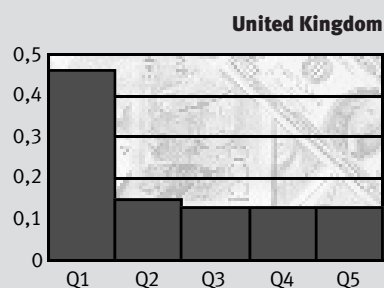
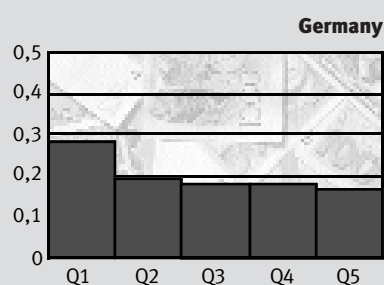
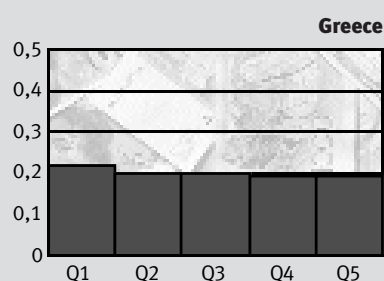


European Social Transfer Systems

In view of the growing expenditures for social security, the European social transfer systems have come under pressure. The question arises in how far the systems succeed in achieving their goals of reducing inequality, poverty and insecurity of existence. The findings of a current ZEW study indicate that the distributive effects of social transfer systems are strongly influenced by the instruments of social security used.

Degree of income improvement through transfer



Q1...Q5: Income quintiles. The population of each country is divided into five groups according to income before TOP. Q1 includes the 20 per cent poorest, Q5 the 20 per cent richest persons.

Note: Indicator for the degree of income improvement through transfers. The higher the figure, the more the income groups benefit from TOP.

Source: Eurostat, ZEW (data for 1995)

■ The distributive impacts of social security systems are determined not only by the total amount of expenditures, but also by the instruments that are used to allocate social security benefits to their target population. In a current ZEW study the linkage between the social security instruments adopted and the distributive outcomes in European social transfer systems is being investigated for total monetary social transfers other than pensions (TOP).

The results suggest that with respect to the mix of social security instruments used, the European social transfer systems may be classified into four broad groups. In 1994 and 1995, the British Cluster (Ireland and the UK) had medium to low transfer expenditures which were funded by the state with more than 50 per cent. Income replacements were mainly flat rate, the degree of coverage was comparatively high. The Northern Cluster (Denmark, Sweden, Finland, and the Netherlands), was characterised by high transfer expenditures funded to a large degree by the state. Income replacement rates were comparatively high and the degree of coverage was the highest throughout Europe. In the Central Cluster (Germany, Belgium, and Austria), transfer expenditures were medium to high and funded mainly by contributions. Earnings replacement were medium to high, whereas the degree of coverage was comparatively low. The Southern Cluster (Portugal, Italy, and Greece) was

characterised by relatively low transfer expenditures, small rates of income replacement, fragmented coverage and the absence of a universal minimum income guarantee. In addition, France and Spain were found to be borderline cases on the verge of the southern and the central cluster.

Data used were provided by studies published by Eurostat and the Direction DREES of the French Ministère de l'Emploi et de la Solidarité, which report the allocation of TOP across income quintiles in the EU countries for 1994 and 1995. With regard to the percentage of TOP that is granted to the income quintiles in each country, the high share of transfers granted to the top quintile in the Southern cluster countries Italy, Portugal and Greece (nine to twelve per cent in 1994 and eight to eleven per cent in 1995) is particularly notable. In comparison, the British countries devote only four to six per cent of their transfer expenditures to this income group.

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Research Findings

To assess the distributive impacts, the relationship of income before and after receiving TOP for the quintiles was calculated and normalised to the unity interval for each country. The figure obtained gives a measure for the degree to which transfers have improved the income position of the income groups. When evaluated according to this measure, the distributive impacts of the social transfer systems form characteristic profiles that clearly reflect the class as-

signment according to the social security strategies employed: The patterns are strikingly similar for countries belonging to the same class but differ between groups. In particular, the social security mix employed by the British cluster proves to be highly favourable to the lowest income group, whereas recipients of the medium and high incomes are markedly less favoured. By contrast, the profile of the southern cluster countries Greece, Portugal and Italy is relatively

balanced across income groups. The central and northern cluster countries are located in between, with the latter being more similar to the British group. These results indicate that the distributive impacts of social transfer systems are strongly influenced by the adopted social security instruments, suggesting that the choice of instruments may significantly influence the success in achieving given distributive goals. ◀

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ZEW-Conference

Environmental Certificates Trading – How Does that Work?

■ In September 2000, the ZEW and the Hamburgische Electricitäts-Werke (HEW) hosted a joint workshop. The event, "Environmental certificates trading – how does that work", took place as part of The European Renewable Electricity Certificate Trading Project, RECerT.

For the opening, the organisers, Helmut Groscurth (HEW) and Isabel Kühn (ZEW), put the tradable certificate discussion into the context of the economic debate on environmental and climate policy instruments. During the workshop, the elements and functioning of this instrument were to be analysed using two areas of application – the tradable green certificates (TGC) for the support of renewable energies, and the CO₂ emission permits trade for reaching the Kyoto targets.

Christof Timpe (Öko-Institut, Freiburg), explained the idea underlying a trade system with green certificates plus application possibilities for policy and business. Using the example of the European RECS (Renewable Energy Certificate System) initiative, he illustrated that various groups show great interest in a cross-border trading platform.

The next talk dealt with selected key variables of a certificate system. Hans Cleijne (KEMA, Arnhem) introduced the results of the RECerT laboratory experiment in which the price effects of different banking and borrowing possibilities were studied, as well as the price effects

of penalty payments of varying amounts. He called for caution with unlimited banking, since this caused a strong upward pressure on prices, at least in the experiment.

Isabel Kühn gave an overview of the current regulatory frameworks for electricity from renewable energy sources in individual EU Member States and on the EU level. She demonstrated a trend towards renewable electricity obligations with tradable certificates systems. Special rules are planned by all States which could lead to distortions in competition and make the national systems less compatible.

Thomas Roller (HEW) pointed out how much the new competitive framework has changed the German electricity market. He presented instruments used in risk management that could enable electricity from renewable energy sources to participate on the market. He emphasised that weather derivatives, tradable green certificates and emission permits could become new trade products and new business fields for HEW.

In the second part of the conference, the focus shifted toward the tradable CO₂ emission rights as an instrument of climate policy. In Germany, this has only been discussed in public for a few months. One of the issues that sparked the debate was a proposal from Reinhard Loske, environmental speaker of the Green Party in the German Parlia-

ment, to organise a German Emissions Trading Group similar to the British model. Frank Steffe explained the details.

Another event which brought life to the public debate in Germany was the first transatlantic trade with CO₂ emission credits between HEW and the Canadian company, TransAlta. Helmut Groscurth supplied information on the trade and described from a business perspective the opportunities and risks that come with the flexible mechanisms.

In the closing presentation Isabel Kühn expressed that Germany plays more of a latecomer role in the debate on tradable certificates systems and Kyoto mechanisms. Again, the danger was seen that national solutions could pose an obstacle for an EU-wide trade for the years to come. ◀

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The goal of the RECerT-Project is to disseminate the idea of market-based certificate systems to EU-member states. To this purpose, current developments and research results are being presented at a number of national workshops and international conferences. Moreover, businesses and other decision makers will gain insights into the functionality of certificate markets through an internet supported simulation of green certificate trade.

For more details, visit:
<http://recert.energyprojects.net>

Research Findings

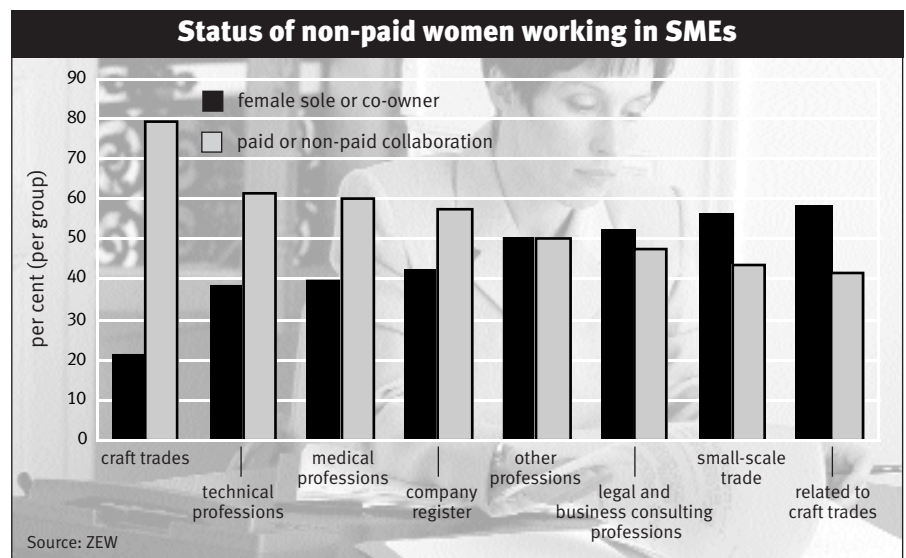
Non-paid Employment of Wives in Small and Medium-sized Enterprises

The help of family members contributes substantially to the economic success of small and medium-sized enterprises (SMEs). Yet surprisingly only a relatively small number of studies has been conducted on this predominantly female category of persons. In an attempt to fill this gap a study, commissioned by the Ministries of State and Economy of Baden-Württemberg into the socio-economic situation of women working in their husband's business, has recently been undertaken by ZEW.

■ In the course of the study approximately 1,200 wives or female partners of Baden-Württembergian entrepreneurs as well as female co-owners and sole owners in craft trades, trade and industry, and in the professions were interviewed. The analysis focused primarily on socio-demographic characteristics, job profiles, training and further training, and social security coverage. Furthermore, the situation of the interviewed women was compared to that of female employees in general by using available micro data (Socio-economic Panel, Micro Census).

Women's work in SMEs is concentrated mainly in relatively young and small firms. Two thirds of the interviewed women are active in firms with up to five employees. About half of the women work in enterprises which have been established in the past ten years. In traditional craft trades it is quite normal that the entrepreneur's wife or partner works with or without a remuneration, as opposed to being an owner or co-owner. 80 percent of all interviewed women in craft trades work in their husband's or partner's firm, but only 20 percent indicated that they were a co-owner or sole owner. A more balanced ratio can be detected in trade and industry as well as in the professions.

Concerning remuneration, training and further training as well as social security coverage, the conclusions to be drawn from the study indicate that women working in paid employment within their husband's or partner's firm, or having a share in the business are better off than female employees in regular employment. However, one particular problem related to women with-



out remuneration, is the lack of social security coverage.

Non-paid employment is particularly flexible resource

The findings of the ZEW study suggest that collaboration without remuneration is particularly important for the success of the company during the set up phase. Non-paid collaboration is a particularly flexible resource. The hours worked by these women are frequently irregular, and with average hours of approximately 17 hours per week they also work less than other groups. Their sphere of activity within the firm is also quite limited. In addition, they tend to work disproportionately often in rather young and small businesses and frequently have a second employment. Compared to other groups they also have the narrowest scope of decision-making power concerning the business. Moreover, the finding that approximately one fourth of

these non-paid women are not in a pension scheme suggests that they share the entrepreneurial risk with their husband or partner. Incidentally, owners of young companies are often found to be subject to a high income risk and frequently do not make any old-age provisions. Therefore, one might draw the conclusion that both spouses jointly assume the risk of self-employment.

As the business becomes established one tends to observe an increasing probability that a non-paid wife or partner changes her employment status. For instance she might become a co-owner, or work for pay within the company, and consequently, given her new status, she is in a position to increase the provisions she makes for retirement. Thus there are indications that she will "grow into" the company, and that her socio-economic situation will improve in parallel with the success of the business. ◀

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Research Findings

Export Restrictions on Raw Materials as an Industrial Policy Tool

Since the late seventies the Indonesian government has been supporting an expansion of the domestic timber industry through export restrictions on unprocessed logs, for instance through export taxes, but in later years also by an export ban. Although this resulted in Indonesia losing her role as a dominant world market supplier of saw- and veneer logs, in the nineties the country developed into the world market leader in sawn wood and plywood. A ZEW study examined whether more moderate promotion policies or even the absence of any support would have led to higher export earnings.

■ The ZEW calculated three different scenarios on the basis of econometric estimates of the domestic and export markets for the most important Indonesian timber products by far, i.e. logs, sawnwood and plywood. One scenario represents the policy that was actually pursued by the Indonesian government (BASELINE), the other two simulate no (NEUTRAL) and moderate export taxes (MODERATE), respectively. An essential aspect of the analyses was the fact that as a relatively large supplier, Indonesia is able to influence both production capacities in third countries and world market prices for all three products by varying the products offered for export.

A comparison of the policy Indonesia has been pursuing with the two alternative scenarios reveals that the successful establishment of the wood-processing industry came at a price, for a policy devoid of support measures would have yielded 17.5 billion US dollars more in terms of net export earnings than the actual policy (35.8 billion US dollars). A policy which restricted itself to modera-

tely high export taxes in foreign trade policy for all three timber products mentioned above would even have generated additional net export earnings of 42.5 billion US dollars. Unlike gross earnings, the net earnings the ZEW calculated for the period 1976-1992 in 1990s prices take into account the foreign exchange that flows out again for imports of intermediate inputs and foreign factor and unearned income.

Moderate export taxes yield highest foreign exchange earnings

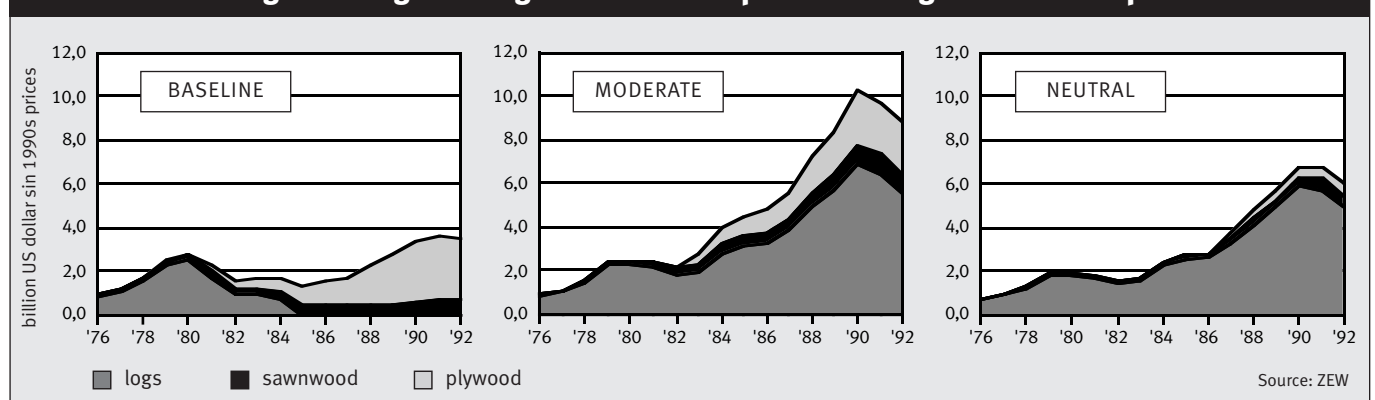
It is the comparison between moderate export promotion and the neutral policy (see diagram) that is particularly informative. With no export restrictions whatsoever, the timber export structure in the NEUTRAL scenario continues to be characterized by log exports alone, albeit with rising volumes and prices. But in the MODERATE scenario sawn wood and plywood exports also experience a considerable increase. On the whole, this is the policy that is by far the most

appropriate one to boost the net foreign exchange inflow from timber exports.

The decisive advantage of a moderate or neutral promotion policy compared with the actual policy lies in the overall larger export volumes. In addition, in the MODERATE scenario export prices develop more favourably, the reason being that the export tax, which the moderate policy sets at 40 per cent for each of the three products, causes the export price to rise significantly, as the demand for exports is relatively price inelastic. The export volumes related to the actual policy are quite small, because volume-wise the sawn wood and plywood industries were not expanded proportionately to the drastic reduction in log exports. On the other hand, the moderate and neutral promotion policies see log exports being replaced by exports of sawn wood and plywood in a more coordinated manner, allowing for an overall higher export volume over the total period.

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Net foreign exchange earnings from timber exports resulting from different policies

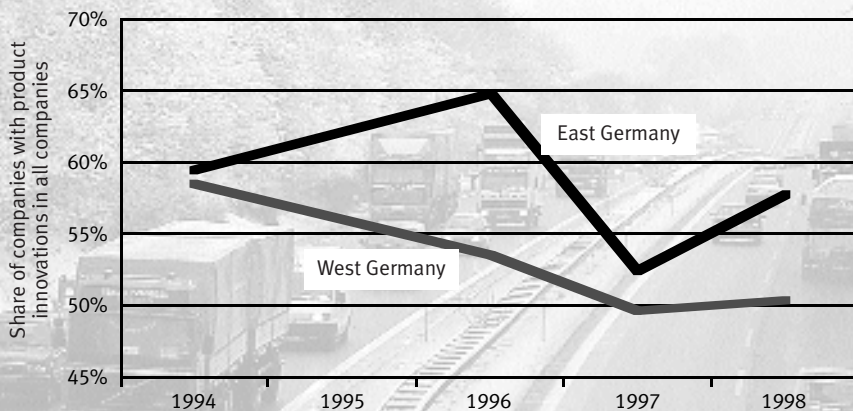


Research Findings

East German Trade and Transport Services are Ahead in Innovations

East German firms in trade and transport services are clearly more innovative than those in West Germany. The share of innovative companies as well as the share of innovation expenditure in turnover in these distribution service providers in East Germany exceeds the West German values. These are the findings of the recent service sector innovation survey, which the ZEW has conducted every year since 1994 on behalf of the German Federal Ministry for Education and Research.

Development of product innovations in trade and transport



■ In 1999, the ZEW interviewed approximately 2,500 service providers about their innovation activities and projected the results for Germany. In 1998, some 19,000 East German companies in trade and transport launched new or significantly improved services on the market. This corresponds to a share of 58 per cent in all companies in these sectors. In West Germany, however, this share amounts to a mere 50 per cent. Distribution service providers in East Germany also invest a higher share of their turnover in innovation projects. On average, 14,000 DM out of every million of generated turnover are employed for the development of new services, in West Germany only half of this amount is used.

When comparing them with the West German companies, East German companies in trade and transport do well not only with their innovation input, but also with the success of their innovations. They are less likely to develop fundamentally new services, but instead

they expand their product range by integrating new technology and service products, which were already introduced by other companies. It is these services and technologies which bring about success for East German companies: The turnover share they generate with new or significantly improved services amounts to 23 per cent and is thus considerably higher than the West German share (18 per cent). East German distribution service providers are also successful when employing cost reducing methods: In 1998, they were able to save nearly three percent of their costs by using new processes. In West Germany this cost reduction was less than two per cent.

Research and Development

Companies in East and West Germany also differ with regard to their inclination to carry out research and development (R&D). Almost eight per cent of East German companies in trade and

transport services stated that they carried out R&D projects in the past three years (compared to five per cent in West Germany). Even when taking into account that service providers in East Germany perform these R&D activities only occasionally, while their West German counterparts pursue R&D rather continuously, results do suggest that the East German companies in these sectors attach greater importance to R&D activities.

Heterogeneous service sector

The results of the ZEW demonstrate that the frequently stated view that companies in West Germany are innovative, whereas companies in East Germany are still catching up and therefore less innovative, is not entirely true. Especially in services, the dividing line does not run stereotypically between East and West, but also between individual economic sectors. Business-related service providers, such as consultancies and EDP, actually have a lower share of innovative companies in East Germany than in West Germany. Yet with regard to distribution service providers the very opposite is true.

It is the heterogeneity of the service sector that makes it more difficult to really grant company-related state support to those firms that should be assisted. An exclusively regionally targeted assistance is not expedient, if it promotes sectors which already excel in intensive innovation activities. On the other hand, assistance based exclusively on economic considerations would neglect regional differences. ◀

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ZEW Conference

EU Eastern Enlargement and Financial Markets

■ The EU's Eastern enlargement should not begin before 2007. If the first Eastern European countries joined the Community too soon after the introduction of euro coins and notes, this would entail tremendous economic and political

risks. In particular, a sustained devaluation of the euro would be bound to happen. This was the opinion expressed by Prof. Paul Welfens, University of Potsdam, at a conference on "EU Eastward Enlargement and Financial Markets". The conference was jointly organized by ZEW and the Arbeitskreis Europäische Integration, Bonn. The researchers responsible for the meeting were Prof. Rolf Caesar (University of Hohenheim) and Dr. Friedrich Heinemann (ZEW).

No harmonisation of income in Western and Eastern Europe

Welfens based his pessimism on political and economic arguments: for instance, whenever small Eastern European states held the revolving EU-presidency, this would create major problems in terms of the EU's ability to work properly. He went on to say that no convergence of income levels between the West and the East was to be expected for many decades to come. Yet, Welfens fears that concerning enlargement, politicians will disregard all the economic risks. According to him, the Prodi Commission is too ambitious in this matter and the pressure exerted by the Americans pushing for a speedy enlargement for security reasons is too great.

Not all participants shared this pessimistic assessment of a fast enlargement, though. In his analysis of the candidate states' monetary policies, Ulrich Schröder (Deutsche Bank Research) took the opposite view to Welfens. Schröder does not consider a "real con-

vergence" in the form of a equalisation of per capita income a necessary precondition for joining the EU. In addition, on account of the positive data on the convergence criteria, he also expects a speedy subsequent accession to EMU.



However, he thinks that before joining the euro, candidate countries need to realize that with their small share in EU-GNP, the ECB can hardly consider the economic situation in the Eastern European states. On the whole, assuming that enlargement takes place in 2005, Schröder believes the first Eastern European countries could be joining the euro zone starting in early 2008.

Prof. Renate Ohr (University of Göttingen) examined the EU candidates' monetary policy in her presentation. She showed that many Eastern European currencies have experienced a revaluation in real terms against the euro. She said this had happened irrespective of whether a country had been pursuing a policy of fixed exchange rates or a free float, or had a hybrid exchange rate system. Ohr suspects that it is more likely that this revaluation in real terms resulted from an equilibrium reaction of the exchange rate than from a speculative exaggeration. Therefore, she was confident that the risk of monetary and financial crises occurring in EU candidate states is currently limited.

Claudia Buch (Institut für Weltwirtschaft, Kiel) looked at the potential inherent in EU enlargement for expanding East-West trade and interpenetration

through direct investments. In her analysis Buch came to the conclusion that in the more advanced candidate states, accession to the EU had already been anticipated in part in the flows of goods, services and capital. In some countries

the exchange of goods and direct investments are very close to the levels expected when the countries become full members. Prof. Ádám Török (International Business School, Budapest) emphasized that at least in Hungary the large inflow of direct investments had caused only minor acceptance prob-

lems, although he did say investments from Western Europe were far more popular than those from the Soviet Union's successor states.

Analysis for financial investors

Michael Schröder (ZEW) presented an analysis that is useful for financial investors. On the basis of experiences from the past few years, he studied whether Eastern European markets serve to improve the earnings-risk ratio of international stock portfolios. According to him, the fact that modest returns go hand in hand with high volatility has a negative effect. He said that on the whole, in the past few years a diversification towards the East had done little to optimise portfolios. However, he stressed that the outlook was certainly brighter, since preparations for joining the EU produce improvements in the infrastructure of stock markets. Besides, he added, as volatility on Eastern stock exchanges decreases, liquidity is expected to go up. Finally, using data from surveys, Jens Köke (ZEW) proved that institutional investors currently give financial markets in Hungary and Poland the highest marks among candidate states. ◀

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ZEW Financial Market Test

Results of the Survey in November

■ The Financial Market Test conducted by the ZEW is a monthly business survey of German financial market experts which started in December 1991. The survey asks for the predominant expectations about the development in six international financial markets.

As a whole around 400 experts take part in the survey. 270 of them work in banks, 50 in insurance companies, 40 in investment companies and 40 in other industries. Participants in the survey are

financial experts of the finance departments, the research departments and the economic departments as well as the investment and securities departments of the firms. In detail, the financial experts are questioned on their medium term expectations about the development of important international financial markets with respect to the business cycle, the inflation rate, short term and long term interest rates, the exchange rate and share prices.

To construct forecasted figures, the qualitative response categories (increasing, unchanged, declining) are transformed into quantitative figures by the Carlson/Parkin procedure. Additional information to the applied procedure is available as an abridged version published by the ZEW. The present survey was conducted between Oct. 31, 2000 and Nov. 14, 2000 and all calculations are termed to Nov. 17, 2000. ◀

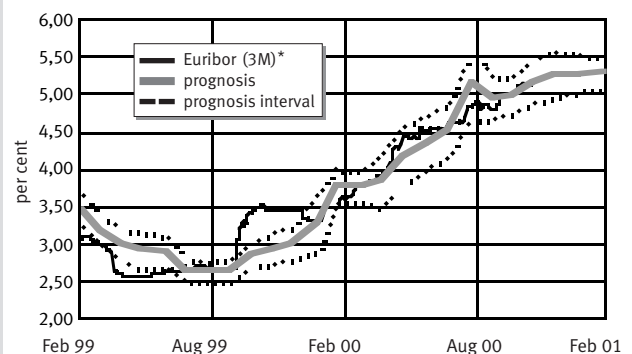
Birgit Sasse, sasse@zew.de

Euro zone: Fear of inflation lessening

■ Compared with the previous month, expectations concerning inflation in the Euro zone have shifted. Whereas as in October 55 per cent of those polled expected inflation to keep rising, now this percentage has dropped to 39 per cent. Obviously, this could soon enable the ECB to end its series of interest rate hikes and to adopt a neutral course. Consequently, those polled now expect money market interest rates (three months) until February to merely go up to 5.3 per cent, which roughly corresponds to a further interest hike of 25 basis points. Long-term interest rates are not expected to increase at all. No fewer than 19 per cent of those polled even predict declining current running yields for euro government bonds for the next months. Once again, plausible explanations for this trend are the now ebbing fear of inflation and the hardly euphoric view on economic growth. ◀

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Money market: Development and prognosis



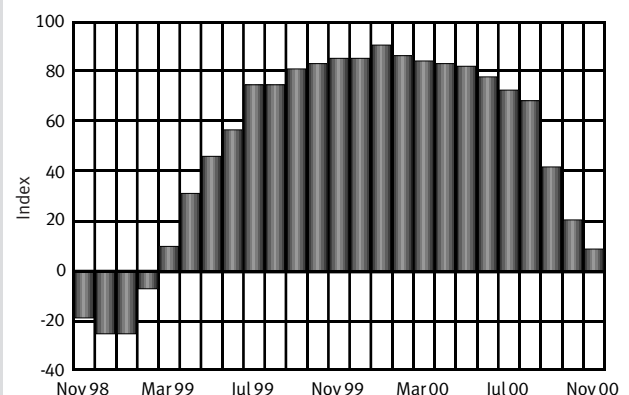
Source: Datastream, until January 4, 1999 FIBOR (3M)

Germany: Views on future economic situation keep getting gloomier

■ In November expectations among German financial analysts regarding the future economic situation stood at 8.5 points, the lowest score since March 1999. Thus, the downward trend in this leading indicator is continuing. In January the indicator stood at almost 90 points. Since then the indicator has been falling continuously. In contrast, the current economic situation was seen as only slightly worse in November. About two thirds of the financial experts consider the present economic situation normal, whereas about 41 per cent even call it good. The assessments of the long-term interest rate level benefited from the negative trend in the expected future economic situation. Due to lessening fears of inflation, the majority of institutional investors now expect the level for 10-year government bonds to remain unchanged in the medium term. A look at the various industries shows that little has changed compared with the previous month. The construction industry continues to be the biggest headache. ◀

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Expected economic situation in Germany



Mean calculated from the assessment of the current economic situation and the expected future overall economic development.

Publications

ZEW Economic Studies

Bürgel, Oliver:

The Internationalisation of British Start-up Companies in High-technology Industries

The present study analyzes the international activities of British start-up companies in high-technology industries. The research makes the following contributions. It is the first study that establishes the prevalence of internationally operating start-up companies in a particular country. Accordingly, we find that the majority of British high-tech start-ups have engaged in international activities within a few years since formation. Second, it consolidates the existing knowledge in the fields of international entrepreneurship and subjects it to empirical testing. Third, it assesses the power of different theories in international business to explain the cross-border activities of start-up companies. Overall, the research lends support to a resource-based perspective of international entrepreneurship since the proxies for transaction cost-based arguments and the internationalisation process theory are of limited explanatory power.

Vol. 9, Heidelberg/New York (Physica), 2000, ISBN 3-7908-1292-7.

Hemmelskamp, Jens; Rennings, Klaus; Leone, Fabio (Eds.):

Innovation-oriented Environmental Regulation

Innovation-oriented environmental regulation is extremely attractive for policy planners and decision makers, since it is expected that innovations can cut costs of environmental measures and overcome existing trade-offs between economic and ecological goals. The central question is, however, how such a regulatory regime of environmental policy approaches should look like. This book provides an excellent overview of the state of research by presenting and discussing theoretical approaches towards a framework of environmental regulation and innovation, international case studies as well as econometric and modelling studies from Europe and the US.

Vol. 10, Heidelberg/New York (Physica), 2000, ISBN 3-7908-1313-3.

You may also order these books online: www.springer.de/cgi-bin/search_book.pl?series=4041

■ Discussion Papers

Kaiser, Ulrich; Laisney, François; Nguyen van, Phu: *The Performance of German Firms in the Business-related Service Sectors: A Dynamic Analysis*, No. 00-32.
Kaiser, Ulrich; Pfeiffer, Friedhelm: *Collective Wage Agreements and the Adjustment of Workers and Hours in German Service Firms*, No. 00-33.

Licht, Georg; Fier, Andreas; Bürgel, Oliver; Murray, Gordon: *Internationalisation of High-Tech Start-ups and fast growth-evidence for UK and Germany*, No. 00-35.

Winker, Peter; Beck, Martin: *International Spillovers and Feedback: Model-*

ling in a Disequilibrium Framework, No. 00-36.

Muysken, John; Zwick, Thomas: *Wage Divergence and Unemployment: The Impact of Insider Power and Training Costs*, No. 00-37.

Hess, Dieter; Lüders, Erik: *New Economy Accounting: Why are Broad-based Stock Options Plans so Attractive?*, No. 00-39.

Schröder, Michael: *Investment Opportunities in Central and Eastern European Equity Markets*, No. 00-42.

Heinemann, Friedrich: *The Political Economy of EU Enlargement and the Treaty of Nice*, No. 00-43.

Almus, Matthias: *The Shadow of Death: An Empirical Analysis of the Pre-Exit Performance of Young German Firms*, No. 00-44.

Böhringer, Christoph; Conrad, Klaus; Löscher, Andreas: *Carbon Taxes and Joint Implementation*, 00-45.

Falk, Martin; Koebel, Bertrand: *Outsourcing of Services, Imported Materials and the Demand for Heterogeneous Labour: An Application of a Generalised Box-Cox Function*, No. 00-51.

Czarnitzki, Dirk; Spielkamp, Alfred: *Business Services in Germany: Bridges for Innovation*, No. 00-52.

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