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Stephan Lothar Thomsen

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Evaluating the Employment Effects of Job Creation Schemes in Germany



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Preface

This book was written during my time as research assistant at the Department of Economics and Business Administration at Johann Wolfgang Goethe University in Frankfurt/Main and accepted as doctoral dissertation. It was undertaken within the joint research project “Eingliederungseffekte und weiterer Nutzen von ABM und SAM für die Geförderten unter besonderer Berücksichtigung von ‘SAM für Ältere’” (Effects of Job Creation and Structural Adjustment Schemes) which was conducted by the Chair of Statistics and Econometrics and the Institute for Employment Research in Nuremberg.

I would like to thank Prof. Dr. Reinhard Hujer for initiating and supporting this thesis and supervising me with encouragement. It was his permanent lobbying for evaluation research in Germany that made the use of the administrative data of the Federal Employment Agency possible for the evaluation of the employment effects of job creation schemes. I am also very thankful to Prof. Bernd Fitzenberger, Ph.D. who did not hesitate to act as the second thesis supervisor. For valuable help with the data I am indebted to Christian Brinkmann, Elmar Kellner, Steffen Kaimer, Melanie Stamm and the team at the Institute for Employment Research. Warm thanks go to my former and current colleagues Dr. Marco Caliendo, Dr. Stefan Kokot, Dr. Dubravko Radić, Paulo Rodrigues, Sandra Vuletić and Christopher Zeiss. Thanks also to Birgit Andres-Kreiner, to all our student research assistants and to Romy Weiland for her proofreading.

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Mannheim, November 2006

Stephan Lothar Thomsen

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Introduction

Unemployment is a severe problem in Germany. In 2004, the unemployment rate amounted to 20.1 in East and 9.4 percent in West Germany (Bundesagentur für Arbeit, 2005). Unemployment causes major economic and social damage. On the macro level, unemployment represents an inefficient allocation of labour and human capital to the economy. Therefore, the economy's production capacity is not fully utilised. On the micro level, unemployment disables persons from earning a living on their own.¹ The Federal Employment Agency² (*Bundesagentur für Arbeit*, FEA) spends substantial amounts of the annual fiscal budget to overcome the unemployment problem. In particular, the use of active labour market policy (ALMP) programmes should help to balance labour supply and demand. There is a variety of programmes that aim at adjusting the human capital of workers and unemployed persons to the demands of the market, e.g., vocational training programmes and training courses, or are used to support the creation of new jobs, e.g., wage subsidies and job creation schemes.

Job creation schemes have been an important measure until the early 2000s. From 1997 to 2003, over 23 billion Euro were spent on job creation schemes, and approximately 1.6 million participants joined the programmes. Job creation schemes are a kind of subsidised employment and aim at improving the employability of unemployed persons with barriers to employment. Although efforts of the FEA were immense, scepticism about the effectiveness of the programmes in order to improve the employability of the participants increased due to a permanently bad labour market situation.

These doubts are not specific to Germany. For example, Heckman, LaLonde, and Smith (1999) point out that previous evaluations in OECD countries indicate that

¹ Although German social security generally prevents the unemployed from getting poor, the majority of them suffers from financial difficulties. In addition, unemployment is often followed by social exclusion and a decay of human capital. Furthermore, it may indicate a break in the professional career, induce psychosocial and physiological stress, and in some cases may heighten the crime rate and prevent the occupational socialisation in particular for younger unemployed persons. For that reason, unemployment is a heavy burden for the economy (see, e.g., German Council of Economic Experts, 1994).

² Until the end of 2003: *Bundesanstalt für Arbeit*.

ALMP programmes usually have at best a modest impact on participants' labour market prospects, but at the same time there is a considerable heterogeneity in the impact of these programmes. This is also a common finding in the recent evaluation literature of ALMP programmes in Europe (see, e.g., the overviews by Martin and Grubb, 2001, for OECD countries; Hagen and Steiner, 2000, for Germany; or Calmfors, Forslund, and Hemström, 2001, for Sweden). Whereas ALMP were seen as a reasonable opportunity to reduce and avoid unemployment for a long time, the international experiences with the implemented programmes show a mixed picture, and the majority of programmes seem to be ineffective in terms of their goals. For that reason, international evidence on the effectiveness of ALMP suggests that programmes should be well-targeted to the needs of the individual job-seekers and the labour market, and that treatment should start as early as possible in the unemployment spell (OECD, 1998). The aim of this study is to evaluate the employment effects of job creation schemes in Germany with respect to these two suggestions. My first question asks how programme effects differ with respect to the timing of treatment in the individual unemployment spell. The second question of my analysis considers a more adequate targeting of the programmes to the needs of the unemployed individuals.

Evaluation of programme effects is not an easy task. The individual causal effect of a programme is defined as the difference of the value of the participant's outcome in the current situation and the value of the outcome in a situation where the participant has not joined the programme. Since an individual cannot be in both states at the same time, one could never observe both states simultaneously for the same individual. Therefore, the outcome for the participants in the situation without training has to be estimated by using information of non-participating individuals, i.e. a comparison group. However, if the selected non-participants differ from the participants in relevant characteristics, treatment effects may be biased, and they could not be used as the comparison group. Thus, it is essential for evaluation that participants and non-participants are identical in all relevant observable characteristics that jointly determine programme participation and labour market outcomes. In addition, when using administrative data to evaluate the employment effects one has to apply a non-experimental evaluation approach. Since the selection process into programmes is non-random, ignoring the nature of the data may lead to selection bias.

I use propensity score matching to solve the selection problem according to Rosenbaum and Rubin (1983b). The basic idea of matching is to find, in a large group of non-participants, those individuals who are similar to the participants in all relevant observable pre-programme characteristics. These relevant characteristics are summarised in the estimated propensity to participate in the programme (propensity score). Thus, matching resembles an experimental control group in one key respect: The distribution of the counterfactual outcome of the participants is the same as the observed distribution of the outcome of the comparison group, conditional on the propensity score. Since matching methods concern themselves solely with selection on observable variables, they require very rich data in order to make the estimates credible. The main advantage of the method of matching is due to two properties of the approach. First, matching is non-parametric. Therefore, no particular distribution

has to be assumed. Second, matching is highly flexible. It may be combined with other methods or may be used to consider further aspects of evaluation, e.g., evaluation of the effects for sub-groups or with respect to the timing of treatment. Recent empirical studies on evaluation of ALMP programmes in comprehensive systems like Sweden (Sianesi, 2004), Switzerland (Steiger, 2004) or Germany (Fitzenberger and Speckesser, 2005) have emphasised the importance of the timing of treatment in the individual unemployment spell for the estimation of the treatment effects.

I do so by applying the approach by Sianesi (2004). She suggests discretising the unemployment duration and estimating the treatment effects by a series of matching estimators. For different durations of unemployment prior to the start of the programmes, treatment effects are estimated separately. Thus, the estimated effects provide a picture of the effects with respect to the timing of treatment. However, it has to be mentioned that this approach does not look at any interdependencies between the individual groups under analysis; and effects with respect to the timing of treatment can only be compared descriptively. Fortunately, I am able to use unique data derived from the final version of the programme participants master data set (MTG) of the Institute for Employment Research (IAB) that allow us to analyse the employment effects for entries in job creation schemes between July 2000 and May 2001 until 30 months after programmes have started. Moreover, with these rich data at hand, considering explicitly the timing of treatment in the individual unemployment spell is possible.

A number of empirical studies have been conducted to remove the uncertainties about the effectiveness of job creation schemes in Germany. The earlier studies are all based on survey data sets. Drawing policy-relevant conclusions from the results is problematic since those survey data have several shortcomings. First, the data cover a small number of observations only. Therefore, taking account of heterogeneity in the treatment effects is not possible in the estimations. Second, although the data are very informative due to a large number of attributes to describe the labour market situation of the individuals, inexact information on times of treatments as well as on the (un)employment histories of individuals makes the interpretation of the estimates difficult. Third, as they concentrate on East Germany, evidence for West Germany is missing in the earlier studies.

With the enactment of Social Code III (*Sozialgesetzbuch III*, SGB III) as the legal basis, output evaluation of all ALMP instruments became mandatory. Moreover, the legislator postulated the liberalisation of administrative data for scientific research. Subsequently, administrative data have been made available for researchers making it possible to evaluate the effects of job creation schemes (see, e.g., Hujer, Caliendo, and Thomsen, 2004, or Caliendo, Hujer, and Thomsen, 2004), but also of vocational training programmes (see, e.g., Lechner, Miquel, and Wunsch, 2005a; 2005b, Fitzenberger and Speckesser, 2005, and Hujer, Thomsen, and Zeiss, 2006b).³ The major advantage of these administrative data is that they contain a large number of participants allowing effect heterogeneity to be considered. The studies using administrative data to evaluate the employment effects of job creation schemes in

³ The studies evaluating vocational training focus on programmes carried out before 1998.

Germany are based on a prototype version of the MTG of the IAB that contain rich information to characterise the individuals' labour market situations. However, these data cover one single entry month of job creation schemes only (February 2000). Although different sources of effect heterogeneity are regarded, i.e. individual, sectoral and regional heterogeneity in the employment effects, possible differences in the allocation of unemployed persons to programmes due to the timing of treatment in the unemployment spell or changes in the economy (seasonal differences) could not be considered.⁴

Another aspect that has gained interest in the evaluation literature recently refers to the role of the allocation mechanisms for the programme effects. The results of, for example, Caliendo, Hujer, and Thomsen (2006a; 2006c) indicate that the average employment effects for the participating individuals of job creation schemes are negative. Possible reasons may be a poor quality of the programmes in association with often cited stigma and locking-in effects, but also inefficiencies in the allocation of unemployed persons to the programmes. Since programme effects are heterogeneous, negative mean impacts do not necessarily imply negative effects for all of the participating individuals. Therefore, identifying those individuals who gain from participation is an obvious opportunity to improve their future efficiency, i.e. target the programmes to those individuals who benefit.

Answering this question will be the second aspect I examine in this study. To do so, I use data on participants in job creation schemes who have started the programmes in February 2000. In the first step, treatment effects are estimated for a selection of special target groups of the labour market like long-term unemployed persons or individuals without professional training. After that, I construct a simple indicator called *target score* based on the individual's number of disadvantages on the labour market to analyse whether programme effects differ corresponding to the individual labour market obstacles. If programmes are tailored to the needs of the most disadvantaged, one would expect stronger effects for persons with a higher *target score*. Finally, I use the estimated participation probability to answer the question whether a higher participation probability correlates with a higher programme effect.

The study proceeds as follows. Chapter 2 presents some notes on the relevance of job creation schemes in Germany. Due to the clear differences of the labour market in West and East Germany, I start with a brief overview of the development since German Unification. Further topics of this chapter are the role of job creation schemes within the variety of ALMP programmes in Germany and the empirical and institutional arrangement. After summarising the findings of previous empirical studies evaluating the effects of job creation schemes in Germany, I discuss intended and possible impacts of job creation schemes with a distinction between the micro- and macroeconomic level. Chapter 3 presents the methodological framework for my evaluation. The evaluation approach in the static setting is used to discuss the fundamental evaluation problem, the parameter of interest, the problem of selection bias

⁴ See Caliendo, Hujer, and Thomsen (2006a) for an analysis considering individual and regional heterogeneity, and Caliendo, Hujer, and Thomsen (2006c) for different aspects of sectoral heterogeneity in the employment effects of job creation schemes in Germany.

and different identifying assumptions invoked in the literature to deal with it. After that, the matching estimator and its identifying assumptions are discussed as well as the extension to the dynamic setting that allows to consider the timing of treatments. Moreover, several aspects to be considered in empirical implementation are discussed at the end of the chapter. Chapter 4 describes the preparation and content of the data used for the empirical analyses. The results for the estimated employment effects of job creation schemes are presented and discussed in chapter 5. The analysis considers the timing of treatment in the individual unemployment spell explicitly and takes account of regional differences by estimating the effects for West and East Germany separately. The results for the second evaluation question are given in chapter 6. It provides an approach identifying effect heterogeneity in the employment effects to improve the efficiency of job creation schemes in Germany. The last chapter concludes this study.

Some Notes on the Relevance of Job Creation Schemes in Germany

2.1 Overview

In this chapter, I will discuss the relevant empirical and institutional issues of job creation schemes in Germany. For a reasonable evaluation of the impacts, a careful characterisation of the programmes in analysis is needed. To do so, I will start with a brief characterisation of the German labour market since German Unification in 1990 in section 2.2. Reviewing the development of the labour market is necessary as on the one hand, the situation in East and West Germany is clearly separated, and on the other hand, relevance and efficiency of job creation schemes depend on the actual situation of the labour market. Section 2.3 provides an overview of German ALMP and a description of the legal basis and institutional framework of job creation schemes. To base my evaluation of programme impacts on an adequate economic model, it is important to know the main determinants of participation and outcomes. Here, a particular focus is on the admission criteria and the allocation mechanism that are essential for modelling the participation process and for the construction of the comparison group. Furthermore, the admission criteria are a constituent part for the participants' structure. As my empirical analyses in chapters 5 and 6 are based on programmes that have started during the years 2000 and 2001, I will focus on this time span in particular.

To improve the quality of my characterisation, a review of the experiences with job creation schemes in East and West Germany from previous empirical studies is given in section 2.4. Careful consideration of the results of these studies may help to obtain possible sources of heterogeneity and distinctive features of the programmes. Section 2.5 discusses the possible effects of job creation schemes taking account of the results from the previous sections of this chapter. The final section summarises the findings and implications.

2.2 A Brief Characterisation of the German Labour Market Since German Unification

The German Unification in 1990 reflects an incisive point for social, political and individual life in Germany. In consequence of the collapse of the Command Economy of the German Democratic Republic (GDR) two countries, which differed widely not only in their institutional and constitutional arrangements, but also in their monetary systems and real economic conditions, were unified (Siebert, 1991). In the last 15 years since German Unification, massive efforts have been made in social and labour market policy to smooth the differences of the labour markets between East and West Germany. However, the situation is still clearly separated, and talking of the 'German labour market' might be misleading. The substantial differences in the regional labour markets in eastern and western Germany are to some extent the legacy of the former countries, but also a result of labour market and economic policy of the past years. The following description will characterise the labour market development in East and West Germany since 1990.

To point up some of the differences, Tables 2.1 to 2.3 present some selected figures of the labour market for the years 1991 to 2003 with a distinction between West and East Germany. Table 2.1 contains information on population, unemployment, unemployment rates and GDP growth. The population figures cover the resident population, the labour force potential and the working population. Whereas the resident population gives an idea of the relative size of both parts, labour force potential and working population are indicators for the economic activity. The unemployment category comprises the number of openly unemployed persons, of long-term unemployed individuals, of hidden unemployed persons and the sum of the open and hidden unemployment. Open unemployment is defined as the sum of all registered unemployed persons at the FEA. Hidden unemployment refers to the concept of the German Council of Economic Experts (*Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung*). It contains all persons who participate in labour market programmes and would have been unemployed without those subsidies. Since they do neither receive unemployment benefits nor assistance, these persons are not registered as unemployed persons. The number of long-term unemployed persons is added to map the persistence of unemployment. Furthermore, the GDP growth in both parts as well as the productivity and gross wages per employee for East Germany in relation to the western level are displayed as indicators for the economic situation and development.

Table 2.2 provides a selection on the deployment of several (active) labour market policy programmes since German Unification. The choice was made according to the importance of the single programmes in terms of the number of promoted individuals and the corresponding expenditures. As unemployment also depends on the structure and development of the labour force potential, Table 2.3 tries to summarise the changes of the main determinants for the labour force potential following Bundesanstalt für Arbeit (2001) for three periods (1990 to 1993, 1994 to 1997, and 1998 to 2000). These determinants are inner German migration, commuters' balance, im-

Table 2.1: Selected Figures of the German Labour Market (1991-2003)

Year	1991	1993	1995	1997	1999	2001	2003
West Germany¹							
Population							
Resident Population ²	64,485	65,740	66,342	66,688	66,946	65,353	65,619
Labour Force Potential ³	34,013	34,824	35,147	35,562	35,936	35,580	35,830
Working Population	31,069	31,120	30,850	30,814	31,507	31,515	31,091
Unemployment							
Open Unemployment	1,689	2,270	2,565	3,021	2,756	2,321	2,753
Long-Term Unemployed	455	594	828	1,057	963	729	857
Hidden Unemployment ⁴	786	1,006	964	1,027	1,030	1,019	1,039
Open and Hidden Unemployment	2,475	3,276	3,529	4,048	3,786	3,340	3,792
Unemployment Rates							
Open Unemployment	5.7	7.3	8.3	9.8	8.8	8.0	9.3
Open and Hidden Unemployment	7.9	10.3	11.2	12.9	<i>na</i>	<i>na</i>	<i>na</i>
GDP growth ⁵	5.0	-2.6	1.4	1.5	2.1	1.1	-0.1
East Germany¹							
Population							
Resident Population ²	15,790	15,598	15,476	15,369	15,217	17,118	16,913
Labour Force Potential ³	9,025	8,781	8,615	8,493	8,333	9,520	9,485
Working Population	7,385	6,245	6,532	6,380	6,435	7,396	7,155
Unemployment							
Open Unemployment	913	1,149	1,047	1,364	1,344	1,532	1,624
Long-Term Unemployed	<i>na</i>	396	344	462	469	525	674
Hidden Unemployment ⁴	1,810	1,573	1,215	928	931	748	599
Open and Hidden Unemployment	2,723	2,722	2,262	2,292	2,275	2,280	2,223
Unemployment Rates							
Open Unemployment	11.1	15.1	14.0	18.1	17.6	18.8	20.1
Open and Hidden Unemployment	29.5	30.5	26.2	27.1	<i>na</i>	<i>na</i>	<i>na</i>
GDP growth ⁵	-19.2	8.7	3.5	0.5	1.8	-0.5	-0.2
Productivity ⁶	32.9	39.0	42.5	44.6	67.7	69.1	<i>na</i>
Gross wages per employee ⁶	57.5	74.2	79.1	79.8	80.9	81.2	81.2

na = not available

¹ West Germany refers to federal states that constituted the former Federal Republic of Germany (including West Berlin until 1999). East Germany refers to the federal states that constituted the former German Democratic Republic (including East Berlin until 1999, and Berlin since 1999).

² Resident population of West Germany including West Berlin until 2001; East Germany including East Berlin until 2001, and Berlin since 2001.

³ Figures for the labour force potential are based on estimations by the IAB.

⁴ The hidden unemployment covers all unemployed persons who participate in labour market programmes, do not receive unemployment benefits or assistance, and are therefore not registered as openly unemployed (German Council of Economic Experts).

⁵ All figures are in percent. GDP growth based on GDP constant 1995 prices. Productivity in GDP per hours worked in 1995 prices.

⁶ In relation to West Germany. Figures are taken from Wunsch (2005).

Sources: Bundesanstalt für Arbeit (2001), Bundesagentur für Arbeit (2004), German Council of Economic Experts (1999; 2000; 2002; 2003), Federal Statistical Office Germany.

migration from abroad, number of German resettlers from the Commonwealth of Independent States, and sum of demographic development and propensity to work.

I start the description of the development of the labour market with East Germany and describe the West German analogue afterwards. All numbers in the text refer to the figures of Tables 2.1 to 2.3 and the respective references.

2.2.1 Development of the East German Labour Market

For the characterisation of the East German labour market, it is useful to distinguish between three different periods of its development. The first period covers the years 1989/1990 to 1993 during which the East German labour market experienced an enormous employment reduction together with a strong increase of open and hidden unemployment. In the following years, 1994 to 1996, the labour market stabilised to some extent and the employment reduction of the first years after German Unification came to an end. However, since 1997 the development of the labour market has worsened again due to strong structural deficits of the East German economy.

Before German Unification the labour market of the former GDR was typical for the Command Economies in Eastern Europe at first sight. The characteristic elements were a full employment and a large labour market participation of women. However, it must be assumed that hidden unemployment amounted to 15 to 30 percent at a closer inspection (Bundesanstalt für Arbeit, 2001).¹ In 1989, the working population amounted to 9.8 million persons. As becomes obvious from the figures in Table 2.1, working population as well as labour force potential decreased dramatically until 1993. In that year, the working population was 6.25 million, which is (almost) 3.55 million less compared to 1989. In the same time, unemployment occurred for the first time. However, open unemployment increased only up to 1.15 million until 1993. The reason for this relatively small increase, compared to the employment reduction, was the massive deployment of labour market policy programmes and a strong East-West migration together with a large number of commuters to the West.

The employment reduction – and in consequence the rise of unemployment – was caused by several factors. The first factor was the obsolete capital and production stock. Siebert (1991) notes that 64 percent of the capital goods of the equipment in industry were older than 5 years and 21.1 percent were even older than 20 years. Furthermore, the capital stock was geared towards distorted environmental and energy costs. As the production and capital stock were oriented on the COMECON², many products were not able to compete internationally due to their poor quality, but also for environmental and safety reasons. Finally, 47.2 percent of the employment

¹ Hidden unemployment in the former GDR is not comparable to hidden unemployment as defined by the German Council of Economic Experts. Hidden unemployment contains all persons who would be unemployed if their occupations were not supported by governmental institutions. These are, for example, participants in ALMP programmes or persons in early retirement. As the majority of the former GDR occupations was public-sector sponsored, an explicit distinction between necessary and supported jobs is impossible.

² The Council for Mutual Economic Assistance (abbreviated COMECON or CMEA) was an international organisation of socialist countries for economic cooperation from 1949 to 1991. Members were the Soviet Union, the German Democratic Republic, Bulgaria, Cuba, Poland, Romania, Czechoslovakia, Hungary, Albania, Mongolia, Vietnam and Yugoslavia.

Table 2.2: Selected Figures on the Deployment of Labour Market Policy in Germany (from 1991 to 2003)

	1991	1993	1995	1997	1999	2001	2003
West Germany¹							
Early Retirement Schemes ²	122,408	129,030	148,148	131,053	112,186	139,328	281,319
Short-Time Work ²	145,009	766,935	128,059	133,363	91,608	96,146	160,496
Vocational Training Progr. ³	593,904	338,211	391,552	266,193	307,479	261,199	153,975
Training Courses ³	–	–	–	74,684	264,811	338,516	694,322
Job Creation Schemes ³	108,983	62,783	87,548	74,041	85,003	61,890	31,495
Struct. Adjustment Schemes ³	–	–	4,335	6,859	11,183	11,466	6,970
East Germany¹							
Early Retirement Schemes ²	555,000	852,000	376,884	137,586	89,077	85,658	145,204
Short-Time Work ²	1,616,224	181,428	70,521	49,490	27,039	26,729	34,876
Vocational Training Progr. ³	892,145	294,153	237,103	155,448	183,317	188,423	92,270
Training Courses ³	–	–	–	28,500	166,745	226,616	375,815
Job Creation Schemes ³	422,349	243,094	222,488	141,865	210,496	130,147	109,398
Struct. Adjustment Schemes ³	–	70,337	57,264	49,786	45,836	42,581	32,279

¹ West Germany refers to federal states that constituted the former Federal Republic of Germany (including West Berlin until 2001). East Germany refers to the federal states that constituted the former German Democratic Republic (including East Berlin until 2001, and Berlin for 2003).

² In yearly averages.

³ In entries.

Sources: Bundesanstalt für Arbeit (1993; 1996; 2001), Bundesagentur für Arbeit (2004).

were in agriculture, manufacturing, and goods-producing crafts (West Germany: 37.0 percent). Therefore, severe structural problems had to be expected for the transition to a market economy.

The second factor, which fortified the problems, was the 1:1 conversion of wages, salaries and pensions that led to a heavy burden for the competitiveness of the Eastern German economy. One consequence was the tripling of the export prices for goods. This increase in price resulted in a loss of the main sales markets. In addition, the liquidation of the former economic structure³ caused the losing of the domestic trade channels. As wages were set well above the full-employment, market-clearing level by collective bargain after conversion in the East, the advent of free trade placed the majority of firms in a severe price-cost squeeze (Akerlof, Rose, Yellen, and Henssenius, 1991). The wage settlements were not related to the economic conditions and productivity developments, but were simply set to catch up the pre-specified target of reaching parity with West Germany in 1994. Two main arguments were used for this policy. On the one hand, employment losses were viewed as inevitable and not related to wages at all, and on the other hand, East Germans would have migrated to the West on large scale and congest the already crowded labour and housing mar-

³ 316 Kombinate have been transformed into 8,000 legally independent firms by law (Siebert, 1991).

ket (Franz and Steiner, 2000). However, Akerlof et al. found that only few workers would have migrated to the West for higher wages, but for the lack of Eastern jobs.

The third factor was the sharp drop in demand for Eastern German products. East German consumers and firms diverted their spending away from East German consumption and investment goods towards previously unavailable Western goods on a large scale. For that reason, in particular the industrial sector in East Germany suffered from this development. Industrial production declined to one third on a quantitative basis and to one fifth on a value basis (Bundesanstalt für Arbeit, 2001). Besides, the primary sector experienced a strong employment reduction as well. An exception was the construction business; due to a strong backlog in demand on the one hand and a massive subvention on the other hand, this sector expanded.

Table 2.3: Development of the Determinants for the Labour Force Potential (balances in million persons)

	1990 to 1993		1994 to 1997		1998 to 2000	
	West	East	West	East	West	East
Migration ¹	+0.50	-0.50	+0.10	-0.10	+0.05	-0.05
Commuters ²	+0.33	-0.33	+0.36	-0.36	+0.42	-0.42
Immigration ³	+0.60	n.r.	+0.40	n.r.	+0.08	n.r.
German Resettlers ⁴	+0.50	n.r.	+0.40	n.r.	+0.14	+0.08
Demographic Development and Propensity to Work	+0.10	n.r.	+0.00	-0.20	+0.40	-0.25

n.r. = not relevant

¹ Migration refers to the balance of East-West and West-East migration.

² Commuters: Commuters' balance between East and West Germany.

³ Immigration refers to the number of immigrants from abroad. As asylum seekers do not receive an employment permission since 1997, the numbers reduced significantly.

⁴ German resettlers: With the opening of the borders in 1989/1990, resettlers from the Commonwealth of Independent States (CIS) were allowed to return to Germany.

Source: Bundesanstalt für Arbeit (2001), own view.

The changed situation affected the population in East Germany severely. To cushion the negative impacts of the German Unification (GDP growth in East Germany in 1991: -19.2 percent) and to preserve social peace, labour market policy programmes were implemented on a large scale. As becomes obvious from the figures of Table 2.2, especially early retirement schemes and short-time work were used to reduce open unemployment.⁴ Thus, the stock of short-time workers amounted to more than 1.6 million persons in 1991, but was reduced rapidly (1993: 181,428). The number of persons entitled to early retirement measures reached its peak in 1993 with about 852,000. Further important programmes were full-time vocational training programmes with 892,145 entries in 1991 and job creation schemes with 422,349.

⁴ The purpose of short-time work compensation is to avoid lay-offs due to temporary, unanticipated reductions in firms' labour demand. Until 1992, short-time work compensations were also paid if working hours were reduced to zero and even if it was clear that the reduction in labour demand was permanent (Wunsch, 2005).

Another aspect which was conducive to a relaxation of the tense situation of the labour market was the East-West migration in association with a large number of commuters. Particularly during the first years after German Unification, this migration reduced the labour force potential by 0.5 million in East Germany. The reduction was reinforced by the large number of commuters to West Germany that amounted to about 330,000 in 1993. The massive deployment of labour market policies together with the strong migration resulted in an open unemployment of about 913,000 (1991) to 1.15 million (1993). However, the hidden unemployment in East Germany amounted to 1.81 million in 1991 and 1.57 million in 1993 (Table 2.1). For that reason, the majority of East German workers experienced unemployment or labour market programmes. Bielenski, Brinkmann, and Kohler (1997) note that about three quarters of the East German labour force have been in a labour market programme between November 1989 and November 1994 at least once.

During the years 1994 to 1995, the labour market stabilised and recovered slightly. Since the East German economy had a weak export dependence only, there were no strong aftereffects of the global recession of the early 1990s determined by the collapse of the Warsaw Pact states and the oil-price shocks during and after the first Gulf War. During this period of stabilisation, employment increased up to 6.53 million in 1995. Reasons for this development were the ongoing expansion of the construction sector as well as an enlargement of the services sector. However, the industrial and public sector were still characterised by a continuing employment reduction. Due to a decrease in East-West migration compared to the first years after German Unification (0.1 million, Table 2.3), the labour force potential changed only slightly. Hence, the temporary release of the tense labour market situation is indicated by the reduced number of labour market programmes. Above all (see Table 2.2), the number of persons in short-time work (from 181,428 in 1993 to 70,521 in 1995), persons placed in early retirement (852,000 in 1993; 376,884 in 1995) and also the number of vocational training programmes (294,153 in 1993; 237,103 in 1995) decreased.

Due to the strong subvention to the construction sector in the early 1990s, the omission of these subventions resulted in a shrinkage of this oversized sector from 1996/97 onward. In consequence, employment decreased in the following years to 6.44 million in 1999. Although open unemployment increased (1999: 1.34 million), hidden unemployment remained constant at a level of about 0.9 million persons (Table 2.1). However, the structure of hidden unemployment differed compared to the past. Whereas the early retirement schemes were on the lowest level since German Unification (89,077 in 1999, Table 2.2), ALMP programmes experienced a particular emphasis (apart from short-time work). The most important programmes were vocational training programmes and training courses as well as public employment programmes, i.e. job creation schemes and structural adjustment schemes (see Table 2.2). Another reason for rising unemployment rates was the strong decrease of the labour force potential mainly due to the demographic development (apart from commuters and resettlers: -0.3 million between 1998 and 2000).

For the description of the development of the labour market after 2000 I have to rely on figures using the re-definition of the regions according to the geographic sit-

uation (figures in Tables 2.1 and 2.2 for the years 2001 and 2003). This re-definition accounts the former West Berlin (2.08 million residents, 2001) to East Germany. Therefore, the figures are not directly comparable and the only fact that could be established is a continuing decrease of hidden unemployment.

In summary, the development of the East German labour market since German Unification shows a mixed picture. On the one hand, there are positive aspects of the restructuring of the East German economy that should be mentioned. About 0.5 million new companies have been established with about 3.0 million jobs which are in line with the market (Bundesanstalt für Arbeit, 2001). In addition, the efficiency of labour increased significantly from 32.9 percent in 1991 to 69.1 percent in 2001 of the West German level. Due to that the strongest East German regions are comparable to the weakest West German ones, but there is still a large productivity gap between both parts. On the other hand, there are a number of apparent deficits as well. First, the relation of the gross-wages per employer in 2001 amounted to 81.2 percent of the West German level and was clearly above the productivity. Hence, there is still no self-contained economic basis in East Germany, and quick convergence to the western level is not expected. Second, the development of the number of long-term unemployed people shows that unemployment has become steadily more persistent. In 2003, 674,000 persons were long-term unemployed (Table 2.1). In relation to the number of 1.6 million unemployed people, this is a ratio of more than 40 percent. Finally, the difference in the labour force participation rate has to be mentioned: In contrast to the overall rate which is fairly equal in both parts (60 percent in East Germany, 61 percent in West Germany), about 72.2 percent of the East German women compared to only 62.1 percent of the West German women are willing to work (Bundesanstalt für Arbeit, 2001). The reader should bear this difference in mind in the empirical analyses below.

2.2.2 Development of the West German Labour Market

After having discussed the development of the East German economy and labour market since German Unification, I will review the West German analogue. Whereas East Germany experienced an economic slowdown and a massive employment reduction during the first years, the West German economy boomed (GDP growth in 1991: +5.0 percent, Table 2.1). This upswing was accompanied by an increase in employment in all sectors (except the primary one). The main reason for this development was the strong demand for consumption and industrial goods from East Germany, financed by massive West-East transfers which amounted to 200 billion Deutschmarks on an annual basis (Bundesanstalt für Arbeit, 2001). Although the labour force potential increased by about two million people during the years 1989 and 1993, mainly due to the strong East-West migration, the high level of commuters, but also due to immigration from abroad and the German resettlers from Commonwealth of Independent States (see Table 2.3), open unemployment decreased from 2.04 million (1989) to 1.69 million (1991). Open unemployment was higher in absolute numbers than in East Germany at that time, but hidden unemployment was clearly lower (786,000 in 1991). Thus, labour market policies were used more

sparsely than in the East. However, the rest of the world was affected by a strong recession during those years.

The aftereffects of this global recession reached the export-dependent West German economy in the years between 1993 (GDP growth: -2.6 percent) and 1997 when the demand for consumer durables from East Germany diminished. Moreover, the lower demand for German products from abroad together with an increase in price of the currency lead to new restrictions in monetary, budgetary, and foreign trade dependent policy. As a consequence, investments and economic growth in the following years were unsatisfactory – the end was a structural crisis that exceedingly affected the industrial sector. Thus, employment decreased from 31.12 million in 1993 to 30.81 million in 1997 while unemployment increased from 2.27 million to 3.02 million, which equals an unemployment rate of 9.8 percent. A further indicator for the crisis is the use of labour market policies. Whereas during the boom in 1991, about 145,000 persons were on short-time work; this figure amounted to almost 767,000 in 1993 (see Table 2.2). The number of job creation schemes supports this picture. As policy decisions for the use of ALMP programmes were highly centralised during those years, the effect of the boom as well as the recession were reflected in the number of programmes with a time lag. Whereas in 1991, the number of participants in job creation schemes amounted to 108,983, only 62,783 individuals were newly promoted in 1993. In 1995, the number increased again with 87,548 persons employed. A further consequence of the recession resulted in stricter rules for immigration.

A new temporary economic upswing characterises the end of the 1990s (1998 to 2001). The reasons for the bettering of the economic situation were a growing foreign and domestic demand as well as the boom of the New Economy. In particular, the services sector benefited from this development. Therefore, GDP growth exceeded 2 percent in 1999. Unemployment reduced to 2.32 million in 2001 (unemployment rate: 8.0 percent). With the introduction of SGB III as the legal basis for labour market policy in 1998, a stronger emphasis on active compared to passive labour market policies was postulated. The effects of this change become obvious by the figures of Table 2.2. In 1999, more individuals participated in active measures (vocational training programmes, training courses, job creation and structural adjustment schemes) compared to 1997, whereas the number of passive measures (early retirement schemes, short-time work) decreased. The effect of the stricter immigration rules was a clear decrease of immigrants (about 80,000 between 1998 and 2000).

However, economic growth decelerated following the collapse of the dot-com bubble and the slowdown of the world economy after September 11, 2001. The consequence was a new rise in unemployment to about 9.3 percent in 2003. To summarise the development, it has to be argued that the German economy suffers from the enormous costs of its high and persistent unemployment, which limits Germany's full participation in the recovery of the world economy as well (Wunsch, 2005).

2.3 Labour Market Policy in Germany and the Institutional Set-Up of Job Creation Schemes

2.3.1 Labour Market Policy in Germany

Labour market policy has a long tradition in Germany. Unemployment insurance (UI) was established in 1927 by the Job Placement and Unemployment Insurance Act (*Gesetz über die Arbeitsvermittlung und Arbeitslosenversicherung*). It is one of the main pillars of the German social insurance system besides health insurance, accident insurance, pension insurance, and the compulsory long-term care insurance. The legal basis for labour market policy has been reformed twice since that time, in 1969 with the introduction of the Work Support Act (AFG, *Arbeitsförderungsgesetz*), and in 1998 with the adoption of SGB III, the current legal basis. The most important innovation of the AFG was the introduction of ALMP programmes besides the pure provision of ‘passive’ income support during unemployment.

However, the AFG was adopted in a period of almost full employment. Due to the persistently high and rising unemployment, the law became more and more inadequate to achieve its main purposes (Lampert, 1989), even though it was amended repeatedly.⁵ In particular, after German Unification and the adoption of the AFG to Eastern Germany, the set-up of labour market policy was not capable anymore to reach the main purposes, namely the achievement of a high level of employment, the enhancement of the employment structure, and the promotion of economic growth (§1 AFG). Hence, a reform of labour market policy was necessary. Fertig and Schmidt (2000) argue that one reason for the divergence between policy instruments and needs of the labour market was a high degree of centralisation. The overall budget for ALMP programmes allocated to the local employment agencies (LEAs) as well as the budget shares received by individual measures of employment promotion were determined by the central advisory board of the FEA. Cross-subsidisation between policy measures was impossible. Thus, the system was highly inflexible to be adjusted to the heterogeneous circumstances in the labour office districts. A further reason was the concern of the legislator that the widespread belief in ALMP programmes as a way to create many new jobs was quite unrealistic, but that, quite the contrary, there was the possibility of endangering existing jobs by those measures.

Therefore, SGB III as the new legal basis for labour market policy in Germany was enacted in 1998.⁶ In contrast to the macroeconomic goals of the AFG, the law focusses on job-seekers who are unemployed or threatened by unemployment. The main emphasis lies on the prevention or reduction of unemployment or payment of income support during unemployment (§1 SGB III). To prevent the problems of the AFG, priority is given to job placement compared to other active and passive labour

⁵ Sell (1998) notes 115 amendments.

⁶ Sell (1998), Fitzenberger and Speckesser (2000) and Fertig and Schmidt (2000) discuss the relevant reforms of labour market policy and the consequences. Brinkmann (1999) deals with the introduction of decentralisation and regionalisation as well as the mandatory output evaluation of labour market policy. A more recent and comprehensive overview is given by Wunsch (2005).