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Home Office Demands Trust in Employees

Top Ten Digital Economies – United States in the Lead, Germany in Mid-Range

In international comparison of the top ten digital economies, the US is clearly in the lead. Germany lags far behind, ranking in sixth place. International comparison of the total revenues gained from Internet-based goods and services also sees Germany ranking in the mid-range. These are some of the results of the current 2015 Monitoring Report DIGITAL Economy, being conducted by the Centre for European Economic Research (ZEW) in collaboration with TNS Infratest on behalf of the Federal Ministry for Economic Affairs and Energy.

The German digital economy, that is, the information and communication technologies (ICT) sector and the Internet economy, scored only 53 out of a 100 possible points in the 2015 DIGITAL index, an international comparison of business locations for companies in the digital sector. Although Germany has

gained four index points since last year, the country's performance nonetheless remains average. The mid-range, however, is densely populated; there is only a two-point difference between fourth and sixth place. The undisputed leader in the international ranking is the US, with 80 points, followed by South Korea, with 66 points. As in the previous year, France, Spain and India (see figure on page 2) remain at the bottom of the ranking.

The DIGITAL index determines the capacity of the ICT sector and the Internet economy on the basis of an analysis of markets, infrastructural factors, and the use of new technologies and services. The fact that the German digital economy ranks only in the mid-range in international comparison is primarily due to the sector's below-average significance in global markets. Germany's mixed position in this field is reflected in the proportion of IT investments in the country's GDP, the gross value added

Mathematical and scientific training is an important factor in a country's infrastructure for the digital economy.



generated in the ICT sector, as well as the share of exports represented by ICT goods and services. It comes as no surprise that the USA, South Korea and China score particularly well in this area.

The United States, along with Great Britain, also outstrips Germany in another field; the use of digital products and services by the population, by companies and by public administration. According to the results of the Monitoring Report, Germany's mid-range position in the 2015 DIGITAL Index is a reflection of the country's average scores in this area.

Infrastructure: Germany strong, but South Korea heads ranking

The "infrastructure" category describes the technical, industrial, and economic policy basis for a country's digital economy. Germany performs somewhat better here than it does in other areas. The digital economy in Germany performs well with respect to the capacity for innovation, the proportion of newly established ICT firms in the total number of firm foundations, as well as in terms of the quality of mathematical and scientific training. South Korea, however, outshines Germany also in this area. In addition, Great Britain and France rank above Germany when it comes to infrastructure.

Alongside the business location index, the Monitoring Report considers further figures which indicate the relevance of the digital economy for Germany, and its ranking in international comparison. According to the current Monitoring Report, the ICT sector plays a particularly important role in the German economy. In 2014, the ICT sector generated EUR 93 billion, corresponding to 4.6 per cent of the entire industrial value added. The ICT

sector thus ranks ahead of the mechanical engineering sector and just behind the automotive industries in Germany. Long-term economic growth in Germany also benefits from the development of the ICT sector. In 2014, investments with a total value of EUR 15.8 billion, 3.2 per cent of all investments made in the German industrial economy, were made in the ICT sector.

The Monitoring Report also includes a comparison of the major sectors of the German economy regarding investment in the development and introduction of new products and processes. The automotive industry invested the greatest amount, spending around EUR 46.6 billion, while the ICT sector spent about EUR 15.1 billion on innovation within the period considered by the Monitoring Report. This represents an increase of 13 per cent in comparison to the previous year.

Per capita comparison of Internet economies

Regarding the significance of countries' Internet economies and their rank in international competition, compared as part of the latest Monitoring Report, top rankings have been attributed to South Korea and Great Britain. Again in this area, Germany's performance is average. In 2014, Internet-based goods and services generated a turnover of EUR 1,266 per capita in Germany. The country thus ranks in fifth position behind leader South Korea (EUR 2,221), Great Britain (EUR 2,194), the USA (EUR 2,027) and Finland (EUR 1,622).

The complete Monitoring Report: DIGITAL Economy is available for download (in German) at:
www.tns-infratest.com/bmwi

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BUSINESS LOCATIONS FOR THE DIGITAL ECONOMY

1. (1)	US	80 (77)
2. (2)	South Korea	66 (66)
3. (3)	Great Britain	57 (58)
4. (7)	China	55 (48)
4. (4)	Japan	55 (53)
6. (6)	Germany	53 (49)
7. (5)	Finland	52 (50)
8. (8)	France	48 (47)
9. (9)	Spain	41 (39)
10. (10)	India	31 (33)

INFRASTRUCTURE FOR THE DIGITAL ECONOMY

1. (1.)	South Korea	82 (83)
2. (3.)	France	81 (80)
2. (2.)	Great Britain	81 (81)
4. (5.)	Germany	79 (77)
4. (3.)	Finland	79 (80)
6. (6.)	US	77 (76)
7. (7.)	Japan	74 (72)
8. (8.)	Spain	66 (66)
9. (9.)	China	50 (49)
10. (10.)	India	27 (26)

The University Degree Attainment Indicator Is Not Suitable for International Comparison

The Organisation for Economic Co-operation and Development (OECD) regularly publishes indicators that attempt to describe and rank the performance of each member state's educational system. In Germany, considerable scepticism has been expressed about the reliability of the "university degree attainment" indicator. A recent ZEW research study shows that doubts are justified.

Concerns have been repeatedly expressed about the comparatively low percentage of adults in Germany who have attained a university-level degree, including degrees from polytechnic, arts and education colleges. Yet do these concerns have merit? A team of scientists from a number of institutions, including ZEW, examined this issue in a research project entitled "Educational Indicators in an International Perspective – An Inventory and Critical Appraisal." In the ZEW study, twelve relatively large OECD countries were selected for a more detailed investigation. The study also summarises the results from a workshop with experts from economics and sociology on the construction and limitations of selected educational indicators.

Low share of university graduates in Germany

According to the OECD, as of 2012, the share of university graduates in Germany – the percentage of the population between 25 and 64 with a degree from a university – was 17 per cent. This landed Germany in tenth place. The leaders in the ranking were the Netherlands and the US (each with 32 per cent), followed by the UK and Australia. Joining Germany at the bottom were Italy and France. However, the "university degree attainment" indicator is in part a reflection of the education policy of past decades – after all, the individuals under consideration are up to 64 years old. As a result, this indicator is of limited value for assessing current educational policies. To determine trends in current educational policy, another OECD indicator was considered – namely, the share of young people who presumably will obtain a university degree. The mean value for this indicator is 58 per cent (in 2012). While the figures for Australia, Poland

and the US are higher than the OECD average, Germany's value is 53 per cent, landing it in eighth place. Despite the ongoing run of new students to universities in Germany, the country still seems to be lagging behind when compared internationally.

"Degree attainment" indicator has limitations

Constructing rankings to compare the performance of national educational systems is, generally speaking, a fruitful approach. However, there are fundamental problems utilising the "degree attainment" indicator that hamper a meaningful international comparison. The degree attainment rate suffers from the lack of a consistent definition of the content of educational degrees. While academic degrees are predominant in professional education in Anglo-Saxon countries, the German "dual system" has a strong vocational training component. Accordingly, many areas of study that would be awarded a university degree in the Anglo-American world lead to a vocational degree in Germany, despite comparable contents. As a result, Germany's graduation rates are relatively low compared to international standards. Given this clear limitation, the "university degree attainment" indicator is neither suitable for international comparison, nor should it be used for educational policy recommendations.

From the viewpoint of economic research, achieving a higher share of university graduates should not be an end unto itself. The overarching policy goal should be to create high-quality learning opportunities and to offer each individual the chance to invest optimally in their professional education, regardless of family resources. Germany's educational institutions often accomplish the first goal, offering programmes of study that are highly attractive, even from an international perspective. But the ZEW study also suggests that the second objective has not yet been fully achieved, despite the progress made in the recent past.

The report is available for download (in German) at:
www.zew.de/en/publications/8024

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Taxation in the Far East – Why the Asia-Pacific Region Is so Appealing for Investors

Over the past two decades, Asia-Pacific countries have achieved significant socio-economic progress. Among other aspects, such as legal framework, infrastructure, market access and labour costs, taxes are considered one influential factor of investment decisions. A ZEW study provides a detailed overview of effective tax rates in the region and shows the impact of tax incentives.

The study is based on the methodology of Devereux and Griffith for determining effective average tax rates. This approach allows combining the impact of important national and international tax regulations into one tax burden measure. The study considered 19 Asia-Pacific countries, including industrial nations such as Australia, New Zealand, Japan and South Korea; newly industrialised countries like China, India and Russia; as well as Cambodia and Myanmar, developing countries who are only just opening their markets for foreign capital.

Tax rate alone does not reflect taxation system

Together with the economic structure, the taxation systems have also changed. In line with the global trend, Singapore, Malaysia, South Korea and India have steadily reduced their standard tax rates since the early 1990s. Following the taxation reform in China in 2008, numerous countries drastically cut their tax rates. The standard tax rate in eleven of the 19 countries in the region considered in the study currently lies between 20 and 25 per cent. This figure, however, is not sufficient to reflect the complexity of the taxation system. The analysis carried out by ZEW thus considers the effective tax burden on an investment made in a manufacturing industry. The average effective tax rate reflects all aspects of the tax system such as the tax rate, the tax base, capital tax and international double-taxation agreements. If national taxation laws are exclusively taken into account, the

average effective tax rate of countries in the Asia-Pacific region is 23.4 per cent. The lowest tax burden on investments is 10.6 per cent, charged on investments in Hong Kong. In India, the same investment would be subject to an effective tax burden of 40.4 per cent. In twelve of the 19 countries studied, investors pay an effective tax rate of 15 to 25 per cent. The final tax burden, however, also depends on the home country of the investor. Withholding tax charged on dividends and interest, as well as different taxation procedures in regard to foreign profits, result in diverging tax burdens for investors. While an investor from Singapore or Germany pays on average 29.2 per cent tax on an investment made in a country in the Asia-Pacific region, an investor from the US must pay on average 32.8 per cent.

Governments use tax incentives to promote R&D

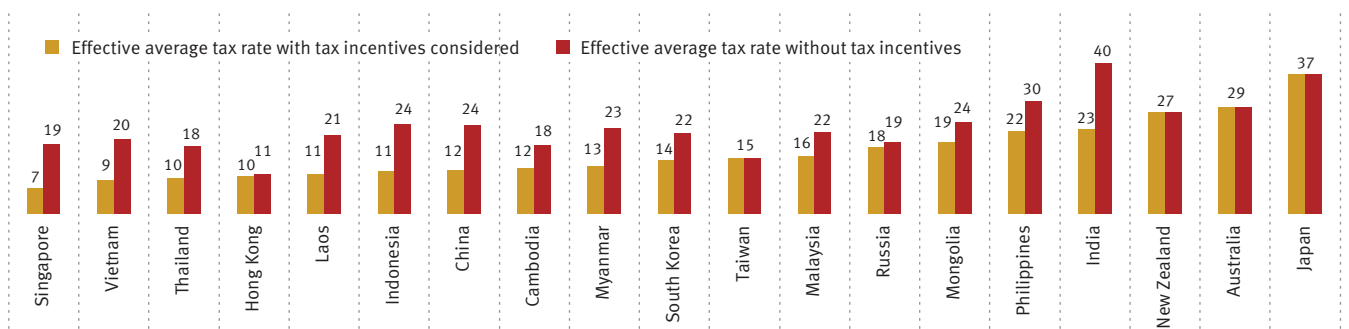
A mechanism which can serve to promote investment in certain economic sectors or regions is tax incentives, such as temporary tax exemptions. All 19 countries included in the survey make use of such a mechanism. In more than 50 per cent of the countries, governments use this instrument to promote investment in R&D or in remote and under-developed areas. Almost as popular are tax incentives for investments in the local infrastructure or for environmental protection schemes.

Looking only at those incentives offering investors the greatest tax relief, the average effective tax rate in all countries considered falls from 23.4 to 16.6 per cent. In the countries which have implemented tax incentives for manufacturing firms (15 out of 19), tax reductions for high-tech companies and investments in under-developed regions are particularly widely used.

The study is available for download at:
www.zew.de/en/publications/7835

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EFFECTIVE AVERAGE TAX RATE (IN PER CENT) FOR INVESTMENTS IN THE ASIA-PACIFIC REGION



The diagram compares a hypothetical regular investment to an investment that qualifies for tax incentives (only the tax incentives resulting in the lowest EATR have been considered). Tax incentives have not been modelled for Taiwan, Australia, New Zealand and Japan. Source: ZEW



More than five years after the outbreak of the sovereign debt crisis, there is no end of the crisis in sight. But is Europe already on the road to economic recovery?

The European Debt Crisis, Five Years on: Major Reforms Still Needed

With all eyes on the refugee crisis, the European sovereign debt crisis has been shunted to the background. However, the problem of excessive government debt in the eurozone has by no means been resolved and could trigger renewed turmoil in the future. In particular, a system for dealing with insolvent Member States is still sorely lacking. These are the key findings of an interim assessment on the status of the European debt crisis that has been presented by ZEW together with researchers from five other economic research institutes in the Leibniz Association.

More than five years after the outbreak of the sovereign debt crisis, instability still plagues Europe – and the end of the crisis is still not in sight. While most of the nations severely affected by the crisis have regained access to capital markets, it is too soon to speak of a comprehensive solution to the structural causes of the crisis, according to the report.

Nevertheless, the setbacks in Greece should not obscure the positive developments that have taken place in other crisis-stricken countries. For example, since 2013 GDP has been on the rise in Ireland, Portugal, and Spain. In Ireland, GDP has already returned to its pre-crisis levels. Moreover, budgetary deficits have decreased in Ireland, Portugal, and Spain. In addition, many European countries have augmented their competitiveness, as demonstrated by improved balance of trade figures in many eurozone countries. However, the very high unemployment rates resulting from the crisis still remain a problem in many countries.

Emergency measures to rescue the euro had a clear justification, but also severe side effects

With regard to the emergency measures taken to rescue the euro, the researchers conclude in their report that while there were clear justifications for interventions, the measures taken have had significant negative side effects. In their opinion, the long-term consequences of the rescue measures continue to receive insufficient attention. The European Central Bank's bond

purchasing programme has problematic ramifications, for it means the central bank is engaged in financing eurozone governments, at least indirectly. The report concedes that the programme has bought time and helped stabilise the acute crisis situation. However, a side effect of the ECB's programme has been to allow euro nations to obtain capital market financing under favourable terms, regardless of their actual creditworthiness. The low interest rates have created negative incentives for debtor nations, potentially encouraging them to postpone urgently needed reforms.

In the absence of a viable insolvency procedure for sovereigns, the sanction mechanism lacks credibility

This disastrous effect of the bond purchasing programme is especially troubling because there is still no viable insolvency procedure for sovereigns in the eurozone. Lack of such a mechanism means that highly indebted nations do not have to seriously consider being left high and dry in the event of insolvency. The problems that emerge from such a situation are unmistakably evident in the confrontation between the Eurogroup and the first Tsipras government in Greece. Even today, it is by no means foreseeable whether the new government led by Alexis Tsipras will honour its promises of reform. Accordingly, an insolvency procedure for eurozone states is a prerequisite for state bankruptcy to become a credible threat.

In addition, there is an urgent need to remedy the deficiencies in the Stability and Growth Pact's current sanction mechanisms. At the moment, there is still a great deal of leeway in interpreting the rules. Moreover, the reforms that have been adopted to the sanction mechanism for rules violations have done little to change this fundamental credibility problem. Now as before, the European Council has final responsibility for deciding possible sanctions, so ultimately, indebted nations are still left to monitor and sanction themselves. Overall, this procedure fails to ensure a functional mechanism for containing public debt.

The persistent weaknesses in rules-based fiscal monitoring

and sanctions make it all the more essential that capital markets have a disciplinary function by rapidly sanctioning unsustainable budgetary management through increased interest rates on borrowing. Even the reformed fiscal regulatory framework is no substitute for such market discipline. This lack of a credible sanction mechanism further aggravates the negative impact of the distortions resulting from the ECB's market interventions.

Some useful reforms have been implemented during the crisis

Nevertheless, some of the new mechanisms and reforms implemented during the crisis can be characterised as progress. Notable among them are the implementation of the European Stability Mechanism (ESM) and the creation of the European Banking Union. The ESM broadens the fiscal regulatory framework of the eurozone through instruments to combat liquidity crises along with the simultaneous imposition of conditions on

debtor states. The monitoring and settlement mechanisms established through the Banking Union also make fundamental sense. One remaining deficiency is that government bonds continue to be rated as risk-free, and are thus not subject to an equity backing requirement for commercial banks. In addition, the economists involved in the report warn that assigning bank oversight to the ECB comes with the risk of a potential conflict of interest in the setting of monetary policy.

Macroeconomic Imbalances Procedure bears a number of potential problems

Another key element of the reformed regulatory framework is the Macroeconomic Imbalances Procedure (MIP). Here as well, the report sees a number of potential problems. Essentially, the report's authors welcome the idea of a system to monitor macroeconomic developments for the purpose of early identification of potential problems. However, they criticize the MIP's lack of conceptual clarity. The term "macroeconomic imbalance", for example, remains vague, leading to the impression that there is still a lack of consensus on the basic direction of economic policy for the euro area. In addition, there is a risk of operationalising single indicators into one-dimensional instruments for policy targets. Such a turn would run against the intended function of the MIP as a multi-dimensional macroeconomic evaluation of the entire eurozone.

Looking ahead, the researchers warn that it would be a serious mistake for politicians and the media to lose interest in the need for reform simply because the crisis seems under control for the moment, and other issues have taken precedence. Slow economic recovery, already foreseeable new violations against the rules of the Stability and Growth Pact, and the inadequate pace of reform in many states in the eurozone all increase the likelihood of a recurrence of the sovereign debt crisis, and also of associated crises of confidence, which could even pull larger countries in the eurozone into a downward spiral. Accordingly, the reform measures that have been undertaken to date should be regarded only as a first step toward a comprehensive reform of the eurozone.

Report is a joint effort of researchers from six Leibniz institutes

The report was written in a joint effort involving the six economic research institutes that make up the Leibniz Research Alliance "Crises in a Globalised World". In alphabetical order, they are: Centre for European Economic Research (ZEW Mannheim), German Institute for Economic Research (DIW Berlin), Halle Institute for Economic Research (IWH), Ifo Institute for Economic Research (ifo Munich), Kiel Institute for the World Economy (ifw Kiel), RWI Essen.

The study is available for download (in German) at: www.leibniz-krise.de/forschung/working-papers

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Fiscal discipline is an important factor for national governments, but given the persistent weaknesses in rules-based fiscal monitoring, it is all the more essential that capital markets also have a disciplinary function.





M & A REPORT

Fewer Mergers and Acquisitions in Germany – But Higher Volumes

ZEW-ZEPHYR M&A Index – The frenzy in Germany has come to an end – for now. The past months have seen a stagnating to downward trend in the number of mergers and acquisitions (M&A) involving German companies. Since mergers and acquisitions usually occur in waves, it is still uncertain whether the current situation represents a temporary ebb or whether the tide has already turned. The average transaction volume, however, has ticked upward.

The ZEW-Zephyr M&A Index Germany shows scant variance in 2015

M&A activity collapsed toward the end of 2014, reaching the lowest November reading since 2011 and the lowest December reading since recording began, in 2000. While this collapse did not spill over into 2015, the dynamics of past years has not returned. The ZEW-ZEPHYR M&A moving 12-month average shows scant variance in 2015, with totals fluctuating between 86 and 88 points.

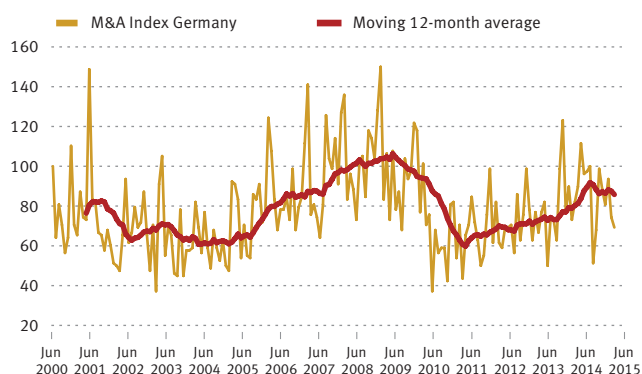
The number of M&A transactions involving German companies may have fallen, but the average size of each deal has gone up.

In the moving 12-month average of transaction volumes – the index only considers deals with known values – the average size in September 2013 was 116 million euros. Average transaction volume has risen steadily in the meantime, almost tripling by June 2015, when it reached 303 million euros per deal, the highest average since recording began. Driving those numbers was a mega deal in March between Russian investor group LetterOne and DEA, an oil and gas business previously owned by Essen-based energy giant RWE. LetterOne invested 5.1 billion euros in DEA, thereby achieving the largest acquisition of a German company in months. The deal was met with strong protest from the British government, who feared supply shortages in Europe, should further sanctions be imposed on Russia over the Ukraine conflict.

German companies have gone on their own shopping spree

German companies have gone on their own shopping spree. The acquisition of TRW Automotive Holding by the technology conglomerate ZF Friedrichshafen in May was, at 11.3 billion eu-

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 as well as international buyer companies are considered, provided the target companies are active in Germany.

The M&A Report is a biyearly publication issued by the Centre for European Economic Research (ZEW) and Bureau van Dijk (BvD). It uses the Zephyr database to report on current topics and developments in global mergers and acquisitions. The Zephyr database, which is updated daily, contains detailed information on over one million M&A, IPOs, and private equity transactions across the world.



BUREAU VAN DIJK

ros, the largest in Germany since 2006. In October of last year, chemical giant Bayer sold its Consumer Care division to its competitor Merck for more than ten billion euros.

This rise in transaction volumes can be attributed mostly to the re-entry of major players in the M&A market, which was re-

structured and trimmed during the financial crisis that began in 2007. In this period, the M&A market was characterised by the activities of mid-size companies. Now branch giants are pursuing strategic acquisitions and mergers once again

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With a Spate of Megadeals, 2015 Is on Track to Become a Record Year

Global M&A activity this year is on track to hit record volumes. Mostly responsible for the upswing are favourable financial conditions and company growth plans. Between January and July 2015, 189 deals valued at one billion euros or more were closed, for an aggregate volume of 1,020 billion euros.

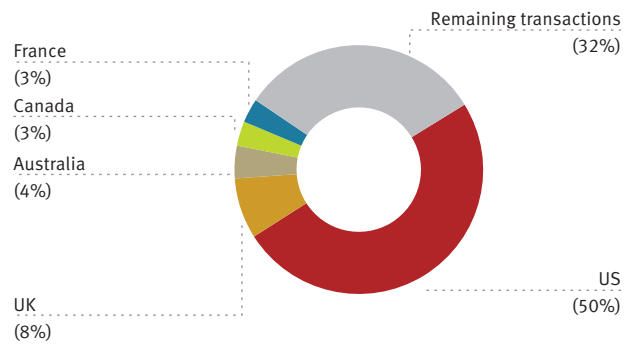
The projected end-of-year totals are 1,750 billion euros over 324 transactions, far more than the aggregated transaction volumes from the years 2008 to 2014. If M&A activity continues at its current pace, it is almost certain to surpass the previous record of 1,056 billion euros set in 2007.

The average transaction size of megadeals in the current year was also very high, reaching 5.41 billion euros. In the years following the financial crisis, the average transaction size was significantly lower – just shy of three billion euros in 2011 and 2012, 3.37 billion in 2013 and 3.36 billion in 2014. In 2007, when M&A was strong, the average total for megadeals was 4.2 billion euros.

US deals dominate global mergers and acquisitions market

So far this year, 50 per cent of transactions on the global M&A market have involved target companies in the United States.

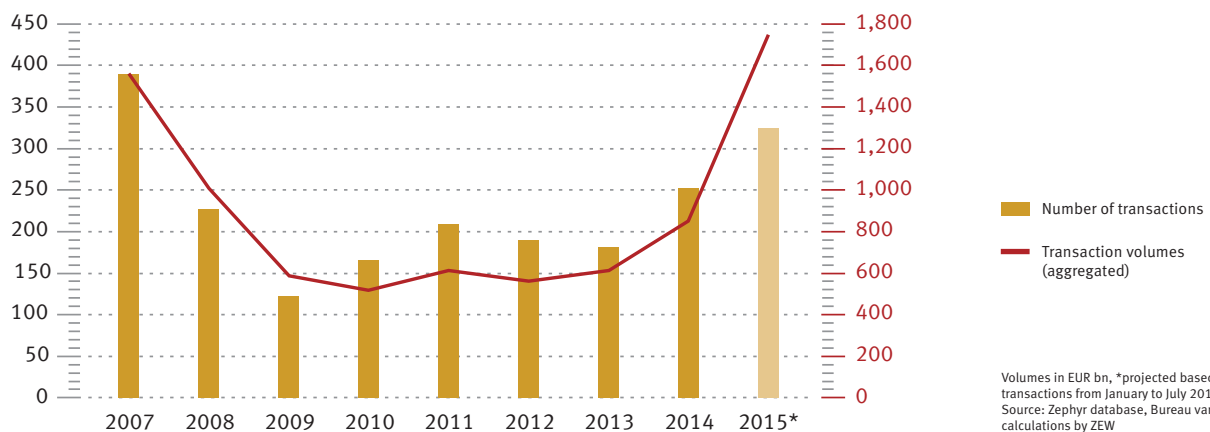
TARGET COUNTRIES FOR MEGADEALS IN 2015



Target countries of all M&A transactions with a minimum value of one billion euros in 2015. A total of 189 transactions were recorded as of July 2015. Source: Zephyr database, Bureau van Dijk; calculations by ZEW

Trailing far behind on second and third place are the UK, with eight per cent, and Australia, with four per cent. It is worth noting that interest in the acquisition of Russian companies has waned noticeably compared with 2007–2014 levels. While

NUMBER AND AGGREGATED VOLUME OF GLOBAL MEGADEALS FROM 2007 TO 2015*





megadeals with Russian businesses in the previous eight years made up four per cent of transactions, 2015 has seen only one single large acquisition.

What stands to be the most expensive merger this year is the acquisition of the British liquid gas specialist BG Group by Royal Dutch Shell for 64 billion euros in a move to bring Shell closer to its American competitors.

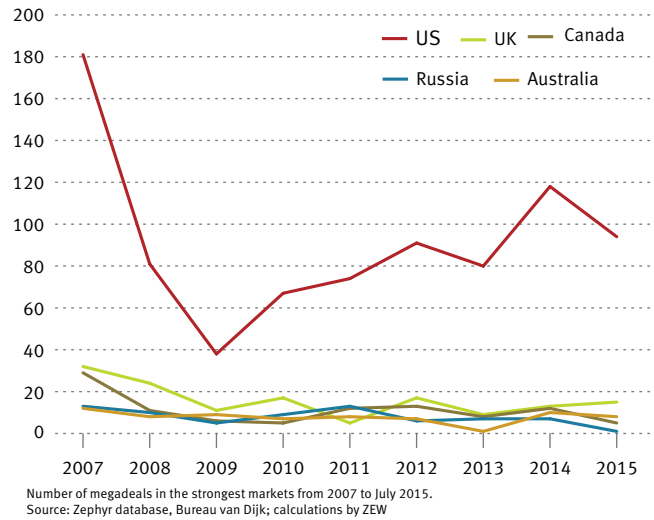
Another megadeal in 2015 is the acquisition of Time Warner Cable (TWC) by its competitor Charter Communications. This transaction is expected to cause upheaval in the United States' cable market.

Warren Buffet enters food business

The most talked-about merger this year has been the merger of food giants Heinz and the Kraft Foods Group. Warren Buffett's investment company, Berkshire Hathaway, was behind the 36-billion-euro deal.

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NUMBER OF MEGADEALS IN THE US, UK, CANADA, RUSSIA AND AUSTRALIA



Under Pressure to Consolidate, M&A Activity in Spain Reaches Peak

Since 2012, M&A activity involving Spanish companies has risen by leaps and bounds. In 2013 the number of transactions totalled 3,217, more than nine times the figure in 2000. In most transactions, both companies were Spanish. From 2000 to 2014, this was the case in around 72 per cent of transactions. In 2013, the number of domestic transactions alone was 18 times higher than the 2000 level.

Broken down by target company sector, the figures show that most transactions involve branches under strong pressure to consolidate. Between 2012 and 2014, real estate agencies topped the list, making up nine per cent of transactions, closely followed by construction companies, at 8.8 per cent. Wholesalers (8.5 per cent) and retailers (four per cent) came in third and fourth, while fifth place went to the financial sector (excluding insurance and pension funds), which totalled 3.9 per cent of transactions.

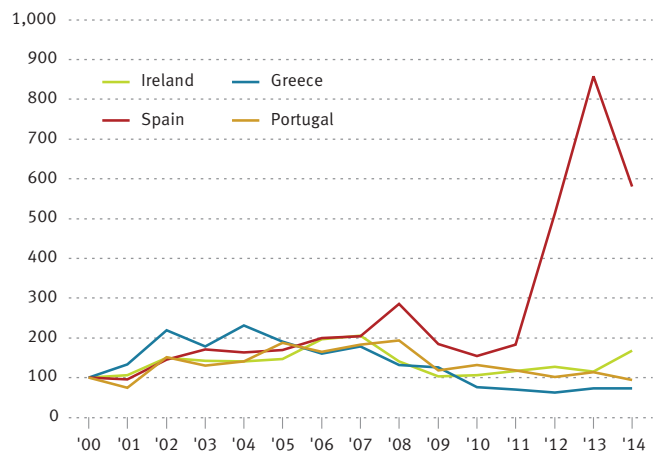
Real estate bubble led to shakeout

The enormous real estate bubble in Spain that burst in 2007 necessitated market shakeouts. This distinguishes Spain from the other EU states which were strongly affected or still are affected by the sovereign debt crisis. The number of transactions in Greece and Portugal is still far below pre-crisis levels. Ireland has recovered slightly, but is nowhere near its record levels of 2007, lagging far behind Spain's skyrocketing numbers. Greece may expect to experience similar consolidation waves soon, but

these might have been hindered by uncertainty in the wake of the sovereign debt crisis. In the long run, investment could once again become more attractive for foreign companies.

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NUMBER OF M&A TRANSACTIONS IN IRELAND, GREECE, SPAIN AND PORTUGAL



The graph shows all transactions in which a company from one of the four countries was a buyer, seller or purchase target. To improve comparability, the number of transactions was standardised using the base value of 100 for the year 2000. Source: Zephyr database, Bureau van Dijk; calculations by ZEW

Concentration in European Landline Communication Markets Increasing

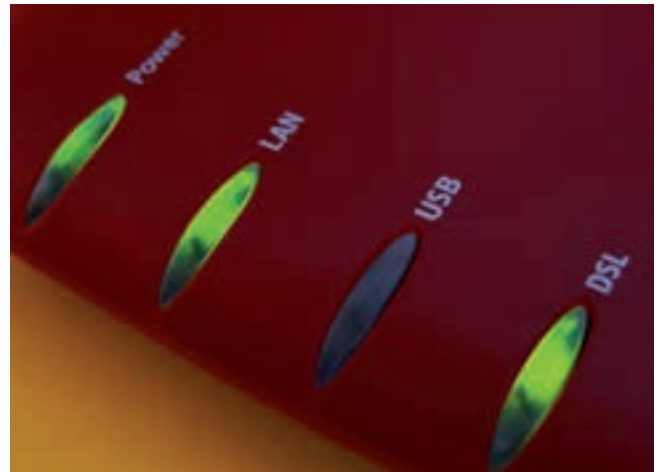
For several years now, European telecommunication markets have been undergoing a massive consolidation. On mobile markets, as previously described in the April 2014 M&A Report, transaction volumes have increased significantly. This year the pace has quickened, as shown by the approved acquisition of E-Plus by Telefónica Germany.

Landline communication markets (fixed-linked) have also been in a consolidation phase for years now. Though the number of acquisitions has dropped almost continuously in recent years – now at the lowest level since 2003 –, a large increase in aggregated volumes began in 2013 after sinking at the onset of consolidation (see figure). This suggests that most of the companies that merged in the past two years were mid-to-large sized – such as the acquisition of the Dutch company Ziggo by Liberty Global, which itself had purchased Germany’s Kabel BW.

A number of transactions have sought to consolidate communication infrastructure

Beyond the acquisition of cable network operators, a number of transactions have sought to consolidate communications infrastructure, such as landline and mobile networks. Some examples are the 2014 acquisition of SFR (France’s second largest mobile provider) by Numericable Group (France’s largest cable network operator), and the 2013–2014 acquisitions of Kabel Deutschland and ONO (Germany’s and Spain’s largest cable network operators) by Vodafone. These transactions are partly the result of increasing customer demand for highly integrated product bundles.

The growth in competition on the landline communication market can primarily be attributed to the restructuring of busi-

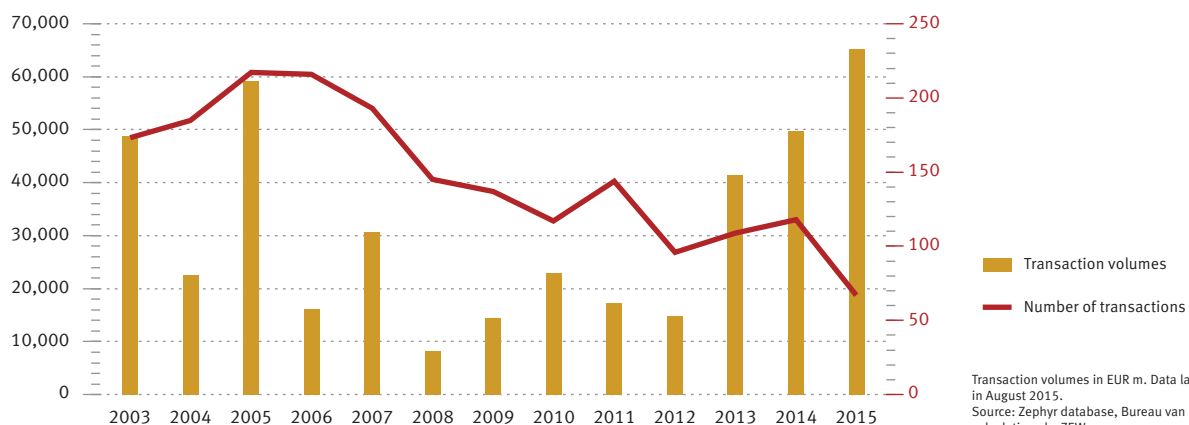


ness models that has accompanied IP convergence. The term IP convergence refers to the merging of voice communication and data communication on a single IP network, allowing multiple services to be offered on a platform. This means that, say, traditional voice telephony services can be performed by different Internet service providers such as Skype, Viber or Whatsapp.

Aside from increased competitive pressure, recent years have seen adjustments in the business models of telecommunication providers. Some of these adjustments include contractual agreements with Internet content providers stipulating, say, the pre-installation of mobile device applications. The development has especially affected mobile communication. Mobile communication products, however, are increasingly in competition with landline voice telephony and broadband services.

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NUMBER AND AGGREGATED VOLUMES OF MERGERS AND ACQUISITIONS ON EU 28 LANDLINE MARKETS, 2003 – 2015



Q&A: How Do Flexible Work Arrangements Affect Working Life?

“The Home Office Demands Great Trust in Employees”

Digitalisation is making traditional boundaries melt away: these days, thanks to portable computers and mobile devices, nobody who works mostly on a Personal Computer is confined to the office chair any more. Jobs can be performed in a train or on a plane, or from the comfort of a home office. But do employers give support to such working arrangements that are flexible in terms of time and space? How far have we come from the traditional requirement of being physically present at one's place of work? While it can be quite motivating for many employees to work from a home office, many others prefer a clearer boundary between professional and private life, according to ZEW economist Susanne Steffes.

There has been much talk about work arrangements that are flexible in terms of time and space. What in particular are we speaking about?

Flexibility in time can range from options for flex-time to absolute trust-based work hours with no core working times. Spatial flexibility has to do with performing one's work outside the regular workplace. In terms of space as well, employees may be left to decide independently where to work, or their employer may demand that work be performed on a train or an airplane during business trips. In our research, we make a distinction between those employees who work in a home office during regular working hours, and those employees who work at home outside normal working hours, say, during evenings or weekends.

While portable workstations with Internet access have progressively replaced the fixed computer, to date relatively few employees actually work on a regular basis in a home office. Why is this the case?

One of our firm surveys has shown that about 16 per cent of employees without management duties have portable end devices provided by their employer. Among management personnel, this figure is 64 per cent. We also know that around 15 per cent of employees at these firms work in a home office, while another 15 per cent complete at least some of their work from home during evenings or weekends. Despite this, many more employees would be glad to take advantage of such options. One huge obstacle they reported is that their superiors consider it important for them to be directly present in the workplace. Flexible work arrangements such as the home office demand great trust in employees, and many superiors still seem to have reservations in this regard.

Does their hesitation have to do with a preconception that in reality, flexible work arrangements would be an invitation for dawdling?

It is hard to test this hypothesis based on surveys. What employee will voluntarily admit that they are not actually perform-

ing work in the home office? To date, we lack sufficient empirical evidence about the actual impact of working in a home office on employee productivity. However, those studies that do exist suggest the opposite – in fact, productivity tends to be greater in the home office. If it is easier to structure day-to-day work life in the home office, this can have a general motivating effect. However, flexible work should not be equated with “working around the clock”. This is the greatest worry expressed by employee representatives.

To what extent do employers and employees benefit from home office arrangements?

A major impetus for the home office is that it simplifies the effort to reconcile family and working life. This, at least, is the opinion of the majority of employees who make use of a home office – as well as the opinion of those who would like to. However, one of our employment surveys has also shown a con-



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siderable proportion of employees who do not wish to work in flexible arrangements because they value greater separation between work and private life. Of course, it is also important to respect this preference. A solid work-life balance is correlated with greater work satisfaction, which in turn has a positive impact on productivity. In addition, many employees report being able to accomplish many tasks better in the home office because the home is quieter and, in addition, they save on commuting time. About half of the employees working in a home office also reported that they could increase their total weekly working time through the home office. This, of course, is also of benefit to their employers.

ZEW Lunch Debate in Brussels – Familiar Obstacles and New Approaches in Global Climate Policy

From the end of November until mid-December 2015, representatives from 195 United Nations member states strove to reach a global climate agreement in the French capital. What are the prerequisites of successful climate negotiations? How can research findings support policy-makers? These were some of the topics addressed at the ZEW Lunch Debate “The Road to Paris: Towards a Fair and Effective Climate Agreement?” at the Representation of the State of Baden-Württemberg to the EU in Brussels on November 18, 2015.

About 60 invited guests, including representatives of the European Parliament and the Commission, as well as participants from the spheres of academia, industry and civil society attended the event. Dr. Oliver Schenker, environmental economist at ZEW, outlined the fundamental problems facing international climate policy: the fact that countries that contribute nothing to climate protection benefit from the efforts of others, known as the “free rider problem”, as well as the unequal distribution of the negative effects of climate change. Jos Delbeke, PhD, Director-General of the European Commission’s DG for Climate Action, gave an overview of the Europeans’ role at the conference. “The most important story we can tell to the world in Paris is: The EU has been decoupling its emissions from growth. There is no conflict between economic growth and bringing down emissions.” The panel discussion chaired by Clemens Fuest was opened by



The panel discussed COP 21 (from left): ZEW environmental economist Dr. Oliver Schenker, philosopher Professor Rudolf Schüßler, Director-General Jos Delbeke, and ZEW President Professor Clemens Fuest / Photo: Felix Kindermann

Rudolf Schüßler, professor of philosophy at the University of Bayreuth, who reflected on perceptions of fairness. “The perception of an outcome and of the negotiating process is very important to reach a stable agreement,” he said. “We should be aware that perceptions of justice are important, and justice only exists in the plural”. The subsequent debate involving the audience raised further issues which emphasized just how much is expected from the UN Climate Change Conference.

The European Monetary Union Requires More Private Investor Liability

The eurozone is facing fundamental problems: the fiscal policy executed in the euro area lacks adequate democratic legitimisation. In addition, there is no viable procedure to effectively tackle the sovereign debt crisis in Europe. As ZEW President Clemens Fuest put it at his lecture within the “First-Hand Information on Economic Policy” series at ZEW on October 19, 2015, “the European Monetary Union is standing at a crossroads”.

A well-designed fiscal regime that guarantees controls and liability is much needed, Fuest explained. The eurozone member states need to clarify what their institutional architecture should look like in the future. “It is important to pursue a joint approach to fiscal policy,” said Clemens Fuest, “since there is, as of now, no effective control of national budgetary discipline. The case of Greece has made this very clear.” The ECB’s “Outright Monetary Transactions” programme has proclaimed a policy of joint liability, thereby creating an incentive for heavily indebted countries to believe that “budgetary discipline doesn’t pay.”

Fuest put forward a “minimally invasive proposal” to improve fiscal discipline, which he had developed together with ZEW researchers: a debt repayment pact in the form of “accountability bonds” – junior bonds, which are the first to default in the event of a crisis. Accountability bonds hold governments accountable for their fiscal policy. If a country’s deficit level exceeds the threshold of 60 per cent of GDP, it would face higher interest

rates resulting in higher costs, which it would be obliged to bear on its own. “It is uncomfortable for governments to issue these bonds,” said Fuest. But why should member states agree to introduce accountability bonds, given the ECB’s “carte blanche” policy? “Obviously, heavily indebted countries would have to be bought into this model,” said Fuest. “But I am convinced that there would be a market for accountability bonds.”



Clemens Fuest spoke about the lack of fiscal discipline in the eurozone at ZEW.

Seventh ReCapNet Conference at ZEW on Real Estate Markets and Macroeconomic Stability

What exactly were the reasons for the US mortgage and real estate crisis? Has the Federal Reserve Bank's (FED) unconventional monetary policy succeeded in restoring private investors' confidence in the US real estate market? This was one of several issues discussed by about 30 international participants at the seventh annual conference of the Leibniz Network "Real Estate Markets and Capital Markets" (ReCapNet). The conference took place at ZEW in Mannheim on November 6 and 7, 2015. The main theme of this year's conference was the link between real estate, financial stability and the macroeconomy. In 14 lectures, international researchers presented hypotheses and findings on the links between real estate markets, the granting of credit and macroeconomic stability. Another point of discussion were the economic effects of "macroprudential policies", that is, policies that comprehensively identify, assess and contain risks for the entire financial system.

In his keynote speech, Kevin Lansing, economist at the Federal Reserve Bank in San Francisco, analysed the boom-and-bust-cycle of the US housing market, which is comparable to a speculative bubble, by means of a theoretical asset pricing model. He stressed the role of private home buyers' expectations formation: When house prices were reaching all-time highs, buyers' expectations of returns were unrealistically optimistic, since they were guided by the price increases in the preceding years. Considered in isolation, the permanently low level of mortgage rates – as can be observed in Germany at the moment – proved inadequate to explain the boom-bust-cycle.



Participants of the seventh ReCapNet Annual Conference, which took place at ZEW in November 2015.

The ReCapNet Conference once again offered researchers an excellent platform for exchange in the fields of real estate and financial market research. During their two-day stay in Mannheim, the international guests and economists from the "International Finance and Financial Management" Research Department at the Centre for European Economic Research had the chance to establish networks and share knowledge in various discussion rounds. The eighth ReCapNet Conference is scheduled for autumn 2016 at ZEW.

Second International MaTax Annual Conference at ZEW

The main topic addressed by the Leibniz ScienceCampus "Mannheim Taxation" (MaTax) is the design of a sustainable tax system which can adapt to and meet future economic and societal challenges on the national, European, and global level. Together with ZEW and the University of Mannheim, MaTax hosted the second international annual conference on taxation research on October 1 and 2, 2015. Professor Mihir Desai from Harvard Business



Professor Mihir Desai discussed international tax competition at ZEW.

School gave participants food for thought with his keynote lecture entitled "The Past, Present and Future of International Tax. Who's Competing and What for?"

Drawing on a number of informative examples, Professor Desai explained why public interest in competitiveness has increased and how foreign direct investment, as well as current developments in tax policy, are perceived by the public. Harvard professor Desai went on to describe how firms and states interact, and explained the role played by shareholder structures, the labour market, management culture, and politics.

In ten parallel sessions, around 70 participants discussed the latest results from empirical and theoretical taxation research. The research papers covered the areas of corporate taxation, as well as personal taxation and tax law. In total, the second MaTax annual conference offered 32 presentations.

In his introductory speech, ZEW President Professor Clemens Fuest praised the successful establishment of the ScienceCampus and the productivity of MaTax researchers. At the end of the conference, Professor Spengel from the University of Mannheim wished the participants farewell and thanked the Fritz Thyssen Foundation for their financial support.

Minister Launches Field Laboratory to Study Integration of Refugees

Baden-Württemberg's Minister of Science, Research and the Arts, Theresia Bauer, visited the Heidelberg University of Education (PH) on November 16 to give her personal seal of approval to the "Field Laboratory Asylum in the Rhine-Neckar region". The cooperation project between Heidelberg PH, ZEW, and a number of local partners addresses the question of how to best achieve social and economic integration of refugees in the cities of Heidelberg, Sinsheim and Wiesloch.

"The field lab launched here today could not be more relevant. The question how asylum seekers can be integrated into our society and into our labour market is one of the key challenges which we will face in the very near future," emphasised Minister Bauer. Professor Holger Bonin (ZEW) and Professor Anne Berkemeier (PH) introduced the project to representatives from the areas of research, adult education, charity, civic organisations, schools, and the local municipalities involved. The specific research ques-

tions addressed have been developed in exchange with local decision-makers and practitioners who are engaged in support of asylum seekers.

Various sub-projects focus on a range of pressing issues: How do skills and competencies of refugees develop from arrival, and what kind of support can enhance employability? How can language learning be effectively linked to teaching of vocational skills? How to support and make the most productive use of the great number of volunteers?

The "Field Laboratory Asylum" is funded by the Baden-Württemberg Ministry of Science, Research and the Arts as part of the "Urban Field Lab" programme. In the second round of tenders for projects within this programme, the project has been granted total funding of 1.1 million euros. Alongside research activities, the project aims to provide platforms for exchange with practitioners and citizens. Further information at www.reallabor-asyl.de

ZEW Awarded Title for Equal Opportunities at Work

ZEW has been granted the official title "TOTAL E-QUALITY" for the first time. The award recognises employers who are particularly committed to ensuring equal opportunities for men and women in the workplace. The title acknowledges ZEW as an institute that sets a good example in the reconciliation of work and family life. The award, presented in Hamburg by the TOTAL E-QUALITY association, honours economic, scientific and administrative organisations that make a sustainable contribution to ensuring equal opportunities.

"The TOTAL E-QUALITY title proves that equal opportunities have already been a reality at our institute for many years," says Thomas Kohl, ZEW's Director of Business and Administration. "At ZEW we attach great importance to ensuring that women have access to the same excellent career opportunities as men, and also to reconciling career and family life." ZEW also prioritises fair recruitment and development practices, promotes cooperative behaviour in the workplace, and acknowledges equal opportunities in its corporate principles.

The jury praised ZEW's commitment to equal opportunities: "The proportion of women among ZEW's research staff, doctoral candidates and postdocs could be kept at above 30 per cent across all levels of qualification. This is an impressive result and shows the accomplishments of an exemplary career and staff development policy."



ZEW human resources officer Katrin Schindler with the TOTAL E-QUALITY certificate

Collaboration Between ZEW and Chinese Institutions Intensifies

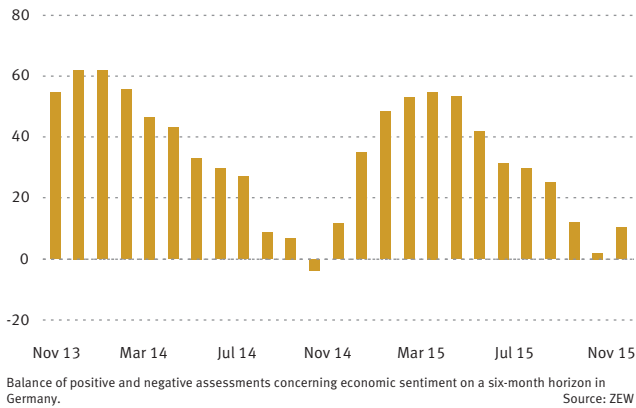


Thomas Kohl (ZEW) in the city of Taicang in East China together with Minister-President Kretschmann and Minister Bauer (f.l.t.r.).

ZEW's Director of Business and Administration, Thomas Kohl, was part of a delegation of 120 representatives from the fields of politics, business and academia to China, following an invitation by the State of Baden-Württemberg. During the delegation's visit to China, a cooperation agreement was signed between the Centre for European Economic Research (ZEW) and the University of International Business and Economics (UIBE) in Beijing.

The agreement was signed in the presence of Baden-Württemberg's Minister-President Winfried Kretschmann, as well as the Minister of Finance and Economics, Dr. Nils Schmid, and the Minister of Science, Research and the Arts, Theresia Bauer. The ceremony marked the beginning of a study programme on automotive industry topics. Also involved in this project is Nürtingen-Geislingen University of Applied Sciences (HfWU). "The signing of this agreement will further intensify the cooperation of ZEW with Chinese partners", said Thomas Kohl.

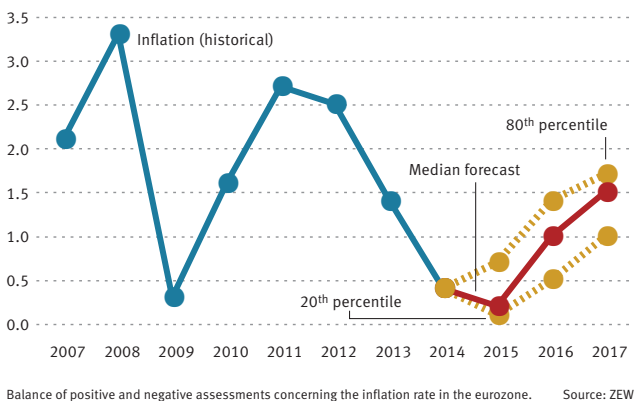
ZEW Financial Market Test November 2015



Germany: Economic Outlook Improves

The ZEW Indicator of Economic Sentiment for Germany improved in November 2015. Gaining 8.5 points compared to the previous month, the index stands at 10.4 points. The indicator improved for the first time following seven consecutive declines. Between March and October, the indicator had been decreasing by 52.9 points. Increasing consumption figures in Germany, the weak euro, and ongoing recovery in the United States are likely the main drivers of the more optimistic expectations. The terror attacks in Paris, which happened on November 13, just before the end of the survey period, had no noticeable impact on ZEW's indicator.

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Eurozone: Inflation Expectations Revised

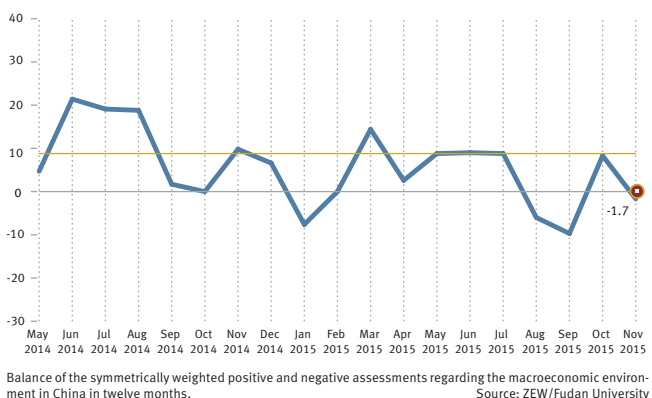
A quarterly special question within the ZEW financial market test surveys financial market experts in regard to their expectations concerning the inflation development in the euro area. Compared to the results of the special question addressing the same topic in August 2015, experts have revised their inflation forecasts for the current and the coming year downward by 0.3 and 0.2 per cent, respectively. The current median forecasts predict an inflation rate of 0.2 per cent in 2015 and 1.0 per cent in 2016. Financial Market experts did not revise their expectations for 2017 though. On average, they continue to forecast an inflation rate of 1.5 per cent in the euro area in 2017.

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CHINA ECONOMIC PANEL (CEP) INDICATOR

Economic Expectations for China Characterised by Uncertainty

Expectations for the Chinese economy considerably worsened in November 2015. The CEP Indicator, which reflects the expectations of international financial market experts regarding China's



macroeconomic development over the coming twelve months, has deteriorated in the current survey period (November 9 – 25, 2015) to a value of minus 1.7 points. On the whole, expectations for the Chinese economy show signs of increased uncertainty. This is reflected in the indicator's volatility over the last few months; in September the CEP indicator had a value of minus 9.7 points, it returned to positive territory in October, achieving a value of 8.3 points, before falling once again to minus 1.7 points in November. Forecast concerning the Chinese GDP remain unaffected by fluctuations in the expectations indicator, and instead clearly reflect the five-year plan of the Chinese government. For 2015, GDP is predicted to total 6.8 per cent, a slightly lower value than in the previous month. For 2016, GDP expectations remain unchanged at 6.6 per cent. The expected inflation rate falls to 1.6 per cent within the next three months. A price increase of 1.9 per cent is predicted for the coming twelve months.

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A Wave of Immigration in Europe: Brussels Needs to Respond

Germany is currently experiencing a major wave of immigration. Over one million migrants have arrived in this year, and next year could see a similar number. What are the economic consequences of immigration and

how should political leaders respond in Germany and Europe?

First of all, it is important to distinguish between two reasons for migration: first, to escape war and political persecution, and second, emigration for economic reasons. Individuals who are persecuted in their homelands have a legal right to seek asylum in Germany. This does not relate to the question whether Germany can gain economic benefits from immigration. The aim is to help these individuals, even if it costs money. At the same time, it is clear that even if the right to asylum is not defined by quantitative limits, the practical possibilities for absorption are nevertheless limited.

The right to asylum is not designed to address immigrants motivated by economic reasons. For these individuals, there are other legal options along with other limitations for immigration to Germany. In regulating this type of immigration, it is completely customary for the interests of the host nation to play a key role. When people emigrate because they hope to achieve higher working income in other countries, this results in increased prosperity for both the immigrants and the host country, since its labour force is more effectively utilised.

It is a different story when social transfers and other public services are the main reason for migration. In this case, emigration is subsidised and the host country experiences an economic disadvantage. In Germany, the government provides a broad range of public services in addition to social security, ranging from transport infrastructure to schools and kindergartens. In order for migration to Germany to prove economically beneficial, immigrants have to pay taxes and fees that are as high, on average, as those paid by the existing population – perhaps not right away, but in the long term. In order to achieve this, Germa-

ny needs to insist, first off, that economically motivated immigrants have a job, and second, that they arrive with the necessary occupational skills to earn an adequate income.

When it comes to asylum seekers, the question of occupational skills plays no role, yet for this group as well, the goal should be to integrate them into the labour market as quickly as possible. For immigrants with low skill levels, the guaranteed minimum wage can become an obstacle. However, waiving the minimum wage for migrants is a risky move, as it undercuts domestic job applicants. Therefore, it is important not to go beyond temporary exceptions of the kind that are in place concerning the long-term unemployed. What would be more effective would be a general decrease in the minimum wage level or, at least, avoiding any increases.

In practice, differentiating between politically persecuted refugees and economically motivated migrants is just as difficult as controlling immigration overall. When hundreds of thousands of persons migrate to the EU without visas, and when many of them end up camping under disastrous conditions in “transit countries” such as Croatia or Slovenia, it becomes virtually impossible to implement a rational immigration policy. For this reason, it is critical that political leaders do a better job of regulating migration at the European level and also address its underlying causes. This starts out with improving the living conditions in refugee camps in Turkey and Jordan, and taking steps to end the civil war in Syria.

In addition, the EU members urgently need to improve coordination of their asylum policies and distribute the burdens of acceptance among themselves in a spirit of solidarity. Until now, European nations have placed national egotism and solo efforts above their common interests. However, it is not too late to turn in the direction of a common European policy.

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