructure to shift profits and reduce their tax rate.



Photo: ©iStockphoto.com / MicroStockHub

Multinationals Are Using Digital Infrastructure to Relocate Their Profits

Corporations with well-established digital infrastructure are using this for more aggressive tax planning in contrast to corporations with little digital know-how. What this means is that these corporations can relocate their company-wide profits more efficiently to European countries with low tax rates and are therefore able to reduce their effective tax rate, as a joint study conducted by ZEW Mannheim and the University of Mannheim suggests.

According to the authors of the study, the profits declared by subsidiaries of international companies are higher in those countries where tax rates are lower. This correlation is more distinct among businesses with digital infrastructure, for example, enterprise resource planning (ERP) systems which companies use to plan, control and manage their resources.

This effect has been found to be even stronger if a head of department in accounting is present at these multinationals. This is due to the fact that these companies then have the expertise to hand, which enables them to put additionally acquired information, obtained through analyses of internal data, to further use for tax planning.

Digital corporations react more quickly to tax rate changes

The study additionally shows that international corporations with good digital infrastructure react more sensitively to changes in tax rates than businesses with a lower digitalisation level. The findings show that digitalised corporations shift their profits away more quickly from countries with an increased tax rate.

Inversely, these businesses are also quicker to relocate their profits to countries with a decreased tax rate.

For their analyses, the researchers used various data sets on 20 European countries between the years 2005 to 2016. In total, they considered 24,715 businesses which belong to 12,216 multinationals. The CiTDB database from The Aberdeen Group provides information on how European corporations use information technology, and the ORBIS database of Bureau van Dijk provides unconsolidated financial data and information on ownership structure.

Three IT applications are observed depending on varying levels of use. The corporations examined are divided into groups based on good, average, and poor digital infrastructure. These are: ERP systems which help corporations to plan, control and manage their resources (e.g. staff, capital, stock), database management systems (DBMS) which allow corporations to set up and manage databases, as well as groupware software which enables communication within the business and cross-border communication among employees.

Up until now, scientific studies solely examined the effects of the digital transformation of corporations on central business areas. The recently published study by ZEW and the University of Mannheim is the first to analyse how these technologies are also changing entrepreneurial activity in supporting corporate departments such as the tax department.

The study is available to download at: www.zew.de/PU81979

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The mothers' contributions to the household income increases for families with access to day care.

Photo: © iStockphoto.com/BraunS

Availability of Day-Care Places Mitigates 'Child Penalty' for Mothers

Childcare provision is the most frequently suggested measure to mitigate the 'child penalty' for mothers, who often bear financial losses after having a child, usually in the form of declining incomes. The pay gap between men and women begins to widen after the birth of the first child. The differences in pay result in major consequences for lifelong labour earnings and pensions as well as a higher risk of poverty for women.

A team of researchers from ZEW, the University of Basel and the University of Lausanne examined this relationship more closely. The lack of day-care places is perceived to be the greatest obstacle preventing mothers with small children from working at all or working more hours and is the reason why family incomes often decrease after the birth of the first child. In the study, the authors observe that the women's income decreases by around 70 per cent after the birth of their first child. When municipalities introduce childcare services, the child penalty decreases by approximately 4.5 percentage points. When they have access to childcare facilities, mothers work more hours and achieve higher earnings. This positive effect is particularly pronounced among households at the bottom of the income distribution, where the drop in earnings due to maternity is 11.2 percentage points less when childcare places are available.

Childcare provision does not eliminate the child penalty

At the same time, the data also shows that childcare provision cannot prevent a decline in income for families with a child. Even if parents have access to childcare facilities, their joint income decreases by around 20 per cent. Childcare provision does, therefore, not eliminate the child penalty.

When families have access to day-care places, the low contribution of mothers to the family income increases, on average, from ten to 13 per cent. For families whose household income lies below the median, this share also rises to 13 per cent; however, these mothers contribute only seven per cent to the family income if they do not have access to childcare.

Even though mothers tend to contribute only a minor amount to the family income, day care at least allows them to remain active in the labour market. The authors observe a particularly pronounced effect for families whose household incomes lie below the median. For families without access to day care, fathers' contributions to the household income increase significantly immediately after the child is born. This is most likely due to the fact that they increase their working hours or take up a new job. When parents have access to childcare, this effect decreases by 8.4 percentage points. The reason for this is that mothers can contribute more to the family income if their children have the opportunity to go to day care or a childminder.

Childcare offers a sensible instrument to help mothers increase their working hours

Although the results show that the availability of childcare offers alone cannot improve the overall financial situation of families, it is still a sensible instrument – not only to provide mothers with the opportunity to work more hours, but also with regard to the risk of poverty and old-age provision. In addition, childcare reduces the burden on new fathers in low-income households who otherwise have to make up for the drop in female earnings.

The study is available to download at: www.zew.de/PU81977

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ON THE METHOD

The research team investigated the effects of childcare provision based on data from Switzerland for the period 2001–2015. To examine these effects, the researchers made use of a natural experiment in the canton of Bern. While almost none of the municipalities offered childcare when the experiment started, 59 of 401 municipalities introduced childcare services in the period under consideration. Another 26 municipalities had already offered childcare before the experiment began.



M & A REPORT

ZEW-ZEPHYR M&A Index Shows First Signs of Recovery Since August 2019

The number of mergers and acquisitions (M&A) involving German firms has started to stabilise and shows early signs of recovery after months of decline. In 2020, the ZEW-ZEPHYR M&A Index – established in 2005 to measure M&A transactions involving German companies – recorded its lowest levels since its establishment. Since August 2019, the index has started to show first indications of recovery.

M&A activity involving German firms appears to not have been substantially affected by the COVID-19 pandemic so far. One potential explanation is that the German government has implemented an array of measures, such as the suspension of the insolvency rule, which have helped companies throughout the crisis. However, these economic policy measures may in turn delay takeovers of distressed firms.

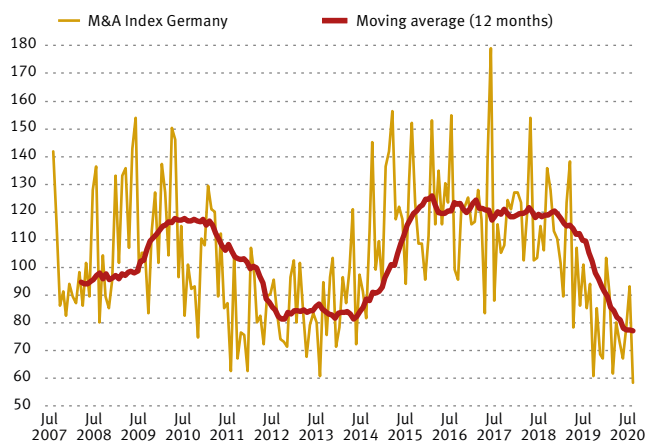
There were two major M&A deals in the ZEW-ZEPHYR M&A Index involving German companies. One of the biggest German

M&A deals of the year so far took place in April in the semiconductor industry. Germany-based Infineon Technologies took over US-based Cypress Semiconductor Corporation for just over 9.2 billion euros. The M&A deal, which was announced in June 2019, transforms Infineon Technologies into the world's largest producer of automotive chips.

Another notable M&A deal is the takeover of US-based Wabco by German car parts maker ZF Friedrichshafen at a sum of 6.3 billion euros. ZF Friedrichshafen – Germany's third largest auto parts supplier – announced the takeover of American brakes manufacturer Wabco back in spring 2019. The completion of the takeover happens, however, at an unfavourable time for the auto parts supplier ZF Friedrichshafen. The German company plans to adjust its capacities worldwide and cut around 15,000 jobs by 2025 – half of them at German manufacturing sites.

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ZEW-ZEPHYR M&A-INDEX GERMANY



Source: Zephyr database, Bureau van Dijk, calculations by ZEW

The ZEW-ZEPHYR M&A-Index measures the number of M&A transactions completed in Germany each month. It considers only mergers and acquisitions by and with German companies. It does not differentiate between the country of origin of the buyer or partner. This means that both domestic and international buyer companies are considered, provided that the target companies are active in Germany. The M&A Report is a biannual publication issued by ZEW and Bureau van Dijk. It uses the Zephyr database to report current topics and developments in global mergers and acquisitions. The Zephyr database, which is updated on a daily basis, contains detailed information on over 1.9 million mergers and acquisitions, IPOs, and private equity transactions around the world.



Changes in the Pharmaceutical Industry Lead to Record Levels of M&A Activity

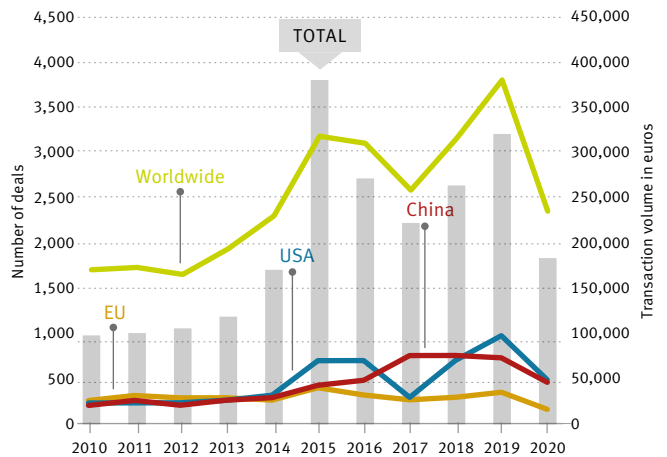
The COVID-19 pandemic has put the spotlight on the pharmaceutical industry as it races towards finding a vaccine. As things stand, the industry appears to be in good shape to rise to this challenge. In recent years, the pharmaceutical industry has seen a boom in merger and acquisition (M&A) activity with numbers hitting a record high in 2019 with just over 3,800 recorded deals. M&A activity in the industry is rising not only in terms of its volume but also its value. The aggregated value of deals with known values was, for example, worth over 300 million euros in 2019.

The pharmaceutical industry is currently undergoing major changes. New and innovative technologies such as artificial intelligence and gene manipulation are emerging and the demand for healthcare is soaring. At the same time, governments and insurance firms are putting more and more pressure on the pharmaceutical companies to reduce drug prices. These changes might explain the upward consolidation trend in the industry.

It is probably not a coincidence that US-based firms are leading this trend, as the US government and insurance companies based in the US have introduced reforms and new payment schemes to increase drug pricing transparency, and in turn a downward pressure on prices, in the last few years.

Notably, Chinese pharmaceutical companies are also bucking the trend and in 2017 they accounted for the highest share of M&A activity in the industry for the first time. In contrast to

M&A ACTIVITIES IN THE PHARMACEUTICAL INDUSTRY



Source: Zephyr database, Bureau van Dijk, calculations by ZEW

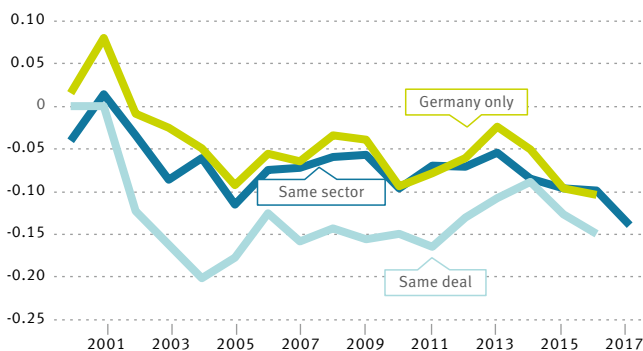
China and the United States, there has not been a significant change to merger and acquisition activity in Europe throughout the past decade.

To what extent the COVID-19 pandemic will affect M&A activity remains unknown, as the coronavirus crisis presents both great opportunities and risks to the pharmaceutical industry.

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Buyers or Targets – Who Has More Pricing Power in M&A Transactions?

TARGETS EXHIBIT HIGHER PRICING POWER (PRICE MARKUP DIFFERENCES ACQUIRERS-TARGETS)



Source: Zephyr database, Bureau van Dijk, calculations by ZEW

In recent years, policy and academic circles on both sides of the Atlantic and beyond have been engaging in a lively discussion on the causes and consequences of increased industry concentration. Higher industry concentration is said to be linked to higher price-cost margins (price markups) and these are most often associated with increased market and pricing power by firms. This association is of great interest for competition policymakers, particularly in light of the ongoing debate on the extent to which lax merger control has contributed to these developments. If policymakers pay attention to these developments, then practitioners ought to do the same.

By relying on estimates for German firms produced elsewhere, the analysis examines the average price-cost margins of parties involved in M&A transactions which took place between 2000 and 2017. Selecting the data this way makes it possible to doc-



ument the relative market power of acquirers and targets in M&A transactions as well as answer the fundamental question: which company is acquired by whom? The findings show that targets in M&A transactions exhibit, on average, higher price markups, which is depicted as a negative difference between acquirers and targets in the figure on the bottom of page 6. If markups are indeed associated with profitability, then firms with higher price markups make for more attractive targets in M&A transactions.

The findings also uncover a widening gap in the early 2000s and a relatively stable pattern from 2005 onwards. For all three graphs in the figure, the size of the firm was held constant to

account for the fact that, in the sample, smaller firms on average exhibit higher price-cost margins. The observed patterns are most pronounced when looking at the data deal by deal. The light blue line depicts average differences within a deal (when both parties to a transaction are German firms). Both the dark blue line and the green line depict the numbers at a more aggregate level: the dark blue line illustrates the difference between the average price markups of all acquirers and that of all targets of firms in the same sector and the green line shows a sample of deals with both acquirer and targets in Germany.

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No Sign of a Rise in Distressed Acquisitions

To mitigate the extent of corporate insolvencies as a consequence of the economic fallout from the current coronavirus pandemic, Germany adopted changes to its insolvency law in March earlier this year. This enabled excessively indebted companies to hold off from filing for insolvency in the first three quarters of 2020.

This initiative, although criticised by some economists, has generally been welcomed by the industry. The numbers speak for themselves, as it has since become evident that these changes have prevented a sharp decline in the number of German companies filing for insolvency in the first half of 2020 compared to 2019 (-6,2 per cent year-on-year).

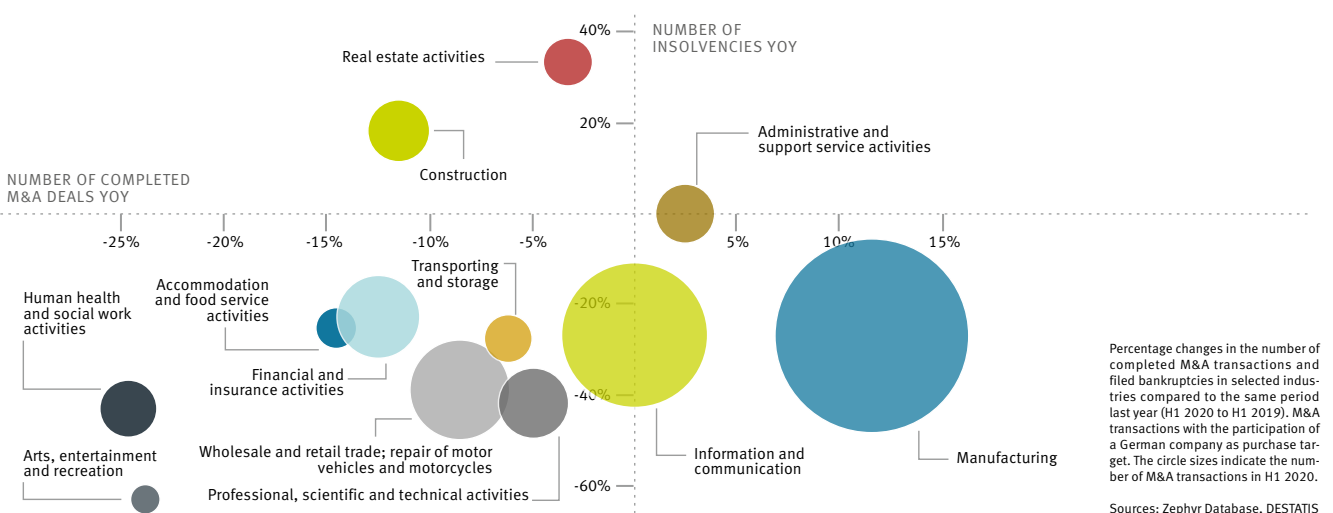
A company under financial distress may choose to sell off its assets in order to temporarily improve its financial situation or engage in M&A transactions as part of the bankruptcy proceedings. This may also explain why there was an increase in deal activity and volume in the aftermath of the global financial crisis 2007–2008, consistent with the data on bankruptcies in general. The figure below shows the insolvency numbers and deal

activities broken down by industry sectors in a year-on-year comparison. In the first half of the year, the figure of M&A deals fell in line with the levels of insolvencies in most industry sectors. The most striking development is the ongoing rise in deal activity in the construction and real estate sectors. The increased number of insolvencies in the manufacturing sector has not yet been accompanied by an increase in M&A deals. From the data presented, we can observe a certain correlation between both data records, while of course not being able to demonstrate a causal relationship.

Financial analysts cited increased uncertainty and macro challenges as possible causes for the decline in the number of deals closed. Due to the COVID-19 travel restrictions, cross-border deals between businesses may have been hampered. Despite this, the appetite for mergers and acquisitions appears to be on the rise and an increasing volume of ‘distressed’ M&A deals in 2021 seems plausible, especially following the expiry of the exemption from the insolvency reporting obligation.

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YEAR-ON-YEAR CHANGE IN INSOLVENCY AND M&A FIGURES (H1 2020 VS H1 2019)



Q&A: Has the German Contact-Tracing App Got off to a Successful Start?

“Pretty Much Every Other Mainstream App Collects More Sensitive User Data”

According to information provided by the Robert Koch Institute (RKI), the coronavirus contact-tracing app has been downloaded more than 18 million times. In light of the rise in infection rates, there is hope that the app will facilitate the tracking of chains of infection in the cold winter months ahead and that it will help to control outbreaks of the virus. In the following interview, Dr. Dominik Rehse, head of the Junior Research Group “Digital Market Design”, speaks about how the app has performed up until now and what is needed in order for it to be effective in protecting individuals from infection.

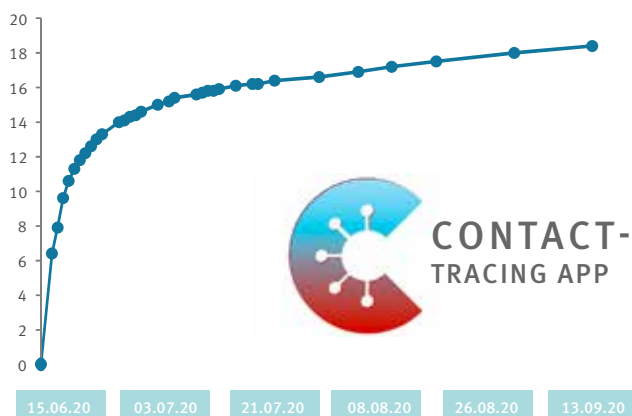
How can an app save lives?

The contact-tracing app should accelerate the tracking of transmission of the virus. In the case that a user tests positive for having the virus, they can alert the app of this positive test. The following day, other users of the app who have been in very close contact with this person over a relevant period of time in the past two weeks will then be notified that they have been exposed to the virus. Responsible users should then self-isolate and get themselves tested for the virus. By doing so, chains of infection can be broken, which potentially saves lives.

Is the German contract-tracing app a success?

Unfortunately, the app was not released until mid-June and therefore was too late in playing a role in managing the first wave of infection. It could, however, have a greater importance when infection rates increase again in autumn and winter. In any case, a widespread use of the app will be critical. The number of app installations initially grew strongly, but has levelled off since then. Beyond installation rates, it is not possible to say much about the success of the app, as of yet.

NUMBER OF APP INSTALLATIONS IN MILLIONS



Source: ZEW

Why is that so difficult?

The app was developed with a very strong focus on addressing privacy concerns. Unfortunately, this has had negative consequences regarding the performance measurement of the app. For instance, it cannot be precisely determined how many users have actually notified the app of an infection and how many of the contacts exposed to the virus were then tested. It is also not possible to check how reliable the categorisation as an individual having been exposed to the virus is. The latter is particularly unfortunate, as the Bluetooth technology used for measuring distance was not developed for this purpose and the reliability can, therefore, only be tested under laboratory conditions. Improvements of the distance-measuring algorithm are restricted by the lack of data from day-to-day use of the app.

How did it get to this?

Public debate on the development and release of the contact-tracing app was dominated by sticking points concerning data protection. Political decision-makers involved were apparently guided by these concerns when it came to designing the app's functionality. This has resulted in an app which most likely exceeds legal data protection requirements by far. Pretty much every other mainstream app collects more sensitive user data, and usually in accordance with prevailing data protection laws. Apart from data protection aspects, hardly any other considerations seem to have found their way into the design of the app. For example, the involvement of local health authorities, who are actually in charge of contact tracing and breaking chains of infection, could have improved the effectiveness of the app. These authorities are informed about every positive test result anyway.

How can the app succeed in getting more people to use it?

So far, the dissemination strategy of the app was limited to advertising through traditional communication channels and organisations with a strong public voice, such as football associations. The downward trend in the number of individuals newly installing the app shows, however, that this strategy also has its limitations. A sensible addition could be if the contract-tracing app comes pre-installed on new mobile phones or if there were specific incentives for getting more users on board. Incentives should of course not crowd out intrinsic motivation. However, if the app is to become more widely distributed, then additional approaches for its dissemination will have to be systematically tested. The adoption of digital key chains, which solely have the contact-tracing app installed on them, should also be taken into consideration. These could be made available to members of the public who do not own an up-to-date mobile phone and would otherwise not be able to use the app.

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E-Government in Europe: Germany on Course to Become a Success Model?

With the implementation of the Online Access Act, Germany has provided the digital administration with a legal framework, but above all has given this aim a concrete date: All public administrative services should be made digitally accessible by 2022 at federal, state and municipal level. This is a very ambitious project, especially since numerous agencies have to cooperate with each other across federal state and municipal borders. Nevertheless, the efforts made will be worth it and indeed in more ways than one.

The implementation of digital solutions will make processes more efficient, not only for providers but also for users of these services within industry and society. Applicants are exonerated, for example, if they are able to complete these processes online and use uniform or even pre-filled forms. This also unburdens administrative staff who can process these applications online – all of which is hugely advantageous in situations such as a lockdown.

It should not, however, only be about more efficient processes. The Commission of Experts for Research and Innovation (EFI), which advises the German Federal Government and evaluates Germany's performance regarding research, innovation and technological progress, recommended in its 2017 assessment that "Germany should become a recognised success model in digital governance and administration in Europe through its e-government initiative by the year 2025."

In European comparison, Germany ranks low with regard to e-government

And yet Germany remains far behind other EU Member States with regard to e-government, as the EU's Digital Economy and Society Indicator (DESI) shows Germany ranking 21st out of 28 listed countries in 2020. Progress in the provision of public services for companies and open data could indeed be achieved. However, online interaction between authorities and citizens, as well as the possibility of using pre-filled forms are still in need of an urgent upgrade. If nothing else, the digital learning processes which ensued in the COVID-19 pandemic ought to be an incentive to make up for lost ground.

Digital technology enables its users to become more innovative. This applies to public administration as well as the economy. Therefore, the development of new digital services should also be taken into account and in particular the potential of open administrative data should be exploited more fully.

From the outset of the COVID-19 pandemic we have learnt to value the importance of reliable data as the basis for decision-making. Health data, which can be gathered and amalgamated together in a uniform and up-to-date format, has proven to be a key basis for policy decisions. Yet there is still a big amount of untapped potential which could be used here. Geological data is, for example, scientifically applicable and could equally be used economically to develop digital services which encourage resource-efficient transport use. A more intensive exchange between the government, industry and science can also contribute towards the potential for administrative data.

Employees have to be inspired and educated for the 'e-government' project

Successful digitalisation requires digital know-how in public institutions as well as within industry. Digital know-how encompasses basic knowledge when dealing with digital solutions on a day-to-day basis, as well as expert knowledge when programming software, for example, or processing and evaluating data.

Investments should therefore not only be poured into technological equipment but also in educating and further educating those employed in public administration. Employees in public administrative institutions are in any case an essential factor. Inspiring these employees for the complex 'e-government' project is a task in itself. There is not much time left between now and the end of 2022 for a full implementation of the Online Access Act. Some effort is still needed until this time, but in doing so, Germany's aim of becoming a "recognised success model in digital governance and administration in Europe" moves to within touching distance.

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Virtual Annual Conference of Leibniz ScienceCampus MannheimTaxation

Due to the coronavirus pandemic, the Annual Conference of the Leibniz ScienceCampus MannheimTaxation, was held exclusively online for the first time. On 10 September over 260 participants from all over the world came together to discuss about tax systems in times of COVID-19. The online conference, which was organised by ZEW and the University of Mannheim, included 30 presentations in a total of 11 sessions and a keynote speech on regional funding programmes by Danny Yagan, assistant professor at the University of California at Berkeley. One highlight of this year's conference was the policy session on tax policy measures to cope with the coronavirus-induced recession. The top-class panel was moderated by MannheimTaxation spokesperson Professor Christoph Spengel and featured Professor Michael Devereux (Oxford University Centre for Business Taxation), Professor Dhammika Dharmapala (University of Chicago), Ruud de Mooij (Tax Policy Division in the IMF's Fiscal Affairs Department), and Professor Nadine Riedel (Institute for Public and Regional Economics at the University of Münster). The panellists and the moderator emphasised the importance of adapting various tax policy measures to the new circumstances created by the pandemic. In this context, Spengel presented different tax policy instruments, which was followed by a lively discussion on their advantages and disadvantages. Among the controversial issues discussed were the desirability and optimal duration of measures to prevent corporate insolvencies.

7th #MannheimTaxation annual conference as virtual edition: Panel discussion on #TaxPolicy for the recovery from the #Corona recession with Michael Devereux @UniofOxford, Dhammika Dharmapala @UChicago, Ruud de Mooij @IMFNews and Nadine Riedel @WWU_Muenster



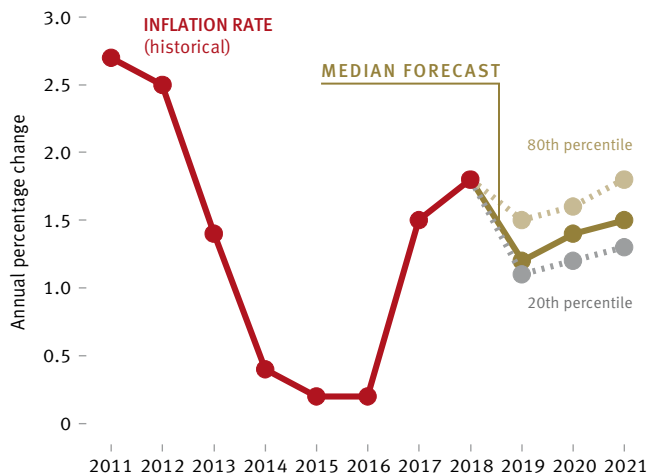
#ZEWBookTalk: Online Kick-off Event with Clemens Fuest

The coronavirus pandemic has put the economy, society and policymakers under considerable pressure. On 26 October 2020 Ifo President Professor Clemens Fuest presented his recently published book "Wie wir unsere Wirtschaft retten. Der Weg aus der Corona-Krise" ("How to Save the Economy. The Way Out of the Coronavirus Crisis") against this background in an online event at ZEW Mannheim. The #ZEWBookTalk focused on topics like the ratio of health and economy during the COVID-19 pandemic, suitable economic policy measures and the EU Green New Deal. At the beginning of his presentation, Fuest stated that he saw no conflict between healthcare and the economy in the COVID-19 crisis. "The virus has a significant impact, even without government restriction. While these restrictions have the effect of slowing down the economy in the short term, they can also help relieve the overstretched healthcare system," said Fuest. Asked about how suitable economic policy measures look like, he argued that "COVID-19 tests and face masks can secure the functioning of the economy. Lockdown measures, however, have the opposite effect." The way these restrictions are designed plays a crucial role. Fuest warned that economic activity cannot be coordinated by means of centrally planned measures. Instead, intelligent economic policy is achieved by combining the potential of the market economy with public reg-

ulation. In the subsequent discussion with ZEW President Professor Achim Wambach, Fuest expressed his criticism of the EU Green New Deal. He took a negative view of the taxonomy used to classify financial products as sustainable. These measures are no longer timely as they will lead to a planned economy and channel capital into specific areas, concluded the economist the live event in front of approximately 230 viewers.



Inflation Rates in the Eurozone Remain Very Low

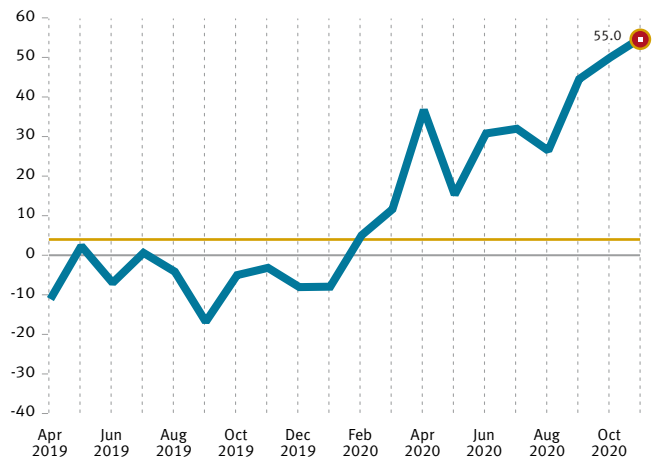


Forecast of the inflation rate in the euro area Source: ZEW

The inflation rate in the eurozone, measured by the consumer price index, was again negative in October. As in September, prices fell by 0.3 per cent year-on-year. In the special question included in the December issue of the ZEW Financial Market Report, financial market experts were asked how they assess the inflation development in the medium term. According to the survey, the experts assume a median increase of 0.4 per cent for the current year. In the next two years, the inflation rate is expected to gradually return to normal, with the median forecast for 2021 and 2022 being 1.0 per cent and 1.5 per cent, respectively. Prices will thus fall only for a short time. The experts consider the current weak economic development resulting from the COVID-19 pandemic as being primarily responsible for this price development. However, the low raw material prices due to the relatively low demand are also contributing to the fact that consumer prices are only rising slightly or even temporarily falling.

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Chinese Economy: Growth Forecast Reaches Record High



Balance of the symmetrically weighted positive and negative assessments regarding the macroeconomic environment in China in twelve months. Survey period: 3–11 November 2020. Source: ZEW/Fudan University

In the November survey (3–11 November 2020), the CEP indicator recorded a further increase, climbing 5.0 points to a new record high of 55.0 points. The CEP indicator, based on the China Economic Panel (CEP) in cooperation with Fudan University, Shanghai, reflects the economic expectations of international financial market experts for China on a 12-month basis. The assessment of the current economic situation also continues to improve, with the corresponding indicator rising 24.1 points to a new reading of 30.0 points. In addition, the growth forecast for the real gross domestic product recorded a further increase. In the November survey, the respondents expect to see growth of 3.4 per cent for the current year 2020 (previous month: 1.9 per cent) and 6.4 per cent for 2021 (previous month: 4.7 per cent). This growth forecast for China is remarkable in light of the coronavirus crisis. The experts expect China’s economic growth to return to normal as early as next year.

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2021 MaCCI Annual Conference

The Mannheim Centre for Competition and Innovation (MaCCI), a joint initiative between ZEW Mannheim and the University of Mannheim, is pleased to announce its 2021 Annual Conference, scheduled to take place on 11 and 12 March 2021. The aim of the conference is to provide a platform for exchange and discussion on topics in competition- and innovation-related research between academic researchers and practitioners in public authorities, legal counsel, and economic consultancies. If you are interested in attending the MaCCI Annual 2021 conference virtually, please register no later than 31 January 2021. More information: www.zew.de/macciannual2021

#ZEWBookTalk: Joshua Gans

ZEW Mannheim is pleased to announce that economics professor and book author Joshua Gans will present his latest release, “The Pandemic Information Gap: The Brutal Economics of COVID-19”, in the second edition of the #ZEWBookTalk series on 17 December 2020. The book is an essential read about the long-term economic impact of COVID-19 and provides insights into the situation in the US. Via a live stream, Joshua Gans will discuss the core theses of his book with ZEW President Professor Achim Wambach, outlining the phases of the pandemic economy and explaining how we can protect ourselves against future pandemics. More information: www.zew.de/VA3356-1



The 2020 Nobel Prize in Economics: From Theory to Market Design

Some 20 years ago, 3G cellular frequencies were auctioned in Germany for more than 100 billion marks. The auction and the unbelievable sum it raised were novel back then. Since

then, broadband frequency auctions have been the norm. As recently as last year, broadband frequencies were auctioned off once again, this time for 5G technology applications.

Before 3G, cellular network frequencies in Germany were simply assigned to telecommunication companies. The switch to auctions can be attributed to the work of Paul Milgrom and Robert Wilson, this year's winners of the Nobel Prize in economics. They helped to design the first spectrum auction, which the FCC, the US telecommunications regulator, held in 1994. The standards that they set for the auctioning of network frequencies are now used around the world.

The work of Milgrom and Wilson sparked the field of market design research. Market design assumes that the success of markets depends on the rules governing them. Consider two examples: Sotheby's, a traditional auction house, auctions off paintings in which bidders work to outbid one another until one person is left with the highest bid. This is known as an English auction. In the Netherlands, tulip bulbs are auctioned off at a wholesale market where the auctioneer states their price and lowers it incrementally until a participant accepts the price. This is known as the Dutch auction. The first type of auction depends on how high bidders are willing to go; the second, on who is willing to strike first as prices fall. If there is a risk of bidder collusion, for instance, the English-style system is not advisable.

In other cases, it makes sense for bidders to learn from each other during the auction. A bidder's willingness to pay can change depending on whether other bidders are still in the

game. This is the advantage of multi-round auctions: they enable bidders to respond to a dynamically changing situation. Milgrom and Wilson have studied these situations in depth, and their findings are an important reason why dynamic auctions figure so prominently today in the sale of frequencies. Germany's 5G auction from 2019 had almost 500 rounds.

Auctions and the mathematics that underlies them are now an integral part of economic textbooks and auction design. Auctions are used for the sale of government bonds and they play a role in the tendering of renewable energy capacity for the clean-energy transition. There is a reason for the dominance of auctions, as they facilitate a quick and efficient allocation of scarce resources.

The advent of new digital technologies has bolstered the popularity of auctions. eBay went global as an auction house; Google auctions its advertising space on its search engine. It is no surprise that the big digital companies are increasingly hiring microeconomists. The examples show just how much market design shapes our everyday lives. ZEW recognised the importance of this field four years ago, when it made market design an important part of its research programme.

President of ZEW, Prof. Achim Wambach, PhD

A German version of this article first appeared in "Die Welt" on 12 October 2020.

ZEW

ZEWnews English edition – published bimonthly

Publisher: ZEW – Leibniz Centre for European Economic Research

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