

Environmentally Friendly Process Innovations Encourage Hiring of New Employees

While the introduction of new environmental technologies offers the promise of job creation, strict environmental policies can also lead to job losses. Yet which of these effects predominates is unclear. A new study conducted by ZEW examines this question empirically using data from the Mannheim Innovation Panel (MIP).



Today, many firms have already implemented process innovations that have led to increased energy and material efficiency.

The ZEW study (Discussion Paper No 12-006) analyses the impact of environmentally friendly product and process innovations on the hiring behaviour of firms. No conclusions were drawn in the study about the overall macroeconomic effects of environmental innovations. The study distinguishes between different areas in which environmental innovations are implemented – including, for example, innovations in recycling, energy and resource efficiency, and the minimization of soil contamination.

So-called “end-of-pipe technologies” are environmentally friendly innovations that reduce the impact of production processes. Examples include air and water

filters and catalytic converters. Innovations of this kind may lead a firm to hire additional staff in order to implement these technologies. Thus, we might expect them to have a positive impact on employment. However, it is also conceivable that consumers might switch to products that are less environmentally friendly, and this might create a negative employment incentive for the innovative firm. Moreover, the firm might incur additional costs, which could impair competitiveness.

By contrast, efforts under the rubric of “cleaner production” can result in savings in internal operational costs, since they modify the production process, requiring

less energy and fewer resources. Improvements in product quality may also result. This can prove beneficial to the competitiveness of the innovative firm, by increasing the firm’s sales. In turn, increased sales can have a positive effect on employment.

Responses in Hiring Behaviour

In order to measure companies’ actual employment responses to green innovations, ZEW researchers analysed data from the 2009 Mannheim Innovation Panel (MIP). The MIP is a representative survey of German industry. A total of more than 6,700 firms covering all economic sectors were surveyed regarding their innovation behaviour between 2006 and 2008. Among them, around 2,100 firms indicated that they had introduced environmental friendly innovations during the period under study.

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Environmental innovations include all product and process innovations that have a positive impact on the environment. These positive effects can occur during the production process or during a product's use (i.e. following its sale).

Cost Savings and Increased Competitiveness

The study's empirical findings show that green process innovations at the company level lead in particular to higher employment. The dominant effects are the positive incentives arising from cost

savings and increased competitiveness. The study's detailed analysis concerning individual areas of green innovation shows that clean production methods for conserving materials and energy have an especially beneficial effect on the profitability and competitiveness of a company. This, in turn, can lead to increased employment. During the period examined by the study, employment rose by more than seven per cent in companies with green process innovations in the area of materials conservation. In the area of energy conservation, the average increase in employment was almost eight per cent.

By contrast, those otherwise innovative companies that implemented no green innovations showed an average increase in employment of only three per cent. For firms that were not innovative at all, employment growth lagged at 1.7 per cent.

However, the study's econometric calculations also show that innovations in the area of air and water purity, where end-of-pipe technologies predominate, had a below-average impact on employment. It appears that these innovations entail high cost burdens that tend to impair firm competitiveness.

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Falling Profit Margins in E-commerce as Product Life Cycles Lengthen

For an ever greater number of people, online shopping is increasingly becoming a part of the daily routine. A study by ZEW and the University of Linz examines the impact of the market structure on pricing in e-commerce. It includes the number of suppliers in the market and their respective market share, along with specific characteristics of the products sold.



Photo: iStockphoto

A current study investigates the impact of market structure on pricing in e-commerce markets.

A minimum level of competition assures that markets work and that products will not be offered at elevated prices. A product's stage in its life cycle may be a critical factor for its pricing, too. It seems reasonable to assume that a product's price declines as its life cycle advances, given that its qualities and fea-

tures may become outdated in light of technological progress. The study examined data from www.geizhals.com, one of the largest online price comparison websites in Austria and Germany. The study also drew on information on the respective wholesale prices, thus making it possible to calculate the mark-ups charged by

online shops. Based on these data, researchers determined the day-to-day fluctuation in sales prices for 70 different digital cameras, calculated the mark-ups set by suppliers, counted the number of clicks on the products as well as the number of clicks for each of up to 200 suppliers.

Decreasing Mark-ups

The study shows that the products' life cycles are very brief and that there is a strong negative correlation between the number of firms in the market and the magnitude of the mark-ups. If ten additional firms offered a particular camera for sale, the most inexpensive supplier's profit margin would fall by more than 1.5 percentage points. The study reveals that the reduction in mark-ups resulting from additional suppliers is specifically large during the first and after the sixth month in the product's life cycle. However, its magnitude decreases during the second to fourth month. This last finding is surprising and explaining it will be the task of future research. The results are also interesting for consumers. By waiting three more weeks they will get the same price reduction they would get if they went to a market with one additional firm.

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RESEARCH FINDINGS

Business Tax Rates Remain low, Despite the Crisis

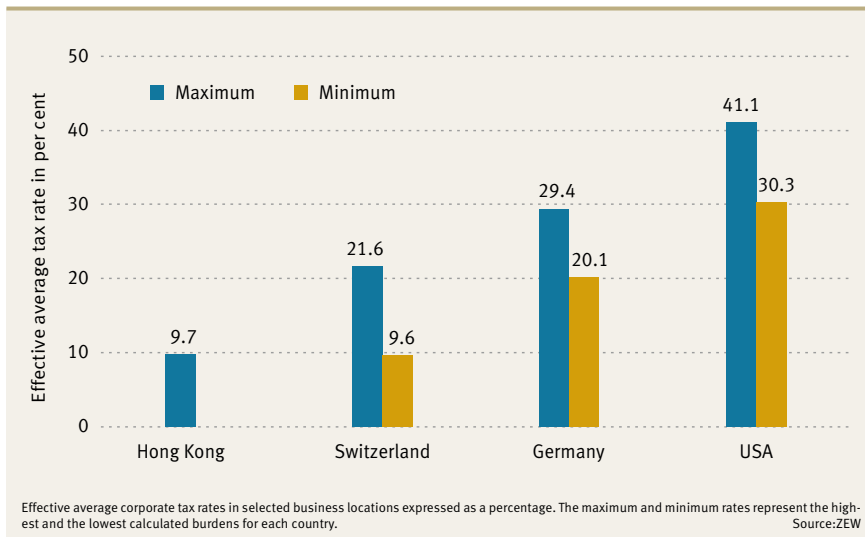
The economic crisis has burdened the budgets of many nations. Yet despite drained public coffers, corporations around the world have been confronted by very few tax increases. In Germany, the effective average tax burden in 2011 was only slightly higher compared to 2009. Some locations have even reduced their effective corporate tax rates.

These are the findings of the current 2011 BAK Taxation Index, which is prepared every two years by ZEW on behalf of BAK Basel Economics AG. To produce this international comparison of corporate tax rates, more than 80 business lo-

Swiss cantons that were examined, the lowest tax rate was seen in Wollerau in the canton of Schwyz. At 9.6 per cent, Wollerau actually had a lower tax burden than Hong Kong. By contrast, companies in the canton of Geneva face an effective

tax burdens. The highest rate (41.1 per cent) is found in New York City. The ranking positions in the 2011 BAK Taxation Index are quite similar to those in the 2009 report. Between 2009 and 2011, nations did not respond to the financial and economic crisis with significant tax increases. The effective average tax burden rose by 0.3 percentage points or greater only in Denmark, Germany, and Finland. In these countries, the increases were primarily attributable to slight changes in the rules governing amortisation. In Germany, for example, the declining balance depreciation for machinery was eliminated, so that acquisition costs now must be equally apportioned over the entire useful life of the equipment. In addition, several municipalities in Germany increased their assessment rates for property and municipal business taxes. This resulted in an increase in the effective tax burden of between 0.2 and 1.0 percentage points in the German business locations that were examined.

Effective Average Tax Rate



cations across the world are examined. As in 2009, Hong Kong retained the top position in 2011 among the world's largest business centres as the location with the lowest tax rates. The effective average tax rate in Hong Kong is 9.7 per cent. Among other business locations, only Singapore, Switzerland, and Eastern European nations offer comparably low effective corporate tax rates.

Substantial Regional Differences

In addition to differences in tax burdens at the national level, the index also analyses regional differences. In some nations, such as Switzerland and Germany, significant tax differentials exist at the local level. Of the municipalities in the 17

average tax rate of up to 21.6 per cent. Internationally, German localities impose a relatively high effective tax burden. In the cities with the greatest commercial importance within the German states, firms face relatively similar tax burdens, ranging from 27.0 to 29.3 per cent. However, there are some significant regional differences, especially among smaller communities. The community with the lowest effective tax burden, Walldorf in Baden-Württemberg, is rated just before Geneva in the rankings. The highest calculated effective average tax rate in Germany (29.4 per cent) is found in Bottrop in North Rhine-Westphalia.

According to the BAK Taxation Index, corporations in the United States are confronted by the highest effective average

No Significant Tax Increases Anticipated

In some nations, the effective tax burden for corporations actually fell over the last two years. Alongside France, Italy, and the United States, this is particularly true for Switzerland, especially in the cantons of Luzern, Nidwalden, and Schwyz, where the effective tax burden decreased by up to 2.5 percentage points.

Looking ahead to the coming year, no significant tax increases are anticipated. A few Swiss cantons are discussing tax reform plans that include slightly lower burdens for corporations. In the United Kingdom, the corporate tax rate is expected to decrease by 2014 from its current rate of 26 per cent to 23 per cent. In Finland, there are plans for simultaneously increasing taxes on shareholders and reducing taxes on corporate profits.

The complete results of the BAK Taxation Index are available at the homepage of BAK Basel Economics AG unter www.bakbasel.ch.

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RESEARCH FINDINGS

In-house Recognition Awards Motivate Award-Winners to Perform Better

Few empirical studies have been conducted on how in-house company recognition awards affect employee performance. Drawing on a comprehensive set of data from the call centre of a financial services provider, a new ZEW study reveals that recognition awards create a short-term boost in employees' motivation and willingness to perform.



The study shows that in-house recognition awards are a suitable tool for boosting employee performance, especially among employees with a history of below-average performance.

Awards increase in popularity in the corporate sector. In-house company recognition awards have become a popular tool in the world of business to increase employee motivation. In award schemes, an agent is given a symbolic reward for good performance in combination with positive performance feedback and social recognition from superiors and peers. Awards may include elements of other incentives, including performance bonuses, gifts, praise, and tournament prizes, yet recognition awards can be clearly distinguished from these types of incentives.

Ambiguous Effects Plausible

Until now, it has been unclear how recipients of such awards respond following their in-house commendation. On the one hand, it is possible to assume that performance on the part of employees who have been honoured could fall, with the recipients choosing “to rest on their lau-

rels”. On the other hand, an award could also boost performance if it strengthened an employee’s motivation and identification with the firm. The heightened attention resting on award winners could also induce a temporary improvement of call center performance that is driven by a desire to live up to the honour. At the same time, employees who did not receive an award might either feel spurred or frustrated when they see a colleague being recognised.

A new study conducted by ZEW (Discussion Paper No 12-004) examines how in-house recognition awards affect employee performance. The paper is among the first to analyse formal recognition programmes – awards – in the field. For the study, researchers drew on a comprehensive data set comprising a total of 155 employees at a call centre that serves credit card holders of a Fortune-500 financial services provider. In addition to socio-demographic information, the data

set included information about the employees’ length of service for the company, a monthly evaluation of work performance in different areas, and whether or not each employee had received a monthly in-house award bestowed for exceptional commitment. Specifically, the awards are directed towards valuable activities such as substituting for colleagues or making improvement suggestions, which are uncorrelated with the variation of the recorded performance in core call center activities such as the number of calls answered.

Strong Influence on Work Performance

ZEW’s econometric calculations show that the recognition award had a positive effect on recipient work performance. This was particularly true of award recipients whose performance, on average, has been less than outstanding. For the entire group of employees who had received an award, performance rose by an average of seven per cent. This effect typically lasted for up to four weeks following the award. Workers who had not been honoured did not alter their performance. Thus, the data show that non-financial rewards have a definite positive influence on work performance.

Optimal Incentive Systems

These findings are relevant for the design of optimal incentive systems. They demonstrate that non-financial rewards such as recognition awards are suitable tools for corporations to spur the performance of employees. In addition, the study documents that such rewards continue to have an effect for some time after they have been bestowed. In addition, awards have different impacts on different types of employees. In the present study, the employees who responded most were those whose performance was generally below average.

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RESEARCH FINDINGS

Excellence Labels and University Rankings Influence University Choice only Moderately

The university choice of highly skilled applicants in Germany is influenced by university rankings as well as by the German quality label “University of Excellence”. However, compared to other criteria, excellence and rankings play a rather minor role.



Photo: iStockphoto

The university's proximity to the parents' home plays a crucial role in the decision for a university.

A current study conducted by ZEW (Discussion Paper No. 11-061) analyses to which extent different quality dimensions of a well-known German university ranking as well as the German excellence initiative of 2006 and 2007 influence applicants in

their choice for a university. The study is funded by the German Federal Ministry of Education and Research. The study is based on an employed data set that comprises about 4.500 applications for a university place in medical studies received by the

German central clearinghouse for the allocation of university places (ZVS) over the years 2002 to 2008. These applications are exclusively from graduates with the best possible grade in the German school system (1.0), in order to avoid biased results due to strategic application behaviour. As the top grade nearly guarantees the acceptance at the preferred university, these applicants can state their true preferences in the application process.

The results point out, that an excellence label influences university choice positively. During the observation period, the number of applications for a “university of excellence” increased by 19 per cent on average. Furthermore, the econometric calculations show that also the performance in the university ranking influences the applicants' decision.

As to be expected, university applicants with excellent academic achievements apply more often at universities with an excellent research reputation. However, it becomes apparent that this application behaviour cannot be directly linked to the good results within the university ranking. Since the universities' quality of research is commonly known and is mainly perceived as constant over time, the ranking indicators concerning the research dimension do not provide any additional information for the applicants. The results suggest that the non-research dimensions “student-professor ratio”, “the number of clinic beds”, and the “students' satisfaction” rather than the research-related indicators “research reputation” and “professors' recommendation” influence university choice of high-ability students. Hence, university rankings are important to the applicants, if they add new information to the common knowledge of university quality.

Overall, the influence of rankings and excellence labels for choosing a university is rather moderate. Distance between a student's hometown and the university remains the most powerful determinant of university choice in Germany.

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ZEW Researcher Receives Young Researcher Award

Dr. Jens Mohrenweiser was honoured by the Erich Gutenberg Society in Cologne with the young researcher award for his doctoral thesis “The Causes and Consequences of Apprenticeship Training – An Economic and Econometric Analysis”. The prize was awarded by Chairman Prof. Dr. Ralf Gössinger during the annual meeting of the Erich Gutenberg Society in Cologne on November 27, 2011. In his thesis, Dr. Mohrenweiser investigates the motivation of companies to train apprentices and the consequences on interventions in the areas of human resources and labour market policy. After obtaining his doctoral degree (doctoral advisor: Prof. Dr. Uschi Backes-Gellner) at the University of Zurich, Switzerland, he joined the ZEW Research Department “Labour Markets, Human Resources and Social Policy”.



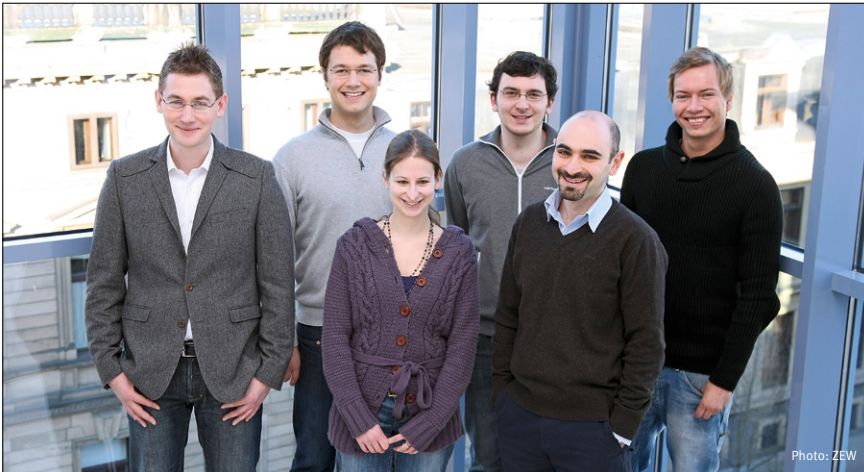
Photo: ZEW

Jens Mohrenweiser

POLITICO-ECONOMIC ANALYSIS

Q&A: New ZEW Research Group “Competition and Regulation” Strengthening Competition, Optimising Regulatory Interventions

Founded in January 2012, a new research group at ZEW is devoted to studying questions related to competition and regulation. In this interview, the head of the research group, Assistant Professor Kai Hüschelrath, explains the group’s specific goals and mission.



The new research group “Competition and Regulation” currently consists of six members.

Previously, economic issues related to competition were part of the research mission of the ZEW department ‘Industrial Economics and International Management’. What was the reason for creating a separate research group for this area of study?

In past years, the areas of competition and regulation have increased in importance, not only with respect to research,

but also in economic policy-making and business practice. Examples include recent initiatives for strengthening the private enforcement of competition law or the economic implications of the recent change in Germany’s energy policy. By establishing the new research group, ZEW is acknowledging the importance of these developments. Although there is no doubt that the

Assistant Professor Dr. Kai Hüschelrath is head of the new ZEW research group “Competition and Regulation”, and coordinator of Leibniz-Science-Campus “Mannheim Centre for Competition and Innovation (MaCCI)”. Since 2006 he has been conducting research at ZEW on topics related to the economics of competition. Until the end of 2011 he was a senior researcher in the department of “Industrial Economics and International Management” at ZEW. He holds an Assistant Professorship in Industrial Organisation and Competitive Strategy at the WHU Otto Beisheim School of Management.



work of the new group remains linked to industrial economics, we will put a stronger focus on interdisciplinary perspectives, especially on legal aspects within the scope of a “law and economics” approach.

What specific subjects and issues will the new research group focus on?

The new research group is focusing its work on two subject areas. As part of the research focus ‘Competitive Strategy and Competition Policy’, the group will focus on the economic effects of firm behaviour by applying both theoretical and empirical methods; conclusions for the design of competition law and policy are being derived. Specific focal points lie on welfare assessments of mergers and inter-firm coordination in the areas of both production and sales. The group’s second research focus is on recent developments in competition and regulation in selected network industries. With respect to energy markets, recent research topics include the design of efficient regulatory schemes, effects of ownership structures and strategic behaviour of energy suppliers on final consumers as well as an effective market design at the wholesale level in power and gas markets. With respect to transport markets, research activities concentrate on studies on the evolution of competition in rail and air traffic markets.

How do you envision the work of the research group in ten years’ time?

The issues to be addressed by the new research group will continue to become more important in the future. For this reason, I am optimistic that in ten years, the group will continue to make a significant contribution to ZEW’s overall success. The relevance of competition and regulation for the work of all other research units at ZEW facilitates broad opportunities for cooperation, and it will be important to put this potential in practice in the years to come.

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Effects of Minimum Wages on the Roofing and Waste Management Industry

Various assessments of the effects of industry-specific minimum wages have found no robust evidence of overall employment reductions. However, new research conducted by ZEW on the effects of minimum wages in the roofing and waste management industry show that one must be careful not to extrapolate from such sector-specific findings to conclusions about an across-the-board minimum wage.



ZEW evaluated the introduction of minimum wages in the roofing sector and waste management industry

At the end of 2010, the German Federal Ministry for Labour and Social Affairs commissioned studies on each branch of industry in Germany with a compulsory minimum wage in order to examine its effects on employment, employee protection, and competition. Studies of the roofing and waste management industries were conducted by ZEW in collaboration with the Institute for Applied Social Sciences (INFAS). The investigation drew upon the broadest possible spectrum of data and methods. Administrative sector-specific and firm-level data were evaluated along with data maintained by the Mannheim Enterprise Panel (MUP). These data were supplemented by a survey of companies, as well as expert interviews with employers and employee representatives in the studied industries.

Given the brief time period between the introduction of the minimum wage in the waste management industry and ZEW's study, only data from the company survey were used. In the waste manage-

ment industry, a uniform minimum wage of 8.02 euros was first introduced on January 1, 2010. The results of the company survey show that the minimum wage has had little impact on wages in the waste management industry. According to the survey, prior to the introduction of the minimum wage, only about 20 per cent of the companies paid wages below eight euros, and this applied primarily to Eastern German and to private-sector firms.

Overall, only about six per cent of all employees in the branch were affected.

For the roofing sector, a mandatory minimum wage was introduced in 1997. In 2011, the hourly minimum was 10.80 euros. The uniform nationwide minimum wage rate in effect since 2003 has affected the roofing sector in Eastern Germany much more than in Western Germany, resulting in increased hourly wages of up to 60 per cent for Eastern German employees who had previously earned less than the minimum wage. However, since labour costs in the roofing trade only account for about 30 per cent of total operating expenses, overall costs have only risen by less than one per cent.

Options for Passing Along Extra Costs

The anticipated effects of introducing a minimum wage depend not only on how broadly an industry is affected but also on industry-specific options for passing along the increased costs resulting from a minimum wage. The waste management industry, for example, is a sector with a specific competitive situation that allows for increased labour costs to be passed along to customers in the form of higher prices. This is because municipal firms have a monopoly over household waste disposal. The cost recovery principle that is part of German law pertaining to waste disposal fees allows for the direct transmission of higher labour costs in the form of higher fees to households, whose de-

The German Federal Ministry for Labour and Social Affairs commissioned various research institutions to investigate whether existing legal minimum wage regulations have led to adverse employment effects in the eight industries currently subject to a mandatory minimum wage. Minimum-wage effects on employee protection and on the intensity of competition in each sector were also studied. Research is now complete for all of the examined industries. ZEW studied the effects of minimum wages on the roofing trade and waste management industry. Reports are available in German at: www.zew.de/publikation6417 (roofing sector) and www.zew.de/publikation6403 (waste management industry).

POLITICO-ECONOMIC ANALYSIS

mand for waste removal services tends to remain relatively constant.

In the roofing sector, as well, increased expenses resulting from the minimum wage can be passed along to customers in the form of higher prices, since demand is only slightly price-elastic. In addition, there are indications that productivity reserves in the industry have softened the impact of increasing labour costs. Moreover, in Eastern Germany, increased expenses have been compensated for in part by means of selective wage restraint among groups of employees earning higher wages. According to statements by branch representatives, this wage restraint has been tolerated because of an increasingly tight labour market situation following the end of the post-reunification building boom. Thus, regardless of their level of qualification and occupational experience, Eastern German roofing workers today earn virtually a single uniform wage at the minimum wage level.

Given the – to some extent – low effect on wage costs, as well as the possibilities for adjusting to the minimum wage legislation described above, it is small wonder that no demonstrable decrease in overall



The waste management industry can pass along higher labour costs to households.

the industry, it was strengthened by the introduction of the minimum wage.

Limited Applicability to Other Sectors

What insights can be gained from these studies? On the one hand, we cannot conclude that the obtained findings necessarily apply to other sectors. The introduction of a minimum wage in an industry with

ture seen in the roofing sector will not be problematic from a macroeconomic perspective. In the event of an across-the-board minimum wage, however, it could become increasingly difficult for these workers to find a job. The extent to which this would occur also depends on the actual level of the minimum wage. The effects of a minimum wage thus depend not only on its level but also on the specific competitive conditions in a particular sector.

Consequently, the findings obtained by ZEW do not allow us to draw the general conclusion that a minimum wage would have no adverse effects on other sectors. This is particularly true with regard to an across-the-board minimum wage.

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In the roofing sector, the minimum wage has led to more intensive use of skilled workers.

employment has taken place in either industry. Yet this does not mean that there have been no employment effects: in the roofing sector, the employment of workers who have become more expensive due to the minimum wage has decreased in favour of skilled workers. While a tendency toward the more intensive use of skilled workers was already observable in

price-elastic demand and low productivity reserves will presumably generate different effects. In addition, the studies ignore the macroeconomic effects of an across-the-board minimum wage. For example, if larger numbers of unqualified labourers from the roofing sector can find new employment just as readily as qualified workers, then the change in the employment struc-

ZEW DISCUSSION PAPERS

No. 12-011, Birgit Aschhoff, Christoph Grimpe: Peer Effects and Academics' Industry Involvement: The Moderating Role of Age on Professional Imprinting.

No. 12-010, Diana Heger, Alexandra K. Zaby: Giving Away the Game? The Impact of the Disclosure Effect on the Patenting Decision.

No. 12-009, Peter Heindl, Andreas Löschel: Designing Emissions Trading in Practice – General Considerations and Experiences from the EU Emissions Trading Scheme (EU ETS).

INSIDE ZEW



Photo: ZEW

Clemens Fuest

Fuest to head ZEW in 2013

The Supervisory Board of ZEW appointed Prof. Dr. Clemens Fuest, Oxford University, successor to ZEW President Prof. Dr. Dr. h.c. mult. Wolfgang Franz. On March 1, 2013, Clemens Fuest will start at the top of ZEW, heading the institute as Director of Science and Research together with Thomas Kohl, Director of Business and Administration. Wolfgang Franz will retire and leave his position as ZEW President by the end of February 2013.

Study Conducted at ZEW Receives BlackRock Research Award 2011

The study “International Diversification Benefits with Foreign Exchange Investment Styles” developed at the Centre for European Economic Research (ZEW) has received the BlackRock Research Award 2011 awarded by the Institute of Global Finance (IGF) at the University of New South Wales. The authors of the paper, Tim-Alexander Kröncke, Prof. Dr. Felix Schindler and Dr. Andreas Schrimpf, received the award during the 24th Australasian Finance and Banking Conference in Sydney. Their awarded paper critically deals with the diversification options presented to investors by adding currency strategies in an international mixed-asset portfolio.

The research findings show that especially the application of carry trade strategies, but also of momentum and value strategies holds great diversification potentials for currencies that are statistically as well as economically highly significant. Taking investment restrictions and transaction costs as well as out-of-sample analyses into account, the findings prove to be solid.

The awarded paper can be found under www.zew.de/publikation6200



Photo: ZEW

Andreas Schrimpf



Photo: ZEW

Felix Schindler



Photo: ZEW

Tim-Alexander Kröncke

ZEW Sponsors Association Breakfast: “Energy and Climate Policy in Germany – A Challenge for Companies”

The Sponsors Association for Science and Practice at the Centre for European Economic Research (ZEW) promotes a closer connection and cooperation between the areas of economy and research. On January 23, 2012, ZEW President Prof. Dr. Dr. h.c. mult. Wolfgang Franz and Director of Business and Administration Thomas Kohl welcomed approximately 30 representatives from member companies of the ZEW Sponsors Association to the first Sponsors Association breakfast. The objective of the event was to foster the dialogue between science and economy on recent developments in the German energy and climate policy in a pleasant and constructive atmosphere.

On the basis of short speeches leaving sufficient room for discussion, Prof. Dr. Dr. h.c. mult. Wolfgang Franz and Prof. Dr. Andreas Löschel, head of the Research Department “Environmental and Resource Economics, Environmental Management”, informed on the current developments in economic policy. At the heart of the debate were the am-

bitious German climate targets, as well as the apprehension, that these could decrease the competitiveness of the German economy on the international scale. Afterwards Peter Heindl, researcher in ZEW’s research department “Environmental and Resource Economics, Environmental Man-

agement”, presented the results of the ZEW research project “Carbon Management in German Companies – Developments of the EU Emission Trading System from a Corporate Perspective”. The research project has been financed by the ZEW Sponsors’ Association.

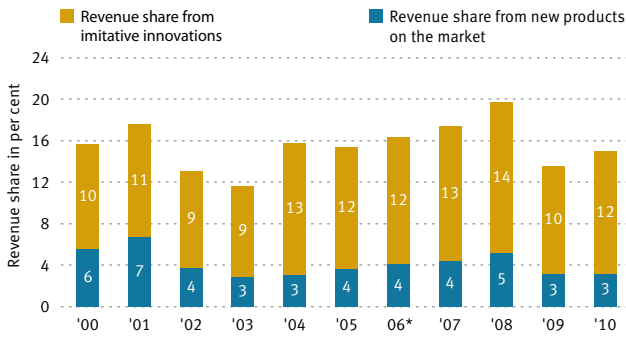


Photo: ZEW

ZEW President Prof. Dr. Dr. h.c. mult. Wolfgang Franz welcomed the participants of the ZEW Sponsors’ Association Breakfast.

FACTS AND FIGURES

Chemicals Industry: Share of Revenues Attributable to new Products Fluctuates Pro-cyclically

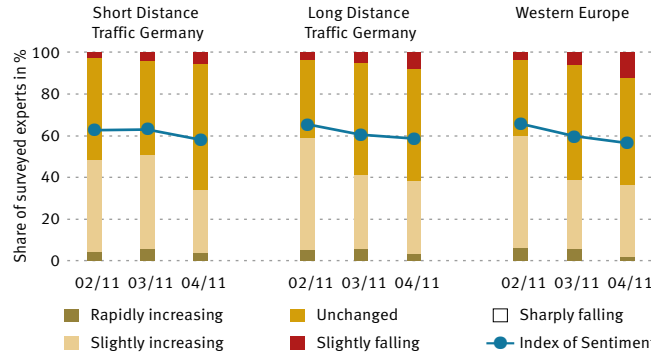


*Break in the time series due to revision of the industrial classification system. Source: ZEW, Mannheim Innovation Panel

The share of revenues earned from product innovations by companies in the chemicals industry (which includes the pharmaceuticals industry) fell sharply in 2009 as a result of the economic crisis, and only recovered slowly in 2010. In 2010, 15.1 per cent of revenues in this sector were earned from the sale of products that had been newly introduced over the past three years. In 2008, this share was 19.7 per cent. Similarly, from 2001 to 2003, a period of weak growth in Germany, revenues from new products grew more slowly than those from older products.

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Transport Volumes Decline in Commercial Truck Traffic

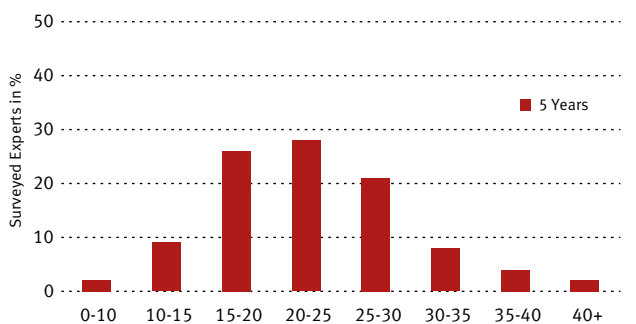


Source: ZEW

Transport volumes in road freight increased significantly in 2011. This was especially true for transport volumes hauled by foreign trucks on German highways, but German trucks also increased their presence on German highways between January and July 2011 by eleven percentage points. The experts participating in the ProgTrans/ZEW Transport Market Barometer envisage the next half-year as significantly more restrained: a definite majority anticipated flat growth in volumes. Only a third of the experts expected a moderate increase in road freight volumes.

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Emission Prices of 15 to 30 Euros per Tonne CO₂ Anticipated

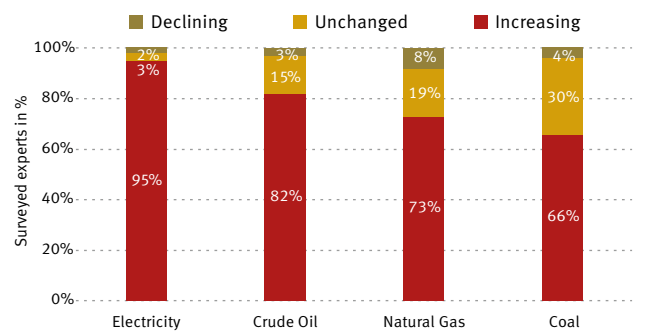


Source: ZEW

Three quarters of the experts surveyed for the ZEW Energy Market Barometer are predicting medium-term (five year-time horizon) prices of between 15 to 30 euros per tonne CO₂ on the European emission markets. Prices between ten and 15 euros per tonne CO₂ are expected by nine per cent of the questioned analysts. Some eight per cent forecast a price between 30 to 35 euros. Four per cent anticipate that over the medium-term, the price of a tonne CO₂ will range from 35 to 40 euros. The ZEW Energy Market Barometer is a biannual survey of some 200 energy market experts.

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Rising Energy Prices over the Medium Term Expected



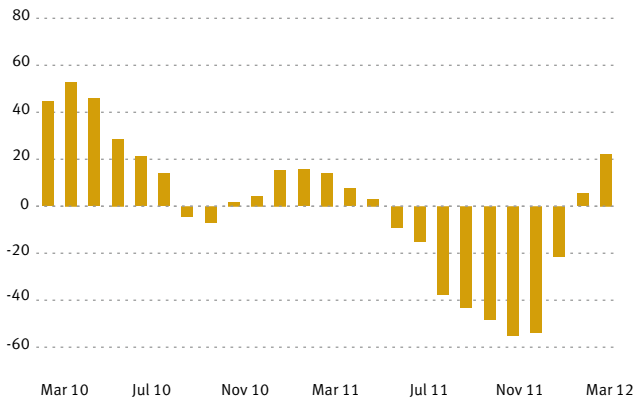
Source: ZEW

According to the experts surveyed for the ZEW Energy Market Barometer, wholesale energy prices will increase on a broad front over the medium term, e.g. over the next five years. 95 per cent of the surveyed experts indicated that electricity prices will rise. With regard to natural gas and crude oil about 73 per cent and 82 per cent respectively expect price hikes. 66 per cent of the questioned experts believe that coal prices will augment until the beginning of 2017. The ZEW Energy Market Barometer is a biannual survey of some 200 energy market experts.

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FACTS AND FIGURES

ZEW Financial Market Test March 2012

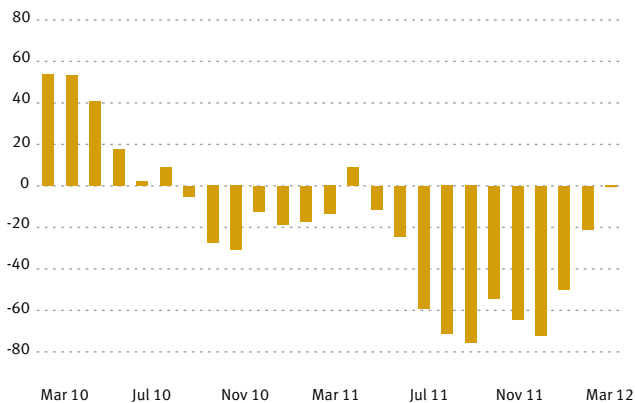


Balance of positive and negative assessments concerning economic development in Germany.
Source: ZEW

Germany: Positive Outlook Confirmed

The ZEW Indicator of Economic Sentiment for Germany has increased by 16.9 points to a level of 22.3 points in March. It displays its highest level since June 2010. The further increase of economic sentiment confirms the positive outlook for German business activity. Good industrial production data for January seem to convince the financial market experts that recently reduced growth dynamics will not seriously affect the overall robust business activity in Germany. Currently, it seems as if the crisis in the Eurozone has taken a pause for breath. In Germany, due to the good employment situation, domestic demand is likely to continue to stimulate growth. Nevertheless, risks remain due to the low business activity in important European countries and the disruptions in the banking sector.

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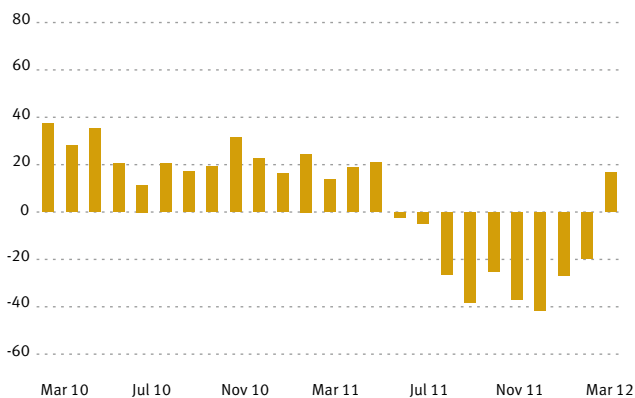


Balance of positive and negative assessments concerning economic development in Switzerland.
Source: ZEW, Credit Suisse

Switzerland: Expectations Reach Balanced Level

In March, economic sentiment for Switzerland has improved markedly by 21.2 points and is now balanced at the 0.0 level. This is the third consecutive increase of the ZEW-CS Indicator. The ZEW-CS Indicator is calculated monthly by the Centre for European Economic Research (ZEW) in cooperation with Credit Suisse (CS). The indicator reflects the expectations of the surveyed financial market experts regarding the economic development in Switzerland on a six-month time horizon. Since the indicator's low in December 2011 the share of analysts expecting the economic situation in Switzerland to worsen decreased by 46 percentage points. It now amounts to 28.0 per cent. An equal share of the surveyed financial market experts expects the Swiss economy to brighten up over the next six months.

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Balance of positive and negative assessments concerning economic development in the CEE region.
Source: ZEW

CEE Region: Major Improvement of Expectations

The ZEW-Erste Group Bank Economic Sentiment Indicator for Central and Eastern Europe including Turkey (CEE region) has increased by 36.1 points in March to a level of 16.6 points. The indicator thereby reaches positive territory for the first time since May 2011. The economic sentiment indicator for the CEE region and further financial market data have been surveyed monthly by the Centre for European Economic Research (ZEW), Mannheim, with the support of Erste Group Bank, Vienna, since 2007. The assessment of the current economic situation for the CEE region has slightly increased by 8.3 points. The respective indicator now stands at the 8.4 points-mark. The CEE region consists of Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Serbia, Slovakia, Slovenia and since October 2010 of Turkey.

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The Debt Brake

As part of the fiscal agreement approved at the EU Summit at the end of January 2012, twenty-five EU nations will seek to pass legislation defining an upper limit on new debt creation. In this connection, the ‘debt brakes’

already in place in Germany and Switzerland have been serving as a guide for the writing of legislation in various member states. Yet how effective has Germany’s deficit reduction legislation been? And does it contain loopholes? To address these questions, it is necessary to draw a distinction between Germany’s federal government and states.

According to the provisions of the German debt brake, the balancing of state and federal budgets must be achieved ‘essentially without drawing on credit’ (German Constitution, Art. 109, para. 3, line 1). For the federal government, this provision is regarded as having been fulfilled if, by 2016, total borrowing does not exceed 0.35 per cent of GDP. For the federal government, the proviso ‘essentially’ is of relevance in three ways.

First, the regulations refer to ‘structural’ deficits. Deficits during downturns are allowed as long as they are counterbalanced by debt reduction during periods of growth. The cyclical adjustment procedures for the federal government follow the methodology used by the EU Commission. A second exception relates to situations that involve ‘natural catastrophes or unusual situations of need, which are beyond the control of the government and which significantly constrain the government’s financial position’ (Art. 115, para. 2). The regulations call for a timetable to be developed under such circumstances to ensure that surplus deficits will be paid back ‘within an appropriate period of time’. Unfortunately, the exact meaning of ‘appropriate’ is not further specified. The third exception pertains to failures of projection when drawing up the federal budget. Balances accrued in this context must be entered into a control account, for which there are upper limits, and if these limits are exceeded, this automatically sets in motion an obligation to pay down the excessive deficit.

Seen as a whole, the statutory debt brake that is anchored in the German constitution offers a sufficiently strong foundation for sound fiscal policy. However, the German Council of Economic

Experts recently drew attention to a potential loophole. Extension of credit by the federal government to, say, the Federal Employment Agency is classified as a financial transaction, and, initially, it has no impact on the government deficit. Consequently, repayment of the credit is likewise not taken into account. So far so good. But there is no provision for assuring that the absence of repayment should be handled differently than successful repayment. Theoretically, it would be possible to first declare expenditures as a credit – e.g. to define monies for long-term unemployment benefits as a credit to the Federal Employment Agency – and later to release the Agency from having to repay this debt. This loophole in the legislation needs to be closed.

While the federal government has generally been pursuing the right path in implementing the debt brake, the balance sheets of Germany’s states must be regarded with much greater scepticism. The states are called upon ‘within the scope of their constitutional responsibilities’ to put the debt brake into effect, but with the basic stipulation that ‘no income should be allowed from credit’. This means that starting in 2020, the states may not take on any structural debt. As a result, the states have been given a longer time period to implement deficit reduction requirements, but not every state has been making good use of the extra time. In four federal states (Berlin, Brandenburg, North Rhine–Westphalia, and Saarland), the new debt rule has not been legally incorporated into budget regulations, let alone the state constitution.

In addition, some states have quite considerable needs for deficit reduction. According to calculations by the German Council of Economic Experts, Bavaria, Baden–Württemberg, Saxony, and Hamburg face little or no need for deficit reduction efforts. By contrast, Berlin, Bremen, Saarland, Saxony-Anhalt, and Thuringia will need to reduce their overall current spending by around one-fifth by 2020 in order to adhere to the new debt rule. Woe unto he who is reminded of Greece at such a moment.

Wolfgang Franz

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