ZEWNEWS

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March/April 2015

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Leniency Programmes as an Instrument for Uncovering Cartels in Europe

In many industrial nations leniency programmes have become an indispensable tool for uncovering cartels. Firms that are involved in a cartel benefit from these programmes in the following way: as active key witnesses, they can reduce or even entirely avoid the threat of financial penalties – depending on the quality and novelty of the evidence they provide. A recent empirical study by ZEW shows how the behaviour participants in leniency programmes differs from that of other firms that have been fined by the European Commission for cartel violations.

In 1996 the European Commission's Directorate General (DG) for Competition, carried out the first leniency programme in Europe for firms participating in cartels. In so doing, the DG was following the example of antitrust authorities in the United States, whose national leniency programme had already undergone extensive reforms in 1994. Since the initial design of the European leniency programme left some questions open from the perspective of firms, the Commission redesigned the programme in 2002 by introducing a transparent fine reduction scheme. The scheme made it easier for firms to identify the conditions in which they could expect full amnesty from a financial penalty. In 2006, as part of a further reform, some additional adjustments were made for the purpose of clarifying which firm had been the first to make the Commission aware of an existing cartel – in the case of competing leniency applications of varying quality.

Given that the leniency programme has become such an important instrument to combat cartels, questions have arisen concerning the optimal design of the programme as well as the incentive effects it produces for cartel members. Along with theoretical considerations, empirical studies provide an important basis for evaluating cartel policy and contribute to a better understanding of how leniency programmes work.

Applications for leniency status are rarely submitted simultaneously

The collapse of a cartel or the exit of a cartel member from illegal arrangements are the outcomes of heterogeneous individual decisions. Since applications for leniency status are rarely submitted simultaneously, it makes sense to examine what distinguishes the firms that submit such an application from those that do not.

The ZEW researchers based their empirical analysis on 76 decisions made by the Commission on cartel violations between 2000 and 2010. There were a total of 442 companies included in the list of firms involved and their co-defendant subsidiaries. The researchers examined what distinguished those firms that won complete cancellation of the fines, from those upon which the Commission imposed a financial penalty.

The study concluded that prior to the introduction of the revised leniency programme, repeat offenders were only likely to become cooperative if their previous financial penalty exceeded a certain amount. On the whole, however, after the 2002 revision of the leniency programme, repeat offenders were generally more inclined to become cooperative witnesses. The greater the base amount of the financial penalty against a cartel member, the more likely it was that this firm would testify against its former accomplices. There was a positive correlation between leniency status and the extent to which the company group was multinational. A positive correlation was also found between leniency status and a firm's market share for the cartel product.

The study can be downloaded at:
http://ftp.zew.de/pub/zew-docs/dp/dp14043.pdf

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The Downside of the Energy Transition

Germany's effort for the transformation of its energy system comes at a price. The most ambitious environmental policy project in Germany's history, known as the "Energiewende" or energy transition, is causing substantial distributional effects. A ZEW study shows that the socioeconomic dimension of the energy transition is underexposed. Poorer households in particular have been hit severely by renewable energy subsidy costs.

Ambitious goals have been set for the energy economy in Germany. In addition to phasing out nuclear energy, Germany hopes to expand renewable energy, increase energy efficiency, and decrease primary energy consumption. The aim is to create a climate-friendly energy infrastructure. However, this policy is causing distributional effects between households, firms, and Germany's states. Households bear a substantial share of the costs of Germany's Renewable Energies Act (EEG). The current EEG levy amounts to 6.17 euro cents per kilowatt-hour of electrical power. Overall, up to 20 billion euros are being redistributed every year by way of the EEG.

Poorer households are particularly impacted by rising costs for electricity – an essential resource in modern day society. Moreover, reducing electricity consumption is rarely a simple matter in poorer households where energy is already consumed sparingly. In addition, poor households often lack the resources to replace inefficient appliances. Accordingly, the EEG is having a regressive impact. It violates the basic principle that the costs of funding public services should be assigned proportionally as poorer households are being unfairly burdened compared to wealthier households. When the burdens of energy costs become hard to bear this is often referred to as energy poverty. By the current definition, a certain degree of energy poverty is already present in Germany. This is of particular relevance where there is a confluence between high energy expenditures, special energy needs, low energy efficiency and low income. Such households are particularly vulnerable to rising energy prices.

However, distributional effects also affect many industrial and business sectors as a result of the exemption clauses granted to major consumers of electrical power. In effect, companies that are not protected by the exemptions finance the companies that are protected. Moreover, redistributional effects occur between Germany's states. States such as Bavaria profit from the expansion of solar energy, whereas other states, such as North-Rhine Westphalia, are net contributors.

These problems pose new challenges for policy makers. Clearly, environmental and climate policy needs to be coordinated with other policy areas. This pertains in particular to social policy and the system of taxation and social welfare. If a policy decision will directly lead to major increases in the cost of electricity, the distributional effects need to be considered more carefully. As with industry, those households which are most severely affected, should make a smaller contribution to the energy transition. This is the only way to assure long-term social acceptance of the Energiewende. The study concludes that signs of energy poverty, and more generally the lack of affordable energy, could be used as early indicators to identify and defuse potential conflicts between energy, climate, and social policy.

The study can be downloaded in German at:
http://ftp.zew.de/pub/zew-docs/dp/dp14061.pdf

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Regulation Is Impeding the Growth of Fibre-Optic Networks in Europe

Global digitalisation is turning multimedia services into mass market products. Yet as demand for such products increases, so too does the need to expand fibre-optic networks that rapidly transport large quantities of data – a costly investment that is fraught with issues for providers. What does the regulatory situation look like with a view to provider competition? A ZEW study shows that when infrastructure regulation intensifies, firms in the EU invest less in the expansion of fibre-optic networks.

In a time of rapidly increasing digitalisation, operators of first-generation broadband networks find themselves confronted with a huge growth in demand for high-performance information and communication networks. The demand extends beyond interactive multimedia offerings such as video on demand, HD television, 3D applications and cloud computing to include e-health and e-government services. In addition, the wide adoption of smartphones places great demands on data transmission capacities.

Expansion of fibre-optic networks holds high financial risk for investors

As a consequence, providers must deal with the need to expand and create new telecommunication infrastructures. The question faced by policy makers is how to optimally design regulatory conditions in order to promote efficient investment and minimise investment risk. Against this backdrop, ZEW researchers investigated how specific access requirements in the European telecommunications sector impact investment incentives for the providers of fibre-optic networks.

The study is based on a panel database of currently regulated incumbent operators along with the group of previously unregulated alternative providers in the EU-27 states, and includes data from 2004 to 2013. Looking at a number of upstream regulations – regarding specifically the requirement for unbundled access, bitstream access, and the resale of broadband access lines – the researchers examined how regulation influenced the incentives for infrastructure investment. They found that as service competition increases by one percentage point due to regulation, the investment in terms of fibre-optic network expansion decreases by five per cent or more.

The analysis also found that as unbundling fees imposed by regulators increased, so too did the average incentive for investment. Ultimately they showed that a restrictive sector-specific regulatory policy in Europe, was an impediment to wide-scale investment in fibre-optic networks. To be sure, the expansion of fibre-optic networks in the EU-27 is undergoing a dynamic, although slow process of adaptation. However, from the researchers' point of view, current regulatory practices in the EU might be standing in the way of the European Commission's own expansion and supply targets as set forth in its "Digital Agenda". Broadly in line with earlier empirical evidence, the findings of the ZEW study indicate that deregulatory measures would be more appropriate.

The study can be downloaded at:
http://ftp.zew.de/pub/zew-docs/dp/dp14085.pdf

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IN THIS ISSUE

Innovation Saves Jobs During Downturns

When the economy is shrinking, innovative firms can offset job losses stemming from decreased demand for older products through job gains stemming from new products. Yet increases in productivity can also lead to job losses. The net effect of innovation on employment is the subject of a current ZEW study.

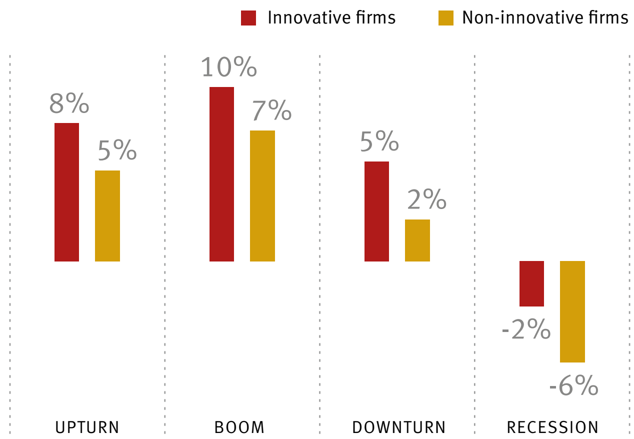
Innovation in the form of new products and services is generally regarded as a key driver of economic growth and new job creation. It is often forgotten, however, that innovations may also result in job losses. Yet the net job growth is clearly positive for innovative firms. During times of both economic growth and decline, innovative firms create a significantly greater number of jobs than non-innovative firms. Even in recession, innovative firms lose significantly fewer jobs than other firms, as shown in the Figure. This was the conclusion of a ZEW study undertaken on behalf of the European Commission in cooperation with the Austrian Institute of Technology (AUT). In their study, the researchers analysed firm data from 26 EU nations for the period between 1998 and 2010.

Job gains from the demand for new products and services are often accompanied by job losses. In part, such losses might be the consequence of increased productivity – new technologies

enable firms to produce as much, or even more, with fewer employees. In addition, product innovations frequently result in falling sales of existing products, thereby contributing to the loss of jobs.

Econometric estimates show that innovative firms create more jobs because they succeed in compensating for job losses related to older products with job gains resulting from new products. In times of economic crisis, innovative companies can at least partially make up for declining sales by selling new products. Thus, compared to non-innovative firms, their job losses are held in check. In contrast, non-innovative companies are forced to cut back employment to a much greater extent in order to survive in similar circumstances. In their analyses, the researchers have not yet taken into account the effects of firm start-ups and company closures. Overall, in the past, the ratio of job losses to job gains was clearly determined by job gains through innovation. However, there is no guarantee that this

EMPLOYMENT GROWTH OF INNOVATIVE FIRMS AND NON-INNOVATIVE FIRMS IN THE MANUFACTURING SECTOR OF DIFFERENT EU COUNTRIES BETWEEN 1998 AND 2010



Annotation: weighted average biennial employment growth rates. Expansion factor was provided by Eurostat. Trade cycle phases were defined on the basis of biennial growth rates of the GDP. Source: CIS3, CIS4, CIS2008, and CIS2010, Eurostat; ZEW calculations.

advantage will continue in the future. New developments such as process automation and data exchange between individual process steps – referred to as “Industry 4.0” – may cause a negative job creation rate.

The study can be downloaded at: *http://ftp.zew.de/pub/zew-docs/gutachten/CR2014_BackgroundStudy.pdf*

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The study, **“Firm Growth, Innovation and the Business Cycle”** was prepared on behalf of the European Commission for the 2014 Report on Competitiveness in the European Union, Framework Contract ENTR/2009/033. The study analysed data from the Community Innovation Surveys (CIS), a survey of innovation activities of companies in the European Union. A total of more than 400,000 firm observations of 26 nations were used for the period between 1998 and 2010. The authors of the study are Bettina Peters, Bernhard Dachs, Martina Dünser, Martin Hud, Christian Köhler and Christian Rammer. You can find more information on the project online at: *http://www.zew.de/en/projekte/1383*

The 6.6 million foreigners living in Germany in 2012 will pay 147.9 billion euros more in taxes and social welfare contributions over the course of their lifetime than they will receive by way of social transfers.

Immigration is Likely to Improve Sustainabilty of German Public Finances

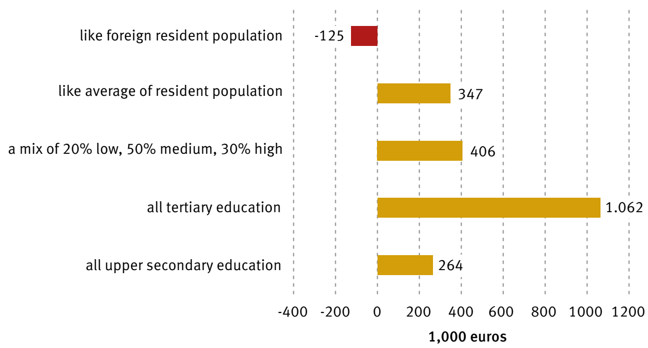
Rising numbers of asylum seekers and refugees have ignited a debate about immigration in Germany. When looking at the costs of humanitarian immigration, however, it is important not to lose sight of the benefits that arise from immigration coming to Germany for economic reasons. A ZEW study shows that an influx of skilled labour would have the effect of significantly decreasing the fiscal burden on Germany's ageing population. For the incumbent population of foreign nationality, the findings show a positive balance between taxes and social transfers – although public coffers could benefit substantially, if foreigners were better integrated in economic terms.

Despite their inferior position in the labour market, the 6.6 million foreigners living in Germany in 2012, will, in present value terms, pay 147.9 billion euros more in taxes and payroll contributions throughout their remaining lifetime, than they will take from public coffers by way of social transfers. This is a key finding of a ZEW study conducted on behalf of the Bertelsmann Foundation. The study also shows that future immigration could lower the adjustment burden on the domestic population that results from the fact that Germany's fiscal policy is unsustainable in view of the demographic ageing ahead. A precondition for fiscal relief is that future migrants are, on average, at least as qualified as the current resident population.

The estimates of the study are based on age profiles of average indivdual net tax payments by nationality and by level of qualification based on data from the German Socio-Economic Panel (GSOEP). The study defines foreigners as all persons whose first nationality is not German. The families of former guest workers thus still account for a large share of the current foreign population. It incorporates 19 key revenue and expenditure items in the public budget, in particular statutory social insurance services, social welfare benefits such as unemployment benefits, child benefits and real transfers in the form of publicly funded education services.

If one combines the individual level net tax profiles with the corresponding aggregates of the overall public budget according to the National Accounts as of 2012, the taxes and payroll contributions paid by foreigners exceed transfers received by 3,300 euros per capita, whereas the corresponding figure for residents of German nationality is 4,000 euros. This finding demonstrates that, in a cross-sectional perspective, the inferior fiscal position of the foreigners is largely offset by their comparatively favourable age structure. At present, the share of net tax payers at employment age in the foreign population is high and the share of net transfer recipients of retirement age is small.

ANNUAL LUMP SUM RELIEF AT AN ANNUAL NET INFLUX OF 200,000 IMMIGRANTS DEPENDING ON THEIR QUALIFICATION, IN EUR 1,000



ZEW Chart. Reference: annual lump sum amount per capita to balance the intertemporal government budget, in a demographic scenario without any future migration flows. Present values based on an assumed discount rate of three per cent p.a. Standard growth of all per capita fiscal parameters at 1.5 per cent p.a.Source: ZEW calculations

As the foreign population is subject to ageing in the future, their fiscal stance will worsen. Nevertheless, the balance of taxes and contributions paid throughout the remaining life course over transfers received, will, in present value terms, remain positive. The average remaining lifetime surplus of the foreigner cohorts currently alive amounts to 22,300 euros per capita, compared to 88,500 euros per resident of German nationality.

The new ZEW study shows a more positive stance of foreigners in Germany than comparable earlier studies. A significant factor in this improvement is the turnaround in the German labour market, which also resulted in a significant increase of employment among foreigners. In recent years, the unemployment rate of foreigners declined by one third, from 25.1 per cent in 2005 to 16.7 per cent in 2013. In comparison, the unemployment rate of German nationals declined from 9.5 to 5.9 per cent during this period.

The gap in unemployment rates suggests that the German treasury could benefit substantially from investments that improve the labour market position of foreigners. In fact, supposed foreign nationals exhibited the same fiscal characteristics as German nationals; their net payments into the public coffers over the remaining lifetime would be about four times as high. If any foreigner aged younger than 30 managed to catch up with the fiscal position of Germans belonging to their generation, within a period of 20 years, the government would benefit from additional net revenues of 26 billion euros in present value terms, even without counting wealth related taxes. In view of the potentially substantial fiscal yields, the study recommends putting greater effort into further promoting the economic integration of foreign residents and their offspring in Germany.

Qualified immigrants could bear a part of fiscal burdens associated with demographic ageing

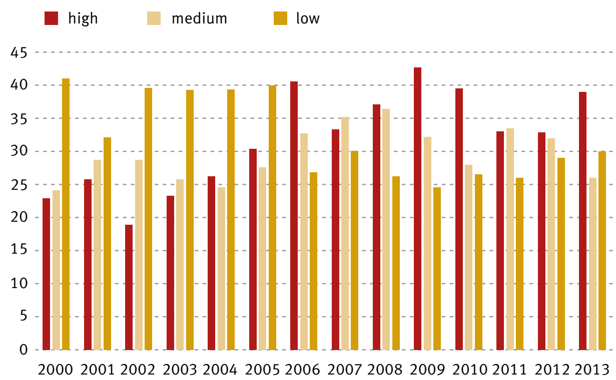
By balancing the prospective net tax payments of living and future generations, whether foreign or German, against the spending obligations associated with public infrastructure and current debt, the study shows that Germany's present fiscal policy is not sustainable. In a demograpic scenario without any future migration flows, maintaining current fiscal parameters would cause a deficit in the intertemporal governement budget which amounts to 146.6 per cent of 2012 GDP.

This shows that the implicit overall debt of Germany is substantially larger than current outstanding debt, which equalled 78 per cent of GDP in 2012. The burden of fiscal adjustment on the population associated with the implicit debt of the public sector is substantial. In order to close the sustainabilty gap and balance the intertemporal government budget, every resident would from now on need to pay an additional lump-sum tax contribution of 1,082 euros per year to the government.

If one instead assumes a constant future net inflow of 200,000 agents per annum, the balancing lump-sum tax amount could increase or decrease depending on the qualification structure of the immigrants. In the unfavourable case that future immigrants were qualified like the incumbent population of foreign nationality, the annual per capita payment required to assure fiscal sustainability would increase by 125 euros, in comparison to the no-migration scenario. In contrast, in a scenario where all arriving immigrants have upper secondary qualifications, the lump-sum tax contribution closing the sustainability gap would decline by 142 euros. Supposing a mix of 20 per cent unqualified, 50 per cent professionally trained and 30 per cent academically trained future immigrants, the fiscal relief for each member of the incumbent population would rise to 406 euros.

In view of the qualification structure of the immigrants who arrived in Germany in recent years, this last scenario appears quite achievable. According to computations based on the German microcensus, agents with an academic degree have constituted the largest group of new arrivals since 2006, whereas the share of low-qualified agents has ranged from 25 to 30 per cent. In 2013, this polarized qualification structure had the effect that new immigrants between 25 and 64 years of age were on average slightly better qualified, in formal terms, than the average resident in the same age range.

QUALIFICATION STRUCTURE OF NEW IMMIGRANTS TO GERMANY; AGENTS NOT IN EDUCATION OR TRAINING; 25 – 64 YEARS, 2000 – 2013 (PERCENTAGE SHARES)



ZEW Chart. The term "new immigrants" means people who migrated to Germany in the previous year. High: doctorate, university degree, college degree, administration college degree, specialised degree, master craftsman's certificate or technical diploma, two to three-year degree of a public health school. Medium: apprenticeship training, school-leaving qualifications with or without apprenticeship training, professional qualifications issued by a specialised school or a vocational academy, one-year degree of a public health school, pre-service training for intermediate service administrators. Low: no degree or degree after seven years of school attendance, lower school leaving certificate without apprenticeship training, but with internship or preparatory vocational year.

Source: Data collected by ZEW from various publications by Herbert Brücker, IAB.

Even if future immigration is likely to considerably improve the sustainability of public finances, it will most probably not eliminate the intertemporal imbalance in Germany's overall government budget. Given an annual net intake of 200,000 individuals, the sustainability gap approaches zero only in the extreme scenario of exclusively high-skilled immigrants. Put differently, given the current qualification structure, Germany would need to maintain a very high immigration rate in order to hit this target. Nevertheless, an important message from the study is that Germany could achieve fiscal relief for its population by implementing a systematic policy of admitting economic immigrants selected by human capital and labour market criteria.

The study can be downloaded in German at: *http://ftp.zew.de/pub/zew-docs/gutachten/ZEW_BeitragZuwanderungStaatshaushalt2014.pdf*

Professor Holger Bonin, bonin@zew.de

Q & A: Is Fracking in Germany Worth It?

"We Should not Exploit our Resources until we really Have to"

Short for "hydraulic fracturing", fracking is a technique in which a high-pressure mixture of water, sand and chemicals is injected into the ground, allowing natural gas to be recovered from deep rock formations outside the reach of conventional methods. Over the past ten years, fracking wells have appeared throughout North America for the purpose of extracting natural gas from shale rock. In Germany, the technique has been the subject of controversial debate. ZEW's environmental economist Oliver Schenker discusses the risks of fracking for the environment and whether Germany could be losing out on a lucrative business opportunity.

The practice of fracking is a contentious one. The natural gas industry is in favour. Conservationists have come out strongly against it. Scientific opinion is also divided. What are the concrete risks associated with fracking?

Fracking can definitely have harmful environmental consequences. To reach natural gas in deep-rock formations, cracks must be made in sedimentary beds. These beds contain ground water and there is a theoretical danger that the chemicals used in the fracking fluid will contaminate the water. Though the percentage of chemicals in the mixture is small, the sheer quantity of fluid needed creates a risk, albeit low. More worrying is that the slurry of water, sand, and chemical additives later returns to the surface potentially bringing with it toxic heavy metals such as lead and mercury. Another problem with fracking is that it can cause low-level earthquakes in certain geological formations, as has been documented in the United States. Finally, in view of climate change, some have argued that fossil fuels like natural gas are best left in the ground.

Why? Is the point to prevent the release of additional greenhouse gases or to ensure there is an emergency supply?

Shale gas does indeed have an adverse affect on the climate, in this respect, however, it is less harmful than brown coal. Let us not forget that natural gas need not come from Germany. There are easier-to-extract sources in other parts of the world such as North Africa and Russia. The value of natural gas obtained through fracking lies in its back-up potential. We should not exploit our resources until we really have to.

Given Germany's planned transition to renewable energy, does it need fracking in the first place?

It will take some time before we can get by without any fossil fuels. Because electricity production from renewable sources is intermittent, we still need energy buffers to offset fluctuations. Gas-fired plants are well suited for this purpose and more environmentally friendly than their coal counterparts. However, gas-fired plants currently have very low profit margins and it is unlikely that Germany's shale gas would change this.

In the US, fracking is a big business. Could Germany profit as well?

Germany is already benefiting indirectly from lower gas and oil prices. Its exploitable shale gas does carry economic potential. Experts estimate, however, that German shale gas reserves could meet the country's needs for ten years at most. This means that any profits would be limited. Moreover, Germany's population is far denser than the most important fracking regions in the US, which would increase the cost of regulation. It is questionable whether a profitable industry could arise in Germany under these conditions. Especially with today's low prices for oil and conventional natural gas, fracking would hardly be worth the effort. In Poland, for instance, the hopes placed in fracking's potential were dashed due to regulatory uncertainties and more complicated geological formations than those found in the US.

Dr. Oliver Schenker
is the acting deputy head of the ZEW research department "Environmental and Resource Economics, Environmental Management" and coordinates research on economic challenges to global environmental regulation and international climate policy. His own interests lie in international trade and environmental policy.

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Professor Dieter Kempf, the president of the IT industry association BITKOM and the chairman of DATEV eG, spoke at ZEW on the opportunities of big data usage in the industry and specific chances and challenges for Germany.

BITKOM President: “Data Are the new Oil”

For many people, the large-scale collection of data by firms is a questionable activity. Yet big data offer a number of opportunities. Professor Dieter Kempf, the President of the IT industry association BITKOM and the chairman of DATEV eG, spoke at ZEW on March 2, 2015 as part of the event series First-Hand Information on Economic Policy. Presenting on the topic, “Are Data the Currency Tomorrow?”, Kempf discussed the value of big data as well as associated opportunities and challenges.

“There is no such thing as a free service on the internet. You might not pay with money, but you do pay with data,” Kempf said. Nevertheless, he sees data less as a form of payment and more as an important raw material in our increasingly digital world. “Data are the new oil,” he remarked, succinctly expressing the importance of data for the 110 audience members. Yet why are data so valuable? The analysis of large quantities of data, or big data analysis, enables companies to better tailor their offers to customers, Kempf explained. But this is not necessarily a negative thing, he argued. For example, customers are increasingly exposed only to advertising that interests them.

Big data promises huge macroeconomic gains

According to Kempf, the benefits of big data extend beyond advertising. In the area of transportation, for example, Kempf noted that self-driving cars are already technically possible today. The hurdle to their widespread adoption lies in the volume of data that has to be processed, Kempf explained. However, self-driving cars are an innovation with great potential, the BITKOM President argued. If regional transportation in Germany was converted to self-driving vehicles, there would be a considerable reduction in traffic jams, travel times, and accident statistics. Kempf cited calculations showing that this would lead to a macroeconomic gain of 4.4 billion euros. As a further example, Kempf mentioned the area of health care. Currently, each cancer patient produces about two terabytes of medical data. Furthermore, the number of treatment methods and medicines is rising continuously. With the help of big data, each cancer patient could quickly receive customised care, which would massively improve recovery rates. “While this technology is a niche solution now, it is on the threshold of becoming a mass technology,” Kempf said.

Germany lacks experts on big data analysis

In two key areas, however, obstacles are hindering the use of big data in Germany. First, the country lacks experts who know how to analyse big data. In this regard, the BITKOM President sees responsibility falling to Germany’s universities, who have an obligation to provide students with the computer science skills that companies need. The second obstacle relates to Germany’s strict data privacy protections, including the principle that companies and institutions should only collect the minimum amount of data actually required. “We don’t need to abandon data privacy,” Kempf said. “Rather, we need to change our conception of it.” When does the use of data provide a benefit to society? This is a key question, Kempf said. “When data are shared and used sensibly everyone can benefit”, he argued.

Kempf acknowledged that there is always a risk that data will be misused. The risks of abuse can only be combatted with effective encryption, Kempf said. In this regard, internet users are responsible for ensuring their data are protected, he stated. “At its core, effective data security has two disadvantages – it is expensive and inconvenient”, Kempf noted, adding that the use of anonymised and pseudonymised data needed to be made possible, as this would allow big data analysis to be carried out without revealing the identity of users. Yet despite all the risks and challenges a clear trend is visible, Kempf concluded: “We are standing on the threshold of a data-driven economy.”

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ZEW Lunch Debate in Brussels – Appropriate Framework for Public Spending in R&D

What is the use of public research and development (R&D) expenditures in times of crisis and fiscal consolidation? This was the focus of the ZEW Lunch Debate on 5 March, 2015 at the representation of the state Baden-Württemberg to the EU in Brussels. Dr Georg Licht, head of research department "Industrial Economics and International Management" at ZEW, made clear in his presentation that high rates of external public debt in Europe in the long term will have an extremely negative impact on public R&D budgets – if there is no counteraction. Alongside Georg Licht on the panel sat Professor Maria da Graça Carvalho, senior adviser in the cabinet of the EU Commissioner for Research, Science and Innovation, Carlos Moedas, Professor Reinhilde Veugelers of the Catholic University of Leuven in Flanders and Professor Ramon Marimon of the European University Institute in Florence. ZEW President Professor Clemens Fuest opened and moderated the event with about 80 guests.

Mannheim Competition Policy Forum: Trusting the Market Forces of the Energy Market

Since 1998, after the reforms of the energy economy law due to competitive aspects, the energy revolution has changed dramatically. Dr Jörg Jasper focused on the challenges for politics, economy, and science in his talk, "Do We Need a Reform of Electricity Market Design?", which took place on 26 Febrary, 2015 at ZEW as part of the series Mannheim Competition Policy Forum of the Leibniz ScienceCampus (MaCCI). As an expert for energy economy and policy at Energie Baden-Württemberg AG, Jasper used his experience in order to explain advantages as well as disadvantages of currently discussed basic reforms. Furthermore, the politico-economic impact on company strategies and the national interest of political representatives of European countries were discussed. Jasper concluded with a plea for more confidence in market signals where there is no clear reason for any intervention by the state.

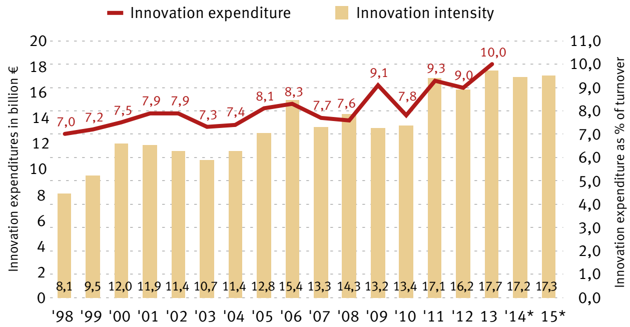
ZEW Labour Market Economist Holger Bonin Appointed as Expert for Family Policy

Professor Holger Bonin is appointed as expert for the commission, "Zukunft der Familienpolitik in Nordrhein-Westfalen" (Future of Familiy Policy in North Rhine-Westphalia) by the German FDP parlamentary group of the German North Rhine-Westphalian Landtag. The economist is head of ZEW's research department, "Labour Markets, Human Resources and Social Policy". Bonin will be part of the commission together with four other experts and twelve representatives who have started their two-year project on 27 January 27, 2015. The commission is destined to analyse the municipal infrastructure in this German Federal State with regard to its family-friendly aspects and living situation and its potential need for development in this area.

ZEW Economist Friedrich Heinemann Appointed Professor at University of Heidelberg

Professor Friedrich Heinemann has been appointed as extraordinary professor for Macroeconomics at Ruprecht-Karls University Heidelberg. Heinemann is head of the research department, "Corporate Taxation and Public Finance" at ZEW. He has already been associate professor for research and teaching at Heidelberg University for several years. He studied Macroeconomics and History at the University of Münster, at the London School of Economics, and at the University of Mannheim where he received a doctor's degree. In 2010, he qualified as a professor at Heidelberg University. His research interests are empirical finance and in particular, issues concerning European integration, federalism as well as tax and fiscal policy.

Electrical Industry Spends ten per cent of its Volume of Sales on Innovations



*Forecasts for 2014 and 2015.

Source: ZEW

In 2013, for the first time, the German electrical industry has reached the ten per cent mark for the intensity of innovation. The mark shows the part of the volume of sales which is provided for the development and the production of new products and techniques. The budgets for innovation in 2013 reached a new maximum value of 17.7 billion euros. In 2014 the expenses for innovations are assumed to go back to 17.2 billion euros. Given the expected increase of the sales volume for 2014 this would mean a decrease of the intensity of innovation.

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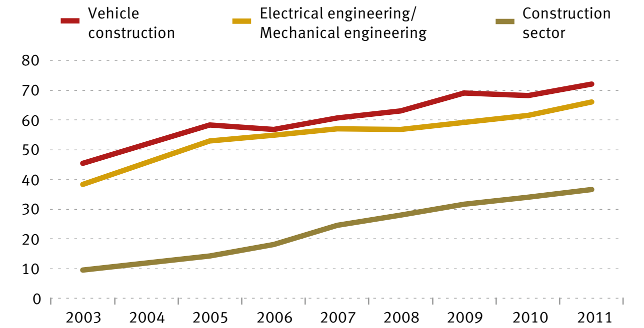
Digitalisation in the Manufacturing Industry Increases



Source: Use of information and communication technologies in companies, Eurostat; Calculations by ZEW, 2014

The sector index DIGITAL uses different key figures to measure the level of digitalisation in 21 sectors in Germany. In 2003 the electrical and mechanical engineering sector recorded an initial value of 38 points. Due to the increase of nearly all sub-indicators, the index had already reached 66 points in 2011. Since then the degree of digitalisation has increased by 74 per cent. In vehicle manufacturing, the index grew from 46 points in 2003 to 72 points in 2011. The index for the construction industry ranges at a very low level (nine points in 2003 and 37 points in 2011).

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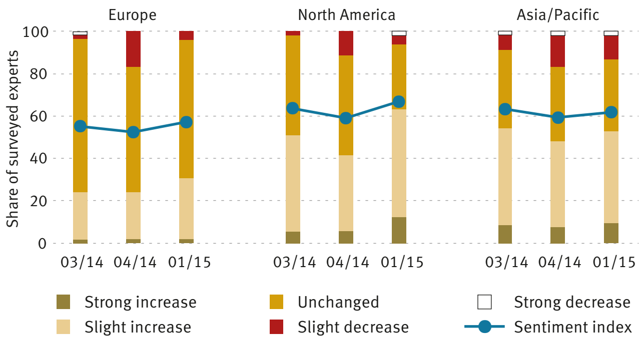
Maritime Freight Sentiment Improves Significantly



Source: ZEW

The experts' optimistic expectations of the maritime freight transportation market barometer reflect the positive economic indicators for the USA: two thirds of the experts are of the opinion that the quantity of the North American market will increase over the next six months. Twelve per cent of the experts expect a strong increase. According to this, the sentiment index is higher than during the last two quarters. For both other segments optimism is lower, but the expectations, especially for Europe, are increasing and approaching the maximum values of 2010.

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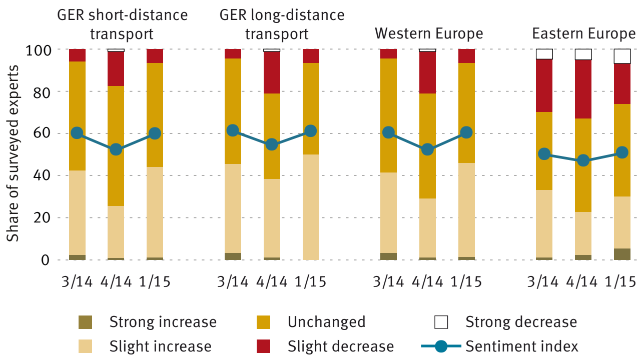
Road Freight Transportation Industry Becomes more Optimistic



Source: ZEW

After the rather negative expectations in the first quarter of 2014 road transport is increasing. With respect to German long-distance traffic, 50 per cent of the experts of the barometer for the transportation market by prognos/ZEW are of the opinion that the transport volumes will slightly increase. These estimations are consistent with the economic expectations, which were rather positive. The sentiment index is increasing accordingly. After a few difficult quarters and despite the continuing crisis in Ukraine, even the market participants of Eastern Europe are hopeful.

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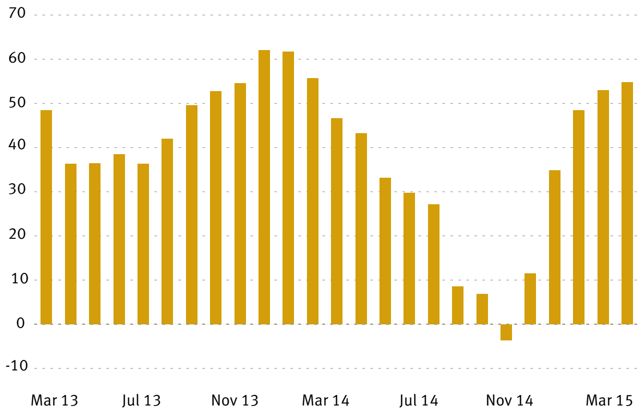
ZEW Financial Market Test March 2014



Balance of positive and negative assessments concerning economic development on a six-months horizon in Germany.
Source: ZEW

Germany: Economic Sentiment Remains at a High Level in Early Spring

In March 2015 the ZEW Indicator of Economic Sentiment for Germany has increased for the fifth consecutive time. Compared to the previous month, the indicator has gained 1.8 points to a reading of 54.8 (long-term average: 24.7 points). This is the indicator's highest value since February 2014. In particular, the continuing positive development of the domestic economy confirms the positive expectations of the experts. At the same time, limited progress is being made with regard to solving the Ukraine conflict and the sovereign debt crisis in Greece. This has a dampening effect on sentiment. The assessment of the current situation in Germany has improved notably - increasing by 9.6 points, the index now stands at 55.1 points.

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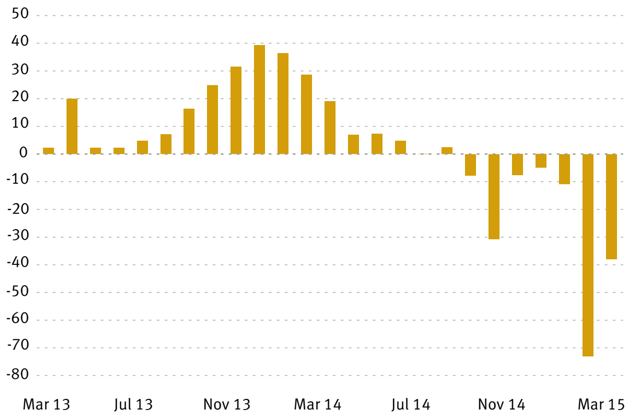

Balance of positive and negative assessments concerning economic development on a six-months horizon in Switzerland.
Source: ZEW, Credit Suisse

Switzerland: Economic Activity Expectations Recover from Swiss Franc Shock

In March 2015, the ZEW-CS Indicator has risen by 35.1 points to a reading of minus 37.9 points. Thus, the economic outlook for the Swiss economy has partially brightened again after having severely deteriorated in February. To some extent, this improvement may be attributed to the EUR/CHF exchange rate, which appears to have levelled off at around the 1.07 mark for the time being. The ZEW-CS Indicator reflects the expectations of the surveyed financial market experts regarding the economic development in Switzerland on a six-month time horizon. Another driver behind the brightening of Switzerland's economic outlook may be the improved economic expectations for the Eurozone.

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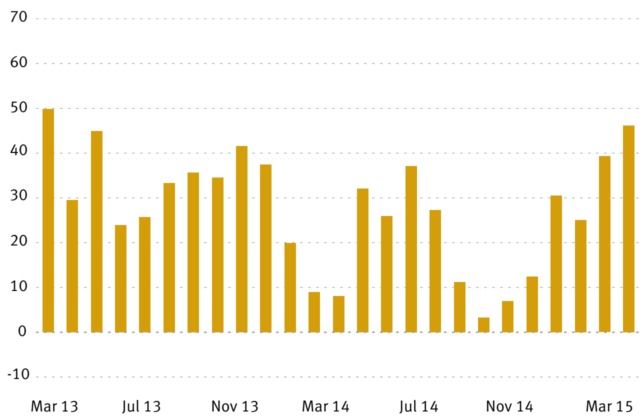

Balance of positive and negative assessments concerning economic development on a six-months horizon in the CEE region.
Source: ZEW

CEE Region: Economic Prospects Continue their Positive Development in March

In March 2015 economic expectations for Central and Eastern Europe including Turkey (CEE region) continue to improve. In the current survey, the ZEW-Erste Group Bank Economic Sentiment Indicator for the CEE region has increased by 6.9 points following the double-digit increase in the previous month (February 2015: increase by 14.2 points). The indicator now stands at a level of 46.2 points. The ZEW-Erste Group Bank Economic Sentiment Indicator for Central and Eastern Europe reflects the expectations of the financial market experts for the CEE region on a six-month time horizon. The indicator has been compiled on a monthly basis together with further financial market data by ZEW with the support of Erste Group Bank since 2007.

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On the Precipice of Collapse, Greece Faces Stark Alternatives

The Greek prime minister Alexis Tsipras and his Syriza party assumed office with the aim of fundamentally changing European policy for overcoming the sovereign debt crisis. Since the election, it would appear the only change taking underway is the acceleration of Greece's economic collapse toward sovereign bankruptcy and its exit from the eurozone. The willingness of the other euro states to accommodate Greece may not have fallen to zero, but it is certainly small. How did things get to this point?

The communication strategy of Greece's finance minister Yanis Varoufakis has certainly not helped, but it is not the critical factor. What has been critical is that the Greek government has been unable to convince other European states of its analysis of the economic situation. First, the current government claimed that Greece is overburdened by its debt service and would not be able to achieve economic recovery without more debt relief. And it is true that the government debt ratio of 175 per cent is very high. However, three quarters of the government debt is in the form of aid credits from other nations, which have granted Greece very long maturities with very low interest rates. This was a hidden form of debt relief. As a consequence, the interest burden of around four per cent of GDP is no greater in the Greek national budget than in Portugal's.

Second, Alexis Tsipras argued that the crisis has thrown Greece into poverty and that assistance is necessary on humanitarian grounds. Nobody can dispute that Greece has undergone a severe recession. However, Greek per capita GDP is around 16,000 euros, similar to that of Portugal. Thus, Greece's standard of living is better than that of Estonia (14,800 euros) or Slovakia (13,900 euros) – two nations that would incur losses in the event of further debt relief for Greece. One could counter this argument by pointing out that average per capita income says nothing about the situation for the poorest social strata. While this may be correct, providing for the poor is a task of the Greek government, not the EU. Nobody is forcing Greece to cut social spending for its poorest citizens. It could save on other expenditures and it could also raise taxes for the more affluent.

Third, the Greek government claims that tax increases and reductions in government expenditures would needlessly aggravate Greece's economic crisis. This is also less than persuasive. Since the government budget showed a large deficit at the onset of the crisis, a harsh consolidation programme was unavoidable. Other nations had to do the same. That the recession in Greece was deeper than elsewhere is primarily because Greek exports were hit harder. In Portugal, revenues from the export of goods and services are around 20 per cent higher today than before the onset of the crisis in 2008. In Greece, they have fallen even further. If Greek exports had trended similarly to those of Portugal, Greek GDP would be eight per cent higher today. The core problem of the Greek economy does not have to do with the inevitable decline in domestic demand. It has to do with Greece's lack of competitiveness in international markets.

Fourth and finally, the Syriza regime wants to nationalise private companies instead of privatising state enterprises. In addition, it has promised a higher minimum wage and massive hiring in the public sector. This plan not only violates agreements with creditor states but also runs counter to all economic reason. European policy makers are trying to protect Greece from economic self-destruction. European Commission President Jean-Claude Juncker recently proclaimed that he rules out Greece's exit from the euro. This is wishful thinking. Only a radical change in economic policy by Athens can prevent such a "Grexit".

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