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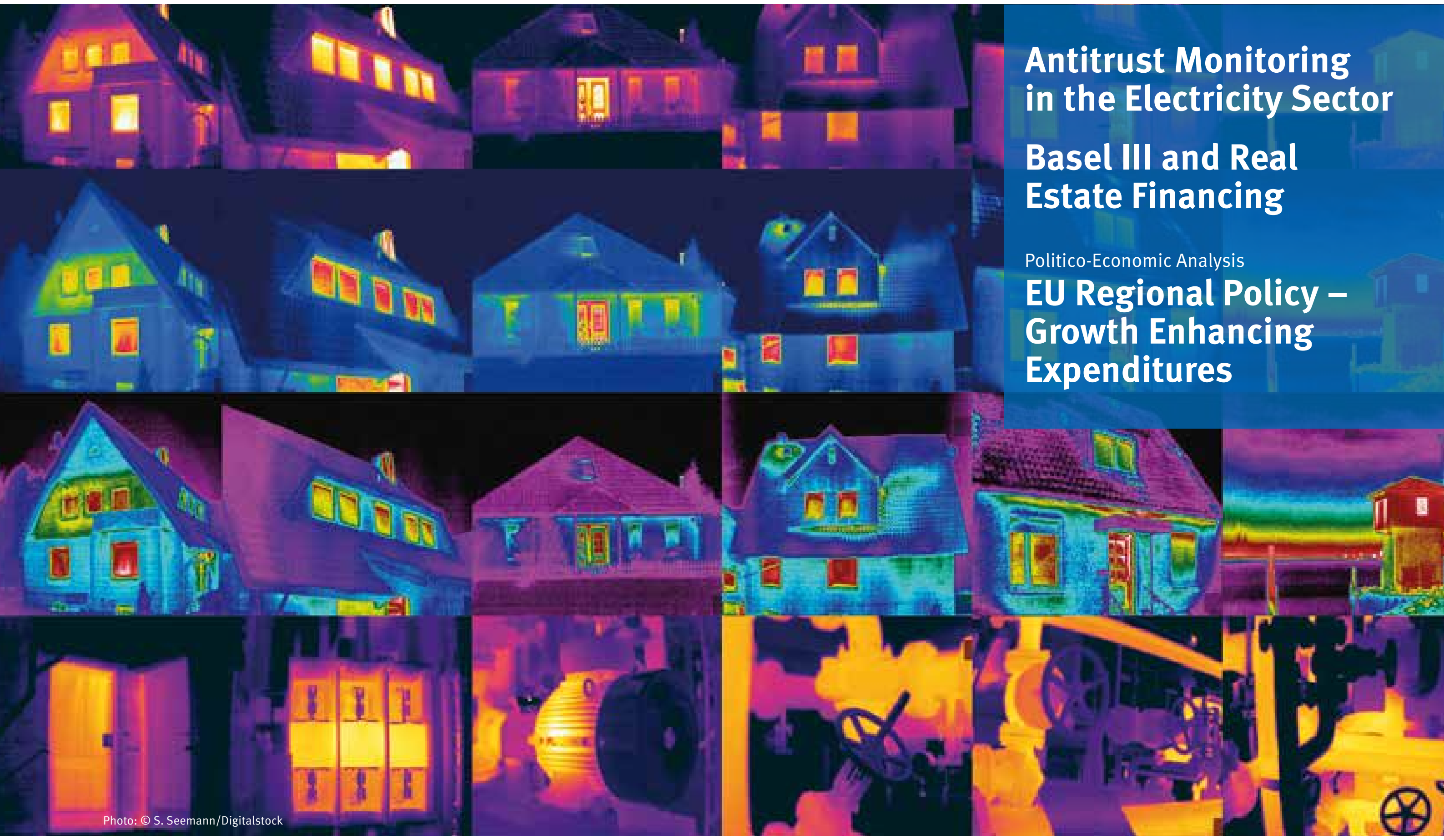

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Antitrust Monitoring in the Electricity Sector

Basel III and Real Estate Financing

Politico-Economic Analysis

EU Regional Policy – Growth Enhancing Expenditures

Energy-Efficient Production Technologies Open Doors for More Climate Protection

The improvement of energy efficiency is a promising step in order to achieve climate protection targets. A current ZEW-study examines the development of energy efficiency in 40 countries and 34 sectors using a newly created database.

In the period between 1995 and 2007, energy efficiency, i.e. a more economical use of resources producing emissions, was improved by 18 per cent globally. This is an important contribution to climate protection. In some countries, including large economies like the United States and Japan, energy efficiency improvements are in particular the result of a shift towards less energy-intensive production sectors. However, in most countries, including Germany, China, Canada, France and India, improvements in technology were a major factor in this positive development. According to a current study carried out by the ZEW in Mannheim (Discussion Paper No. 13-052), increasing energy efficiency is a key element of climate protection policy.

In this study ZEW researchers compared the development of energy efficiency in 40 countries and 34 sectors between 1995 and 2007 using the World Input Output Database (WIOD). This method allowed them to determine the major factors for energy efficiency improvement and to examine which economic sectors and countries contributed most to this development. The study provides conclusions for climate policy to promote global energy efficiency improvements in a more effective way.

According to the findings of the ZEW study, there is potential for further improvements in energy efficiency in the coming years, especially in the sectors of industry, construction and energy. The countries with particular potential for improvements are China, India and Brazil. The findings of the study are optimistic regarding the global development of energy efficiency because the favourable effect of technology improvements can be transferred to other countries. Since the relevant technologies are already available, improvements could even be implemented at relatively low cost. This finding is of huge importance against the background of an expected increase of energy consumption in non-OECD countries by 84 per cent until 2035.

High Heterogeneity Within the same Sectors

The ZEW study also shows a high heterogeneity concerning energy efficiency within the same sectors across the various countries examined. At the same time, the ZEW study indicates that divergences between the individual economic sectors within one country are small. This finding suggests that conditions within a country have a vast influence on the development of energy efficiency.

The World Input Output Database (WIOD) covers the period between 1995 and 2009, and contains data on 34 economic sectors from the areas of agriculture, industry, and services. WIOD consists of a number of input-output tables and incorporates satellite accounts with socioeconomic and environmental data. WIOD contains data on 40 countries (the 27 EU Member States and 13 other major economies, including China and the US) that represented approximately 85 per cent of global GDP in 2009. The database was developed within the 7th Framework Programme of the EU. It was a joint project of eleven European universities and research institutes, including the ZEW.

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Results of the German Innovation Survey

Having reached an impressive value of 137.4 billion euros in 2012, the expenditures on innovation of the German economy will increase by 3.7 per cent in 2013, thus reaching 142.6 billion euros. A further increase of innovation budgets by 3.0 per cent is planned for 2014. These are the findings of the most recent German Innovation Survey.

For the German Innovation Survey, more than 16,100 enterprises from the industry and services sector were asked about their actual and planned expenditures on innovations. The survey is carried out annually by the ZEW in collaboration with the Fraunhofer Institute for Systems and Innovation Research as well as the infas Institute for Applied Social Sciences on behalf of the Federal Ministry of Education and Research. The actual survey was implemented in spring and summer 2013.

A closer examination of the expenditures on innovation in 2012 shows that large enterprises (500 or more employees) again contributed heavily to the increase of 4.8 per cent to 137.4 billion euros, as compared to 2011. Smaller enterprises continued to put the brakes on innovation activities in 2012 against the background of an economic environment that remains largely unpredictable due to the eurozone crisis. The share of enterprises introducing innovations to the market accordingly fell to 38.3 per cent. With 12.6 per cent, the turnover generated by new products in 2012 was significantly below the 2011 figure of 14.6 per cent.

Share of Innovators Further Decreasing

Innovators are enterprises that have introduced product or process innovations. Their share in the total number of enterprises decreased to 38.3 per cent in 2012, thereby falling by 1.1 per cent below the level of 2011. Before the financial market crisis in 2008, the share of innovative enterprises was 47.0 per cent. The number of innovators has since dropped by 18 per cent (as of 2012). The share of innovative enterprises decreased across all sectors considered in this survey in 2012. A particularly low share of innovative firms exists in the sectors of water supply and disposal and the transport sector. By contrast, IT and telecommunications, chemical and pharmaceutical industries, as well as the engineering and electrical industry are the sectors with especially high shares of innovative enterprises.

Innovation Intensity Reaches Highest Level since 2007

In 2012, the share of innovation expenditures in the total turnover of the German economy – the “innovation intensity” – reached the highest level since 2007. From 2.58 per cent in 2011, it climbed to 2.71 per cent. Innovation intensity has increased since enterprises expanded their innovation expenditures despite stagnating sales. Across the sectors, however, this indicator varies considerably: the vehicle manufacturing industry with 10.2 per cent and the electrical industry with 8.7 per cent reported the highest innovation intensities in 2012. In the financial services, the sectors of wholesale, energy supply (including mining and oil refining), business support services as well as water supply and disposal less than one per cent of turnover is invested in innovation projects.

In 2012 the German economy generated a turnover of about 644 billion euros with product innovations, which makes up 12.6 per cent of the total turnover. The share in turnover has thus fallen considerably below the level of the previous year (14.5 per cent). The increased share of product innovators has not yet resulted in higher new product sales, since many freshly introduced products do not generate higher sales before the second or third year after their introduction to the market.

The German economy was able to reduce average unit costs by 3.3 per cent in 2012 by means of process innovations. The extent of process innovation-driven cost savings has thus decreased for the fifth consecutive year. In 2007 cost reductions of 4.1 per cent were achieved. Revenues resulting immediately from quality-improving process innovations were also on the decline in 2012. These revenues are measured through sales increases that are due to a specific quality improvement. In 2012 this indicator decreased for all main sectors considered here.

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Antitrust Monitoring in the Electricity Sector

The purpose of antitrust agencies is to ensure that companies do not undermine competition through price-rigging or market monopolies. By monitoring the industry, antitrust regulators are also supposed to have a deterrent effect. A recent ZEW study finds evidence for this effect in the wholesale electricity market.

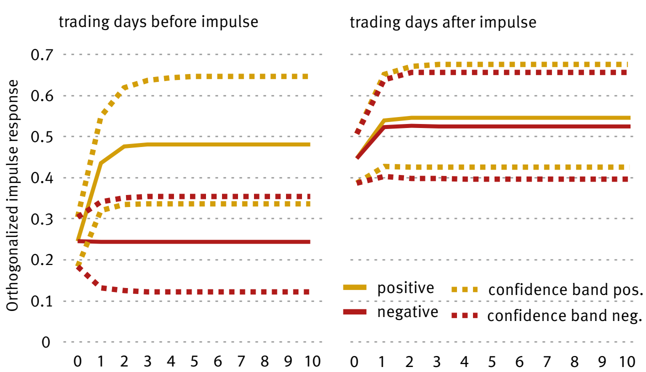
In 2005, the EU initiated an emissions trading system. Industries must purchase an allowance for every ton of CO_2 they emit. The new regulation applies especially to electricity producers, who are responsible for a significant portion of industrial CO_2 emissions. The system allocates a limited number of emission allowances (mostly for free), and then allows companies to trade them among each other. Since the total number of allowances is fixed, firms with fewer emissions can sell leftover allowances to those with higher emissions. Producers who emit CO_2 by generating electricity from gas or coal consume their allowances, and hence may no longer sell them. The lost revenues are known as opportunity costs. The EU's emissions trading system has increased opportunity costs for every ton of CO_2 emitted. The result: rising prices on the German electricity market.

Little Hope for Success

Several energy-intensive industries claimed that the power producers violated competition law. In summer 2005, the claimants argued that passing on CO_2 allowance prices, even though electricity generators had not paid for the allowances is only possible because the dominating electricity companies exploit their market power. Germany's Federal Cartel Office prompted a study and asked E.ON and RWE, Germany's two largest electricity producers, to respond. Naturally, the companies in question were unable to identify any misdeeds on their part. Their argument went like this: why should one be forced to give away something for free because one received it as a present? This argument is plausible, and even the chemical industry, one of the largest electricity consumers in Germany, saw little hope for success in filing a complaint at the Federal Cartel Office.

Yet, in March 2006, something unexpected happened. The Federal Cartel Office held hearings and published a progress report that rejected several of the arguments used by RWE and E.ON and supported the arguments of the claimants. A year later, in January of 2007, the economists Zachmann and von Hirschhausen, then at TU Dresden, published another surprising finding: electricity companies pass on price increases of CO_2 allowances in electricity wholesale, but not price decreases. This

REACTION OF ELECTRICITY PRICES TO EMISSION PRICES



Note: Orthogonalized impulse responses before (left graph) and after (right graph) publication of the progress report. The graphs illustrate the strength of electricity price response to changes in the price for emission allowances in the assessed model. The yellow line shows the estimated rise of electricity price in €/MWh in response to an increase in the CO_2 price by 1€/ton CO_2. The red line illustrates the reverse situation – the estimated electricity price decrease in response to a drop in emission allowance by 1€/tonne CO_2). The broken line indicates the respective confidence interval (90% level of significance). Source: ZEW

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was an unprecedented finding in research on electricity markets. Studies of other European countries using more recent data have found no evidence of asymmetric price adjustments.

ZEW researchers decided to scrutinize the findings of Zachmann and von Hirschausen more carefully. They examined their conclusion that price increases were being passed on asymmetrically, and they investigated how the work of the Federal Cartel Office affects prices. Compared with the study by Zachmann and von Hirschhausen, ZEW used electricity price data on a daily basis instead of on a weekly basis and a somewhat different statistical model. The ZEW study was able to confirm that electricity prices responded asymmetrically to emission prices. However, the asymmetry disappeared around the time that the Federal Cartel Office submitted its progress report (see chart page 3).

What happened? By passing on price increases but not price decreases, electricity companies can increase their profit margin in a way that would not be possible in full competition. This connection first became evident in Zachmann and von Hirschhausen's study. Yet in March of 2006, a year before their study was published, the Cartel Office signalled – through its critical report – closer scrutiny of electricity producer prices. Even though the public at this time was unaware that increases and decreases in prices were being passed on disproportionately, the prospect of heightened monitoring changed the firms behaviour in favour of greater competition. Thus, the regulatory oversight indeed seems to have a deterrent effect, even if the Federal Cartel Office does not know the firm strategies in detail.

The new findings are based on a study commissioned by the Sustainable Business Institute as part of the BMBF-supported project CFI-Climate Change, Financial Markets and Innovation.

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Security of Energy Supply in the EU

The majority of experts surveyed for the ZEW Energy Market Barometer view the EU's security of energy supply as stable. This finding, which applies both retrospectively to 2013 and prospectively to 2014, emerges from the current ZEW Energy Barometer survey, conducted at the end of 2013.

The ZEW Energy Market Barometer is a biannual survey of around 170 energy market experts from industry, administration and academia. Among other topics, the participating experts are asked for their views on the security of energy supply in the EU. The following picture of the EU's energy security emerges from the current survey: The great majority of the experts (86 per cent) are of the opinion that security of supply had remained stable in the EU during the past year. For 2014 as well, 85 per cent of the energy experts anticipate the level of energy security to remain unchanged. Looking ahead to the next ten years, a majority of the experts (64 per cent) expect no change in the energy supply situation on the whole. In analysing the experts' estimates with reference to individual energy sources, a more differentiated picture emerges.

Security of Electricity Supply

Looking back at 2013, 38 per cent of the survey respondents indicate that the EU's security of electricity supply has deteriorated compared to the previous year. However, 54 per cent of the experts are of the opinion that the situation had not changed.

For 2014, 57 per cent oft the experts surveyed anticipate stability in security of electricity supply, 35 per cent of the experts anticipate further deterioration, and only 8 per cent anticipate an improvement. For developments over the next ten years, a majority of the experts expect a falling level of security in the EU. Thus, the questioned experts' general outlook for security of electricity supply during coming years would appear to be rather negative.

For security of supply from other energy sources, the experts do not seem as pessimistic in looking back at 2013. Only three per cent of the energy market experts indicate that the security of oil supply worsened in 2013. With regard to natural gas, 36 per cent of the energy experts suggest that security of supply rose in the past year and 61 per cent saw no change in the supply situation in 2013. This is worth noting, since the experts' estimates were not as positive for any other energy source. It would appear that the assessments were noticeably influenced by prospects for global trade of liquefied natural gas by sea and new sources of shale gas. Around 80 per cent of the energy market experts are of the opinion that the supply situation for coal was unchanged in the past year. For 2014, the majority of the experts anticipate the continuation of an unchanged level of energy supply security for oil, natural gas, and coal.

Security of Oil Supply is most Critical in the Long-Term

The expert panel's long-term expectations (ten years) regarding the security of the EU's oil supply continue to be critical. Among the experts surveyed, 57 per cent anticipate falling levels and 34 per cent predict unchanging security levels for crude oil supply. In the case of coal, the expectations are quite stable: 65 per cent expect no change in security of coal supply, while 23 per cent of the experts predict a fall in security of supply. The experts' long-term expectations are more optimistic for natural gas: only 48 per cent of those surveyed anticipate no change in the supply situation over the next ten years, while 27 per cent estimate that the security of supply for natural gas will improve.

Prof. Dr. Andreas Löschel, Philipp Massier,
Dr. Michael Schymura, Dr. Nikolas Wölfing

Private homebuilders can expect favourable conditions for home financing even under Basel III.

Photo: © A. Ellinger /Digitalstock

Basel III – Impact on Real Estate Financing

A joint study by RWTH Aachen and ZEW investigated how the implementation of Basel III and Solvency II has affected real estate financing in Germany. According to the study's findings, conditions of residential real estate financing are likely to change little, while those in other sectors can be expected to worsen.

Basel III is a revision of Basel II that came mostly in response to the financial crisis. Basel III provides for no immediate changes to direct real estate lending, but its regulations, beginning with new capital requirements, can indirectly affect real estate financing. This is of importance for the entire German economy, as around 19 per cent of Germany's gross value added is produced in the real estate sector and 47 per cent of all lending to domestic companies and private housholds is for residential housing.

Favourable Conditions in the Private Sector

When analysing the effects of Basel III on real estate financing one must distinguish between sectors: residential and nonresidential, private and commercial. The study concludes that the effects on residential real estate financing, especially in the private sector, will be minimal. Even if financial conditions are likely to worsen – on account of higher equity requirements or the countercyclical capital buffer, say – buyers on the residential real estate market will continue to find favourable lending conditions, even for long-term loans. Basel III will also provide a functional refinancing market for credit institutions. In the case of refinancing nonresidential property, conditions will worsen (risk surcharges, mortgage terms, etc.), but they will be equipped to handle the higher risks associated with these types of loans.

Basel III aims to better assess risks and to ensure they are backed by sufficient high quality equity. Credit institutions will try to pass on the increased equity costs to creditors via higher interest rates. Regardless of Basel III, lenders will place more emphasis on the suitability of properties for possible third-party use. There are no indications that this will lead to a general credit shortage, however. Deductions due to inferior suitability will lead to higher interest surcharges.

Loans with a high loan-to-value ratio for properties assessed as highly suitable for third-party use will have few problems when existing loans are extended or additional loans are taken on. In the case of properties given a lower assessment but having a higher loan-to-value ratio, interest rate surcharges will have to be paid to better cover the higher risks for default on the part of credit institutions – one of the lessons learned from the financial crisis.

The study projects that the planned regulatory changes for insurance companies contained in Solvency II will also affect real estate financing. According to the study, German insurance companies will continue to search for investment opportunities in the real estate sector so as to reach the maximum technical interest rate for older loan contracts. For years now, insurance companies have been planning to increase their share in direct or indirect real estate property, but they are still hesitant to invest in view of the risks.

The current macroeconomic climate in Germany and the expansive monetary fiscal policy of the European Central Bank will ensure that the impact of the new regularly framework on real estate financing is limited. Alternative financing reforms such as so-called debt funds could theoretically reduce financial gaps in real estate financing, especially in higher risk areas. Due to the lawmakers' mistrust of policies with short track records, however, it is likely to be a while before these alternative methods are given serious consideration.

The study was commissioned by the German Federal Ministry for Transport, Building and Urban Development and the Federal Institute for Research on Building, Urban Affairs and Spatial Development.

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Motivating countries to cooperate is important for fighting climate change. A hybrid approach that involves voluntary commitments as well as top-down coordination appears to be promising.

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Q&A: The Path Ahead in Global Climate Protection

A Stronger Emphasis on National Policy

In November 2013, Prof. Andreas Löschel, the head of ZEW's environmental economics department, presented results of various climate research projects conducted at ZEW at the climate change conference in Warsaw. In this Q&A, Prof. Löschel explains why he supports a hybrid approach to climate policy.

As an environmental economist you participated in the UN climate change conference in Warsaw. The conference aroused a great deal of criticism. Was it truly a failure?

In Warsaw the representatives managed to agree on the issues as well as a road map for a new climate treaty that is to be ratified in Paris in two years and which will replace the Kyoto Protocol in 2020. After years of deadlock in international climate negotiations, this certainly appears to be a success. Within the scope of the new protocol, for the first time all countries are to be involved in international climate protection – that is, not just the US, but also rising powers such as China, India, and Brazil. This is a necessary condition for climate change to be tackled in an effective manner. Yet in this connection it is also necessary to eliminate the old division between industrial countries that are required to reduce emissions, and developing countries with no obligations. For to date, this division has hindered almost all progress. It is an approach whose criteria for measuring economic output are only applicable to a limited extent. Furthermore, it overlooks a large share of emissions that could be avoided cheaply. China already has higher emissions per capita than the EU, and in ten years it could surpass the US not only in per capita emissions, but also in cumulative emissions since the middle of the 19th century.

Since the failure of the climate conference in Copenhagen in 2008, it has not been possible to adopt binding climate protection targets for all countries. Is this goal too ambitious?

The effort to adopt binding emissions reductions based on global targets in a top-down manner has been a colossal failure. The European and particularly German idea of setting targets for countries based on moral obligation has not been a success. Climate protection is a global public good: Emissions reductions by one country benefit all, and there is a strong incentive to act as a free rider – that is, to profit from the efforts of others, without taking action oneself. Motivating numerous countries to cooperate is important for fighting climate change. Yet this cooperation should not be based on bludgeoning others with ethical arguments, but rather based on the insight that it makes sense to address the problem together. In this connection, a very reasonable process has been sketched out: All countries have been called upon to soon state the emissions reductions they are willing to make within the scope of the new climate protection treaty. This process will allow obligations to emerge based on domestic policies and goals – that is, to arise in a bottom-up manner. A subsequent top-down process could then take the form of a review of these national obligations and their coordination, facilitating a movement toward more ambitious goals. From a current perspective, this hybrid approach appears to be more promising than past efforts, which unsuccessfully sought to impose targets from above.

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Photo: ZEW

Prof. Andreas Löschel

Prof. Andreas Löschel is the head of ZEW's research department of Environmental and Resource Economics, Environmental Management. Furthermore, he is a professor of economics at the University of Heidelberg. Löschel was a lead author of the 5th IPCC Climate Change Report (2010-2014). He is also the chairman of an expert commission formed by the federal government to regularly assess the status of Germany's efforts to transition to a renewable energy economy. The German financial newspaper *Handelsblatt* named Löschel one of the top 100 economists under 40.

Study on the Share of Growth-Enhancing Expenditures in EU Regional Policy

EU Regional Policy represents the second largest item in the EU budget. One key objective of Regional Policy is to foster economic convergence between the regions of the EU. However, doubt has arisen regarding its effects on long-run growth. Therefore, ZEW evaluated the growth effects of EU Regional Policy using an innovative approach.

Following the Common Agricultural Policy, EU Regional Policy is the second most important spending item in the EU budget. Altogether, its three main funds, the European Fund for Regional Development, the European Social Fund and the Cohesion Fund, account for approximately 38 per cent of the EU budget in the programming period 2007–2013. One of the central objectives of Regional Policy is to offset economic, social and territorial disparities across EU Member States.

Despite the considerable resources devoted to Regional Policy, doubts have arisen regarding its overall effectiveness in enhancing long-run growth, especially in the context of the current economic crisis. Countries which have been major beneficiaries over decades still exhibit low levels of convergence and are among the regions most affected by the crisis. Moreover, the European Court of Auditors estimates that, on average, more than five per cent of the funds allocated to projects by Member States are affected by errors or are misappropriated.

Several empirical studies have previously attempted to quantify the long-run growth effects resulting from EU Regional Policy. Most of these studies relied on aggregate data on the gross domestic product at the national or regional level. Using an alternative approach, ZEW sought to evaluate the growth effects of EU Regional Policy by means of disaggregated and project-related data. The study attempted to determine the investment share of Regional Policy, and at the same time, to quantify the long-run growth effects through a classification of characteristics of funded projects. This methodological approach had not been previously applied to evaluate EU Regional Policy.

Analysis using Disaggregated Data

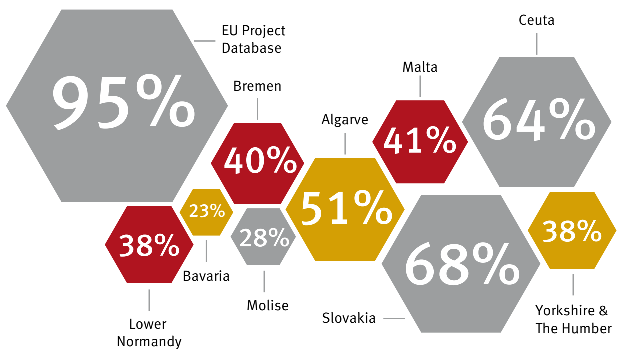
Compared to aggregate data – for example, from the EU budget – relying on disaggregated data has a number of advantages. For instance, this approach allows assessing expenditure labelled as investments in the context of Regional Policy with respect to their actual expectable contribution to long-run growth. In addition, disaggregated data allow for a more precise categorisation with respect to potential growth effects. In this context, it is possible to assign different growth effects to infrastructure projects compared to research and development or to investments in human capital.

However, any classification based on self-developed criteria cannot be fully exempt from potential criticism. To assure the transparency of the analysis and its findings, the researchers distinguished between two scenarios – an optimistic and a pessimistic one. The optimistic scenario was more generous in acknowledging growth effects while the pessimistic scenario was more restrictive. Moreover, this approach allowed for the determination of a range which made the substantial margin of interpretation of the results transparent.

The official 'lists of beneficiaries' formed the data source for the analysis. Regional authorities responsible for the allocation of EU funds are required to prepare and publish lists of beneficiaries for the respective programming period. Essentially, these lists should include information about the recipient, a description of the particular project being funded, and information about the scope of the grant. One limitation, however, is that the European Commission has not established specific guidelines for the content of these lists. Thus, there are major differences in terms of quality and level of detail, not only across countries but also between different regions within the same country. For instance, in certain regions, lists of beneficiaries lack a specific description of the funded project or are only published in the local national language. These limitations had an effect on which regions were considered in the analysis. Nevertheless, the lists of beneficiaries are the most suitable source of information for a disaggregated approach. An evaluation of the EU project database, which documents pan-European projects with funding greater than one million euros, supplemented the analysis based on the lists of beneficiaries. Researchers checked for and eliminated any duplication between these two data sources.

Based on key insights from the theoretical and empirical literature on the growth effects of public expenditures, projects were classified along three main dimensions. One dimension

FIGURE 1: EXPENDITURES WITH A HIGH PUBLIC INVESTMENT SHARE



Source: ZEW

was the sectorial affiliation of public expenditures. One would expect different growth effects from projects funded in the area of research and development compared to grants for urban development. To account for these differences, the classification distinguished between a total of 27 sectors. With respect to the second key dimension, the classification distinguished between projects that primarily targeted public or private goods. The latter are anticipated to promote smaller long-term growth effects unless funded projects involved areas with potential market failures. The third key dimension differentiated based on the legal form of the grant recipient. This was necessary to distinguish between grants that exhibit the nature of a subsidy for a private good and projects with expectable positive external effects. The researchers differentiated between public recipients as well as private high-tech, private low-tech and non-profit companies. Taken together, these three dimensions resulted in a total of 216 possible combinations, to which different growth effects were assigned in the context of the study. To rate the effects, the researchers developed a three-step scale that distinguished between large, moderate and no growth effects.

A total of 3,600 individual projects from nine different regions were evaluated using the classification system previously developed. This number was largely determined by the heterogeneity in the quality of the lists of beneficiaries and the language in which they were published. However, it was still possible to cover a broad range of regions. The study included both wealthy and poor regions, regions from small and large countries, as well as regions from both old and new Member States. Specifically, the sample included regions in Germany (Bavaria and Bremen), France (Lower Normandy), Italy (Molise), Malta (all regions), Portugal (Algarve), Slovakia (all regions), Spain (Ceuta) and the United Kingdom (Yorkshire and The Humber). The study encompassed a total of 9.25 per cent of the overall funding made available through EU Regional Policy in the programming period 2007–2013.

The results show a large degree of regional heterogeneity. The proportion of public grant recipients varies quite substantially between the regions. Whereas only 22–25 per cent of grant recipients in Bremen and Ceuta were public entities, this figure was over 90 per cent in the Algarve region. There was also great heterogeneity in the share of grants with a large public capital component (Figure 1). In the majority of regions, this share fell below 50 per cent and only exceeded this level in Slovakia, Ceuta, Algarve and in case of pan-European projects collected through the EU project database. The latter is driven by the focus of the data base on large infrastructure projects.

Key Results and Conclusions

Figure 2 summarises the key findings and presents the shares of EU regional expenditures associated with large, moderate and no growth effects for both scenarios. Even in the case of the optimistic scenario, 15 to 22 per cent of the expenditures were classified as not conductive for long-term growth in the regions examined in Germany and the United Kingdom. In case of the pessimistic scenario, this share increases substantially. In the case of Molise, 63 per cent of the regional expenditures have no expectable long-term growth impact; for Bavaria this share is equal to 53 per cent and for Lower Normandy, it is 41 per cent. With respect to expenditures associated with likely positive growth effects, the share is highest in Bremen and Slovakia with up to 65 per cent. Results for the Algarve region stand out, as the percentage of projects with positive growth effects is very low in both scenarios and amounts to only one per cent. Comparing results under the two scenarios yields that the proportion of expenditures with moderate growth effects is more sharply reduced than the share with large growth effects.

An conclusion for the entire policy area of Regional Policy or the EU27 is not possible based on only 3,600 projects. Nevertheless, a pattern emerges from the findings. Especially spending in richer European countries tends to be less targeted and expenditures tend to exhibit a higher share of projects which are not conductive for long-run growth. The share of expenditures with a large public capital component is surprisingly small. In conclusion for the programming period 2014–2020, this means that there is a need for improved allocation procedures for grants or that there appears to be room for cutting the budget in this area.

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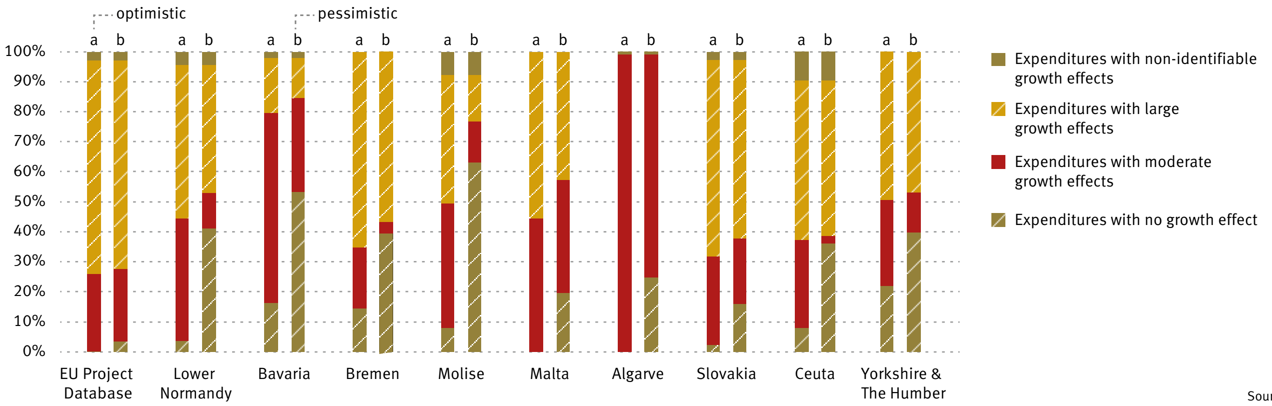
FIGURE 2: DISTRIBUTION OF GROWTH EFFECTS FOR THE TWO SCENARIOS



Source: ZEW

ZEW Researchers at the 2013 Beijing Humboldt Kolleg

At this year's Beijing Humboldt Kolleg on November 20 to 22, ZEW economists presented recent research findings on the German energy transition in the capital city of China. The objective of the event with the title "Green Economy and Urbanization" was to strengthen the research cooperation between Germany and China in the area of green economy. The event was organised by the Alexander von Humboldt Foundation and the Beijing University of International Business and Economics (UIBE).

In his presentation at the beginning of the event, Dr. Georg Licht, head of the ZEW Research Department "Industrial Economics and International Management", addressed the impact of eco-innovations on employment growth in Europe. On the second day of the event, Prof. Andreas Löschel, head of the ZEW Research Department "Environmental and Resource Economics, Environmental Management", gave a lecture on the transferability of the German energy transition to China.

Some 100 participants from the fields of science and politics attended the conference that featured interesting lectures on a potential shift towards an ecologically sustainable society in times of rapid urbanisation and increasing energy consumption. Central points of discussion included ecological urban development and management, energy-friendly urban construction, improvement of energy efficiency as well as the development and promotion of cities with low emission rates.

ZEW at the ASSA Annual Meeting 2014

Photo: ZEW

ZEW held job interviews with researchers at the ASSA meeting.

ZEW attended the 2014 ASSA Annual Meeting, the world's most important conference in economics, in Philadelphia at the beginning of January 2014. The ASSA meeting is an excellent opportunity for ZEW researchers to discuss research projects, to find new cooperation partners and to network with the international scientific community. ZEW featured an information booth at the conference to strengthen the institute's visibility beyond the European borders. Researchers from around the world were offered information on ZEW projects and research areas, cooperation opportunities, job offers, and research visits to ZEW. Job interviews with up-and-coming researchers and advanced economists were an important part of ZEW's attendance at the ASSA Conference. Due to the great response ZEW plans to also attend the next ASSA conference, which will be hosted in Boston in January 2015.

Federal Minister of Education and Research Johanna Wanka Speaks at ZEW

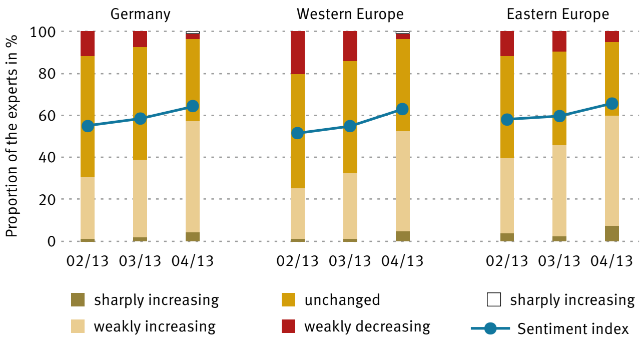
Prof. Johanna Wanka, German Federal Minister of Education and Research, gave a lecture on innovation policy in Germany at ZEW within the series "First-Hand Information on Economic Policy" on February 3, 2014. About 250 guests attended the event.

Minister Wanka started her lecture with an overview of Germany's competitive position: it is the leading exporter of knowledge-based high-tech goods, outstripping even the world's most powerful economy, the United States. International rankings on innovation power and competitiveness have been placing Germany among the top performers. Major factors for this success are medium-sized firms that have an important position in the German economy, and the high priority accorded to education and research, said Prof. Wanka. "We must not, however, rest on our achievements," Wanka insisted. In particular the transfer of theoretical knowledge into marketable products and services still needs to be improved in Germany, according to Federal Minister Wanka. She addressed initiatives and frameworks that have been launched – and should be expanded – to promote cooperation between the realms of academia and business. Prof. Wanka gave the examples of the "science campus" concept and the federal government's high-tech strategy. She suggested that an important future goal is a "fourth industrial revolution", that is, bringing together digitalisation with classical industry. The new administration has plans in this area, she indicated, such as the creation of research centres focused on questions related to Big Data. Prof. Wanka also pointed to other major challenges, such as changes in the working world, balancing family life and work, and the need to invigorate the landscape of German higher education.

Photo: ZEW

Prof. Johanna Wanka with ZEW President Prof. Clemens Fuest (left) and ZEW's Director of Business and Administration, Thomas Kohl

Road Freight will Increase Substantially in the next Half-year



Source: ZEW

Trends in German long-distance road freight can be calculated based on truck toll statistics. In 2013, the month-to-month figures tended to rise and fall until October 2013, which was the month with the third-highest figures since the introduction of the toll system. Thus, the experts surveyed for the Transport Market Barometer are optimistic looking forward to the coming half-year: More than half of the experts anticipate a slight increase in German long-distance road freight and cross-border transport and nearly all respondents expect unchanged freight volumes.

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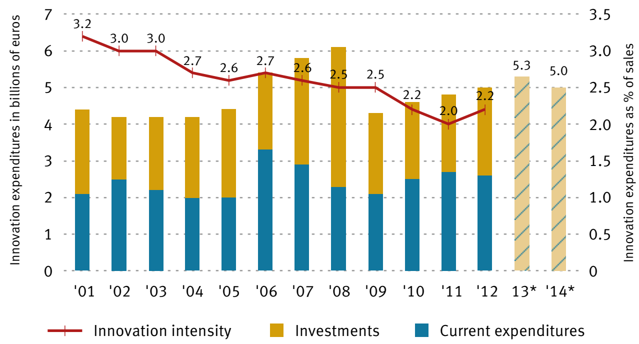
The Metals Industry is Planning for Decreased Investment Spending in 2014



* Target figures from spring/summer 2013

Source: ZEW, Mannheim Innovation Panel

Innovation spending by companies in the metal production and processing sector rose slightly in 2012 to 5.0 billion euros. For 2013 the companies anticipate a further increase to 5.3 billion euros. Thus, the peak in investment reached prior to the economic crisis (2006 to 2008: between 5.5 billion euros and 6.1 billion euros) will not be achieved again. In fact, companies are planning to reduce their investments in innovation in 2014. Innovation intensity rose slightly in 2012, but still remains well below the levels reached during the 2000s.

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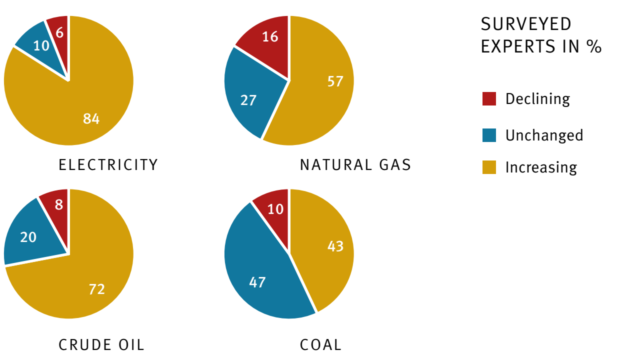
Rising Energy Prices over the Medium Term Expected



Source: ZEW

According to the experts surveyed for the ZEW Energy Market Barometer, wholesale energy prices in Germany will increase on a broad front over the medium term, e.g. over the next five years. 84 per cent of the experts indicated that electricity prices will rise. With regard to crude oil and natural gas about 72 per cent and 57 per cent respectively expect price hikes. 43 per cent of the questioned experts believe that coal prices will augment during the next five years. The ZEW Energy Market Barometer is a biannual survey of some 170 energy market experts.

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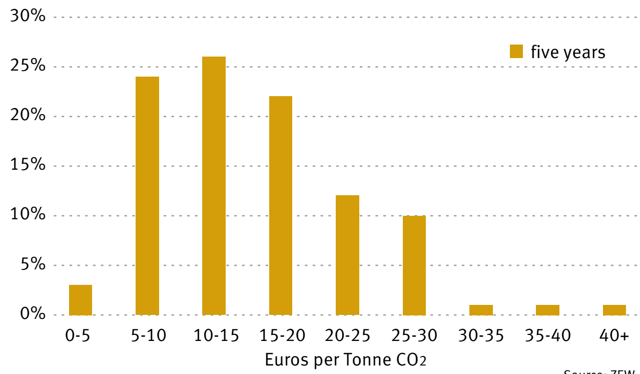
Emission Prices of up to 15 Euros per Tonne CO_2 Anticipated



Source: ZEW

The majority of the experts surveyed for the ZEW Energy Market Barometer expect a medium-term (five year-time horizon) price between 5 and 15 euros per tonne CO_2 on the European emission markets. Prices between 15 and 20 euros are predicted by 22 per cent. Twelve per cent of the experts anticipate that the price of a tonne CO_2 will range from 20 to 25 euros. Ten per cent are predicting prices of between 25 to 30 euros – only a few experts expect prices of more than 30 euros. The ZEW Energy Market Barometer is a biannual survey of some 170 energy experts.

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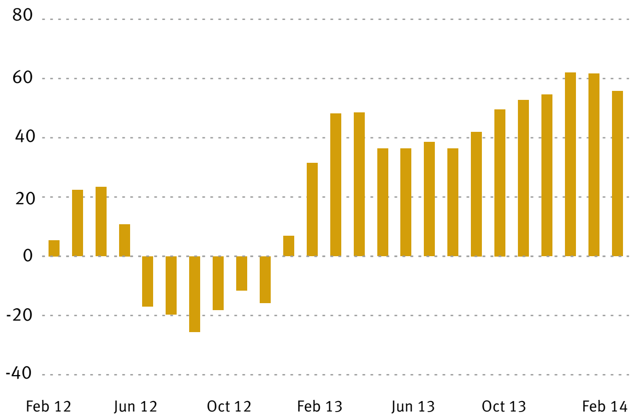
ZEW Financial Market Test February 2014



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

Germany: Expectations Remain at a High Level

Economic Expectations for Germany have declined in February 2014. The ZEW Indicator of Economic Sentiment has decreased by 6.0 points and now stands at a level of 55.7 points (historical average: 24.5 points). The cautious expectations in this month's survey are likely to be caused by some uncertainties which came to the fore recently. Weak employment figures as well as some damped leading indicators have, for instance, caused concern in the US that the current economic upswing could lose momentum. Furthermore, the volatile capital markets in some emerging economies reflect uncertainties regarding their economic prospects in the medium term. Nevertheless, this month's decline in economic expectations must not be overstated. The majority of surveyed financial market experts remain optimistic.

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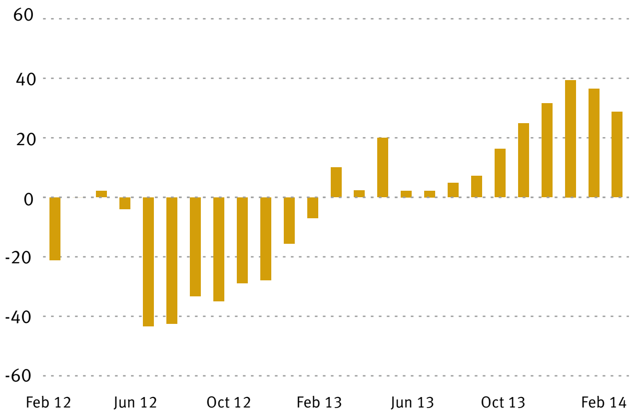

Balance of positive and negative assessments concerning economic development in Switzerland.
Source: ZEW, Credit Suisse

Switzerland: Economic Sentiment Weakens

Economic expectations for Switzerland have reached a reading of 28.7 points in February 2014. Therefore, the ZEW-CS-Indicator decreases by 7.7 points compared to the previous month. The weaker economic outlook is likely to be caused by the approval of the national referendum to stop mass immigration, which could impact on employment, investments and the general attractiveness of Switzerland as a business location. 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 Mannheim in cooperation with Credit Suisse (CS) Zurich. Switzerland's current economic situation experiences a slight correction (down 2.4 points) reaching a level of 47.6 points.

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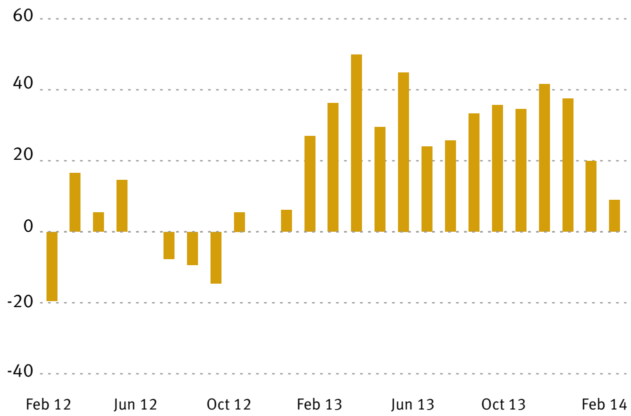

Balance of positive and negative assessments concerning economic development in the CEE region.
Source: ZEW

CEE Region: Expectations Decline

In February 2014 economic expectations for Central and Eastern Europe including Turkey (CEE region) have worsened by 10.9 points. After last month's major drop the ZEW-Erste Group Bank Economic Sentiment Indicator for the CEE region reaches 9.0 points, which is its lowest level since December 2012. Among the individual indicators the expectations for Turkey and Croatia also record lowest levels for a long time: The sentiment indicator for Croatia drops by 18.5 points to its lowest level since September 2012; the sentiment indicator for Turkey remains at its previous month level of minus 37.5 points, which is the lowest level since December 2011. The ZEW-Erste Group Bank Economic Sentiment Indicator reflects the financial market experts' expectations for the CEE region on a six-month time horizon.

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Photo: ZEW

Fairness and Mothers' Pensions

For years now, there has been intense discussion in Germany about the financial problems facing the public pension system due to population aging. Fewer and fewer contributors are paying into the pensions of more and more retirees. To keep costs in check, the government has passed a series of reforms over the past two decades cutting pension benefits. One reform introduced a demographic factor to the pension formula. Another reform, passed by Germany's previous grand coalition, provides for the standard retirement age to be increased gradually and reach 67 years in 2030. While pension contributions will rise in coming years, the reforms will slow the pace considerably.

The new federal government has embarked on a different strategy: extending pension benefits. Specifically, it has decided to allow employees who have paid into the public pension fund for at least 45 years to retire at 63 without penalty. It will also increase pensions for mothers of children born before 1992. Proponents of this policy U-turn argue that Germans can afford to pay these benefits given the state's bulging pension coffers. What should we make of this argument?

It is true that, as favourable labour market trends in the past few years have increased contribution revenues, Germany's public pension system has accumulated surplus funds. At the same time, the current demographic conditions in Germany are unique, and will not last long. A few years ago, people born during the Second World War and in the immediate postwar period – when German birth rates were low – began to reach retirement age. As a result, the number of new retirees has dropped, from around 1.4 million in 2003 to 1.2 million in 2012. In 2011 and 2012 alone, the public pension system realized a five-billion-euro surplus. But over the next couple of years this auspicious phase will pass and the system will begin to run deficits again, provided there is no increase in pension contributions. For this reason, it would be prudent to put away current surpluses for a rainy day. But politicians have so far been unable to resist the temptation to spend the money. The problem is that the surpluses are far from sufficient. The federal government estimates that mothers' pensions alone will cost the government around 6.5 billion euros a year – quickly exhausting the reserve funds and leaving the lion's share of the additional costs for future contributors to bear.

Fairness arguments have been used to defend current government's strategy, particularly with regard to mothers' pensions, where some have claimed that granting more pension benefits for children born after 1992 but not for those born before 1992 is arbitrary. It is easy to see their point. But what is more important is that those who have children and put much time and money into raising them maintain the pay-as-you-go pension, while pension contributors without children must rely on others. From this standpoint, it would be right to fund mothers' pensions through cuts in pension benefits for people without children or to differentiate benefits generally by number of children. But politicians have lacked the courage to hold a debate about who should bear the costs for mothers' pensions. Financing them by credit, and passing on the costs to the children of today's beneficiaries, is not a convincing approach. It may offer the path of least political resistance, but it will not lead to a fairer distribution of benefits.

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