



Research Findings

Lack of Confidence Deters Women from Stock Market

Supplement: M&A Report

German Deals in Decline Due to COVID-19

Research Findings

Innovation Gap Widens During Crises

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Stability of the Eurozone Largely Relies on the European Central Bank's Drip-Feed

The fact that the government bond markets within the eurozone have remained stable throughout the coronavirus pandemic is especially owed to the ECB and its PEPP securities purchase programme. By contrast, the combination of all EU coronavirus financial aid packages have not made any measurable contribution to narrowing interest rate differentials. An exception is the 'Next Generation EU' programme, which had a small negative effect on sovereign spreads. This is confirmed by a study conducted by ZEW Mannheim with the support of the Brigitte Strube Stiftung.

As part of a so-called event study, the authors investigate how different types of announcements have affected the spreads of government bonds within the eurozone relative to the interest rate of German federal bonds. Crisis measures by the ECB as well

as decisions by the European Union regarding supportive measures such as the SURE loan programme or the coronavirus recovery programme – 'Next Generation EU' – with its credit-financed expenditure totalling 750 billion euros have both been taken into consideration. The study also examines how announcements made by the EU Commission on the suspension of the deficit limits under the European Stability Pact and the decision to appoint Christine Lagarde as president of the ECB in summer 2019 had an impact on the government bond spreads.

The results show that the PEPP securities purchase programme launched by the ECB in March 2020 had an overwhelming influence on the narrowing of spreads. In contrast, other monetary policy announcements such as the initial expansion of the older PSPP purchase programme were ineffective or even

caused more uncertainty. The real game changer was the introduction of PEPP with its relaxation of purchase constraints including the suspension of the capital key orientation.

Although the EU launched various types of new financial assistance in the course of 2020, such as activating the provision of liquidity through SURE, EIB, ESM and Next Generation EU, a joint analysis of these announcements suggests that they did not have a discernible impact on the bond markets. A separate analysis for Next Generation EU with its new transfer component shows, however, that this programme had a significant but small spread-reducing effect when compared to the impact of PEPP. On the other hand, announcements by the European Commission to suspend the Stability and Growth Pact with its deficit limits have rather caused growing uncertainty. The markets tended to respond to this information with rising spreads.

Decision regarding EU top positions influences spreads

The event study also examines how, before the COVID-19 pandemic, the decision by the European Council to appoint Christine Lagarde as president of the ECB and Ursula von der Leyen as president of the EU Commission was received on the

bond markets. The announcement of this surprising personnel decision led to a decline in spreads for southern European bonds in the summer of 2019. The ZEW researchers see this as evidence that Lagarde is perceived as being more in favour of extensive aid for heavily indebted states at the helm of the ECB than Bundesbank President Jens Weidmann, who had previously been discussed as a candidate.

The results indicate that the stable financing situation of the peripheral euro states in the pandemic is primarily due to the European Central Bank's extensive crisis aid and PEPP, which benefits highly indebted euro states disproportionately. According to the findings, the stability of the euro area currently relies on the drip-feed of the ECB. The EU fiscal innovations have played a less important role from the perspective of sovereign bond markets. The ECB will probably continue to be forced to take the liquidity of heavily indebted euro states into account in its monetary policy decisions. Thus, the insights from the study provide evidence that, so far, the concern about a fiscal dominance of the ECB is not unwarranted.

The study is available to download at: www.zew.de/PU82560-1

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Lack of Financial Literacy and Confidence Deters Women from Stock Market

Women are less involved in the stock market and other financial activities concerning wealth accumulation compared to their male counterparts. This is not only attributable to actual gaps in women's financial literacy, but also to a lack of self-confidence. Women frequently underrate their actual financial knowledge. These are the findings of a study conducted by ZEW Mannheim in cooperation with the Global Financial Literacy Excellence Center (GFLEC) at the George Washington University School of Business, the University of Groningen, and the Dutch central bank, DNB.

The study is the first to differentiate between the extent to which the lack of actual financial knowledge on the one hand and a lower self-assessment of financial knowledge due to respondents' lack of self-confidence on the other hand explains the gender gap in financial literacy. For this purpose, the study analyses data from the DNB Household Survey and looks at the 'Big Three' questions on financial literacy, which relate to knowledge of compound interest, inflation, and risk diversification.

It turns out that only two-thirds of the gender gap in financial literacy can be explained by lower financial knowledge of women. One third of the gap, however, is related to self-doubt regarding their own financial knowledge and decision-making. Women tend to disproportionately often choose the option "I don't know" when answering questions on financial literacy.

However, if the option "I don't know" is omitted, women then frequently select the correct answer. This implies that there is a gap in self-confidence, rather than in knowledge. A lack of confidence can lead to considerable differences in financial behaviour and wealth accumulation. Therefore, women should both invest in their financial literacy and have more confidence in their own knowledge.

In order to take a closer look at the aspect of wealth accumulation, the study examines in particular the gender gap in stock ownership. It suggests that only 20 per cent of women own stocks; for men it is 34 per cent. The gender difference can only partially be explained by the fact that women have a lower level of financial literacy than men. Rather, the discrepancy in stock market participation would shrink considerably if women had as much confidence in their financial literacy as men. In order to close the gap between men and women when it comes to stock market participation, women not only have to enhance their financial literacy but also their confidence in their own competence in making financial decisions. Financial education programmes should therefore be designed in such a way that they close this knowledge gap amongst women and at the same time boost their self-confidence.

The study can be downloaded at: www.zew.de/PU82387-1

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Innovation Gap Widens During Crises

Research and development (R&D) is a key component of innovation and the most important driver of long-term economic growth, as previous studies have shown. For this reason, policymakers around the world are striving to increase investment in R&D. In times of crises, however, this goal comes under pressure.

OECD countries react differently to changes in the business cycle regarding their expenditure on research and development. They tend to noticeably increase their budgets for R&D when there is an economic upturn, while public R&D spending remains almost constant on average across all countries when there is a downturn in economic growth. This is the conclusion reached by researchers at ZEW Mannheim in their analysis of public R&D expenditures in 28 OECD member countries in the period between 1995 and 2017.

Innovative strength determines R&D spending policy

However, a closer look at public R&D spending reveals that, especially during recessions, there are systematic differences between OECD countries depending on their innovative strength. While innovation leaders such as Germany, Sweden or Finland increase their public R&D expenditures counter-cyclically in recessions and thus improve their resilience to economic crises, weak innovators such as Portugal, Spain and most EU countries in Eastern Europe cut their public R&D budgets. This generally contributes to a further widening of the innovation gap between countries, as the ZEW study suggests.

In times of economic crisis, most OECD countries are faced with a decline in business R&D spending. According to the re-

sults of the study, the public sector should at least partially compensate for lower corporate R&D investment by increasing public R&D spending. Economically, this makes a lot of sense, because research and development are the key drivers of economic growth. At the same time, as a result of an economic downturn, many countries around the world are also cutting back on their public R&D spending due to falling tax revenues.

In their analysis, the researchers emphasise, however, that public R&D spending should not be determined by a country's financial strength, but should instead aim to improve its innovative capacity. The results show that the different reactions of strong and weak innovators do not depend on their debt level. Rather, it reveals the importance these countries attach to innovation. Japan and Belgium, both countries with high debt levels, were good examples of this during the 2009 financial crisis. Despite high debt levels, they increased public R&D spending.

With their public R&D expenditures, the countries finance both primarily applied R&D activities in private companies and basic research in public research institutes and universities. Even in recessions, this funding portfolio hardly changes, i.e. the countries do not shift investments to areas that promise faster economic growth in the short run.

According to the researchers, only OECD member countries with weak innovation performance shift their spending on research and development away from public institutions to private companies in recessions in order to partially make up for the lost private R&D spending.

The study is available to download at: www.zew.de/PU82241

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Wide-Scale Digital Contact Tracing in Wuhan: Hyperefficient but Ethically Problematic

As the coronavirus pandemic continues to rage in parts of the world, it is essential that affected countries quickly institute contact tracing to stop the spread of infections. A recent study by ZEW shows how contact tracing was managed in Wuhan, the city where the world's first COVID-19 cases were documented, and the ethical concerns associated with the approach.

When the pandemic broke out at the end of 2019 in Wuhan, a megacity of 11 million people in central China, the local government took tough measures until the viral spread was curbed in April 2020. Government authorities first cordoned off the entire city on 23 January 2020 and introduced digital contact tracing, mandatory testing, and quarantine for infected patients and their close contacts from mid-February. The measures made it possible to reduce the reproductive rate to almost zero within a short time and limit the economic impact of the pandemic. Digital contact tracing played an important role in Wuhan's success.

Mandatory apps for digital contact tracing

A ZEW study examined the contact tracing implemented in Wuhan in early 2020. Mandated by the central government of China, the local government of Wuhan imposed draconian lockdown measures, including the suspension of all transportation connections, the shutdown of nonessential businesses, and the creation of physical barriers at the borders of residential neighbourhoods to minimise physical movement.

However, due to lacking location-specific information on infections at the early stage of the lockdown, the scale of infections still escalated sharply. To overturn the disastrous situation, the local authorities introduced community-based digital contact tracing in mid-February 2020. As the basic unit of contact tracing, residents were divided into community grids based on boundaries separating the neighbourhoods. Endorsed by the government, ICT firms developed contact tracing apps launched on the ubiquitously used digital platforms WeChat (Tencent) and Alipay (Alibaba). The residents of Wuhan were advised to install the apps and provide extensive personal information: ID num-

ber, demographic information, cellphone number, home address, health conditions of family members, and travel history before the lockdown. Based on the analysis of the contact tracing data, registered citizens are provided with a QR code that reflects the user's health status. After the lockdown was eased on 8 April 2020, this QR code served as a permission to return to work, enter public spaces, use public transportation and leave the city.

The 'neighbourhood committees' played an important role in the digital contact tracing in Wuhan. They implemented the protocols of the government authorities and coordinated the digital contact tracing at the local level to assure the timeliness and completeness of the big data analytics conducted by the ICT firms and the government. In return, the communities co-provided public services and coordinated communication with individuals on the digital platform. Because app installation was quasi mandatory, Tencent and Alibaba expanded their customer base and collected extensive data on the health and movement of millions of residents. The grid-based digital contact tracing model has since become a standard approach in China.

Legal and ethical concerns

Though the protocol used in Wuhan was hyperefficient in containing the pandemic, the approach brings with it some ethical concerns. What about the huge amount of personal information that is collected? Are data protected and anonymised? To whom do the data belong and who has access to them? Without adequate legislation and transparent monitoring, government and tech giants may monopolise the use of public data. Digital apps have also been used in Europe to contain the pandemic, but the installation of apps and the sharing of personal data have been voluntary. In China, by contrast, people have less of a choice. Policymakers are advised to strike a balance between technological effectiveness, public engagement and ethical responsibility when implementing digital contact tracing.

The study is available to download at: www.zew.de/PU82491

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M & A REPORT

ZEW-ZEPHYR M&A Index Shows Decline in German Deals Due to COVID-19

Due to the COVID-19 pandemic, the number of mergers and acquisitions (M&A) involving German companies has fallen sharply. In 2020, the ZEW-ZEPHYR M&A Index – established in 2005 to measure M&A transactions involving German companies – fell to a record low of 78.91 points on an annual average. The lowest previously recorded annual average was 83.84 points in 2011. While the number of M&A deals by and with German companies is declining, the average transaction value has increased from 657 million euros to 766 million euros since 2019.

The largest deal with German participation in the past six months took place at the beginning of 2021. The French rolling stock manufacturer Alstom took over the Germany-based rail equipment division of the company Bombardier for 6.4 billion euros. Rumours about the deal were already circulating in early 2020. After the European Commission approved the deal last

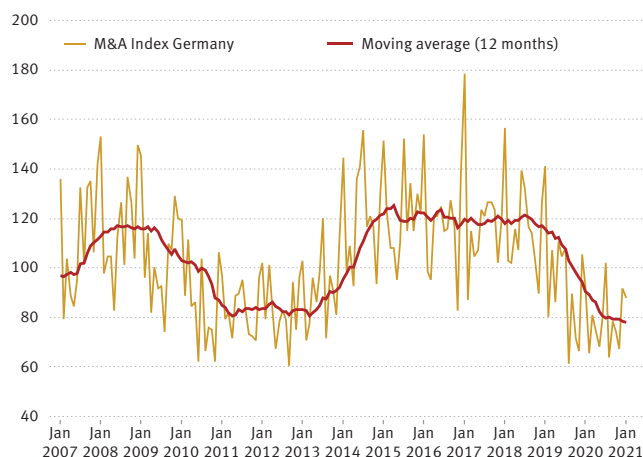
July, the takeover was officially announced in September. About two years ago, a planned merger between Alstom and the train division of the German Siemens group had been rejected by the EU Commission.

Another deal that caused a stir was Bayer's acquisition of the US pharmaceutical company Asklepios BioPharmaceutical (commonly known as AskBio) for four billion euros. The purchase of AskBio, which specialises in gene therapy, strengthens Bayer's pharmaceuticals division.

It remains to be seen how the M&A index will develop in the coming months. On the one hand, corporate budgets for M&A activities are restricted in times of crisis; on the other hand, crises offer unique buying opportunities for financially stronger companies.

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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.

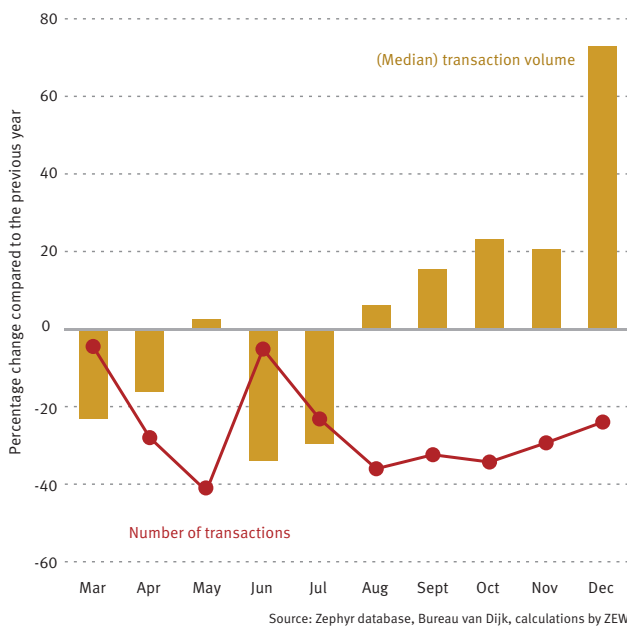


Fewer M&A Deals, but Higher Transaction Volume During the Pandemic

The coronavirus pandemic has had a huge impact on economies around the world. While some companies have been severely affected by the pandemic, others – especially large, publicly traded companies – have already recovered from the consequences and even increased their market value. But how

has the pandemic affected the number and volume of M&A deals? Looking at the number of M&A transactions by and with companies based in North America, China or Western Europe, one can see that the number of completed M&A deals has so far declined during the COVID-19 pandemic.

M&A ACTIVITIES 2020 VS 2019



For example, M&A activity between March and December 2020 was about 20 to 40 per cent lower than in the corresponding months of the previous year. On average, however, deals achieved higher transaction volumes. While the volume of a typical M&A deal in the first half of 2020 was below the previous year's value, the volume of the typical deal in the second half of 2020 was up to 75 per cent higher than the previous year's value.

State aid measures reduce the chance of cheap takeovers

One possible explanation for these results is that the government relief measures not only prevented companies from filing for insolvency but also reduced the opportunities for 'cheap' takeovers.

Another explanation could be that smaller firms are more strongly affected than large firms by the uncertainty caused by the pandemic and therefore do not make deals among themselves. This uncertainty could also discourage large firms from acquiring small firms that are not yet well established in the market and thus carry a higher risk.

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Majority of Takeovers in Germany Are Still Domestic Deals

Over the last ten years, a total of 20,732 German companies were acquired by other companies. With a share of 62 per cent, the majority of these acquisitions are domestic deals, meaning that both the target and the acquiring company are based in Germany.

US-based companies second most frequent buyers of German companies

This high share of domestic M&A transactions has remained almost constant over the past ten years, with the exception of a slight decline in 2004 to 55 per cent and small increases in 2008 and 2009 to 67 and 68 per cent, respectively.

The second largest group of acquirers of German companies are US-based companies: On average, eight per cent of all M&A transactions with a German target company involved a buyer from the United States.

Within Europe, German firms are most frequently acquired by firms from the United Kingdom – on average four per cent of all M&A deals – followed by companies based in Switzerland, France and the Netherlands (each with an average share of three per cent).

In addition, an increase in the share of takeovers of German companies by Chinese buyers can be observed. While there were hardly any takeovers with Chinese participation in the early 2000s, the share of M&A deals involving a Chinese buyer increased in the



following years. In 2019, the share of Chinese purchases already accounted for around two per cent of all M&A transactions involving German target companies.

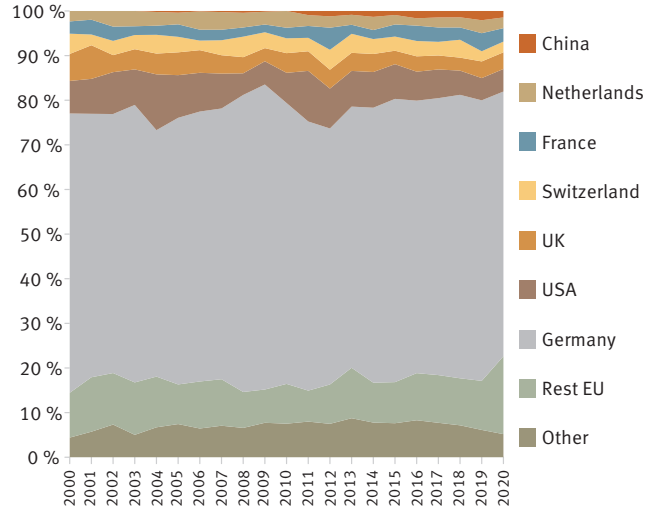
Fears of transfers of key technologies from Germany to China

Nevertheless, the share of M&A transactions with Chinese buyers is still significantly lower than those with US buyers or those from the United Kingdom. In the past five years, for example, there have been a total of 425 takeovers by US-based companies, while only 101 takeover deals were concluded with a Chinese company.

Even if this share is still comparatively small, the acquisition of German firms by Chinese companies is generally viewed with great concern in Germany. It is feared, for example, that a takeover by a Chinese firm will also lead to a transfer of key technologies from Germany to China.

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SHARE OF ACQUIRERS OF GERMAN FIRMS BY COUNTRY



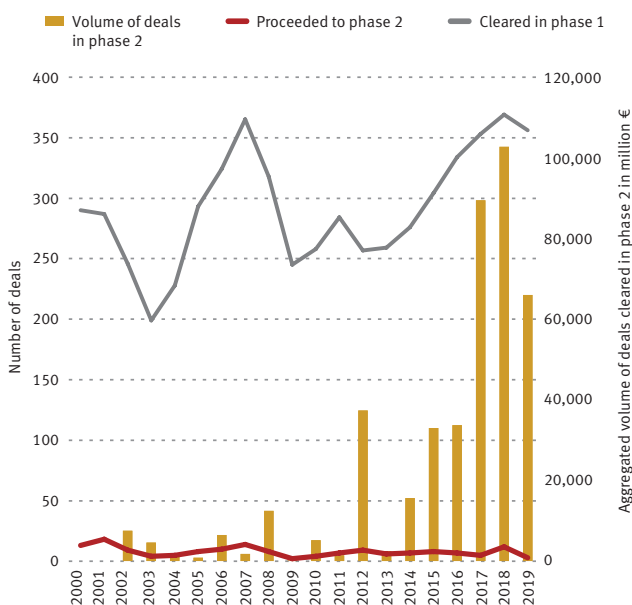
Source: Zephyr database, Bureau van Dijk, calculations by ZEW

EU Merger Control: Number of In-Depth Investigations Declining

EU merger control examines the impact of large mergers on the competitive environment of firms and prohibits those mergers that would significantly reduce competition in the EU Single Market. For this purpose, the EU Commission carries out a two-

stage investigation. During the first phase, the Commission has 25 working days to decide whether to approve the merger (possibly under certain conditions) or whether to proceed to the second phase and open an in-depth investigation.

M&A DEALS REVIEWED BY THE EUROPEAN COMMISSION



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

Volume of approved mergers increased by 825 per cent

The European Commission in principle only investigates large mergers that have an EU dimension, meaning that the merging firms exceed certain turnover thresholds. Smaller mergers which do not have an EU dimension may fall instead under the remit of Member States' competition authorities.

The number of M&A deals that underwent a phase 1 investigation increased from 300 in 2000 to 359 in 2019. The share of M&A deals which were cleared in phase 1 increased from 96 per cent in 2000 to 99 per cent in 2019.

In parallel with the decline in the share of M&A deals that the European Commission reviews in-depth in the second phase, a significant increase in the value of M&A deals that were cleared after a phase 2 investigation can be observed. For example, the total annual volume of mergers cleared after an in-depth review process averaged around 42.45 billion euros between the years 2011 and 2020, while the average between 2011 and 2020 was still 4.56 billion euros. This corresponds to an increase of 825 per cent.

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Q&A: Europe Is Trailing Behind in New Issuances From High-Tech Companies. What Can Be Done About It?

“There Is a Void Between the Start-up and Flotation of High-Tech Companies”

The US Nasdaq, or Nasdaq OMX Group since 2008, is the second largest stock exchange in the world with its headquarters in New York. As the first electronic stock exchange, it has attracted in particular innovative technology companies. Still to this day, several hundred high-tech start-ups annually go for a stock market listing on the so-called ‘technology exchange’, whilst new issuances in Germany are predominantly from traditional sectors. In the following interview, Dr. Georg Licht explains why this is the case and what Europe must now do to keep hold of these high-tech start-up companies.

What distinguishes European companies that prefer stock market flotation on the US Nasdaq to going for a stock market listing on their own continent?

The US Nasdaq in particular has a big appeal amongst expanding high-tech companies. This appeal is not only noticeable with companies in the United States, but also with many highly innovative European and German companies that are pursuing ambitious targets for growth. Notable examples are the pioneers of the mRNA vaccine, BioNTech and CureVac, that are on everybody’s lips since the coronavirus pandemic. They favoured a flotation on Nasdaq to one on a stock exchange on home turf. On the one hand, both companies share the commonality that they are conducting research on a revolutionary form of technology for pharmaceutical drugs. The path to a marketable product is very long and often accompanied by doubts regarding its scientific feasibility and an enormous need for funding. On the other hand, there is an extraordinary amount of revenue to be made.



Dr. Georg Licht

is head of the ZEW Research Department “Economics of Innovation and Industrial Dynamics”. His research focuses on the economics of innovation and technological change as well as the economics of small firms and entrepreneurship. For years, he has been involved in the development of the Community Innovation Survey (CIS) and of innovation surveys in Germany in the manufacturing and service industries. He is currently an advisor to the OECD, the EU Commission and the Federal Ministry of Education and Research on innovation and technology policy issues.

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What makes a stock flotation in the USA, particularly on Nasdaq, so attractive for high-tech companies?

Despite these ‘adversities’, the chance of finding potential investors under the previously mentioned conditions on Nasdaq, who are able to regiment the chance of success and provide necessary funds, is much more likely to happen through a stock market flotation on Nasdaq than on other global stock exchanges. This likelihood still remains strong despite there being a high level of uncertainty involved. The financing ecosystem in the USA with financially strong pension funds, other institutional investors and large asset management funds, provides an ideal opportunity to invest enormous sums of money in young high-growth companies.

Another essential aspect besides the large financial resources is the great expertise that US investors and advisors possess. They are trusted to assess the chances of success of new companies, and they are also willing and able to consistently align the strategy of young high-tech companies with the technological market conditions and thus increase the companies’ probability of success.

Do we need a European counterpart to Nasdaq? Does it matter if companies acquire the relevant capital via Nasdaq or a European stock exchange?

Simply replicating Nasdaq would not pave the way for much success. This has already been tried several times in previous decades and essentially all of these attempts failed or stalled in their development. Nevertheless, a European equivalent of Nasdaq would certainly be desirable. A liquidity-rich, European stock exchange geared towards young, technology-oriented companies is the central, missing element of the financing ecosystem in Europe. Both emerging technology companies seeking to make gains in capital and the abundant potential of investors would profit from this.

What is needed in order to make Europe more appealing to young (high-tech) companies floating their trade on the stock market here?

What is missing is a functioning ecosystem with an understanding of the needs of companies that are innovative, capital-intensive and newly established. Only once such an ecosystem has been developed will it also be possible in Europe to bridge the gap between a launch in the high-tech sector and the stock market flotation of such an innovative company that strives for this years down the line. If this is not achievable, the government’s so-called ‘Zukunftsfonds’, a multi-billion start-up fund that promotes future technologies, will remain primarily one thing – a key route to Nasdaq.



Photo: © iStockphoto.com/Serg Myshkovsky

European Carbon Border Tax Faces Considerable Challenges

Globalisation is the Achilles' heel of effective climate policy. It gives states trade advantages and gives companies options when choosing where to site their activities. Accordingly, it can considerably undermine effective climate action. This is due to a phenomenon that environmental economists call 'carbon leakage'. This occurs when, for example, the European Union imposes a carbon tax on companies, and in response they relocate their production to a country where emissions cost nothing. Globalisation – and the lack of international CO₂ pricing – makes this possible.

The European Union wants to bolster its climate protection policy with a carbon border adjustment. The measure would impose a carbon tax on the import of carbon-intensive goods from countries that have less stringent emission regulations. The border adjustment aims to encourage EU countries and their trading partners to reduce their CO₂ emissions in line with the goals of the Paris Agreement.

A carbon border adjustment can reduce carbon leakage and, in theory, also decrease global competitive disadvantages for European producers that result from inconsistent international CO₂ prices. But the border adjustment faces challenges in implementation. A border adjustment addresses only the carbon leakage that occurs when the production of carbon-intensive goods is relocated abroad. But fossil-fuel prices and demand shift a considerable share of emissions to global energy markets, where carbon border adjustments have no effect.

EU should take into account carbon pricing systems of other countries

The prevention of carbon leakage depends largely on how the CO₂ content of individual goods is measured. A manufacturer- or product-specific determination is hardly feasible. It is more practical to use the average CO₂ content of European industry as a reference. The downside of this approach is that the border adjustment is not based on the actual carbon content of imported goods, so there is no incentive for manufacturers to avoid emissions. WTO law also prohibits discrimination against foreign products. The European Union will probably exempt foreign producers from the border adjustment if they can prove that their

products have a low CO₂ content. The verification process is sure to bring high administrative costs. If misused, the process has the potential to undermine the effectiveness of the carbon border tax.

It is important that the EU take into account CO₂ pricing systems of other countries and grant appropriate exceptions to the border adjustment, which is pegged to the EU emissions trading system. Otherwise, there is a risk that different prices will arise for imported and domestic emissions. This will disincentivise foreign companies and distort competition.

Another problem is the double advantage afforded to EU companies: they are exempted from the CO₂ border adjustment while continuing to receive free emission certificates. As a result, these companies have little incentive to invest in decarbonisation. It is crucial, therefore, that the introduction of a carbon border adjustment be accompanied by the elimination of free certificates.

Encourage willingness to undertake effective climate action

The fundamental problem with the carbon border tax is that it considers only the differences in CO₂ pricing between countries, while the actual climate policies of the individual countries are typically far more comprehensive. Even an optimally designed carbon border tax cannot eliminate the competitive distortions created by, say, green technology policies and other regulatory interventions.

A well-working border adjustment would have to shift the burden of decarbonisation away from the European Union to those countries that have little or no climate policy. If the border adjustment is to receive popular support in the EU and among its important trading partners, clear communication is needed that the policy is about both climate protection and economic protection. Only in this way will it be possible to establish EU climate protection as a blueprint for containing climate change internationally. It is imperative that the border adjustment mechanism not weaken international willingness to undertake effective climate action.

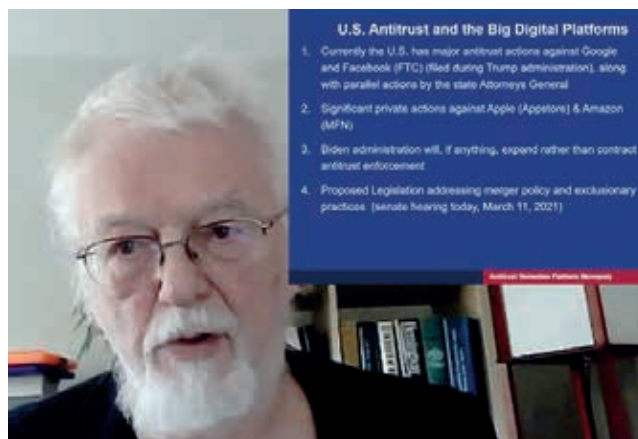
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Anniversary Edition of the Annual MaCCI Conference Takes Place Virtually

This year marked the tenth anniversary of the Annual Conference of the Mannheim Centre for Competition and Innovation (MaCCI), which was jointly organised by ZEW Mannheim and the University of Mannheim on 11 and 12 March 2021. This was the first time that the conference took place as an online event. With a total of 270 participants and 22 parallel sessions, this was the largest MaCCI conference ever held.

The first conference day focused on different aspects of competition analysis. The event was opened with a panel discussion on market analyses in Europe, which was moderated by MaCCI Director Professor Martin Peitz from the University of Mannheim. The participants had the opportunity to join the discussion with Professor Amelia Fletcher from the University of East Anglia, Professor Massimo Motta from Pompeu Fabra University and the Barcelona Graduate School of Economics, and Professor Alexandre de Streel from the University of Namur. The opening discussion was followed by two keynote speeches: Professor Michael Whinston from the Massachusetts Institute of Technology (MIT) spoke about measuring market concentration for horizontal mergers, and Professor Herbert Hovenkamp from the University of Pennsylvania Law School focused on possible remedies for platform monopolies.

The second conference day featured 22 parallel sessions on various topics related to competition and innovation, allowing re-



Professor Hovenkamp during his keynote speech on digital platforms and competition

searchers from the realms of law and economics to engage in an exchange across disciplines by discussing their most recent findings. The sessions on the economic theory of digital platforms, which are currently the topic of intensive debates, were met with particular interest from the participants. There were some significant benefits to the online format: never has it been so easy to bring together 270 participants from different time zones across the globe.

ZEW/EconPol Research Seminar on Next Generation EU

How should the high national debt in the eurozone be dealt with after the end of the coronavirus pandemic against the backdrop of the 750-billion-euro fund Next Generation EU? What are the possible solutions and how realistic are they?

These were key questions addressed by a digital panel discussion at a research seminar organised by EconPol and ZEW in co-



Cinzia Alcidi (top left), Volker Wieland (top right) and Friedrich Heinemann (bottom) discussed solutions for the EU government debt.

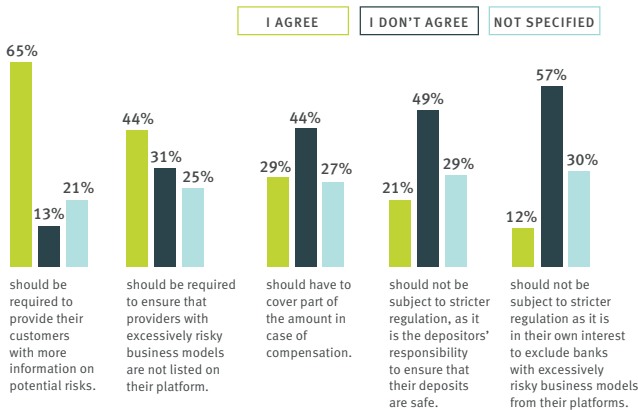
operation with the Brigitte Strube Stiftung on 28 April 2021. The panel featured Dr. Cinzia Alcidi from the Centre for European Policy Studies (CEPS) in Brussels; Professor Volker Wieland from Goethe University Frankfurt and the German Council of Economic Experts; and Professor Friedrich Heinemann from ZEW. In short keynote speeches at the beginning of the panel discussion, the participants presented their respective views.

Friedrich Heinemann started by talking about the impact of communiqués by the EU and its key players on the interest rate spreads of euro member states. He then reflected on six possible solution scenarios for government debt after the pandemic. In another keynote speech, Cinzia Alcidi explored the question of how far the analysis of a country's debt sustainability can be helpful in dealing with high government debt. Finally, Volker Wieland recommended that as soon as the economy recovers and inflation rises, the ECB must adopt a strategy to exit negative interest rates.

Following the presentations, the panel discussed what room for manoeuvre remains for the euro states despite high debt levels. It became clear that the ECB cannot ensure low interest rates in the long run and that it is crucial for economic recovery to stimulate the private sector. Providing the right incentives, such as government support for future projects, e.g. for digitalisation and climate protection, could help to achieve this.

Experts Do Not Expect Deposit Platforms to Take Action

DEPOSIT PLATFORMS OFFERING DEPOSITS OF BANKS UNDER THE DEPOSIT GUARANTEE SCHEME...



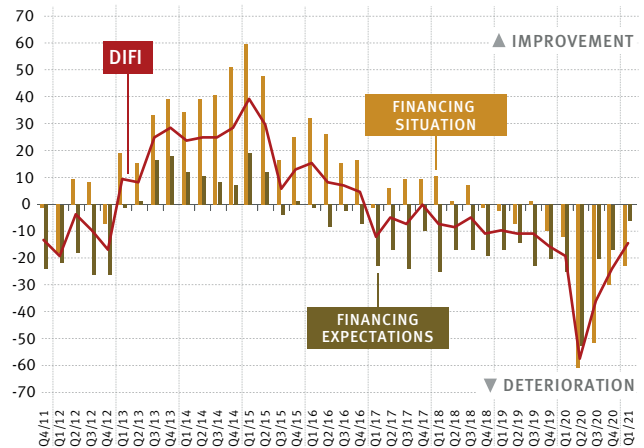
Source: ZEW

The Greensill Bank collapse in March 2021 cost German private banks under the statutory and voluntary deposit guarantee schemes more than three billion euros. ZEW researchers took this occasion to include a special question on deposit insurance in the ZEW Financial Market Survey in May 2021, which was conducted among 188 financial market experts. Following the Greensill collapse, financial market experts believe there is a considerable need to regulate deposit platforms and reform banks' deposit insurance. 65 per cent of the financial experts are in favour of requiring deposit platforms, which play a key role in offering riskier deposits, to provide more information on potential risks to their customers. About 57 per cent of the respondents doubt that deposit platforms will take action and keep banks with excessively risky business models off their platforms unless they are obliged to do so. A majority of 44 per cent, however, rejects the idea that these platforms should have to cover part of the compensation amount.

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German Real Estate Finance Index (DIFI)

AGGREGATE IN % POINTS

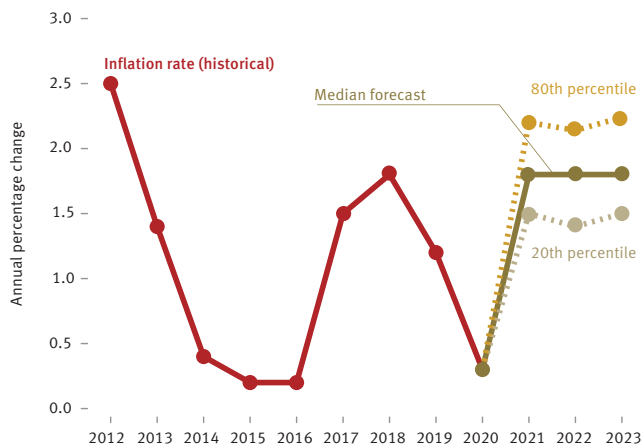


Average assessment of the current situation in and expectations for the following five real estate market segments: office, retail, logistics, residential, and hotels. Source: JLL and ZEW

The German Real Estate Finance Index (DIFI) by ZEW and JLL continues its recovery in the first quarter of 2021. Despite the gain of 9.5 points compared to the previous quarter, it still remains in the red with a total of minus 14 points. Both the current financial situation and the financing outlook for the coming six months are assessed more positively than at the end of 2020. According to the survey participants, the outlook is positive regarding the financing situation for office and hotel properties in the next six months. With regard to the office real estate financing market, the experts surveyed indicated that they plan to reduce their involvement within this segment relative to last year. The current crisis has led to a change in circumstances that are relevant for financial decisions. For example, assessment criteria such as the attractiveness of work-from-home for tenants and the flexibility of transforming a building to comply with hygiene concepts have become either important or extremely important factors.

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Low Risk of Inflation in the Eurozone



Source: ZEW

For the next few years, the majority of financial market experts expect that the inflation rate in the euro area will not exceed the ECB inflation target. Current inflation drivers are commodity price developments, new economic data and the development of the coronavirus pandemic in the euro area. These are the results of a special question included in the ZEW Financial Market Survey in May 2021, in which the respondents gave their assessment of the developments of inflation and key interest rates in the eurozone for the years 2021 to 2023. With regard to the eurozone, the financial market experts expect on average that the inflation rates for the years 2021 to 2023 will remain close to, but below, 2.00 per cent. The forecasts for all three years are very similarly distributed in May 2021, with the median forecasts for each of the years 2021 to 2023 being 1.80 per cent. In line with the inflation forecasts, the majority of financial market experts do not expect the European Central Bank to raise its key interest rates significantly in the upcoming 24 months.

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The COVID-19 Information Gap

The coronavirus pandemic is largely the result of an information problem. If we identified everyone who was infected, it would be easier to prevent viral transmission. Unfortunately, Germany has failed to prioritise the one measure that could close the information gap: testing.

Two aspects of an epidemic are especially consequential from an economic standpoint. The first is its external effects. These arise because people do not fully consider the effects of their personal behaviour on others and the overall healthcare system, and hence do not do enough to prevent viral transmission. In response, governments must introduce safety protocols such as lockdowns. The other aspect is information: the better we can identify the infected, the easier is it to stop the spread of the disease. Tests and vaccine verification are two useful tools for that purpose.

According to Our World in Data, a popular online site for information on large global problems supported by researchers at the University of Oxford, Germany – alongside South Korea, Vietnam and New Zealand – has done a fairly good job managing the coronavirus crisis. The number of deaths and the extent of the economic effects have been limited, industrial activity has resumed and unemployment has remained stable. In terms of vaccinations, Germany is now progressing along quite well compared with other EU countries. Only when it comes to testing is Germany lagging behind. But this shortcoming could jeopardise its entire success.

Testing is a crucial part of closing the pandemic's information gap. Although testing is now common in many areas of German society, the government has yet to grant it the importance required to combat the crisis. In the statistics published by Our World in Data, Germany ranks among the bottom-tier countries

of Europe. France conducts around twice as many tests per capita as Germany does. The UK does more than four times as many. The relationship of testing to COVID-19 incidence is a more meaningful metric of comparison than the absolute number of infections, which differ from country to country. Countries with higher shares of positive tests have lower levels of testing. The WHO regards a level under five per cent as one indicator that an epidemic in a country is under control. With a current positive test rate of 13 per cent, Germany has some catching up to do. Finland, Portugal and Denmark all have values under five per cent.

The German federal government only recently required companies to offer tests as part of new coronavirus safety standards at the workplace – over the loud protests of the business community. According to the regulations, employees who do not work entirely from home are entitled to receive two tests per week from their employers. Moreover, businesses must allow employees to work remotely “in the absence of reasons to the contrary.” But while work at home is now required whenever feasible, testing is not. And this is where external effects come in. An individual's reasons for getting a test can vary greatly. Many are not thinking about the emergence of infection hot-spots and the possible spread of infection outside the workplace and the undue burden it could place on the healthcare system. Merely offering tests to employees is not enough. The government will have to introduce additional incentives and may need to make testing mandatory in certain cases. When further developing a test strategy, it is important that the German government also collaborates with social stakeholders. Closing the information gap and addressing external effects takes collective effort.

A handwritten signature in blue ink, which appears to be 'Achim Wambach'.

President of ZEW, Prof. Achim Wambach, PhD

ZEW

ZEWnews English edition – published bimonthly

Publisher: ZEW – Leibniz Centre for European Economic Research
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