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The Development of European Labour Markets

Scientific contributions presented at the Conference of the European Association of Labour Economists (EALE) in Regensburg

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Abstract: Some of the main focuses of the conference

In September 1999, 288 economists met at the University of Regensburg to attend the 11th Annual Conference of the European Association of Labour Economists (EALE). The local organisers of the conference were Joachim Möller of the Faculty of Economics at the University of Regensburg, and the Institute for Employment Research (IAB). In this paper some of the main topics of the conference are summarised.

A particular highlight of the conference was the *Adam Smith Lecture* given by Prof. Alan B. Krueger. Krueger spoke about the future of the European Social State. In his lecture he came to the central conclusion that even under the conditions of burgeoning economic integration sufficient leeway remains for independent national solutions. Krueger stressed that employment policy and social security systems are needed as buffers in the case of fluctuations in the business cycle of the world economy especially in those nations with a high degree of integration in the world market.

In his keynote speech Prof. Giuseppe Bertola examined the economic mechanisms that are triggered off by the European Economic and Monetary Union. His lecture focused on the effects on the regional labour markets. According to Bertola it is necessary to deregulate the labour market institutions in the European countries to a certain extent and to make them more flexible. Like Krueger, however, he does not see the core of the social security systems as being in danger.

Prof. Dennis J. Snower's lecture dealt with the "organisational revolution" at the workplace. He explained that the far-reaching changes associated with this make necessary a re-orientation of the institutional basic conditions. This was exemplified by unemployment insurance, for which Snower proposed a completely new concept.

Methodologically innovative ideas were the focus of Prof. Ernst Fehr's lecture. Fehr presented the approach of experimental economics and investigated the implications for labour economics. Fehr put this into concrete terms on the basis of labour supply, labour demand and wage formation.

Besides the keynote speeches, the full spectrum of labour economics was presented in the numerous parallel sessions of the conference. There were far too many conference papers (about 200) for them all to be included in this issue of the IAB topics. To have a selection criterion, the authors of this paper concentrate on the keynote papers and on contributions of an applied character, which were mostly presented in sessions called "workshops".

0 Foreword

1. The organisation of the EALE Conference was supported by the German Federal Ministry of Labour and Social Affairs using financial resources from the European Social Funds, by the University of Regensburg, by the Federal Employment Services (Bundesanstalt für Arbeit), and by the Vielberth Foundation.

Our thanks also go to Christian Gliessmann and Margo Romans (ROA, Maastricht) for their large part of the organisation of the conference. Margo Romans was also responsible for the website of the conference. They did excellent work.

2. The results and labour market policy items summarised in the following report are solely those of the people presenting the papers at the 1999 annual conference of the *European Association of Labour Economists* (EALE). They are not those of the EALE as an organisation, of the authors of this report or of any of the supporting institutions. In this context the authors take the role of neutral reporters and do not claim to acknowledge the contributions critically with regard to methodology, theory or content.

3. A book in German which includes major contributions from the EALE Conference is in preparation. It will be published in the series “Beiträge aus der Arbeitsmarkt- und Berufsforschung”.

1 Introduction

The EALE is the most important international academic organisation for the promotion of labour market research. Numerous, renowned academics as well as practitioners from the field of labour market policy and policy consultation work together in this organisation. The work of the EALE reflects the increasingly international character of labour market developments. In a time when Europe is coming closer together, all economic processes necessarily have cross-border effects which are taken into account in research. The Federal Employment Services (Bundesanstalt für Arbeit) has long been an institutional member of the EALE, and the IAB is integrated in its scientific network.

The eleventh annual conference of the *European Association of Labour Economists* (EALE) took place in Regensburg (Germany) from 23 to 26 September 1999. It was organised by the Institute for Employment Research (IAB - Institut für Arbeitsmarkt- und Berufsforschung) and the Faculty of Economics of Regensburg University.

The conference was attended by 288 academics from 24 nations, including some from the USA, New Zealand, Australia and Eastern Europe. Of the 280 offers of papers received by the EALE

after the invitation to submit, 220 were selected for lectures in 52 parallel sessions. The entire breadth of the more recent labour market research was covered by the lectures. The quality of the event was guaranteed by the standards laid out by the EALE for conference papers. The *Executive Committee of the EALE* (members cf. Appendix) chose the themes of the Conference and did the selection of papers presented in Regensburg.

The conference was opened by the leaving president of the EALE, Eskil Wadensjö and closed by the new president, Stephen Nickell. The sessions of the conference offered key stimuli and findings that are of considerable importance with regard to labour market theory and to labour market policy. The following chapters report about some central returns from the EALE conference. They present the central statements of all of the keynote speeches of the conference. The large number and the size of the other contributions to the conference made it absolutely necessary to make a selection, however. It seemed sensible to us to base the selection on the thematic guidelines of the so-called “workshops”. These were special sessions with contributions of a more applied character. The nature of these themes correspond to the orientation of the “IAB-Topics” series. Papers from the other working sessions at the conference that directly fit in with the workshops as far as contents are concerned were also integrated. In this way it was possible to cover some important labour market policy subjects. Apart from a few exceptions all of the conference papers are also available in their original form on the EALE-CD.

2 Opening session

Bernhard Jagoda: Learning from Economic Research and from Neighbouring Countries to Combat Unemployment

In his opening lecture at the EALE conference the president of the Federal Employment Services (Bundesanstalt für Arbeit), Bernhard Jagoda, discusses current labour market policy problems. Unemployment remains a central subject in Europe, whereby the individual European countries are at different distances from the level of full employment. In a world that is changing at great speed new solutions for the employment problem have to be found. Jagoda deals with two approaches that can provide a perspective for solving employment policy problems.

Firstly Jagoda emphasises the importance of research for giving policy-makers a solid basis for employment policy decisions by means of the theoretical research and the exchange of findings. Thus, for example, on the basis of a simulation study substantiated using scientific methods, the Institute for Employment Research (IAB) has calculated a set of strategies with which employment in Germany could be increased in the medium term. On the other hand, according to the forecast of the simulation model, maintaining the status quo does not lead us to expect any reduction in unemployment for the time being. In concrete terms the set of strategies consists of three components:

- the average annual working time is decreased by reducing the number of hours of over-time worked and expanding part-time employment;
- negotiated wages are in the longer term below productivity growth;
- fiscal and social policy are restructured in such a way that non-wage labour costs are reduced, the state budget is consolidated and a shift is achieved from direct to indirect taxes.

Secondly Jagoda sees a point of re-orientation of employment policy in making use of the many and diverse international experiences. Taking into account country-specific characteristics and possible amendments it would be possible in this way to assess better the effects of the various measures. Analysis of the experiences of the European neighbouring countries show that the labour market policy recommendations submitted by the IAB point in the right direction. A comparison with the countries that were successful in employment policy matters in the nineties, Denmark, Great Britain, the Netherlands and the USA, makes it clear how effective and relevant to the present the set of strategies presented are.

In the area of working time policy, the Netherlands with their relatively high part-time rate of 38% (in 1996) can be referred to as an example. This high share results from the social protection of part-time employment and a high level of social acceptance. The part-time rates are also high in Great Britain (25%) and Denmark (22%). A comparison of these countries with Germany (17% in 1996) shows the existing potential. In order to create the basis and the social approval for this, the term "mobile time" was coined; this term is to stand for all forms of working time arrangement below the full-time norm.

The moderate wage policy recommended by the IAB has been achieved in different ways in the four countries. In the USA and in Great Britain it is the result of decentralised negotiations, whereas in the Netherlands and Denmark, i.e. in countries where wage policy is characterised by collective agreements, it had been centrally agreed upon over several years. As Germany stands strongly in the continental European tradition of wage determination at a central level, it is especially the Netherlands, that can be considered as a landmark of labour market policy. In the area of fiscal and social policy an easing of costs of the factor of labour can be observed in the four named countries. In the USA and Great Britain this is achieved by means of the low level of social protection, which is ambivalent from a social policy point of view. In contrast, the reduction of non-wage labour costs in Denmark is made possible by financing the social state more heavily from taxes. In the Netherlands a higher funding of the social system from taxes was combined with a reduction of public expenditures.

Furthermore Jagoda suggests possible amendments through a direct comparison of the countries: Germany's rate of self-employment lies below the average self-employment rate of the OECD countries, in spite of an increase from 7.1% to 9.8% in the period 1990 to 1997. In order to promote business start-ups, the Federal Employment Services supports people who set up their own businesses by paying them a bridging allowance. In this way unemployed people who become self-employed can continue to draw unemployment benefit for up to six months and receive a subsidy

towards their social security. In its 1998 Employment Report the EU Commission assesses this procedure for developing entrepreneurial spirit as recommendable.

Considerations about expanding the low-wage sector, too, as are currently being often proposed, are in Jagoda's opinion appropriate for reducing unemployment. Especially jobs with relatively low demands are threatened and in particular the low-skilled are affected more often than average by long-term unemployment. The issue of granting and financing a wages top-up deserves more attention. Internationally, various ways of solving this problem have been found. Negative income tax has been familiar in the USA for years now. In the Netherlands on the other hand the employers' taxes and social security contributions for employees in the low-wage sector are being reduced - a method that was named *best practice* in the EU Commission's 1998 employment report.

Jagoda's observations make it clear what insights can be gained from an exchange of experiences and ideas and remind us to eliminate mental blockades and to implement the knowledge gained.

3 Keynote Speeches

3.1 Adam Smith Lecture: From Bismarck to Maastricht - The March to European Union and the Labour Compact

(Alan B. Krueger, Princeton University)

In the opinion of numerous observers the basic conditions on the labour markets will change as a result of burgeoning European integration. The direction and forms of these changes are disputed, however, and are the subject of very different discussions. The trade unions fear a 'race to the bottom' in social benefits, a weakening of the bargaining position of employees and thus lower wages and salaries. On the other hand businesses are expecting a rapid increase in the flexibility of the labour markets, an acceleration in productivity growth, positive employment effects and an increase in living standards. Against the background of this debate, in his *Adam Smith Lecture* Alan B. Krueger examines from an American perspective the effects of European integration and globalisation in general on Europe's labour markets.

Krueger first introduces the concept of the '*labour compact*', which was already filled with life by Otto von Bismarck in the last quarter of the nineteenth century and which more than a hundred years later - no longer at German but at European level - continues to be relevant to the present. Krueger understands by the term an interaction between labour, capital and government manifested in wage formation mechanisms, social protection and diverse labour market regulations. In Europe the labour compact is far more clearly defined than it is in the United States, but even there the labour market has a kind of framework that also includes social insurance.

According to Krueger, the expected effects of the integration of Europe on this labour compact are being exaggerated both on the trade union side and on the employer side. He predicts only a slight

pressure on labour market standards and institutions, which will permit the individual nations of the EU to hold on to their policies, which are generous in an international comparison.

Krueger looks into the arguments that are often cited by those who are sceptical about the future of the European social security system. According to these arguments the increasing competition as a result of free movement of factor inputs, goods and services leads to an evening out of cost differentials. Migration is to be expected when there are correspondingly large differences between countries regarding social standards. In the destination country this will result in a higher level of unemployment and a reduction in social protection. Together with the fact that there are hardly any differences in technology levels within the EU, the labour market standards will thus be brought into line at a low level.

According to Krueger, however, three reasons contradict this adjustment process being fully effective. First the labour compact does not only mean a distortion of the market mechanisms, but also contributes to economic efficiency. Krueger takes unemployment insurance as an example; the private market would not be able to provide this insurance to the extent necessary, but it can improve the efficiency of the markets. Second, even with complete integration, the mobility of factor inputs in the EU is not adequately developed to cause the labour market regulations, which vary from nation to nation, to come into line with each other. The reason for this can be found in the strong link workers have to their own region in Europe, which to a certain extent cushions against processes of economic change. The free mobility of labour between the member states even meant a considerable decline in non-EU immigration, with the result that the labour compact was shielded even further. Third, the political economy plays a role. In well-functioning democracies the desires of the majority of the inhabitants are reflected in the legislation. If the population votes for extensive social protection against labour market risks, then this is also realised. But the public has to accept in return other drawbacks such as lower wages and salaries, higher unemployment or higher prices.

Mobility of the factors

In order to emphasise his thesis further Krueger goes into factor mobility in the EU in more detail. Thus following the lifting of intra-European mobility restrictions for EU citizens in 1993, an increase in migratory movements between the member states would have been expected. OECD data show, however, that migration remains constant at about 0.2% of the population of the country of destination. More striking in the same period is the drastic drop in migration to the EU from non-EU countries with lower living standards and minimal social protection.

For the future development of migration within the EU, Krueger does not expect any significant increase. Clues to a continuing constant course are provided by the mentality of the Europeans, who shy away from emigration as a result of cultural, social, institutional and language barriers existing not only between nations but also in some cases between regions. In Germany and Great Britain interregional mobility stands at about 1.1%, in Italy it is as low as 0.5%, whereas in the USA each year about 2.8% of the population move to other regions. Further reasons for these char-

acteristics can be found in the very different peculiarities of the housing markets and in the way regional economic shocks are absorbed. In Europe they are absorbed primarily by adjustment of labour force participation, in the United States they are mainly absorbed by internal migration.

According to Krueger there is also no danger for the labour compact from the planned eastward enlargement of the EU in spite of an expected increase in immigration from these countries. At present migration flows from non-EU countries are far higher than those from EU states. If the neighbouring countries to the east join the EU there is the possibility to restrict non-EU flows even further so that the two effects would cancel each other out.

The example of the USA shows that even further deregulation of the European labour market need not lead to convergence of the different national systems. In such a highly integrated economy as the USA, for example, there have been stable regional wage differentials for decades. The convergence in income, too, is proceeding only very slowly in spite of free mobility. Moreover, studies show that in the United States the incentives to migrate do not come from the level of welfare benefits.

Perfect mobility of labour is not necessarily a prerequisite for convergence of social standards and labour market policy. If the extent is sufficient, the international exchange of goods, capital and services can already trigger off a general levelling out of differences. Krueger also cites empirical studies against this argument. For instance the fact that a country's investments roughly equal its domestic savings, point to a strong bias towards one's country of origin or home country. A similar status of the national boundaries has also been determined for goods and service flows. In Canada for example the trade of goods between the regions is about twelve times greater than the trade with comparable US-American states. With regard to services this factor stands between 25 and 30. In Europe, too, these preferences for domestic products exist; here the flow of goods within a country is about six times greater than that with other countries.

The theory of international trade, however, refers to the fact that the effect of free trade on the labour market might take place via price convergence and not necessarily via an expansion of goods traffic. Empirical studies show, however, that although price levels within the EU have converged in the eighties and nineties, this process slowed down with the introduction of the Single Market. Krueger does not expect European Monetary Union to have any considerable effects on this process, either. In his opinion the leeway of regional labour market policy will not be weakened perceptibly as a result of European integration.

The aspect of political economy

Krueger derives from the combination of political economy factors more a strengthening of employment programmes and labour standards. He refers to studies that find a positive relationship between the degree of openness of an economy and its organisation as a welfare state. According to these studies countries with a stronger external orientation have higher minimum wages, more centralised bargaining, more generous unemployment benefits and higher public expenditures. This phenomenon can be explained by the population's stronger wish for social protection and

government protection facilities when a country opens its borders, as this simultaneously means an increase in dependence on external risks. Monetary Union, which is accompanied by the loss of the possibility to use monetary policy as a national balancing instrument as well as constraints on the scope of national fiscal policy, can definitely be seen in this context. In association with the permanent restriction of national debt that is a condition for belonging to the Monetary Union, this can lead to an expansion of labour market policy measures that do not have any effect on the national deficit.

These preferences of the EU citizens become visible directly in the election of their national representatives. Most of the member states have centre-left governments; according to Krueger the voters in these countries expect these governments to provide protection from the risks associated with European integration. This also includes maintaining or expanding the labour compact. Although historical examples prove that the undesired changes have been brought about by exactly those parties that traditionally represent the opposite position, the election defeats of Germany's Social Democratic Party after the change of government show that the austerity course embarked upon by the German government is not receiving the population's support. In Krueger's opinion this points in the longer term to a strengthening of the labour compact as democratic parties adapt to the preferences of the majority of voters.

Federalism as a yardstick

In the federalist system of the United States the free movement of goods, services, capital and labour is realised to an extent that is unlikely to be achieved by the EU. Notwithstanding this fact, the labour compacts vary from state to state. In order to illustrate this Krueger gives the example of the US-American workers' compensation insurance system, which has consisted of 50 independently operated programmes for about a century. The programmes differ considerably in their regional arrangements regarding the costs to the employers and the benefits to the employees. No race to the bottom can be ascertained in any way here. Such a race to the bottom was not observed in the DM currency area, either, which Austria, the Netherlands and Belgium were linked to for about two decades via fixed exchange courses.

There is also only a slight effect of the different cost structures of the federal US compensation systems on the location decisions of businesses. According to Krueger this can be put down to the fact that workers prefer generous compensation benefits and are prepared to pay for this in terms of lower wages, higher price levels or increasing unemployment.

A considerably greater political importance is frequently attached to the Maastricht Treaty compared with the economic aspect. Seen from the political side, Krueger considers it possible that countries with lower labour market standards might 'level up' to the standards of the other member states. For instance, in the 1989 Social Charter minimum standards were laid down for the labour compact, which could be expanded if necessary by further joint EU agreements.

Closing comments

Krueger sees the effects of European integration on the member countries' individual labour markets clearly positive and is optimistic with regard to the future developments. He expects the integration process to exert a stronger pressure on the product markets compared with that on the labour compact; in his opinion the product market restrictions play a considerably greater role in Europe's unemployment problems than the existing labour market restrictions. Moreover, intervention in the product markets are likely to meet with more general approval among EU citizens than cuts in the social security network would.

With regard to the labour markets he suspects that the ongoing integration will cause a tilting of the constraints that led to the present labour compacts. However, the governments will continue to be confronted by their voters' desire to be protected by the state from external economic shocks. In future the broad outlines of the national labour markets may change in some respects, but according to Krueger the individual characteristics will continue to exist and the systems will thus remain recognisable. Instead of a race to the bottom in social benefits, in his view the labour market standard in Europe is more likely to be expanded.

3.2 Labour Markets in the European Union

(Giuseppe Bertola, University of Turin and European University Institute of Florence)

In 1992 in the course of European integration the last institutional trade and labour mobility barriers in the EU were dismantled; the monetary union of eleven member states followed in 1999 with the Maastricht Treaty. How will the rigid labour markets of the EU cope with the far-reaching structural changes caused by this? And how will they react to the accordingly higher exposure to external shocks? These questions as to the function of the economic mechanisms are the focus of Giuseppe Bertola's paper.

Forecasts about the development of individual labour markets and their institutional structure in principle contain great uncertainties because there is no historical precedence for an integration of this scale. In his paper Giuseppe Bertola therefore shows only possible scenarios for developments on the European labour markets in the wake of European integration. His particular interest lies in *regional* labour markets.

Comparison of the United States and selected nations of the EU

Bertola bases his paper on evidence from previous developments in the individual member states, concentrating in the context of the study on the three largest countries in the monetary union, Germany, Italy and France. As a reference point for comparing countries he uses firstly Great Britain, a European nation of similar size but outside the Euro-area and with a less heavily regulated labour market since the Thatcher reforms of the eighties. Secondly he refers to the United States, whose

size is roughly equivalent to the whole of the EU. A division of the USA into four regions - the Northeast, MidWest, Far West and South - makes possible a comparison with the member states mentioned above and thus provides an indication of the possible dynamics of a fully integrated European labour market.

In contrast with the situation in the continental European countries, the unemployment rate in the USA has been showing a clear downward trend since 1983. Unemployment in Italy, France and Germany on the other hand has shown an increasing trend. A special development has taken place in Great Britain. Since the early 1980s the development of the unemployment rate there seems to have separated from that of France, Germany and Italy. Firstly an increasing trend did not occur as it did in the continental European countries, secondly the volatility of the British unemployment rate has come closer to the comparatively high swings of the American unemployment rate.

Bertola presents the persistence of regional differences in unemployment as another important difference between the USA and the continental European countries. The ranking of the European regions when arranged according to their unemployment remains largely stable over time, whereas in the USA the regions with the highest or lowest unemployment rates clearly change more.

The third difference between the typical European countries and the USA lies in the spatial mobility between the countries. In the 1980s and 1990s about 3% of workers per year moved to another American state, whereas the comparison figures for migration between the European regions - and they are moreover still smaller - stand at less than 1% (data for Great Britain and Italy). Migration between EU member states is even lower. Only about 1.5% of workers in the European Union come from another member state.

The less developed willingness to be geographically mobile is reflected in the relatively low interregional wage differentials within the EU member countries. Data for Germany and Italy indicate that the comparatively low regional differentials have even fallen over time. This range is not sufficient to compensate for different productivity levels and other influences.

Institutional rigidities

According to Bertola there can be no doubt that the labour market in the USA and - after the Thatcher reforms - that in Great Britain, too, are less heavily regulated than in the continental European countries. Some aspects of the comparison of countries seem to suggest that there is a close connection between the quantities on the labour market and the degree of regulation in the individual countries. Bertola looks into this thesis about the strong influence of regulation. Here he distinguishes in principle between two instruments of regulation: employment protection regulations and institutional mechanisms for wage compression.

All advanced countries, including the USA, have legal restrictions against firms dismissing employees at will. However, the extent of the restrictions differ. According to Bertola it can be shown both theoretically and empirically that more extensive employment protection regulations smooth out employment fluctuations in the short and medium term, but in the longer term and with given wage policy they have no considerable positive or negative effects on the employment level.

In contrast with this, however, the effect of measures to compress wage distribution proves to be somewhat different. Unlike in the USA, individual or firm-level wage negotiations play a less important role in EU countries. Wage agreements take place directly at nation-wide level and apply to a whole sector, or an appropriate degree of centralisation is achieved by means of take-over clauses. Although from its conception it was aimed at a stronger consideration of public interest, no empirical association can be detected between such centralisation or corporatism and employment creation or wage moderation. What tends to have a negative effect on employment, however, is the strong tendency towards standardisation across regions that results from centralisation. This stabilises the differences in the regional unemployment rates.

Regional adjustment after shocks

Against the background of this the dynamic perspective seems to be interesting. How do the regional labour markets react to an exogenous cause for the decline of labour demand? For the USA the immediate result of such a shock is a decline in the regional wage level and an increase in the regional unemployment rate of roughly equal proportions. The adjustment then occurs basically via a strong migratory flow. In contrast, in European countries regional wages respond little and the subsequent migration flow is weak. The consequence of this is a persistent rise in regional unemployment that is only cushioned by a drop in labour force participation. Such a situation of underemployment is then stabilised by state institutions, which amount to subsidising the regions in crisis. If owing to high standards of employment protection there is also the fact that firms in the flourishing regions are reluctant to create new jobs on the strength of forward-looking behaviour, then a sub-optimum politico-economic equilibrium arises in which employed *insiders* in the favoured regions are largely protected from competition from immigrants.

Wage differentials between the countries

Although the regional wage differentials within the EU countries are remarkably stable at a relatively low level or are even falling, relatively high differences in the wage differentials can be detected *between* the countries. The corresponding wage dispersion in Europe is roughly comparable with the differences between the American macro-regions mentioned earlier. However, Bertola warns to misinterpret this evidence that refers to the past as an indication of corresponding flexibility of the European labour markets. The wage differentials between the countries express rather the effect of exchange rate adjustments and differences in the national inflation rates. In an economic and monetary union these differences achieved by means of macropolitical instruments will no longer apply, with the result that the extent of differentiation between the countries may possibly fall to the low level of interregional wage disparity.

Effects on the social security system

The monetary union is accelerating economic integration, which is leading to a general harmonisation trend. Jurisdictions therefore enter into more intense competition with each other, which could lead to regions with a high welfare standard having higher immigration rates than they had previously. A higher level of social protection, however, also implies higher taxes for workers and businesses, which tends to promote the departure of the key players. This pressure causes the danger of a race to the bottom to arise with the result that an equilibrium could begin at a lower level of social protection.

This point of view must be relativised, however. According to Bertola the deregulation trends in Europe will proceed with more restraint. National legislations will continue to play an important role in the arrangement of the labour market and social protection. To illustrate this he takes as an example the case of foreign construction firms in Germany, whose workers came into direct competition with their better-protected German counterparts. After political discussions at European level the problem was solved amongst other things by setting a uniform minimum wage for construction workers on German soil.

Experiences from the Italian labour market

In the 19th century Italy became an economic and monetary union of pre-existing individual states. In the course of this integration, uniform institutional regulations were created for all regions. Until around 1970 there was a convergent development with regard to wages, unit labour costs and productivity. Since the mid-70s, however, southern Italy has ceased to catch up. As far as unemployment rates are concerned, which until about the mid-1960s were still equal, a strongly divergent trend is now visible. Following the last recession in the early 1990s, the unemployment rate in southern Italy rose from 16% to over 23%, whilst the negative influences in the north could be offset by the 1992 devaluation.

In the production sector, earnings in southern Italy are only about 10% lower than those in the north, whilst productivity differentials are twice as large at 20%. The differences in unit labour costs that can be calculated from this are covered by state subsidisation. A 10% wage differential, which must also be adjusted according to differences in the cost of living, is not sufficient, however, to induce outmigration. Migration within Italy has largely come to a standstill in spite of the existing considerable differences in the unemployment rates in southern and northern Italy.

Regional wage differentiation by means of different collective bargaining policy and different fiscal measures in different regions could lead to an improvement in the situation and to more employment in southern Italy, but this is rejected by the unions. According to Bertola there is a certain irony in the fact that local tax incentives are incompatible with EU law, which sees them as illegal subsidies.

Conclusions

Should uniform institutional conditions with more flexibility be created throughout Europe? Should European labour market institutions be made more like their American counterparts and be more heavily deregulated in the course of European integration? Or should the original purpose of the existing institutional regulations be taken more into account when the social system is redesigned?

Bertola does not provide simple answers to these key questions. He is more concerned with showing the main lines of conflict. On the one hand increasing regional specialisation and greater competition on the product markets will increase the necessity to reallocate labour. Free mobility of capital will 'penalise' regions with inefficient institutional conditions more harshly than before. This pressure will tend to lead to deregulation and a move towards increased flexibility of the labour markets and their institutions. On the other hand Bertola emphasises that social security systems will continue to be necessary especially with regard to the increasingly uncertain economic environment. One can therefore neither assume that the institutional regulations on the European labour markets will remain unchanged nor that they will be deregulated like they were in the USA.

In order to counter a race to the bottom, a certain degree of co-ordination of the reform process at European level is desirable, whereby this process could also include steps towards deregulation. What is to be avoided in any case is a development that extends the existing nation-level rigidities to continent-wide level so to speak. This leads to a permanent segmentation of the European labour markets.

Subsidising unemployment reduces the mobility of labour and creates persistent unemployment in regions with low productivity. Interestingly such measures are generally in the interest of the workers in the better developed regions, who would be able to keep away undesirable wage competition in this way. Subsidising unemployment is, however, also being considered less and less due to budget restrictions which could become even more stringent as a result of more intensive competition between the countries.

3.3 The Organisational Revolution and Its Labour Market Implications

(Dennis J. Snower, Birkbeck College, University of London)

The organisational revolution

Processes in production, work and decision-making in business enterprises have undergone a fundamental change in the past two decades. Vast areas of the manufacturing and service industries have been restructured. Lean production, computer-integrated manufacturing and design, as well as the breaking down of hierarchies are symptoms of this change. In business management theory this phenomenon has at times been the topic of intensive discussion. But in spite of the far-reaching effects on the labour market, the phenomenon - according to Snower - has so far received little

attention in economics literature. It is only in recent years that a number of studies have been conducted which confirm the quantitative significance of the organisational change.

The following phenomena can be observed: formerly clearly defined occupational demarcations are becoming blurred; wage and salary margins are widening within individual occupational and educational groups, with the employment prospects within such groups differing clearly; wage differentials between men and women are being narrowed; wage bargaining at central level is meeting with growing resistance; decision-making processes in firms are being decentralised.

New technologies and the increase in international trade are, according to Snower, not the only reasons for the phenomena described; new forms of organisation in production, in work processes and in the organisation of decision-making powers within firms are also responsible for this. As these organisational changes are interdependent and mutually reinforcing, it is justified to speak of an "organisational revolution".

The historical background

According to Snower the present situation can only be understood if one looks at the historical background. The change from small-enterprise structures to mass production, which is known as the Industrial Revolution, was basically caused by the introduction of the division of labour. The new machinery could only be used efficiently by dividing work into small, recurring steps. By specialising workers in small areas of the entire production process it became possible to increase production many times over.

Snower sees the industrialised states as being at the beginning of a new revolution, which, like the Industrial Revolution of the 19th century, also promises great increases in productivity if economic activities are will be reorganised successfully. This time, however, it is not only technological changes that are emerging, but a whole set of changes which are occurring simultaneously, and in seemingly unrelated areas.

Four major developments are identified by Snower:

(i) Techniques of mass production are displaced by programmable multi-task equipment. The technological breakthroughs of the past were closely connected to mass production. Assembly lines, specialised production equipment and large organisational networks within firms were created. In contrast, multi-purpose machinery and tools, programmable production plants and computer-aided design and manufacturing are characteristic of the new technological development.

(ii) These developments result in radical changes in organisational structures. Instead of demanding simple, repetitive tasks of workers, the new generation of machinery requires flexible and well-trained workers. It does not demand further centralisation but decentralised decision-making in small teams.

(iii) The flow of information in firms has also changed fundamentally through the use of using computer systems and databases. Workers can retrieve up-to-date information at any time, be it about new developments, order backlogs or customer requests. New media and communication

systems make it possible to create teams whose members can even be working in different parts of the world.

The technological development is accompanied by a continuous rise in the number of well-educated workers throughout the entire industrialised world. The qualifications of these workers, who are also capable of taking on multiple tasks, permit the creation of new organisational forms. At the same time workers' demands concerning their jobs are undergoing a definite change. Monotonous tasks in highly fragmented areas of work are no longer in demand. Jobs are being created which set challenges for the workers and demand of them creativity and a multitude of different tasks. In order to deal with the new tasks the demands placed on the workers' human capital are growing.

The organisational effects

The production structures that emerged from the Industrial Revolution are no longer appropriate for absorbing the new demands in production and management and for satisfying the workers' and consumers' needs arising from this. For firms to be able to succeed in the changed environment, it is no longer sufficient for them to implement single, gradual improvements, they have to change the structures themselves. Case studies show five common characteristics of the emerging organisational changes:

(i) The creation of flat hierarchies and the discontinuation of the middle management

Production takes place in teams who report directly to the central management. Each team is allocated a large number of tasks which are not organised with reference to particular work processes but to individual customers. Since co-ordination tasks are taken on by the team and the exchange of information takes place directly with the central management, the middle management level is no longer necessary.

(ii) Change in the manufacture and development of products

The importance of returns to scale in the sense of mass production advantages is seeing a decreasing trend. With the introduction of flexible, computer-aided machinery, retooling costs have fallen with the result that goods geared towards the customer can be manufactured profitably in smaller batch sizes. Production cycles and delivery times are shortened in this way. It would be insufficient to think only of the cost advantages gained with lean production and just-in-time management. They are also key methods of decentralised production.

(iii) Changes in the relationships between customers and manufacturers

The new production methods permit a broader spectrum of products to be manufactured in smaller quantities. Customer-specific wishes are having a visible influence on the manufacturing process, and the new information technologies enable consumers to have a better overview of the market. As far as the firms are concerned this leads to more intense competition and to the need to develop new marketing approaches. In addition to products being orientated more towards individual cus-

tomers, consumers are also benefiting from better quality assurance and more comprehensive service.

(iv) Customer orientation is leading to a broadening of occupational fields

Customer-orientation demands that the teams take on many tasks. The responsibility of these organisational units is no longer limited to individual areas such as the manufacture of the product or cost accounting, but is comprehensive. Consequently the teams need intelligent workers with social competence and the right ability to assess. There is more and more need for generalists instead of specialists. Occupational distinctions which used to be important lose their validity, and the difference between skilled and unskilled workers is taking on new importance.

(v) The "nature" of firms is changing

According to Snower, R. Coase's definition of firms as being "islands of central planning in an ocean of market forces" is becoming less and less apt. Firms are entering into co-operations or strategic alliances more and more frequently. In Great Britain for example Toyota and Nissan train workers within their supplier firms. In return suppliers send their workers into the customers' firms to resolve production or delivery problems. Other examples are joint ventures between airlines and hotel chains and car rental firms or between providers of computer software and hardware.

Implications for labour market institutions

(i) Centralised bargaining

In a world with traditional firms, well-defined task areas and occupational fields, centralised wage negotiations can lead to paying wages close to the marginal product and are thus not necessarily inefficient. The organisational revolution, however, could make the system of centralised bargaining between employer and employee organisations become obsolete. The employees in the restructured firms, which Snower also calls "*holistic*" organisations, perform a large number of tasks that can no longer be classified under individual occupations. A worker's productivity therefore depends on the total of activities he performs and can differ considerably from other employees in the same firm with the same work experience and training, even if individual work areas of these employees overlap.

Employers and employees can thus make themselves better off if they replace centralised bargaining procedures by decentralised arrangements. According to Snower, this consideration may also help to explain the declining importance of centralised bargaining in numerous European and other OECD countries.

(ii) Unemployment benefit system

Payments to the unemployed are generally dependent on the applicant having no job at all. This system has proven itself in a world in which part-time work plays only a subordinate role. The structure of holistic firms frequently requires only a core of full-time employees which is supplemented as required by part-time employees. With an increasing number of restructured businesses, we thus also have to expect an expansion of part-time employment.

In the prevailing system, when unemployed part-timers can draw benefits, they are confronted with a high effective tax rate when they take up part-time work again, as taking on employment is also connected with the loss of all benefits. In this connection a need for reform is spreading with the organisational revolution. The systems should be arranged in such a way as to stop penalising short-term employment relationships.

(iii) Legislation on job security

The greater the proportion of temporary employment in aggregate employment, the lower the share of long-term employees who enjoy entitlement to severance pay and full legal dismissal protection. As a result of the restructuring process the legislation connected with this could lose relevance for the labour market.

Consequences for labour market policy

(i) Market failure in association with efficiency wages

Literature on the efficiency wage has shown a number of reasons that can lead to an inefficient underemployment situation. If the wage level is also determined by the motive of increasing the workers' effort and thus their productivity as well as reducing the costs of labour turnover, the result is market failure and unemployment. This is known from literature on economics. The organisational revolution might augment the efficiency wage problem. In view of the decentralised processing of information and the increasing complexity of an individual employee's tasks, it is becoming more and more difficult for employers to monitor their employees' productivity. This leads to additional reasons for paying wages above the market-clearing level.

(ii) External effects through training

If a firm invests in its employees' initial and further training and if the trained employees are hired by other firms, the costs remain with the firm providing the training, whilst other firms benefit from the returns from these measures. The firm providing the training in this way produces a positive external effect for all other firms. Under these circumstances, however, not enough money is invested in initial and further training.

The mentioned externality is amplified even more by the complementary relationship between physical capital and human capital. Deficient investment in human capital simultaneously reduces the productivity of physical capital, which in turn leads to reduced investments. A situation arises in which too little is invested in both forms of capital. According to Snower there is an urgent need to break this circle by means of economic policy counter-measures. Education systems requiring specialisation at an early age are not suited to the new demands. Snower gives the British education system as a negative example.

A concrete proposal for economic policy

Snower develops the idea of introducing unemployment and training accounts (UTAs) for every employable person instead of the present unemployment benefit system; these two accounts should have the purpose of covering the costs for further training and unemployment. Every worker would have to pay income-related contributions to his UTA. Workers with low pay would receive a state subsidy, whilst workers with high incomes would have to pay a tax on their contributions.

If people become unemployed, they could make limited withdrawals from their unemployment accounts. If they wished to do further training, they could draw on their training accounts. If the accounts fell below a certain limit, the holders would receive state support. If the account balance became high enough, the surpluses could be used for other purposes. At the end of their working lives, the amounts remaining in the accounts could be used to top up their pensions.

It would be possible to finance extra payments into the training account by means of loans with favourable conditions, so that further training measures would be financed from future income. Unemployed people who use their training account could receive government loan guarantees. Tax advantages would be feasible for employers who make contributions to training accounts.

According to Snower introducing this system could clearly reduce the level of long-term unemployment and promote the training of workers. The change from unemployment benefit to the UTA system would firstly give workers a greater incentive to avoid longer periods of unemployment, as they would reduce the parts of the account that might become available later on. Secondly possibilities of constant further training would be created. In this way a higher level of employment could be reached with the result that with the same benefit level the contributions to the UTA would be lower than the contributions for the current system. According to Snower UTA also offers advantages with regard to a more efficient distribution of income.

3.4 Reciprocity and Economics - Implications of Reciprocal Behaviour for Labour Markets

(Ernst Fehr and Simon Gächter, University of Zürich)

The approach of experimental economics in labour market research

In another keynote lecture Ernst Fehr dealt with findings from experimental economics. The account of this lecture, which was written in co-operation with Simon Gächter, is supplemented here by a further paper by Armin Falk and Ernst Fehr which was presented in one of the invited sessions at the Regensburg Conference.

In experimental economics the functioning of markets and firms is examined in laboratory experiments. For this a certain number of subjects or test persons are given instructions on actions that they are to carry out in interaction, e.g. appearing as a bidder at an auction. A great advantage of experiments is that the composition of the test persons can be controlled by random allocation. The effects of unobserved heterogeneity can be ruled out in this way. The causal effect of certain cir-

cumstances can be controlled by individual parameters of the general situation being changed specifically. Unlike psychologists' experiments, the use of incentives in the form of real payments is characteristic for economists experiments.

The main subject examined in Ernst Fehr's lecture is the principle of reciprocity, which is shown to be of surprising importance for labour market phenomena. Individuals are driven in their actions not only by the material payoffs but also by the principle of reciprocity. In the negative case this implies behaviour based on the principle of revenge. Positive reciprocity is characterised by kind responses to a partner's well-meaning actions. Using methods of experimental economics Fehr, Falk and Gächter show that this principle of reciprocity is also valid for broad areas of the labour market.

In the experiments some of the subjects act as "employers", others as "workers". In a basic experiment the wage level is set by the employer. The workers have only the choice of accepting or not. Then they are free to choose a certain "work effort" whose level has a negative effect for the workers but is decisive for the level of "profit" gained by the enterprise. The experiment is therefore designed in such a way that it is advantageous for the employers to offer low wages and that it is in the interest of the workers to demonstrate only a minimal performance.

In the experiment, however, a different behaviour can be seen. The employers pay on average a higher wage than they would have to in order to be able to hire workers. The workers respond to this with a performance above the minimal level. Moreover, in the experiment there is a positive relationship between wage level and work effort. Fehr judges this as confirmation of Akerlof's efficiency wage approach, which is important in labour economics. There the wage does not only have the function for firms of hiring an appropriate number of workers, it also secures an appropriate effort level.

Reciprocal behaviour orientations

On the basis of the results of experiments, which have in the meantime been reproduced in numerous variants, Fehr considers it necessary to introduce a new element into the subjects' utility function. According to this, subjects with rational behaviour have the need to respond reciprocally, i.e. rewarding kind behaviour from the interaction partner and penalising unfavourable behaviour. In this reciprocity, which is not in any way to be confused with altruism, Fehr sees a fundamental motivation which becomes established even against the self-interest of *homo oeconomicus*. Fehr and his collaborators explain that reciprocity can even frequently be observed among primates. From this they draw the conclusion that humans have acquired reciprocal behaviour through their evolutionary roots. In this context Fehr speaks of the *homo reciprocans* type.

The majority of subjects either come under the category of *homo reciprocans* or belong to the group of *homo oeconomicus*, which coexist. In numerous experiments of one-shot situations it becomes clear that at least 40%, sometimes even over 60%, of the subjects make reciprocal decisions. The proportion of subjects consistently behaving in a selfish manner, at 20% to 30%, is also not to be ignored.

Reciprocity also occurs if the participants remain anonymous and even if nobody can observe the individual actions. With regard to negative reciprocity it can be ascertained that subjects reject payoffs that would be positive for them and thus put themselves in a poorer position, if they receive from their opponent an uneven offer which is perceived as unfair. The stake level or the opportunity to learn by the subjects playing repeatedly have no effect on the strength or frequency of the responses, even over time.

There are different interpretations of the behaviour in which a considerable number of subjects act in accordance with the principle of reciprocity even if they are anonymous and meet only once. Fehr and Gächter are of the opinion that reciprocity is not an instinctive, low-rationality behaviour, but a forward-looking and purposeful procedure. A conscious weighing up of the expected costs of a "revenge measure" speaks in favour of this. Furthermore it can be observed that subjects determine their actions according to backwards induction - a strong indication of rational consideration. In the case of division of fixed amounts of money between several people, the participants are willing to accept considerably lower offers if the pie size is unknown and it is therefore impossible to judge the fairness of a share offer. Also computer-generated offers are accepted with far lower returns than offers for an individual share of a known amount. According to Fehr and Gächter, however, what is more important than the actual interpretation is the recognition of the stability of reciprocal behaviour that occurs under well-defined conditions.

Promotion of effort elicitation through reciprocity

The importance of the principle of reciprocity for processes on the labour markets becomes clear when for example the effects of the formulation of employment contracts are considered, the majority of which are very incomplete in reality. Seen in simplified terms, the employers agree to pay correctly, the employees agree to follow instructions; there is no more precise specification of rights and obligations. In addition to a fixed wage, frequently no explicit performance incentives are offered, since, among other things the assessment of them fails due to the fact that it is difficult to observe the employees' actual effort. This is particularly true in the case of jobs involving complex activities and business-like thought and action.

Reciprocity becomes important in this context. If the majority of employees behaves reciprocally, then employers can promote their motivation and co-operative behaviour by means of generous compensation payments. The individual efforts in this case are often above the level that would be promoted by purely pecuniary considerations. In contrast, explicit performance incentives stipulated in employment contracts can show the opposite effect if they create an unfriendly and hostile atmosphere in the workplace. It has been shown in experiments that when fines are introduced for verified shirking, the efforts lie far below the performance level without penalties. The use of the principle of reciprocity to build up trust in employment relationships can therefore be supported by unspecified employment contracts.

In accordance with this the employees' effort depends positively on the size of the payments - with regard to productivity this is an incentive for employers to increase the wage. As a countermove it

can be ascertained that employers hardly reduce wages in times of recession. It becomes clear from several experimental studies that the presence of reciprocity leads to downward wage rigidities even when competition on the labour market is high. The low wage level in the case of complete competition is exceeded only slightly when complete employment contracts exist that cover all the partners' rights and obligations. In the case of incomplete contracts on the other hand, significantly higher wages are paid in spite of the competition situation. In this constellation the employers nevertheless obtain higher profits since the employees' higher effort levels offset the higher wage costs. It can even be proven in experiments that under these conditions wage formation is completely independent of competition influences and occurs mainly via the anticipation of effort against the background of reciprocity.

Enforcing norms through reciprocity

Social norms are ubiquitous, shape human behaviour and make it possible to live together in a community which can only be governed to a small extent by explicit agreements. Against this background, reciprocity has a key role as a mechanism for the enforcement of social norms. These norms are defined as behavioural regularities accepted in society that can be enforced by informal, social sanctions. The fact that the principle of reciprocity fulfils one of its most important functions in this can be shown using the example of the problem of public goods.

In the case of a one-shot meeting the dominant strategy of those concerned is free-riding, in other words the utilisation of the public good without paying. As a result of positive reciprocity the individual subjects are willing to make a contribution if all the others concerned also contribute something. However, since a non-negligible proportion of subjects behaves selfishly - and even a *homo reciprocans* type can be insufficiently motivated to make a contribution - a public good will not be realised in this constellation.

A repeated meeting makes it possible for the subjects behaving reciprocally to punish the free-riders. Although this is associated with costs, the threat of punishment becomes credible through negative reciprocity. Thus in this situation almost 80% of the subjects co-operate completely, whereas in the first case about 53% of the subjects free-ride. This shows impressively that the principle of reciprocity is a key mechanism in the enforcement of social norms. With this problem of public goods, reciprocally motivated subjects exert positive externalities on selfish subjects, the benefit level of both behavioural types increases.

The existence of reciprocally motivated subjects leads to overall results that deviate considerably from the standard expectations. Here it is not the number of *homo reciprocans* types that is decisive, but their presence which also changes the behaviour of those acting selfishly. The exertion of influence also functions in the opposite direction, as reciprocal types can be motivated to behave selfishly by the appearance of selfish types.

Fair wages and unemployment

At first sight it seems clear that socially and economically desirable results can arise when reciprocity occurs. Negative results are also possible, however. Armin Falk and Ernst Fehr show in their invited lecture on experimental economics that fairness considerations can cause unemployment to emerge via their influence on the wage level.

In an experiment carried out on this subject it is assumed that the labour demand curve of a firm is falling. Its marginal product, i.e. the increase in output that a firm obtains through an additionally hired worker, is decreasing. In addition search efforts by firms are associated with costs. The workers can only accept or reject the job offers. If fairness does not occur in this market, the employers will only offer very low wages, which the job-seekers will also accept. In this case unemployment does not occur, most of the surplus goes to the firms.

The situation among workers who are motivated by the principle of fairness is different. They would like to have a fair share of the profit that is created as a result of their work performance in the production process. Offers that they judge to be unfair are rejected. Experiments reveal that almost all subjects accept as appropriate a 40% to 50% share of the surplus to be divided, most of the subjects prefer unemployment to accepting less than 20%. This is in accord with the result of the problem of public goods described above - there, too, people motivated by the principle of reciprocity are prepared to penalise free-riders in spite of the costs this involves. Here the employers are punished as they bear the costs of the offer if the offer is perceived as unfair and consequently rejected.

The question as to the size of the "pie" that is to be divided is difficult to answer. The employee can base her decision either on her marginal product or on her average product. In the first case the result would be full employment. The relevant experiment is constructed in such a way, that only about half of the profit made by an additional worker would be demanded as wages and the profit-maximising firms would therefore hire all workers. However, the individual marginal product can not be observed by any party. Falk and Fehr claim that workers of the *homo reciprocans* type typically use the average product as a yardstick. Then, the reservation wage of some job-seekers which is formed as a result of fairness considerations lies above the marginal product which can be seen from the labour demand curve in the case of full employment. The firms will not hire these workers, with the result that unemployment exists in the reciprocity equilibrium.

In the context of the experiments conducted by Falk and Fehr, from which these results are also taken, an unemployment rate which is stable over several periods is revealed. One of the authors' important questions is whether the subjects are unemployed voluntarily or involuntarily. If they reject a job offer, one can assume voluntary unemployment. For the share of the working population that does not receive an offer the answer is not so clear. Falk and Fehr are of the opinion that job-seekers whose reservation wage is lower than the marginal product of the next worker in a firm are unemployed involuntarily. Employers start out from the average threshold value of the wage bids and therefore do not approach this group of job-seekers who could be employed profitably

because of the low price of their offer to work. The low reservation wage of some of the subjects - compared with those acting according to fairness considerations - can be put down to the modesty of the subjects or to selfish behaviour. The types with a low preference for fairness are unemployed involuntarily because the reciprocally motivated workers, owing to their high preference for fairness, withhold from them the possibility to find a job by means of their low reservation wages. This means a discrimination of selfish types by subjects acting fairly. The curious case of a negative externality of *homo reciprocans* on *homo oeconomicus* occurs.

The existence of reciprocity in the labour market can be seen among other things in the fact that conclusions based on standard assumptions of economics - such as the characteristics of *homo oeconomicus* - lead to systematically incorrect results. Falk and Fehr for example obtain an alternative labour supply curve, which no longer runs very flat and close to the abscissa as it does under the current assumptions. Instead it rises clearly as a result of the reservation wages under considerations of fairness. The values calculated in this way such as the unemployment level or the wage level show the results of the experiments with astonishing precision. On the strength of their experiments, Falk and Fehr argue in favour of supplementing the standard theories with the heterogeneous characteristics of the subjects established here. In economic theory the preferences for fairness of some of the market participants must be taken into account.

Economic policy conclusions

Fehr and his collaborators develop a whole range of arguments that are relevant for economic policy. According to these arguments it depends heavily on the organisation of an economy's institutions whether more selfish or more reciprocal behaviour dominates. With suitable organisation the reciprocally motivated subjects will be able to change the behaviour of the selfish subjects. However, the exertion of influence functions in the opposite direction too, as under appropriate conditions reciprocal types can be driven to behave selfishly by the appearance of selfish types.

All in all the existence of reciprocally acting subjects leads to results that diverge considerably from the predictions from the standard models of economics.

4 Some applied themes of the conference

(discussed in "workshops")

4.1 Labour market effects of structural change

The papers received on the labour market effects of structural change approach a set of problems from very different angles. The spectrum ranges from a general theory of the structural change in employment, through approaches to explain and reduce structural unemployment, to papers dealing

with the phenomenon of overqualified workers and the concrete functioning of internal labour markets.

On the theory of structural change

Henri L.F. de Groot deals in his paper with the question as to how the phenomenon of structural change, which is occurring in industrialised countries, can be explained theoretically. Questions as to how the distribution of jobs between the sectors changes with increasing wealth have occupied economists for a long time. This study focuses on the drastic de-industrialisation process that has been observed in the western industrialised nations in the past 25 years.

De Groot presents a general multi-sector model containing several previous approaches as special cases. An important characteristic of his model is the different rates of productivity growth in the individual sectors of the economy. Further basic assumptions concern subsistence levels in the utility functions of households (resulting in non-unitary income elasticities of demand for goods from different sectors), the endogenisation of technological progress through learning by watching, and a low degree of substitutability between goods from different sectors. Choosing realistic parameter values makes it possible to portray the stylised facts of the structural change in a simulation model. What is characteristic here is the steadily declining employment share of agriculture (to a low but positive value) and the steadily increasing share of the service sector which, however, in the long term does not absorb the entire employment potential. The share of industry in employment on the other hand does not develop monotonously, but follows the typical and empirically observed hump-shaped pattern: in the early development phase of an economy the manufacturing share increases at the expense of agriculture, only to fall after reaching a certain level of per capita income. In the latter stage, the workers who become redundant in the manufacturing sector are absorbed by the service sector. The de-industrialisation process that has been observed in the last few decades can, according to de Groot, be seen as an unavoidable and inherent part of the development of maturing economies.

Growth, reallocation and structural unemployment

Growth in an economy is driven by technological progress and the accumulation of human capital. However, a distinct part of European unemployment is attributed to an imbalance between the qualifications offered by the workers and those demanded by the employers. As growth is accompanied by a reallocation of resources, growth can also have an effect on the extent of structural unemployment. In their paper Thomas Gries, Stefan Jungblut and Henning Meyer look into this problem by working out a theoretical model of the interplay between labour supply and labour demand in a growing economy. On the supply side they differentiate between skilled and unskilled labour. The firms have to decide how to divide their search activities between the two market segments. This division has in turn concrete consequences on the level and structure of aggregate unemployment. The more the search actions differ in the segments, the more significant the structural component becomes. The model of Gries et al. shows that there is an efficient combination of

search activities on the market segments which minimises mismatch and thus the overall unemployment of skilled and unskilled workers.

John Adams, Malcolm Grieg and Ronald W. McQuaid deal with the difficulties of matching job-seekers and vacancies. The authors are concerned in particular with the regional component of structural unemployment. In this context Adams et al. take a critical look at local labour market policy in Great Britain. For almost two decades the main strategy of this labour market policy has concerned the supply side of the labour market. The labour force is regarded as too inflexible and unskilled and thus as the deciding factor of unemployment. In spite of appropriate national policy measures - such as setting up a great number of employment agencies - structural unemployment in local labour markets has not been substantially reduced. Adams et al. therefore argue in favour of concentrating more on the demand side, i.e. taking more into consideration the employers' expectations, the characteristics of the job vacancies, and recruitment procedures.

Their considerations are confirmed by a study they conducted themselves which uses 126 in-depth interviews to collect data about the procedures of the employing firms on two local labour markets in Scotland. The findings indicate that the high level of unemployment can not be put down to the lack of available workers with suitable qualification levels. According to this information communication constitutes one large obstacle - often employers are not able to describe the requirements and characteristics of a vacancy in such a way that job-seekers understand. In addition the job-seekers may not be able to convey their exact expectations of a job. At regional level the existence of numerous and thus very small employment agencies causes co-ordination difficulties. This effect is augmented even further by the methods chosen by employers for advertising jobs. National advertisements and private agencies are, in the opinion of the authors, not always the best or the cheapest ways to fill a vacancy.

This is also a point of departure of the local labour market policy proposed by Adams et al. The existing network of job centres should be organised in such a way that both employers and job-seekers utilise this institution fully as a contact agency and a co-ordination institution. If this is achieved the flow of information between the two parties would be improved. A further point of departure which takes local peculiarities into account is, according to the authors, the creation of an intermediate labour market in the regions. This also promises a higher success rate in the reintegration of the long-term unemployed than traditional further training measures, which often meet with little acceptance among employers. A combination of more focused supply-orientated labour market policy with demand-orientated measures that are to be carried out both at national and local level can, according to Adams et al., mean the long-term solution to the problem of mismatch unemployment.

Labour market policy measures on segmented labour markets

In order to answer the question as to the most efficient utilisation of limited budgets for labour market policy Cees Gorter and Guillemette de Larquier use a flow model with heterogeneous workers and jobs. The authors use a segmentation approach which takes into account explicitly the

promotion of workers within hierarchically structured firms and includes the deskilling that occurs through unemployment. In this way a dual labour market is created with "experienced", in other words promoted, workers and "inexperienced" workers, who are searching for work or have a job in the lower hierarchical level. Recruitment for the good jobs can take place both from the external and from the internal labour market.

In this environment Gorter and de Larquier simulate the effects of various policy measures. Firstly they deal with changes in the parameters which influence the balance of power between the players on the labour market. Thus for example, changes in the wage bargaining process can lead to a stronger position of trade unions, which results in higher wages in both segments of the market. The downside of this is, however, that significantly higher unemployment arises in particular among the inexperienced, which can become reinforced as long-term unemployment. The opposite case of increased power on the employer side with lower wages leads to an expansion of the good jobs and thus makes upward mobility possible for the inexperienced and unemployed.

Measures of active labour market policy are also considered. The simulations in the context of the model provide information as to which segment of the labour market the instruments should target. The authors obtain a clear statement: measures to increase the efficiency in matching processes should be aimed at the lower segment of the hierarchy as this also indirectly has a positive effect on the upper segment. This is not the case the other way around.

In addition instruments to improve the productivities of the two job types are examined. According to Gorter and de Larquier these should be concentrated on the upper level of the job hierarchy since the relevant measures show a greater effect there after a short time and create jobs. The ensuing strong flow of promotions is taken from the lower segment which is in turn filled up with previously unemployed people. "Keep the chimney smoking" is an apt metaphor for this way of reducing the unemployment of inexperienced people which backs the productivity increases of the experienced.

Sarah Bridges provides more information on the workings of internal labour markets in her paper. For this she uses data from a large UK firm whose company philosophy is based rather more on American yardsticks, however. The results show that workers who are promoted early are also more likely to be selected for further promotions.

Further determinants for this are age, educational level and length of firm tenure. The author finds clear indications for the existence of promotion fast-tracking that selects a few individuals very early and supports them specifically. Such fast-tracking is typical of American firms, but more unusual within traditional European and Japanese firms.

On the phenomenon of overeducation

A further topic of the workshop on the labour market effects of structural change was the phenomenon of employment unsuited to the educational level of the worker. In economic literature overeducation is seen as a persistent problem for labour markets in advanced countries, as the overall productivity in the economies constantly lies below the level that could be reached in terms

of the education level. Research from the United States reveals that workers who are overeducated for their jobs have a lower productivity due to frustration than those who are allocated correctly. Felix Büchel carries out a comprehensive analysis on this subject in Germany for the first time and comes to a different result.

In an empirical study based on the data from the German Socio-economic Panel, Büchel finds about 90% of the overeducated people in western Germany in jobs that require only a low skill level. The productivity of these people, however, unlike as reported in the existing US literature, is above the level of their colleagues who are correctly deployed. The author argues that these controversial results are caused by differences in the research designs. Büchel pleads for keeping job requirement levels constant by case selection and then controlling for different qualification levels of job-holders.

With regard to the health status there are only slight differences between the two qualification groups, as the negative influence of frustration is more than offset by the well-known positive correlation between educational level and health status. Furthermore as a result of their existing education level, the workers who are over-qualified for their jobs are more frequently selected by employers to take part in on-the-job further training measures. This also explains the longer firm tenure of the overeducated, since participation in training courses increases the likelihood of more rapid promotion. In spite of the correlations proven for western Germany, which clearly relativise considerably the claimed detrimental effects of overeducation, the expectations of many employers in Germany are obviously parallel to the findings of American studies. Overeducation is given as one of the main reasons for rejecting applicants. In view of his results Büchel demands that personnel managers in German firms should rethink their behaviour.

Joan Muysken and Bas ter Weel provide an explanation of the origin of overeducation, which has been growing considerably since the 1980s. In their model, education is used by job applicants mainly as a signal of high productivity: by means of their educational level the workers show that they possess a certain level of cognitive abilities and are willing to work under stress. For the potential employers on the other hand education serves as a screening device to reject unsuitable people. Job competition thus leads to an increase in the average education-level of workers. This in no way means that a stronger wage pressure is created as a result. It is far more the case that well educated workers often occupy inadequate positions temporarily in order to look for a suitable job from this position. For educated workers, however, this process of the last two decades has meant on the whole a definite drop in the possible returns from the investment made in their education.

Concluding remarks

To sum up it may be noted that analyses on improving the matching process on the labour market are the focus of interest. With regard to labour market policy it is analysed how the matching of job-seekers and vacancies can be facilitated and organised more efficiently. In the opinion of Adams et al. it would be sensible to evaluate the existing network of job centres in Great Britain with regard to their information service and to make them more attractive as communication centres. In

this case both the employee and employer sides are asked to act. Furthermore national and regional policy measures should not be directed just at the supply side, as has been the case until now, but also at the demand side of the labour market. This is the key demand that the authors direct at those responsible for making labour market policy decisions. For reducing unemployment in the short-term, Gorter and de Larquier recommend a reduction of the costs and more efficient handling of the recruitment process in particular of jobs for inexperienced workers. According to the authors, measures to increase productivity should on the other hand be targeted at the higher-qualified jobs. Büchel argues in his paper implicitly in favour of basing decisions as far as possible on studies conducted in the actual area where the measures are implemented. In his studies on the situation of overeducated workers in Germany he found a different picture from that in the USA. In Germany overeducation does not lead to lower productivity. In contrast to the situation in the USA it is even possible to determine some positive aspects, for instance the longer firm tenure and more intensive further training activities. The author therefore demands that personnel managers change their minds about overeducation.

4.2 Information technology and the labour market

The connections between information technology and the labour market were the subject of a paper by Martin Falk and Katja Seim, which dealt in particular with the effects of these technologies on the skill level.

Starting point of the analysis is the fact that in today's technology-orientated society with its strong international orientation, workers' skill levels are becoming ever more important as a production factor. In particular the growing field of information technology is often seen by economists as the deciding factor of the increase in demand for skilled work. The authors examine the demand of the service sector for university graduates at the level of individual firms. Their analysis is based on data from the Mannheim Innovation Panel for Services from 1994 to 1996, which includes observations from 1880 service firms in western Germany.

With a 40% share of university graduates in overall employment, research and development, technical consulting, computers and software are the areas with the highest demands concerning the workers' qualification level, closely followed by business service consultants and legal services with just over one third. With shares between 10% and 15%, banks and insurance companies, real estate agents and community services are at a moderate level. The lowest share of university graduates is found in wholesale and retail trade and in communication and transport. It is remarkable that about a third of all the firms observed employed no graduates at all. As expected the proportion of firms with no graduate employees decreases as the size of firm increases. It stands at well over 50% for firms with fewer than 10 employees, but falls to just under 6% for firms with more than 250 employees.

Falk and Seim use four different specified panel probit models to examine empirically which factors influence the decision of firms for or against recruiting university graduates. Their results

show that the export rate, the size of the firm and the activities in research and development increase the probability of a firm employing highly qualified workers. The focus of the authors' interest, however, is the influence that the share of information technology in the overall turnover has on this probability. The corresponding coefficient proves to be positive and significant in the estimates. The study thus reveals clear indications that firms that invest heavily in information technology also increase their demand for highly qualified workers. Export orientation raises this positive effect even further. This is in accord with the authors' reflections that exporting firms concentrate comparatively heavily on products which demand a high deployment of qualified workers.

According to Falk and Seim the fact is surprising that all models provide consistently low elasticity values of the employment of qualified workers in relation to the expansion of the use of IT. Thus a 50% increase in the share of information technology in the overall turnover in a firm would only lead to a 4.3% increase in the employment of university graduates. Remarkable is that the estimates also find no significant influence uniform across the service sector of IT investments on the employment structure. The qualification structure in a firm obviously depends mainly on unobservable firm-specific characteristics.

In addition Falk and Seim use data from the German Microcensus and the Employment Statistics of the Federal Employment Services (Bundesanstalt für Arbeit) to examine the trend towards a higher skill level of the workers. For this purpose they differentiate between changes occurring between or within the branches of industry. Three skill groups are distinguished. What they have in common is that the overall change in the employee figures is mainly attributed to change within a branch of the economy. Thus almost 71% of the 2.2% increase in the number of graduates (between 1991 and 1995) is explained by a redistribution within the branches, as well as 52% of the 0.8% drop in the skilled worker share and 83% of the 1.4% fall in the share of unskilled workers.

The increased share of university graduates in overall employment can also be attributed to a shift from production activities towards services, which generally demand a higher qualification level. This is particularly true of the areas of research and development as well as design, which show the highest share of graduate workers in the tertiary sector with about 40%. Increases in the number of highly qualified employees can be observed in all areas of the service sector. Falk and Seim see the result of another estimate as a further key finding of their paper. According to this result the comparatively increasing demand for university graduates can be put down less to the expansion of service activities in all branches of the economy, but first and foremost to the shifts described above within and between the branches of the economy.

4.3 Analyses of labour market processes using firm and establishment data

In economics the picture of the labour market was based for a long time mainly on empirical studies of employment statistics or more generally on population samples. This led to an imbalance as the demand side of the labour market tended to be neglected. Many processes can only be ade-

quately analysed, however, if data from firms or establishments are used. Jobs are localised in firms, many important processes that are decisive for the employment level can be found there.

In more recent times the science of economics has responded and initiated many studies in which either data have been collected from firms or establishments or existing data have been analysed. Here in each cases specific difficulties occur that differ considerably from those occurring with samples of people. On the other hand there are also specific advantages. The analysis of employment dynamics is of great interest as regards labour market policy. For these reasons the organisers of the EALE conference planned a separate workshop on this topic. It must be noted here that some of the relevant papers were also classified under the general focus "labour demand".

New business start-ups and withdrawal from the market

The creation of jobs through new firms is generally seen as a major contribution towards the fight against the constantly high unemployment figures. But what happens to the young firms in the years following their start-up? This question is of great interest especially with regard to the employment effect, as in the long term it does not depend on the absolute number of firms established, but on their lasting positive contribution to the development of the labour market. Helena Persson deals with this problem in her contribution to the workshop. Her paper is based on a database of all new establishments created in Sweden in 1987 and 1988 (excluding the construction industry), which follows the young establishments until 1995 or until they exit. The demographic method used here makes it possible to divide the establishments recorded into real new establishments (86%), firms resulting from mergers (1%), and new establishments resulting from dispersals (13%). This classification is also used for establishments which exit the market.

At the beginning Persson states that the short-term employment effects of new establishments and establishment exits are rather low with 3.5% of total employment in Sweden, compared with the 7.7% contribution made by existing establishments to the expansion of employment. If the "artificial" new establishments resulting from mergers and dispersals are excluded, this effect falls to 1.8%. Moreover, the process of creation and destruction of jobs by new establishments does not follow any cycle, but are largely constant.

The focus of Persson's paper is the long-term developments of the various classes, the factors influencing the survival probability and the effects on overall employment. Thus she ascertains a risk of about 30% that the young establishments, three quarters of which consist of only one person, have to exit in their first year of business. This risk decreases considerably in the course of time and stands at about 10% after the seven years observed. At that time about one third of the establishments set up originally are still in existence. In contrast to other studies, with the data set used here the job losses resulting from establishments closing outweigh the increase in the number of jobs resulting from the expansion of the establishments still existing. Again the development among firms resulting from fusions and dispersals follows a different pattern. In these cases the probability of an establishment leaving the market stands at a constant 3% per year.

The probability of an establishment's survival increases with the size of the establishment at the time of the start-up, although firms that were large at the start tend to grow more slowly than those that were small at the outset. Being part of a multi-unit firm increases the lifespan of a new establishment enormously and also has strong positive effects on the labour market. If the age structure of an establishment is dominated by either very young or relatively old workers, the risk of the firm leaving the market increases. However, if they do survive these establishments show an above-average growth in employment. This is also true of establishments in which first and foremost graduates work. Weaker increases in staff increases are recorded by young firms whose founders and workers have a low education level.

From a different viewpoint Joachim Wagner looks at the life cycle of firms. He examines the history of the last years of establishments before they exit, which according to Wagner had not been dealt with previously in empirical research and was thus *terra incognita*. The field of industrial ecology deals with the subjects of the birth and death, growth and shrinkage of firms. The key questions of this paper result from this. Firstly Wagner goes in search of a "shadow of death". By this he means a longer-term and continuous reduction of jobs that precedes the exit of the establishment. In the establishments of Lower Saxony's manufacturing industry that were included in the study and closed down between 1990 and 1992 there is no proof of such an effect. Secondly he confirms the findings of Persson and others that the probability of a firm exiting decreases with age and size. Nevertheless only about a quarter of the exits are young and therefore also smaller firms, which were on the market for less than five years. More than half of the exiting firms were founded as early as before 1978. Thus the low employment effect for the economy as a whole of changes in young establishments, which was also determined by Persson, can be explained.

As already mentioned, a large number of the newly established enterprises considered above are one-person establishments. The determinants for the business survival of self-employed people are examined by Edvard Johansson using a Finnish data set. A central aspect in this paper is the regional unemployment rate. "Bad times" interestingly lengthen the period of self-employment, as do house ownership, and higher age, which gives evidence for greater experience in business life. Personal experience of unemployment are on the other hand a significantly negative determinant - long phases of unemployment could be a sign of a lack of business ability. For these people their period of self-employment often ends in unemployment again. Self-employed people with a good education more frequently end their self-employment voluntarily, as they are more often better off with a wage or salary job.

Analysis of labour market flows

The analysis of the labour market in terms of flows was the second key theme of the workshop. This approach can provide important indications with regard to persistent unemployment and the dynamics of labour market growth. A consideration of stock values alone often fails to portray the actual events. Thus inflows and outflows of workers in firms are often set off against each other and only the general employment movement is taken into account. But the information about company-internal restructure is lost in this way. The papers by Piet Allaart, Paul Bingley, Tor Eriksson,

Niels Westergaard-Nielsen and Axel Werwatz emphasise first of all that it is important to keep in mind the specific features of the jobs being created and destroyed. However, the exact statistical recording of the flows constitutes a problem with which the authors concern themselves.

Allaart has developed a procedure for estimating the creation and destruction of individual jobs using microdata from a survey. For this it is assumed that jobs are heterogeneous. The "OSA method" makes it possible to transform data on employment flows, which are comparatively easy to obtain, in such a way that the flows of the individually different jobs, which are considerably more difficult to access, can be recognised. The data set used, however, does not take small enterprises into account and neglects the foundation and closure of firms.

Bingley et al. begin their paper with a critical discussion of obtaining stylised facts in a flow model of the labour market. The heterogeneity of the flows within individual establishments is paid too little attention. Earlier studies were based too heavily on the idea of a representative firm. Moreover they were often based on very narrow data sets. Bingley et al. now have a complete database of the Danish economy from 1980 to 1995 at their disposal.

The authors first look at the actual extent of job movements. Although the Danish unemployment rate was nearly the same at the beginning and the end of the observation period, considerable fluctuations are discernible on the labour market. For instance annual new recruitments and dismissals stand at about 30% of total employment, job creation and destruction stand at approximately 13%. The individual job changes are about 2.5 times greater than the net changes in the size of firms. This figure is roughly equivalent to the factor 3 calculated by Allaart.

The flows are subject to a strong cyclical movement. Bingley et al. confirm that job destruction is countercyclical, job creation on the other hand is procyclical. The question as to which of the two elements dominate the overall movement can only be answered with reservations. The Danish data used reveal weak evidence that countercyclical job destruction predominates, though this is not valid for all sectors. Furthermore it must be emphasised that the persistence of job destruction is significantly greater than that of job creation. 14 years after the occurrence of the job creation or destruction about two thirds of the jobs destroyed had not been filled again, whereas only one sixth of the newly created jobs were still in existence.

Pekka Ilmakunnas and Mika Maliranta use Finnish data from the Employment Statistics and the Industrial Statistics in their paper, both from 1988 on, in order to work on the above questions concerning the creation and destruction of jobs and the corresponding employment flows. The deep recession of the early nineties caused the unemployment rate to rise from below 4% to over 18%, to which firms adjusted mainly by reducing recruitment rather than increasing redundancies. The proportion of workers affected by new recruitments or separations fell from over 60% before the recession to about 37%. Considerable differences are revealed between the different sectors in the adjustment of the number of employees. At the level of individual firms, too, it is possible to determine strongly divergent developments during the recession irrespective of establishment size.

Mahmood Arai and Fredrik Heyman also deal with related subjects. They use a remarkable data set which results from linking establishment and employment data. Such information sources are so

valuable because they show both the supply side and the demand side of the labour market. The particular conditions and dynamics effective of supply and demand are simultaneously recorded.

Arai and Heyman concentrate on the differences between permanent employment relationships and temporary employment in Sweden. It is possible to determine a pro-cyclical behaviour for the creation of jobs in both contractual forms in the service sector and also in the manufacturing industry. The destruction of jobs shows a counter-cyclical behaviour.

For measuring the flows of workers and jobs Arai and Heyman use two methods. First the overall changes in the stock of employees are considered, secondly, as in the papers of Allaart and Bingley et al., the actual inflows and outflows of workers at establishment level are used as a basis. The parallel use of stock and flow measurements serves among other things to check the consistency of the data used. The authors find a high correlation between the two measurement concepts.

The fluctuations in jobs and workers are at least ten times higher in temporary employment than they are in permanent employment relationships, among other things because the adjustment costs are considerably lower for temporary workers. For the average changes in the total of hires and separations of permanent employees Arai and Heyman determine a rate of 25% per year, which lies below the usual values. The influence of temporary work on the overall figures should therefore not be underestimated. Both types of contracts are subject to roughly the same volatility with regard to the creation and destruction of jobs, which is in turn based on the net changes in the unemployment rate. The trend on the labour market seems, however, to be dominated by permanent employment relationships. According to the authors temporary employment has a buffer function.

More information on the motives of employees and employers for signing a fixed-term contract are provided by Anneleen Peeters and F.W.O. Vlaanderen. At the time of hiring, both parties are uncertain as to the actual productivity of the worker. Therefore the occupational history of the applicant is often used as a screening device. In this way the recruitment chances of the long-term unemployed fall, as employers include in their calculation the deskilling processes occurring during unemployment. By means of a temporary employment contract there is now the possibility to subject the workers to a test and to offer them a permanent contract if their work is satisfactory. If the experiences are negative, on the other hand, the employment relationship can be terminated again at little cost.

Access to data

How great the researchers' need is for high-quality data on firms and establishments for their studies on the demand side of the labour market has already been made clear from the papers outlined above. However, in many countries there are strict rules for various institutions as regards the release or disclosure data on firms and establishments. This is the case for the German Institute for Employment Research (IAB), which has organised the extensive IAB-Establishment panel since 1993. Ruth Brand, Stefan Bender and Susanne Kohaut are searching for possibilities to make these valuable research data available generally, i.e. for the use outside the IAB. The regulations of factual anonymity must be observed. The definition of factual anonymity is that it must demand an

excessive amount of time and effort for anyone interested in confidential information to succeed in re-identifying the data. As some aspects included in the data are of great interest to competitors, this accepted level of effort is relatively high. Moreover, the probability of re-identifying a firm in a survey is far greater than the probability of re-identifying a private household, and there is already published information on the firms that could be used for re-identification.

The risk of re-identification increases with the degree of uniqueness of a certain combination of key variables, which are divided into various categories. A combination is regarded as rare if it occurs less than four times in the population. Using an estimate Brand et al. identify a very large proportion of endangered observations although only little information is disclosed. As a solution strategy they suggest a method of transforming data, which was developed by Sullivan. Here the individual variables are masked with random errors. In this way important statistical values (e.g. the mean value) are approximately sustained. Consistent estimates remain possible but confidential information is not disclosed. Tests have shown quite satisfactory results so that the method of Brand et al. could enable the IAB establishment panel to be made available for labour market research projects.

Access to high-quality data stocks that have been collected using recognised methods, go into detail, are comparable with each other and are linked, and that cover all areas of an economy is not only demanded by Brand et al. and Ilmakunnas/Maliranta. Reliable and comprehensive data are the basic precondition for sound statements. Important labour market policy decisions are taken on the basis of these findings. Improved labour market diagnoses and forecasts and thus a more efficient utilisation of labour market policy instruments can only be achieved through an increase in the quality of the data material available for research purposes.

4.4 Regional labour markets

Labour supply and life styles

So far in the social sciences the classical characteristics of age, gender and education have in the main been used as a basis for the structuring of populations. However, in times of increasing individualisation in western societies the question arises as to more suitable methods of analysis. What relationship exists for example between the life styles of individuals and the regional supply of labour? M.C. Versantvoort, G.A. van der Knaap and L. van der Laan go into this question in their innovative paper. They develop an extensive set of characteristics that describes individual life styles. For this, life style is recorded via the dimensions of working life, family orientation, living situation, consumer behaviour and leisure activities. The incorporation of people in their private and institutional environment is also taken into account. In principle the "life style concept" makes possible a multitude of analyses of social structures. As an example the authors show this by means of a detailed study of the size and the regional distribution of the aggregate labour supply.

Connections between the labour market and the housing market

This labour supply differing from region to region depends on a large number of factors. In recent years various authors have repeatedly shown relationships between the labour market and the housing or property market. A not inconsiderable determinant of migration, but also of employment behaviour, can be seen in the price level of housing and the structure of the housing market. Great Britain presents itself for examining these connections, since during the recession of the early nineties the regional house price differentials increased enormously there. There is talk of a north-south divide in the country, as the collapse of the market occurred mainly in south-eastern England. In his study Martin T. Robson stresses the consequences of the strong effect that housing prices have on the flows into and out of regional unemployment. In the case of expensive house prices it is possible to determine a stronger outflow from unemployment. Responsible for this is, according to Robson, the greater pressure on unemployed people to intensify their search efforts and thus to occupy more of the vacancies. Also migration between the regions is based on housing prices. The higher they are, the stronger is the outmigration from the region. At the same time the inflow of inhabitants drops. This closes the circle on the observations made above: high housing prices have an unemployment-reducing effect. The mechanisms behind this stem first and foremost from the labour supply side, whilst the demand side plays only a subordinate role.

Local concentration of labour markets

The localisation of labour markets is a reason for the striking absence of migration despite a geographically unequal distribution of employment opportunities and wage levels. A new explanation for their development is provided by Andreas Kopp. This explanation is based on uncertainty on the conditions of individual labour relations. The explanation even holds when uncertainties resulting from wage bargaining are removed by the evolutionary emergence of a distribution norm for labour surplus. Rather, the uncertainty results from the fact that the productivity of a certain job is an experience good. The characteristics of the process of learning the actual quality of an individual match plus geographic transaction costs create a positive local externality: A location will be the more attractive to employers the more potential employers of the same type are already there. Similarly, on the supply side workers

will choose their residential locations at places with the highest geographical density of employees of a certain type. Under these conditions persistent geographic wage differentials associated with the immobility of workers do not reflect a malfunctioning of the labour market calling for action of labour market policy.

The paper of Kristin Dale on the regional labour market structure in Norway also deals with the regional concentration of employment. The author investigates primarily the distribution of wage earners and self-employed workers in rural and urban areas. This has hardly been studied until now, as the data from very small establishments do not appear in national industry statistics. With a self-employment rate of 8.2% of the entire labour force, Norway is still at the lower end of the scale of OECD states, but nevertheless a concentration of small family firms can be identified in

areas with a focus on the primary sector, in other words in the countryside. Another interpretation of this information is that capital-intensive industries, which pay their workers high wages mainly establish themselves in the conurbations. In rural areas there is an income gap as a result of the lack of demand for labour, and this gap is partly filled by self-employment. This leads to a relative decrease in the number of jobs paid in accordance with economy-wide agreements and an increase in the number of low-wage jobs, as wages below the regulated level are agreed above all in family businesses in which the workers are at the same time the capital providers. Accordingly, employed family members are insiders with a known productivity and therefore without uncertainty, which makes access to jobs more difficult for migrants to the region. As already shown in Kopp, this means net migration towards urban areas.

Regional adjustment processes

Another group of themes deals with the adjustment capacity of regions. Here a study for Belgium was presented which was ambitious in terms of methodology. Belgium is interesting in this context because it mirrors the conditions and developments in the EU in a kind of "mini-format" due to its federal structure with partially independent but nevertheless integrated regions. In spite of a strong international opening of the country and corresponding influences from outside, clearly visible regional characteristics have remained. Sophie Delaigle and Olivier Lohest examine the adjustments on Belgium's regional labour markets to external changes. For this they first need to separate aggregate and regional-specific components. Their analysis shows very different short-term reaction mechanisms of the individual labour markets. It is astonishing that in spite of strong migration and commuter movements, it is possible to identify significant long-term effects of labour demand shocks on the regional unemployment and employment rates. According to the study, the employment effects of a shock with the value of 1 stabilise permanently at a level of 1.4 in Flanders, 1.15 in Brussels and 0.6 in Wallonia. The high persistence ascertained is in contrast to results for the United States, where as early as six years after a regional labour demand shock no more effects on the regional variables can be determined.

Special labour market problems in transformation countries

In the USA adjustment to change in regional labour demand mainly occurs via migration, whereas in western Europe changes in labour force participation also play an important role. The regional labour markets of eastern European transition economies show characteristics that can be compared with EU countries. However, the regional disparities in eastern countries are even more marked and more constant than in western ones. An exact picture of the characteristics and trends of the regional labour markets in Romania during the transition period is drawn by Ella Kállai and Iulia Traistaru. In the phase of radical change since 1990 employment has fallen considerably, which is reflected half in increasing unemployment and half in a decreasing labour force. The job adjustment process, which occurs through continuous separations and hirings, is very constant over time. The strongest adjustment movements are observed in Romania's industrial regions, which,

together with areas with a diversified structure, are becoming net immigration areas, whereas areas with a more agricultural character are losing inhabitants. This also points to the qualifications required by the workers, which in turn is reflected in the regional wage developments. All in all the disparities in the regional labour markets increased with the start of the transition phase and have stabilised since 1990 at a high level.

Moreover, the gross domestic product per capita of the eastern states wishing to join the EU is low. The continuing process of European integration is only one of several reasons why Kállai and Traistaru consider a reform of EU regional policy to be necessary. The present system of transfer payments is not suitable for eliminating the disparities between the individual regions.

Analysis of regional policy in Germany

In Germany regional policy is based on investment incentives in regions with high unemployment and low per capita income. In this way although investment activity was stimulated, the expected positive effect on labour demand could not be proven clearly empirically. Exactly this proof is the subject of the paper by Gerhard Untiedt and Hans Joachim Schalk. They criticise the fact that previous studies have often overemphasised the substitution effect from reducing the cost of the factor of capital compared with the production factor of labour and that they have failed to take account of the opposing output effect. The latter occurs for two reasons: firstly firms can expand their production as a result of lower costs, and secondly firms from non-assisted areas are encouraged to move their production to the assisted areas. The effect on the labour market depends on the relative size of these two opposing effects. On the basis of their research, Untiedt and Schalk draw the conclusion that in contrast to other countries, in Germany the output effect of investment promotion dominates and thus the policy objective of stimulating labour demand at regional level is achieved. They calculate that without regional policy in the assisted areas, investment would be on average 12% below the current position, employment 1.6% lower and output 2.8% lower. Furthermore the costs per job created are lower than the costs that would be incurred by one unemployed person.

Another objective of regional policy is the reduction of income disparities between poor and rich areas, which should be achieved by supporting the productivity growth of workers. Technical efficiency as an expression of production conditions is twice as high in the most efficient regions as in the weakest regions. According to Untiedt and Schalk the approaches selected to achieve regional equity in Germany fail as it is not even possible to stop the gap between rich and poor regions expanding. With regard to the so far unclear effect of the regional policy implemented in the past they criticise the fact that after reunification this regional policy was transferred without any changes to the new *Länder*.

A new method for forecasting regional labour market developments

A precondition for the sensible implementation of active labour market policy measures are reliable forecasts of future developments on the labour market. If purely statistical information is used as a basis in decision-making on the allocation of funds, past developments are inevitably used as a

basis. This information can be used, however, to make previous structures of changes visible and project them into the future. Walter Oberhofer, Uwe Blien and Alexandros Tassinopoulos present a new method of extrapolation that takes into consideration any available information about the possible influences. They demonstrate their flexible and diversely applicable procedure on the forecast of regional employment in western Germany. For this purpose global trends that have an effect on the overall German labour market are broken down to their regional units. The regions are subject to different developments since they differ with regard to their specialisation in certain industries, their degree of agglomeration and other characteristics. The global developments, which concern single industries for example, are combined with autonomous developments occurring in specific regions. The great advantage of this new method, however, is the possibility of taking pieces of "soft" ("fuzzy") information (e.g. "expert judgements") into account. This soft information provide a valuable basis for extrapolation but could not be used previously owing to inconsistencies resulting from errors. The "generalised extrapolation method" developed by Oberhofer et al. is based on regression analysis and implies a fusion of the advantages of this method with those of entropy optimisation methods. Due to its use of all available information, it provides a possibility to produce more reliable forecasts for regional labour markets than the procedures used so far. Institutions that carry out measures of active labour market policy urgently need forecasts in order to be able to counteract effectively negative developments in individual segments of the labour market.

4.5 Evaluation of labour market policy measures

On the importance of the topic

It must be pointed out once again that the authors of this report accept no responsibility for the results obtained by the researchers and their conclusions. Since it is not possible to include a critical discussion and assessment of all the papers, we refrain from commenting on individual studies even if the methodology and the conclusions drawn from the study are perhaps assessed in some cases.

In the example of Germany the importance of the subject of evaluating labour market policy already arises from the fact that the budget for job-creation measures and further vocational training amounts to almost DM 28 billion in the year 2000. Because of the amount of funds spent on these measures there is a specific interest in monitoring the effectiveness of labour market policy intervention. The EALE conference was a forum for exchanging research findings from several countries, which facilitates the communication of results.

With regard to the labour market the starting situation of many European states is similar. Since the beginning of the 1990s unemployment has frequently run an alarming course. In the countries of central and eastern Europe, including the former GDR, the opening of the Iron Curtain led to a serious slump in the employment figures and labour demand. The unemployment rate in the Slovak Republic fluctuates well between 12% and 15%, in Romania and Hungary it stands at somewhat above 10% (cf. Lubyova, van Ours), in Bulgaria over 16% (cf. Kállai and Traistaru) and, in

the new federal *Länder* of Germany (the Eastern part of the country) the figure is between 16% and 18% (cf. Eichler, Lechner). The recession in Finland caused unemployment to increase from 3% (1990) to 18% within four years (Holm, Sinko, Tossavainen). Nearly the same increases occurred in Sweden for youth unemployment according to Laura Larsson, whilst the rate among adults grew from 1% to 7% in this period. In Switzerland Monica Curti observes an increase in structural unemployment from 0.5% in 1990 to 3% in 1997, about one third of those seeking work are long-term unemployed. Often the people in this group are workers with difficulties in reintegrating into the primary labour market as a result of their age, their education, their employment history or health problems. As regards the phenomenon of increasing unemployment rates, which is occurring across Europe, it is first and foremost the disadvantaged groups that are becoming unemployed (Mahy, Nyberg, Mansson).

Against the background of this the individual states turn to different measures of active labour market policy. These programmes, which are associated with high monetary costs are aimed above all at improving the qualification level of those taking part by means of further training, retraining and work experience in areas of benefit to society. A more equal distribution of the available job vacancies among the job-seekers is aimed for by raising the productivity of people who are unemployed or in danger of losing their jobs. This is intended firstly to prevent those who are temporarily jobless from slipping into long-term unemployment. Secondly, if this has already happened, it should enable the long-term unemployed to be reintegrated permanently into the primary labour market. For this purpose it also makes sense to monitor the efficiency of public employment services and if necessary to increase this efficiency in order to improve the matching of job-seekers and vacancies. A combination of these measures is expected to lead to a change both in the unemployment figures and in the composition of the group of the jobless.

The OECD states spend an average of 0.9% of their gross domestic product on active labour market policy measures (Thomas Wagner, Elke J. Jahn). According to Eichler and Lechner, in 1992 the new federal states (*Länder*) spent DM 32 billion on this labour market instrument alone, in 1996 the investments amounted still to DM 16 billion. It is not only because of these clearly large amounts of money that there is a desire and a necessity to evaluate the actions implemented. According to Curti, in democratic systems policymakers must be able to prove the sense of measures selected as well as their effectiveness in order to receive the important support from the public. Furthermore private sector action is increasingly being demanded of authorities and administrations from the point of view of performance and efficiency, for which control mechanisms such as evaluations are needed. In addition, these evaluation procedures are also helpful for analysing the strengths and weaknesses of existing and future labour market projects and thus provide important information for decision-makers. Evaluations of diverse measures of active labour market policy which have been implemented in various European countries are presented in the following paragraphs.

The evaluation of labour market policy instruments demands a great deal from the scientific method. The effectiveness of measures would be easy to evaluate if it were possible to observe the effects of a measure on workers who participated. The task would be just as simple if the conse-

quences of not participating for those who actually did take part could be ascertained. But neither of these things is possible in principle. This leads to a problem in particular when participants for an employment or training measure are not selected randomly, which is usually to be the case. Then with regard to various unobserved characteristics the participants in such measures can be distinguished from those workers who did not take part. It becomes accordingly more difficult to identify the effect of the measure. For these reasons methods to solve the described "squaring of the circle" are accordingly complex. If survey data are used, newly developed econometric procedures are needed. For these reasons the EALE conference provided a particularly important opportunity to exchange information on the structure and results of such evaluation studies in an international context and to discuss the effects found.

Work on the evaluation of labour market policy in the narrower sense

Among the different analyses presented at the EALE conference, that by Lubyova and van Ours deals with the labour market situation in the Slovak Republic and in particular with the question as to how worthwhile it is for workers seeking regular employment to take part in temporary measures of active labour market policy or retraining programmes. Their study is based on data from the unemployment registers from 20 districts of the country and thus cover approximately 38% of the population. The personal histories of some 100,000 workers who lost their jobs in 1993 are portrayed and analysed.

Their findings show that on average the transition rate into regular employment is increased by 150% as a result of participation in one of the programmes. However, subsidised periods of work in private enterprises have negative effects on this rate; the remarkable improvement of individual situations stems from retraining programmes and socially useful work in the public sector. Basically it is easier for young people under 30 and married people to move into the regular jobs. However, these preconditions desired by potential employers tally to a large extent with the personal characteristics that programme organisers prefer the participants to have. This means that the active labour market policy measures in the Slovak Republic do not compensate for the focus of the regular labour market, but prefer the same groups.

Following their studies on the basis of data from the labour market monitor of Saxony-Anhalt, Eichler and Lechner confirm the positive effect of the programmes on the individual possibilities of being reintegrated in an employment relationship. Thus the probability of remaining unemployed after a job-creation measure falls clearly from 52% to 35%. This effect is visible for a long time, though it lasts longer among men than among women, who often leave the labour force entirely when their entitlement to unemployment benefit expires. At the end of their paper, Eichler and Lechner warn against overrating these positive results. The change at individual level can not simply be projected onto the economy as a whole, since also the high costs of the measures and their effects on the various markets must be included in the considerations.

It is known, that the econometric problems of identifying the pure effects of a measure of labour market policy can be solved in principle, but the participation of an unemployed individual in a

measure must be independent of his labour market status in the case of non-participation. In addition it is necessary to identify and to condition on the “right” variables. This assumption is frequently not met, however. Eichler and Lechner show an alternative way by using an evaluation method newly developed by Heckman et al.. According to their method it is possible to estimate the effect of a measure if the estimation error that arises if the assumption is not fulfilled is identical before and after the measure. On the basis of this modified assumption they obtained their results for the Federal State (*Land*) of Saxony-Anhalt.

A central aspect in examining the effectiveness of measures is emphasised both by Eichler and Lechner and by Lubyova and van Ours. It is important to find out the reason why the workers are included in labour market policy programmes. If these workers have characteristics that can not be recognised and which distinguish them structurally from the non-participants, then neglecting these differences can result in an underestimation of the effect of job-creation measures. Already the scale of the groups that have been recorded and characterised according to their transition rates - about 10% of the workers show low rates of transition into regular employment and a high level of participation in programmes, for about 90% of the individuals it is the other way around (Lubyova and van Ours) - point to the importance of dividing the two groups as one of the basic requirements for a sound evaluation.

The issue of what factors induce unemployed to make the effort of participating in a labour market measure and the influence of their motivation on the subjective evaluation of these measures is presented by Curti. In Switzerland instruments of active labour market policy have only been implemented since 1997; the regional placement offices provide intensively counselling and placement of unemployed. The analysis confirms that the counsellors do not select the participants randomly. The assignment of participants to training (i.e. language courses) and employment programmes is based on the skill deficits of the job seekers. This is surely a precondition to the effectiveness of labour market measures. The quality of the measures is described by about 80% of the participants as being good to very good, but this assessment depends heavily on their motivation prior to participation (i.e. if they had proposed the measure themselves). The important role of motivation points to the limited value of subjective assessments of the quality of this policy instrument. It raises also the question as to how much sense it would make to stipulate the obligatory participation of unemployed people in training.

George Sheldon analyses the efficiency of public employment services in this matching process. Of the 126 regional employment offices in Switzerland that he examined, he finds 55 worked efficiently. This means that none of the other offices nor their weighted averages could achieve the central aim of permanently matching job-seekers and vacancies more efficiently. To measure the efficiency Sheldon developed a two-stage approach based on the concept of a matching function which is basically a production function. In this analysis, input factors are stocks of unemployed and vacancies, completed by environmental factors. These inputs produce different outputs like new hires or the prevention of repeated unemployment, in order to reduce structural unemployment. In Sheldon’s approach, however, the matching function is treated like a production frontier. In the second stage, the variation of matching efficiency of individual placement offices is ex-

plained by determining whether the matching frontier exhibits increasing returns to scale. According to the estimates conducted with micro cross-section data, the public employment services - taken together - achieve about two thirds of their efficiency potential. Approximately half of this efficiency loss appears to stem from failing to exploit increasing returns to scale. This means that a number of placement offices are too small in relation to the number of job-seekers and vacancies they serve. Pooling the information of the individual offices could provide a means for exploiting these economies of scale. However, some of the offices seem to keep their information to themselves for fear of destroying the relationships of trust that they have built up with the local employers. The remaining inefficiency lies in the chosen policies of the individual offices. It is shown that disciplinary measures have a positive effect on the matching efficiency, whereas supportive actions - such as advisory services - appear to detract from it. The latter finding may result from poor targeting, which suggests possible measures for improving matching efficiency.

The subject of another study was a new instrument of active labour market policy which was used in Germany between 1994 and 1996: non-profit temporary employment agencies which are aimed specifically at the reintegration of hard-to-place workers. These agencies hire out long-term unemployed individuals to firms in the hope that they will receive a permanent regular employment contract. Originally this was the reason why temporary work via temping agencies was allowed by law, though temporary employment agencies do not want to lose their skilled and reliable workers to their customers and therefore hardly contribute to this aim. In Rhineland-Palatinate the federal government made available DM 3.2 million in subsidies in the period mentioned. The effect of this investment is examined by Michael Lechner, Friedhelm Pfeiffer, Hannes Spengler and Matthias Almus. According to their study 18.7% of the participants found a permanent job directly after completing the programme. In the months following the increase in experience resulting from temporary work the reintegration rate rose to 28.9%, whilst the comparison group of non-participants shows a success rate of between 11% and 16%. Lechner et al. point out that the members of the target group examined here are confronted with particular difficulties on the labour market. On the whole the non-profit temporary employment agencies affect only a few unemployed people and therefore constitute a small programme, but one which produces clearly measurable successes in a regional context.

Extending labour demand (additional recruitment effect) is a first target of wage subsidies granted to employers for hiring unemployed workers. When they target specific (long-term unemployed) people, they are also designed to lead to substitution in recruitment. Mahy et al. study the effects of wage subsidies in Belgium and Sweden. In Belgium, 36% of the wage subsidies result in the desired additional effect, whereas 64% come under the category of non additional, so called dead-weight effects. In the case of small establishments with fewer than six employees, 48% of the funds used lead to dead-weight effects, in larger establishments it is 70%. For this reason it would make sense to concentrate the measure on small firms. With respect to the substitution effect they estimate that without the subsidy about a third of the jobs would have been filled with different workers (that are not part of the target group of hard-to-place workers) in the Belgian case.

There are considerable differences between Belgium and Sweden in their institutional conditions and thus also in the effects of the policy measures. The effects of these programmes are demonstrated in each case by surveying a selection of firms affected by means of a questionnaire. The authors estimate a high dead-weight effect of Swedish subsidies of 86%, showing that a large part of them have no direct effect on the unemployment figures. The effect that the subsidy results in substitution is higher, at 42%, than in Belgium, with 31%. The differences in these figures are related to different institutional settings, since it is a main aim of the Swedish system to achieve an equal starting point for workers by means of special support for disadvantaged groups and thus to bring about precisely a substitution. All in all the labour demand is raised as a result of the reduction of the cost of the factor of labour and also of the fact that more long-term unemployed people are integrated.

Papers dealing with the effects of labour market policy in the broader sense

The forms and weightings of the labour market instruments used represent the basic conditions of the national labour markets. Which effects these characteristics can have is shown in the reforms carried out in various OECD states aimed at greater labour market flexibility, which had very different results. Thus it is possible to divide the OECD countries into three groups on the basis of the development of their unemployment figures in the last ten years: the "successful" countries, which include among others Great Britain, New Zealand and the Netherlands; the "unsuccessful" states such as Germany, France and Australia; and the "stable" countries including the United States and Japan.

In their paper Michèle Belot and Jan van Ours examine the extent to which the changes in the instruments as decisive for can be regarded labour market developments. According to OECD reports, the "successful" countries have the common feature that they carry through an extensive programme that sees all of the labour market instruments as a system of interactive elements and therefore takes into account the combination of individual components and their effects. Particularly the positive, complementary effects of labour market policy intervention in these elements on the development of the unemployment figures are of interest here.

The paper by Belot and van Ours is based on data of the last 35 years from 18 OECD states. The authors concentrate on institutional conditions and their interplay. The paper deals with the cooperation between labour market policy players and political authorities as well as with the relationship between unions and employers. The union density and union coverage are used as indicators, with the coverage giving the proportion of employees who are affected by collective agreement regulations. Furthermore the degree of centralisation of the wage negotiations is of importance. The normative environment of the labour markets is described in terms of the tax burden, in particular non-wage labour costs, existing minimum wages, working time regulations, the unemployment benefit system and active labour market policy.

With regard to the interactions between the individual labour market instruments the study obtains the following findings: there is a significant connection between the level of non-wage labour costs

and the degree of centralisation. Thus in countries with decentralised wage negotiations the tax burden has a far less negative effect on labour market development than in countries with centralised systems.

Another subject of the study is the level of non-wage labour costs in accord with the ratio of unemployment benefits to net wages. Estimates show in the assessment of the authors that the combination of high non-wage labour costs and a high alternative income rate worsen the labour market climate by means of additional rigidities. With a simulation using the data set of the Netherlands, a member of the "successful" group, Belot and van Ours draw the conclusion that changes in this pair of components explain over 60% of the changes in the unemployment rate. For Sweden, Switzerland and Finland, from the "unsuccessful" group, however, the dramatic increases in unemployment in the past ten years can only be explained to a small degree by corresponding reforms in the combination of alternative income rate and non-wage labour costs.

Belot and van Ours emphasise in their study that the effects of a variation in the level of unemployment benefit will be felt considerably more strongly in countries with high non-wage labour costs. At the same time as implementing reforms in this pair of components, countries in the "successful" group of the 18 OECD states studied harmonised the combination of tax burden and the degree of centralisation of wage bargaining. The authors state, that there is no simple remedy to reduce unemployment permanently, but whilst "unsuccessful" states tackled their unemployment problem without a comprehensive strategy, the "successful" countries worked out a harmonious reform package that took interactions into consideration.

Hilmar Schneider and Reinhard Hujer's contribution to the workshop concerns the determinants of unemployment duration. In comparing numerous studies on this subject the authors notice that the studies are generally based on the most important determinants - the socio-economic factors such as age, education, previous experience with unemployment and the level and possible duration of unemployment benefit - but that they obtain very different results. This applies above all to Canada and Europe, where in some cases the statements concerning individual countries contradict each other, in contrast to the USA.

On the basis of data from the socio-economic panel, Schneider and Hujer now find for the Federal Republic of Germany, that differentiating between the initial effect of entry into unemployment benefit and the long-term consequences constitutes a large step towards solving the problem. In the German system there are three levels of support in the case of unemployment, previously also called the alternative income rate: in the first 12 up to 32 months it is unemployment benefit (Arbeitslosengeld) amounting to 63% of the last net income, followed by unemployment assistance (Arbeitslosenhilfe), which is lower at 53% (and only paid if there are no supporting members of the family), and finally the level with no support.

In their empirical analyses Schneider and Hujer find that the transition rate from unemployment into a new employment relationship is significantly higher in the first phase with the highest level of support than at a later time. In addition the entry value of the alternative income rate, in other words unemployment benefit, is a determinant of unemployment. They attribute this result to the expectation value that the economic subjects form about long-term income in the case of unem-

ployment. In this way unemployed persons are assumed to consider legally stipulated cuts in advance and thus their reaction at the time when cuts take place is minor compared to the initial effect. Furthermore a longer period of unemployment points to possible structural difficulties of the unemployed person in successfully seeking work and to increasing stigmatisation. Taken together these structural aspects, including an indicator function of effects not taken into account, bring about a reduction of the transition rate by almost two thirds between the period of receiving unemployment benefit and that of unemployment assistance.

In agreement with the results above, Schneider and Hujer establish that the duration of unemployment benefits does not significantly affect an individual's search strategies. Furthermore their estimates reveal that unemployment duration among German nationals is about one third lower than that of foreign nationals living in Germany. Unemployed people over the age of 55 will also have serious problems finding a job. The transition time into a new job is relatively short in the case of jobless individuals who have successfully completed vocational training, though the phase becomes longer again the longer the last employment relationship existed. Also related to the individual history, it is generally easier seeking work if in the last three years the individual has experienced several shorter phases of unemployment rather than one long one. The search for a new job will be all the more successful the lower the regional unemployment rate is.

Both of the studies, the one by Hujer and Schneider and the one by Belot and van Ours, find a connection between a high alternative income rate and a higher occurrence of unemployment. Both papers ignore welfare losses arising for risk averse workers and for actual unemployed people in the case of cuts of unemployment benefits.

Wagner and Jahn attend to a quite different topic in their study. They compare two methods for matching supply and demand on the labour market. They compare the public employment services (PES) with the open search labour market, where job vacancies are advertised and job-seekers can apply. Depending on the interplay between the two competing methods, their model portrays firstly a *laissez-faire* economy (only active search by the subjects), secondly an economy in which there is only the PES or thirdly a mixed economy. The analysis carried out is based on the one hand on a theoretically substantiated formal model, on the other hand on simulation studies in which the open parameters of the theoretical model are based on values equivalent to the values estimated for the empirical situation of the Federal Republic of Germany - as far as these are available.

In the result the bargaining power of the job-seekers is improved by the introduction of public employment services. The negotiated wages rise but the incentive of unemployed people to search for jobs independently is reduced, since it is associated with costs. On the whole the unemployment rate decreases compared with the *laissez-faire* economy, and per capita consumption increases.

Hiring subsidies increase the success rate of the PES, but also crowd out the applicants from outside. The dynamics of the open labour market suffers under this, aggregate unemployment grows and per-capita consumption falls. In the model used here an instrument of active labour market policy that has hardly been implemented has exactly the opposite effect to that above: bonus payments to newly hired workers who have found their job as a result of their own search efforts. As a result of relatively strong effects this system is self-financing. Penalties for not keeping to agree-

ments with the employment service also have a positive effect on the unemployment rate of the job-seekers who do not belong to the target group. Wagner and Jahn do not find any confirmation of the thesis that is often stated that subsidies are more effective if they are targeted more precisely towards certain problem groups. Instead of this kind of support it is more effective to promote active search efforts.

The most important instrument of active labour market policy is public job placement, including further training measures etc. It depends on the reactions of the active job-seekers whether these measures will have crowding out effects or will have a positive effect on unemployment. Also the unemployed who do not belong to the target group are influenced as the advertised vacancies on the open labour market depend on these reactions. Moreover in the case of intervention in the existing system, the interactions between the markets for skilled and unskilled workers, whose interplay depends on the measures mentioned above, have to be taken into consideration.

In his study on output evaluations, objective formulation and evaluation of employment promotion in Germany, Christian Brinkmann examines the consequences of new legal regulations. As a result of the introduction of the Social Code III in 1998, a number of new developments were stimulated. A new promotion philosophy is formulated, there are new types of measure, trends towards regionalisation and decentralisation occur. A central element of the new regulations is the obligation of employment offices to draw up so-called "*Eingliederungsbilanzen*", or output evaluations, by means of which their work and the effect their work has on the labour market is to be assessed.

Output evaluations include detailed and standardised input and output indicators. They are calculated for measures intended to improve the employment prospects of the unemployed. The core of the output evaluations are indicators on the employment status of each person, which are shown for a certain reference time. A certain period must have elapsed between the reference time and the end of the measure. It is assessed which proportion of all people who have participated in a measure of labour market policy is unemployed at the reference time.

The output evaluations are assessed as a step in the right direction. On the other hand the detailed regulations in the law do cause some problems. The output evaluations will only include gross results to begin with, which refer to the short-term integration success. Other desirable results, especially qualitative ones, are neglected. For example it is not assessed whether the employment in question is in line with the available qualification potential.

In a similar way problems arise defining the goals. Such goals are currently defined at all administrative levels of the Federal Employment Services (Bundesanstalt für Arbeit) in Germany. Such goals are used for the internal controlling process in the Federal Employment Services. Again controlling can only be effective with regard to indicators that are available in the short-term. This constitutes another fundamental problem.

An important trend in the restructuring of labour market policy is finally a development at EU level where benchmarking systems are being used very intensively. This concerns the identification and definition of best practise procedures with which the greatest possible success on the labour

market can be achieved. Policy and performance indicators should be integrated by way of feedback loops.

Closing considerations and conclusions

The analyses presented here produce an important result: mainly positive effects are found for the instruments of active labour market policy. This is true both of the analyses using data for the Federal Republic of Germany, and also for papers referring to the labour markets of other countries. The effects are quite different in strength. It is not possible to compare the countries and studies, however, as they all start out from different approaches, methods and data material. The studies pursue a method pluralism which is also appropriate since it is necessary to have statements on the complex research problem from different viewpoints. What the analyses presented here have in common is that they do not demand that the effects identified be put into monetary terms. At the present level of the studies this would be going too far.

The generally positive effect of the active labour market policy instruments does not make it unnecessary to study and evaluate individual measures, their combinations and their effects in different contexts and environments. Hujer and Schneider, Belot and van Ours emphasise effects of labour market policy which might increase unemployment. With regard to the individual motivation of job-seekers, Curti notes that interested participants benefit far more from the programmes than those who are present involuntarily. Lubyova and van Ours, too, determine considerable differences in the differently characterised participants as regards the rates of transition into permanent employment. This should be taken into account in the planning of labour market policy from the point of view of efficiency, as should targeting the advisory services towards the needs of as many as possible of the people affected (Sheldon). Wagner and Jahn find positive effects of bonuses paid for successful independent job-search activities. This instrument is often recommended but rarely used. The authors prefer promoting active search efforts to paying subsidies for problem groups. Mahy et al. recommend that small establishments be taken more into account for appropriate wage subsidies in Belgium, since in this case the desired effect of actual new recruitments of long-term unemployed people - in contrast to restructuring and substitutions of workers - is achieved more often than it is when larger firms are subsidised. With regard to increasing efficiency in employment services themselves, Sheldon demands an expansion of the exchange of information between the individual branch offices in Switzerland's public network in order to enhance efficiency. Numerous offices are too small to achieve an optimal utilisation of the resources available and therefore the co-operation and communication with public employment services in other places is of vital importance for the matching efficiency; demarcation tendencies should be counteracted.

Finally Brinkmann tells us not to forget qualitative aspects in the debate about quantitative indicators and the "hard" evaluation of the efficiency of measures which is based on them. In his opinion analyses using the usual indicators come across limits that we need to be aware of.

References (papers presented at the EALE Conference):

Note: The numbers associated with the single references give the classification in the conference program and in the EALE CD-ROM.

John Adams, Malcolm Greig, Ronald W. McQuaid (Napier University, Edinburgh, United Kingdom)
MISMATCH AND UNEMPLOYMENT IN LOCAL LABOUR MARKETS (18.1.2)

Piet Allaart (OSA Institute for Labour Studies, Tilburg, The Netherlands)
ON THE ESTIMATION OF JOB CREATION AND JOB DESTRUCTION FROM SURVEY DATA (18.3.2)

Mahmood Arai (National Institute of Economic Research, Stockholm University, Sweden),
Fredrik Heyman (National Institute of Economic Research, Stockholm School of Economics, Sweden)
PERMANENT AND TEMPORARY LABOUR: JOB AND WORKER FLOWS IN SWEDEN 1989-1998 (18.3.1)

Michèle Belot, Jan van Ours (Tilburg University, Center for Economic Research, The Netherlands)
INSTITUTIONS AND UNEMPLOYMENT IN OECD COUNTRIES (19.2.3)

Giuseppe Bertola (European University Institute, Università di Torino, Italy)
LABOUR MARKETS IN THE EUROPEAN UNION

Paul Bingley (Center for Labour Market and Social Research, Aarhus University, Denmark),
Tor Eriksson, Niels Westergaard-Nielsen (CLS, Aarhus School of Business, Denmark),
Axel Werwatz (CLS, Institute of Statistics, Humboldt University, Berlin, Germany)
BEYOND „MANUCENTRISM“ - SOME FRESH FACTS ABOUT JOB AND WORKER FLOWS (4.2.3)

Ruth Brand (University of Hannover, Germany), **Stefan Bender, Susanne Kohaut** (Institute for Employment Research IAB, Germany)
POSSIBILITIES FOR THE CREATION OF A SCIENTIFIC-USE FILE FOR THE IAB-ESTABLISHMENT-PANEL
(18.1.3)

Sarah Bridges (University of Newcastle Upon Tyne, United Kingdom)
PROMOTION AND FAST-TRACKING: AN EMPIRICAL ANALYSIS USING FIRM MICRO DATA (11.2.1)

Christian Brinkman (Institute for Employment Research IAB, Germany)
OUTPUT EVALUATION AND GOALS FOR LABOUR MARKET RELATED OUTCOMES TO CONTROL EMPLOYMENT
PROMOTION IN GERMANY (19.2.1)

Felix Büchel (Max Planck Institute for Human Development, Germany)
THE EFFECTS OF OVEREDUCATION ON PRODUCTIVITY IN GERMANY - THE FIRMS' VIEWPOINT (20.1.3)

Monica Curti (Federal Office for Economic Development and Labour, Switzerland)
EVALUATING ACTIVE LABOUR MARKET POLICY - THE SWISS EXPERIENCE (19.1.2)

Kristin Dale (Adger College, Norway)
WAGE EMPLOYMENT VERSUS FAMILY BASED SELF-EMPLOYMENT IN A REGIONAL PERSPECTIVE (12.2.3)

Henri L.F. De Groot (Free University of Amsterdam, The Netherlands)
THE DETERMINATION AND DEVELOPMENT OF SECTORAL STRUCTURE (20.2.3)

Sophie Delaigle, Olivier Lohest (Université Catholique de Louvain (UCL), IRES, Belgium)
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Martin Eichler, Michael Lechner (University of St. Gallen, Switzerland)
AN EVALUATION OF PUBLIC EMPLOYMENT PROGRAMMES IN THE EAST GERMAN STATE OF SACHSEN-
ANHALT (5.2.1)

Armin Falk, Ernst Fehr (University of Zurich, Switzerland)
FAIR WAGES AND UNEMPLOYMENT

Martin Falk (Centre for European Economic Research ZEW, Germany), **Katja Seim** (Yale University, USA)
WORKERS' SKILL LEVEL AND INFORMATION TECHNOLOGY: EVIDENCE FROM GERMAN SERVICE FIRMS
(4.3.2)

Ernst Fehr, Simon Gächter (Institute for Empirical Research in Economics, Switzerland)
RECIPROCITY AND ECONOMICS - IMPLICATIONS OF RECIPROCAL BEHAVIOUR FOR LABOUR MARKETS

Cees Gorter (Free University Amsterdam, The Netherlands), **Guillemette de Larquier** (Université de Paris X, France)
LABOUR MARKET DYNAMICS IN A HETEROGENEOUS MARKET (20.1.2)

Thomas Gries, Stefan Jungblut, Henning Meyer (University of Paderborn, Germany)
JOB MATCHING, STRUCTURAL UNEMPLOYMENT AND GROWTH (20.1.1)

Pasi Holm, Pekka Sinko, Pekka Tossavainen (Government Institute for Economic Research, Finland)
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Pekka Ilmakunnas (Helsinki School of Economics, Finland), **Mika Maliranta** (Statistics Finland)
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Edvard Johansson (Swedish School of Economics and Business Administration, Finland)
DETERMINANTS OF SELF-EMPLOYMENT DURATION - EVIDENCE FROM FINNISH MICRO-DATA (4.4.4)

Ella Kállai (Université de Paris I, France, CERGE-EI Prague), **Iulia Traistaru** (University of Bonn, Germany)
CHARACTERISTICS AND TRENDS OF REGIONAL LABOUR MARKETS IN TRANSITION ECONOMIES: EMPIRICAL EVIDENCE FROM ROMANIA (12.1.4)

Andreas Kopp (Kiel Institute of World Economics, Germany)
ADAPTIVE BEHAVIOR, CHOICE OF RESIDENTIAL LOCATION AND LOCALIZATION OF LABOR MARKETS
(12.2.4)

Alan B. Krueger (Princeton University, USA)
FROM BISMARCK TO MAASTRICHT: THE MARCH TO EUROPEAN UNION AND THE LABOR COMPACT

Laura Larsson (Uppsala University, Office of Labour Market Policy Evaluation, Sweden)
EVALUATION OF SWEDISH YOUTH LABOUR MARKET PROGRAMMES (5.2.3)

Michael Lechner (SIAW, University of St.Gallen, Switzerland), **Friedhelm Pfeiffer, Hannes Spengler, Matthias Almus** (Centre for European Economic Research ZEW, Germany)
THE IMPACT OF NON-PROFIT TEMPING AGENCIES ON INDIVIDUAL LABOUR MARKET SUCCESS IN THE WEST-GERMAN STATE OF RHINELAND - PALATINATE (19.3.2)

Martina Lubyova (Tinbergen Institute, CERGE-EI, Slovak Academy of Sciences, Slovak Republic), **Jan C. van Ours** (Tilburg University, The Netherlands)
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Benoît Mahy (Université de Mons Hainaut, Belgium), **Erik Nyberg, Jonas Mansson** (Växjö University, Sweden)
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Joan Muysken, Bas ter Weel (Maastricht University, MERIT, The Netherlands)
OVEREDUCATION, JOB COMPETITION AND UNEMPLOYMENT (20.2.2)

Walter Oberhofer (University of Regensburg, Germany), **Uwe Blien, Alexandros Tassinopoulos** (Institute for Employment Research IAB, Germany)
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Anneleen Peeters, F.W.O. Vlaanderen (Katholieke Universiteit Leuven, Belgium),
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Martin T. Robson (University of Newcastle upon Tyne, United Kingdom)
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George Sheldon (University of Basle, FAI, Switzerland)
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Dennis J. Snower (University of London, United Kingdom)
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(Erasmus Centre for Labour Market Analysis ECLA, The Netherlands)
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Joachim Wagner (University of Lueneburg, Germany)
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Thomas Wagner (University of Applied Sciences, Nuernberg, Germany), **Elke J. Jahn** (University Erlangen-Nuernberg, Germany),
Substitution and Crowding-out Effects of Active Labor Market Policy (5.2.4)

Appendix



The *Executive Committee of the EALE* chose the themes of the Conference and did the selection of papers presented in Regensburg. Its members were in 1999:

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The papers published in this series:

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