

Institut für Weltwirtschaft
The Kiel Institute for World Economics

Annual Report 2001



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I. The Institute in 2001: An Overview

The Kiel Institute for World Economics at the University of Kiel (IfW) is one of the world's major centers for international economic policy research and documentation. The Institute's main activities are economic research, economic policy consulting, and the documentation and provision of information about international economic relations. The Institute's publications and services are addressed to academics in Germany and abroad as well as to decision-makers in both the public and private sectors, and to those people in the general public interested in domestic and international economic policy. The Institute's library is one of the world's largest libraries for economics and social sciences, and the Institute's Economic Archives have a comprehensive collection of newspaper cuttings.

The Institute, founded by Bernhard Harms in 1914 as the Royal Institute for Maritime Traffic and World Economics (Königliches Institut für Seeverkehr und Weltwirtschaft), has its roots in the Staatswissenschaftliches Seminar at the University of Kiel, which was established in 1899. In 1934 the Institute was given its present name "Institut für Weltwirtschaft." Today the Institute is affiliated with the Christian-Albrechts-University of Kiel, but is still an independent institution. It is a member of the Wissenschaftsgemeinschaft Gottfried-Wilhelm-Leibniz (WGL), which unites institutes and service providers of supraregional importance.

In the field of academic research the Institute focuses on applied economic research. The Institute engages especially in the empirical analysis of current economic policy issues, the theoretical analysis of new economic phenomena, and innovative economic thinking to find new solutions to economic policy problems.

In 2001, numerous research projects were initiated, made good progress, or were completed. The results thereof were presented at several international and national conferences and were published in various studies and contributions to economic journals. Due to improved online access, the services offered by the Library, which also functions as the German National Library for Economics, and by the Economic Archives were increasingly taken advantage of by both domestic and foreign users.

The Institute attaches great importance to the advanced training of economists. It offers an international postgraduate program and encourages the regular exchange of research results by hosting conferences, workshops and guest lectures.

Numerous research associates at the Institute were engaged in work on their doctoral dissertations or their *Habilitation*. Katja Gerling, Ralph Heinrich, Christian Pierdzioch, Katrin Springer, and Ludger Wößmann were awarded doctorates at the Christian-Albrechts-University of Kiel.

In 2001, several economists received awards for their outstanding endeavors. Erich Gundlach and Ludger Wößmann were awarded the European Investment Bank Essay Prize 2001 for their joint paper “Better Schools for Europe.” Christian Pierdzioch was awarded the Bernhard-Harms-Förderpreis für Nachwuchswissenschaftler and the Erich-Schneider-Preis of the Economics Department at the Christian-Albrechts-University of Kiel for his outstanding academic performance and his doctoral dissertation “Noise Trading, Central Bank Intervention, and the Informational Content of Foreign Currency Options.” Prof. Horst Siebert held the World Economy Annual Lecture at the University of Nottingham. His book “Der Kobra-Effekt: Wie man Irrwege der Wirtschaftspolitik vermeidet” was declared the “BDU-Buch des Jahres 2001.” Professor Siebert was appointed to the European Commission’s newly founded Group of Economic Analysis.

An outstanding event was the inauguration of the Institute’s new library on May 23 by Heide Simonis, prime minister of Schleswig-Holstein, and Prof. Heribert Zitzelsberger, secretary of state in the Federal Ministry of Finance.

*Ministerpräsidentin
Heide Simonis presents
Professor Horst Siebert
with the key*



At the end of the year the Institute had 260 employees, 56 percent of which were female and 27 percent of which were part-time employees. Of the total, 124 employees worked in the Presidential Department, the Information, Editorial and External Relations Department, and the five research departments. 110 worked in the Library, and 26 in the Administration. At the end of 2001, the Institute employed 80 academics and 180 nonacademics, two of which were trainees.

Several staffing changes took place in 2001. In June, Enno Willms of the Library’s professional staff retired after 25 years at the Institute. Jörg Döpke,

head of the Basic Research Group in the Business Cycles Research Department, left the Institute in October to work at the Deutsche Bundesbank in Frankfurt am Main. Jan Gottschalk, a research associate in the same department, went to the IMF in Washington, D.C.

II. Research and Advisory Activities

1. Main Areas of Research

The Institute's central area of research is the international division of labor from a static and dynamic point of view. The Institute analyzes the sectoral and spatial allocation of goods, services, and factors of production. In particular, it analyzes the endowments of countries, including their environment, the changes of these endowments over time, and the international interdependencies between monetary and fiscal policies and between business cycles of various countries. In analyzing these phenomena, special emphasis is given to the consideration of institutional settings in national as well as international terms and to the incentive and political economy systems that are part of these settings.

Research in 2001 concentrated on the following topics:

- worldwide locational competition and the effects of globalization on national goods and factor markets;
- global regulatory systems and their reforms;
- trends, causes, and consequences of the “new economy”;
- the integration of developing countries, newly industrializing countries, and transformation countries into the international division of labor and the multilateral trade order;
- the effects of international environmental and climate policies;
- the analysis of currency and financial markets and international capital flows;
- European integration, with special emphasis on its Eastern enlargement and the monetary policy of the European Central Bank;
- international variation in educational performance;
- reforms of labor markets and social security systems in industrialized countries;
- national and international business cycle analysis and forecasting;
- structural adjustment problems in eastern Germany;
- fiscal policy and subsidies in Germany;
- regional growth and spatial structures;
- the efficient provision of network infrastructure in transportation, telecommunications, and energy sectors.

As many of these topics were closely related to one another, the Institute's research departments worked together on several research projects.

The Institute is assisted by its Scientific Advisory Council in choosing its future research projects. The Advisory Council promotes the integration of the Institute into research networks and promotes collaboration with leading economists. Its members are proposed by the president and appointed for a period of three years by the Schleswig Holstein Minister of Education, Science and Research, and Culture. In 2001 the members were:

Prof. Dr. Axel Börsch-Supan, professor and chair of the Macroeconomics and Economic Policy Department at Mannheim University,

Prof. Martin Feldstein, Ph.D., George F. Baker Professor at Harvard University and president of the National Bureau of Economic Research, Cambridge, Mass.,

Prof. Dr. Dr. h.c. Helmut Hesse, former president of the Landeszentralbank in Bremen, Lower Saxony, and Saxony-Anhalt,

Prof. Dr. Dr. h.c. Otmar Issing, member of the directorate of the European Central Bank,

Prof. Anne O. Krueger, Ph.D., Herald L. and Carolin L. Ritch Professor at Stanford University and first deputy managing Director of the International Monetary Fund,

Prof. Guido Tabellini, Ph.D., professor at Bocconi University, Milan.

In May, Dr. Gerd Hansen, professor at Kiel University and chair of Statistics and Econometrics Department, was appointed a new member of the Advisory Council.

2. Presidential Department

The Presidential Department focused its research in 2001 on international integration and globalization. Research in this field was dedicated, among other things, to the constitutional framework of the European Union in the context of its Eastern enlargement, changes in financial markets and banking regulation, international trade in services, and the “new economy.”

At the beginning of 2001, the “Financial Markets” Group was made an independent research area within the Institute’s Presidential Department, and is now formally entitled the Financial Markets Research Area.

Previous research on the process of European integration was continued by analyzing the *institutional framework of the European Union with regard to its Eastern enlargement*. The system of intergovernmental cooperation currently in

place in the EU, which is based on the consensus principle, will not be effective in the European Union after it has been enlarged to include up to twelve additional member countries. There are concerns that political decisions will easily be vetoed. Furthermore, there are concerns that issues regarding how to equalize democratic deficits will arise.

As the number of member countries rises, the degree of heterogeneity will rise. A possible solution might be the adoption of a subsidiarity principle according to which political competences would be (re-)transferred to the lowest possible political level. Only those competences implying supranational external effects would be allocated to the EU level. Institutional competition would then show which national regulations are most efficient and correspond to the criterion of functioning markets. In this context, joint agricultural policy, European structural policy, as well as harmonization of labor market and social policies are problematic, as they go together with market distortions generating disincentives.

One alternative consists in eliminating democratic deficits and establishing joint decision-making processes based on constitutional structures. It is, however, questionable how a balanced representation of member countries of different sizes can be achieved, and how the efficiency of the decision-making process can be increased. One possibility could be to strengthen the political power of the European Parliament, while initiating a second chamber of representatives of the member countries.

The Department conducted an analysis of the reforms of the Treaty of Nice which determined that no progress has been made in this regard. It can even be assumed that majority decisions will be much more difficult to achieve. Moreover, the most populous member countries are still underrepresented in the decision-making bodies.

The Department continued its research project on *international trade in communications services*, which focused on international trade in electronically transmittable communications services, and in this regard paid attention to the convergence of telecommunications, the Internet, e-business, and the audiovisual sector. Necessary institutional reforms of the GATS to achieve a reduction of trade barriers and to increase the international contestability of markets were also focused on.

The project first had to define requirements for multilateral rules. It used trade theory, the theory of contestable markets as well as insights of network economics to derive basic principles for efficient multilateral rules. The main principles, market access, market presence, compatibility, transparency, legal enforcement, and dynamic efficiency, not only provided an analytical framework,

but they also served as an indicator that provided useful information about the efficiency and the liberalizing impact of reform proposals during liberalization negotiations.

Following these main principles, the current design of the GATS' regulation on communications services was analyzed. Findings showed that, on the one hand, success has been made regarding trade liberalization, but that, on the other hand, there still exist multiple barriers to international trade in communications services. Based upon these findings necessary reforms of the WTO/GATS framework to achieve a reduction of trade barriers and to enhance international contestability of markets were discussed. Among these are a reform of the GATS Treaty, the clarification of e-business classification within the legal framework of the WTO, the reform of the GNS classification scheme, as well as the reform of the reference paper for national regulation within the fourth protocol to the GATS. Furthermore, trade liberalization could be achieved by allowing for the direct effect of WTO law within the member countries, which so far has widely been neglected in the economic literature. Finally, guidelines for multilateral rules which could lead to a strengthened adherence to the claimed principles outside the WTO framework were discussed. The concluding policy evaluation referred to the question of the political feasibility of the reform proposals and its possible consideration within the ongoing negotiations.

Within the framework of the interdepartmental research project on the new economy, the Department initiated a new subproject on the *economic analysis of open source software*. The starting point was the observation that, in many sectors of the software market, commercial products have reached a monopolistic status, whereas, in other sectors, high-quality, noncommercial, and in most cases freely available alternatives, whose source code can be viewed and modified, have gained great acceptance and have increasingly been used. It is the aim of this project to analyze supply and demand structures in the open source sector, as well as to derive specific characteristics of open source software in comparison to proprietary programs. Furthermore, it will attempt to determine how the design of institutional and legal structure (e.g., patent rights, copyright) will affect the existence and efficiency of this market sector.

A new research project was also initiated in the area of *banking regulation*. This project is focusing on minimum capital requirements as the most prominent regulatory instrument nowadays. The justification for this kind of banking regulation is that the probability that banks could become insolvent, because they follow risky strategies which factor in deposit insurance and public bailouts, is too high for the economy. The aim of capital regulations is to reduce the

probability that individual banks could become insolvent by increasing adequacy ratios and thus strengthening the stability of the whole financial sector.

U.S. regulation, in the form of simple minimum capital adequacy ratios, has shown that, although banks increase their ratios, they engage in riskier investment projects in order to balance higher capital costs with higher profits. This can be avoided if capital requirements reflect banks' risk. However, this approach requires a reliable measurement of risk. Experience with the Basle Accord of 1988 has shown that banks use the possibility of portfolio restructuring which is offered by uncertain risk classes. This was one of the main points of criticism leading to the current redesign of the Basle Accord. The revised version introduced a more precise measurement of risk which includes internal and, alternatively, external ratings.

The aim of the newly initiated project consists in developing a theoretical framework for the analysis of capital regulations. It will attempt to determine how corporate governance, competition and the new Basle Agreement will affect the risk, capital structure, and the efficiency of banks, and therefore the stability of the financial system in the EU. The findings will be used to derive policy recommendations particularly concerned with the design of banking supervision.

○ Financial Markets Research Area

The main issues of research in this Area (headed by *Claudia Buch*) are related to the integration of international financial markets and potential consequences for economic policy. During the year 2001, three research projects dealing with causes for the segmentation of financial markets, complementarities in systems of corporate governance, and macroeconomic consequences of the use of derivatives were completed.

An analysis of the factors contributing to the *segmentation of financial markets* was the main focus of a research visit at the National Bureau of Economic Research (Cambridge, Mass.). Special emphasis was laid on the situation in the EU, where the creation of a Single Market for capital should be expected to have promoted integration. Also, the role of banks for the integration of financial markets was given special emphasis, as banks tend to be both regulated in their international activities and are typically considered as providers of information services. A theoretical framework was developed in which the international portfolio choices of banks can be analyzed. This model was used to show that both information costs and regulations potentially hold back the full integration of markets. New empirical evidence on the importance of regulations versus information costs was also gathered. Generally, the empirical evidence is in sup-

port of the hypothesis that information costs and regulations contribute to the segmentation of financial markets. The geographical distance between two countries seems of special relevance for international portfolio choices, and first empirical results suggest that its importance has not declined over time. Empirical evidence from Europe and the United States also shows that deregulation tends to promote cross-border banking while, at the same time, retail banking markets tend to preserve much of their regional and national nature.

The role of complementarities in corporate governance was the subject of a second research project conducted by the Area. The aim of the project was to explain the systematic differences between the corporate governance systems of different countries, particularly the United States, Japan, and Germany, and to analyze the need and options for reforms. The starting point of the analysis was the idea that various instruments of corporate governance can complement each other in minimizing agency costs at the enterprise level. It was shown in a series of theoretical models that the efficiency of a corporate governance system depends decisively on the efficient interplay of the various governance instruments that are used. How well this interplay works, and which governance instruments complement each other, will in turn be influenced by the economic and institutional operating environment of the firms and can therefore be influenced by economic policy. The analysis reached the conclusion that, depending on the institutional framework, various combinations of governance instruments can be effective. Moreover, the complementarity approach suggests that a significant change in the economic and/or institutional environment will, as a rule, require more than just a few adjustments in individual governance instruments or regulations. Rather, the approach suggests that far-reaching and systematic adaptations will be required in many areas of the corporate governance system simultaneously. The insights gained from the theoretical models were applied to the analysis of the corporate governance systems of Germany, Japan, and the United States. It was argued that the inefficiencies which emerged in the Japanese system in the 1990s can be traced back to a failure to implement systematic, coherent corporate governance reforms in response to the deregulation and liberalization of financial markets in the 1980s. For Germany, it was argued that the recent changes, most notably in the areas of management compensation, accounting and disclosure standards, taxation of gains from the sale of large stock holdings, implementation of the principle of one share-one vote, and the (so far abortive) initiatives to facilitate hostile takeovers are the result of the pressures exerted on the complementary components of the governance system by changes in the economic environment.

In a further research project, the Area analyzed the *economic determinants of the informational content implicit in foreign currency options*. A valuation model for

contingent claims was developed that renders it possible to shed light on the implications of technical trading in spot markets for foreign currency options and for the so-called volatility strike structure implicit in these contracts. The valuation framework successfully reproduces the characteristic convex shape of volatility strike structures reported in the empirical literature. Results of various empirical tests support the noise trader hypothesis of the volatility strike structure. Against the background of this evidence, the Area analyzed whether the informational content implicit in the prices of foreign currency options can also be used to analyze the effectiveness of central banks' foreign exchange market interventions. To this end, the effectiveness of the foreign exchange market interventions conducted by the Deutsche Bundesbank during the Louvre period was analyzed. In particular, the Area analyzed whether and how these interventions influenced the time-path of the \$/DM spot rate and/or the volatility of this exchange rate. The results of the empirical analyses support the view that central banks should be somewhat cautious when the question arises whether or not interventions are an appropriate policy instrument to intervene in foreign exchange markets to support the domestic currency.

3. Growth, Structural Change, and International Division of Labor (Research Department I)

The research agenda of the Growth, Structural Change, and International Division of Labor Department (headed by *Henning Klodt*) centers around the division of labor in the world economy and related structural adjustment processes in highly developed, internationally open economies. Its agenda also includes the globalization of the world economy, technological progress, and the institutional framework of economic policy. In particular, it analyzes (1) the transition from the industrial economy to a service and information economy and its implications for employment, (2) the institutional regulation of the labor market, and (3) social security systems. Of special interest in this context is the impact of European integration.

Important research fields over the past year were the characteristics, causes, and consequences of the "new economy," the reasons behind rising multinational activities, the determinants of long-term unemployment in Germany, the prospects for venture capital in Europe, the implementation of the European internal market and Eastern enlargement, and the deficiencies in the present system of unemployment insurance.

○ Structural Change and Growth

The Structural Change and Growth Group (headed by *Henning Klodt*) concentrated its work on two major issues: structural change toward the new economy and the role of multinational enterprises in the process of globalization.

Research on the *new economy* constitutes an integral part of the long-term analyses of structural change which the Group has conducted in the past. As part of an ongoing larger research project, which is being carried out in cooperation with other research groups or departments, the Group has shown that the transition towards the new economy should be recognized as a fundamental reorganization of production processes which is sustainable and will eventually encompass all sectors of the economy. Information increasingly constitutes a crucial input factor both in modern and traditional industries, and the information content of final output is continuously rising throughout the economy. The driving forces of the new economy are modern information and communications technologies and, in the years to come, also biotechnology. Innovations in these areas measure up well to the basic innovations of past industrial revolutions. It would be premature, however, to identify fundamental trend shifts in aggregate productivity growth, because certain measurement issues are still unsettled and the observation period is still too short. From a microeconomic perspective, the most important challenge of the new economy results from the specific properties of information as a public good, a network good, and an experience good. These properties give rise to a wealth of potential market failures which have to be coped with by innovative business strategies of private firms. Bundling and versioning of products, attracting free riders, and, above all, establishing a reputation have been identified as the most important business strategies for the new economy.

For society as a whole, the new economy can be regarded as a major challenge to the educational system. Since human capital will replace physical capital as the crucial production factor, improving the qualifications of the labor force is essential in order to successfully cope with adjustment challenges of the new economy to the labor market.

The second major research focus of the group was the *globalization process* over the last two decades. This process has accelerated remarkably since the mid-1980s. It has strongly changed the economic landscape, has induced structural change in many sectors in almost all countries participating in the process and has influenced various economic and political decisions. In addition, globalization has been hotly and widely disputed in recent years within and especially outside of economic research.

The Group's work concentrated on developed countries, since the bulk of international transactions involves only those countries, and especially on multinational enterprises (MNEs), the most important vehicle of globalization, and their role in this process. They hold a strong position in international trade, with about one-third of world trade being intrafirm trade, account by definition for all of the foreign direct investment (FDI), and are the main drivers of international transfer of knowledge (80 percent intrafirm).

A general equilibrium model was set up to analyze the phenomena of globalization (rising trade, FDI flows, and technology transfer) within a unified framework. In this model, globalization is driven by decreasing distance costs over time. The model reflects companies' increasing export activities over time which are due to the fall in distance costs. When distance costs have fallen below a certain threshold, production abroad becomes profitable and companies engage in FDI. This threshold depends on the degree of product differentiation, the complexity of the production process, the level and structure of fixed inputs, and the size of the home market of a company. It can explain the observed sectoral clustering of FDI as well as national differences, where companies from larger countries can be seen to internationalize their production earlier, companies based in smaller countries later. The modeling of the adjustment process from an equilibrium with national companies towards an equilibrium with MNEs indicates that the FDI of one company increases the profitability of the FDI of every national competitor. This explains the often-noticed fact that FDI occurs in waves.

This two-country model was extended to a model which reflects globalization as a multilateral process by introducing a third country. By using a three-country model it was possible to examine the influence of one country's FDI in another country on the seemingly unaffected companies which are based in a third country. This model was used to analyze the recent FDI wave in the era of globalization, which includes companies from various source countries, but only one major host country of their investment, the United States.

Using a two-country but multisector version of the basic model, the relationship between exports and foreign production was analyzed. Since both increase with falling distance costs, exports and foreign production appear to be complements rather than substitutes in aggregate. On the product level, however, large one-time substitution effects might occur, depending on the profitability of replacing exports with foreign production. When a new affiliate is established, final product's exports in the host country fall, but intermediate imports rise. Because foreign affiliates of different products become profitable at different points in time, in aggregate the strong one-product substitution effect is blurred by the

“normal” complementary relationship of all other products, which stems from the fact that exports and foreign production are driven by the same factor: they increase with falling distance costs.

Certain assumptions of the model framework were analyzed empirically. The concentration on developed countries was found justifiable in a study of *exports and sales of foreign affiliates of German companies in the mid-1990s*. Strong sectoral concentration was found. Furthermore, the choice of a proximity concentration framework with countries identical in relative factor endowments was motivated by this study. Factor proportions did not seem to drive the recent increase in MNEs’ activities. An empirical overview of the role of MNEs in globalization confirmed these results.

Trade in intermediate goods was another focus of the empirical globalization research conducted by the Group. First, because about half of world trade is in intermediate goods, and second, because intermediate goods trade plays an important role in the theoretical framework described above. In an analysis which used input-output tables of 24 manufacturing industries in ten OECD countries for several years from the early 1970s to 1990, the Group found a positive relationship between foreign affiliates sales and trade in intermediate goods. In particular, the Group found that there was a robust and significant effect of inward FDI stocks on imports of intermediate goods, which supports the idea that networks of MNEs drive the dynamic intermediate goods trade. A time-series analysis, which used German data from 1976 to 1998, added further support.

In a project closely related to the research on MNEs, the Group dealt with *mergers and acquisitions*. Since the mid-1990s there has been an increasing number of mergers of very large companies. To give the research on mergers an empirical basis, the Group established DOME-data base (Data Base On Mergers in Europe), which contains company data on mergers which have been under examination by the European Commission for being large enough to have union-wide effects. The data base currently comprises more than 1200 events from 1990 to 1999. It is continuously updated.

These data are the basis for empirical analyses of determinants of mergers and acquisitions and the post-merger development of companies. An analysis of 196 merger cases from 1990 through 1997 revealed very strong heterogeneity in the microdata. Profitability and employment effects which are due to mergers are often huge on the microlevel but without a general pattern. The probability of success measured by its profitability or employment change relative to a well-defined sectoral average is not statistically different from 50 percent. The analysis, therefore, confirmed the results found in the literature for earlier

periods for European merger activities in the 1990s. The probability of success of a merger as measured by profitability relative to the sector average is at about 50 percent. However, analyses of smaller, more homogenous subsamples show statistically important and significant effects of size differences and sector characteristics on the probability of the success of a merger by both measurements.

The empirical picture, which points to a strong dominance of horizontal mergers accompanied by vertical disintegration, motivated further theoretical research to explain the merger wave in the second half of the 1990s. The theory of oligopolistic competition uses the exploitation of market power to explain merger activities. The merit of this theory is the warning of the risk of restrained competition. However, the theory of oligopolistic competition does not seem well suited to explain the recent merger wave. Theoretical research has concentrated on the theory of the firm, which includes contributions from industrial organization, transaction cost economics, and incomplete contract theory.

A further project dealt with *international antitrust issues*. Given the anticompetitive effects of mergers and especially mega-mergers, the recent merger wave has confronted antitrust authorities with a new challenge. In particular, cross-border mergers may cause problems, because competition policy, with the exception of EU policy, continues to operate at national levels, while business globalizes. Although progress in the cooperation of national authorities has been made, cooperation might not be enough in the future; coordination might be needed. This is the result of an analysis of 20 case studies of international antitrust. An increasing number of international conflicts over mergers was found, especially in those areas where national competition laws differ from each other or where national authorities have divergent industrial policy objectives. Thus, it may be necessary to complement national laws with international competition rules.

○ International Economics and Structural Change

The main focus of research in the International Economics and Structural Change Group (headed by *Jürgen Stehn*) was on the completion of several studies within the framework of a project on the characteristics, causes, and consequences of the new economy. The first study, on *competition in electronic markets*, showed that the increased use of information and information technologies might not necessarily lead to a more efficient and transparent interaction between individuals. It might also hamper competition. This is due to the special characteristics of information as an economic good: high fixed and low variable costs as well as network externalities give rise to increasing returns to

scale; adverse selection can occur as a result of experience good characteristics; finally, public good properties call into question the existence of market solutions. The Group investigated the extent to which market participants developed mechanisms and institutions to overcome these problems. The results show that they were quite successful, and that their success was made possible by new technologies: To cover fixed costs they try to build up monopoly power (e.g., product differentiation) and to skim off rents from customers (e.g., price discrimination). Another alternative is to pass on costs to other goods (e.g., financing via selling advertising space). Standardization increases compatibility between competing products and alleviates problems resulting from network externalities. Reputation and trusted third parties help alleviate the adverse selection problem. New technological advances (cryptography) make formerly nonexcludable goods excludable: joint provision of these goods, possibly because of reduced costs of cooperation, can be another solution to the public good dilemma. While competition is possible in electronic markets, the results on social welfare are ambiguous, since institutions cannot be provided for free.

The second study, on *network externalities in the Internet economy*, explored the need for regulating network industries. The theoretical models on network effects were structured along the main decision problems in network industries in order to get a better understanding of the different forces at work. Three industries of the Internet economy where strong network effects are present were identified: the Internet infrastructure, the software industry, and the intermediaries sector. Although this selection is by no means exhaustive, the Internet Economy Indicators of the University of Texas show that these sectors cover a large part of the new Internet economy. The analysis showed that market participants were in most situations able to build institutions to overcome market failures. Government intervention, however, is necessary to maintain competition in some cases, since the incentives for anticompetitive action are strong. This is especially true for the software industry. Price controls might be necessary in some parts of the Internet infrastructure in the future, though there is no acute call for regulation. Finally, no reason to regulate Internet intermediaries could be found.

A third study examined the *impact of the new economy on the German labor market*. The results show that new occupations have a large and increasing impact. This development is marked by increased human capital and flexibility requirements for employees, whereby a potential future lack of specialists will depend on the flexibility of the German education system. Moreover, the results also show that the expanding market for temporary employment in Germany is an indicator that there is an increasing demand for flexible manpower use. Nevertheless, growth potentials still exist, as can also be observed in the tele-

working sector. The increasing share of employees with a profit-sharing component in their incomes in the last 15 years shows that more flexible payment methods are gaining in importance. No evidence has been found for the frequently expressed consideration that the Internet can improve information in the labor market and in doing so reduce mismatch-unemployment.

A fourth study analyzed the *problems of a turnover taxation of digital on-line goods and services*. A discussion of the various possible approaches of turnover taxation in cyberspace elucidated that the main challenge of the new economy is to effectively cope with B2C transborder trade in digital on-line goods and services. However, the traditional systems of turnover taxation that are being based on the Country-of-Destination Principle, such as the transitional scheme of the EU, the sales tax system, the Community Principle, or the VIVAT and CVAT approaches give rise to several control, efficiency, incentive, and identification problems in taxing B2C e-commerce and, thus, are not appropriate instruments to cope with the challenges of the new economy. The same holds for the more innovative proposals that have been made with regard to the taxation of B2C transborder trade in digital on-line goods, such as the German payment-flows approach, the U.S. e-card proposal, the modified Country-of-Origin proposal of the EU Commission, or the bit tax system. As a consequence, there are only two appropriate approaches to deal with the special characteristics of transborder trade in cyberspace: the Country-of-Origin Principle combined with a taxation of digital goods and services at the physical location of producers, and the Community Principle in combination with a withholding tax (WITHVAT).

Under the WITHVAT system, exports of digital on-line goods are taxed at the rate of the country of destination and consumers are responsible for passing the respective tax funds on to their national tax authorities. In order to set incentives for consumers to correctly report their digital on-line purchases to national tax authorities, all suppliers of digital on-line goods would be forced to add a withholding tax that equals the highest VAT rate of all countries participating in the transborder VAT system to any sales to consumers. Consumers would get a refund according to the difference between the withholding tax and the tax rate of the country of destination if they present the respective bills to their national tax authorities. The main advantage of the WITHVAT approach is that it does not need a central clearinghouse mechanism, because decentralized clearing is endogenous in the system. However, the WITHVAT approach may give rise to an unspecifiable obstacle to e-commerce and is not a suitable approach for the taxation of traditional off-line and on-line goods.

Moreover, a research project conducted together with the Social Security and Growth Group on the *reform of the German unemployment insurance system* was continued. The purpose of the project is to answer the question whether an efficiency-improving unemployment system could contribute to a reduction in labor costs and unemployment simultaneously. As part of the project, an analysis was conducted to determine the extent to which the American unemployment insurance system contributed to the significant decrease in unemployment which began during the 1980s. It was shown that U.S. unemployment insurance provides for a negative feedback between insurance expenditures and layoffs (“experience rating”), which differs from state to state in its intensity. Numerous empirical studies came to the result that due to this feedback the number of layoffs decreased. Moreover, the analysis was complemented by a review of the international discussion on efficient design of unemployment insurance systems. It turned out that true unemployment insurance would be the most efficient way to design financial transfers to the unemployed in a highly industrialized country. The often-raised objections to such a solution did not prove to be conclusive. For example, insurability is often denied on the ground that unemployment insurance would be too expensive due to moral hazard and adverse selection. It was shown that neither moral hazard nor adverse selection were insurmountable obstacles to a private insurance market.

Based on these findings, a dual-system model of private unemployment insurance was suggested that includes incentives for employees as well as employers to reduce unemployment. Each employee pays insurance premiums according to his (her) individual risk to become unemployed and according to his (her) preference with respect to the individual level and duration of unemployment payments. The U.S. system of experience rating was elaborated in such a way as to increase, via autoregressive processes, the built-in tendencies for employers to reduce unemployment.

Together with the Transportation Economics Group, research on the *integration patterns of four EU applicant countries*—Estonia, Latvia, Lithuania, and Poland—was continued. An analysis of regional integration patterns made use of historical trade data to test the hypothesis that past trade patterns influence the development of current trade flows. The analysis revealed that the current Baltic trade structures were to some extent determined by historical ties which could be attributed to the interwar period and the period of Soviet occupation. Moreover, gravity model estimates showed that these countries’ trade flows are starting to develop along the usual lines in other regions of the world. They follow the gravitational forces that generally shape trade relations (per capita income, population size, distance). But it became obvious that regional integration is much more important for these countries than is normally the case and determinants

such as low transport costs are of specific explanatory power. Complementary to this research, a detailed analysis of these countries' sectoral trade patterns started to develop an idea of their future role in the European division of labor. This idea includes the analysis of interindustry and intraindustry trade relations as well as the measurement of comparative advantages.

Another main focus of work in the Group was on employment policy. The Group analyzed the *probability of lay-offs and the probability of self-motivated job changes by West German employees*. It extended existing studies, which find lower lay-off risks after on-the-job training. One problem in these studies was the potential sample selection bias: employees who are selected for employer-financed on-the-job training represent a positive selection from the group of all employees and thus have a lower dismissal risk. On basis of the Socioeconomic Panel 1984–1999, hazardrate estimations were run to analyze training effects and to deal with censored employment spells. To overcome the potential sample selection bias, a matching approach by Heckman was used to generate the relevant dataset: first, a probit was run to identify the significant exogenous variables for the training participation probability. Second, by using these variables, a propensity score interval was calculated which was the basis for the classification of training participants and potential training participants with similar personal characteristics. Third, for these groups, the Mahalanobis distance was used to find a perfect nontraining partner for each training participant. The estimation results for this generated dataset show that the risk of lay-off can be significantly reduced by on-the-job training. The effect on a self-motivated job change is also negative, but not as distinctive as for the lay-off risk.

Two papers analyzed the reasons for long-term unemployment in Germany. One paper analyzed *wage demands of unemployed persons (reservation wages)*, in particular the absolute level of the reservation wages and its determinants. On the basis of a theoretical job search model with nonstatic reservation wages, different estimations were calculated by using reservation wage data from the Socioeconomic Panel from 1987 to 1998 for West Germany. The descriptive results suggest that reservation wages are relatively high in Germany compared to other countries: the deflated reservation wages exceed the salaries from work before unemployment by about 20 percent, while reservation wages in comparable international investigations lie close to the last income level. To analyze the determinants of reservation wages, different regressions were run—ordinary least square estimations and instrument variable estimations to deal with dependence of the last income regressor from the error term (quasi-endogenous regressor)—which show that most recent wages and the personal characteristics of the unemployed are the most important determinants of reservation wages. In contrast, neither unemployment duration nor different kinds of unemployment

benefit influence reservation wages. These findings also hold for estimations of different subsamples (sex, skills). Hence, the findings corroborate the hypothesis that unemployed persons are not subject to strong financial pressure and thus have no significant motivation to find a new job.

In order to further analyze the determinants of search intensity, a second paper calculated *skill-specific Beveridge curves for Western Germany*. The Beveridge curve compares the unemployment rate and the vacancy rate, and can thus serve as an indicator for mismatch unemployment. The results show that the mismatch for the group of unskilled workers is much higher than for the group of skilled workers and that this mismatch has increased over time. Since —by definition— no skill-specific mismatch can occur in the group of unskilled workers, a lack of financial incentives to take a job and personal reasons were identified as most plausible reasons for these results.

○ Technology and Growth

The Technology and Growth Group (headed by *Michael Stolpe*) began work on a new research project on *European financial markets, venture capital, and high-tech firms*. This project has a strong empirical emphasis and is intended to investigate the efficiency of Europe's market for venture capital with reference to the U.S. market as a benchmark. The goal is to quantify the factors which determine the efficiency of venture capital investments, measured by the difference between the price of initial public offerings and their subsequent first quotation in the stock market. The project is part of a larger research collaboration on European integration, financial systems and corporate performance, in which the Institute has joined forces with the Institute for New Technology at the University of the United Nations in Maastricht, the Trade and Finance Center at the University of Oxford, the Center for European Research at the University of Rome, and the Business School at Warwick University in Coventry.

As part of this research project, a descriptive study initially examined *differences and common trends in the various national markets for venture capital in Europe*. A particularly striking common trend was their extraordinary growth in the second half of the 1990s. However, national venture capital markets still differ with respect to their size relative to gross domestic product and with respect to patterns and sources. Whereas banks are still the most important source of investment funds for venture capital in Europe, pension funds are increasingly gaining importance. With respect to investment targets, there are also sharp differences between the various countries; some concentrate their investments much more heavily on the early stages of firm formation and on genuine high-tech start-ups.

Two venture capital markets, the German and the French markets, were examined more closely using micro-level data. The results for the German market indicate that there are significant differences between the various groups of venture capitalists. Venture capitalists within the public domain have on average 144 firms in their portfolio, while independent venture capitalists on average hold only about 25 equity positions. There are similar differences with respect to the technological specialization of venture capitalists' portfolios. By contrast, no major differences could be found between the various groups of venture capitalists in the French market.

In addition, micro-level data from 281 initial public offerings on the Neuer Markt in Germany and from 95 initial public offerings on the Nouveau Marché in France were examined. These observations were made during the years 1997 through 2000, and they provide a rather detailed picture of the changes in equity capital structure in those firms during their initial public offering. The value of equity in German firms before their initial public offering was twice as large as that of the French firms, and the German firms on average placed more than five times as much additional equity during their initial public offering. Moreover, the value of equity held by venture capitalists before the initial public offering was also more than twice as large in German firms as in French firms. However, the percentage share in total equity was slightly higher in French firms (16.4 percent) than in German firms. The most striking difference was the large share in the private equity (75 percent), which was held by passive institutional investors in French firms (which do not include venture capitalists) and which was reduced by 20 percentage points upon the initial public offering. In German firms, by contrast, the largest share of equity capital (55 percent) was held by founders and managers, real insiders, before the initial public offering, and they reduced their share by 15 percentage points on average.

The objective of this research was to provide the empirical basis for making economic policy recommendations to enhance the efficiency of venture capital markets in Europe. When such measures are applied in practice, their immediate objective is usually to boost investments of venture capital primarily in firms during their early stages of development. After all, it is during this phase that the risk of a capital loss is particularly large, and economic theory has shown that the unequal distribution of information about the prospects of a firm makes a market failure in the allocation of capital particularly likely during this phase. Venture capitalists, however, who reduce these risks through their active management involvement in the firms, can help to overcome market failure. How large the influence of venture capitalists on the risks and prospects of early-stage investments actually is depends primarily on the level of human capital specific to the field of technological specialization which a venture capitalist has chosen.

The impact of several alternative economic policy measures was compared in the context of a contract-theoretic model in which the expected profit of the innovator depends on the level of management support and on the level of technology-specific human capital acquired by the venture capitalist. This comparison focused on a public support credit scheme and a coinvestment program. These are the policy schemes used by the subsidy program entitled *Beteiligungskapital für kleine Technologieunternehmen (BTU)*, which was launched at the beginning of the 1990s in Germany. In the credit scheme, the *Kreditanstalt für Wiederaufbau* refinances part of the participation of the venture capitalist by lending a proportion of the capital. In the coinvestment scheme, the *Technologiebeteiligungsgesellschaft der Deutschen Ausgleichsbank* participates directly, but in conjunction with the private venture capitalist in some of the firms he (she) has selected.

The results of our analysis show that both schemes have similar incentive effects. Those venture capitalists that have already acquired sufficient expertise to fund firms in their early stage reduce their management support and the total expected return declines. Venture capitalists, by contrast, who have not acquired sufficient expertise for early-stage firms, are encouraged both by the credit scheme and by the coinvestment scheme to finance early-stage firms and thereby to acquire the missing technology-specific human capital through learning by doing.

However, the two subsidy schemes differ with respect to their scope. The scope depends on the technology-specific risk. When product innovations with a high level of risk, as is typical, for example, in biotechnology, are financed, an inexperienced venture capitalist will prefer the credit scheme of public support, because in this case he fares better if the firm in which he has invested fails. Moreover, the financial incentives for inexperienced venture capitalists are too low in the coinvestment scheme. However, when the risk of failure in a new technology-based firm is not so large initially, as is typical in the case of product imitation, then the coinvestment scheme can be advantageous also for an inexperienced venture capitalist.

In addition to this theoretical study, the impact of the BTU program with the two subsidy schemes was investigated empirically, with the focus on new technology-based firms in the area of information and communication technologies. It was shown that the subsidy schemes within the BTU program were about as important for the increase in investment in these areas as was the start of the *Neuer Markt* stockmarket segment in 1997. During 1999, the share of all investments in the information and communications technology area that was subsidized by the BTU program was fully 32 percent.

The Group continued its work on *technological change in health care*. This work focused on frictions in international trade with innovative pharmaceuticals, and on efficiency problems in health systems of aging societies. Frictions in international pharmaceutical trade are primarily due to the fact that optimal incentives for innovation in the pharmaceutical industry, which often supplies global markets, require international price differentiation, while free trade severely limits the opportunities for price differentiation, even in the case of patent protection. Pharmaceutical firms often refrain from price discrimination in practice because they fear that pharmaceuticals offered at a low price in poor countries will be reimported to richer countries and put pressure on prices there. As a consequence, developing countries often do not have access to innovative drugs and medicines still under patent protection, and some of these countries have suspended the intellectual property rights required by the World Trade Organization in the agreement on trade-related aspects of intellectual property rights (TRIPS). These countries are increasingly promoting the import or the domestic production of unlicensed copies of specific pharmaceuticals under patent protection.

A topical example is the worldwide fight against the Aids epidemic which is not yet organized efficiently. Many of the infected cannot get the best currently known medicine because private monopolies protected by patents have encouraged the producers of these medicines to raise prices well above the variable unit costs of production. At the same time, there are insufficient financial incentives for private pharmaceutical firms to develop new anti-Aids drugs and vaccines. Against this background, the Group analyzed and evaluated alternative priorities for the global Aids fund of the United Nations, which was launched in the summer of 2000. It argued that the best strategy in line with both short-term and long-term objectives in the fight against Aids relies on the free licensing of selected potent Aids drugs and vaccines after their respective intellectual property rights have been acquired by the global Aids fund. Competition in the manufacturing of these drugs would drive down their prices to the level of variable unit costs of production, and all those persons whose willingness to pay lies above this price could be served. Moreover, the incentives for further innovations would be strengthened if the global fund paid a mark-up on the private value of patent as determined by a sealed-bid second price auction, so that the inventor would be rewarded for the higher social value of his invention.

In studying the *efficiency of health systems in aging societies*, the group addressed the question whether there may be a similarly dramatic increase in expenditure on health care as has been forecast for many countries' pay-as-you-go pension systems. It was found that the expenditure volume of pay-as-you-go health systems is a significant part of generational accounts which has so far

been insufficiently researched. Preliminary findings indicate that demographic change does not necessarily raise the total health care expenditure in a country. This is because the age-specific health expenditure may, as was shown in the literature, fall when longevity increases, because the average yearly health expenditure appears to depend much less on the age of a person than on the person's distance from death.

Several reasons were advanced as to why the general crisis in the cost/benefit calculation of modern health care systems may become more severe in an aging society. Above all, the higher level of uncertainty about diagnoses, therapeutic possibilities, and prognoses of diseases in old people who are often chronically ill and have multiple causes of illness will contribute to a special moral hazard problem and may increase the wedge between the cost/benefit calculations as viewed by the individual patient and by society as a whole, even when the individual willingness to pay for life-saving measures is as high as in the case of a young person. As an economic policy implication, it can hardly be a worthwhile goal to build a capital-funded health insurance system simply because the expenditure increases due to medical and pharmaceutical innovations are hard to predict. Instead, it will remain a task for public policy to try to steer technological development and technology adoption in health care. However, this conclusion does not apply to long-term care whose provision is labor-intensive and will not be much affected by technological change in the foreseeable future.

○ European Institutions

The European Institutions Group (headed by *Hugo Dicke*) completed an evaluation of the *progress of the completion of the internal market in the aftermath of the Amsterdam summit in 1997*. A major aim of the internal market policy is still the abolishment of market distortions and impediments although the completion of the internal market was officially declared in 1992. Too many businessmen engaged in cross-border activities have been complaining about infringements of the internal market rules. Whether a concrete infringement of the right to trade freely across the internal border is caused by loopholes in Community law, national authorities not always toeing the line, or natural difficulties firms encounter when they cross borders cannot be ascertained without ambiguity. Nevertheless, the many complaints about the hardship of everyday life in Europe cast a shadow on EU Commission reports that consider the internal market a success.

In a new research project, the Group will study the *potential impact of the Eastern enlargement of the EU on migration in Europe*. In the first stage of the project, an overview of the literature embracing theoretical and empirical work on

migration will be prepared. In the second stage of the project, an empirical analysis of growth and welfare effects of migration on the German and other EU economies will be conducted, in addition to an economic assessment of immigration policies in selected OECD countries.

Finally, in cooperation with other Groups in Research Department IV, the Group is preparing a study on the *current status of economic and institutional reform in the twelve candidate countries for accession to the EU* in the wake of its planned Eastern enlargement. In this study it will analyze the progress achieved by the candidate countries in the area of institutional transition on their way to comply with the economic criteria established by the European Council in Copenhagen in 1993. The elements of the institutional framework needed to create a market economy include, inter alia, the protection of property rights, the degree of market regulation and the share of GDP claimed by illegal transactions. Also, the progress reports presented regularly by the European Commission will be thoroughly appraised.

○ Social Security and Growth

One of the focuses of research conducted by the Social Security and Growth Group (headed by *Hans H. Glismann*) was unemployment in Germany and in other countries. Research on the impact of taxes and duties on the *level of unemployment in OECD countries* was continued. Estimates for 1983 to 1994 indicated that—among other structural features of the labor market (such as level and duration of employment benefits, union coordination, employer coordination, active labor market policies)—taxes are of considerable importance with respect to the level of unemployment in OECD countries. In this context, it is often argued that the direction of causality is not unambiguous because it is conceivable that there is, besides the impact of taxation on unemployment, also a positive impact of rising unemployment on government expenditures and thus taxation. Therefore, an additional focus was on empirical tests which differentiated between long-term and short-term unemployment, and which were intended to reveal whether or not there is really an exogenous impact on the level of unemployment. The tests indicated that there is no problem of “reverse causation” with respect to short-term unemployment. With respect to long-term unemployment things are different: as two-stage least squares estimations revealed, taxes and long-term unemployment are determined simultaneously. Taxes have a highly significant impact on unemployment: the higher the level of overall taxation, the higher the rate of long-term unemployment. In addition, rising long-term unemployment also leads to rising government expenditures which in turn lead to a higher tax rate etc. This mutual reinforcing relationship

(“*circulus vitiosus*”) seems to be a plausible explanation why long-term unemployment in Europe is such an incessant economic problem.

In collaboration with the International Economics and Structural Change Group, the long-run research project on *reforming the German unemployment insurance system*, which was launched in the year 2000, was continued. The underlying notion is that by making the unemployment insurance system more efficient in economic terms, the international competitiveness of German producers will be improved. It is argued that an efficient insurance system should give incentives to all parties concerned in order to reduce existing as well as newly arising unemployment. Two studies were completed. The first one described unemployment insurance in the United States and in the United Kingdom, and compared these with German unemployment insurance. The second one developed a dual-system model of a private unemployment insurance that includes incentives for employees as well as for employers to reduce unemployment. Two additional studies are under way, one will analyze the history of the German unemployment insurance system and the incentives originating from past changes in the system. The other will elaborate the dual-system model by including recent data in order to make possible an evaluation of the long-run and short-run costs of a fundamental reform.

The research project on the relationship between *economic freedom and economic growth* was also continued. Present empirical results show that the level of economic freedom have a considerable impact on economic development: the higher the level of economic freedom, the stronger economic growth is. However, in this respect, too, the question is whether the direction of causality is unambiguous. Some researchers have presented Granger causality tests which have increased reservations against ordinary least squares estimates. Therefore, this relationship will be further investigated with the help of instrumental variables and two-stage least squares estimation techniques to show whether the relationship is exogenous or probably simultaneously determined. An additional feature of economic freedom, i.e., the existence of well-defined property rights, will be investigated more deeply. Insufficient access to property rights as well as bad enforcement in many developing countries seems to be a major cause for not being able to exploit all opportunities to improve economic development.

The Group completed an investigation on the *structural adjustment and unemployment problems in eastern Germany* in the aftermath of unification. It seems that in bringing the market economy to former East Germany, economic authorities have disregarded at least two economic fundamentals. On the one hand, the premature formation of a currency union with an exchange rate of 1:1 between a highly productive market economy and a less productive former

planned economy seems to have been a big mistake. Because of the policy chosen in the first years after unification (1990–1994), real value added and employment in the international sector in eastern Germany was reduced by 43 percent and 67 percent, respectively. The nontradables sector, however, declined only by 3 percent and 1 percent, respectively, in the same period. In addition, economic fundamentals with respect to the labor market were disregarded. The introduction of the West German system of wage bargaining shortly after unification also seems to have been premature because the system was introduced when the employers' side was still represented by the former socialist managers. Thus, wage negotiations resulted in ambitious wage schedules for catching up with wages in western Germany, irrespective of developments in productivity. Panel estimates of the relationship between real wages and employment in economic sectors of the eastern German economy and within eastern German manufacturing industries in 1992–1994 reveal that the higher the real wage increases are, the more pronounced the decline in employment is.

In collaboration with the European Institutions Group, the Group launched a project on the *future of municipal firms on the European internal market*. Whereas, on the federal and on the state levels, governments have been reducing their entrepreneurial activities over the past decades, this has not been the case on the municipal level. The project is to analyze whether and to what extent municipal firms will be compatible with EU regulations and whether there is any macro-economic rationale in municipal entrepreneurial activities which passes the empirical test.

4. Environmental and Resource Economics (Research Department II)

Research activities in the Environmental and Resource Economics Department (headed by Gernot Klepper) focus on the allocation of environmental and natural resources. The factors influencing the increasing scarcity of natural resources are investigated and their impact on the allocation of factors of production and goods in the world economy is assessed. The research focuses especially on the evaluation of international and national aspects of environmental policy measures, leading to proposals for a rational and efficient use of environmental policy instruments.

The research activities of the Department in the year 2001 concentrated on the environmental and natural resource aspects of the use of fossil fuels and other energy sources. Moreover, environmental policy instruments for the efficient use

of fossil fuels and of other environmental resources were investigated. In addition, research on the economic aspects of the use and the control of biological diversity was continued.

○ Environmental Economics

The Environmental Economics Group (headed by *Gernot Klepper*) focused its research on issues of allocating environmental resources and on the design of environmental policy instruments for the achievement of national and international environmental objectives. The major policy areas investigated concerned climate policy and the preservation of biological diversity.

The Group developed the DART model for the *analysis of the impact of the emissions of greenhouse gases on climate change* and of the impact of policy measures to reduce these emissions. DART is a multiregional, multisectoral dynamic computable general equilibrium model for the simulation of long-term growth scenarios of the world economy. In order to include the impact of globalization on the regional and sectoral effects of climate policies, the DART model was extended to incorporate different forms of capital mobility. Thus, it is now possible to simulate different degrees of globalization and their differential impact on climate change and climate policies.

Model simulations of growth processes of the world economy without climate policy for different forms and degrees of capital mobility were performed. Since the Third World will face an increasing capital shortage in the future, it is interesting to see how capital mobility could lead to welfare gains in these economies. Simulations of complete capital mobility—a rather unrealistic variant—led to sizeable welfare gains, as an efficient international allocation of capital will take place and growth processes in the Third World will accelerate significantly.

In more realistic scenarios which take into account actual regional preferences for foreign direct investment the welfare effects are much smaller. This is mainly due to preferences which led to capital mobility taking place mainly among industrialized countries, whereas the capital shortage will occur mainly in the Third World. If these preferences continue to prevail—possibly because of barriers to direct investment and risks in developing countries—the disequilibrium in international rates of return on capital would even increase. The simulations confirm the widely held belief that a further liberalization of foreign direct investment flows in developing countries would lead to significant welfare gains.

The advantages of more capital mobility on growth and welfare in the Third World cannot be simply translated into similar effects of climate policy. The negative impact of the Kyoto Protocol on welfare and resource allocation would

not be reduced by increased capital mobility. To the contrary, the costs of reducing CO₂ emissions would even increase. Two effects are responsible for this, both of which are due to the unilateral emission reduction commitment of the industrialized countries. These unilateral commitments lead to an artificial comparative advantage of developing countries in capital- and energy-intensive sectors. Increasing capital mobility would accelerate direct investment in these countries and it would further improve this artificial comparative advantage. Hence, distortions in the international division of labor would increase. The second effect concerns the so-called leakage effect. Through increased direct investment, energy-intensive production in the Non-Annex I countries will increase, thus leading to higher CO₂ emissions. Reaching a specific target of greenhouse gas emission reductions will therefore require even stronger restrictions in emissions within the industrialized countries and thus increased economic costs.

An important aspect of international environmental policy is the *preservation of biological diversity*. The Convention on Biological Diversity is an important international environmental agreement in which the preservation of biodiversity, the sustainable use of its components, and a fair distribution of the gains from using biodiversity are formulated. The convention also provides a framework for the private allocation of genetic resources and genetic information through markets. There is an intense debate as to whether the economic use of genetic information in the pharmaceutical industry and the agroindustry will provide sufficient incentives for effective protection of biological diversity.

In this research project on this topic, the Group analyzed different forms of the use of genetic information and different transfer mechanisms for biological resources as carriers of genetic information. The transfer and use of genetic information happens in two different institutional frameworks. On the one hand, there is a market allocation with profit-oriented actors working in a decentralized environment; on the other hand, there are administered allocations governed by state action. The market allocation of biological resources was analyzed within a theoretical model framework. It turned out that the impact of market allocations for the preservation of biodiversity depends crucially on the scarcity of biological resources as carriers of important genetic information.

In collaboration with the Max-Planck-Institute for Comparative Public Law and International Law (Heidelberg), the commercial use of genetic information with respect to the current system of intellectual property rights was investigated. The results of this project indicate that the convention on biodiversity did not resolve conflicts regarding the use of patents and other immaterial commodities. As a

consequence, the chances for preserving biological diversity for the commercial use of genetic information are often overestimated.

Therefore, other options for the preservation of biological diversities need to be investigated, e.g., the preservation of ecologically sensitive areas through their exclusion from commercial use. The preservation of such area and ecosystems is in the interest of all states and therefore requires international coordination. The effectiveness of such coordinated policies is often influenced by conflicts in the political and legal introduction of measures as well as by misdirected economic incentive structures. Future research will therefore look at the incentive effects of the different international agreements for the protection of natural ecosystems.

○ Natural Resources

The Natural Resources Group (headed by *Manfred Wiebelt*) analyzes the sustainable use of energy and nonenergy resources. In collaboration with the Environmental Economics Group, the Group completed a research project on the impact of climate change on the worldwide allocation of resources. In a joint project with Research Department IV, the Group continued its research on sustainable development strategies. It focused on distributional aspects, on poverty reduction, and on environmental impacts of stabilization and structural adjustment programs in developing countries. In research on energy resources, the latest energy balance for the state of Schleswig-Holstein was completed, and the use of renewable energy resources in Germany was investigated.

In the debate on energy policy, renewable energy sources for the production of different types of final energy are often proposed as alternatives to fossil energy resources because they contribute less to climate change and have a smaller impact on local environmental quality. However, the production of renewable energy turns out to be quite costly and efficient supplies will not come forward without government aid and protection from international competition. In order to investigate these issues a multidisciplinary research project was started which focuses on the *use of ethanol and methanol from renewable resources in the chemical industry and as a substitute for gasoline*. The contribution by the Environmental and Resource Economics Department will concentrate on the complex network of regulations which determine the production of the renewable resources, namely sugarbeet, grain and wood, and on the regulation concerning the final products, i.e., ethanol and methanol. The raw material inputs as well as the final outputs are both significantly affected by European trade policy with tariffs and quotas for agricultural products as well as for imports of bioalcohol. In addition, the Common Agricultural Policy with its product-specific market regulations and with the set-aside programs are under investigation. Finally,

German control of the market for bioalcohol through the Federal Monopoly on Spirits is taken into account.

First results indicate that the use of renewable resources for the production of ethanol requires considerable protection in order to become competitive vis-à-vis fossil fuels. Two effects are mainly responsible for this: First, renewable energy resources are more expensive than fossil fuels worldwide. Secondly, production of ethanol in Germany cannot compete with foreign-produced ethanol because the prices of the agricultural inputs are higher and because conversion from agricultural products into ethanol takes place in plants which have a disadvantage in economies of scale when compared to plants in Brazil or the United States.

In the Research Area on sustainable development strategies work concentrated on a pilot study on the *social and distributional consequences of structural adjustment policies in Bolivia*. For this research, the Group developed an applied general equilibrium model. In cooperation with the Stability and Structural Adjustment Group and the Industrialization and Foreign Trade Group in Research Department IV, a data base for the determination of a social accounting matrix was developed. The general equilibrium model combines microeconomic as well as macroeconomic aspects of the Bolivian economy. Whereas production structure, factor demand, and commodity markets are mainly determined by microeconomic approaches, the macrovariables such as savings and investment are explicitly modeled in a macroeconomic framework. Institutional aspects of the financial and capital markets and international capital flows are also included in the model. Thus the model contains four mechanisms via which exogenous shocks and economic policy measures influence the income and wealth distribution in the Bolivian economy. First, changes in income and in employment of the different factors of production directly affect household incomes. Secondly, changes in the cost of living influence real household incomes. Thirdly, real incomes are also affected by the profitability of financial investments, and, finally, wealth effects can take place through capital gains and losses.

A specific feature of the model is its sequentially dynamic structure. The advantage of dynamic models lies in their ability to mimic capital accumulation through endogenous savings and investment decisions which determine medium- and long-term growth processes. In addition, structural adjustments over time and thus questions of optimal policy sequencing can be analyzed. For example, it is possible to analyze how the debt relief program of the HIPC initiative influences growth processes and reduces poverty and resource use. Hence, complex interactions between short- and long-term processes can be assessed with this model.

Currently, the model is used for simulating the reaction of the Bolivian economy to short-term negative external shocks such as falling world-market prices for important export goods and falling foreign direct investment flows. This issue is subject to controversial debate. Skeptics argue that there are hardly any possibilities for ameliorating such shocks because the structural determinants of the Bolivian economy make ineffective the impact of monetary policy, of exchange rate policies, and of fiscal policy. The model simulations confirm the hypothesis that the Bolivian economy is susceptible to external shocks, mainly because the substitution opportunities in markets for goods and factors are severely reduced, such that a spontaneous adjustment is unlikely. They also show that a fiscal expansion has only very limited scope. On the other hand, a devaluation of the Boliviano would alleviate quite fast the balance of payment problems. It would also provide a positive impulse for faster growth and increasing employment.

The model simulations were accompanied by a study of the *characteristics of the Bolivian labor market and their impact on policies for poverty alleviation*. The Bolivian labor market is characterized by the existence of an informal sector with a very specific structure. One can also observe a strong segmentation of the labor market and a significant lack of mobility. Institutional factors such as rigid labor laws and an insufficiently organized social security system amplify the segmentation of the labor market, thus adding to the low market mobility as well as to social mobility and to poverty.

5. Regional Economics (Research Department III)

Within the thrust of the Institute's research—analyzing the international division of labor and its implications for economic growth and development—the Regional Economics Department (headed by *Rüdiger Soltwedel*) focuses on the spatial perspectives, on how centripetal and centrifugal as well as integrating and disintegrating forces are shaping the spatial division of labor. Hence, the analysis of patterns of regional specialization, of interregional trade, regional growth as well the analysis of appropriate regional governance structures figure high on the Department's research agenda.

In 2001, the focus of the Department's research activity was on analyzing region-oriented innovation and technology policies, on the explanation of regional growth differentials, on the liberalization and reregulation of infrastructure network industries, and on the issue of the new economy, mobility, and the spatial structure of economic activity.

○ Regional Growth and Spatial Structure

The Regional Growth and Spatial Structure Group (headed by *Dirk Dohse*) focuses its research on region-oriented innovation and technology policy, the determinants of regional disparities in growth and income, and the regional impact of European integration.

The Group's research in the field of region-oriented technology policy reflects the fact that one can observe a remarkable new orientation within German as well as within EU technology policies. These new policies have an explicit regional dimension and focus on three targets: generating regional high-tech clusters, stimulating interregional competition for technology, and improving the well-functioning of regional innovation systems. The general research objective is to improve our understanding of how regional innovation clusters work and how policymakers (particularly on a subnational level) can grasp the growth opportunities that high-tech industries with their inherent tendency for clustering provide. The current research agenda is focused on the following issues: can regional governments exploit clusters for competitive advantage, what role do path dependencies play in this context, how can critical masses be created, what kinds of clusters are favorable, and what can governments of peripheral or rural areas do to improve the economic performance of their region.

The Group's research on *regional disparities in income and growth* focused on identifying localized knowledge spillovers by employing the methodological tools of spatial econometrics. When empirically investigating the spatial allocation of innovative activity among western German planning regions, the Group was able to show that the number of patent applications from a region depends not only upon the specific conditions prevailing within this region but also upon the number of patent applications from neighboring regions. It also depends systematically, and to a notable extent, upon the innovative success of research done in neighboring regions in former years. Interrelationships of this kind across space are usually attributed to knowledge spillovers. Although the intensity of spillovers of new knowledge tends to decrease rapidly with increasing distance, significant positive effects can be observed within a distance of 50–80 kilometers.

The Group also focused on taking temporal and spatial path dependencies into account in the analysis of regional convergence processes. In collaboration with the Regional Economics and Institutions Group, several test statistics were developed for the Markov chain approach to convergence analysis. These tests allow the relevance of heterogeneity and dependence in space and time to be assessed. The Group applied these test statistics to investigate the evolution of the regional income distribution across 48 coterminous U.S. states since 1929. It could be shown that relatively poor states have a higher probability of catching

up if they are colocated with rich states, compared to equally poor states whose neighbors are poor as well. In a current research project, advanced methods of convergence empirics are being applied to analyze the evolution of regional income disparities between eastern and western Germany, and within eastern Germany. One prominent research question to be answered in that context is to what extent presumed growth poles within eastern Germany are actually sending out growth impulses to regions in their neighborhood.

Moreover, the Group is engaged in analyzing the *spatial implications of European integration*. The theoretical basis for the Group's research is provided by the theories of new economic geography (NEG), according to which the regional division of labor and the industrial specialization of regions can be understood as the result of countervailing centripetal and centrifugal forces. The balance between centripetal and centrifugal forces is, however, not fixed but changes with increasing degree of integration. On this theoretical basis, the industrial specialization of European regions is being analyzed empirically. The research aims at specifying the effects of integration on the degree as well as on the nature of regional specialization (i.e., on the industrial portfolio of regions). It is intended to evaluate the effects of the monetary union as well as to project potential consequences of the Eastern enlargement. Questions under investigation are (i) whether regional specialization increases in the course of integration, (ii) whether increasing returns industries tend to cluster in few regions offering these regions particularly high income opportunities and undermining the regional cohesion, and (iii) whether new patterns of hierarchical agglomerations emerge, aggravating the core-periphery divide.

To this end, the Group continued building an extensive data base comprising employment data for European regions from national statistical sources in a deep industrial breakdown and covering a period of about two decades. At the same time, the Group started to analyze the data already accumulated so far. Some first results reveal the degree of regional specialization has changed only slowly, even during a period of more than twenty years. One may observe a small increase in specialization in several regions. This is contrasted by an increase in the sectoral diversity particularly in those regions that have been highly specialized in the past (e.g., iron-and-steel regions). Industries with an inherent tendency towards clustering seem to remain highly concentrated in a few regions over time. These results, however, must be cross-checked using a much enlarged data base. In a second stage the Group intends to identify regions specialized on industries with increasing returns to scale, and to explore their evolution over time.

○ Regional Economics and Institutions

The Regional Economics and Institutions Group (headed by *Rüdiger Soltwedel*) focuses its research on the implications of interregionally differentiated versus uniform institutional rules, and of the centralization versus decentralization of competences for rule-making. Currently, particular emphasis is being given to the efficiency of alternative assignments of competences for the competition and regulation policy for Europe's network industries.

The Group continued its research on the *allocation of competences for regulating Europe's network industries*. Substantive changes in the European policy pertaining to the network industries of the transport, energy, and telecommunications sectors (liberalization and re-regulation, promotion of the establishment and development of trans-European networks) have been accompanied by important institutional changes. These include changes in the allocation and exercising of competences between the European Union and the member states as well as changes in the institutions and procedures for regulatory policy-making. The Group's research focused on deriving normative criteria for an efficient allocation of competences between (and within) the EU and its member states, and on the institutional design of regulatory policymaking on the respective vertical level, in particular on the European level. The analytical basis employed was provided by the New Institutional Economics.

In 2001, research focused mainly on the appropriate horizontal allocation of competences as well as on the interdependence of the vertical and the horizontal allocation of competences. Based on the theory of incomplete contracts and its applications to political institutions, the basic implications for the transaction costs and the efficiency of regulation of the establishment of "independent" regulatory agencies (with specific goals for such agencies that differ from those of the overall public policy) and of the separation of regulatory competences between regulatory agencies charged with different tasks and/or different jurisdictions were analyzed. The analysis included, in particular, the effects on the agencies' incentives for the acquisition and the use of regulation-specific information and expertise and on the danger of regulation being captured by specific interests. It appears that, specifically with regard to the network industries, both the establishment of independent regulatory agencies with specific goals and the allocation of (different) regulatory competences to more than one regulatory agency may help reduce the transaction cost and efficiency problems of regulation.

Certainly, excessive fragmentation of regulatory competences has to be avoided because of the costs associated with increased fragmentation of competences (increased overhead costs and demand on scarce expertise, the danger of regulatory arbitrage by regulated firms, the danger of excessive bureaucratization

and turf disputes between agencies, etc.). This is but one reason why the issues of the appropriate horizontal allocation of (regulatory) policy competences on the level of the EU and on the level of its member states cannot be addressed independently of each other nor independently of the vertical allocation of competences between the two (federal) levels. Another reason is that the European Commission's ability to monitor (and to influence and coordinate) the implementation of European provisions by the member states, as well as its ability to directly implement competition and regulation policy, depends upon the institutional design of regulatory policy and the corresponding allocation of competences within the member states.

Research on *liberalization options for the power sector in Germany and Europe* were continued. In 2001, the emphasis was on the recent Commission proposals for the further development of the internal power market. Special attention was given to the question to what extent a further centralization of the regulation competences on the European level would be the adequate response to the current problems, for instance in the area of transnational deliveries of electricity. During this research, it became clear that the proposals of the European Commission would go much too far, especially concerning the institutional design of power market regulation. Taking into account the technical particularities of the electricity industry while attempting to find an appropriate allocation of federal regulatory competences, it can be concluded that the allocation of competences should leave the freedom for competition between different regulatory designs as large as possible, thus allowing for regionally restricted experiments. This speaks against a substantial shift of competences from the national to the European level as suggested by the Commission. This conclusion would hold even if we had to deal with 15 (or more) identical national electricity industries. It holds even more if differences between the member states are considered, for example regarding resource endowments, quality of the existing grid, market size, and preferences for public services.

In the context of the research on *electricity market reforms in other countries* the Group continued to analyze the developments in the United States. Using a comprehensive analysis of the developments in California, which is considered a forerunner in the liberalization of the power market in the United States, it was shown that not market failure but regulatory failure actually is responsible for the problems of the Californian electricity sector. Many detailed and ill-suited transitional regulations were issued, so the Californian electricity market must be characterized as only partially liberalized instead of being truly liberalized. The transitional model chosen in 1996 failed mainly because it does not allow for possibilities and incentives for competitive and decentralized responses to the scarcity problems plaguing the Californian electricity sector. The reactions of the legislature and the public utility commission to the present problems so far hardly justify hopes for a quick resolution of the problems. The state of

California recently modified some transitional regulations adjustments. However, these are only emergency measures, which do not tackle the fundamental problems. The central questions of how electricity trade on the wholesale level should function and how it should be regulated are currently largely unsettled. More freedom for markets (instead of increasingly less market coordination), and the rapid removal of the restrictions for competition in electricity trade and production would be the adequate response to the existing problems. The Group intends to intensify its research on substantive and institutional lessons to be learned from the California debacle for electricity market regulation in Europe.

In collaboration with the Transportation Economics Group and the Institute for Economic Policy and Economic Research of the University of Karlsruhe (TH), a new project was begun on *evaluation and removal of infrastructure bottlenecks in air traffic*. The aim, on the one hand, is the development of instruments for a rational evaluation of infrastructure projects in air traffic. On the other hand, mechanisms are to be discussed which would facilitate the implementation of these projects within the political process. The Group will concentrate on the following points: The identification of basic alternative planning instruments (institutional arrangements) in infrastructure policy, the theoretically supported comparative evaluation of these institutional arrangements (for example, regarding the facilitation of planning objectivity and the risk of capture by interest groups), the supplementing of the theoretical analysis with empirical investigations of existing planning instruments in other countries and in other infrastructure sectors, and finally the discussion of the question which institutional arrangement for planning, decision, and approval processes for infrastructure projects seems appropriate. In this regard, special attention will be given to the problem of the appropriate allocation of regulatory competencies, particularly concerning the division of responsibilities between private and public agents, and the different federal layers of government.

The work in the Land Use Economics Research Area focuses on the analysis of land use structures. This includes the analysis of agricultural land use patterns and their determinants and in particular the mechanisms of reallocation of agricultural land to settlement area. The analysis of *land taxation* was continued and extended to aspects of urban allocation of land. In collaboration with the Transportation Economics and the Regional Growth and Spatial Structure Groups on a new project on *spatial structure and new economy*, the Area analyzed the importance of general economic conditions and relevant administrative regulations with respect to changes in the intraurban use of real estate.

○ Transportation Economics

Research in the Transportation Economics Group (headed by *Claus-Friedrich Laaser*) concentrated on the topic of the *new economy, mobility, and spatial structure of economic activity*, i.e., those changes in the spatial division of labor which can be attributed to the emergence of the so-called new economy.

Structural change towards the “information society” has gained momentum in recent years because knowledge-based economic activities and innovative applications of information and communications technologies (IT) have been adopted as a kind of new general-purpose technology in an increasing number of different steps in the process of planning, innovation, development, production, and marketing in many industries. As a result of this diffusion, one can expect spatial transaction costs to decrease substantially (often including unit transport costs in a narrower sense) and the spatial patterns of production, division of labor, goods distribution, and housing to change in the medium to long run. The Group started to investigate the impact of the emergence of the new economy on communications and transport costs, on service networks, mobility, and the spatial division of labor. Research efforts have concentrated on the question whether the increasing application of e-commerce business models will, on balance, promote either agglomerative or deglomerative tendencies. The positive analysis is oriented towards gaining more insight into the driving forces of e-commerce applications, identifying the impact of this process on the spatial pattern of economic activity, and finding out what this will mean for spatial structural change. The normative task lies in elaborating proposals for adjusting the existing institutional framework of spatial planning in order to lessen emerging fields of tension in structural change.

Preliminary results suggest that the hypothesis of the new economy and e-commerce leading to the “end of geography,” the “death of distance,” and the “decline of cities” seems to be substantially exaggerated. Nevertheless, the demand for profound adjustment efforts by producers and consumers to the ongoing process of spatial structural change will not be negligible and will increase in the future. In this process, the new economy may be looked upon as a catalyst for other spatial trends but not as a radical change per se. Interestingly, new economy firms themselves are showing rather similar patterns of locations to old economy firms, they are prone to clustering, and they need the proximity to customers, suppliers, and networks of cooperation.

In a project on *the impact of mobility taxes and road user charges on transportation costs and the spatial patterns of production, goods distribution and settlement*, potential spatial consequences of specific taxes and other charges on the mobility of goods and people are to be assessed. Different types of mobility charges, such as the ecologically motivated surcharge on fuel taxes or user tolls

for road infrastructure, might imply a greater impact of geographical distances on the intensity of spatial economic interchange and thus might, in the long run, alter existing spatial patterns of production and settlement. Hence, the project aims at (i) gaining empirically well-founded information on behavioral changes of agents in freight and passenger traffic, caused by mobility charges, (ii) identifying the relative affectedness and responses of inhabitants and resident firms in selected types of regions, and (iii) detecting potentially arising fields of tension between different objectives of spatial order and regional planning, and providing advice to resolve respective problems.

Accessibility via infrastructure networks and transportation services is one of the central preconditions for a region to participate actively and successfully in the spatial division of labor and interregional competition. The structure of networks, the pattern of transportation services, and transport and communications costs are important determinants of mobility and the exchange of goods and services. This perspective of accessibility as an important issue in regional competitiveness governs the research work of the Group on worldwide networks of air transport and ocean shipping, on concepts of private involvement in infrastructure provision, and on the role of transportation costs in the process of economic integration. Against the backdrop of this concept, the Group has continued its traditional research on problems of ocean shipping and port economics by conducting an analysis of the project for *a new German container port for ultra-large vessels and its role in locational competition*. This new port which is to be built at Jade Bay near Wilhelmshaven seems, on balance, economically justified in view of the expected growth in both container vessel size and international trade volumes. Contrary to traditional infrastructure financing, the construction costs of the port will probably not be raised exclusively from public budgets. The intention to include private investors in the financing and operation of this infrastructure resource should be implemented in a uncompromising fashion in order to efficiently allocate the new port's economic risks to public and private beneficiaries. In addition to this analysis, a follow-up research project was started which is devoted to the *current development trends at German ports on the North Sea and the Baltic Sea* and pertinent requirements for future port development and ocean shipping policy, not least at the level of the European Union.

In collaboration with the International Economics and Structural Change Group, the ongoing *integration of the Baltic states Estonia, Latvia, and Lithuania as well as of Poland into the European division of labor* was analyzed. A gravitational regression of the Baltic states' trade flows demonstrated that the Baltic Sea as a transport resource with dense and frequent coastal shipping services plays an important role in the process of integrating Estonia, Latvia, and Lithuania into the European Union: Apparently the relatively low unit transportation costs in coastal shipping as well as the role of the Baltic ports as important transit points for Russian trade also shapes the Baltic states' own regional trade patterns. The

road to Europe for Estonia, Latvia, and Lithuania clearly runs via their northern and western neighbors across the Baltic Sea; European integration is for them primarily regional integration. In contrast to this distinct pattern of regional integration, the Polish regional trade pattern is directed towards Central Europe.

An empirical analysis of transport-specific public expenditures and incomes, which was conducted in cooperation with the Public Finance Group, showed that the often-heard complaints about budgetary shortages for transport infrastructure construction purposes—which are one of the driving forces behind the efforts to find private investors for infrastructure facilities—have to be partially qualified against the backdrop of the patterns of expenditures and incomes in the federal, Länder, and local budgets. When there is a shortage of funds for infrastructure construction purposes, it is primarily due to current fiscal priorities, and less due to expectations that they would provide too little revenue. In the course of the analysis, a detailed hypothetical special-purpose budget for transportation was simulated. Results showed that fuel taxes (including value-added tax on fuel), vehicle taxes, and the transportation sector's share in income and value-added taxes provide the German public budgets with more funds than have been allocated to all transport purposes (infrastructure expenditures as well as current expenditures, however, without compensations for external costs).

6. Development Economics and Global Integration (Research Department IV)

In the Development Economics and Global Integration Department (headed by *Rolf J. Langhammer*), research is principally targeted toward identifying the prerequisites for the successful integration of developing countries and emerging markets, as well as toward analyzing the determinants and implications of differences in the speed of economic growth between these countries. In 2001, research focused on the theoretical underpinnings and the empirical evidence for direct investment into developing countries, on labor market implications of globalization, on national, regional, and multilateral trade policies, on the measurement of quality in schooling as an important element in human capital formation, on stabilization policies in transformation and developing countries, and on the compatibility of structural adjustment programs with distributional objectives. Further, the Department's research dealt with the reforms of the international financial architecture as well as the world trading order, the consequences of EU integration of Central and Eastern European countries for the transition process of the countries, and monetary and financial cooperation after the Asian crisis.

○ International Capital Flows

Research in the International Capital Flows Group (headed by *Peter Nunnenkamp*) focused on the consequences of the increasing world market integration of developing and transition economies for labor markets in high-income countries, on the objectives and effects of the new wave of regional integration in the Third World, and on the debate on financial market regulation in the aftermath of various financial and currency crises.

The automobile industry served as an example in analyzing the *labor market implications of globalization for high-income countries*. The Group started by showing theoretically that globalization should have adverse labor market effects on specific groups of workers and subsectors even in human-capital-intensive and technologically advanced industries such as the automobile industry. This hypothesis was tested in three steps:

First, evidence was presented that the automobile industry in Germany, Japan, and the United States was subject to fiercer competitive pressure from countries with relatively low per capita income. This pressure resulted from foreign direct investments of automobile multinationals in Asia, Latin America, and South and East Europe, as well as from the emergence of indigenous new competitors, e.g., in South Korea. In addition to final products supplied by new competitors, automotive inputs imported from low-income countries increased significantly. Outsourcing was observed on the regional level in particular.

Second, income and employment developments in the automobile industry in the three countries under consideration were related to the increasing competitive pressure from low-income countries. Both production workers and nonproduction workers in the automobile industry typically received a considerably higher income than comparable workers in manufacturing as a whole. However, reflecting varying factor intensities within the automobile industry, the competitive pressure differed between particular subsectors of this industry. As a result, workers in comparatively labor-intensive subsectors suffered a decline in relative wages. Moreover, the income and employment situation of less-qualified workers has tended to deteriorate in the traditional producer countries of automobiles during the last 20 years.

Third, it could be shown that the labor market impact of globalization depended on how successful high-income countries were in adjusting to competitive pressure by specializing on human-capital- and technology-intensive subsectors. By applying the concept of revealed comparative advantages (RCA), the Group was able to explain why inter- and intrasectoral income and employment developments in the automobile industry differed between the three countries under

consideration, even though these countries were affected by globalization-induced competition to a similar extent.

These results led to the conclusion that high-income countries should respond in due course to globalization by innovating and specializing on the most advanced segments of production processes in order to sustain favorable income and employment prospects in manufacturing. The challenge to policy amounts to restructuring the supply of labor towards higher qualifications, rather than trying to stabilize the demand for less-qualified labor in the short term, e.g., by taking protectionist measures.

Research on *regional integration* departed from the observation that the trend towards globalization has induced many developing countries to rely on regional integration among themselves and to enter into preferential trade agreements with industrial countries. In this way, developing countries aimed at sharpening their specialization profiles and improving their attractiveness to foreign direct investment. The example of Latin America revealed that the new wave of regionalization differed from previous attempts at regional integration in that it went hand in hand with opening up towards trade with nonmember countries. Yet, it remained open to question whether high expectations attached to regional integration could realistically be fulfilled.

The development of foreign direct investment in Latin America in the 1990s supported the view that regional integration was neither necessary nor sufficient to create favorable investment conditions. The example of Mercosur suggested that the growth of foreign direct investment in individual member countries depended on national economic policies in the first place. Despite more openness to trade with outsiders, the relatively weak growth of Latin American exports to third countries pointed to a persistent lack of international competitiveness of regional integration schemes.

There are only a few indications that intra- and interregional trade preferences would strengthen the economic relations between Latin America and Europe, as hoped for in both regions. The pattern of European direct investment in Mercosur countries underwent some shifts, notably with regard to the sectoral composition and the major sources of inflows. Furthermore, the investment strategies of European multinationals were strikingly different from the strategies of their counterparts from the United States. Nevertheless, the character of European direct investment in Mercosur countries remained essentially unchanged; future trade policy pursued by Mercosur countries is likely to have an important effect on whether the persistent dominance of local market-oriented direct investment will weaken in favor of world-market-oriented direct investments.

A new type of regional integration was taking shape in East and Southeast Asia. Various countries in this region aimed at closer cooperation with regard to monetary and exchange rate policy in order to render their economies more resilient to financial and currency crises. A critical evaluation indicated that this approach may at best supplement, but cannot replace, global crisis management. We especially questioned whether peer pressure among the Asian partners is better suited than surveillance by the International Monetary Fund (IMF) to overcoming economic policy failures of individual countries.

The Group reviewed the economic policy responses within the international financial architecture to recent financial crises in various emerging markets, and concluded that the so-called Washington Consensus proved to be incomplete, though not wrong. Deficits in financial regulation were identified both on the national and the international level. Rather than contrasting liberalization and regulation of cross-border financial flows as irreconcilable antagonisms, the Group argued that capital account liberalization requires regulatory safeguards.

The widely held view according to which financial globalization has deprived national policymakers of the means to protect their economies against crises was rejected. Policy options go beyond specific capital controls, the effectiveness of which remained disputed, and include institutional reforms of domestic financial markets and the macroeconomic policy framework. A comparison of the volatility of specific types of capital flows revealed that external financing risks can be contained by drawing more strongly on foreign direct investment. However, the advice often given to policymakers to rely on financial incentives in competing for foreign direct investment was rejected. By reviewing the recent literature on the determinants and effects of foreign direct investment in developing countries, the Group showed that essential issues are still unsettled and require further research.

Various problems remained unresolved on the international level, too. Major obstacles in reforming the international financial architecture were evaluated from the perspective of proposals made by German authorities. The Bundesbank and the German federal government seemed to be fighting a losing battle, especially with regard to the obligatory and rules-based involvement of private creditors in multilateral crisis management. Attempts at redefining the role of the IMF were stalled because of conflicting views of U.S. and European negotiators; but even within major member countries, including Germany and the United States, relevant authorities did not agree on the IMF's future role. As a consequence, the Group considered it rather unlikely that economically required adjustments of the institutional and regulatory framework to increased international capital mobility will be achieved in the foreseeable future.

○ Industrialization and Foreign Trade

One major field of research in the Industrialization and Foreign Trade Group (headed by *Matthias Lücke*; on leave of absence in 2001) was the convergence progress of the Central and Eastern European countries (CEECs) in the context of membership in the European Union. In a joint project with the Stability and Structural Adjustment Group and Department I, the Group began work on analyzing the *progress of the EU candidates in fulfilling the economic criteria of the Copenhagen Summit*. The values of different indicators for the EU candidates (Bulgaria, Cyprus, Czech Republic, Estonia, Letland, Lithuania, Poland, Romania, Slovenia, the Slovak Republic, and Hungary) are being compared with the corresponding data for European Union reference countries of the lower income category in order to assess the relative progress in economic adjustment and convergence. Thereby, the reference countries provide yardsticks with which to determine the acceptable ranges for the indicators. Preliminary results show that the candidate countries are situated within these ranges for most indicators. While there are still convergence lags, they have been reduced in the meantime. Thus, most candidate countries have attained considerable progress both with the establishment of a functional market economy and the ability to withstand the competition and the market forces within the European Union.

Together with the Financial Markets Research Area and a student in the Advanced Studies Program, the Area examined the hypothesis that *foreign direct investments that were previously destined for Southern Europe are now being diverted as a consequence of the EU accession to Eastern European countries*. Using gravity equations, the Area estimated and compared the expected foreign direct investments to the actual investments. The results suggest that the strong increase in foreign direct investments to Eastern Europe and the decrease in flows to Southern Europe represent an adjustment towards long-term stock values and not a policies-induced diversion from Southern to Eastern Europe.

The Group continued its work in the project concerning *modified requirements for trade policies in the age of the so-called new economy*. The new economy poses considerable challenges for the European and multilateral regulatory framework, since formerly small distortions due to different laws and taxes between countries can now expand to substantial magnitudes. In the research project, necessary reforms for the multilateral set of rules were investigated—particularly within the areas of standards, international policy coordination, tax regulations, and customs duties. It was shown that the new economy increases the need for internationally coordinated rules that are consistent, non-discriminatory, simple, and transparent.

Furthermore, the Group cooperated with Department II and the Stability and Structural Adjustment Group in a project on the poverty impacts of structural adjustment in Bolivia.

The Group continued research on changes and effects of regional integration in Asia in two studies. First, the consequences of the *enlargement of ASEAN by Indochinese countries* were discussed against the benchmark of the Eastern enlargement of the EU. The study showed that in spite of few similarities in structural characteristics, the regional disparities, the lack of convergence, and the differences in economic policies within the Asian groupings was by far higher than in Europe and that ideally a longer preparatory stage would have been required in Asia relative to Europe. In a second study, possible areas of action and strategies of economic cooperation between Korea, Japan, and China were analyzed. The cooperative approach, which in the case of cross-border externalities explicitly includes the private sector, appears more appropriate than the integrative approach to creating a regional free trade area. Because of considerable differences in national trade policies between the three countries, the integrative approach is seen to be more promising in the case of the WTO if discrimination of third countries and subsequent retaliation measures are to be avoided.

Traditionally, the Group analyzes trade policy reforms within the multilateral order with respect to country-specific and global effects.

Against the background of uncertainties about starting a new round of multilateral trade negotiations the Trade Liberalization and Market Access Research Area initially focused on an area, which has been of utmost priority to developing countries, namely the *elimination of nontariff barriers on textile and clothing (T&C) exports*. It examined what this means particularly in the context of *China's WTO accession*. Using a 9-sector, 24-economy aggregation of a computable general equilibrium model (GTAP4), the impact of this UR-stipulated liberalization of trade in T&C products on Hong Kong was examined. Of interest in this connection was the question of how surge clauses or other contingent protection measures—sanctioned in China's WTO Protocol of Accession—might affect the outcome of the agreed-upon complete liberalization.

Beyond this, the more overall question was approached concerning what Greater China's accession to the WTO could mean for world trade flows. The new GTAP5 model was configured to accommodate 25 economies and 23 sectors and was run against a baseline scenario in which all WTO members had completed implementing their Uruguay Round tariff reduction commitments, except for eliminating quotas on T&C exports. Through a given set of scenarios the effects of removing quotas and then tariffs as well as service sector commitments were

examined. This was the first time that the tariff rates from the final protocols of accession were used. Furthermore, the impact of service sector liberalization was modeled using sector-specific gravity equations vis-à-vis global trade levels. While the overall gains for China are considerable (i.e., an additional almost 6 percent increase in GDP), Hong Kong exhibits just a slight increase and Taiwan even a slight decrease. Perhaps the key message from the model's results is that much of the growth is driven by the massive increase in China's textile and clothing industries. It is again these two sectors which more than compensate for large losses in sectors like motor vehicles, primary nonferrous metals and primary steel. China thus faces a tremendous restructuring job, which it can only accomplish if other countries do not take advantage of newly created contingent protection clauses included in its protocol of accession. The bottom line for Hong Kong is that China's WTO accession brings with it a tremendous potential, but that potential is now more easily tapped by other WTO members as well. The quasi preferential access to China which Hong Kong long enjoyed will be eroded over time.

Another project carried out dealt with the impact of China's WTO accession on very poor countries like Bangladesh. Work was continued on analyzing Russia's WTO accession process, in particular on how it should ensure that its anti-dumping laws are not turned into contingent protection measures, which could hinder Russia's efficient integration into the world economy. Finally, research was started on examining to what degree trade from developing/transition countries is being hindered by the abuse of antidumping measures.

○ Human Capital and Growth

The Human Capital and Growth Group (headed by *Erich Gundlach*) continued and extended its previous research on the *determinants of educational performance*. A survey of the recent empirical literature on the influence of educational resources on student performance led to the result that additional resources, e.g., in the form of smaller classes, do not seem to have a substantial causal impact on the performance of students in mathematics and science. Studies using instrumental-variable estimation techniques or experimental data to identify the causal impact by and large corroborate the results of the older literature, which tended to be based on less stringent methods. The missing link between resources and performance in the schooling sector is also evident in international comparisons, as well as in time-series evidence for many OECD countries and some East Asian countries. The finding of positive resource effects is mainly restricted to developing countries with a level of educational expenditure that is substantially below the international average.

Starting from these results, a research cooperation with researchers at Harvard University (around Martin West) was initiated. The major aim of the project is to develop a new identification strategy to isolate *the causal impact of class size on student performance*. This cooperation takes advantage of a large international data set that was constructed by the Group on the basis of the Third International Mathematics and Science Study (TIMSS). This data set can be used to isolate true effects of class size on student performance from other relationships between class size and student performance which spring from choices of parents, teachers, or heads of schools. Without this separation, the counterintuitive result of larger classes going hand in hand with better student performance emerges quite often. The identification strategy consists in accounting for school fixed effects in the estimation and at the same time instrumenting the actual class size by the average class size of the grade in each schools. The remaining differences in class size between classes at different grades of a school should reflect the true impact of class size on student performance.

First results suggest that this identification strategy also largely fails to isolate a positive resource-performance link. In most countries, there seems to be no noteworthy causal effect of class size on educational performance. In addition to estimating true class-size effects, the new identification strategy allows for a quantification of the reverse effect, that is, of how much student performance affects the choices of parents, teachers, and heads of school with respect to class sizes. Initial estimates reveal, e.g., that some East Asian countries support poorer-performing students by placing them in smaller classes, while the United States is the only country in the sample where better-performing students tend to be placed in smaller classes, presumably on the basis of parental choices.

Another project that was initiated is the *estimation of education production functions* for several European and East Asian countries on the basis of the TIMSS data set. While there are many studies on the impact of different inputs on educational performance in the United States, such evidence is not available for most European and East Asian countries. The project aims to quantify for several Western European, Central European, and East Asian countries how much student performance depends on resource inputs and on family background.

In addition, a new project was started, which will first create a large data base on the basis of the TIMSS Repeat Study, conducted in 1999. Similar to own research undertaken on the basis of the initial TIMSS Study, the impact of educational resources and schooling institutions on student performance will be analyzed. Overall, the study attempts to test the robustness of previous own findings on the relation between schooling institutions and student performance.

Further on, it is planned to analyze the OECD's Programme for International Student Assessment (PISA Study).

Whereas empirical research on the determinants of student performance has made considerable progress in recent years, theoretical research on the complex incentive structures of the various actors within the education sector is still in its infancy. Therefore, a project was initiated in cooperation with a research group from Cornell University (John Bishop) that will focus on *modeling the education sector*. In its most simple version, the model will picture the production of education as the result of a principal-agent relation between the actors "society" and "student." Extending the model to include additional actors will allow for the modeling of the impact of alternative schooling institutions on the performance of all actors at given costs. For instance, the model is expected to demonstrate how the additional consideration of teachers, school administration, and parents in the model might impact through the interdependent incentive structure on the theoretically predicted schooling outcomes.

Work on the *impact of climatic and geographic conditions on the level of development* was also continued. As a matter of fact, measures of geography and climate are highly correlated with the level of development. For instance, the variable distance from the equator statistically explains about half of the international differences in output per worker. Various other geographic and climatic variables like mean temperature, humidity at maximum temperature, average height above sea level, and a country's location near the open sea together statistically explain about two-thirds of the international differences in output per worker. The controversial question is whether unfavorable geographic and climatic conditions impact on output per worker through lower rates of physical and human capital formation or merely proxy for institutional regulations that happen to be correlated with them. This distinction is important because institutional regulations can be changed, at least in principle, but geographic and climatic conditions cannot. Preliminary results tend to support the hypothesis that international differences in output per worker are mainly the result of international differences in institutional regulations, which in turn appear to be the result of the climatic and geographic conditions that determined the pattern of worldwide settlement by early European colonizers. But as it seems, geographic and climatic conditions do not impact directly on productivity.

Finally, a research project was started that addressed *eastern Germany's convergence process* after reunification from the perspective of growth theory. Initially, eastern Germany quickly caught up to the western German productivity level. But since the mid-1990s, this process has slowed down and faded out. This outcome must come as a surprise, given that eastern Germany's growth process

is not hindered by limited access to the latest technologies or by institutional ambiguities, as might be the case for many other countries. Physical capital also does not appear to be a decisive bottleneck in overcoming the productivity gap, since in manufacturing at least eastern Germany's capital-output ratio tends to be higher than western Germany's. Furthermore, eastern Germany's tremendous net resource inflows should have generated very favorable conditions for catching up. Model simulations show that eastern Germany's actual catching-up record can only be reproduced by a standard growth model if the stock of human capital is considered to be substantially lower in eastern Germany than in western Germany. The empirical relevance of this simulation result has to be proved in further studies. However, the example of eastern Germany could probably dampen overly optimistic growth expectations in the Central European EU accession countries by implying that a high level of formal education is not necessarily the same thing as a high stock of economically relevant human capital.

○ Stability and Structural Adjustment

The Stability and Structural Adjustment Group (headed by *Rainer Schweickert*) continued to focus on macroeconomic policies in economic development and on structural adjustment in low-income countries. With respect to macroeconomic policies in economic development, two research projects were conducted. Research on the effects of a fixed exchange rate was continued. *For the transformation countries, the role of the Euro as an anchor currency was analyzed.* The analysis was based on a comparison of three country groups: the first accession group (Czech Republic, Estonia, Hungary, Poland, and Slovenia), the second accession group (Bulgaria, Latvia, Lithuania, Romania, Slovak Republic), and a reference group of current EMU members with a relatively low per capita income (Ireland, Portugal, Spain, Greece). Two indicators were developed: a convergence indicator reflecting the view of the EU and an optimality indicator showing the view of the accession countries. The results show that the comparative advantages of fixing to the euro are generally higher for the first than for the second accession group. Comparing the first accession group with the reference group reveals that the net benefits of monetary integration are higher for the first accession group. However, this group still suffers from a lack of convergence.

For emerging markets in general, it was shown that a fixed exchange rate policy did not cause the financial crises of the 1990s: neither were exchange rates definitively overvalued nor did high current account deficits result from real appreciation. The crisis can be explained by vulnerabilities with respect to external debt, foreign exchange reserves, and the stability of the financial system. Hence,

a fixed exchange rate combined with adequate risk management still provides a reasonable policy alternative for emerging markets which follow an outward-oriented catching-up strategy.

In cooperation with the Industrialization and Foreign Trade Group and the European Institutions (Research Department I) Group, a project analyzed the progress of accession countries on their way towards entry into the EU according to the Copenhagen criteria. This Group contributed to this project by investigating the monetary stability and the development of the financial sector.

The Group also continued its work on structural adjustment in low-income countries with two research projects. In collaboration with the Natural Resources (Research Department II) Group and the Industrialization and Foreign Trade Group, a *computable general equilibrium (CGE) model for Bolivia* was established that can trace the short-run and long-run distributional effects of stabilization and structural adjustment policies. The Group worked mainly on the construction of a social accounting matrix that is needed to implement the CGE model. To this end, data from different sources—mainly from national accounts and income and expenditure surveys—had to be adjusted so as to arrive at a consistent data base. In the next step, model simulations will be used to assess the impact of the measures that have been implemented by the Bolivian government, and to examine whether alternative policy packages might have led to a more beneficial distributional outcome.

The case study for Bolivia also involved two investigations which are both complementary to the simulation analysis and important for the formulation of the CGE model. An investigation of macroeconomic constraints of development and poverty reduction compared *macroeconomic performance indicators for Bolivia* with the average performance of groups of developing countries differentiated according to income level, regional affiliation, and debt status. The results reveal underperformance with respect to savings and exports. The export restriction on investment reflects, at least partly, the costs of the impressive stabilization achieved by high interest rates and a strong currency. Because these costs are bound to decline, the still most important macroeconomic restriction of growth and poverty reduction is the low level of domestic savings. Given the dependency on scarce official external credits and the difficulties in sustaining the high level of FDI inflows once privatization has been completed, investment is bound to a level insufficient even for moderate catching-up. This result has direct consequences for the closure rules built into the CGE model.

The study on the distributional impact of structural adjustment *measures* showed, among other things, that the Bolivian growth process that started in the late 1980s was only associated with moderate poverty reductions compared to similar

countries. Smallholders and informal urban workers experienced almost no increases in real incomes, and the size of the informal economy has remained persistently high during adjustment, which partly reflects high barriers of entry into the formal labor market. As a consequence of the important role informal activities still play in the Bolivian economy, two informal sectors (traditional agriculture and informal urban services) were explicitly identified in the CGE model.

Another focus of the work on structural adjustment in low-income countries was the *agricultural supply response in Sub-Saharan Africa*. The project deals with the question whether favorable price and nonprice incentives would lead to a dynamic response of agricultural output, or whether natural characteristics such as low soil fertility and irregular rainfall are a binding constraint for agricultural development in the region. After having discussed the methodological approaches that can be applied to measure agricultural supply response, indicators were established for those factors that might affect agricultural supply in Sub-Saharan Africa. Among these are price variables, different proxies for exchange rate misalignment, institutional variables such as the quality of roads and expenditures on agricultural research, and climate variables such as the frequency of rainfall. In future research, regression analyses using these indicators will be performed in order to extend the very meager empirical evidence on the dynamics of agricultural supply in Sub-Saharan Africa.

7. Business Cycles (Research Department V)

The Business Cycles Department (headed by *Joachim Scheide*) analyzes and forecasts the cyclical development in the world economy, with a particular focus on Germany, the euro area, and other industrial countries. Further, the research aims at evaluating strategies for economic policy which could improve conditions for stability and economic growth and reduce cyclical fluctuations.

One important area is the feedback from new theoretical developments which may enhance the analysis of the macro economy. In addition, modern econometric methods are used to improve the empirical basis for the forecasts and the assessment of economic policy. The Department uses several data bases which are permanently updated by adding national and international data from official and nonofficial sources when analyzing the cyclical development and the situation of public finances.

Four times a year, the Department prepares business cycle forecasts which are published in the journal "Die Weltwirtschaft" and also as "Kiel Discussion

Papers.” In addition, special topics related to business cycle research and economic policy are published. In the spring and in the fall, the forecasts are presented with a particular focus on world economic events and issues related to the business cycle and economic policy in the euro area. These publications also serve as the basis for the traditional “Kieler Konjunkturgespräche” (Kiel Business Cycle Conference), a meeting at which national and international experts discuss the outlook for the world economy. In the spring and in the fall, the Department, together with the other five major economic research institutes in Germany, prepares a report on the economic situation; this project, which is financed by the federal government, is then presented to the public.

With the start of the European Monetary Union, the analysis of economic policy and the cyclical development in this entity has become a new focus of business cycle research. In 2001, the Department continued and intensified its cooperation, started several years ago, with an international network consisting of eight institutes (CPB, The Hague; DIW, Berlin; ETLA, Helsinki; NIESR, London; OFCE, Paris; Prometeia, Bologna; Wifo, Wien). This group named EUROFRAME prepares joint forecasts and policy analyses for the European Union; furthermore, the network cooperates in the field of basic research on the macroeconomy.

○ Basic Business Cycle Research

The Basic Research Group (headed until September 30 by *Jörg Döpke*) continued to work on the project entitled “Growth and European Labor Markets.” For the first time, a complete *labor market balance for the European Union* was calculated for the period 1985–2000. While there are still a few inconsistencies due to the differences in the statistical data base, the estimates provide a realistic picture of the total labor supply (including hidden unemployment) in the EU. The most important driving force for the supply of labor as early as in the 1990s has been the higher participation rate of women while the demographic component has lost importance. A projection of the labor market balance until 2020 reveals an increased scarcity of labor even when higher immigration due to the EU enlargement and another rise in the participation rate are assumed. Further, panel data from 18 OECD countries were used to analyze the link between unemployment and participation. Controlling for some variables, the Group found that the correlation is not, as is commonly assumed, positive but rather negative.

Another project concerned the *various methods of measuring the output gap* for the euro area. Although the methods have several important similarities, the results are often quite different. Especially the correlation between the different estimates is low, they imply different cyclical turning points, and the size of the

gap varies considerably. The implications for economic policy are obvious: Policymakers are unavoidably faced with a large amount of uncertainty. Empirical estimates reveal that the link between the estimates of the output gap and inflation is not as close as is often assumed.

The Group also analyzed the *link between the dynamics of aggregate inflation and relative price movements*. In particular, the interplay between the higher-order moments of the distribution of relative price changes in Germany and aggregate inflation was studied. This research contributed to a research program in the macroeconomic literature asking whether or not aggregate inflation, as measured by changes in the average price level, is influenced by the skewness of the distribution of relative prices. This debate was initiated by authors who have derived a theoretical link between the skewness of the distribution of relative prices and the average inflation rate within the context of a menu cost model. The Group used annual data for Germany covering the period 1969–2000 to test the predictions derived from the theoretical model. The results suggest that the skewness of the distribution of relative price changes may be an explanatory variable for the inflation rate. In addition, empirical evidence in favor of the hypothesis that skewness of the distribution of relative price changes may help to explain shifts in the Phillips curve is somewhat weaker. Moreover, a structural vector autoregression revealed that the skewness may help to explain the variations of real output.

The Group also investigated which factors were responsible for the *weakness of the real euro exchange rate vis-à-vis the dollar* in 1999 and 2000. Applying a structural VAR to data for the euro area and the United States suggested that supply shocks were the most important factor explaining real exchange rate fluctuations in the sample period 1980–2000. However, historical decompositions revealed that the euro weakness since its introduction in 1999 has been predominantly caused by demand shocks, i.e., booming demand in the United States triggered a real appreciation of the dollar.

○ German Business Cycle

The German Business Cycle Group (headed by *Carsten-Patrick Meier*) analyzes and forecasts the *business cycle in Germany*. The cyclical downturn in Germany that started in the summer of 2000 continued in 2001 and even gained momentum. Consumption expenditure, as predicted by the Group, expanded more rapidly than before, stimulated by the tax cuts that came into force at the beginning of the year; however, this was partly offset by the fall in investment which resulted from bleaker national and international sales perspectives and the remaining overcapacities in the housing sector. Exports increased only slightly as

a consequence of the international cyclical downturn; the reason that they did not decrease was the low value of the euro. In autumn, the cyclical situation was further weakened by the events of September 11th. The phase of stagnation, into which the German economy had entered in spring, continued until the end of the year.

The analysis of recent business cycle facts apart, the Group again undertook a number of projects with the aim of broadening and deepening the understanding of the workings of the macroeconomy and evaluating policy options. *Time-series-based research on German foreign trade* proceeded in two directions. The forecasting models for the demand for German exports and imports were improved by replacing the formerly used time trend with a “globalization proxy” which was constructed as a smoothed ratio of world trade to world GDP. This variable shows a significantly faster increase in the international division of labor since the late 1980s and thus allows a more precise estimation of the export and import equations. In addition, the Group was able to show that restricting the analysis to single equation models is not only theoretically but also statistically valid, i.e., the world business cycle is exogenous with respect to German exports.

A new project questioned the omission of the supply side when modeling foreign trade which has become common in the literature. Demand and supply were estimated simultaneously using a cointegration approach. The determinants of supply were taken to be the profitability of exports relative to sales at home and the aggregate productive capacity. The analysis was done for three countries with different degrees of openness: Canada, Germany, and the United States. It was found that the *hypothesis of a horizontal supply curve* does not hold even in the long run, that a unitary elasticity of export demand with respect to foreign production cannot be rejected, and that capacity does not determine export supply in the long run. Moreover, it was shown that a disequilibrium in export demand usually causes quantity effects while a disequilibrium in supply causes price effects. The simultaneous approach to export demand and supply can also be used for forecasting and can make the business cycle analysis more consistent.

The Group also continued a research project on the *role of monetary policy on unemployment trends* in Germany and the United States. This project is intended to contribute to the debate on whether the Bundesbank systematically pursued a tighter monetary policy stance than the Federal Reserve Board and whether this was an important factor for the relatively high unemployment rate in Germany. Using structural vector autoregressions, the effects of monetary policy actions on output were measured. This method was also compared critically with traditional econometric methods; one advantage is that it is able to show the effects of shocks more accurately.

The Group concluded a research project on the *effects of factor price changes on structural change in eastern Germany*. A factor demand model was estimated using panel data for eastern German industries to shed light on the question of whether government support to eastern Germany has achieved its main objectives, namely the stimulation of competitiveness and the creation of jobs. The main instruments of capital subsidization had a strong positive impact on capital-intensive industries, but not so much on skilled-labor-intensive industries. Negative employment effects due to substitution of capital for labor were observed in the case of unskilled workers. The consequences for economic policy in eastern Germany are that capital subsidization should be reduced, while, at the same time, locational conditions—in particular local infrastructure—should be improved.

○ International Business Cycle

The International Business Cycle Group (headed by *Klaus-Jürgen Gern*) worked mainly on *analyzing the business cycle in industrial countries* other than Germany. In addition, it continued its research on current economic developments in the emerging market economies, reflecting the increased importance of these countries in the world economy. It was found that the world economic downturn that had started in mid-2000 accelerated during 2001. The cyclical deterioration spread to more and more countries and regions; apart from the industrial countries, Asian NICs were particularly affected, with their exports declining steeply as a result of lower demand for electronics products. The marked slow down in the world economy was particularly apparent in the development of world trade that is estimated to have barely risen during 2001, after brisk growth of 12.5 percent in 2000.

In the course of 2001, the growth environment improved significantly due to a easing of monetary and fiscal policies that was substantial in some cases and a decline in oil prices. In addition, leading indicators during the summer suggested that the world economy was about to bottom out, strengthening the case for a gradual cyclical improvement towards the end of the year and a recovery in 2002. However, the terrorist attacks of September 11 in the United States triggered another bout of downturn in the world economy. That said, economic recovery should only be postponed, and with the additional policy stimuli that are being put in place and the gradual recovery of confidence that is to be expected should the assumption hold that no further major terrorist attacks will occur and military reactions will remain closely focused, it could even turn out to be more vigorous than would have been projected before.

An important area of the Group's research was the analysis of *cyclical developments in the United States* where the long-lasting period of economic expansion during 2001 came to an end. The structure of the cyclical downturn which was particularly pronounced in investment in IT products was examined and the implications for the forecast were investigated. The boom of recent years can to a large part be explained by the rise in the share of investment in GDP associated with the shortening of the innovation cycle in the IT industries. A consolidation of the investment share will already lead to a more moderate increase in investment in the coming years. In addition, excess investment will have to be corrected in the near future.

All this, however, does not mean that a prolonged period of economic weakness, comparable to that observed in Japan during the 1990s, is to be expected for the United States. While a *comparison of developments in the U.S. economy from 1995 to 2000 with developments in the Japanese economy from 1985 to 1990* seemed to suggest disturbing similarities, closer inspection revealed important differences that render unlikely the scenario of a "lost decade" like in Japan. For one thing, the U.S. economy is much more flexible in its reaction to shocks; in addition, supply conditions have improved further during the 1990s. Following the events of September 11, another topic of the Group's research was the effects of the terrorist attacks on real GDP. The direct effects were quantified using sectorally disaggregated estimates of the loss in output.

In view of the pronounced world economic downturn, the question was whether a recession had already set in. Based on the definition of recession as a phase of significant economic contraction, the result was that of the large industrial countries, only Japan was in recession by summer. In the euro area, as well as in the United Kingdom, the economy was still growing, albeit at a significantly reduced pace. In the United States the indicators used, which in addition to real GDP included industrial production, employment, real incomes, and sales volumes, also did not indicate that the economy was in a recession, although the case was close and economic growth had come to a standstill around the middle of the year. However, as a consequence of September 11, the U.S. economy is likely to have meanwhile slipped into recession.

A central element of the research activities in the Group remained the *analysis of economic developments in the euro area*. Here, the cooperation with other European research institutes was continued. Work on a business cycle indicator for the euro area which will provide information on real GDP growth one to two quarters ahead of officially available figures was continued. In addition, work on a common report for the European Parliament on the economic situation in the European Union and the outlook for 2001–2002 was finished, and subsequently

an additional, shorter common analysis of the cyclical situation was produced. Further, a questionnaire on the economic outlook and the assessment of economic policies was developed and evaluated based on answers from the European research institutes organized in the Association d'Instituts Européens de Conjoncture Economique (AIECE).

In an *analysis of monetary policy in the euro area*, it was concluded that the gradual reduction of key interest rates by the ECB was more or less adequate. This judgment was reached by applying various monetary policy rules and supported by the assessment of the medium-term inflationary outlook derived on the basis of a p-star approach. A swifter monetary relaxation was found difficult to justify even when recent specific problems were taken into account, such as the possible distortion of money supply figures through money fund shares owned by foreigners or the strong increase of particular components of the price index.

Fiscal policy in 2001 was confronted with the problem that in the face of unexpectedly weak growth, the budget deficit targets of the Stability Programs proved to be unrealistically low in many cases. The question how to react to the exceeding of deficit targets is particularly relevant in those countries that are still far way from the medium-term goal of a balanced budget. While the cyclical deterioration of the budget balance should be accepted, it is becoming increasingly evident that the programs have partly been based on overly optimistic assumptions concerning medium-term growth and that in particular the three large countries will have to increase their consolidation efforts over the coming years in order to comply with the Stability and Growth Pact.

Further, using a panel model and single country regressions, the Group empirically investigated whether the *cyclical effects of fiscal policy in the EU* countries have changed after implementation of the Maastricht Treaty. This project addresses on the question of so-called non-Keynesian effects of fiscal policy; since the beginning of the 1990s the conditions for expansionary effects of fiscal consolidation have been increasingly discussed in the economic literature. The results imply that the simple panel models widely used in the literature cannot contribute to answering the question because they do not take into account the heterogeneity of the countries in the sample. Single country regressions show that the fiscal consolidation pursued in the EU since 1993 in most countries dampened economic activity as should be expected according to traditional macroeconomic theory. However, non-Keynesian effects were found for countries with high debt-to-GDP ratios (e.g., Italy and Greece) or rapidly rising debt-to-GDP ratio (Germany after unification).

In another research project a method was developed to extract the share of *intra-euro area trade* from export and import figures for the euro area in order to cope with a major weakness of euro area national accounts statistics. This work added to earlier work in the Group, particularly by significantly refining the methodology and asking new questions. A cointegration analysis for the “true” exports of the euro area revealed that the restriction of analysis of euro area exports to a single equation demand model is adequate. The exchange rate elasticity at -0.6 was estimated to be of the same magnitude as in Germany.

In a project for the German Ministry of Finance and in cooperation with the German Business Cycle Group and the Public Finance Group, the question was analyzed to *what extent macro policies can contribute to higher growth in the European Union and in Germany in particular*. The economic conditions introduced by the start of the third stage of the European Monetary Union were to be considered. According to first results based on simulations with a dynamic macroeconomic model, the optimal reaction of monetary policy to an increase in the production potential, induced, e.g., by wage moderation, is to contemporaneously increase money growth accordingly. There are, however, serious problems to be expected in implementing this rule. Consequently, a prudent strategy that tries to prevent large mistakes could be to choose the money supply target based on historical estimates of the potential growth rate which adapts to the real, albeit not observable, development only with a lag.

The Group continued to investigate the question of the *influence of the new information technologies on macroeconomic developments*. Significant revisions in the national accounts statistics of the United States led to a downward revision of the Group’s estimates of potential output growth in the United States. Notwithstanding, the assessment that productivity growth has accelerated for technological reasons remained essentially unchanged. It is doubtful, however, that productivity will continue to increase at the high pace observed over recent years, because of expected reduced growth in the IT sector itself.

Finally, within the framework of a joint project for the Federal Ministry of Economics, coordinated by Department III, an investigation of the *eastern German housing market* was conducted that relates to earlier work in the Group. High, unevenly distributed and increasing excess supply was diagnosed that is the result of massive investments. This was triggered by strong government incentives and supported by overly optimistic assumptions about market developments. Various possibilities of bringing the eastern German housing market into equilibrium were examined.

○ Public Finance

Families in Germany are supported by specific tax laws, by the social security system, and by many federal state and local government transfers. The Public Finance Group (headed by *Alfred Boss*) collected data on all the *measures in favor of families*. It turned out that the support of families amounted to 328 billion DM in 2001; roughly 45 percent of the direct and indirect costs of having children were reimbursed by the government. The data base on subsidies (including tax expenditures) was updated and extended again; new estimates will be published in early 2002.

Another research project dealt with the question of how to operationalize those elements of article 106 of the German constitution which concern the *distribution of the VAT revenues between the federal government and the German states*. The project clarified how off-budget institutions should be treated in the necessary calculations of the fiscal burden of the federal government and of the states' burden. In addition, the Group investigated how to deal with the different kinds of intergovernmental transfers and how to handle the proceeds from privatization when measuring the fiscal burden of the different levels of government.

The Group investigated the *effects of the German system of social assistance on the incentives to work*. The difference between potential net wage incomes (including family allowances etc.) and social welfare payments was measured for a large number of types of private households in 2001. Findings indicate that the difference is small for households consisting of at least three persons; it does not exist at all if the potential wages in some branches of the service sector are used in the comparisons. As to the regional dimension, the difference between net wages and social assistance varies markedly between the German states. For three types of households in western Germany, the difference (between net wages and social assistance) was measured for the 1962–2001 period; the results indicate that it decreased significantly in the course of this period—with a slight correction setting in at the end of the 1990s. Independent of the household type, the (explicit and implicit) marginal tax rates for wage income of welfare recipients amounted to 100 percent for relatively large income intervals. All in all, incentives to work are strongly impaired. In addition, the adjustment of wages for low-skilled workers in Germany was impeded by the system of social assistance; in this way, the system also contributed to the fact that employment in Germany is lower than possible.

In cooperation with Department III, a data base on *traffic-related revenues and expenditures* of the federal government, the states and the local governments was

established. It turned out that there is a specific budget surplus at the state as well as at the federal government level; the traffic-related surplus is used for general public sector purposes. The condition of the infrastructure could be improved if the traffic-related revenues were used only for expenditures in this field of public activities. Some reform proposals were discussed.

8. Interdepartmental Research

Work in some major research fields involves more than one department. The table on the next page shows which departments, and which members of staff, were involved in extensive interdepartmental research in particular major research fields. It does not reveal the complete range of research conducted at the Institute.

9. Cooperation with Universities and Research Organizations

The Kiel Institute aims to intensify its exchange with economists from other countries and to improve upon its reputation as a center of international economic research. In order to intensify this exchange the Kiel Institute established an international research network in 2001, which consists of renowned economists acting as International Research Fellows.

They promote worldwide awareness of the Institute's activities and research findings and stimulate further research by providing expert advice, participating in joint projects, or holding seminars and lectures, and conducting research at the Institute. The network currently includes the following Research Fellows:

Alberto Alesina	Jeffrey A. Frankel	Maurice Obstfeld
Richard Baldwin	Hans Genberg	Richard Pomfret
Scott Barrett	David Greenaway	James Riedel
Geert Bekaert	Ricardo Hausmann	Dani Rodrik
Willem Buiters	Geoffrey Heal	Andrew Rose
Ricardo Caballero	Elhanan Helpman	André Sapir
Paul De Grauwe	Arye L. Hillman	Richard Schmalensee
Alan V. Deardorff	Richard Layard	Dennis Snower
Michael Dooley	Donald Lessard	Guido Tabellini
Rüdiger Dornbusch	Richard M. Levich	Niels Thygesen
Gunter Dufey	Assar Lindbeck	Ingo Walter
Bernard Dumas	Karl-Göran Mäler	Jeffrey G. Williamson
Sebastian Edwards	Catherine L. Mann	Holger C. Wolf
Barry Eichengreen	Richard Marston	Charles Wyplosz
Wilfred Ethier	Bennett T. McCallum	
Martin Feldstein	Peter Neary	

In 2001, the Institute cooperated closely with the other major German economic research institutes, especially in preparing the semiannual joint reports on the domestic and international business outlook (Gemeinschaftsdiagnose) as well as preparing the Report on Recent Advances in the Economic Development of East Germany, both of which are commissioned by the Federal Ministry of Finance. Under the heading "European Business Cycle Analysis" the Institute cooperated with the CPB Netherlands Bureau for Economic Policy Analysis (The Hague), the Deutsches Institut für Wirtschaftsforschung (DIW, Berlin), the ETLA Research Institute of the Finnish Economy (Helsinki), the National Institute for Economic and Social Research (NIESR, London), the Observatoire Français des

Conjonctures Économiques (OFCE, Paris), the Austrian Institute of Economic Research (WIFO, Vienna), and Prometeia (Bologna).

Further, the Institute cooperated with the following national and international institutions:

- the BP-Amoco, London (G. Klepper)
- the Center for Environmental and Agricultural Policy Research, Extension, and Development, Kathmandu (M. Wiebelt)
- the Center for European Studies, Chulalongkorn University, Bangkok (R.J. Langhammer)
- the Center for Information and Network Economics (CINE) at the Lehrstuhl für Statistik und empirische Wirtschaftsforschung of the Christian-Albrechts-Universität zu Kiel (R.P. Heinrich, K. Sailer)
- the Centre d’Economie et d’Ethique pour l’Environnement et le Développement (C3ED), Guyancourt, France (G. Klepper)
- the Centre for European Policy Studies (CEPS), Brussels (D. Piazzolo)
- the Centre for International Climate and Environmental Research (CICERO), Oslo (G. Klepper)
- the Centre International de Recherche sur l’Environnement et le Développement (CIRED), Nogens sur Marne, France (G. Klepper)
- the Centro Europa Ricerche of the University of Rome “La Sapienza” (A. Schertler, M. Stolpe)
- the Centrum für Angewandte Politikforschung (CAP) of the Ludwig-Maximilians-Universität Munich (J. Stehn)
- the Chaire Mercosur de Sciences Po, Paris (P. Nunnenkamp)
- the Climate Network Europe (CNE), Brussels (G. Klepper)
- the Council on Foreign Relations, New York (H. Siebert)
- the Deutsches Institut für Wirtschaftsforschung (DIW), Berlin (F. Bickenbach, E. Bode, C.M. Buch, D. Dohse, R.P. Heinrich, L. Kumkar, B. Sander, R. Soltwedel, D. Spinanger, R.J. Langhammer)
- the Deutsche Stiftung für Internationale Entwicklung (DSE), Berlin (P. Nunnenkamp)
- the Economic and Social Research Institute (ESRI), Dublin (E. Bode, C. Krieger-Boden, R. Soltwedel)
- the Environmental Institute at University College Dublin (G. Klepper, K. Springer)

- the Europäische Akademie zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen, Bad Neuenahr/Ahrweiler (G. Klepper)
- the European Central Bank, Frankfurt/M. (S. Stolz)
- the Finance and Trade Policy Research Centre at the University of Oxford (A. Schertler, M. Stolpe)
- the Fondazione Eni Enrico Mattei (FEEM), Venice (G. Klepper)
- the Forschungszentrum Technik und Umwelt, Institut für Technikfolgenabschätzung und Systemanalyse (ITAS), Karlsruhe (G. Klepper)
- the Foundation for International Environmental Law and Development (FIELD), London (G. Klepper)
- the Fraunhofer Institut für Systemtechnik (ISI), Karlsruhe (G. Klepper)
- the Groupe ESSEC, Cergy-Pontoise, France (R. Soltwedel)
- the Human Resource Studies Department of the School of Industrial and Labor Relations (ILR) at Cornell University, Ithaca, N.Y. (L. Wößmann)
- the Institución Internacional de Economía y Empresa, La Paz (M. Wiebelt)
- the Institut für Arbeitsmarkt- und Berufsforschung (IAB), Nürnberg (E. Bode, D. Dohse, B. Sander, R. Soltwedel)
- the Institut für Geographie und Geoökologie at TU Braunschweig (M. Wiebelt)
- the Institut für Wirtschaftsforschung (IWH), Halle (E. Bode, D. Dohse, B. Sander, R. Soltwedel)
- the Institut zur Zukunft der Arbeit (IZA), Bonn (B. Christensen)
- the Institute of Economics of the Bulgarian Academy of Sciences, Sofia (E. Bode, C. Krieger-Boden, R. Soltwedel)
- the Institute for International and Development Economics, Rotterdam (D. Spinanger)
- the Institute for New Technologies of the United Nations University in Maastricht (A. Schertler, M. Stolpe)
- the Institute of Southeast Asian Studies, Singapore (R.J. Langhammer)
- the Institute of World Economics in the Hungarian Academy of Sciences, Budapest (E. Bode, C. Krieger-Boden, R. Soltwedel)
- the Instituto de Investigaciones Socio-Económicas, La Paz (D. Piazzolo, R. Schweickert, R. Thiele, M. Wiebelt)
- the Instituto de Prospectiva Tecnológica (IPTS), Seville (E. Gundlach, G. Klepper)

- the Karlsruhe University, Institut für Wirtschaftspolitik und Wirtschaftsforschung (F. Bickenbach, L. Kumkar, C.-F. Laaser, H. Sichelschmidt, R. Soltwedel, H. Wolf)
- the Korean Institute for International Economic Policy, Seoul (R.J. Langhammer)
- the Lehrstuhl für Volkswirtschaftslehre, Wirtschaftsordnung und Sozialpolitik at Würzburg University (C.-P. Meier)
- Lille University (D. Piazzolo)
- Lodz University (D. Piazzolo)
- Marne-la-Vallée University (D. Piazzolo)
- the Max-Planck-Institut für Ausländisches Öffentliches Recht und Völkerrecht, Heidelberg (G. Klepper)
- the Max-Planck-Institut für Meteorologie, Hamburg (G. Klepper)
- the National Institute for Economic and Social Research (NIESR), London (D. Piazzolo)
- the National Research Institute for Labour and Social Protection, Bukarest (E. Bode, C. Krieger-Boden, R. Soltwedel)
- the Northeast Asian Economic Forum/East-West Centre, Seoul (R.J. Langhammer)
- the OECD, Directorate for Education, Employment, Labour and Social Affairs, Paris (E. Gundlach, L. Wößmann)
- the Potsdam-Institut für Klimafolgenforschung (PIK), Potsdam (G. Klepper)
- the Program on Education Policy and Governance (PEPG), Harvard University, Boston (L. Wößmann)
- Purdue University, West Lafayette, Indiana (D. Spinanger)
- the Royal Institute of International Affairs, London (G. Klepper)
- the Staatswissenschaftliches Seminar at the Universität zu Köln (F. Foders)
- the UNEP Collaborating Centre on Energy and Environment, Roskilde, Denmark (K. Springer)
- the Unidad de Análisis de Políticas Sociales y Económicas, La Paz (M. Wiebelt)
- the Unidad Estudios Económicos of the Corporación Andina de Fomento, La Paz (M. Wiebelt)
- the University “Luigi Bocconi,” Milan (E. Bode, C. Krieger-Boden, R. Soltwedel)
- the University of Bangor, U.K. (A. Schertler, M. Stolpe)

- the University of Stockholm (G. Klepper)
- the University of Warwick, Coventry (D. Piazolo)
- the Warwick Business School of the University of Warwick, Coventry (A. Schertler, M. Stolpe)
- the World Bank, Washington, D.C. (E. Gundlach, D. Spinanger, L. Wößmann)
- the Zentrum für Entwicklungsforschung (ZEF), Bonn (M. Wiebelt)
- the Zentrum für Europäische Integrationsforschung (ZEI), Bonn (E. Bode, C. Krieger-Boden, R. Soltwedel)
- the Zentrum für Europäische Wirtschaftsforschung (ZEW), Mannheim (E. Bode, C.M. Buch, D. Dohse, R.P. Heinrich, G. Klepper, D. Piazolo, B. Sander).

Further, the Institute cooperates on a regular basis with the following associations, of which it is a member:

- Association of German Economic Research Institutes (ARGE)
- Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz (WGL)
- Association d'Instituts Européens de Conjoncture Économique (AIECE)
- Deutsches Forschungsnetz
- Deutscher Bibliotheksverband (DBV).

Frequently, several members of the research staff work as Kiel Institute Fellows at the National Bureau of Economic Research (NBER) in Cambridge, Mass.

10. Advisory Activities and Participation in Organizations

In 2001, numerous economists from the Institute were active in an advisory capacity in national and international groups and organizations:

Frank Bickenbach, Jörn Kleinert, Lars Kumkar, and Rüdiger Soltwedel, commissioned by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), advised members of the Vietnamese government and economists from CIEM (Central Institute for Economic Management, Ho-Chi-Minh City) on competition policy and regulation policy for network industries.

Alfred Boss was a member of the Committee for Tax Assessment at the Federal Ministry of Finance in Berlin. At a hearing he advised the Budget Committee of the German Bundestag. At a convention of the Working Group "Arbeit und

Soziales” of the CDU/CSU parliamentary parties of the German Bundestag he lectured on “Reform der Sozialhilfe und der Arbeitslosenhilfe.”

Claudia M. Buch, Ralph P. Heinrich, and Christian Pierdzioch prepared an expert report for the Commission of Enquiry of the German Bundestag “Globalisierung der Weltwirtschaft—Herausforderungen und Antworten.” The report was entitled “Wohlstandsmehrung durch Freiheit des Internationalen Kapitalverkehrs.” *Claudia M. Buch* is a member of the Editorial Board of the “Journal of Comparative Economics.”

Federico Foders was a member of the Steering Committee of the Studienzentrum Meereswissenschaften at Kiel University. He advised the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) on setting up business services for small and medium enterprises in Serbia.

Herbert Giersch was a member of the Advisory Council of Economists attached to the Federal Ministry of Economics and Technology.

Gernot Klepper was a member of the Kollegium der Europäischen Akademie zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen in Bad Neuenahr/Ahrweiler. He was consulted as an expert by the Federal Ministry of Education and Research.

Rolf J. Langhammer was elected member of the Advisory Council of Economists attached to the Federal Ministry of Economic Cooperation and Development for a further 5 years. He was a member of the Advisory Council of the Deutsches Übersee-Institut in Hamburg. He was a member of the Editorial Boards of the “ASEAN Economic Bulletin” and the “Journal of the Asia Pacific Economy.” He was also a member of the Bertelsmann Stiftung’s commission for the awarding of the Carl-Bertelsmann-Preis 2001, and he advised the Council of Experts for the Evaluation of the Overall Economic Situation in Germany.

Daniel Piazolo lectured at the European Forum for Democracy and Solidarity of the Party of European Socialists (PES) in Belgrade on the theory and empirics of economic transformation.

Joachim Scheide advised the Ministry of Finance and Energy of Schleswig-Holstein regarding a forecast of interest rate trends. At the request of the Council of Experts for the Evaluation of the Overall Economic Situation in Germany, he participated in a discussion concerning the business cycle situation and outlook.

Hartmut Schröder was a member of the board of management of the IT-Anwendungskreis Norddeutschland, which, in cooperation with IHK Kiel, Multimedia-campus Kiel, and industry, organizes 6 lectures a year for discussion and further education in the field of information technologies.

Horst Siebert was a member of the Group of Economic Analysis of the European Commission, which was founded in 2001 and is directly attached to Romano Prodi, president of the European Commission. He was a member of the Council of Experts for the Evaluation of the Overall Economic Situation in Germany and member of the Advisory Council of Economists attached to the Federal Ministry of Economics and Technology. As a member of the Quota Formula Review Group of the IMF, he took part in drafting an expert report on changing the Bretton Woods formula. He was also a fellow of the World Economic Forum and the National Economic Research Organizations (NERO), which represents the world's leading economic research institutes. He was a member of the Academic Board of the Central European University in Budapest, the Academia Scientiarum et Artium Europaeae in Salzburg, the Joachim Jungius-Gesellschaft, the Board of Directors of the Asia Pacific Society, the Board of Trustees of the Fritz Thyssen Stiftung, the Aspen Institute Italia, and the Patronage Committee of the Flemish Economic Conference of the Flemish Association of Economists. He was a member of the jury which awarded the Georg von Holtzbrinck Preis für Wirtschaftspublizistik and a member of the Selection Committee for the J.P. Morgan Fellowship Program of the American Academy in Berlin. Moreover, he was member of the Editorial Boards of the "Journal of Policy Reform," "Environmental and Resource Economics," and the "International Yearbook of Environmental and Resource Economics: A Survey of Current Issues," and the Editorial Advisory Board of the "Zeitschrift für Umweltpolitik und Umweltrecht" and "Perspektiven der Wirtschaftspolitik," the latter published by the Verein für Socialpolitik. Further, he was a member of the Advisory Boards of "Global Competitiveness Report," World Economic Forum, Switzerland, and of "Macroeconomics and Monetary Economics Abstracts" of the Social Science Electronic Publishing, Inc. (SSEP), USA. In addition, he was a member of the Advisory Boards of "International Finance," "European Economics Abstracts," and "Macroeconomic Abstracts." He was also an international associate member of the Foundation for Advanced Information and Research (FAIR) in Tokyo.

Julius Spatz was involved in the preparation of the GTZ study "Strategien für Beschäftigung: Eine Best-Practice-Studie zur Arbeitsmarkt- und Beschäftigungspolitik in Entwicklungs- und Transformationsländern."

Dean Spinanger was a member of the Academic Council of the Centre Français d'Études et de Recherches sur les Zones de Liberté Économique and the Board of Directors of the Institute of International Economics in Rotterdam. He advised the Vietnamese government in matters concerning Vietnam's proposed accession to the WTO. He advised various Hong Kong public authorities in matters of trade. He also advised the World Bank concerning trade in textiles and clothing, relating to the pending WTO trade negotiations. In addition, he advised the

Purdue University in West Lafayette, Indiana, regarding the Global Trade Analysis Project (GTAP), about the effects of nontariff trade barriers. He also advised the Asia-Pacific Economic Cooperation (APEC) on economic problems on behalf of the APEC Business Advisory Council. In addition, he advised the Heritage Foundation as a Public Policy Expert.

Jürgen Stehn advised the Landesregierung Schleswig-Holstein in his capacity as a member of a working group set up by the Ministry of Economics, Technology, and Transportation to recommend ways and means of simplifying official economic statistics. He also advised the state government as an external expert in matters of foreign trade in the working group "Außenwirtschaft" of the Ministry of Economics, Technology, and Transportation. In addition he advised the "Centrum für angewandte Politikforschung" at the Ludwig-Maximilians-Universität in Munich on organizing a research program on the deepening of European integration.

Horst Thomsen was a member of the Advisory Board of Wissenschaftliche Bibliotheken attached to the Schleswig-Holstein Ministry of Education, Science, Research, and Cultural Affairs. He was one of the spokespersons of the Arbeitskreis Bibliotheken und Informationseinrichtungen of the Leibniz-Gemeinschaft (WGL). As an expert for the Deutsche Forschungsgemeinschaft, he was a member of the "Unterausschuss für die Förderung der Sondersammelgebiets- und Spezialbibliotheken" and a member of the study group "Koordinierung Sondersammelgebiets- und Spezialbibliotheken."

Manfred Wiebelt advised the Unidad de Análisis de Políticas Sociales y Económicas in La Paz (Bolivia) on the installation of a computer-based general equilibrium model.

11. Commissioned Expert Reports and Research Projects

○ Research Projects and Reports Completed in 2001

Anwendung des Deckungsquotenverfahrens und die Frage getrennter Regelkreise beim Familienleistungsausgleich

A. BOSS, commissioned by the Mitgliedsländer der Finanzministerkonferenz

Messung des Lohnabstands nach Branchen und Regionen unter Berücksichtigung des qualifikatorischen Profils von Sozialhilfeempfängern

A. BOSS, commissioned by the Bundesministerium der Finanzen

Gemeinschaftsdiagnose der führenden deutschen Wirtschaftsforschungsinstitute in Berlin

A. BOSS, K.-J. GERN, J. GOTTSCHALK, C. KAMPS, C.-P. MEIER, J. SCHEIDE, R. SCHMIDT, H. STRAUSS, together with the DIW, HWWA, ifo, IWH, RWI; commissioned by the Bundesministerium der Finanzen

Gemeinschaftsdiagnose der führenden deutschen Wirtschaftsforschungsinstitute in München

A. BOSS, K.-J. GERN, C. KAMPS, C.-P. MEIER, J. SCHEIDE, R. SCHMIDT, H. STRAUSS, together with the DIW, HWWA, ifo, IWH, RWI; commissioned by the Bundesministerium der Finanzen

Financial Market Integration and the Role of Banks

C. M. BUCH, commissioned by the Volkswagen-Stiftung

Implikationen der Verwendung von Derivaten für Geldpolitik und Bankensektor

C. M. BUCH, C. PIERDZIOCH, commissioned by the Deutsche Forschungsgemeinschaft

Wohlstandsmehrung durch Freiheit des Internationalen Kapitalverkehrs

C.M. BUCH, R.P. HEINRICH, C. PIERDZIOCH, commissioned by the Enquête-Kommission of the Deutscher Bundestag

Regulative Folgen der Asienkrise

M. DIEHL, P. NUNNENKAMP, commissioned by the Enquête-Kommission "Globalisierung der Weltwirtschaft—Herausforderungen und Antworten" of the Deutscher Bundestag

Ursachen und Implikationen der Globalisierung am Beispiel der Automobilindustrie

M. DIEHL, P. NUNNENKAMP, J. SPATZ, commissioned by the Fritz Thyssen Stiftung

The Economic Situation of the European Union and the Outlook for 2001–2002

K.-J. GERN, C. KAMPS, J. SCHEIDE, together with other European Economic Research Institutes (EUROFRAME); commissioned by the European Parliament

Den Wandel gestalten—Strategien der Transformation (Carl-Bertelsmann-Preis 2001)

R.J. LANGHAMMER, L. WÖSSMANN, together with an interdisciplinary group of experts; commissioned by the Bertelsmann Stiftung

Die Entwicklung der Energiewirtschaft in Schleswig-Holstein im Jahr 1999 und Energiebilanz 1999

A.D. NEU, commissioned by the Minister für Finanzen und Energie des Landes Schleswig-Holstein

Der Euro als Ankerwährung

R. SCHWEICKERT, commissioned by the Bundesministerium der Finanzen

Technological Innovation and Economic Performance in the German Economy

H. SIEBERT, M. STOLPE, commissioned by the Council on Foreign Relations

○ Research Projects and Reports Currently Being Prepared

Wege zur Beurteilung und Beseitigung von Infrastrukturengpässen im Luftverkehr

F. BICKENBACH, L. KUMKAR, C.-F. LAASER, H. SICHELSCHEIDT, R. SOLTWEDEL, H. WOLF, together with the Institut für Wirtschaftspolitik und Wirtschaftsforschung der Universität Karlsruhe; commissioned by the Deutsche Lufthansa Berlin-Stiftung

Fortschrittsbericht über die wirtschaftliche Entwicklung Ostdeutschlands

E. BODE, D. DOHSE, B. SANDER, together with the DIW, IAB, IWH, and ZEW; commissioned by the Bundesministerium der Finanzen

Möglichkeiten zur Stärkung des Potentialwachstums durch den abgestimmten Einsatz makroökonomischer Instrumente

A. BOSS, K.-J. GERN, C.-P. MEIER, J. SCHEIDE, commissioned by the Bundesministerium der Finanzen

Gemeinschaftsdiagnose der führenden deutschen Wirtschaftsforschungsinstitute

A. BOSS, K.-J. GERN, C. KAMPS, C.-P. MEIER, J. SCHEIDE, R. SCHMIDT, H. STRAUSS, together with the DIW, HWWA, ifo, IWH, RWI; commissioned by the Bundesministerium der Finanzen

Globale Wirtschaft und Russland: Ein deutsch-russischer Dialog

C.M. BUCH, R.P. HEINRICH, D. SPINANGER, together with the DIW; commissioned by the Kreditanstalt für Wiederaufbau

The Benefits of a Working EU Market for Financial Services

C.M. BUCH, R.P. HEINRICH, together with the ZEW and Bochum University; commissioned by the European Roundtable Financial Services

Die "neue Ökonomie"—Erscheinungsformen, Ursachen und Auswirkungen

C.M. BUCH, B. CHRISTENSEN, K.-J. GERN, E. GUNDLACH, R.P. HEINRICH, J. KLEINERT, H. KLODT, J. KRANCKE, J. MUNDHENKE, D. PIAZOLO, K. SAILER, J. SCHEIDE, J. STEHN, commissioned by the Heinz Nixdorf Stiftung

Raumwirtschaftliche Implikationen der New Economy—Zur Bedeutung von E-Commerce und E-Business

D. DOHSE, C.-F. LAASER, J.-V. SCHRADER, H. SICHELSCHEIDT, R. SOLTWEDEL, commissioned by the Wüstenrot-Stiftung

Die Fortschritte der EU-Beitrittskandidaten auf dem Weg zur Erfüllung der Wirtschaftskriterien von Kopenhagen unter besonderer Berücksichtigung der makroökonomischen und finanziellen Stabilität

F. FODERS, D. PIAZOLO, R. SCHWEICKERT, commissioned by the Bundesministerium der Finanzen

Growth and European Labor Markets

K.-J. GERN, R. SCHMIDT, together with Prometeia, EUI, CPB, OFCE, ETLA; commissioned by the European Commission

Globalisierung und Soziale Sicherung

H.H. GLISMANN, K. SCHRADER, commissioned by the Gesellschaft zur Förderung des Instituts für Weltwirtschaft

The Role of Multinational Enterprises in Globalization

J. KLEINERT, commissioned by the Fritz Thyssen Stiftung

Verwendung von Ethanol und Methanol aus nachwachsenden Rohstoffen im chemisch-technischen und im Kraftstoffsektor unter besonderer Berücksichtigung von Agraralkohol

G. KLEPPER, A.D. NEU, J.-V. SCHRADER, together with the meó Consulting Team

Concerted Action on Tradeable Emission Permits (CATEP)

G. KLEPPER, K. SPRINGER, together with other European Economic Research Institutes; commissioned by the European Commission

Nutzung und Schutz genetischer Ressourcen—Strategien zur Bewahrung biologischer Vielfalt (BIOLOG)

G. KLEPPER, O. DEKE, commissioned by the Bundesministerium für Bildung und Forschung

Die aggregierte Angebotselastizität der Landwirtschaft in den Ländern Afrikas südlich der Sahara

R. J. LANGHAMMER, R. THIELE, commissioned by the Deutsche Forschungsgemeinschaft

Zur Rolle der Geldpolitik für die Entwicklung der Arbeitslosigkeit—Ein Vergleich zwischen Deutschland und den USA

C.-P. MEIER, commissioned by the Marga und Knut Möllgaard-Stiftung

Armutsauswirkungen von makroökonomischen Strukturreformen—Wissenschaftliche Begleitung von Stabilisierungs- und Strukturanpassungsprogrammen am Beispiel Boliviens

D. PIAZOLO, R. SCHWEICKERT, R. THIELE, M. WIEBELT, commissioned by the Kreditanstalt für Wiederaufbau

Euro Growth Indicator

J. SCHEIDE, together with other European Economic Research Institutes (EUROFRAME); commissioned by three European newspapers

European Financial Markets, Venture Capital and High-Tech Firms

A. SCHERTLER, M. STOLPE, together with the Institute for New Technologies of the United Nations University in Maastricht, the Finance and Trade Policy Research Centre at Oxford University, the Centro Europa Ricerche of Rome University (La Sapienza), and the Business School of the University of Warwick in Coventry; commissioned by the European Commission

Die Entwicklung der Energiewirtschaft in Schleswig-Holstein im Jahr 2000 und Energiebilanz 2000

A.D. NEU, commissioned by the Minister für Finanzen und Energie des Landes Schleswig-Holstein

Educational Performance in TIMSS-Repeat: Data Base and Analysis

L. WÖSSMANN, commissioned by the “Program on Education Policy and Governance” of Harvard University

○ Further Research Projects

BICKENBACH, F., The Allocation of Competences in the Regulation of European Networks.

BODE, E., Methods of Analysing (Regional) Income Convergence in the Presence of Spatial Dependence.

CHRISTENSEN, B., Reservation Wages in Germany and Great Britain.

—, Job Mobility and Unemployment.

DEKE, O., Economics of Biological Invasions.

DICKE, H., H.H. GLISMANN, The Public Firm and the European Community.

DOHSE, D., The Spatial Structure of the New Economy.

—, Regional Clustering and Interregional Competition.

FODERS, F., International Migration.

HEINRICH, R.P., Complementarities in Corporate Governance.

HEITGER, B., Economic Freedom and Economic Development.

KAMPS, C., The Dynamic Macroeconomic Effects of Fiscal Consolidation.

KLEINERT, J., Firm Structure in the Globalization Process.

—, Megamergers: Theory and Empirics.

KLEPPER, G., Globalization and Resource Use.

—, Economic Aspects of Sustainable Development.

KLODT, H., Structural Change and Industrial Policy.

KRANCKE, J., International Trade in Communications Services.

—, New Technologies, Telecommunications and Electronic Commerce.

KRIEGER-BODEN, C., Industrial Location and Regional Specialization.

—, Spatial Implications of European Integration.

—, EU Regional Policy against the Background of the Eastern Enlargement.

KUMKAR, L., Competition Policy for the Electricity Supply Industry.

—, Regulation of Investments in Infrastructure Industries.

—, Competition and Cooperation among Jurisdictions.

LAASER, C.-F., Patterns of Economic Integration in the Course of the EU's Eastern Enlargement.

LANGHAMMER, R.J., Regional Integration and Cooperation in Asia.

MUNDHENKE, J., The Economics of Open Source Software.

—, Intellectual Property Rights and Computer Software.

- NEU, A.D., Subsidies for Coal Mining after Expiration of the European Coal and Steel Community Treaty by the Year 2002.
- , Preferential Compensation for Electricity Originating from Combined Heat and Power.
- NUNNENKAMP, P., Reforming the International Financial Architecture.
- , Regional Integration in the Third World.
- , Emerging Economies in the International Competition for Foreign Capital.
- PIAZOLO, D., Development Differences in an Enlarged European Union.
- , New Digital Technologies and Developing Countries.
- ROSENSCHON, A., Structural Analysis and Assessment of Subsidies in Germany.
- , Family Policy in Germany.
- SAILER, K., Network Effects and Intellectual Property Rights.
- , The Institution of Intellectual Property Rights in the New Economy.
- SCHERTLER, A., The Implications of Venture Capitalists' Heterogeneity on the Development and the Efficiency of Venture Capital Markets.
- , The Impact of Public Subsidies on Venture Capital Investments.
- SCHMIDT, R., A Complete Labour Market Balance for EU-15 from 1985–2000 Including a Conditional Forecast until 2020 under the Assumption of EU-Enlargement by the Five East European Applicants for Entry.
- , Adaption of the Quarterly Estimate of the Total German Workforce (Including Hidden Unemployment) to the Newly Revised Employment Figures of the Federal Statistical Office.
- , Updating and Forecast of the Monthly Raw Material Price Index Constructed for German Goods Imports.
- SCHRADER, J.-V., Evaluation of Land Taxation and Reform Proposals.
- SCHRADER, K., Patterns of Economic Integration in the Course of the EU's Eastern Enlargement.
- , Labour Market Policy in Western Industrialized Countries.
- SCHWEICKERT, R., Real Exchange Rate and Macroeconomic Equilibrium.
- SICHELSCHMIDT, H., German Sea Ports in Locational Competition.
- SIEBERT, H., Financial and Currency Crises.
- , Growth Policy for Mature Economies.
- , Are Globalization Fears Justified?
- , The German Economy.
- SPINANGER, D., Impact of China's Entry in WTO.

- SPINANGER, D., Anti-Dumping and the Effects of the Uruguay Round. The Threat of Contingent Protection—What’s Happening and What Can Be Done.
- SPRINGER, K., International Climate Policy and Globalization.
—, International Capital Mobility and International Trade in Goods.
- STEHN, J., Fiscal Federalism in the European Union.
—, International Trade and Employment.
- STOLPE, M., Technological Change in Health Care.
—, International Trade in Pharmaceuticals.
- STOLZ, S., The Relationship between Capital and Risk-Taking of Banks and Capital Regulation.
- STRAUSS, H., Determinants of Merchandise and Services Exports.
—, Analysis of Export Demand and Supply by Multiple Equation Analysis for Germany, Canada, and the United States.
—, Foreign Trade of Transition Countries: Gravity Models and Cointegration Analysis for Ukraine.
—, Assessment of the Effects on the U.S. Economy of the Terrorist Attacks.
- THIELE, R., Agricultural Supply Response in Low-Income Countries.
—, Structural Adjustment and Inequality.
- WIEBELT, M., Poverty Reduction Strategies.
—, Sustainable Natural Resources Management.
- WOLF, H., Privatising Airports. An Institutional Analysis.
- WÖSSMANN, L., International Evidence on the Determinants of Students’ Cognitive Skills.
—, European Education Production Functions.
—, A Theoretical Model of the Schooling System.

III. Documentation Services

1. The Library

The Institute's Library (headed by *Horst Thomsen*) is also the German National Library for Economics (Deutsche Zentralbibliothek für Wirtschaftswissenschaften, ZBW). It classifies and indexes economic publications (monographs, articles from periodicals, and collected works) from all over the world and makes them available to its local, national, and international users. The Library's holdings consist for the most part of publications related to the fields of world economics and national economics, and are available as print media, microfiche, diskettes, CD-ROMs, and Internet documents.

The Library is assisted in providing its services by an Advisory Council. The Library's Advisory Council consists of the following experts:

Dr. Jürgen Bunzel, Deutsche Forschungsgemeinschaft,

Dr. Klaus Franken, Director of the University Library of Constance,

Professor Dr. Wolf Schäfer, University of the Federal Armed Forces, Hamburg.

In June, the new Library building was presented to the general public in the course of an open day sponsored by the Chamber of Architects and Engineers of Schleswig-Holstein. Around 500 interested visitors viewed this impressive new addition to the shoreline of Kiel.

The Library staff moved into their new rooms in summer and the building was opened for Library users. The reading, conference, and work rooms have a panoramic view of the Kiel Bay. Here one finds modern PC workstations equipped for the latest developments in multimedia applications.

With the new addition the shelves of the Library were extended by 45,000 meters. The holdings of the Library, which had previously been stored in buildings several kilometers away from the Library building, were moved into the new stack rooms. The speed of document delivery is now faster than ever, since the complete Library collection is now in one building.

Aided by the management consultancy TEAM3, the Library continued the process of developing and implementing a new strategic model for future developments ("Leitbild"). This model was analyzed in a three-day workshop in January in which 30 members of the staff took part. Since then the Leitbild-

project has been carried on by a staff working group that has received 50 new recommendations for improvements to the Library.

○ Holdings and Information Services

By the end of 2001, the Library had increased its holdings to over 2.6 million bound volumes, which are stored on more than 47 kilometers of shelving. Around 45,000 bibliographical volumes and 30,000 monographs were acquired. Nearly 15,000 periodicals (magazines, annuals and journals) are acquired on a regular basis.

The ECONIS data base, which is available via Internet at <http://econis.zbw.ifw-kiel.de/cgi-bin/wwwlibmenu>, was increased by 80,000 new titles. There are now 12,000 links to Internet publications in the data base. The Library developed a concept for the preservation of full-text electronic documents for future use. The key to this concept will be the use of a document server that will be acquired with financial support from the Deutsche Forschungsgemeinschaft (DFG).

The WISO II CD-ROM now has 850,000 titles from the ECONIS data base. The titles can also be found in the WISONet WIWI online data base, which was created by GBI, a provider of German Business Information. WISONet WIWI is a collection of data bases including 1.7 million literature references, thus being the largest data base for economics in Germany.

Local users at the Library can take advantage of the full-text connection to 1,400 electronic economic journals via the Elektronische Zeitschriftenbibliothek (Electronic Journals Library, EZB), which is a national service provided by the University of Regensburg for the effective use of scientific journals in the Internet. A new service of the Library is the full-text online connection to the data bases ScienceDirect (Elsevier journals since 1995), ABI Inform Research Image (economic journals), and SSRN—Social Science Research Network (working papers).

The Library is testing the input of journal articles into the Online Contents Data Bases belonging to the Gemeinsamer Bibliotheksverbund (GBV) network and to the SUBITO document delivery service.

The Library made available the last but one online image catalog of its eight card catalogs. Thus, holdings before 1986 can now be searched by subject and ordered via the Internet at <http://ifw.dilib.de/de/index.htm>.

The ECONIS-Select Internet bibliography service added, among other things, the following subjects: Internationale Zusammenarbeit im Ostseeraum (International cooperation in the Baltic Area), Gender (In)-Equality and Development, and

Nobelpreisträger für Wirtschaftswissenschaften 2001 (Nobel Laureates in Economics in 2001).

As a new information service and a joint venture with the Institute's Information, Editorial, and External Relations Department, the Library is testing the monthly publication of a list of recent acquisitions on the Internet pages of the "Review of World Economics." The systematic list of selected new works from national and international sources can also be found on the homepage of the Library for online-ordering.

An alerting service, Econis My Library, which would send literature references to users by email according to their individual usage profiles is also being planned.

Furthermore, the Library increased the number of works sent through the electronic document delivery service to national and international clients. The Library supplies journal articles and monographs for the SUBITO and GBVdirect services and takes part in the GBVonline electronic interlibrary loan system.

○ Public Relations

The Library conducted a local survey that has helped to analyze its users' habits and needs and to adapt its future service profile to changing requirements.

The Library increased its presence at trade fairs. In 2001, the Library had stands at the Frankfurt Book Fair, the German Library Week, and, as in previous years, at the INFOBASE, the International Fair for Information and Communication in Frankfurt/Main. These activities were carried out within the framework of the cooperation of Central Specialized Libraries of Germany with the Deutsche Fachbibliothek für Medizin (Köln) and the Technische Informationsbibliothek und Universitätsbibliothek Hannover. The Library also shared a stand with the Kiel Institute at the annual meeting of the Verein für Socialpolitik in Magdeburg. The main task of the presentations at these meetings was to provide information about Library projects in the area of digital information.

The Library also intensified its efforts to supply material about its services. Posters and pamphlets about the services of the Library were distributed in Germany, Austria, and Switzerland. This project caused a lot of positive feedback.

○ Cooperation and Projects

In the context of the National Information and Literature Supply Service in Economics, the Library cooperated closely with the Universitäts- und Stadtbibliothek Köln and the HWWA Institute of International Economics, Hamburg. New perspectives for cooperation were discussed, including a deeper cooperation in acquisitions, and the mutual presentation and development of service offers. In order to facilitate the exchange of information, the libraries agreed on an internship program between themselves for their employees.

The DFG project *Virtuelle Fachbibliothek Wirtschaftswissenschaften—EconBiz* (Virtual Subject Library Economics) was continued in cooperation with the Universitäts- und Stadtbibliothek Köln and the HWWA-Institute. The goal is to open an Internet gateway leading to all relevant information about economics. For the Library the main emphasis of the project is to connect the title entries of Internet journals in the ECONIS data base with the actual journals on the Internet and to create a subject information guide to high-quality Internet sources. The specialty of this collection will be the careful selection and detailed description of resources, an understandable presentation, and regular updates. New partners joining this project are the Center for European Economic Research (ZEW) in Mannheim and the Vienna University of Economics and Business Administration.

Another intensive cooperation exists with the *Virtuelle Fachbibliothek Politikwissenschaft und Friedensforschung* (Virtual Subject Library Political Science and Peace Research) at the Staats- und Universitätsbibliothek Hamburg. Since the topics in political science and in economics often overlap the partners are planning to implement a shared data base. The MetaData Sharing project would be a network solution which would make use of economies of scale and scope arising from shared catalog entries. The local presentation of contents would still be adapted to fit the specific needs in each domain.

In EconDoc, a program funded by the German Federal Ministry of Education and Research, more than 1.5 million journal articles have been collected as references to economic science and practice. The Library has offered to supply the ECONIS data base for direct access to the full-text versions of the articles.

Due to the positive development of that project, the project partners—the Kiel Institute's Library; the HWWA-Institute; the ifo-Institute, Munich; and GBI—started an intensive public relations campaign. A logogram was chosen and a website was established at <http://www.econdoc.de>.

EconDoc was presented at the yearly German Library Week in Bielefeld and at INFOBASE, Frankfurt/ Main.

The Library is part of a group responsible for establishing a collection of retrospective digitized journal holdings (SSG-Digizeit). Five journals in the domain of economics and the world economy will be digitized from their beginning to the present.

A project of a different sort is AUTINDEX. Here, the Library, the HWWA-Institute, and the Society for the Promotion of Applied Information Sciences (IAI) at the University of the Saarland are developing a program that will use the subject headings from the Standard-Thesaurus Wirtschaft (STW) to automatically search for information in full-text Internet journals.

The Library also participated in the Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz (WGL), specifically in meetings of Section B, in the Committee of Service Institutions, in the annual meeting in Bochum, and in the Working Group for Libraries and Information Providers.

2. The Economic Archives

The technical and organizational changes in the Economic Archives (headed by *Bernhard Klein*) are almost completed. The Archives cooperate substantially with the press articles documentation center of the HWWA Institute in Hamburg. Both institutes select reports from about 100 newspapers and journals, published in various countries all over the world. Articles are classified using a system based on the classification of the Institutes' libraries, covering all countries of the world and about 700 subjects. The classification and other information on the articles, e.g. name of author, institution, enterprise, or key words are added to the bibliographical data. Thus a reference data base (ECONPRESS) is provided which allows online research in the Internet, at <http://www.hwwa.de:81/>, and will help anyone interested in economic problems to find useful and current reports from newspapers and journals.

The articles cover 29 topics:

economics	banking	crafts
money, financial markets	insurance	services
international economics	real estate	trade
public finance	public services (incl. armed forces)	transport
labor	nonprofit organizations	information and communication
business administration	education	nature, environment
agriculture (incl. forestry and fishery)	health, medicine	law
energy and water	social welfare	politics
commodities	culture	society
industry	science, research	

In addition, there are special collections on persons, institutions, and enterprises.

The Economic Archives are a public institution and are thus open to the general public. The 14 million clippings, covering the years 1920 to 2000, are made available as paper copy or on microfilm. Articles following January 1, 2001, are no longer available in Kiel, but they are available at the press articles documentation center of the HWWA in Hamburg.

IV. Teaching and Lecturing

1. Universities and Colleges

In 2001, several staff members at the Institute were once again active in teaching and lecturing at universities and colleges. Horst Siebert held lectures and seminars at the Christian-Albrechts-Universität zu Kiel as Professor of Theoretical Economics. The following staff members also held regular lectures, seminars, or exercises at the Christian-Albrechts-Universität zu Kiel: Claudia Buch, Federico Foders, Harmen Lehment, Rolf J. Langhammer, Oliver Lorz, Joachim Scheide, Michael Stolpe, and Stéphanie Stolz. Federico Foders also held lectures at the Universität zu Köln, and Erich Gundlach taught as Privatdozent at the Universität der Bundeswehr in Hamburg. Bernhard Klein and Manfred Salden taught at the Fachhochschule Kiel.

2. Advanced Studies Program

The Advanced Studies in International Economic Policy Research, the post-graduate program offered by the Institute, was established in 1984. This ten-month program, conducted fully in English, is designed for young economists coming straight from university as well as for economists with several years of professional experience who are interested in learning about the latest issues of research in international economics.

As a rule, there are 8–10 one- or two-week courses in various fields of international economics which are taught by renowned professors from all over the world. The courses are supplemented by a number of one- or two-day seminars on topic issues of economic theory and policy. As part of the Advanced Studies Program, participants prepare two working papers, which they present and discuss at special conferences. The papers are published in the Kiel Advanced Studies Working Paper Series.

For a limited number of participants, it is also possible to attend selected courses only. This offer is especially addressed to economists employed at companies or institutions involved in international business who have a distinct interest in getting to know new developments in their area of work.

Since 1984, more than 380 participants have graduated from the program and received the Advanced Studies Certificate (A.S.C.). Many of them have assumed

leading positions in governmental and intergovernmental organizations, academic institutions, and international business.

In monitoring further developments of the program, the Kiel Institute is assisted by the Advanced Studies' Steering Committee. In 2001, the members were:

Dr. Gunter D. Baer (Bank for International Settlements, Basle), Prof. Dr. Clemens Börsig (Deutsche Bank AG), Prof. Dr. Dr. h.c. Joachim Funk (Wista-Management GmbH), Prof. Dr. Gerd Hansen (University of Kiel), Prof. Dr. Dr. h.c. Otmar Issing (European Central Bank), Prof. Dr. Jan Pieter Krahn (University of Frankfurt), Prof. Stefan Mittnik, Ph.D. (University of Kiel), Prof. Horst Raff, Ph.D. (University of Kiel), Dr. Horst Reichenbach (European Commission), Prof. Dr. Carl Christian von Weizsäcker (University of Cologne).

In 2001, the Kiel Institute was able for the first time to offer several fellowships provided under the Marie Curie Training Sites Fellowship Program of the European Commission. In the coming years, this fellowship will allow ten young researchers from EU member countries or associate states, who wish to undertake part of their doctoral studies in a country other than their own, to participate in the Advanced Studies Program.

The eighteenth Advanced Studies Program took off in August 2001 with 23 participants from 17 different countries (Algeria, Bulgaria, China, Colombia, Denmark, Estonia, Finland, France, Germany, India, Ireland, Italy, Norway, Peru, Slovenia, Spain, Thailand). The first part of the program included the following courses:

Macroeconomics in Open Economies (Holger Wolf, George Washington University, Washington, D.C.),

Monetary Policy: Strategies and Implementation (Bennett McCallum, Carnegie Mellon University),

International Trade (Peter Neary, University College Dublin).

The program also comprised a special course on "Empirical Methods in Macroeconomics," which was given by Björn Christensen (Kiel Institute) and Axel Schimmelpfennig (International Monetary Fund). Participants also had the opportunity to attend the visit of a recruitment team from the International Monetary Fund.

During the second part of the program in 2002 the following courses will be offered:

Economic Growth and Development (Ricardo Hausmann, Harvard University),

The Economics of Employment (Dennis Snower, Birkbeck College, London),

European Economic Integration (André Sapir, Université Libre, Brussels),

Empirical Methods in Finance (Stefan Mittnik, University of Kiel),

Political Economy in Open Economies (Guido Tabellini, Innocenzo Gasparini Institute for Economic Research, Milan),

Electronic Commerce: Policy Issues (Catherine L. Mann, Institute for International Economics, Washington, D.C.).

The application period for the next session of the program—which will begin in August 2002—has already begun. The following economists will be teaching in the next session: David Audretsch (Indiana University), Richard Baldwin (The Graduate Institute of International Studies, Geneva), Michael Burda (Humboldt-University, Berlin), Wilfred Ethier (University of Pennsylvania), Marvin Goodfriend (Federal Reserve Bank of Richmond), Jakob de Haan (University of Groningen), Stefan Mittnik (University of Kiel), Linda Tesar (University of Michigan), and Gilles Saint-Paul (University of Toulouse).

3. Guest Lectures and Seminars at Universities

Guest lectures and seminars were held by Claudia Buch at the Universität Basel, at Baruch College (New York), New York University, and at Wesleyan College; Erich Gundlach at the Universität Gesamthochschule Kassel, at the Universität Gießen, and at the Universität Hamburg; Gernot Klepper at the Johann Wolfgang Goethe-Universität in Frankfurt, at the Meteorologisches Institut der Universität München, and at the Alfred-Wegener-Institut in Bremerhaven; Henning Klodt at the Bucerius Summer School in Hamburg; Rolf J. Langhammer at the Centre for European Studies of Chulalongkorn University in Bangkok; Oliver Lorz at the Universität Göttingen; Peter Nunnenkamp at the Dokuz Eylül University in Izmir and the Universidad Autónoma del Estado de México in Toluca (Mexico); Daniel Piazzolo at the Universität Hamburg. Horst Siebert held a lecture on the 2001/02 report of the Council of Economic Experts at the Christian-Albrechts-Universität zu Kiel, and guest lectures at the University of Nottingham, United Kingdom, *The World Economy Annual Lecture*, at the Bucerius Summer School on International Governance, Hamburg, and at the European Business School,

Schloss Reichartshausen; Rüdiger Soltwedel at the Universität zu Köln, at the “Institut des Villes, du Territoire et de l’Immobilier,” ESSEC, Cergy-Pontoise, France, and the European Business School, Östrich-Winkel; Dean Spinanger at the Chulalongkorn University in Bangkok; Jürgen Stehn at the Fachhochschule Westküste in Husum; Hartmut Wolf at the Institut für Verkehrswissenschaft und Regionalpolitik at the Albert-Ludwigs-Universität Freiburg.

V. Conferences

1. Conferences Organized by the Institute

Last year's traditional *Kiel Week Conference*, entitled "Economic Policy for Ageing Societies," was held on June 18–19, 2001. Renowned economists from Germany and abroad presented their recent research results. They discussed the impact of demographic changes in industrial countries. These include the change in levels and structure of the demand for goods and services, innovation slowdown, and the worsening of growth prospects. With regard to economically important financial problems of existing social security systems, several reform options were analyzed. Furthermore, the implications for labor supply and investment were discussed.

The Institute welcomed the following participants (among others): A. Lans Bovenberg (Tilburg University), Günter Endruweit (University of Kiel), Alexia Fürnkranz-Prskawetz (Max-Planck-Institut für Demografische Forschung, Rostock), Koichi Futagami (Osaka University), Jean Pierre Garson (OECD, Paris), Burkhard Heer (University of Innsbruck), Arye L. Hillman (Bar Ilan University, Ramat-Gan), Paul A. Johnson (London School of Economics), David Miles (Imperial College Management School, London), Dennis Mueller (University of Vienna), Dieter Ohr (University of Cologne), Helmut Reisen (OECD, Paris), Werner Roeger (European Commission, Brussels), Georg Rudinger (University of Bonn), Gilles Saint-Paul (GREMAQUE-IDEI, Toulouse), Harrie A. A. Verbon (Tilburg University), Ignazio Visco (OECD, Paris), Guglielmo Weber (University of Padua), and Jens Weidmann (Council of Economic Experts, Wiesbaden). Horst Siebert, Rolf J. Langhammer, Oliver Lorz, and Michael Stolpe represented the Institute.

Together with the Landesbank and Girozentrale Schleswig-Holstein, the Institute held its traditional *Economic Policy Discussion* on June 23, 2001. In the Landesbank building, high-ranking politicians, business executives, and economists participated in a lively and stimulating discussion about current economic problems and economic policy reforms. Among others, the discussion was attended by Helmut Schmidt (former German Chancellor), Prof. Dr. Klaus Töpfer (Executive director of the UNEP), Prof. Dr. Bernd Rohwer (Minister of Economic Affairs, Technology, and Transportation of the state of Schleswig-Holstein), Bernhard Jagoda (President of the Bundesanstalt für Arbeit), Dr. Ulf Böge (President of the Bundeskartellamt), and various top representatives of the German business community.

In March, the Institute held its 63rd *Business Cycle Conference* entitled “Slow-down of the World Economy—Time to Act?”. In September, the 64th conference was entitled “World Economic Recovery Postponed?”. More than one hundred business executives, politicians, and economists from Germany and abroad participated in the conferences, dealing with the current situation and prospects of main economic regions and countries. The September talks were strongly influenced by the volatile political situation in the aftermath of the September 11th attacks.

As part of the research project “New Economy,” the Institute held an *international conference* on “Economic Policy in the New Economy” in the Heinz Nixdorf MuseumsForum in Paderborn on May 15–16, 2001. Building upon the question of how the New Economy can be characterized, the impact of the New Economy on growth and productivity, business cycles and inflationary tendencies were discussed. The need for further regulation was analyzed, particularly with regard to international trade and capital flows. The final session of the conference was dedicated to the social and welfare implications of the New Economy. Speakers and discussants were: Kevin Stiroh (The Federal Reserve Bank of New York), Dominique Foray (OECD, Paris), Rainer Fehn (University of Würzburg), Michael Burda (Humboldt-University, Berlin), Ludger Schuknecht (European Central Bank), Luc Soete (Maastricht Economic Research Institute on Innovation and Technology), Eli Salzberger (University of Haifa), Peter Johnston (European Commission), David Llewellyn (Loughborough University), Dale Jorgensen (Harvard University), Bart van Ark (University of Groningen), Jon Eller (Federal Reserve Board), Robert Gordon (Northwestern University, Illinois), Otmar Issing (European Central Bank), and Catherine Mann (Institute for International Economics, Washington, D.C.). The Institute was represented by Horst Siebert, Rolf J. Langhammer, Ralph Heinrich, and Rüdiger Soltwedel.

On the occasion of his 80th birthday, Prof. Dr. Drs. h.c. Herbert Giersch was honored with a *symposium* on May 11, 2001. Professor Robert M. Solow, Nobel Prize winner from the Massachusetts Institute of Technology held a lecture on “Why Has the U.S. Economy Done So Well? Could It Happen Again?”.

In 2001, the Institute organized two *workshops*. In collaboration with the Center for Information and Network Economics at the chair of Statistics and Empirical Economic Research at the Christian-Albrechts-Universität zu Kiel a workshop was held on September 21–22. The topic “Microeconomics of the New Economy” gathered more than forty participants from all over the world, who presented and discussed new theoretical models and empirical analysis, with an emphasis on “Business Strategies in the New Economy,” “The New Role of Property Rights,” “Electronic Commerce,” and “The Recent UMTS Spectrum

Auctions.” The Institute for World Economics was represented by Jörn Kleinert, Jens Mundhenke, and Katharina Sailer.

On November 12–13, the Workshop “Innovation Clusters and Interregional Competition” was held in collaboration with the Institute for Regional Research at the Christian-Albrechts-University Kiel and the Local Economic and Employment Development (LEED) Program of the OECD. More than ninety participants discussed the theoretical and conceptual foundations of the regional cluster configuration, analyzed the empirical evidence of high-tech-clusters, and debated about the implications for political economy. The Institute was represented by Dirk Dohse, who gave a talk on “Taking Regions Seriously: Recent Innovations in German Technology Policy,” as well as by Horst Siebert, Rüdiger Soltwedel, Frank Bickenbach, and Eckhardt Bode.

On the occasion of the Kiel Week the third *lecture series* (June 18–22, 2001) was organized, aiming at presenting the results of the research activities to a broad public audience. Numerous people used this occasion to learn about current economic developments. The speakers were: Rüdiger Soltwedel, who held a lecture on “Spatial Structure in the New Economy,” Erich Gundlach (“Expenditures on Education and Educational Quality: An International Comparison”), Joachim Scheide (“Stagnation or Recession—Where Is the Business Cycle Heading To?”), Henning Klodt (“Bumblebees Can’t Fly—Competitional Strategies in the New Economy”), and Harmen Lehment (“A Tangible Euro—What Does the Completion of the European Currency Union Mean?”).

The following economists lectured at the Institute’s *staff seminars* in 2001: Richard Baldwin (The Graduate Institute of International Studies, Geneva) on “The Nice Treaty: Should It Be Ratified?”, John Driscoll (Brown University, Providence) on “Fair Treatment and Inflation Persistence,” and Sebastian Edwards (University of California at Los Angeles) on “Does the Current Account Matter?”.

2. External Conferences

In 2001, many of the Institute’s economists were invited to participate in, or present papers at, conferences in Germany or other countries:

BODE, E., 40th Anniversary Meeting of the Western Regional Science Association and Special Seminar of the Applied Econometrics Association in Palm Springs (paper: “Is Regional Innovative Activity Path-dependent?”).

BODE, E., Workshop on “Economic Geography and Regional Growth—Theory and Evidence” of the HWWA in Hamburg.

—, Conference on “The Future of Innovation Studies” of the Eindhoven Centre for Innovation Studies (ECIS) in Eindhoven (paper: “Is Regional Innovative Activity Path-dependent?”).

—, Third Congress on Proximity on “New Growth and Territories” of the University of Paris XI (ADIS) and the National Institute of Agronomical Researches (INRA SAD) in Paris (paper: “Is Regional Innovative Activity Path-dependent?”).

BUCH, C.M., Annual Meeting of the Verein für Socialpolitik in Magdeburg (paper: “Information or Regulation: What Is Driving the International Activities of Commercial Banks?”).

—, Annual Meeting of the European Economic Association in Lausanne (papers: “Information or Regulation: What Is Driving the International Activities of Commercial Banks?” and “Does the East Get What Would Otherwise Flow to the South? FDI Diversion and Eastern Enlargement?”).

—, Global Finance Conference in Los Angeles (paper: “Information or Regulation: What Is Driving the International Activities of Commercial Banks?”).

CHRISTENSEN, B., Conference on “Unemployment: Causes and Cures” of the Zentrum für Europäische Wirtschaftsforschung (ZEW) in Berlin (paper: “The Determinants of Reservation Wages in Germany”).

—, Conference on “Labour Market Effects of Income Support and Training Programs” of the Zentrum für Europäische Wirtschaftsforschung (ZEW) in Berlin.

—, Employment Colloquium “Praxis trifft Wissenschaft” of the Institut für Arbeitsmarkt- und Berufsforschung of the Bundesanstalt für Arbeit (IAB) in Nürnberg.

—, Workshop on “Labor Studies” of the NBER Summer Institute in Boston, Mass.

DEKE, O., Workshop on “Economics of Biodiversity,” National Center for Ecological Analysis and Synthesis, Donald Bren School of Environmental Science & Management in Santa Barbara, Cal. (paper: “Conserving Biodiversity by Commercialization? A Model Framework for a Market for Genetic Resources”).

—, Interdisciplinary meeting of experts on the main points of the “Übereinkommen über die biologische Vielfalt” of the Bundesamt für Naturschutz, Internationale Naturschutzakademie on the island of Vilm (paper: “Erhaltung biologischer Vielfalt durch wirtschaftliche Nutzung von genetischen Ressourcen?”).

DICKE, H., Meeting of the Beirat für Europa of the Gesellschaft zum Studium strukturpolitischer Fragen e.V. in Berlin (paper: “Die EU-Erweiterung und ihre Auswirkungen auf den Binnenmarkt”).

—, Roundtable Deutsche Bank Research in Frankfurt/M. (paper: “Europa-Stolperstein Agrarpolitik”).

DOHSE, D., Conference on “Wissenschaft und Wirtschaft im regionalen Gründungskontext” of the Fraunhofer Institut für Systemtechnik und Innovationsforschung in Karlsruhe.

—, Regional Economics Seminar at the Christian-Albrechts-Universität zu Kiel (paper: “Wo neues Wissen entsteht: Zur Regionalstruktur der Innovationstätigkeit in der Bundesrepublik Deutschland”).

—, Workshop on “Multi-Akteurs-/Multi-Maßnahmen-Wettbewerbe und ihre Anforderungen an die wissenschaftliche Evaluation” of the Fraunhofer Institut für Systemtechnik und Innovationsforschung and the Deutsche Ausgleichsbank in Karlsruhe.

—, International Workshop on “Innovation Clusters and Interregional Competition” of the Kiel Institute for World Economics, the LEED-Programm of the OECD, and the Institut für Regionalforschung at Kiel University (paper: “Taking Regions Seriously: Recent Innovations in German Technology Policy”).

FODERS, F., Conference of the Deutsche Angestellten Gewerkschaft/Verdi on “Die Zukunft der dualen Berufsausbildung vor der Herausforderung der Globalisierung” in Kiel (paper: “Die zunehmende Internationalisierung der Märkte und die damit verbundenen veränderten Anforderungen an die berufliche Ausbildung in Deutschland”).

—, Conference of the Landesinstitut Schleswig-Holstein für Praxis und Theorie der Schule (IPTS) on “Unternehmerisch Denken—Selbständig Handeln” in Neumünster (paper: “Existenzgründungen im Handwerk in Deutschland im formalen Vergleich zu unseren Nachbarn”).

—, Expertengespräch of the Studien- und Fördergesellschaft der Schleswig-Holsteinischen Wirtschaft during “Inwatertec” in Kiel (paper: “Maritime Wirtschaft—Impulsgeber für Wachstum und Entwicklung”).

—, Seminar on “Europa-Lateinamerika: Vor neuen Herausforderungen” of the Deutsch-Iberoamerikanische Gesellschaft Schleswig-Holstein in Malente (paper: “Argentinien im Spannungsfeld nationaler und globaler Märkte”).

—, Meetings organized by the Staatskanzlei of the state of Schleswig-Holstein entitled “Dialog über Europa: Die Erweiterung der EU. Chancen und Herausforderung für Schleswig-Holstein” in Eutin and Heide (paper: “Die Erweiterung der EU: Einführung in das Thema”).

FODERS, F., Lecture in a series on “Einführung des Euro in Jugoslawien” at the Goethe-Institut, Inter Nationes, and the Yugoslav National Bank in Belgrad, Novi Sad, Subotica, and Kragujevac (paper: “Die Einführung des Euro: Auswirkungen auf Jugoslawien”).

GERLING, K., Workshop on “Labour Markets, Work, and Welfare during the Transition and Integration Processes” in Riga (paper: “Subsidization and Structural Change in Eastern German Transition: Did Economic Policy Meet Its Objectives?”).

GERN, K.-J., Jour Fixe of the German Economic Research Institutes at the Federal Ministry of Finance in Berlin.

GERN, K.-J., C. KAMPS, J. SCHEIDE, Conference of the Association d’Instituts Européens de Conjoncture Économique (AIECE) in Paris (joint paper: “European Economic Outlook”).

GUNDLACH, E., Workshop on “Catching up and EU Accession” of the International Institute for Applied Systems Analysis in Stockholm (paper: “Growth Effects of EU Membership: The Case of East Germany”).

—, Conference on “Dynamics, Economic Growth, and International Trade” of the Institute for Advanced Studies in Wien (paper: “Interpreting Productivity Growth in the New Economy”).

—, Workshop on “Explaining Growth” of the Economics Education and Research Consortium Russia in Moskau (paper: “Review of Country Proposal Moldova”).

GUNDLACH, E., L. WÖSSMANN, EIB Prize Conference of the European Investment Bank in Luxembourg (joint paper: “Better Schools for Europe”).

HEINRICH, R.P., Conference on “The Russian Banking Sector: Evolution, Problems and Prospects” at the University of Cambridge (paper: “The Political Economy of Banking Reform and Foreign Debt”).

—, Conference on “Management of Capital Inflows in Transition Economies” of the Ford Foundation and the International Center for Economic Growth in Budapest (paper: “Capital Flows to Transition Economies: How Risky Is Financial Integration?”).

—, Conference on “Economic Policy in the New Economy” of the Heinz Nixdorf Stiftung in Paderborn (comment on the paper: “Financial Intermediaries in the New Economy: Will Banks Lose Their Traditional Role?” by David Llewellyn).

KAMPS, C., Annual Meeting of the European Economic Association in Lausanne (paper: “Fiscal Consolidation in Europe: Pre- and Post-Maastricht”).

KAMPS, C., Annual Meeting of the International Institute of Public Finance in Linz (paper: “Fiscal Consolidation in Europe: Pre- and Post-Maastricht”).

—, International Conference on “EMU Macroeconomic Institutions and Policies” of the Università degli Studi di Milano-Bicocca in Mailand (paper: “Fiscal Consolidation in Europe: Pre- and Post-Maastricht”).

—, International Conference on “Policy Modeling for European and Global Issues” of the Free University Brussels, the European Commission, the Applied Econometrics Association, and the Economic Modeling Network in Brussels (paper: “Fiscal Consolidation in Europe: Pre- and Post-Maastricht”).

—, Annual Meeting of the ENTER Network in Mannheim (paper: “Fiscal Consolidation in Europe: Pre- and Post-Maastricht”).

KASTEN, C., Seminar on “Globale Umweltfragen” of the Carl Duisberg Gesellschaft in Dersau (papers: “Klimaschutz” and “Handel und Umwelt”).

KLEINERT, J., 3rd Passau Workshop on “Internationale Wirtschaftsbeziehungen” in Passau (paper: “Growing Trade in Intermediate Goods: Outsourcing, Global Sourcing or Increasing Importance of MNE Networks?”).

—, Pan-European Conference of the IEFS (International Economic and Financial Society) in Thessaloniki (paper: “Growing Trade in Intermediate Goods: Outsourcing, Global Sourcing or Increasing Importance of MNE Networks?”).

—, Conference on “Economic Policy in the New Economy” of the Heinz Nixdorf Stiftung in Paderborn.

—, Conference on “The Economics of Information and Communication Technologies” of the ZEW in Mannheim.

—, Annual Meeting of the European Association for Research in Industrial Economics (EARIE) in Dublin (paper: “The Firm in the New Economy”).

—, 2nd Symposium of the German Economic Association for Business Administration GEABA on “Theorie der Unternehmung” in Vallendar (paper: “The Firm in the New Economy”).

KLEINERT, J., H. KLODT, 31st Wirtschaftswissenschaftliches Seminar Ottobeuren, entitled “Fusionen,” in Ottobeuren (joint paper: “Fusionswellen seit Beginn der 70er Jahre und ihre Ursachen”).

KLEPPER, G., Conference on “Global Climate Change—Regional Impacts: Achievements of the German-Brazilian Cooperative Research on Sustainable Land and Water Management in Northeastern Brazil” in Fortaleza, Brasilien.

—, Conference on “Durchbrüche der Global Change Forschung: Beiträge deutscher Forschungsgruppen” of the Deutsche Forschungsgemeinschaft (DFG) and the Nationales Komitee für Global Change Forschung in Bad Honnef.

KLEPPER, G., Conference on “Klimavorsorge” of the Akademie zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen Bad Neuenahr-Ahrweiler.

—, Conference on “Integrative Modellierung zum Globalen Wandel” of the Institut für Technikfolgenabschätzung und Systemanalyse (ITAS), Forschungszentrum Karlsruhe Technik und Umwelt in Bad Honnef.

—, Congress on “Lebenswelten für Morgen—Life Cycle Engineering and Industrial Ecology” of the Technische Universität Braunschweig in Braunschweig (paper: “Effekte der Globalisierung auf Stoffströme”).

—, Workshop on “Erfassung und Beschreibung der Wechselwirkungen zwischen sozialen, ökonomischen und natürlichen Systemen in Verbindung mit dem Globalen Wandel” of the Potsdam-Institut für Klimafolgenforschung e.V. in Potsdam.

—, Workshop on “Globale zukunftsfähige Entwicklung—Perspektiven für Deutschland” in Schloss Dagstuhl (paper: “Ökonomische Bedingungen nachhaltiger Entwicklung”).

—, Workshop on “Klimawandel” of the Universität Trier (paper: “Kopplung von natur- und wirtschaftswissenschaftlichen Modellen? Das Beispiel Klimawandel”).

—, Workshop on “Nächste Schritte der Global Change Forschung in Deutschland: Entwurf eines Geoskops” of the Deutsche Forschungsgemeinschaft (DFG) Bonn in Weilburg.

—, Workshop on “Forschungsschwerpunkte für ein künftiges deutsches Rahmenprogramm ‘Nachhaltigkeits-Geoskop’” of the Nationales Komitee für Global Change Forschung and the Deutsche Forschungsgemeinschaft (DFG) Bonn in Berlin.

KLODT, H., Conference on “Wirtschaftspolitik vor neuen Herausforderungen durch elektronischen Handel” of the Institut für Wirtschaftspolitik an der Universität zu Köln in Köln (paper: “Netzwerkökonomik und elektronischer Handel”).

—, Conference on “Megafusionen” of the Arbeitsgruppe “Wettbewerb” of the Wirtschaftspolitischer Ausschuss im Verein für Socialpolitik in St. Gallen (introductory paper: “Die 5. Fusionswelle: Ausmaße und Hintergründe;” and closing summary).

—, Symposium on “Integration Pressures: Lessons from around the World” of the OECD and the JFK School of Government at Harvard University in Cambridge, Mass. (paper: “The E.U. and Industrial Policy in Germany”).

KLODT, H., Panel discussion on “New Economy: Neues Wirtschaftsmodell oder fauler Zauber?” of the Heinrich-Böll-Stiftung in Frankfurt/M.

—, Workshop on “E-Commerce und Beschäftigung” of the Akademie für Technikfolgenabschätzung in Stuttgart (supplementary paper: “Wachstumsdynamik und internationale Verflechtung”).

—, International Conference on “Rethinking Leadership for Innovation in Europe” of the British Council in Ferrara (Working Group Rapporteur).

KRANCKE, J., International Conference on “Trade, Investment and Competition Policies in the Global Economy: The Case of the International Telecommunications Regime” of the HWWA and the Istituto Affari Internazionali in Hamburg (comment on the paper: “Non-Tariff Barriers and the Telecommunications Sector”).

—, 9th Congress “Junge Wissenschaft und Wirtschaft: Old and New Economy auf dem Weg in eine innovative Symbiose?” of the Hanns Martin Schleyer-Stiftung and the Ehlerding Stiftung in Innsbruck.

KUMKAR, L., Conference on “Der unvollendete Binnenmarkt” of the Arbeitskreis Europäische Integration, Bonn, together with the HWWA in Hamburg (paper: “Zentralisierung oder Wettbewerb der Regulierungsansätze?—Die Kommissionsvorschläge für den Strombinnenmarkt”).

LAASER, C.-F., 18th Verkehrswissenschaftliche Tage Dresden “Verkehr und Mobilität in der Informationsgesellschaft” of the Fakultät Verkehrswissenschaften “Friedrich List” of the Technische Universität Dresden (paper: “Ausgaben- und Einnahmepolitik der Gebietskörperschaften im Bereich Verkehr”).

—, Workshop on “E-Shopping und Stadtentwicklung” of the Deutsches Institut für Urbanistik (DIFU) in Hamburg (paper: “Raumwirtschaftliche Betrachtungen: Veränderungen von Zentrengefüge und Städtehierarchie”).

—, Transportation Economics Colloquium on “Europäischer Luftverkehr—wem nützen die Strategischen Allianzen?” of the Deutsche Verkehrswissenschaftliche Gesellschaft, Deutsches Verkehrsforum, and the Bundesministerium für Verkehr, Bau- und Wohnungswesen in Frankfurt/M. (paper: “Vor- und Nachteile globaler Allianzen im Luftverkehr—die Sicht des Instituts für Weltwirtschaft”).

—, Conference on “Ten Years After—Expectations and Experiences” of the Nordic Centre for Spatial Development (Nordregio) in Stockholm (paper: “Ten Years After—What Has Been Achieved in Integrating the Economies in Transition on the Eastern Baltic Rim?”).

LANGHAMMER, R.J., 4th Limburg Seminar of the Verein für Entwicklungsökonomische Forschungsförderung on “Wissenschaft und Praxis der Entwicklungsökonomik” in Eisenach.

LANGHAMMER, R.J., 2nd International Forum on “African Perspectives” of the OECD Development Centre and the African Development Bank in Paris (comment on a paper).

—, Meeting of the Working Group “Internationale Entwicklung und multilaterale Unternehmen” of the BDI in Ludwigshafen (paper: “Abschwung der US-Konjunktur: Auswirkungen auf die Weltwirtschaft und die deutsche Industrie”).

—, Conference on “Economic Policy in the New Economy” of the Heinz Nixdorf Stiftung in Paderborn.

—, International Policy Dialogue on “Ownership und Konditionalität” of the Deutsche Stiftung für Internationale Entwicklung (DSE) in Berlin.

—, 13th Malente Symposium “Strategies to Fight Poverty in Middle-Income Countries” of the Dräger-Stiftung and the World Bank in Lübeck.

—, Conference on “Strengthening Economic Cooperation in Northeast Asia” of the East-West Center, the Kanamori Committee of Japan, and the Korea Committee for the Northeast Asia Economic Forum in Honolulu (paper: “The Rationale for Enhancing Northeast Asian Economic Cooperation and Some Possible Options”).

—, International Symposium entitled “Den Wandel gestalten—Strategien der Transformation” on the occasion of the awarding of the Carl-Bertelsmann-Preis 2001 of the Bertelsmann Stiftung in Gütersloh (rapporteur).

—, Seminar on “Die Europäische Union in der Weltwirtschaft: Wettbewerbsfähigkeit, Handelspolitik und Globalisierung” of the Bundesverband der Deutschen Industrie (BDI) in Berlin (paper: “Wie wettbewerbsfähig ist Europa in der Weltwirtschaft?”).

—, Discussion on “Transatlantic Economic Leadership” of the Bertelsmann Stiftung and Auswärtiges Amt in Berlin.

—, Seminar on “WTO, Regionalism and Multilateralism” of the European Commission and the National Institute for Research Advancement (NIRA) in Brussels (introductory lecture).

—, International Conference on “Strengthening ASEAN Integration: Through the Rule of Law and Good Governance” of the Centre for European Studies at Chulalongkorn University and the T.M.C. Asser Institute in Chiang Mai (paper: “EU’s Experiences of Economic Integration. Reflections on the Rationale, Achievements and Limits of a Top-Down Integration Model”).

LORZ, O., Norwegian-German Seminar on Public Economics entitled “Redistribution and Employment: New Policies for the New Millennium” of the CESifo and the Norwegische Handelshochschule Bergen in Munich (supplementary paper: “Trade Union Objectives and Economic Growth”).

LORZ, O., 9th Congress on “Junge Wissenschaft und Wirtschaft: Old and New Economy auf dem Weg in eine innovative Symbiose?” of the Hanns Martin Schleyer-Stiftung and the Ehlerding Stiftung in Innsbruck.

MEIER, C.-P., Jour Fixe of the German Economic Research Institutes at the Federal Ministry of Finance in Berlin.

MUNDHENKE, J., Conference on “Economic Policy in the New Economy” of the Heinz Nixdorf Stiftung in Paderborn.

—, Workshops “Innovation Policy,” “International Technology Diffusion,” and “R&D, Strategy and Organizations” of the NBER Summer Institute in Boston, Mass.

—, Conference on “Wizards of OS 2. Offene Kulturen und freies Wissen” of mikro.org, the Bundeszentrale für Politische Bildung, and the AG Informatik & Gesellschaft of the Humboldt-Universität in Berlin.

NEU, A.D., Spring Meeting of the Länderarbeitskreis Energiebilanzen in Rostock.

—, Joint Session of the Arbeitsgemeinschaft Energiebilanzen and the Länderarbeitskreis Energiebilanzen 2001 in Stuttgart.

NUNNENKAMP, P., Interdisciplinary Research Colloquium entitled “Regulierung internationaler Finanzmärkte und freier Kapitalverkehr” of the Evangelische Akademie in Loccum (paper: “Anpassungs- und Steuerungserfordernisse zwischen Liberalisierung und Regulierung”).

—, Panel discussion “Geld regiert die Welt: Für eine gerechte Weltfinanzordnung” organized by Misereor and the Katholische Akademie in Berlin.

—, Workshop on “Globalisierung und Corporate Governance in Deutschland und Japan” of the Waseda University and the Wissenschaftliche Hochschule für Unternehmensführung (WHU) in Vallendar (paper: “Globalisierung in der Wirtschaft”).

—, “Seminar für Sicherheitspolitik 2001” of the Bundesakademie für Sicherheitspolitik in Siegburg (paper: “Brauchen wir ein neues Weltfinanzsystem?”).

—, Experts workshop on “An Integrated Approach to the EU–Mercosur Association” of the Chaire Mercosur de Sciences Po in Buenos Aires (paper: “European FDI Strategies in Mercosur Countries”).

—, Panel discussion with José Bové “Die Welt ist keine Ware,” organized by Tageszeitung (taz) at Humboldt-Universität in Berlin.

—, Regional Seminar on “FDI National Strategies and Policies in the ESCWA Region” of the United Nations Economic and Social Commission for Western Asia (ESCWA) in Beirut (paper: “Trends, Determinants and Effects of FDI in the Era of Globalization”).

NUNNENKAMP, P., International Conference on “International Financial Architecture: Recent Issues and Alternatives of Reform” of the Fundação Getulio Vargas and the Konrad-Adenauer-Stiftung in Rio de Janeiro (paper: “Transformation in the International Financial System”).

—, Seminar on “Globalization and Regionalism: Liberal Stocktaking of Chances and Risks” of the Theodor-Heuss-Akademie in Gummersbach (paper: “Globalization versus Regionalism”).

—, International Congress on “Market Opening, Trade and Development” of the Gesamtverband der Textilindustrie (Gesamttextil) in Berlin (paper: “Structural Change and Economic Performance in the Era of Globalization: Some Evidence from Industrial and Developing Countries”).

—, 33rd Forum “Foreign Trade in a Global World” of the Asociacion Nacional de la Industria Quimica in Mexico City (paper: “The Advantages of Emerging Countries in a Global World”).

—, Workshop on “Industrial Restructuring in an Enlarging Europe: Fragmentation and Relocation of Value Chains” of the Massachusetts Institute of Technology (MIT), the Soziologisches Forschungsinstitut Göttingen (SOFI), and the Wissenschaftszentrum Berlin für Sozialforschung (WZB) in Berlin (paper: “Globalization of the Automobile Industry: Old Locations under Pressure?”).

—, Seminar on “Globalsteuerung und Strukturreform” of the Deutsche Stiftung für Internationale Entwicklung (DSE) and the Peruvian Central Bank in Lima (papers: “Liberalization and Regulation of International Capital Flows,” “Is Foreign Direct Investment to Be Preferred?,” and “Remodelling or Repairing the International Financial Architecture?”).

—, Seminar on “Globalisierung und Dritte Welt” of the Akademie für Politische Bildung in Tutzing (paper: “Chancen und Probleme der Globalisierung für die Dritte Welt”).

PIAZOLO, D., First International Europe Conference on “What Structural Reforms Are Needed to Ensure Full Employment in Europe?” of the Aspen Institute France in Paris.

—, Workshop at the Instituto de Investigaciones Socio-Económicas (IISEC) of the Universidad Católica Boliviana (UCB) in La Paz (paper: “An Up-dated Social Accounting Matrix (SAM) for the Analysis of Stabilization and Structural Adjustment Programs in Bolivia”).

—, Panel discussion on “Die EU-Osterweiterung—wer zahlt drauf?” of the Polnisches Institut Leipzig in Leipzig (introductory paper: “Entwicklungsunterschiede einer erweiterten Europäischen Union”).

PIAZOLO, D., Annual Meeting of the Verein für Socialpolitik in Magdeburg (paper: “Die neue Ökonomie und das internationale Rahmenwerk”).

—, Seminar on “Weltwirtschaftliche Zusammenhänge” of the Carl Duisberg Gesellschaft in Dersau (paper: “Regionale Entwicklungsunterschiede und Strategien der Entwicklung”).

—, Conference on “Economic Policy in the New Economy” of the Heinz Nixdorf Stiftung in Paderborn.

—, 2nd Complutense International Seminar “European Economic Integration: Deepening and Enlargement” in Madrid (paper: “The Consequences of EU Accession for the CEECs: A Computable General Equilibrium (CGE) Analysis”).

—, Policy forum on “Polen auf dem Weg in die EU” of the Landeszentrale für Politische Bildung Schleswig-Holstein in Kiel (paper: “Polens Wirtschaft macht sich fit für die EU: Chancen, Risiken und Nebenwirkung”).

—, Interdisciplinary Colloquium “Globalisierung und Wirtschaftsethik” of the Stiftung Naturschutzgeschichte in Königswinter (paper: “Globalisierung und die Entwicklungsländer”).

SAILER, K., 9th Congress on “Junge Wissenschaft und Wirtschaft: Old and New Economy auf dem Weg in eine innovative Symbiose?” of the Hanns Martin Schleyer-Stiftung and the Ehlerding Stiftung in Innsbruck (paper: “Wettbewerb in elektronischen Märkten”).

—, Workshop on “Network Externalities—Consequences of a Digital Economy” at the Institut für Höhere Studien (IHS), Wien.

—, Conference on “Economic Policy in the New Economy” of the Heinz Nixdorf Stiftung in Paderborn.

—, Conference on “Economics of Information and Communication Technologies” of the ZEW in Mannheim.

SCHNEIDER, J., Seminar on “Monetary Theory and Monetary Policy” in Reichenau.

—, Session of the List Gesellschaft “Neue Paradigmen der Geldpolitik” in Frankfurt/M. (paper: “Möglichkeiten und Grenzen einer Übertragung der regelorientierten Geldpolitik der amerikanischen Zentralbank auf die EZB”).

—, Jour Fixe of the German Economic Research Institutes at the Federal Ministry of Finance in Berlin.

—, Brussels Economic Forum at the European Commission in Brussels.

—, Meeting of the Association d’Instituts Européens de Conjoncture Économique (AIECE) in Brussels.

SCHERTLER, A., Annual Meeting of the European Association for Research in Industrial Economics (EARIE) in Dublin (paper: “The Impact of Public Subsidies on Venture Capital Investments in Start-up Enterprises”).

—, 8th Annual Meeting of the Deutsche Gesellschaft für Finanzwirtschaft (paper: “Public Guarantees and Venture Capital Investments” and comment on the paper: “Restricted Export Flexibility and Hedging with Options and Futures”).

SCHRADER, J.-V., Annual Meeting on “Liberalisierung des Weltagrarhandels—Strategien und Konsequenzen” of the Gesellschaft für Wirtschafts- und Sozialwissenschaften des Landbaus in Göttingen.

SCHWEICKERT, R., Workshop on “Challenges for Monetary Policy in a Global Financial Market Environment” of the International Network for Economic Research (INFER) in Frankfurt/M. (paper: “Cause or Cure for Financial Crisis? Experience with Exchange Rate Anchors and Lessons for Latin America”).

—, Interim Workshop of the project “Poverty Impacts of Macroeconomic Reforms: Stabilization and Structural Adjustment Programs in Bolivia” of the Kreditanstalt für Wiederaufbau and the Instituto de Investigaciones Socio-Económicas in La Paz (paper: “Macroeconomic Constraints on Economic Development and Poverty Reduction: the Case of Bolivia”).

—, Conference on “Re-Engineering Social Policy: The Challenge” of the Malaysian Institute of Economic Research (MIER) in Kuala Lumpur (paper: “Design and Reform of European Type Social Security Systems—The German Experience”).

—, Seminar of the Economic Planning Unit/Prime Minister’s Department in Putrajaya (paper: “Exchange Rate Anchors and Financial Stability”).

—, International Symposium on “The Implications of the Introduction of the Euro on the Currencies of Central and Eastern European Countries” at Gerhard-Mercator-Universität Duisburg in Duisburg (Comment: “Unilateral Euroization for the Central and Eastern European Countries: Is It an Option?”).

—, Symposium on “Zehn Jahre Vertrag von Maastricht” of the Zentrum für Globalisierung und Europäisierung der Wirtschaft in Göttingen (Panel discussion “EU-Osterweiterung und ihre Auswirkungen auf die Stabilität des Euro-Raums”).

SIEBERT, H., Jour Fixe of the German Economic Research Institutes at the Federal Ministry of Finance in Berlin.

—, 64th Conference on “Migration in Europa” of the Arbeitsgemeinschaft deutscher wirtschaftswissenschaftlicher Forschungsinstitute e.V. (ARGE) in Berlin.

SIEBERT, H., Festakademie “Soziale Marktwirtschaft als Aufgabe. Herausforderungen und bewährte Prinzipien” on the occasion of Otto Schlecht’s 75th birthday (lecture: “Anmerkungen aus der Sicht der Wissenschaft”).

—, 1st Berlin Discussion on “Globaler Kapitalismus—bändigen oder tolerieren?” of the Ludwig-Erhard-Stiftung in Berlin.

—, Meeting of experts on “Ein neuer Gesellschaftsvertrag in Europa? Deutschland–Frankreich: Sozialmodelle und wirtschaftlicher Wandel” of the Bundeskanzleramt (Deutsch-Französische Beziehungen) and the Studien- und Forschungseinrichtung Notre Europe in Berlin (paper: “Das Ziel der Vollbeschäftigung: Wirtschaftspolitik und soziale Kohäsion”).

—, Conference on “Economic Policy in the New Economy” of the Heinz Nixdorf Stiftung in Paderborn (introductory statement).

—, Meeting of the SPD-Bundestagsfraktion on business cycle perspectives and options for action in Berlin.

—, Discussion series “Gespräche am Gendarmenmarkt” of the Berliner Zeitung in Berlin (paper: “Wie kommen wir in Deutschland zu mehr Dynamik und Beschäftigung?”).

—, Meeting of the “Group of Economic Analysis (GEA)” of the European Commission in Brussels (paper: “How the EU Can Move to a Higher Growth Path. Some Considerations”).

SOLTWEDEL, R., Conference on “Economic Policy in the New Economy” of the Heinz Nixdorf Stiftung in Paderborn (comment on Catherine Mann’s paper).

—, Conference on “Die Bundesländer im Standortwettbewerb” of the Bertelsmann Stiftung and the List Gesellschaft (paper: “Mehr wettbewerblicher Föderalismus—Chancen und Risiken für die wirtschaftliche Entwicklung”).

—, Annual Meeting of the Ausschuss für Regionaltheorie und –politik of the Verein für Socialpolitik (paper: “Raumstruktur und New Economy—Zur Bedeutung von E-commerce für die räumliche Arbeitsteilung”).

—, OECD/ECMT Seminar on “The Impact of E-commerce on Transport” in Paris (chairman of a session).

—, Conference on “The e-Economy in Europe—Its Potential Impact on EU Enterprises and Policies” of the European Commission in Brussels.

—, OECD/DATAR “First World Congress on Local Clusters: Local Networks of Enterprises in the World Economy” in Paris.

—, Ad hoc Working Group on “Raumrelevante Veränderungen im Angebot von Gütern und Dienstleistungen” of the Akademie für Raumordnung und Landesplanung (ARL) in Hannover.

SOLTWEDEL, R., International Workshop on “Innovation Clusters and Inter-regional Competition” of the Kiel Institute for World Economics, the LEED Program of the OECD, and the Institut für Regionalforschung at Kiel University in Kiel (comment on Fabienne Corvers’s paper).

SPATZ, J., 26th IESG Annual Conference entitled “Trade Liberalisation, Growth & Poverty” in Gregynog (paper: “Explaining Intra- & Inter-Sectoral Wage Differentials in Simple General Equilibrium Models”).

SPINANGER, D., Annual Meeting of the American Economic Association (AEA) in New Orleans (paper: “Will the Emperor Wear Clothes from Bangladesh in 2005?”).

—, 1st ABAC-Konferenz in Scottsdale, Arizona (paper: “Antidumping Measures in APEC Countries”).

—, EU-LDC Network Conference on “Trade and Poverty Reduction” in Rotterdam (paper: “Beyond Eternity: What Will Happen when the ATC Gives Way to MFN Principles beyond 2004?”).

—, GTAP, 4th Annual Conference on “Global Economic Analysis” at Purdue University in West Lafayette, Indiana (paper: “With Rags to Riches but Then What? Hong Kong’s T&C Industry vs. the ATC and China’s WTO Accession”).

—, Conference on “WTO Accession, Policy Reform and Corporate Strategies for Globalization” of the World Bank in Beijing (paper: “Beyond a Short Term: What Happens when MFN Principles Govern T&C Trade beyond 2004 and China Is WTO Member?”).

SPRINGER, K., Workshop on “Concerted Action on Emissions Trading” at the Environmental Institute at University College Dublin in Dublin.

STEHN, J., Transatlantic Workshop of the Robert Bosch Stiftung in Berlin (paper: “Economic Policy in the Era of Globalization: The End of the Welfare State?”).

—, Workshop on “Globaler Arbeitsmarkt” of the Fachhochschule Westküste in Husum (paper: “Internationaler Handel und Beschäftigung”).

—, Seminar on “Die Osterweiterung der Europäischen Union” of the Karl-Theodor-Molinari-Stiftung in Bad Marienberg (paper: “Agenda 2000: Ouvertüre oder Finale der Reformen im Zuge der EU-Osterweiterung?”).

STOLPE, M., Workshop on “European Integration, Financial Systems and Corporate Performance” at the United Nations University in Maastricht (lecture on the research project “Financial Markets, Venture Capital and High-Tech Firms”).

—, Second Workshop of the Research Cooperation on “European Integration, Financial Systems and Corporate Performance” at La Sapienza University in Rome (progress report).

STRAUSS, H., Conference of the Association d'Instituts Européens de Conjoncture Économique (AIECE) in Brussels.

—, Workshop on “Monetary Policy” of the NBER Summer Institute in Boston, Mass.

SÜSSENBACH, C., “Frauenworkshop 2001” of the Leibniz-Gemeinschaft in Bonn (paper: “Stand der Frauenförderung in der Leibniz-Gemeinschaft—Bericht über die Tätigkeit des Arbeitskreises Frauen”).

THIELE, R., Seminar on “Weltwirtschaftliche Zusammenhänge” of the Carl Duisberg Gesellschaft in Dersau (paper: “Was kann der Staat für eine dauerhafte Entwicklung tun?”).

—, Interim Workshop of the project “Poverty Impacts of Macroeconomic Reforms: Stabilization and Structural Adjustment Programs in Bolivia” of the Kreditanstalt für Wiederaufbau and the Instituto de Investigaciones Socio-Económicas of the Universidad Católica Boliviana in La Paz (paper: “The Social Dimension of Structural Adjustment in Bolivia”).

THOMSEN, H., Meetings of the Unterausschuss für die Förderung der Sondersammelgebiets- und Spezialbibliotheken, working group “Koordinierung Sondersammelgebiets- und Spezialbibliotheken” in Bonn and Frankfurt/M.

WIEBELT, M., Seminar on “Globale Umweltfragen” of the Carl Duisberg Gesellschaft in Dersau (papers: “Umwelt und wirtschaftliche Entwicklung,” “Schutz der Regenwälder,” and “Ökologische Steuerreform”).

—, Interim Workshop of the project “Poverty Impacts of Macroeconomic Reforms: Stabilization and Structural Adjustment Programs in Bolivia” of the Kreditanstalt für Wiederaufbau and the Instituto de Investigaciones Socio-Económicas of the Universidad Católica Boliviana in La Paz (papers: “Socially Relevant Policy Analysis: Model Requirements” and “External Shocks and Anti-shock Policies: A CGE Model for Bolivia”).

WOLF, H., Joint Colloquium on “Europäischer Luftverkehr—wem nützen die strategischen Allianzen?” of the Bundesministerium für Verkehr, Bau- und Wohnungswesen and the Deutsche Verkehrswissenschaftliche Gesellschaft e.V. in Frankfurt/M. (paper: “Strategische Allianzen zwischen Flughäfen—notwendiges Gegengewicht zur Blockbildung der Fluggesellschaften?”).

WÖSSMANN, L., Annual Meeting of the Verein für Socialpolitik in Magdeburg (paper: “Schooling Resources, Educational Institutions, and Student Performance: The International Evidence”).

—, Annual Conference of the European Association of Labour Economists in Jyväskylä/Finland (paper: “Schooling Resources, Educational Institutions, and Student Performance: The International Evidence”).

WÖSSMANN, L., Annual Congress of the European Economic Association in Lausanne (paper: “Schooling Resources, Educational Institutions, and Student Performance: The International Evidence”).

—, Annual Congress of the International Institute of Public Finance in Linz (paper: “Schooling Resources, Educational Institutions, and Student Performance: The International Evidence”).

—, Annual Conference of the European Society for Population Economics in Athens (paper: “Schooling Resources, Educational Institutions, and Student Performance: The International Evidence”).

—, Annual Conference of the Royal Economic Society in Durham (paper: “Schooling Resources, Educational Institutions, and Student Performance: The International Evidence”).

—, Workshops on “Growth” and “Labor Studies” of the NBER Summer Institute in Boston, Mass.

VI. Publications

The economists at the Kiel Institute presented their research findings to economists, the business community, and the general public in in-house publications and out-of-house publications.

The in-house publications were edited by the Editorial Group (headed by *Dietmar Gebert*). In addition, this Group edited papers presented by economists from home and abroad on the occasion of the Kiel Week Conference, and also articles accepted for publication in “Weltwirtschaftliches Archiv” upon recommendation by a referee.

In 2001, the Editorial Group edited 5 “Kieler Studien/Kiel Studies,” 1 “Kieler Sonderpublikation,” 9 “Kiel Discussion Papers,” and 4 issues of the Institute’s quarterly journals: “Weltwirtschaftliches Archiv/Review of World Economics” and “Die Weltwirtschaft.” In addition, the Institute published a conference volume entitled “The World’s New Financial Landscape: Challenges for Economic Policy” and the “Kieler Vortrag” by Robert M. Solow, entitled “Why Has the U.S. Economy Done So Well? Could It Happen Again?”, delivered in honor of Herbert Giersch’s 80th birthday.

1. In-House Publications

Summaries of the Institute’s publications were published in 24 “Kieler Kurzberichte” and, for the English-speaking public, in 11 “Kiel Reports.” Further information on the following 2001 publications can be found, together with information on the Institute’s 2000 publications, in “Publikationsverzeichnis/Publications 2000–2001” and in the Internet (<http://www.uni-kiel.de/ifw>).

Furthermore, the Institute’s Internet homepage contains information about ongoing research activities at the Institute, about the organizational structure of the Institute, and about the services offered by the Library and the Economic Archives. Additionally, abstracts of the publications and the full text of some research papers can be downloaded. In 2001, the Internet was accessed on average 110,000 times per month. Most of the time, the reports on the current business situation and the list of new publications were accessed.

○ Kieler Studien/Kiel Studies

FODERS, F., Bildungspolitik für den Standort D.

LAPP, S., Internationale Diversifikation in den Portfolios deutscher Kapitalanleger. Theorie und Empirie.

PIAZOLO, D., The Integration Process between Eastern and Western Europe.

PIERDZIOCH, C., Noise Trading, Central Bank Interventions, and the Informational Content of Foreign Currency Options.

SCHWEICKERT, R., Der Euro als Ankerwährung. Die mittel- und osteuropäischen Beitrittsländer zwischen Transformation und Integration.

○ Kieler Sonderpublikation

SANDER, B., Wohnungspolitik im Dilemma von Glaubwürdigkeit und Erpressbarkeit. Das Beispiel des Altschuldenkompromisses in der ostdeutschen Wohnungswirtschaft.

○ Contributions to the Conference Volume

BUCH, C.M., and C. PIERDZIOCH, The Growth and Volatility of International Capital Flows: Reconciling the Evidence. In H. Siebert (ed.), *The World's New Financial Landscape: Challenges for Economic Policy*. Berlin: Springer-Verlag.

○ Weltwirtschaftliches Archiv/Review of World Economics

This quarterly journal contains articles by scholars from all over the world who are dedicated to the mainly empirical analysis of international economics. The articles deal with the trade of goods and services, currency regimes and exchange rates, foreign trade policy, capital flows and migration of labor, the economic development in individual countries, and the international coordination of economic policies.

In editing the journal, the Institute is advised by its International Advisory Board, the members of which were

Alberto F. Alesina (Harvard University, Cambridge, Mass.), Richard E. Baldwin (Graduate Institute of International Studies, Geneva), Paul De Grauwe (University of Louvain), Rudiger Dornbusch (Massachusetts Institute of Technology, Cambridge, Mass.), Barry Eichengreen (University of California, Berkeley),

Francesco Giavazzi (Bocconi University, Mailand), Elhanan Helpman (Harvard University, Cambridge, Mass., and Tel Aviv University), Arye L. Hillman (Bar-Ilan University, Ramat Gan, Israel), J. Peter Neary (University College Dublin), Victor Norman (Norwegian School of Economics and Business Administration, Bergen), Maurice Obstfeld (University of California, Berkeley), Richard Pomfret (University of Adelaide), Niels Thygesen (University of Copenhagen), and Charles Wyplosz (Graduate Institute of International Studies, Geneva).

○ Die Weltwirtschaft

Each issue of this quarterly journal contains analyses of, and forecasts about, business cycles in Germany and several other industrial countries. In addition, the journal dealt with various other research topics.

BOSS, A., C.-P. MEIER, J. SCHEIDE, and R. SCHMIDT, Deutschland: Konjunktureller Tiefpunkt erreicht.

BOSS, A., J. GOTTSCHALK, C.-P. MEIER, J. SCHEIDE, R. SCHMIDT, and H. STRAUSS, Deutschland in der Konjunkturflaute.

—, Deutschland: Konjunkturelle Wende steht bevor.

BOSS, A., K. GERLING, J. GOTTSCHALK, C.-P. MEIER, J. SCHEIDE, R. SCHMIDT, and H. STRAUSS, Ende des Aufschwungs in Deutschland.

GERN, K.-J., C. KAMPS, and J. SCHEIDE, Euroland: Konjunkturschwäche wird überwunden.

—, Rezession in den Industrieländern wird bald überwunden.

GERN, K.-J., J. GOTTSCHALK, C. KAMPS, J. SCHEIDE, and H. STRAUSS, Konjunktur in den Industrieländern durchschreitet die Talsohle.

GERN, K.-J., J. GOTTSCHALK, C. KAMPS, B. SANDER, J. SCHEIDE, and H. STRAUSS, Deutliche Abkühlung der Weltkonjunktur.

—, Weltwirtschaft vor dem Ende der Talfahrt.

HAMMERMANN, F., and J. KLEINERT, Die DOME-Fusionsdatenbank.

HEINRICH, R.P., Corporate Governance—Die Bedeutung komplementärer Elemente für konsistente Reformen.

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○ Kieler Diskussionsbeiträge/Kiel Discussion Papers

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GERN, K.-J., C. KAMPS, and J. SCHEIDE, European Economic Outlook. General Report Presented at the AIECE Meeting in Paris, May 9–11, 2001.

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- LAY, J., and M. WIEBELT, Towards a Dual Education System—A Labour Market Perspective on Poverty Reduction in Bolivia.
- NUNNENKAMP, P., Ist diesmal alles anders? Die neue Welle regionaler Integration in Lateinamerika aus europäischer Perspektive.
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- STOLPE, M., Mobility of Research Workers and Knowledge Diffusion as Evidenced in Patent Data. The Case of Liquid Crystal Display Technology.
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2. Out-of-House Publications

Many of the Institute's economists published their research findings with out-of-house publishers or in out-of-house journals, many of which are refereed journals.

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— (co-author), *Für Stetigkeit—Gegen Aktionismus*. Jahresgutachten 2001/2002 des Sachverständigenrats zur Begutachtung der gesamtwirtschaftlichen Entwicklung. Stuttgart: Metzler-Poeschel.

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- KLEINERT, J., The Time Pattern of the Internationalization of Production. *German Economic Review*.
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- LANGHAMMER, R.J., Developing Countries as Exporters of Services: What Trade Statistics Suggest. A Research Note. *Journal of Economic Integration*.
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VII. Appendix

1. Recipients of the Bernhard Harms Prize, the Bernhard Harms Medal, and the Bernhard Harms Prize for Young Economists

○ Bernhard Harms Prize

Every two years the president of the Institute awards the Bernhard Harms Prize, which is currently endowed with DM 50,000. The recipient is either a professor who has distinguished himself/herself through extraordinary achievement in the field of international economics or someone in the business community who has made a significant contribution to the improvement of world economic relations. The recipient is chosen by the Prize Committee of the Gesellschaft zur Förderung des Instituts für Weltwirtschaft (Society for the Promotion of the Kiel Institute for World Economics). After receiving the prize, which bears the name of the Institute's founder, the recipient holds the Bernhard Harms Lecture, which is then published by the Institute. The Bernhard Harms Prize was awarded for the first time in 1964 in honor of the 50th anniversary of the founding of the Institute. The recipients of this prize to date are:

Prof. Dr. Dr. h.c. GERHARD COLM, Washington, D.C. (1964)

Sir ROY HARROD, Christ Church College, Oxford (1966)

Drs. h.c. HERMANN JOSEF ABS, Frankfurt am Main (1968)

Prof. Dr. WASSILY LEONTIEF, Harvard University/New York University (1970)

Prof. Dr. Drs. h.c. GOTTFRIED HABERLER, Harvard University/American Enterprise Institute, Washington, D.C. (1972)

Prof. Dr. Drs. h.c. FRITZ MACHLUP, Princeton University (1974)

Prof. Harry G. JOHNSON, Ph.D., University of Chicago (1976)

Prof. Dr. h.c. CHARLES P. KINDLEBERGER, Ph.D., Massachusetts Institute of Technology, Cambridge, Mass. (1978)

Prof. Dr. ERIK LUNDBERG, Stockholm School of Economics (1980)

Prof. Dr. WILLIAM FELLNER, Yale University/American Enterprise Institute, Washington, D.C. (1982)

Prof. Dr. BELA BALASSA, Ph.D., Johns Hopkins University, Baltimore/The World Bank, Washington, D.C. (1984)

Prof. W. MAX CORDEN, Ph.D., Australian National University, Canberra (1986)

- Prof. JAGDISH BHAGWATI, Ph.D., Columbia University, New York (1988)
Prof. ANNE O. KRUEGER, Ph.D., Duke University, Durham (1990)
Prof. Dr. h.c. RUDIGER DORNBUSCH, Ph.D., Massachusetts Institute of Technology, Cambridge, Mass. (1992)
Prof. MARTIN FELDSTEIN, Ph.D., Harvard University/National Bureau of Economic Research, Cambridge, Mass. (1994)
Prof. Dr. ASSAR LINDBECK, Universität Stockholm/Institute for International Economic Studies, Stockholm (1996)
Prof. ELHANAN HELPMAN, Ph.D., Harvard University/Tel Aviv University (1998)
Prof. JEFFREY D. SACHS, Ph.D., Harvard University/Center for International Development (2000).

○ Bernhard Harms Medal

The Bernhard Harms Medal is awarded at irregular intervals. The medal is awarded to persons who have contributed to the Kiel Institute's research on the world economy in the tradition of Bernhard Harms. The recipients of the Bernhard Harms Medal to date are:

- Prof. Dr. OTTO PFLEIDERER, Stuttgart (1980)
Dr. KURT PENTZLIN, Hannover (1980)
Dr. DAVID GROVE, Washington, D.C. (1981)
TADEUSZ M. RYBCZYNSKI, M.Sc., London (1983)
Prof. GEORGE FRANK RAY, London (1983)
Prof. Dr. WOLFGANG F. STOLPER, Ann Arbor, Michigan (1984)
KARL-GUSTAV RATJEN, Frankfurt am Main, President of the Society for the Promotion of the Kiel Institute for World Economics, 1971–1984 (1984)
Dr. HANS D. BARBIER, Frankfurt am Main (1986)
Prof. Dr. GERHARD FELS, Cologne, Vicepresident of the Kiel Institute for World Economics, 1976–1983 (1986)
Prof. Dr. RUDOLF SCHEID, Frankfurt am Main (1988)
Prof. Dr. KARL SCHILLER, Jesteburg-Osterberg (1989)
Dr. h.c. TYLL NECKER, Bad Oldesloe (1989)
Prof. Dr. JUERGEN B. DONGES, Cologne, Vicepresident of the Kiel Institute for World Economics, 1983–1989 (1991)

Prof. Dr. Drs. h.c. HELMUT SCHLESINGER, Deutsche Bundesbank, Frankfurt am Main (1992)

Prof. INGO WALTER, Ph.D., New York University (1992)

BIRGIT BREUEL, President der Treuhandanstalt, Berlin (1994)

Prof. Dr. HERBERT GRUBEL, Vancouver (1995)

Prof. VÁCLAV KLAUS, President of the Parliament of the Czech Republic (1999)

Prof. Dr. Dr. h.c. MARCUS BIERICH, Stuttgart, President of the Society for the Promotion of the Kiel Institute for World Economics, 1984–2000 (2000)

REINHARD MOHN, Gütersloh (2000).

○ Bernhard Harms Prize for Young Economists

The Bernhard Harms Prize for Young Economists is endowed with DM15,000 and is awarded at irregular intervals. The recipients are economists of the Kiel Institute for World Economics who have conducted distinctive scientific research and are not older than 33 years. The aim of the Prize is to promote young, qualified scientists by making it possible for them to finance research at an internationally renowned university or research institution. The recipients of the prize to date are:

Dr. ANDREAS GRÖHN (1998)

DR. CHRISTIAN PIERDZIOCH (2001).

2. Staff (as of January 2, 2002)

Afrifa, Ljiljana	L	Bernhardt, Heike	L
Akhtar, Ursula	L	Bickenbach, Frank	R III
Albrecht, Angelika	L	Bluhm, Mathias	A
Altmann, Flora	L	Bode, Eckhardt	R III
Andersson, Carmen	R III	Boss, Alfred	R V
Arnhold, Regina	R I	Böttner, Jost	R II
Arpe, Jutta M.	P	Brammer, Raymond	L
Auschrat, Marie-Luise	L	Brauer, Martin	A
Austen, Birgit	A	Bredemeyer, Annemarie	L
		Brocke, Heidemarie	R II
Baethe, Sabine	R II	Brüggmann, Aurette	L
Ballert, Jörg P.	A	Bruhse, Hans-Dieter	L
Behrens, Rainer	L	Buch, Claudia M.	P
Beling, Marlies	L	Buck, Michael	A

Bungenstock, Jan Michael	R I	Grabsch, Nora	L
Buttero, Alessandra	L	Graemer, Rosel	A
Büxenstein-Gaspar, Ilse	IEER	Grey, Antje	L
		Gruebner, Carola	L
Christensen, Björn	R I	Gummersbach, Birgit	IEER
		Gundlach, Erich	R IV
Davidson, Martina	L	Guttzeit, Christel	L
Deichsel, Stefan	IEER		
Deke, Oliver	R II	Hackländer, Burkhard	L
Dick, Hermann	L	Hahn-Mieth, Almut	R I
Dicke, Hugo	R I	Halbfas, Rita	R I
Dohse, Dirk	R III	Hammermann, Felix	R IV
Dönges, Doris	A	Hanemann, Hans	L
		Harder, Corinna	L
Ebbesen, Sven	A	Harders, Dörte	L
Eckeberg, Elisabeth	IEER	Hartz, Hans-Hermann	L
Ehlert, Ulrike	L	Heinecke, Ute	R V
Ente, Werner	IEER	Heinen, Ruth	L
		Heinrich, Ralph P.	P
Fett, Ursula	R III	Heinrich, Tobias	R I
Feuring, Maria	IEER	Heinrigs, Philipp	P
Fischer, Renate	A	Heitger, Bernhard	R I
Flieger, Elisabeth	IEER	Helsberg, Jutta	L
Flohr, Ralf	L	Henke, Regine	R V
Foders, Federico	R I	Hinz, Heike	A
Franke, Inga	R II	Holst, Helga	L
Freise, Philipp	L	Hölterhoff, Kirsten	IEER
Fromberg, Thorsten	L	Hübener, Sabine	R IV
Führmann, Karin	L	Husfeld, Angela	R IV
Führmann, Margitta	R V	Huß, Helga	R I
		Hutzfeldt, Ingelore	A
Gatzke, Gitta	L	Hutzfeldt, Rolf	A
Gebert, Dietmar	IEER		
Gebühr, Christiane	R IV	Janßen, Silke	L
Gehrke, Frank	R V	Jung, Ingo	A
Gern, Klaus-Jürgen	R V		
Gilbert, Jan	A	Kähler-Rust, Ursula	L
Gillam, Almuth	L	Kamps, Christophe	R V
Glaeßer, Hans-Georg	L	Kasch, Sabine	A
Glamann, Elke	L	Kiesner, Christine	IEER
Glismann, Hans H.	R I	Kim, Young-ja	L
Glowatzka, Marion	R II	Klein, Bernhard	IEER
Goretzko, Fred	L	Kleinert, Jörn	R I
Gosch, Detlef	L	Klepper, Gernot	R II
Goschenhofer, Kirsten	L	Klodt, Henning	R I

Knieling, Christa	IEER	Meyburg, Gertrud	L
Kniep, Matthias	L	Michel, Joachim	L
Koch-Klose, Abel	L	Milewicz, Elisabeth	IEER
Kock, Kai Thomas	L	Mundhenke, Jens	P
Köhler, Marisa	A		
König, Susann	L	Navarro Pablo, Leandro	P
Koslowski, Anke	L	Netzel, Jens	R II
Köster, Torsten	A	Neu, Axel D.	R II
Kramer, Paul J.	IEER	Nitschmann, Wilma	L
Krancke, Jan	P	Niu, Linlin	L
Krause, Hiltrud	L	Nohns, Detlef	L
Krieger-Boden, Christiane	R III	Nunnenkamp, Peter	R IV
Kristahl, Karin	R V		
Krupke, Wolfgang	L	Oelkers, Jens	A
Kruse, Erich	L	Oelkers, Martina	A
Krusec, Dejan	R I	Oestmann, Marco	R I
Kühl, Monika	R III	Osterwaldt, Birgit	L
Kuhn, Annette	R V	Owe, Hannelore	P
Kuhtz, Catrin	L		
Kumkar, Lars	R III	Pahl-Scheller, Susanne	L
Kunigk, Sytske	L	Panneck, Bärbel	A
Künne, Sylvia	IEER	Parlar, Jürka	L
Kuzel, Jessica	L	Piazolo, Daniel	R IV
		Pierdzioch, Christian	P
Laaser, Claus-Friedrich	R III	Pisani, Donald S.	L
Lade, Kirsten	R III	Ploog, Christine	R I
Lage, Manfred	L	Porstmann, Martina	L
Lamp, Christiane	R III	Puls, Mathias	L
Langfeldt, Simone	L		
Langhammer, Rolf J.	R IV	Raddatz, Roger	IEER
Launstein, Bianca	L	Radke, Alina	L
Lawaetz, Ingrid	R IV	Rank, Michaela	R IV
Lay, Jann	P	Reese, Martina	L
Lecke, Carola	L	Reimers, Iris	L
Lehment, Harmen	IEER	Richter, Wera	A
Lehn, Gisela	L	Roese, Solveig	L
Lewerenz, Werner	IEER	Rogge, Ingrid	L
Lipka, Regine	L	Rosenschon, Astrid	R V
Lösel, Christine	L	Ruhnke, Sibylle	IEER
Lüdemann, Heimke	IEER	Rütz, Angelika	IEER
		Ryppa, Osa	IEER
Mähl, Joachim	L		
Maier, Sylvia	A	Sailer, Katharina	R I
Meier, Carsten-Patrick	R V	Salden, Manfred	IEER
Melchert, Miriam	L	Sander, Birgit	R V

Sander, Kristina	IEER	Theobald, Gudrun	L
Schäfers, Susanne	L	Thiel, Ursula	L
Scheide, Joachim	R V	Thiele, Rainer	R IV
Schertler, Andrea	P	Thode, Annegret	L
Schmidt, Rainer	R V	Thomsen, Horst	L
Schmidtke, Heinz	L	Thun, Britta	IEER
Schrader, Jörg-Volker	R III	Thundiyil, Saju Thomas	R I
Schrader, Klaus	R I	Tietze, Hans	L
Schramm, Renate	R III	Tobiesen, Helga	L
Schröder, Gerlinde	L	Treske, Volker	IEER
Schröder, Hartmut	L	Türker, Sigrid	R I
Schröder, Karin	A		
Schulte, Itta	IEER	Vierth, Carola	L
Schütz, Margrit	R V	Vieth, Hans Uwe	A
Schwarz, Karin	IEER		
Schweickert, Rainer	R IV	Wagner, Heiko	A
Schwetlick, Heidrun	L	Walsdorf, Anke	P
Seeck, Christa	IEER	Walter, Daniela	L
Seusing, Ekkehart	L	Wartenberg, Almut	L
Sichelschmidt, Henning	R III	Wehrend, Marita	IEER
Siebert, Horst	P	Wehrend, Norbert	L
Siefkes, Frauke	L	Weiland, Jan Behrend	L
Siegert, Olaf	L	Weskamp, Wolfgang	L
Skerra, Helmut	A	Westphal, Frauke	L
Soltwedel, Rüdiger	R III	Wiebelt, Manfred	R II
Spatz, Julius	R IV	Witt, Heidi	L
Spinanger, Dean	R IV	Wöhler, Dagmar	L
Springer, Katrin	R II	Wolf, Andrea	L
Stark, Kerstin	IEER	Wolf, Hartmut	R III
Stehn, Jürgen	R I	Wolfrath, Birgit	IEER
Steiner, Susann	P	Wortmann, Karin	L
Stede, Sven	R III	Wößmann, Ludger	R IV
Stolpe, Michael	R I		
Stolz, Stéphanie	P	Zacharias, Jakob	L
Strauß, Hubert	R V	Zan, Susanne	L
Stribny, Jutta	R I	Zarnitz, Monika	L
Stribny, Dieter	IEER	Zinke, Stephan	L
Süssenbach, Christina	L		
Szypula, Ralph	L		

A= Administration; IEER = Information, Editorial, and External Relations Department;
L = Library; P = Presidential Department; R = Research Department.

3. Organization Chart

<i>Major research field</i>	Dept. I	Dept. II	Dept. III	Dept. IV	Dept. V	Presidential Dept./ Editorial Dept.
<i>International trade</i>	Foders, Glismann, Stehn	Klepper, Springer, Wiebelt		Langhammer, Spinanger	Strauß	Lorz, Stolz
<i>Economic growth</i>	Heitger, Stolpe	Kasten, Klepper, Springer, Wiebelt	Bode, Dohse	Gundlach, Wößmann		
<i>Globalization and labor</i>	Christensen, Heitger, Kleinert, K. Schrader, Stehn		Soltwedel	Gundlach, Nunnenkamp, Spatz	Schmidt	Lehment
<i>Innovation and technology</i>	Schertler, Stehn, Stolpe	Deke	Bode, Dohse	Gundlach, Wößmann		
<i>New Economy</i>	Christensen, Kleinert, Klodt, Sailer, Stehn		Laaser, Soltwedel	Gundlach, Piazolo	Gern, Scheide	Buch, Heinrich, Krancke, Mundhenke
<i>International institutional arrangements</i>	Foders, Klodt, Stehn	Deke, Kasten		Langhammer, Nunnenkamp, Spinanger	Scheide	Krancke
<i>Deepening and widening of European integration</i>	Dicke, Foders, Stehn		Bickenbach, Krieger- Boden, Kumkar, Laaser, J.-V. Schrader, Sichel- schmidt, Soltwedel	Piazo, Schweickert		Buch
<i>European Monetary Union</i>	Dicke			Schweickert	Gern, Kamps, Meier, Scheide	Lehment, Stolz
<i>Financial markets and currencies</i>	Schertler, Stolpe			Nunnenkamp, Schweickert	Kamps, Meier, Scheide	Buch, Heinrich, Lehment, Pierdzioch, Stolz
<i>Regulation and markets</i>	Sailer	Klepper, Neu	Bickenbach, Kumkar, Laaser, J.-V. Schrader, Sichelschmidt, Soltwedel, Wolf		Boss, Rosenschon, Sander	Mundhenke
<i>Social security</i>	Glismann, K. Schrader			Thiele	Boss, Gern, Rosenschon	Lorz