

Research Findings

Country-by-Country Reporting

Politico-Economic Analysis

Rebound Effects and Energy Efficiency

MaTax ScienceCampus

ZEW Hosts International Opening Conference

Raw Material Consumption Continues to Rise Despite Greater Efficiency

To identify the real drivers behind the world's rising level of resource consumption, researchers at ZEW examined how economic growth, structural change, and efficiency affect material use. The authors relied on index decomposition analysis for their study.

In 1995, industries worldwide extracted 48 billion tons of raw materials from nature for production or direct consumption. This number rose to 69 billion tons by 2008. If we consider unused extraction such as overburden from mining, we must add another 41 billion tons to this total. China's case is particularly striking. In 2008 the People's Republic supplied 26 per cent of worldwide material extraction.

Material use is closely tied to global and local environmental phenomena, from climate change and deforestation to losses in biodiversity. It is not by accident that the European Union

made resource efficiency a core part of its Europe 2020 strategy.

To find out which factors are primarily responsible for the world's rising consumption of resources, ZEW researchers separated the influence that economic growth, structural change, and efficiency advancements exerted on material use from 1995 to 2008. The study considered both material use globally and in 40 countries individually.

For the period under investigation researchers found that, globally, industry has shifted towards sectors that consume fewer materials and use them more efficiently. Each of these developments reduced demand for raw materials in 2008 by 15 per cent compared to 1995 levels. But this decrease was unable to offset the upsurge in raw material consumption that resulted from economic growth and the relocation of manufacturing to countries with more material-intensive production technologies.

The increase of economic output from 1995 to 2008 boosted raw material use by almost 60 per cent.

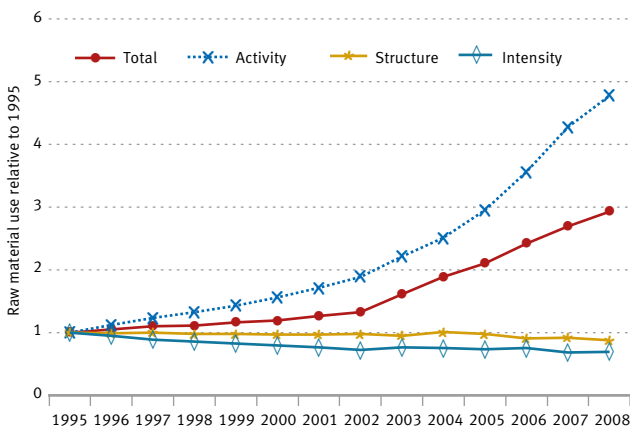
The study revealed substantial heterogeneity between countries and sectors. For instance, raw material use rose considerably in material-intensive sectors such as the mining, chemical, or metal industries.

Raw Material Use by Country Group

ZEW researchers assigned each of the 40 countries under examination to one of four country groups based on economic growth and raw material use. The *Best Performers* group consists of countries with above-average growth of output and below-average growth of raw material use. Most *Best Performers* are Eastern European countries. These countries benefited from structural change and advances to production efficiency from 1995 to 2008.

For countries of the *Medium I* group, both economic output and material use grew above the average. Spearheading this group is China, which in 2008 used three times as many raw materials in production as in 1995 (see the figure below). China's raw material use would have almost quintupled if it had not also undergone moderate structural change and increased production efficiency.

DEVELOPMENT OF RAW MATERIAL USE IN CHINA



The figure indicates how the use of raw materials in China has changed since 1995. The red line ("total") shows overall change. The dotted blue line ("activity") represents the effects of production growth, showing how use would have changed if structural change or advancements in efficiency had not occurred. The yellow line ("structure") indicates the structural shift to less material-intensive industries. The blue line ("intensity") shows the effects from gains in material efficiency.

The *Medium II* group comprises countries whose economic output and material use grew below the average. This group mostly includes developed economies such as the United States or Japan. Germany is also part of this group. Moderate economic growth in these countries prevented a substantial increase in raw material use. Structural change and greater efficiency in production also had a positive effect. In some nations, including Germany, raw material use in 2008 was less than it was in 1995, while at the same time production grew.



For countries in the *Worst Countries* group, economic growth was below average but raw material use rose above the average. This group is quite diverse, including newly industrialised countries such as Brazil and raw materials exporters such as Australia, but also some European states such as Italy and Finland.

Study Data Covers 85 Per Cent of Global Production

ZEW researchers employed index decomposition analysis for their study. Using this method, they identified three factors – economic growth, structural change, and advancements in material efficiency – that affected total raw material consumption. In some countries, especially Russia and Hungary, consumption remained constant despite substantial economic growth. While Hungary benefited from structural change and a move to industries requiring fewer materials, the decisive factor in Russia was improved material efficiency. The analysis was applied both to specific countries and to overall results. The global viewpoint enabled the researchers to identify an additional effect: countries that are relatively material-intensive, such as China, have gained significant importance. So despite the worldwide trend towards less material-intensive sectors and improved material efficiency, material consumption has risen almost uniformly with economic growth. There is no difference between the trajectories of raw material consumption and economic growth.

The researchers exploited the World Input Output Database (WIOD), which contains input-output tables for 40 economies (27 EU states and 13 other major economies, including China and the United States) and 35 sectors in agriculture, industry, and services from 1995 to 2011. Additionally, the database contains environmental and socioeconomic data. In 2008 these countries were responsible for 85 per cent of the world's total gross domestic product and some 75 per cent of its raw material consumption. The WIOD arose out of the EU's Seventh Framework Programme for Research and Technological Development and has been available since 2012. Eleven European universities and research institutes, including ZEW, created the database.

The study is available for download at:

www.zew.de/publikation7442

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Country-by-Country Reporting not Suitable to Combat International Profit Shifting

Multinational corporations exploit tax havens and loopholes in international law to reduce their tax burdens. A new ZEW study investigates whether country-by-country reporting – designed to tighten disclosure requirements – can help prevent tax avoidance.

The complex tax planning strategies of highly profitable US corporations have become the subject of intense debate, both in public forums and in tax policy circles. One widely talked about subject is how companies like Google, Apple, and Amazon achieve effective tax rates of less than five per cent on income earned outside the United States. However, no convincing definition currently exists for what constitutes aggressive tax planning. What is indisputable is that aggressive tax planning – unlike tax evasion – does not violate existing law; rather, it exploits lax tax regimes and loopholes in international tax law. To address this issue, the OECD countries and the EU are currently considering specific countermeasures. One measure under discussion is the introduction of what is known as country-by-country reporting (CbCR), an instrument intended to tighten disclosure rules for multinational companies.

The basic idea of CbCR is that multinational corporations should disclose certain key figures – revenue, earnings, expenditures, profits, taxes paid – for each country in which they operate. The OECD has proposed integrating CbCR into transfer pricing documentations. More recently, other voices have called for making CbCR a mandatory part of annual financial statements.

A recent ZEW study finds that CbCR is likely to have no effect on the tax planning efforts of multinational companies.

Benefits and Costs of Country-by-Country Reporting

The introduction of CbCR is intended to ensure that companies pay their fair share of taxes relative to their economic activity in a country. Proponents of CbCR argue that customers who learn about aggressive tax planning strategies will put pressure on multinational corporations, forcing them to revise their practices. It is also believed that CbCR will give fiscal authorities a

better overview of company-internal transactions and how functions and tax payments are distributed across countries, allowing them to identify tax loopholes more quickly and better judge the appropriateness of transfer prices.

The benefits of disclosure, however, have not been proven empirically and lack a theoretical foundation. Generally, it is impossible for multinational companies to provide a clear-cut determination of their income sources, which makes it very difficult to partition profits and tax payments in a fair manner. Moreover, tax-planning strategies are mostly not illegal, so it is doubtful whether disclosure of fiscal data will change tax-planning practice. The additional benefits for fiscal authorities are likely to be limited, as many of the tax planning strategies and loopholes are already well-known. CbCR could, however, provide information about which companies should be subject to closer scrutiny. This would increase the efficiency of tax administration, but this could also be achieved by exclusively disclosing data to fiscal authorities instead of public disclosure.

The use of CbCR is questionable, whereas the costs of implementation are indisputable, and considerable: the development of independent reporting standards, auditing, and explanations of the disclosed information for the consumers would be necessary. Of even greater import are the implicit costs of CbCR: the disclosure of sensitive information and the inherent competitive disadvantage, the violation of the fiscal secrecy principle, and the danger of false accusations that result from the general public's lack of expertise. Another potential implicit cost of CbCR is associated with the danger of double taxation even in the absence of public disclosure: Knowing all tax payments on country-by-country basis could make tax authorities raise their own claims towards companies.

To sum up, the costs of CbCR are likely to exceed its benefits. Accordingly, CbCR cannot be seen as an appropriate measure to fight aggressive tax planning.


The study (ZEW Discussion Paper No. 14-015) is available for download at www.zew.de/publikation7343.

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Direct rebound effects arise when improved efficiency in the supply of a commodity or service lowers its price, leading to greater consumption.

Rebound Effects Diminish Gains from Increased Energy Efficiency

Global warming and the finite supply of fossil fuels are major challenges facing society. It is widely assumed that the best path to climate protection, resource conservation, and reliable energy sources runs through increased energy efficiency. But this assumption overlooks the possibility of “rebound effects”, which can offset projected energy savings.

Energy efficiency is now a priority in Europe. The European Union (EU) aims at a 20 per cent improvement in efficiency by 2020, and Germany’s energy policy seeks to increase energy efficiency in all end-user sectors by an average of 2.1 per cent per year. But what does improved energy efficiency really accomplish? The energy savings promised from such measures mostly arise from *ceteris paribus* assumptions: theoretical energy use is calculated before and after the increase in efficiency, all other conditions being equal. But this calculation does not take into account how increased efficiency may change user behaviour. Relative prices change for consumers and firms when they benefit from improved efficiency, leading to adjustments in how they use energy. As a result, actual energy savings can be much less than would otherwise be expected. Economists refer to this phenomenon as “rebound effect”.

The Rebound Effect and its Mechanisms

Rebounds occur when consumers use more energy because of the lowered costs of using additional energy, keeping energy demand higher than expected. Economists distinguish between three types of rebounds: direct, indirect, and macroeconomic.

Direct rebound effects, also known as price effects, arise when improved efficiency in the supply of a commodity or ser-

vice lowers its price, leading to greater consumption. Let’s say that increased energy efficiency for an automobile reduces its fuel consumption over 100 kilometres. This sinks fuel costs and makes driving less expensive. It also provides incentives for drivers to use the economical vehicle more often. But even if the added kilometres travelled are more fuel-efficient, the fuel used for those added kilometres reduces overall fuel savings, leading to a rebound effect.

Indirect rebound is an effect of extra income. The lowered costs that result from increased efficiency raises the available income of end consumers, encouraging a general expansion of consumption. The supply of goods and services requires more energy and resources – creating an indirect rebound. Take our example again. The money saved on fuel with a more efficient automobile can be used, say, to buy a plane ticket. But the additional energy consumed in a flight reduces the net energy savings created by using a more efficient automobile.

Consequences for Several Markets

In a free economy, price and supply are closely linked through trade between markets. This means that changes in one market can lead to price and supply adjustments in another. Such equilibrium effects can also be triggered by improved efficiency, creating a macroeconomic rebound effect. For instance, a vehicle fleet’s increased energy efficiency initially reduces demand for fuel. If the fuel supply remains constant in the short term, fuel prices will drop, bringing benefits for other consumers who rely on fuel. But this also means that more fuel will be consumed – for trucks, say – reducing the net energy savings provided by increased efficiency.

In reality all three rebound effects occur at the same time. But since the individual effects are mutually dependent, they cannot just be added when determining the actual effectiveness of improved energy efficiency. An analysis is needed that considers all channels of influence.

Much research in recent years has focused on the rebound effect, especially in the areas of private transportation and space heating. Depending on the sector, the empirical results vary greatly, as the table below illustrates.

Implications for a Rational Energy and Climate Policy

Governments must factor in rebound effects to create rational energy and climate policies. In the best case, the right kind of incentives for improving energy efficiency can prevent rebound effects from occurring in the first place. For instance, a tax could increase the costs of energy services, thereby creating incentives to save power, without direct and indirect rebound effects arising. A certificate trading system, which regulates the absolute quantity of power input, is another way to preclude rebounds. But what needs to be regulated is not the price or the quantity of energy but the negative externalities – usually the greenhouse gases and pollutants produced in the power generation process.

Energy efficiency standards are very popular among politicians. But economists frequently criticise such standards for not being cost-efficient: the same energy savings can be achieved with market instruments at lower economic cost. The rebound effect also raises doubts about the effectiveness of energy efficiency standards – the main argument advanced by its proponents. We should not assume that standards will disappear from energy policy in the near future, though even in regulative law, policies must try to address the rebound effect rather than ignoring it.

Possible rebound effects must also be considered when judging energy efficiency policies. Their inclusion provides a

more realistic ex-ante assessment of actual savings. In the extreme case, measures that at first seem advantageous create more costs than benefits due to rebound effects, undercutting their utility.

Because the rebound effect is usually caused by unconscious changes in end consumer behaviour, additional information for consumers, alongside increasing energy efficiency, may help in keeping consumer behaviour constant despite the benefits that result from increased efficiency. In particular, a reliable method for quantifying the rebound effect must be found. But from all the research findings currently available, we can conclude that policies aimed at increasing energy efficiency without considering the rebound effect will miss their mark.

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ZEW Rebound Project: A number of regulations aim to achieve energy and climate policy goals through mandatory increases in energy efficiency. However, in reality the resulting energy savings can be lower than those expected according to calculations by engineers. Possible explanations for this are rebound effects that stem from changes in patterns of behaviour. The goal of the REBOUND project, commissioned by the German Federal Ministry of Education and Research (BMBF), is to develop a better understanding of rebound effects. The project pursues an interdisciplinary approach that takes into account both economic and social aspects of the rebound effect. The project partners of the Centre for European Economic Studies (ZEW) are the Fraunhofer Institute for Systems and Innovation Research in Karlsruhe, the Center for Interdisciplinary Risk and Innovation Studies at the University of Stuttgart, and Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI) in Essen.

<http://kooperationen.zew.de/en/rebound/home.html>

REBOUND EFFECTS FOR VARIOUS END-USER SECTORS

Study	Area of efficiency increase	Country	Identified rebound effect	Comments
Dubin and McFadden (1984)	Space heating	USA	25–31%	Direct rebound only
Dubin et al. (1986)	Space heating and air conditioning	USA	8–12%	Direct rebound only
Haas and Biermayr (2000)	Space heating	Austria	20–30%	Direct rebound only
Nesbakken (2001)	Space heating	Norway	15–55%	Direct rebound only
Frondel et al. (2008)	Private vehicles	Germany	57–67 %	Direct rebound only, via price elasticity of demand
Graham and Glaister (2002)	Private automobiles	Various	Short term up to 25%, long term up to 77%	Direct rebound only, price elasticity of demand
Koesler (2013)	Private automobiles	Germany	49%	Macroeconomic rebound for Germany
Madlener and Hauertmann (2011)	Space heating	Germany	12–49%	Direct rebound only
Turner (2009)	All manufacturing sectors	UK	25–30% (short term) -2–17% (short term)	Macroeconomic rebound for the United Kingdom
West (2004)	Private automobiles	USA	87%	Direct rebound only, price elasticity of demand

Q&A: On the European Energy Union Proposal

Eastern Europe Stands to Benefit most from a European Energy Union

In the face of the crisis in the Ukraine, many countries – particularly Poland – have been pushing for a common European energy policy to lower their dependence on Russian energy imports. Environmental economist Andreas Löschel gauges the chances and risks of an energy union.

What do you think of the proposal that the EU negotiate energy agreements with Russia on natural gas deliveries to individual EU countries? Would Germany profit from such an arrangement?

Collectively, Europe has more bargaining power over Russia than individual EU Member States do. But we should also keep in mind that competing companies are the ones who make gas deals with Russia. The EU can support companies through joint negotiations with gas suppliers, but it cannot jeopardise competition within Europe. Only if the EU manages to pull off this balancing act can a common energy policy benefit Europe, and Germany, too.

Europe already has a common energy policy. Wouldn't it be logical to communitise energy policy for all members, or does a European Energy Union run the risk of subordinating climate policy targets to economic interests?

There is broad agreement between EU Member States in the political goal of becoming more independent from certain supplier countries. But there is no agreement about how to reach it. Some believe that more renewable energy will reduce dependence in the short term. Other countries, such as Poland, favour increased utilisation of domestic coal and unconventional natural gas. There is a trade-off between climate policy ambitions and

the avoidance of political risks. This weighing of options is easier on the EU level than if each Member State goes its own way.

How would a European Energy Union need to be designed so that it can actually reach its goal – that is, greater independence from Russia's natural gas and other energy imports?

From an economic perspective, there is no inherent benefit to achieving greater independence from energy imports. But there is a need – especially on account of the political risks in individual countries – to increase the number of supplier countries. Dependence on certain supplier countries is far less troublesome when the dependence is mutual, as would occur if the EU stood closer together when negotiating with energy exporters. As far as natural gas goes, the key is not only to diversify supplier countries, but also to choose the right supply routes and transit paths. This was observable in the creation of the Nord Stream Pipeline after the natural gas crises of 2006 and 2009.

Which countries would benefit most from a common energy policy?

Currently, Eastern European countries stand to benefit most from collective bargaining and a better network within the EU. These countries are very dependent on Russia's natural gas and have few alternative sources from which to draw. An energy union is likely to augment security of supply as well as lower prices. Right now, the prices for natural gas vary greatly from EU Member State to Member State. Companies in Germany likely pay less for natural gas from Russia than companies in Eastern Europe do.



Professor Andreas Löschel

is a research associate at ZEW. He led the ZEW Research Department “Environmental and Resource Economics, Environmental Management” from 2007 to June of 2014. Since July of 2014 he has been Professor of Microeconomics with a focus on energy and resource economics at the University of Münster. Löschel was a lead author of

the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). He is also chairman of the commission of experts charged by the German federal government to regularly monitor Germany's Energiewende.

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Distinguished speakers at the MaTax opening conference (from left): Professor Christoph Spengel (University of Mannheim), Professor Michael Schmitt (Baden-Württemberg Ministry of Finance), Professor Clemens Fuest (ZEW), Professor Nadine Riedel (University of Bochum), Dr. Wolfgang Haas (BASF SE)

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Competence
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ZEW Hosts International Conference to Celebrate Launch of the MaTax ScienceCampus

To celebrate the launch of the new MaTax ScienceCampus, an innovative platform for collaborative and interdisciplinary research on taxation issues, ZEW welcomed some 80 domestic and foreign researchers to Mannheim on 17–18 September. Following an intensive two-day conference that included 18 presentations on various taxation topics, the MaTax ScienceCampus was declared officially opened in a ceremony attended by luminaries such as Theresia Bauer, Baden-Württemberg's Minister of Science; Professor Matthias Kleiner, the president of the Leibniz Association; as well as Prof. Thorsten Meiser, Vice President in charge of Research and International Relations at the University of Mannheim.

In his opening address, Dr. Friedrich Heinemann, head of the Research Department of Corporate Taxation and Public Finance at ZEW, described the cooperation that has existed for many years between the University of Mannheim and ZEW in the area of taxation research. He also presented the idea behind the MaTax ScienceCampus, emphasizing that it will be a valuable tool for deepening cooperation through interdisciplinary research projects, conferences, and doctoral training. In terms of research, MaTax will focus on how to design a sustainable taxation system that will allow the economic and societal challenges of today and tomorrow to be successfully mastered, Dr. Heinemann said. Dovetailing with this substantive focus, 18 presentations were held at the MaTax conference to present current research findings on a variety of topics, including the effects of taxation on investment, possible options for fundamental tax reform, the determinants of tax policy, the elasticity of taxable income, tax avoidance, and other topics.

A highlight of the conference was the presentation given by Professor Joel Slemrod of the University of Michigan. Slemrod argued that a key challenge in researching tax systems involves

adequately taking into account their dimensions (e.g. tax assessment, incidence, and enforcement) as well as the diverse behavioral reactions they can induce. In highlighting promising approaches in current research work with this focus, Professor Slemrod provided the attendees with valuable inspiration for their own research endeavours.

At the end of the two-day conference, a ceremony was held to officially launch the MaTax ScienceCampus. Professor Clemens Fuest, the president of ZEW, welcomed all guests and gratefully acknowledged the participating institutions for their support. He stressed the quality of the scientific conference and expressed his thanks to all participating researchers and the members of MaTax's scientific board. Theresia Bauer, Baden-Württemberg's Minister of Science, praised ZEW and the University of Mannheim for their initiative in launching a second ScienceCampus

What are the characteristics of a sustainable taxation system that will allow us to master the economic and social challenges of today and tomorrow? This is the central question informing research undertaken at the **MaTax (Mannheim Taxation) ScienceCampus**. Research work at MaTax, a joint project of the Centre for European Economic Research (ZEW) and the University of Mannheim, began on 1 April 2014. MaTax is funded by ZEW, the University of Mannheim, the State of Baden-Württemberg, and the Leibniz Association (to which ZEW belongs). The MaTax ScienceCampus will also cooperate with the Institute for Finance and Tax Law at Heidelberg University. Currently, 15 professors and 60 doctoral and post-doctoral researchers are collaborating within the scope of this new research platform.



Theresia Bauer, Baden-Württemberg's Minister of Science and Research, and Professor Thorsten Meiser, Vice President at the University of Mannheim, attended the MaTax opening conference.

To learn more about research topics, events, and projects within the framework of the MaTax ScienceCampus, visit the website www.matax.eu, or get in touch with the coordinators:

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following the establishment of the MaCCI ScienceCampus, which is devoted to research in innovation policy and the regulation of competition. She also underscored the special contribution that MaTax will make to strengthening Baden-Württemberg's profile as a location for research. MaTax is sure to establish itself as a centre of excellence for research on taxation issues – not just in Europe, but worldwide, Theresia Bauer concluded. Theresia Bauer then yielded the floor to Professor Matthias Kleiner, the president of the Leibniz Association, of which ZEW is a member. Kleiner presented the ScienceCampus concept, and wished all participants the very best in realising their goals for the new research platform. "There was a clear need for a center of excellence on taxation issues," he said, adding that Mannheim is the perfect location for MaTax, as ZEW and the University of Mannheim already possess excellent capabilities in this area. Professor Thorsten Meiser, prorector for research at the University of Mannheim, said he was pleased by the successful launch of MaTax, which will foster greater cooperation between the disciplines of law and economics, as well as between the University of Mannheim and the Centre for European Economic Research.

Following these congratulatory words, the conference was concluded by a panel discussion on the issue of tax avoidance by multinational corporations. The discussion featured Dr. Wolfgang Haas (BASF), Professor Nadine Riedel (Bochum University), Professor Michael Schmitt (Baden-Württemberg Ministry of Finance and Economics), and Professor Christoph Spengel (University of Mannheim). ZEW President Clemens Fuest moderated the discussion, which explored various perspectives and possible solutions.

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MaTax board members at the first annual conference: Clemens Fuest, Christoph Spengel and Friedrich Heinemann (from left)

Up-and-Coming Economists from China Visit ZEW

Fifteen doctoral and post-doctoral researchers from China visited ZEW on August 28, 2014 and obtained information about the research areas of ZEW, career opportunities and the Visiting Researchers Programme. The trip was organised by the German Research Foundation. ZEW President Professor Clemens Fuest welcomed the group at the institute. He gave an overview of the growing cooperation network of ZEW to partners in China, for example Fudan University in Shanghai. Since 2013, researchers from ZEW and Fudan have been collaborating within various projects.

Professor Ernst-Ludwig von Thadden, the President of the University of Mannheim, gave a presentation of the university's doctoral education programmes and the cooperation network to China. ZEW researchers provided insights into day-to-day research work in Germany and exchanged experience with the guests from China.



Ernst-Ludwig von Thadden, University of Mannheim (second row, left), and Clemens Fuest, ZEW (first row, right), welcomed the Chinese economists at ZEW.

MS Wissenschaft Lies at Anchor in Mannheim with ZEW Exhibition Piece

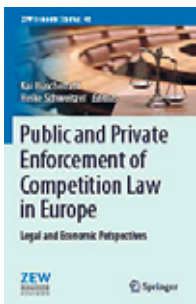


Federal Minister of Education and Research Professor Johanna Wanka and Professor Irene Bertschek (ZEW) on board the MS Wissenschaft.

The MS Wissenschaft laid at anchor in Mannheim from August 4-7, 2014. The "Information and Communication Technologies" (ICT) Research Department of the Centre for European Economic Research (ZEW) contributed an exhibition piece about social media to the installation "Digital unterwegs" (Digital Voyage) on board the former cargo ship. The ZEW researchers have been tackling the question how news is spread across various digital and analogue information channels. The exhibition was dedicated to the digital society and digital networks.

On 5 August ZEW welcomed some 100 guests from the fields of business, politics, and academia on board. Professor Irene Bertschek, head of the ZEW's ICT Research Department, and Professor Martin Przewlaka, Senior Vice President at SAP SE, gave presentations on technology trends and their effects on society.

New Volume in the ZEW Economic Studies Series Published



Edited by Professor Kai Hüschelrath and Professor Heike Schweitzer, the book "Public and Private Enforcement of Competition Law in Europe. Legal and Economic Perspectives", published within the ZEW Economic Studies series (Volume 48), contains a unique collection of articles by lawyers and economists that address a wide range of current topics in the area of competition law enforcement.

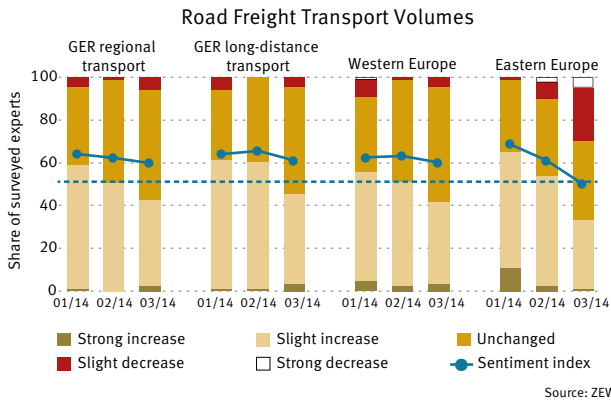
Professor Hüschelrath is head of the "Competition and Regulation" Research Group at ZEW, professor of economics at the

University of Mannheim and coordinator of the Leibniz Science-Campus "Mannheim Centre for Competition and Innovation" (MaCCI). Professor Schweitzer is managing director of the Institute for German and European Economic Law, Competition Law and Regulatory Law at the University of Berlin (FU Berlin) and a Research Associate at ZEW.

The ZEW Economic Studies series is published in cooperation with Springer:

Hüschelrath, Kai/Schweitzer, Heike (eds.): Public and Private Enforcement of Competition Law in Europe. Legal and Economic Perspectives, ZEW Economic Studies Vol. 48, 279 p. ISBN 978-3-662-43974-6.

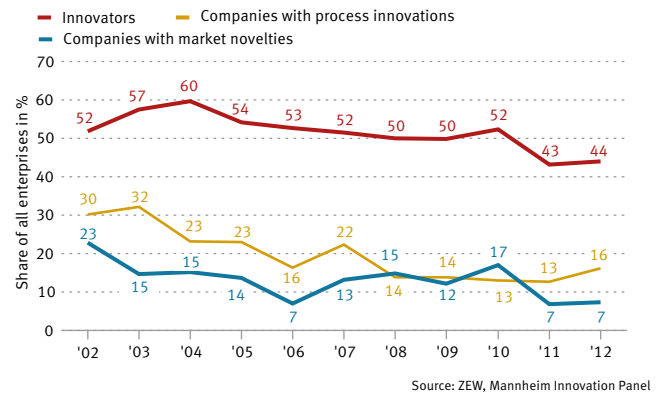
Experts are Losing Their Optimism in the Road Transport Market



Experts are losing their optimism in German and Western European road transport. Even though more than 90 per cent still expect increasing or stable volumes, national transport forecasts have significantly shifted from slightly growing to unchanging. Similar tendencies can be observed for Western European transport and regional transport. The assessment for Eastern Europe is even more pessimistic: Only one third of the experts are expecting increasing freight volumes in the current survey.

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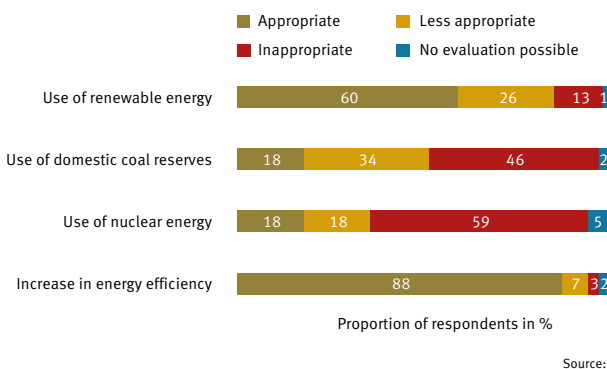
Low Share of Innovative Firms in the Media Sector



The share of innovative firms in the German media sector (printing, publishing, film, broadcasting) remained low in 2012. Only 44 per cent of media service providers introduced product or process innovations. In particular, the share of firms introducing fundamentally new innovations (“market novelties”) was very low with merely seven per cent. 16 per cent of firms implemented process innovations. In 2012 the expenditures on innovation also decreased to 1.6 billion euros (2008: 2.58 billion euros).

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Ensuring Europe’s Security of Energy Supply

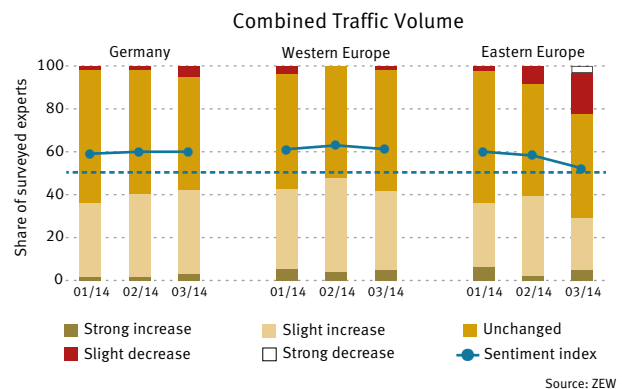


Source: ZEW

Against the backdrop of the Ukraine crisis the EU is striving to reduce its dependency on energy imports. A majority of 88 per cent of the experts participating in the ZEW Energy Barometer survey consider an increase in energy efficiency as the best solution. The use of renewable energy is regarded as an efficient measure by 60 per cent of the experts, and merely 18 per cent consider a more intensive use of domestic coal reserves and an increased use of nuclear energy to be suitable. The ZEW Energy Market Barometer is a biannual survey among 200 energy experts.

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Optimism in Combined Traffic Remains but Has Been Dampened

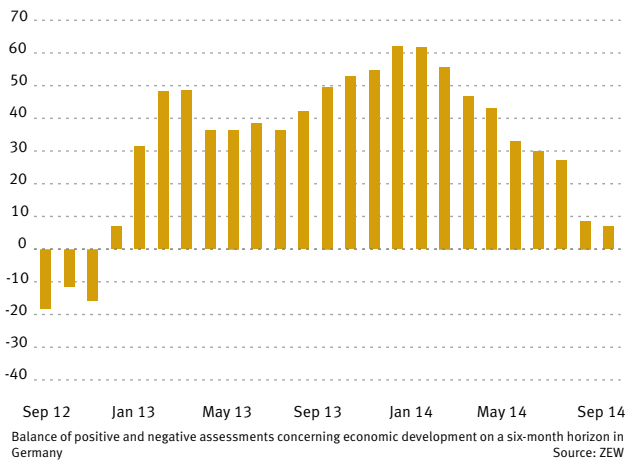


Source: ZEW

Combined traffic forecasts in Germany are still positive. The share of experts who expect a strong or slight increase in volumes has grown to more than 40 per cent. A similar trend, though with a slight downward tendency, can be observed in Western European transport. Expectations for Eastern Europe traffic are clouding. Almost 25 per cent of experts expect decreasing volumes in that area. For the first time since 2009, a considerable share of experts expect volumes to decrease notably. This segment’s sentiment index is hence turning for the worse.

Dr. Martin Achtnicht

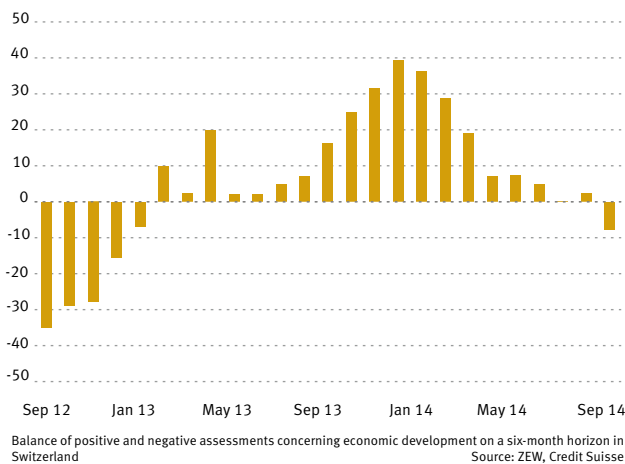
ZEW Financial Market Test September 2014



Germany: Downward Trend Significantly Slowed

After slight losses (minus 1.7 points) in September, the ZEW Indicator of Economic Sentiment for Germany now stands at 6.9 points (long-term average: 24.6 points). The indicator has decreased for the ninth consecutive time. The downward trend of the ZEW Indicator of Economic Sentiment for Germany has slowed significantly. However, the economic climate is still characterised by great uncertainty. The risk of a sanction spiral with Russia continues to exist, and economic activity in the Eurozone remains disappointing. The assessment of the current economic situation in Germany has decreased substantially. The respective indicator has lost 18.9 points and now stands at 25.4 points. The ZEW Indicator of Economic Sentiment is ascertained monthly. Up to 350 financial experts take part in the survey.

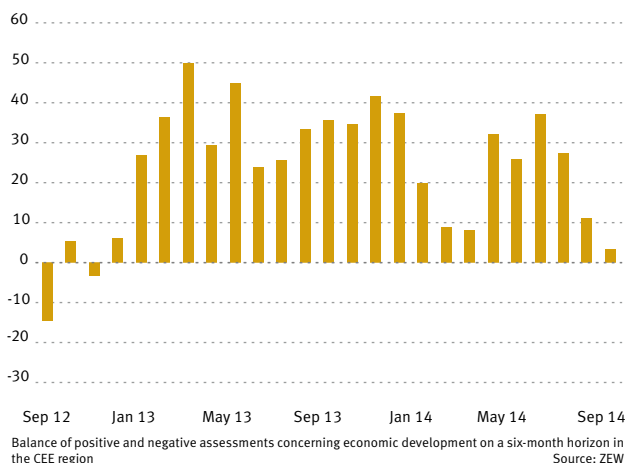
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Switzerland: Economic Expectations Decrease

In September 2014 the economic expectations for Switzerland declined by 10.2 points. The ZEW-CS Indicator now stands at a level of minus 7.7 points. This is its first negative reading since January 2013. The slightly negative level suggests that financial analysts expect Switzerland's economic performance to decline. It is likely that the poor quarterly estimates for the gross domestic product in Q2 issued by the SECO (the State Secretariat for Economic Affairs) at the beginning of September contributed to this decline in expectations. 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. It is calculated monthly by ZEW in cooperation with Credit Suisse (CS), Zurich.

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CEE Region: Slight Decrease to a Balanced Level

In September 2014 economic expectations for Central and Eastern Europe including Turkey (CEE region) slightly decreased. In the current survey the ZEW-Erste Group Bank Economic Sentiment Indicator for the CEE region has lost 7.9 points and now stands at an almost balanced level of 3.3 points. The majority of the survey participants does not expect any changes in the economic conditions of the CEE region over the next six months. The ZEW-Erste Group Bank Economic Sentiment Indicator for Central and Eastern Europe reflects the financial market experts' expectations 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 in Mannheim with the support of Erste Group Bank, Vienna, since 2007.

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Youth Unemployment: Waging an Effective Battle

Some 5.5 million youths under 25 are currently unemployed in the EU. While not a new problem, youth unemployment has become much more acute since the outbreak of the last economic crisis. Across the EU, youth

unemployment jumped from 15.6 per cent in 2008 to 23.5 per cent in 2013. Yet this figure conceals highly divergent trends in individual member states. While youth unemployment fell during this period in Germany from 10.6 per cent to 7.9 per cent, in Italy it rose from 21.3 per cent to 40 per cent, and in Spain from 24.6 per cent to over 55 per cent. Of course, these figures are partially explained by Germany's quick recovery after 2009, in contrast to the persistent negative impacts exerted by the financial and sovereign debt crisis on Spain and Italy. However, differences in national education systems and labour market institutions have also played a role. Clearly, Germany has benefited from its "dual education system", which formally combines hands-on apprenticeships with classroom study. But other factors, such as dismissal protections and the relations between firms and unions, have also contributed to Germany's better performance in this area. Numerous studies have shown that experiencing unemployment has lasting negative impacts on the career development of youths. This is one of several reasons why action is imperative.

Responsibility for fighting youth unemployment primarily resides at the national level in Europe. Nevertheless, the EU is taking action, and has adopted a policy to tackle unemployment known as the Youth Guarantee. Under this programme, member states have been called upon to ensure that all youths who depart from school or become unemployed receive a job offer or opportunity to continue their education within four months. The member states with the highest youth unemployment rates are receiving the most support; a total of six billion euros has been earmarked for the programme. While it is welcome that the EU is addressing this important issue, there is a danger that the Youth Guarantee will be an expensive affair with little in the way of lasting impacts if the specific measures that are

enacted in member states are poorly designed. To avoid this, due consideration must be given to past experience with labour market intervention.

On behalf of the Robert Bosch Foundation, economists at the Centre for European Economic Research recently authored a study that makes policy recommendations for battling youth unemployment in the EU (see <http://www.zew.de/de/publikationen/7520>). The study reflects on past experience and draws attention to country-specific factors while emphasizing five key points:

First, national education systems must better prepare youths for the labour market. The dual education system delivers promising results in this regard, and should be adopted and/or expanded in other countries. Second, it is more effective to invest money in job counselling and placement services, as well as to provide subsidies for hiring, than to institute public employment programmes. In certain cases, the latter may even be counterproductive. Third, it is necessary to eliminate barriers to hiring, such as excessively high starting salaries and the division of the labour market into jobs with high layoff protection and short-term positions without any protection at all. Fourth, cross-border mobility should be promoted. It is a welcome development that increasing numbers of Spanish, Italian, and Greek youths have been coming to Germany to work or pursue their educations. Yet the numbers could be much higher. Fifth, it is important that firms, unions, government authorities, as well as youths adopt and monitor the implementation of their own plans for overcoming unemployment.

The commitment of the EU to solving this problem should not end with the banners and trumpets of the announced Youth Guarantee. We must monitor the national programmes that are enacted to fight youth unemployment. And if deficits in individual programmes are revealed, then we should make calls for reform to ensure that EU funding is spent wisely and effectively.

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