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Unemployment in Germany and the Eurosclerosis Debate

Can the Hartz Reforms Induce Higher Employment?

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Abstract

Many European countries have experienced a significant increase of unemployment in recent years. This paper reviews several theoretical models that try to explain this phenomenon. Predominantly, these models claim a link between the poor performance of European labor markets and the high level of market regulation. Commonly referred to as the *Eurosclerosis* debate, prominent approaches consider insider-outsider relationships, search-models, and the influence of hiring and firing costs on equilibrium employment. The paper presents empirical evidence of each model and studies the relevance of the identified rigidities as a determinant of high unemployment in Europe. Furthermore, a case study analyzes the unemployment problem in Germany and critically discusses new reform efforts. In particular this section analyzes whether the recently enacted Hartz reforms can induce higher employment.

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List of Abbreviations

General

avg.	-	*Average*
comp.	-	*Compare*
et al.	-	*And others*
etc.	-	*Et cetera*
f.	-	*Following page*
ff.	-	*Following pages*
Fig.	-	*Figure*
i.e.	-	*For example*
Mio.	-	*Million*
p.a.	-	*Per annum*
Tab.	-	*Table*
vs.	-	*Versus*
W.	-	*West*

Organizations, Fixed Expressions

ABM	-	*Arbeitsbeschaffungsmaßnahme (publicly subsidized work program)*
AL 2	-	*Arbeitslosengeld 2 (new unemployment aid in Germany)*
BVG	-	*Berliner Verkehrsbetriebe (Berlin Public Transportation Company)*
DIW	-	*Deutsches Institut für Wirtschaftsforschung, Berlin*
EU	-	*European Union*
EU-15	-	*European Union, including members before 2004 enlargement*
EU-19	-	*EU-15 plus the Czech Republic, Hungary, Poland, and Slovakia*
FED	-	*Federal Reserve System, U.S. Central Bank*
GDP	-	*Gross Domestic Product*
GLS	-	*Generalized Least Squares*
GNP	-	*Gross National Product*
MRPL	-	*Marginal Revenue Product of Labor*
OECD	-	*Organization for Economic Cooperation and Development*
PSA	-	*Personal Service Agency*
SAM	-	*Strukturanpassungsmaßnahme (publicly subsidized work program)*

Countries

A	-	*Austria*	*IRL*	-	*Ireland*
AUS	-	*Australia*	*J*	-	*Japan*
B	-	*Belgium*	*L*	-	*Luxembourg*
CA	-	*Canada*	*N*	-	*Norway*
D	-	*Germany*	*NL*	-	*Netherlands*
DK	-	*Denmark*	*NZ*	-	*New Zealand*
E	-	*Spain*	*P*	-	*Portugal*
F	-	*France*	*S*	-	*Sweden*
FIN	-	*Finland*	*SZ*	-	*Switzerland*
GDR	-	*German Democratic Republic*	*U.K.*	-	*United Kingdom*
GR	-	*Greece*	*U.S./U.S.A.*	-	*United States of America*
I	-	*Italy*			

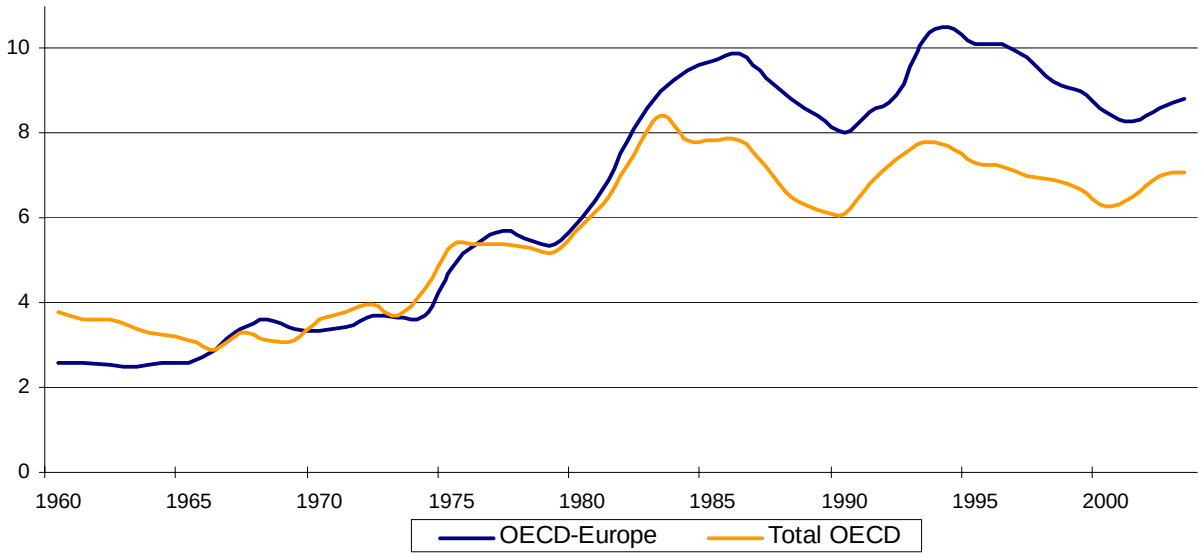
Mathematical Symbols

α	-	*Probability of dying*
β	-	*Discount factor*
λ	-	*Probability of losing a job*
μ	-	*Probability of accumulating (μ_e) or losing (μ_u) skills*
π	-	*Probability of receiving new job offer*
τ	-	*Tax rate*
Σ	-	*Sum*
F	-	*Distribution of available job offers*
h	-	*Skill level*
t	-	*Time variable*
V	-	*Value Function (V_b when entitled to benefits, V_0 otherwise)*
w	-	*Wage variable*

1. Introduction

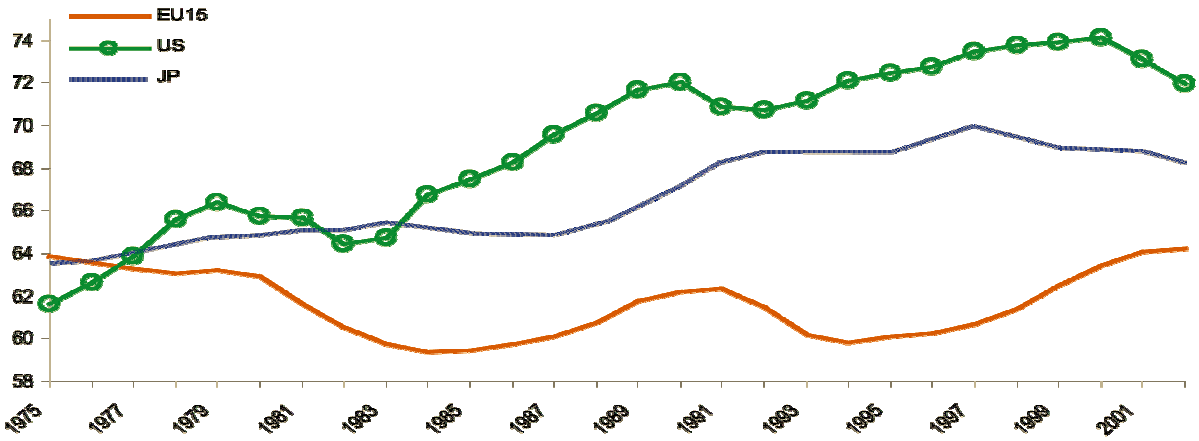
Unemployment has risen considerably in member countries of the Organization for Economic Cooperation and Development (OECD). Especially striking is the fact that roughly since the late 1970s unemployment in European OECD countries has consistently been higher compared to the rest of the developed world. During the past 20 years, this gap has constantly remained at around 2 percentage points. The poorer labor market performance of European countries is illustrated in both higher rates of unemployment and a lower level of employment. (comp. Fig. 1 and Fig. 2).

Fig. 1: Unemployment Rates* in European vs. Total OECD Countries



Source: Own illustration. Data: 1961-1977: OECD Labour Force Statistics; 1978-1994: OECD Employment Outlook (1995); 1995-2003: OECD Employment Outlook (2004).

Fig. 2: Employment Rates* in the European Union, Japan, and the U.S.A. (1975-2003)

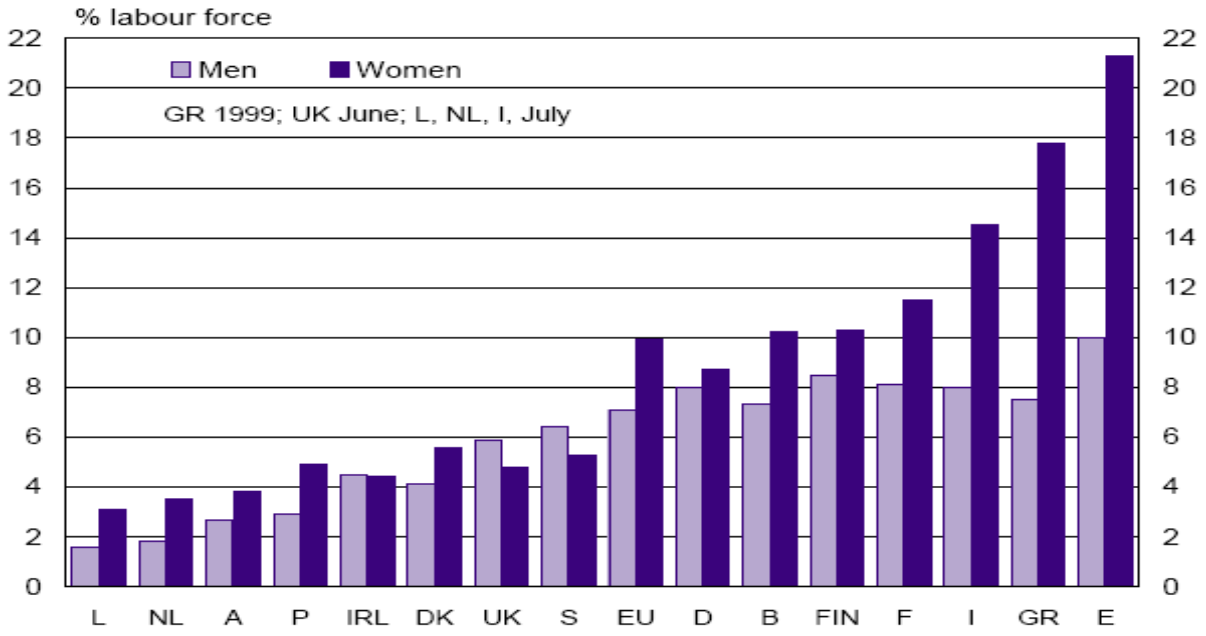


** percent of working age population.*
Source: European Commission (2003: 16).

The disparity between European[1] and non-European unemployment rates is even more astonishing as the composition of European OECD countries has changed over time; i.e., despite the fact that the Czech Republic, Hungary, Poland, and Slovakia became members in the 1990s, the basic pattern nevertheless stayed intact. Apparently, some common factors prevent European labor markets from functioning efficiently.

Even though it is difficult to regard the European labor market as a single entity (comp. Fig. 3, which depicts different unemployment rates of EU member countries), many studies have nevertheless tried to establish a universal explanation for the significant increase of European unemployment.[2] Commonly referred to as the *Eurosclerosis* problem (a term introduced by Giersch, 1985), researchers have above all focused on the high degree of public regulation, which especially distinguishes the European from the American labor market.

Fig. 3: Unemployment Rates in Member States of the European Union



Source: European Commission (2000: 19).

Such reasoning is particularly appealing as the widening gap between unemployment in Europe and the United States seems to support this approach (comp. Fig. 4). According to the *Eurosclerosis* literature, high unemployment rates in European countries can be attributed to labor market rigidities that prevent market clearance. Unlike the United States, European economies are assumed to be less capable of absorbing large economic shocks or even small changes in consumer preferences while maintaining high employment.

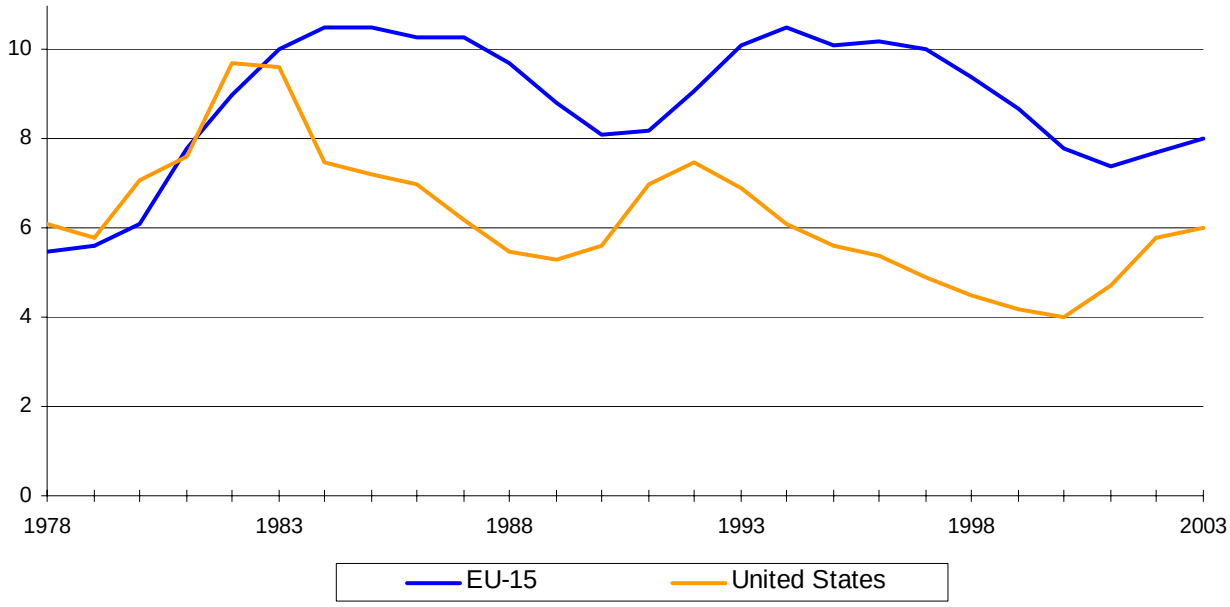
This paper gives an overview of the existing literature on the persistently high unemployment in Europe. Starting from a general theory of labor market equilibrium, factors are derived that distort the demand and supply of labor and potentially deteriorate market outcomes. Having identified these rigidities, respective theories are presented that have been

[1] For reasons of data availability, empirical material will sometimes refer to European countries, member countries of the European Union, and OECD-Europe respectively.

[2] Heckman (2002: 5) even believes that there is high consensus within the economic profession "on the basic forces underlying the high persistent unemployment […] in Europe." These can be traced down to disincentives caused by labor market rigidities.

proposed in the literature; these include insider-outsider relationships, hiring and firing costs, and search models. This part will also offer a discussion of why labor market rigidities exist and what forces determine whether or not they persist. A subsequent chapter looks into some empirical evidence in support of the discussed approaches and evaluates the explanatory power of each model. Finally, a case study considers the unemployment problem in Germany and discusses recent labor market reforms.

Fig. 4: Unemployment Rates in Europe and the United States (1978-2003)



Source: Own illustration. Data: OECD Labour Market Statistics (2004).

2. What Makes a Labor Market Rigid?

A labor market brings into equilibrium the demand and supply of labor. Just like any other market for ordinary goods and services the adjustment mechanism involves finding an equilibrium price, that is, a wage, which is simultaneously acceptable for both the demander and supplier of labor. The efficiency of a labor market can thus be measured by first considering whether or not it does in fact clear the market; another efficiency aspect considers the time it takes to reach market equilibrium. High unemployment rates (especially long-term structural or institutional unemployment) and, to a lesser extent, long adjustment times (i.e., short-term frictional or cyclical unemployment) are consequently indicators of poor labor market performance.

From a neoclassical perspective, unemployment in a sufficiently competitive labor market will not exist, because changes in labor demand and supply are immediately reflected in the equilibrium wage level. As Greenwald and Stiglitz (1995: 219) note, "competitive equilibrium theory assumes that all markets clear, including the labor market." Hence, the existence of unemployment implies that some forces prevent the labor market from reaching equilibrium. If wages do not respond fast enough or do not change at all in case of disequilibrium—in other words, if they are rigid—unemployment may be unavoidable.

Unemployment can either be caused by wage rigidities in the price *level* or the price *structure* (Paqué, 2003: 163f.). Specifically, if the downward adjustment of the wage level does not function properly the labor market will be faced with an excess supply of labor. Full employment will similarly be prevented if the relative wages do not reflect an emerging structure of disequilibria among the relevant labor markets – assuming, of course, that such market-clearing wage structure can in principle be achieved by the Walrasian auctioneer. Changes in the wage structure can have multiple sources; i.e., they may result from technological progress or the international division of labor, which increases wages in some sectors and puts downward pressure on them in others.

Broadly speaking, rigidities are anything that prevent an adequate "revaluation of human capital in the course of structural change in goods markets" (Paqué, 2003: 164). It can be argued that, despite structural changes in the demand for labor and the composition of the workforce, full employment would still be possible if individuals were sufficiently mobile; that is, if frictional costs to change skills, occupations, or industries did not exist. Moreover, some labor market rigidities could also be compensated if the capital market functioned perfectly. As Pauqé explains, "the higher the costs of labour mobility, the more one has to rely on the movement of capital to reach […] full employment." In our study, labor market rigidities will primarily be understood as inefficient market institutions and (excessive) government interventions, which prevent market clearance. Paradoxically, many of the discussed rigidities were initially designed to cure some of the defects of an unregulated labor market.

Recognizing the importance of institutions[3] is a crucial element in understanding the distinct performance labor markets. As Freeman (1998: 4) emphasizes, institutions are what "differentiates real economies from the Walrasian auctioneer model." He goes on to explain that it is not "the ethnic make-up of people" that defines market outcomes, but institutions affecting human decision making processes.[4] In order to compare market efficiency in differ

[3] Institutions are any set of explicit or implicit rules, norms, or contractual arrangements as well as actual organizations that govern human behavior. Their effect on market outcomes is increasingly acknowledged in many disciplines of the social sciences (i.e., North, 1987; 1990).

[4] Freeman presents convincing evidence for this hypothesis by comparing the small income distribution among men in Sweden with the wide distribution among men of Swedish ancestry in the United States (Freeman, 1998: 8).

ent economies the institutional setup can consequently not be left outside of the analysis. Even to a higher extent than markets for ordinary goods and services, labor markets are surrounded by "an array of institutional arrangements that form a complex web of incentives and disincentives" (Siebert, 1997: 39). Naturally, this web of rules and regulations is especially dense in European welfare states where governments are particularly concerned with influencing market outcomes for the benefit of a large number of people.

Although important, accepting the significance of institutions does not make the analysis of particular labor market outcomes any easier. In fact, it is very difficult if not completely impossible to isolate certain policies and evaluate their impact as all rules and regulations have to be seen in the context of the entire institutional system. This aspect should be kept in mind when discussing the explanatory power of any given theoretical model. Often times, the analytical setup only focuses on one distinct aspect of the institutional system.

Rigidities affect both the demand and supply side of labor; in some sense they can even impair the market process as a whole. Specifically, due to taxes raised by the government, minimum wage legislation, or employment protection mechanisms the *demand for labor* might not reflect the true market demand, which – in the framework of economic analysis – would only rest upon "genuine" market elements such as the marginal product of labor or the price of a particular product. Similarly, the *supply of labor*, which largely depends upon the opportunity cost of individuals and their corresponding reservation wages,[5] might also be affected by income taxes or the level and duration of unemployment benefits. Finally, the *market* itself can be impaired when certain rules and regulations prevent the demand and supply side of labor to reach market equilibrium. Rather than affecting the incentive schemes of individuals, rigidities can therefore also have a procedural impact in cases where the bargaining process is required to meet specific standards (i.e., collective vs. individual bargaining regimes).

The rationale to focus on labor market rigidities as a decisive factor of the European unemployment problem is straightforward. Beyond the fact that rigidities are ubiquitous and therefore an integral part of any real world labor market analysis, they also seem to offer a superior explanation for the problems observed in Europe. To put it in a nutshell, rigidities as an explanatory factor are especially appealing since alternative approaches have failed to convey a plausible account of the sharp increase of European unemployment. Exogenous factors like the oil shock in the early and late 1970s, a productivity slowdown in the 1980s and 1990s as well as increased international competition from newly developing countries may all have had a negative impact on European labor markets. Yet, as Siebert (1997: 38) remarks, most of theses factors also affected the United States where the increase of unemployment has by no means reached the intensity observed in Europe.[6]

Consistent with the *Eurosclerosis* hypothesis, the American labor market could apparently better absorb the abovementioned shocks and quickly respond to the new circumstances. As the OECD notes in its 1994 Jobs Study report, the principal cause of high and persistent unemployment "is an inability of […] economies and societies to adapt rapidly and innovatively to a world of rapid structural change" (OECD, 1994: vii). This appraisal is certainly still valid today, especially considering that the magnitude and speed of change has rather increased over the past couple of years.

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[5] A reservation wage is defined as the level of income that just covers all opportunity costs associated with joining the labor market.

[6] This list can easily be expanded by other factors, which especially affected European economies: German unification, the collapse of the Soviet Union, and the fast decline of agriculture in Southern Europe. Yet, as Glyn (2003) points out, these challenges should be overcome by a sufficiently flexible labor market.

If flexibility is the key for high labor market performance, European countries seem to be ill prepared. Both, the wage elasticity of labor demand and the unemployment elasticity of wage rates[7] indicate higher rigidity in European countries as compared to the United States (Siebert, 1997: 44). Especially the short-run responsiveness is smaller in European economies than in the United States; i.e., in Germany and France adjustments in employment to changes in the wage rate take about twice as long as compared to the United States. Likewise, Schröder (2000) and Prasad (2000) both report that the wage structure in West Germany only marginally responded to a reduced demand for labor in the 1970s and 1980s. Even in sectors that were severely struck by unemployment wages remained relatively high. It is the other way around for upward changes of the wage rate, which is likely driven by the supply side of labor. In European countries, wages generally respond faster to positive signals from the labor market, which arguably could take away some of the labor-augmenting effect of an economic recovery (comp. Tab. 1).

Tab. 1: Wage Flexibility (% increase in wages in response to 1% decrease of unemployment)

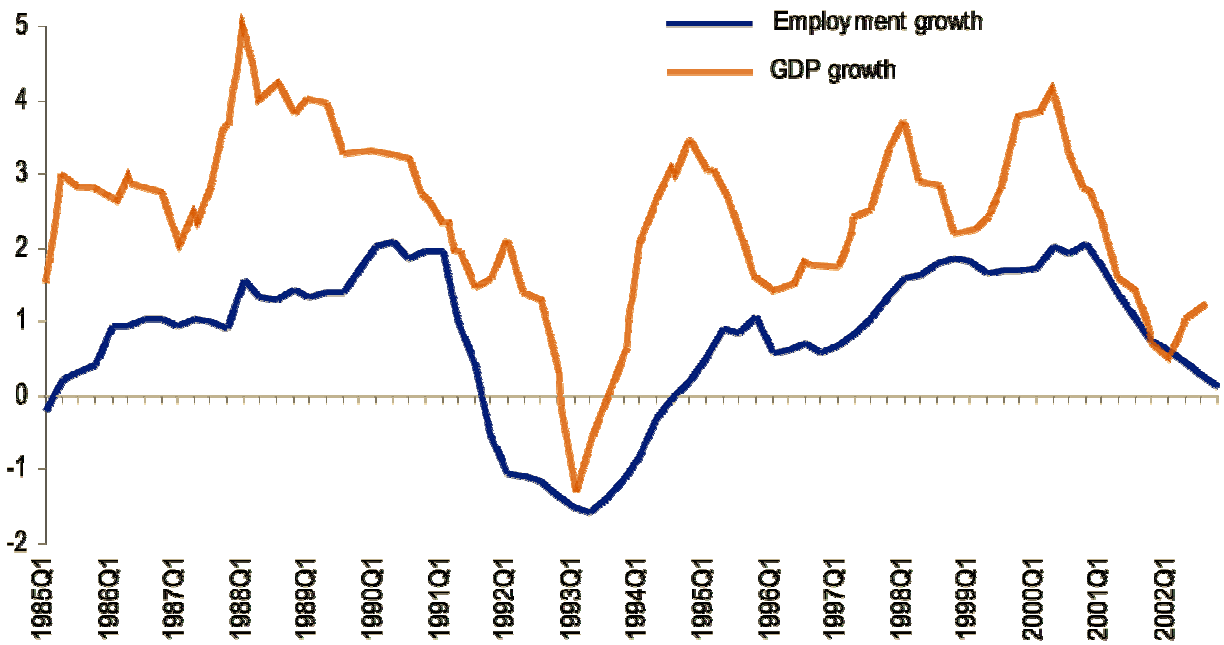
Country	*Short-run*	*Long-run*	*Country*	*Short-run*	*Long-run*
Austria	*1.43*	*3.11*	*Netherlands*	*0.66*	*2.28*
Belgium	*0.65*	*4.06*	*Norway*	*1.96*	*10.59*
Denmark	*0.66*	*1.74*	*Spain*	*0.17*	*1.21*
Finland	*0.48*	*1.55*	*Sweden*	*2.31*	*12.16*
France	*2.22*	*4.35*	*Switzerland*	*1.32*	*7.33*
Germany (W)	*0.55*	*1.01*	*U.K.*	*0.98*	*0.98*
Ireland	*0.80*	*1.82*	*Canada*	*0.50*	*2.38*
Italy	*2.07*	*12.94*	*U.S.A.*	*0.32*	*0.94*

Source: Nickell (1997: 60)

Furthermore, the economic situation in Europe vis-à-vis the United States has not been as weak as to justify the great discrepancy in their respective unemployment rates. As Fig. 5 illustrates, employment growth is closely related to the overall performance of an economy. Despite a similar economic development (comp. Fig. 6), European countries could only increase employment by a meager 12% between 1970 and 1996 (plus 18 Mio.), whereas the U.S. created 47 Mio. additional jobs and experienced an astonishing employment growth of 58% (comp. Fig. 7).

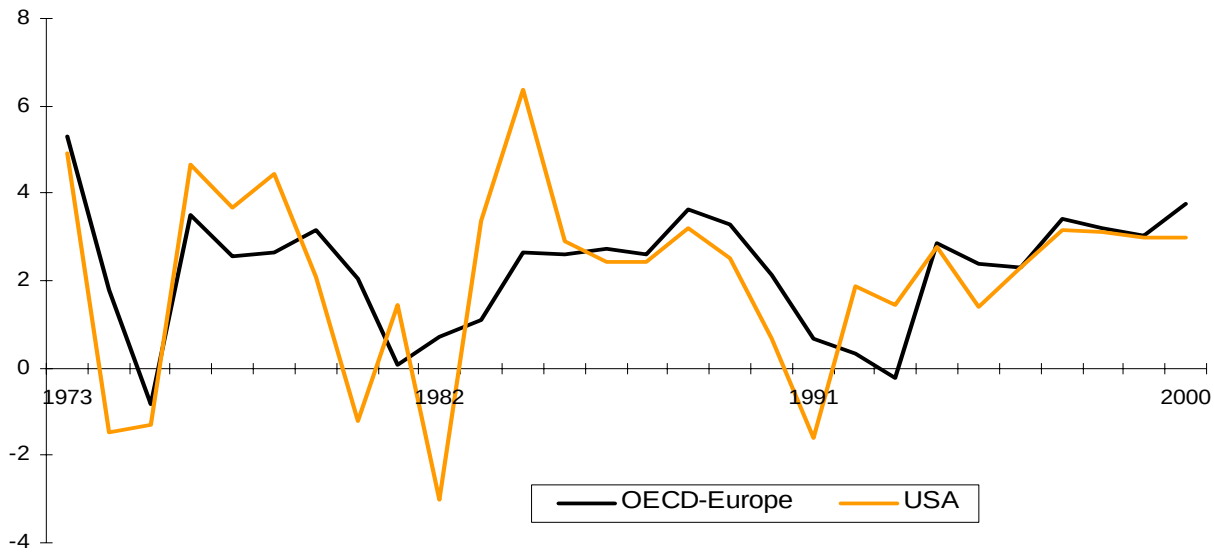
[7] The former measures the responsiveness of employment to changes in the wage rate whereas the latter measures the responsiveness of wage rates to the level of unemployment.

Fig. 5: GDP Growth and Employment in the European Union (1985-2002)



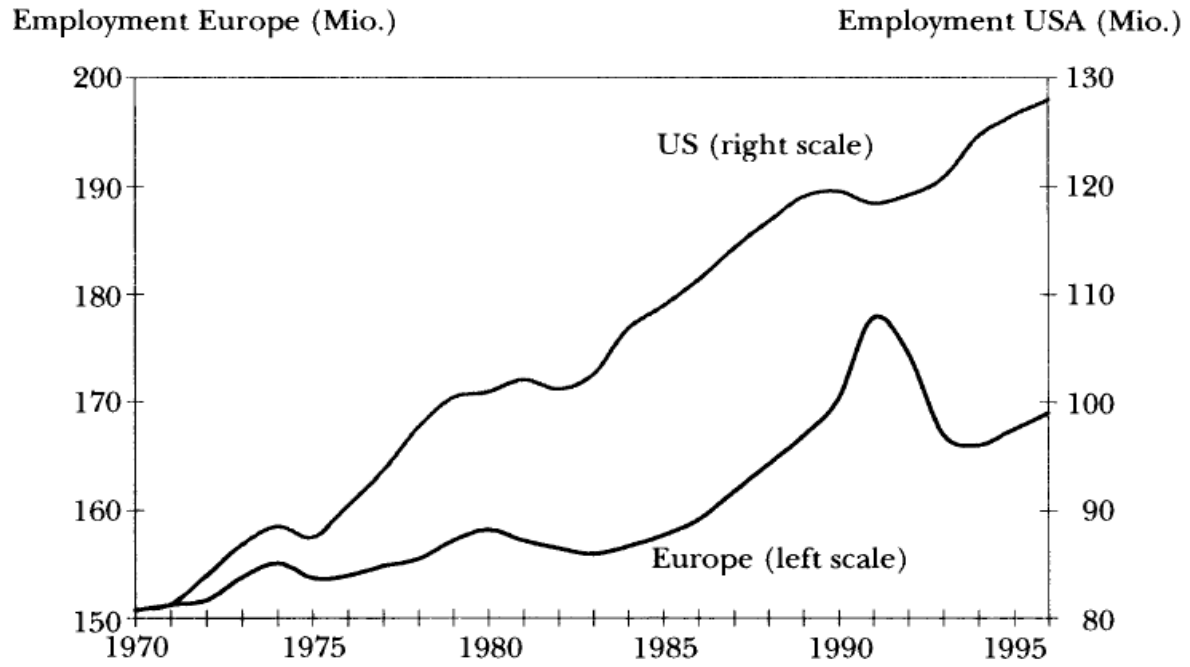
Source: European Commission (2004: 19).

Fig. 6: GDP Growth in OECD-Europe and the U.S.A. (1972-2000)



Source: Own illustration. Data: World Bank (2002). Data excluding the Czech Republic, Hungary, Poland, and Slovakia who became OECD members in the 1990s.

Fig. 7: Employment Growth in Europe and the U.S.A. (1970-1996)



Source: Siebert (1997: 38).

This deficiency to create new employment opportunities continues to be a problem in many European countries. In 2003, the EU-15 only reached an average growth rate of 0.2% compared to 0.9% in the United States – in some member countries (including Germany) employment actually decreased (European Commission, 2004: 19ff.). Latest labor market data report an increase of 337,000 jobs in the United States for October 2004 (BLS, 2004). Apparently, the American labor market could once again recover faster from an economic shock (i.e., global economic slowdown after the terrorist attacks of September 2001).

Finally, Siebert (1997: 39ff.) explains the importance of labor market institutions for the European unemployment problem from a historical perspective. He argues that the increase of unemployment coincides with "major institutional change in Europe" at the end or shortly after the recovery process following World War II toward more equity based labor market policies.[8] During this period, the tax wedge widened, work-hours were reduced, employment protection became more rigorous (i.e., lay-off restraints, severance pay requirements), unemployment benefits were raised, and entitlement periods were extended.

This trend can be traced for many European countries. In France, the minimum wage was raised in 1968, 1974, and 1981 from approximately 40% of average monthly earnings to about 60% in the mid-1990s (in the U.S.: 34% of median earnings). Italy introduced various regulations on firing procedures until the late 1960 and experienced severe unemployment in the 1970s (which eventually led to extensive labor market reforms toward more flexibility). In Germany, mandatory social plans were introduced for the closing of a firm in 1973, unemployment benefits were raised in 1975, and the share of social insurance payments increased continuously from 13% to 18% of GDP. The Netherlands introduced guaranteed income benefits in 1963 and requires advanced notification of lay-offs since 1976. Even the United Kingdom experienced equity-based reforms, even though the British labor market is still relatively unregulated compared to other European countries: the Redundancy Payment Act of

[8] For the EU-15 countries, productivity catch-up with the United States went from 0.52% (1890-1950) to 2.11% (1950-1973) and 1.32% (1973/1987) respectively (Maddison, 1992, Table 5.2).

1965, the Unfair Dismissal Law of 1971, and the Employment Protection Consolidation Act of 1978. Among the wide array of rules and regulations, the literature has predominantly focused on following rigidities to explain high unemployment in Europe (Nickell, 1997):

- Labor standards (i.e., work-hours, minimum wage legislation)
- Employment protection (i.e., hiring and firing costs)
- Union density and coverage
- Unemployment Benefits
- Taxes

Chapter 3 will present theories modeling the impact of these rigidities on an economy's employment level and especially focus on each theory's relevance for the European unemployment problem.

3. Theories of High Unemployment in Europe

This chapter will discuss the relevance and explanatory power of various theories on high unemployment in Europe. Specifically, models will be presented on how labor market rigidities influence labor demand and supply as well as the market process as a whole. Empirical evidence corresponding to the findings of each approach will be presented at the end of the respective section.

3.1 Demand for Labor

Labor market rigidities are generally deemed to have a negative impact on the demand for labor. Following our definition of rigidities, tight labor market regulations and excessive government interventions create additional costs that supposedly reduce labor demand below an optimum, that is, market clearing level. A great portion of the current debate on location factors and the exportation of workplaces to low-income countries specifically rests upon this belief, which intuitively makes sense: a firm, which uses two input factors – labor and capital – will surely substitute away from the relatively more expensive input. In the literature, costs imposed by such rules and regulations as employment protection laws or minimum wage requirements are subsumed as hiring and firing costs.

3.1.1 Hiring and Firing Costs

In their seminal paper, Bentolila and Bertola (1990) argue that the effect of hiring and firing costs on equilibrium employment is ambiguous. Contrary to popular belief, the authors argue that labor market rigidities do not have a significant effect on the hiring decision of firms. Similarly, they do not find a significant impact of high firing costs on the average level of employment. As Bertola explains in a later study (1992: 389), "higher turnover costs should clearly reduce the amplitude of employment fluctuations" whereas "their implications for average labor demand are less straightforward to derive."

Specifically, Bentolila and Bertola consider a firm with linear, asymmetric job turnover costs, which only uses homogenous labor in its production process. Wages are assumed to be constant while productivity grows at a deterministic exponential rate. The only uncertainty arises from movements in demand. Apart from paying wages the firm bears labor adjustment costs for hiring a new employee and dismissing a currently employed worker. In cases where a person quits the job voluntarily, the firm does not bear additional costs.

Each firm tries to maximize its expected present value of future cash flows by choosing an employment policy that optimizes its objective function. In the case that this value is lower than the firing costs, the firm will dismiss a worker. Specifically, it will equate the forgone discounted expected marginal revenue product of the dismissed worker (MRPL) to the saved wage costs minus the firing costs paid today. When hiring, on the other hand, the firm equates the discounted expected MRPL provided by a future employee to the discounted wage costs plus the hiring costs paid today.

As discussed by Bentolila and Bertola, the optimal employment policy will yield a corridor around the no-cost-of-adjustment labor demand. In order to take account of changes in consumer preferences, which will negatively or positively affect the respective MRPL, the firm will allow its labor demand to fluctuate between constant lower and upper control barriers. If the MRPL falls below (rises above) a certain level individuals are laid-off (hired) in order to increase (decrease) the MRPL to the critical value. In the presence of firing costs firms will naturally be less likely to dismiss a worker as compared to the unregulated scenario. On the other hand, firms will have a lower propensity to employ a person compared to the case of no hiring and firing costs.

The spread around the no-cost-of-adjustment labor demand crucially depends upon the level of hiring and firing costs. Bentolila and Bertola argue that, for the case of the European unemployment problem, firing costs clearly dominate the influence of hiring expenses. In their model, the authors find practically no influence of hiring and firing costs on steady-state labor demand. If at all, average labor demand might even increase with the level of labor market rigidities.

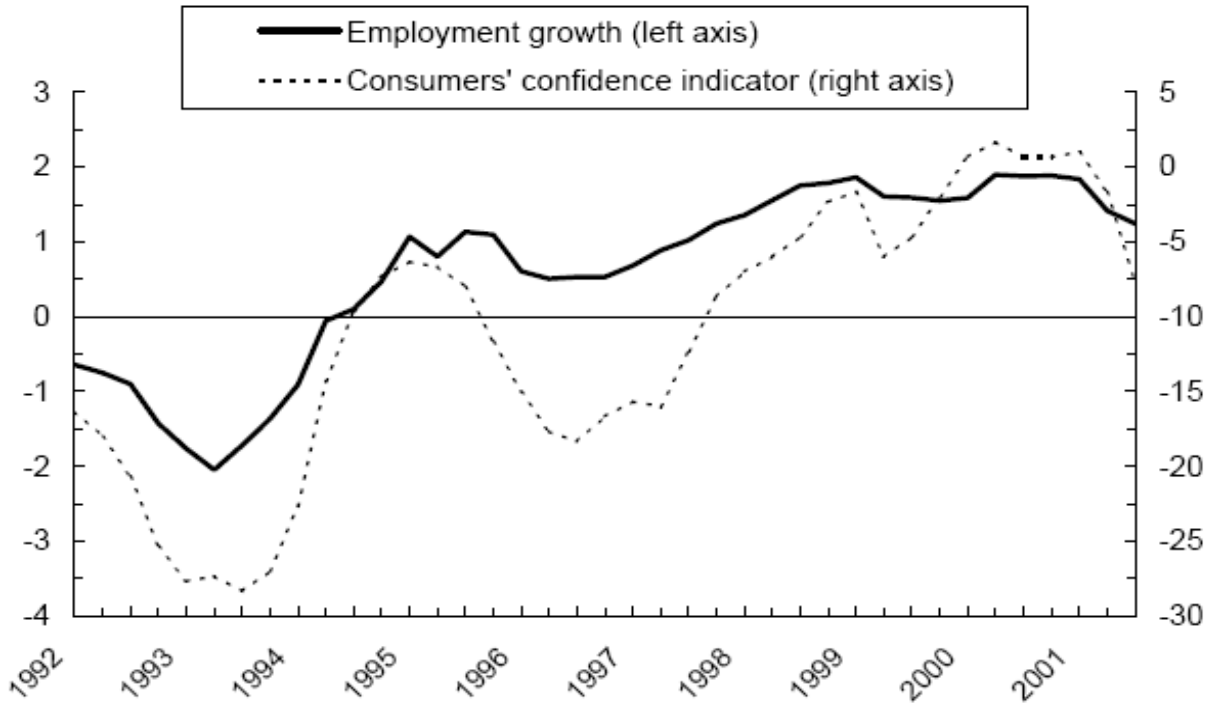
This rather surprising result has a simple explanation: firing costs prevent lay-offs to an extent that compensates and even exceeds the reduced hiring of firms. Mathematically, this result is largely due to the specific setup of the theoretical model. Firms know that the marginal worker may eventually have a low MRPL while firing costs still need to be paid. Yet, in Bentolila and Betola's model, these costs are heavily discounted at the time when the hiring decision is made. As Bertola (1992) later clarifies, the potentially positive effect of firing costs on equilibrium employment may therefore depend upon the average contract time of employment. That is, firing costs for highly volatile jobs such as seasonal industries may have the expected negative impact on hiring. Similarly, in countries with relatively large job turnover firing costs will most likely decrease equilibrium employment. In that sense, firing costs may be less harmful or may even be beneficial for the European labor market as the average job tenure in most European countries is comparatively long (comp. Tab. 3, p. 24).

3.1.2 Demand Shocks and Labor Demand

Bentolila and Saint-Paul (1992) modify this initial theoretical setup by introducing demand shocks into the analysis. The authors find a negative effect on average employment for low values of firing costs while the impact of rigid employment protection laws and large severance payments remains positive. Similarly, Chen et al. (1999) relax some of the original as

sumptions and specifically include expectations into the analysis.[9] In the revised setup, the marginal value of an additional worker is compared to this person's marginal costs depending on current expectations about the overall development of the economy. The authors argue that when a boom (recession) is expected hiring and firing costs tend to increase (lower) average employment.

Fig. 8: Employment Growth and Consumer Confidence



[9] In fact, following a suggestion of Bentolila and Bertola.

Source: European Commission (2001: 16); data excluding Luxembourg and the United Kingdom.

Fig. 8 highlights the potential impact of expectations on the economic development of a society and the performance of its labor market. It illustrates a close relationship between employment growth in the European Union and consumer confidence. Although problematic due to a possibly collinear relationship between consumer confidence and the level of employment, the former may be an indicator of overall economic expectations.

Chen et al. model demand as a geometric Brownian motion process, which – in contrast to the original setup – has certain probabilities attached to an increase or decline in demand. The authors consider both direct and indirect firing costs as well as various constellations of economic expectations, i.e., great uncertainty about how demand will evolve and a high probability of a negative or positive demand shock respectively. As before, a firm's decision on employment is an optimization problem such that the value of the marginal worker equals this person's marginal cost. More specifically, the sum of a person's present discounted value plus the value attributed to the possibility to fire this individual at a later point in time has to equal all discounted wage bills as well as direct and indirect firing costs. It is assumed that an easily disposable worker is more valuable to a firm than somebody who cannot as easily be fired.

According to Chen et al., indirect firing costs are caused by the forgone opportunity to either lay-off or hire a person later when the economic situation might be more appropriate. Precisely, the value of this option depends upon the expectation on future demand; hiring is consequently valuable if the firm expects an increase of demand whereas an expected recession puts more weight onto firing costs. The respective thresholds for hiring and firing a person are consequently not fixed as in Bentolila and Bertola's model, but vary according to current expectations.

Given theses assumptions, the hiring and firing decisions of firm managers can be represented by a non-linear system of equations. In particular, the model solves for the hiring and firing barriers given by the expected demand shock as compared to the general solution for the hiring and firing options. As a benchmark the authors reproduce the original study[10] and confirm that their results comply with Bentolila and Bertola's findings. When individuals have no way of forecasting future demand, the model provides the expected result that firing costs stimulate rather than harm overall employment.

However, if firms expect a recession,[11] the opposite holds true, which would imply that raising firing costs hardly affected the firing decision of firms but simply increased their hiring threshold. The authors conclude that in case of an expected recession the firing option becomes more valuable as firms want to make sure that they can easily dispose a worker later if they hire somebody now. Contrary to conventional wisdom this result suggests that, if a recession is expected, measures to prevent higher unemployment by imposing restrictions on firing are counterproductive as they only reduce new employment.

Conversely, the authors find that in the case of large or frequent positive demand shocks the value of the firing option is relatively low while the opposite is true for the hiring option. If a boom is expected,[12] raising firing costs will slightly reduce the marginal benefit from firing a worker while leaving the hiring threshold almost unaffected. Overall, this policy can have a positive impact on employment as already employed persons are less likely to be fired while the hiring decision of firms remains unchanged.

[10] They do this by setting the probability of a demand shock to zero (firms are simply confused about future demand) and adopting Bentolila and Bertola's values for the other variables.

[11] That is, the negative shock is expected to be bigger than the positive shock or more likely to occur.

[12] In this case, either the positive shock is assumed to be greater or more likely to occur.

In a final simulation, the authors combine the effect of a slowdown in productivity growth and an increased probability of a negative demand shock, which reproduces the situation of many OECD countries in the 1970s and 1980s. In the model, productivity growth is assumed to positively affect the hiring decision of firms. Not surprisingly, it is the hiring threshold that is mainly affected by the firing costs and restrictions on dismissing a worker are more likely to reduce average employment. The authors believe that this result complies with the actual increase of unemployment in OECD countries and Europe in particular.

3.1.3 Labor Demand and International Outsourcing

Lately, the debate on an allegedly harmful effect of hiring and firing costs on employment chiefly focuses on the imminent threat that labor might be exported to low-income countries. The models of Bentolila and Bertola as well as the extensions of Chen et al. may all rightfully conclude that – under certain assumptions – hiring and firing costs can even raise employment. This certainly has some validity in the short-run when firm managers do not have many options to reorganize their production process.

Yet, considering the level of capital mobility and economic openness in many parts of the world, hiring and firing costs possibly pose additional difficulties in the long-run. Firing costs may prevent an employer to lay off a person today. For future investments and hiring decisions, these additional costs will nevertheless enter the rational of firm managers who will try to move their production facilities into low-income countries, provided that these are capable to produce in a similar quality and time-frame. In developed countries, especially low-skill work is affected by this phenomenon, which might explain the stagnating or even diminishing wages and high unemployment in this sector. Regrettably, none of the models discusses the problem of a small open economy or the long-run effects of hiring and firing costs.

3.2 Supply of Labor

Labor market rigidities can also have a negative effect on the supply of labor. If the institutional framework of an economy restricts the flexibility of workers to change jobs or provides incentives to completely stay out of the labor market, the existence of unemployment can equally be explained from a supply side perspective.

3.2.1 Search Models

One way to explain the existence of high unemployment is to model a reduced willingness of individuals to supply labor. Generous unemployment benefits or the expectation of an advantageous change in labor demand may well prevent a person from actively participating in the labor market. In some cases, unemployment might consequently not be the result of insufficient labor demand, but simply the result of utility maximizing behavior of unemployed individuals. Search models are an important tool to approach such phenomena as they analyze the trade-off between the opportunity cost connected with doing something right away and the potential benefit derived from waiting for a better alternative to come along in the future. It can certainly be argued that, by remaining unemployed, some people follow exactly this utility maximizing strategy.

A basic application of search theory in labor economics considers a value function that individuals try to maximize. In the case of our problem, individuals will maximize their lifetime utility by either accepting a given job offer, which will then pay a certain wage until retirement, death, or some other specified period of time, or by rejecting today's offer and

waiting for a better alternative in the future.[13] Individuals will only accept an offer when it lies above their reservation wage, that is, the wage level that just covers all opportunity costs associated with joining the labor market (i.e., the lost value from future offers and the forgone opportunity to collect unemployment benefits or to work at home).

Thus, a person's value function contains both, elements that are certain (i.e., the quality of the current offer and the amount of unemployment benefits) and some factors that are uncertain in order to analyze a person's expectations and risk preferences (i.e., the frequency and quality of future offers). The latter enter the model as stochastic variables, which follow a certain probability distribution.

3.2.2 Search Effort and Unemployment Compensation

The significance of search models as a tool to understanding labor market behavior is apparent. By setting a labor market's institutional framework the government controls important incentive mechanisms that affect the search behavior of individuals and thus also influence the performance of a country's labor market. Ljungvist and Sargent (1998) analyze how the supply of labor may be influenced by high income taxes and generous unemployment benefits that are based on a worker's past earnings.

The authors propose a model in which workers accumulate skills on the job and lose them during unemployment. As indicated in their model, people invest increasingly less effort to re-enter the labor market the longer they have remained outside of it. Even though Ljungvist and Sargent argue for welfare states in general, the greater level of state intervention in European countries allows some inference to the European unemployment problem.

The study tests a key assumption of the *Eurosclerosis* debate, namely whether European countries have been less able to absorb negative shocks due to increased economic turbulence in recent years. The authors believe that this is, in fact, the main reason why unemployment rates have persistently gone up since the 1970s. As demonstrated in their paper, the sharp increase of European unemployment coincides with the emergence of higher economic turbulence caused by intensified international competition and an ongoing restructuring process from manufacturing to service based industries. The authors refer to a study by Gottschalk and Moffit (1994) that has provided empirical support for the notion of higher economic turbulence and greater individual uncertainty in recent years. Specifically, Gottschalk and Moffit's study finds an increase of individual income volatility caused by both larger income dispersion and greater individual income shocks.

Ljungvist and Sargent use a human capital model where, in the case of involuntary job loss, the expected wage of a new employment depends upon the closeness of fit between the old and the new occupation. As Jacobson et al. (1993) have demonstrated, people who were forced to change jobs due to exogenous reasons in the 1980s suffered notably greater income losses as people who could remain employed. As a matter of fact, the discrepancy of old vs. new income was largest for people who had comparatively high incomes prior to being laid off (i.e., because of high levels of job specific human capital that is usually less valuable in the new occupation). According to Ljungvist and Sargent, the merit of finding a new job for previously high income individuals is consequently very little as the new job would almost certainly pay a lower wage compared to the level experienced before. It might even be zero or negative in cases of high unemployment benefits that are based upon previous earnings.

[13] This basic setup can easily be expanded for multiple offers, voluntary or involuntary job quits, and unemployment benefits that depend upon previous labor market participation (i.e., duration and wage of previous job).

The authors develop a standard type search model where individuals try to maximize the discounted present value of life income by choosing their optimal level of search effort. Accepting a job offer leads to a constant inflow of earnings until death whereas remaining unemployed contains the value of finding a better job in the future and collecting unemployment benefits if eligible. With probability π an unemployed person receives a new offer in period t+1, which is drawn from the distribution *F(w)*. Benefits are only paid to persons who have worked prior to being unemployed and who have not rejected an "acceptable" offer. In the model, the authors define a job as acceptable if it pays more than the unemployment benefits. The replacement rate[14] is set at 70% of past earnings. Income is determined by both the wage *w* and the skill level *h* where skills accumulate (in the case of being employed = μ_e) and deteriorate (in case of being unemployed = μ_u) according to a stochastic process to their new level *h'*. Ljungvist and Sargent set the probability of experiencing an increase of skills within one period to 0.1; the probability of deterioration is twice as high.

Initially, persons start off with no skills; on average they reach the highest of a total of 21 skill levels after 7 years and 8 months of continuous employment. Finally, the income tax τ is set so as to balance public expenditure, which implies that τ depends upon the level of unemployment benefits. The Bellman equation to be maximized looks as follows:

$$V(w,h) = \max\left\{(1-\tau)wh + (1-\alpha)\beta\left[(1-\lambda)\sum_{h'}\mu_e(h,h')V(w,h') + \lambda\sum_{h'}\mu_u(h,h')V_b(wh,h')\right], V_0(h)\right\}$$

where α is the probability of dying, λ is the probability of losing a job, and β is a discount factor; V_b denotes the value of being eligible for unemployment compensation while V_0 is the value of an unemployed person who is not entitled to receive any benefits.

Starting from an initial steady state for both, a *laissez faire* economy (with no government intervention whatsoever) and a welfare state (which pays unemployment benefits), the authors simulate the effects of a one-period shock (through a one-time increase of λ) and a permanent shock (by increasing an individual's uncertainty about future incomes, that is, lower mean and higher variance of the probability to lose skills and to be laid-off).

The one-period shock increases unemployment for both economies by 16%, whereas the re-adjustment to the initial steady state occurs much quicker in the *laissez faire* economy. Also, the composition of the unemployed changes toward more long-term unemployment spells in the welfare state while the GNP recovers slower, largely due to the lower employment level. Permanent shocks, on the other hand, increase the reservation wage and decrease the search intensity of unemployed persons in the welfare state, thus considerably increasing the unemployment level compared to the *laissez faire* economy.

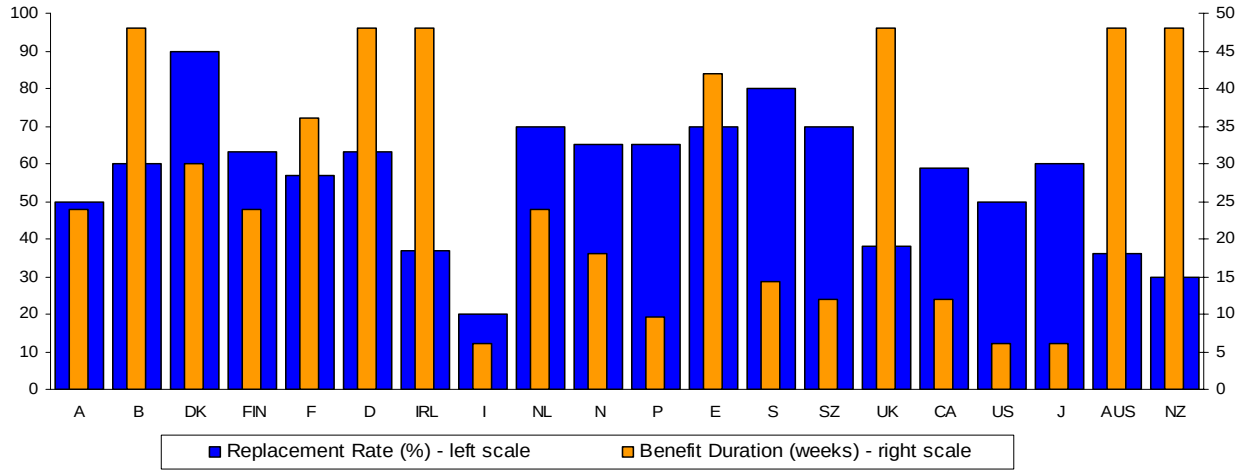
Ljungvist and Sargent propose two explanations why persons have lower incentives to leave unemployment in the welfare state: (i) the greater variance of skill loss increases the group of people with low skills, thus reducing the expected earnings for a large number of people; (ii) skill accumulation is less possible due to an increased risk of being fired; this re

[14] Replacement rates, which are defined as the ratio of income when receiving benefits and income when employed, are widely used in comparative studies on social security systems as a measure of the generosity of unemployment benefits. As Whiteford (1995) points out, they are nevertheless an unreliable indicator of the quality of a welfare system; i.e., due to its particular measurement, the level of generosity is overstated in countries which rely on employer social security contributions.

duces the expected income from employment, especially for people with comparatively high skills prior to being unemployed.

Even though their model is restricted by a narrow set of assumptions (i.e., as skills can only be obtained on the job, it is primarily applicable to blue-collar workers with no previous formal training), Ljungvist and Sargent do touch an important aspect in the unemployment debate, namely how the search intensity of individuals may vary depending on the level and duration of unemployment benefits. Their theoretical setup is particularly relevant in the context of the European unemployment problem as many EU countries show relatively high levels of generosity in their unemployment compensation (comp. Fig. 9).

Fig. 9: Replacement Rates and Benefit Duration in OECD Countries

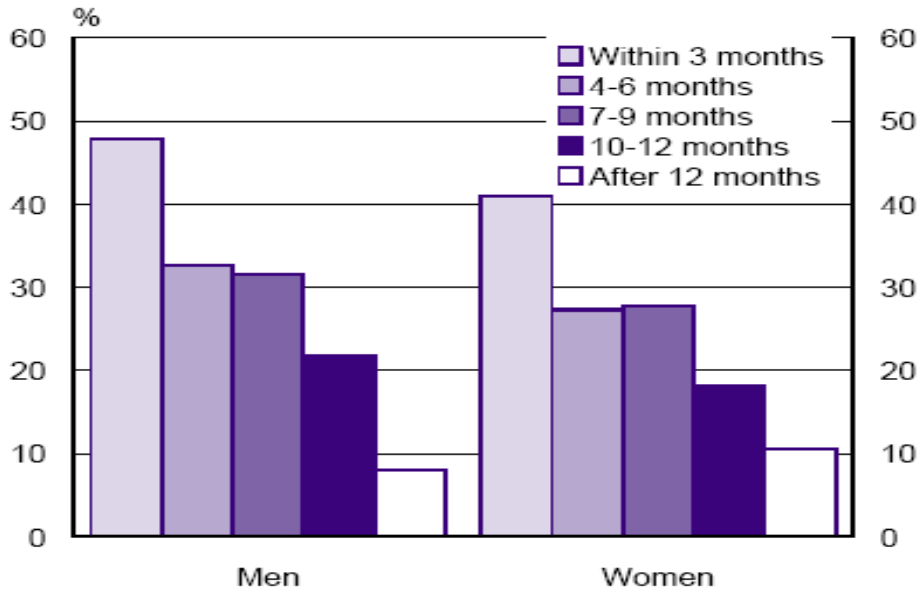


Source: Own illustration. Data: Nickel (1997: 61).

Additionally, some of Ljungqvist and Sargent's suggestions comply with empirical findings. An experimental study by Woodbury and Spiegelman (1987) documents a statistically significant link between monetary incentives and the search intensity of individuals. According to the authors, offering a reward to unemployed persons for increasing their search effort could even save public funds. Since the faster rate of re-integration into the labor market reduces benefits payments, this possibly outweighs the costs of implementing such policy. Furthermore, Jackman and Layard (1991) establish a negative relationship between the level of success of job search and the previous duration of unemployment. The longer people remain

unemployed, the less likely they will reenter the labor market. For the European Union, this relationship is illustrated in Fig. 10. Not even 10% of those who have been unemployed for more than one year will find new employment.

Fig. 10: Re-Integration Into the Labor Market Depending on Total Unemployment Spell, European Union (1993-1995)



Source: European Commission (2000: 10).

Despite a slight decrease in recent years, still more than 30% of European unemployment is considered long-term, far more than in most other OECD countries (European Commission, 2001: 14). More than 60% of all unemployment spells in the European Union (EU-15) last longer than 6 months; 43.4% of all unemployed individuals remain outside of the labor market for over a year (comp. Tab. 2). Such figures have instigated many European policy makers to accept the notion that a country's welfare system needs to offer incentives for the unemployed to re-enter the labor market. This aspect will be discussed in more detail when we look at the recent reform programs in Germany.

Tab. 2: Long-Term Unemployment in OECD Countries (1990-2003)

As a percentage of total unemployment

	1990		2000		2001		2002		2003	
	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over
Australia	41.0	21.6	45.4	29.1	38.3	21.2	39.8	22.1	39.7	22.5
Austria	. .	. .	39.7	25.8	36.1	23.3	33.5	19.2	41.0	24.5
Belgium	81.4	68.5	71.8	56.3	66.5	51.7	67.3	49.6	64.7	46.3
Canada	20.2	7.2	19.5	11.2	16.8	9.5	18.7	9.7	18.6	10.1
Czech Republic	. .	. .	69.9	48.8	71.3	52.7	70.3	50.7	69.9	49.9
Denmark	53.2	29.9	38.1	20.0	38.5	22.2	33.3	19.7	40.9	19.9
Finland[f]	32.6	9.2	46.5	29.0	42.2	26.2	41.7	24.4	41.4	24.7
France	55.6	38.1	62.0	42.6	57.2	37.6	53.4	33.8	. .	. .
Germany	64.7	46.8	67.6	51.5	66.2	50.4	64.8	47.9	68.5	50.0
Greece	72.0	49.8	73.5	56.4	69.0	52.8	72.6	52.4	74.5	56.5
Hungary	. .	. .	69.8	49.0	67.9	46.6	67.4	44.8	65.4	42.2
Iceland[f]	13.6	6.7	18.6	11.8	21.0	12.5	24.8	11.1	. .	. .
Ireland	81.0	66.0	. .	. .	50.3	33.1	50.3	29.3	56.6	35.4
Italy	85.2	69.8	77.6	61.3	77.4	63.4	75.7	59.2	74.1	58.2
Japan	39.0	19.1	46.9	25.5	46.2	26.6	49.0	30.8	50.9	33.5
Korea	13.9	2.6	14.3	2.3	13.0	2.3	13.9	2.5	10.1	0.6
Luxembourg[g]	(68.4)	(47.4)	(37.0)	(22.4)	(44.9)	(28.4)	(46.8)	(27.4)	. .	. .
Mexico			5.0	1.1	4.1	1.1	5.4	0.9	4.9	1.0
Netherlands	63.6	49.3	. .	. .	. .	. .	43.2	26.7	49.2	29.2
New Zealand	39.5	20.9	36.2	19.2	31.3	16.8	28.5	14.4	27.4	13.3
Norway	40.8	20.4	16.6	5.3	16.1	5.5	20.0	6.4	20.6	6.4
Poland[h]	62.8	34.7	63.0	37.9	66.1	43.1	70.0	48.4	70.2	49.7
Portugal	62.3	44.9	60.0	42.9	58.0	38.1	54.4	35.5	57.1	32.0
Slovak Republic	. .	. .	74.4	54.6	73.4	53.7	77.5	59.8	76.4	61.1
Spain	70.2	54.0	64.8	47.6	61.8	44.0	59.2	40.2	59.6	39.8
Sweden	22.2	12.1	41.5	26.4	36.7	22.3	36.2	21.0	35.4	17.8
Switzerland[f]	27.5	17.0	45.7	29.0	47.3	29.9	37.2	21.8	48.8	27.0
Turkey	72.3	46.6	36.0	21.1	35.6	21.3	45.5	29.4	39.9	24.4
United Kingdom	50.3	34.4	43.2	28.0	43.6	27.8	38.8	23.1	37.3	23.0
United States	10.0	5.5	11.4	6.0	11.8	6.1	18.3	8.5	22.0	11.8
EU-15[i]	65.3	48.7	63.8	46.9	61.8	45.3	59.0	41.4	61.3	43.4
EU-19[i]	64.9	46.4	64.2	45.8	63.3	45.4	62.0	43.5	63.8	45.3
OECD Europe[i]	65.3	46.2	61.8	43.7	60.1	42.6	59.7	41.6	60.4	42.3
Total OECD[i]	46.3	31.3	46.9	31.6	44.0	29.7	45.0	29.6	45.2	30.1

Note: f: data for 1990 refer to 1991; g: data in parentheses are based on small sample size and therefore must be treated with care; h: data for 1990 refer to 1992. i: for above countries only.
Source: OECD Employment Outlook 2004.

3.2.3 Optimal Adjustment of Unemployment Compensation

In an earlier approach, Diamond (1981) already demonstrated how governments can optimize the steady state level of unemployment by adjusting state intervention according to the overall performance of the economy. More specifically, he argues that a risk neutral individual will be less likely to accept a randomly drawn employment offer when the demand for labor is going up. If the government does not adjust unemployment benefits or other relevant incentive mechanisms, a booming economy could even end up with higher unemployment since

individuals will increase their reservation wage and be more picky in accepting a given job offer.

This rather puzzling outcome can be explained by considering the effect of an increase in labor demand on the individual value function. As labor demand increases, so does the probability of receiving a wage offer that is better than the current one (in Diamond's model, a job that is closer to the current residence). He argues that accepting a job is always connected to some moving costs that individuals would readily avoid. "When more jobs are available […], anticipated mobility costs are lower […], and individuals are more selective in the jobs they take" (Diamond, 1981: 802). Higher selectivity would consequently raise the unemployment rate.

Theoretically, this increase can be offset if the government adjusts the unemployment compensation accordingly. As the relative weight of the stochastic elements of the value function increases (individuals expect higher utility from waiting another period), the government has to ensure that the remaining factors determining search effort will compensate the lower propensity of individuals to accept an offer. Clearly, a government can primarily create incentives to re-enter the labor market by modifying the level and duration of unemployment benefits. According to Diamond, it is possible to establish an optimal path along which unemployment benefits should adjust in order to ensure the highest possible steady state employment level.

In practice, this adjustment will hardly be possible, or it will at least lack the precision and small time lag demanded in Diamond's theory. Measurement errors of individuals' expectations, which should be the base of the necessary adjustment, and especially public opposition to possible cuts of employment benefits will certainly prevent a strict implementation of this interesting approach. Nevertheless, reform efforts in European countries increasingly depict elements of this theory, most notably a general trend to justify benefit cuts with macroeconomic needs.

3.2.4 Labor Market Rigidities and Supply Inflexibilities

Burgess (1992) studies the effect of labor market rigidities such as employment protection legislation, housing policies, and non-transferable pension entitlements on the willingness of already employed workers to change jobs. Such rigidities are another potential source of high unemployment as they add further inflexibility to the labor market. The empirical relevance of Burgess' model for the European situation is apparent. In European countries both the labor market flexibility for job-to-job changes[15] and for flows into and out of the labor market[16] is significantly lower than in the United States. Tab. 3 gives an overview of the average job tenure in some OECD countries.

Tab. 3: Mean Job Tenure (in years)

	Women aged			***Men aged***		
Country	***<=25***	***26-45***	***46-60***	***<=25***	***26-45***	***46-60***
France	*1.67*	*8.39*	*17.92*	*1.84*	*9.00*	*19.64*

[15] Daniel and Siebert (1999) measure the between-job-flexibility using the average tenure of industry workers (1975-1979). European countries (i.e., Italy: 13.55, Netherlands: 8.74, and the U.K: 7.45) have much higher figures than various states in the U.S. (i.e., California: 4.52; Maryland: 5.87).

[16] Bean (1994: 575) reports the annual flows into (out of) the labor market measured as a percentage of source population for the European Community in 1988 at 0.33 (5.0) and for the U.S. at 1.98 (45.7).

Germany	*2.38*	*7.04*	*11.60*	*2.37*	*7.42*	*17.31*
Italy	*3.06*	*9.09*	*17.93*	*3.26*	*9.62*	*19.91*
Japan	*2.62*	*7.72*	*13.04*	*2.57*	*10.18*	*21.10*
Netherlands	*2.29*	*6.21*	*10.55*	*2.18*	*7.59*	*16.37*
Spain	*1.42*	*7.44*	*14.28*	*1.22*	*8.17*	*17.83*
Sweden	*1.88*	*8.02*	*14.38*	*2.14*	*7.68*	*17.33*
U.K.	*2.39*	*5.89*	*10.27*	*2.56*	*8.25*	*14.48*
U.S.A.	*1.97*	*5.77*	*10.54*	*2.02*	*6.87*	*14.17*

Source: Burgess (1999: 14).

In Burgess' model, employed workers try to maximize their expected present value of income by deciding whether or not to change a job. Individuals face an exogenous probability of losing their current position and are offered new employment according to a Poisson process. The value function takes into account the search costs of an individual as well as the value of the extra leisure accruing to the employed individual plus any unemployment benefits. The author analyzes the implications of his model for on-the-job search and job search with costly mobility.

Given this theoretical framework, Burgess considers the quit-rate for a currently employed worker. Naturally, an individual will not engage in search as long as his or her present income is higher than the expected income from a new job. But even if the expected wage is greater than an individual's present income, the quit-rate will negatively depend upon what Burgess calls "job accepting costs" (i.e., new clothing, moving costs and other adjustment expenses) and "job leaving costs" (i.e., forgone severance and pension benefits). The higher these cost the lower the quit-rate as well as the overall turnover in an economy.

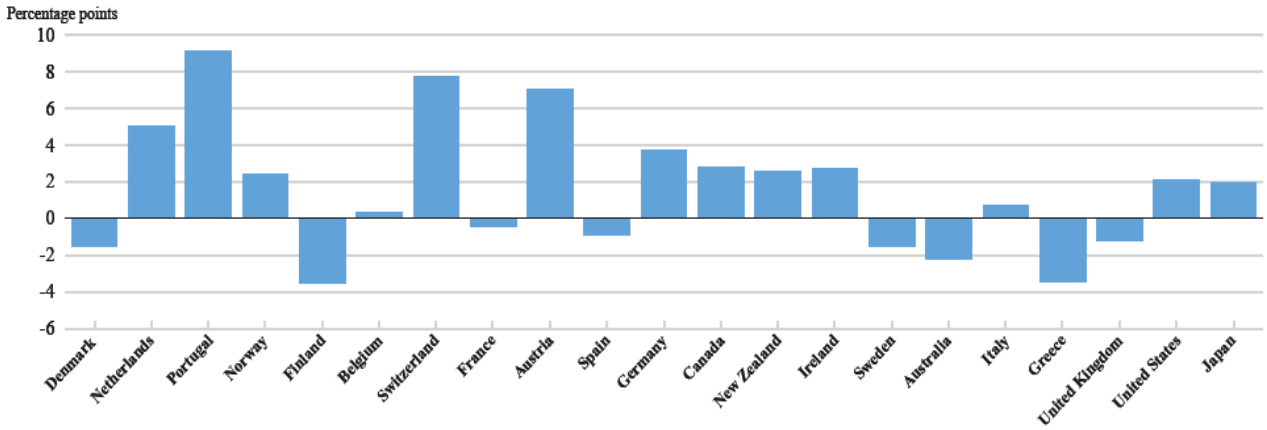
This has two implications for the performance of a labor market. Obviously, the higher the cost connected to leaving a current occupation the less people will change jobs. At the same time, currently unemployed people will be choosier in selecting their next employment as job-changing-costs tie individuals to their current position. Burgess' model thus shows how job-changing-costs not only reduce turnover in an economy; to a certain extent they also prevent the flows into and out of unemployment. This can have negative implications and decrease the level of employment if changing-costs make on-the-job search less profitable. As Burgess (1992: 86) explains, the reduced "number of employed workers engaging in search […] increases the inflow into unemployment for any given layoff rate."

As for the European unemployment problem, empirical studies have found mixed results for a negative impact of generous benefit systems on the overall employment level. At some point, the OECD (1994a) even estimated a negative correlation between replacement rates and the level of unemployment. In a recent study, the OECD (2003) revises this appraisal and now argues that there exists ample empirical evidence to assume that "high replacement rates and long benefit duration can have a sizeable impact on structural unemployment" (OCED, 2003: 140). Generous unemployment benefits and excessive payroll taxes are now believed to especially impede the employment of low-skilled workers as they reduce the gap between the income received from work and the income received from public support.

Even though many European countries have recently tried to modify their unemployment benefit systems,[17] reforms have not yet led to a significant decline of replacement rates. In fact, for many countries the gross replacement index has even gone up between 1995 and 1999 (comp. Fig. 11).

[17] The OECD reports a tightening of eligibility and work-availability requirements (OECD, 2003: 142).

Fig. 11: Change in Gross Replacement Rates* (1995-1999)



** replacement rates before tax and excluding family and housing benefits computed for different family situations, earning levels, and durations of unemployment.*
Source: OECD (2003: 141).

3.3 Rigidities and Wage Bargaining

Rigidities do not only distort the supply and demand side of labor. Similarly, they can induce unemployment by impairing the market process as a whole. The performance of a labor market will always depend upon the available information of actors and their respective bargaining power. Some of the rigidities discussed in previous sections may consequently affect unemployment not only through the provision of distorted incentive mechanisms of each individual. Rigidities may also distort the equilibrium finding process by providing an institutional framework, which prevents the supply and demand side of labor to reach an optimal market outcome.

As Fella (2000) argues in his game-theoretic model of hiring and firing costs, firms are rarely required to bear all additional costs themselves. Some portion will generally be imposed upon the workers (i.e., severance requirements, which result in lower wages). Rather than directly raising labor costs, the effect of certain labor market regulations depends upon a bargaining process between the supply and demand side of labor. Since wage contracts are usually negotiated, modeling the influence of labor market rigidities on the bargaining process provides a more authentic account of real world situations.

Siebert (1997: 46ff.) considers the wage bargaining process in European countries and the United States. Whereas wage formation in U.S. labor markets comes close to being a pure

market process (i.e., decentralized on the individual worker and firm level) wages in European countries are often times determined on the firm, industry, or even economy wide level. Clearly, a large part of this discrepancy is due to higher unionization and union coverage in Europe (comp. chapter 3.4.2). The question then is whether unions impair or improve the equilibrium finding process in a labor market.

From an economic point of view, bargaining on a supra-individual level should move the equilibrium away from the "true" market wage, at least under the realistic assumption of heterogeneous labor. Yet, in cases where highly centralized unions engage in a bargaining process with equally strong employer associations, market outcomes can also be efficient. In the literature, the relatively low level of unemployment in Austria has widely been attributed to the combined effect of strong bargaining partners; i.e., the OECD (1994a) believes that highly centralized unions tend to take into consideration the overall impact of wages on unemployment and thus moderate their demands. This suggests that the bargaining process can lead to efficient results as long as it involves partners of equal strength (i.e., small firms and individuals or large centralized worker unions and employer associations respectively). All cases involving heterogeneous partners, on the other hand, will potentially favor higher unemployment.

Such reasoning is confirmed from both sides of the spectrum. As Layard et al. (1991: 55) report, weak coordination mechanisms across the labor market and especially on the employer's side seem to increase unemployment. Similarly, a cross-section analysis for 20 countries from 1983-1988 suggests that the unemployment rate rises with the coverage of collective bargaining. Without strong employer associations, the more the bargaining process moves away from an individual level the worse the market outcome will become (Siebert, 1997: 48). The negative effect of unequal bargaining partners is confirmed in Nickell (1997). For the European labor market he concludes that high centralized unionization combined with high levels of bargaining power and no coordination mechanisms between unions and employers favor unemployment.

3.4 Why do rigidities exist?

The debate on an apparently negative impact of labor market rigidities has already instigated a reconsideration of labor market policies. In view of continuously increasing unemployment figures, many European countries have tried to abolish some of the rules and regulations that allegedly cause labor market inefficiencies. The trend towards reforming the social security system, which has dominated the political debate in many European countries over the past couple of years, can clearly be seen as a response to the problems experienced on the national labor markets. With fewer people financing the welfare states and a larger number of people receiving transfer payments, public funds are obviously scarce. Now, governments increasingly aim at generating incentive-based benefit systems and try to avoid an excessive interference with market forces.

Even though governments – and often times the public as well – are aware of the potential harm of labor market rigidities, reforms have nevertheless been relatively unsuccessful to abolish them. Despite various reform efforts (for an overview, comp. OECD, 2003: 140ff.) rigidities continue to be a characteristic feature of European labor markets. In order to explain the persistence of rigidities, the literature has predominantly focused on the beneficiaries of labor market regulations and their role in actively maintaining the status quo.

3.4.1 Job Security and Insider Power

Saint-Paul (1997) addresses an interesting question when he analyzes how labor market rigidities arise and persist. He considers a simple model in which firms can either be in a high or low state of productivity to then determine whether or not employment protection laws will find support in society. Saint-Paul's model suggests that employment protection creates its own constituency, which makes it increasingly difficult to abolish labor market rigidities once they have been implemented. In his model, individuals who are currently employed not only earn a wage that equals the annuity value of being unemployed; they also receive a rent that ultimately corresponds to the level of job security in a particular occupation.

The crucial point to understand Saint-Paul's analysis is that the job separation rate will be different in the flexible and the rigid economy. In the flexible economy, firms falling into the low productivity state can no longer pay the competitive wage and eventually will have to leave the market. The job separation rate is thus composed of two elements: the probability of a decrease in productivity and the probability of going bankrupt. On the other hand, firms in the rigid economy are kept from firing people even after they have fallen into the low productivity state. There, the job separation rate is only equal to the probability of going bankrupt. As a result, employed people in the rigid economy enjoy higher job security.

Saint-Paul argues that individuals will support employment protection laws as long as their rent from higher job security can offset the relatively lower wages they face working in a low-state firm. In other words, individuals trade off lower wages against higher job security, which is valued more when unemployment is high. Also, as the probability of going bankrupt increases (i.e., due to an economic recession), the welfare loss in the rigid economy is bigger, because bankruptcy is the only reason of dismissal. On the other hand, societies like the United States, in which employed individuals are more exposed to the risk of unemployment, are less likely to support firing costs.

Finally, Saint-Paul's model offers an explanation why rigidities persist as he considers an economy's transition from rigid to flexible and vice versa. Incumbent employees will support a change from initially flexible to rigid when the rent of being employed is large enough to compensate a lower base-wage in the rigid economy. One of Saint-Paul's central assumption claims that the average wage will always be higher in the flexible economy. As a result, employment in high-state relative to low-state firms will gradually drop as fewer firms are entering the market and low-state firms are kept from going bankrupt.

On the other hand, changing an initially rigid economy to a flexible one will instantaneously increase the wages of high-state firms while at the same time destroying all jobs in low-state firms. Clearly, employees in high-state firms will support such a reform if the rent of being employed is reasonably small; however, employees in low-state firms will only agree if they are compensated for the possibly higher risk of losing their job. That is, employment protection will only vanish at a threshold for the rent of being employed that is strictly lower than the one at which it appeared.

Saint-Paul's approach is an example of an insider-outsider model (i.e., Blanchard and Summer, 1986; Lindbeck and Snower, 1988). The basic idea behind this theory is that people within the workforce create labor market rigidities in order to prevent unemployed persons from joining their group. Once again, the rationale for having labor market rigidities stems from a utility maximizing strategy as the insiders potentially gain from keeping individuals outside of the labor market. Insiders are naturally interested in increasing their wages while at the same time achieving the highest possible level of job security. These goals clearly collide with the objectives of outsiders as higher labor costs induced by elevated wages and employment protection mechanisms decrease the overall demand for labor and reduce the chance of outsiders to join the labor market.

3.4.2 Insider Power and the Level of Unionization

Empirically, the controversy between insiders and outsiders predominantly focuses on the level of unionization and union power. Insiders are believed to be a comparatively homogenous group that is well organized and tightly held together by a common interest of their members. Following Olson's (1965) theory of collective action, insiders are consequently a powerful force in the public discourse and can execute a lot of influence on the political decision making process. As indicated in Tab. 4, union density and coverage[18] is generally high in European welfare states. Specifically for this reason, the insider-outsider explanation has gained some prominence in the *Eurosclerosis* debate.

Tab. 4: Rigidity Measures of OECD Economies

Country	***Union Density***	***Union Coverage***	***Country***	***Union Density***	***Union Coverage***
Australia	*40.4%*	*> 70%*	*Japan*	*25.4%*	*25-70%*
Austria	*46.2%*	*> 70%*	*Netherlands*	*25.5%*	*> 70%*
Belgium	*51.2%*	*> 70%*	*New Zealand*	*44.8%*	*25-70%*
Canada	*35.8%*	*25-70%*	*Norway*	*56.0%*	*> 70%*
Denmark	*71.4%*	*> 70%*	*Portugal*	*31.8%*	*> 70%*
Finland	*72.0%*	*> 70%*	*Spain*	*11.0%*	*> 70%*
France	*9.8%*	*> 70%*	*Sweden*	*82.5%*	*> 70%*
Germany (W)	*32.9%*	*> 70%*	*Switzerland*	*26.6%*	*25-70%*
Ireland	*49.7%*	*> 70%*	*U.K.*	*39.1%*	*25-70%*
Italy	*38.8%*	*> 70%*	*U.S.A.*	*15.6%*	*< 25%*

Source: Nickell (1997: 63). Data: Layard et al. (1991) and OECD (1994a).

According to some of their proponents, powerful unions have introduced inflexibilities into the European labor market by exclusively fighting for the interests of their constituency (i.e., increasing the wage level while at the same time continuously lowering the average weekly work hours). Siebert (1997: 52) believes that European labor unions often times do not take into consideration the costs that wage increases beyond productivity growth can have on unemployment. Even though some countries (i.e., Germany) do require labor unions to act responsibly for the good of the entire society (i.e., by moderating their bargaining position), such regulations are obviously difficult to enforce.

Blanchard and Summers (1986) as well as Gottfries and Horn (1987) both analyze the relevance of insider-outsider relationships for high unemployment in an inter-temporal model. In both theories, the insider group (a monopoly union) decides upon the nominal wage at the start of the period and thus sets the binding conditions under which people will be willing to supply labor. Each model assumes that unemployed persons (outsiders) cannot underbid employed individuals with a lower reservation wage. Furthermore, insiders set the wage level without any information about the future economic development. Consequently, the level of employment solely depends upon the decision of firms, who will demand labor according to the macroeconomic situation.

A crucial aspect of both models concerns the status of insiders who are unemployed in the next period. Only if individuals remain members of the insider group indefinitely will

[18] Union coverage measures the percentage of firms that actually stick to the agreements reached by unions and employer organizations. In some respect it is therefore a more important indicator of union power than union density (i.e., low union density in France, yet powerful unions due to high union coverage).

wages stabilize and employment varies around a constant mean. On the other hand, if persons immediately lose their insider status once they become unemployed, wages will be inversely related to lagged employment and employment becomes a random walk with drift. As Bean (1994: 604) explains, this drift should likely go upwards as a fall in employment (i.e., due to some negative shock) will change the wage-setting locus. In other words, as there are fewer insiders who cannot be undercut by the group of outsiders their primary objective will be to increase wages. The only way employment can return to its original level is either through a positive shock or some form of wage control.

Referring to union power as a cause of high unemployment obviously raises the question if insiders do, in fact, have the level of influence assumed by most of the models. A first remark concerns the degree to which insiders can control the overall wage level without being undercut by the outsiders. Similarly, the assumption of insiders being a homogenous and thus powerful group seems questionable in view of a constant in- and outflow of individual members. As Lindbeck and Snower (1986) clarify, insiders may well compose a heterogeneous cluster in which the power of each individual or subgroup depends on factors such as the length of employment (i.e., higher firm-specific human capital, more "inside knowledge" about internal wage-setting-mechanisms, loyalty among long-term employed personnel). Insiders with above-average insider power may consequently be tempted to act in their own self-interest, thereby jeopardizing the power of the entire group.

Furthermore, it is uncertain how decisions are made among the group of insiders. If it is a democratic process, it will typically be the preferences of the median insider[19] that determine wages and employment. In this case, the size of the group of insiders as well as the macroeconomic situation does not make any difference for the wage setting process. The median insider who will be decisive for the wage outcome is usually so far away from the extreme ends of the distribution as to be safe from negative repercussions of excessive wage demands. As a result, insiders would indeed try to push the wage level beyond market clearing level and possibly cause unemployment as well as the simultaneous erosion of their group size (which may be a factor determining their bargaining power).

Two questions need to be raised at this point: (i) how much influence does the median insider really have, i.e., how democratic is the decision making process within unions; (ii) how can firms try to moderate wage demands of their employees, i.e., by leaving them uncertain as to which plants or branches will be closed in the future, thereby increasing the individual risk of each employee regardless of his or her position in the overall distribution? Past experience has clearly demonstrated that even in countries with high unionization and union power, firms or employer associations are rarely defenseless against worker demands.

4. Empirical Evidence

This chapter discuses further indications of the allegedly negative impact of labor market rigidities on the European labor market. In addition to the data presented in Chapter 3, which were directly related to particular theories, this section aims at offering a systematic and thorough account of the impact of each individual rigidity on the unemployment level of an economy. Disregarding the problems connected with such methodology (i.e., relevance of the whole institutional system), this overview will help identify the factors that contribute most to inefficiencies within a labor market.

[19] Median in terms of all relevant elements that characterize an insider (i.e., income, length of employment etc.).

In a comprehensive comparison of the European and the U.S. labor market, Nickell (1997) considers various measures of labor market rigidities; i.e., the OECD employment protection index, labor standards and the number of labor market policies, unemployment benefits, and union density and coverage. As for rigidities affecting the market process itself, he particularly focuses on the range of coordination mechanisms in the wage bargaining process. His study thus offers a very broad overview of basically all important rigidities discussed in the literature.

Nickell's empirical analysis consists of several regressions investigating the relation between unemployment and labor market institutions in OECD countries. Each regression is based on cross-sectional data from 1983-1988 and 1989-1994 respectively; regression coefficients are estimated using a standard random effects GLS procedure. As most researchers in the field, Nickell uses the logs of the unemployment rate as his dependent variable. Variations can thus be interpreted as a percentage change of the unemployment rate.

Even though the various rigidity measures spread significantly across nations, their general trend is hardly surprising: labor market regulations in Europe are both more frequent and more restrictive. Compared to the United States, countries like Germany, France, and Italy expose higher values[20] for labor standards, employment protection, and unemployment insurance. Likewise, union density and coverage for most European countries reaches levels of more than 75% compared to less than 25% in the United States. Nickell separates rigidities into following groups:

- direct rigidities (i.e., labor standards and employment protection laws)
- social protection (level and duration of benefits; eligibility)
- union density and coverage
- taxes
- work hour reductions and the lack of a low-wage sector

Nickell does not find a significant impact of (i) direct rigidities on unemployment. If anything, employment protection seems to raise long-term unemployment, though the influence is very small (correlation coefficient of plus 0.051). Additionally, the slight negative effect on short-term unemployment (minus 0.046) completely cancels out any increasing influence on total unemployment (minus 0.0032). Nickell believes that the upward pressure on wages, which is possibly induced by high labor standards, is nullified by the fact that mostly workers have to bear the burden of these regulations. Overall, the author supports Bentolila and Bertola's findings. In particular, he argues that the greater hiring and firing costs in Europe keep employers from employing new workers, but at the same time prevent them from releasing already employed workers into short-term unemployment.

In order to analyze how (ii) the treatment of the unemployed affects labor market outcomes, Nickel distinguishes between active and passive unemployment policies.[21] The author does not find evidence for a significant impact of replacement ratios on the level of unemployment. Although significant, the replacement rate only marginally affects unemployment (plus 0.011). Nevertheless, he identifies the duration of benefit payments as a critical variable as the length of benefit entitlement seems to have a negative effect on the speed of re-

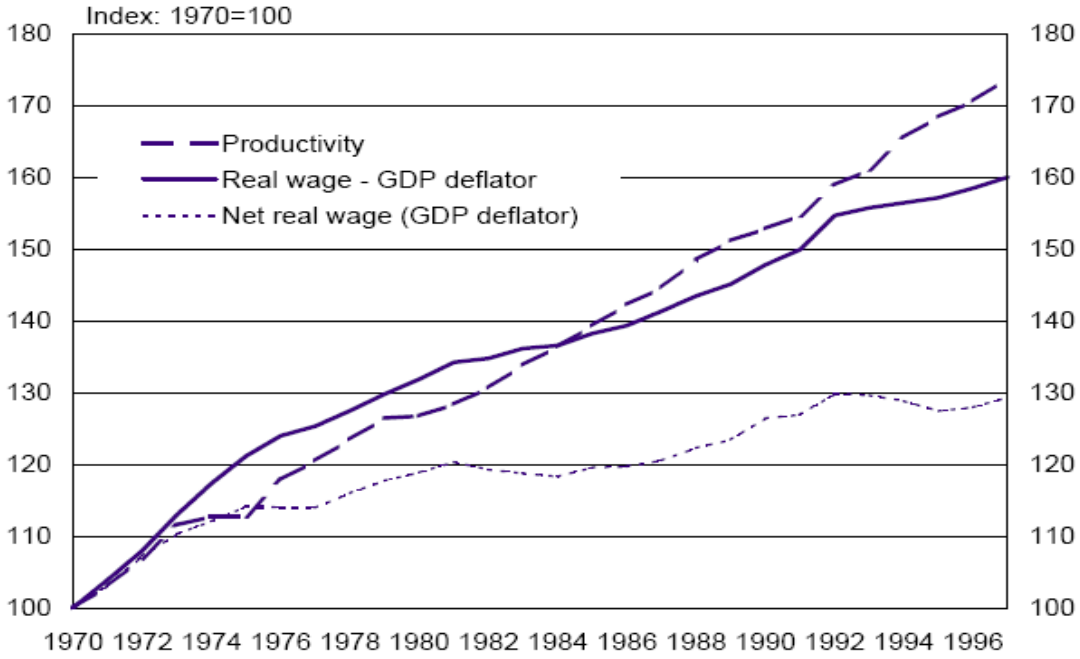
[20] Higher values correspond to a greater number and extent of labor market restrictions, more generous unemployment benefits, as well as rigorous unemployment protection legislation.

[21] The former encompasses measures to re-integrate a worker into the labor market whereas the latter includes benefits received by the unemployed.

integration into the labor market. Especially for long-term unemployment, the duration of benefits apparently seems to have a big impact (plus 0.25). Nickell believes that part of this outcome is compensated by the fact that workers usually first need to qualify for benefits by participating in the labor market.

As for (iii) the impact of union density and coverage, Nickell remarks that unions generally put an upward pressure on wages, which potentially creates higher unemployment. In fact, there is some indication that this is the case where unions are centralized and have strong bargaining power. High union coverage seems especially harmful for long-term unemployment (plus 0.83). Nickell identifies certain institutional setups that can limit excessive wage settlements. More specifically, he finds that mandatory coordination mechanisms between unions and employers will have a moderating effect on wage demands. The fact that wages have not risen beyond productivity growth since the 1980s may be a result of such coordination mechanisms in many European countries (comp. Fig. 12). Other institutional barriers include the legal framework of the wage bargaining process, particular guidelines of the wage negotiations, as well as an integration of the labor force and their delegates into the management of firms.

Fig. 12: Productivity Growth and Wage Increase in the European Union (1970-1996)



Source: European Commission (2000: 78).

Nickell cannot establish a definite effect of (iv) taxes on the level of unemployment. According to his findings, only the total tax burden and especially the tax incidence has a decisive impact on labor market performance. The total tax rate has a small, but highly significant impact on total unemployment (plus 0.026), especially when workers have to bear the larger burden. This outcome may be due to a reduced search intensity of individuals, which would obviously comply with Ljungvist and Sargent's theoretical model. For a complete discussion of the impact of specific taxes compare OECD (1994a: 247).

In many European countries, (v) work-hour reductions and the lack of a low-wage sector have recently gained attention in the public debate on Europe's unemployment problem. In fact, some countries consider to relax their high labor standards specifically in this segment of rigidities. Nickell does not present any empirical results that could support a

negative impact of work-hour reductions and minimum wage legislation on employment, but he does identify the flawed justification of such rigidities. According to Nickell, work-hour reductions would only increase employment if there existed an extraneously given amount of work that needed to be done. Yet, historical evidence seems to indicate that labor demand goes along with labor supply. If this were true, work-hour reductions would only raise wages above market clearing levels and increase unemployment.[22]

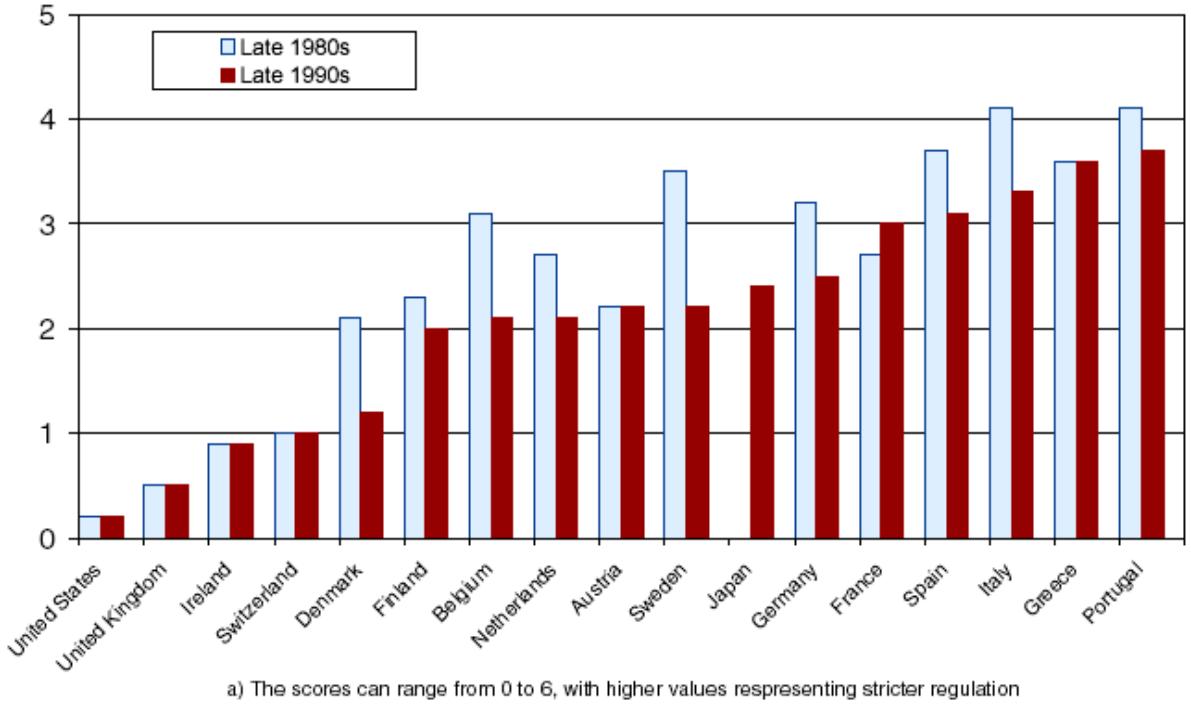
As for the impact of minimum wage legislation, Nickell refers to Great Britain's unemployment situation. Although Britain has a less restricted labor market, even there unemployment rose considerably during the 1970s and 1980s. A similar conclusion can be drawn for the United States where unemployment among low-skilled workers has more than doubled since the 1970s despite decreasing real wages in this work segment. Consequently, Nickell does not believe that the lack of low-wage jobs in Europe can explain the increase of unemployment. The German case study will offer further insights into this debate.

In a similar fashion, some authors (i.e., Blanchard, 1991: 277) argue that numerous attempts to reduce labor market rigidities in Europe in the 1980's have not led to lower unemployment. Specifically, the European labor market does not show any discrete jumps or discontinuities, which may be attributed to these reform efforts. This could have two main reasons: (i) the reforms did not achieve a fundamental change of labor market institutions due to the persistence of rigidities discussed above; or (ii) time lags between the introduction of new market institutions and their potential effect on the labor market deluded any causal relation.

For the case of employment protection, Fig. 13 clearly indicates a downward trend of labor market rigidities in European economies. Although still at a strikingly higher level compared to Anglo-Saxon countries, employment protection has decreased in large EU members like Germany, Spain, and Italy in recent years.

[22] Empirical data from France seem to support this hypothesis. Even though the introduction of the 35-hour-week did have a positive effect on the labor market, the slight increase of employment stands in no relation to the high costs of this subsidized program (Deutsche Bank, 2004: 4).

Fig. 13: Employment Protection in Selected OECD Countries



Source: Heckman (2003: Appendix). Data: OECD Economic Outlook 1999.

Yet, these reductions did not have an obvious affect on the performance of each respective labor market. To name just a few countries where the reduction of employment protection was relatively large: despite their reform efforts, Belgium, Germany, Italy, Portugal, Spain, and Sweden all had to cope with rising or stagnating unemployment rates between 1990 and 2000 (data from OECD, 2004: 293). Furthermore, Blanchard and Summers (1988: 183) point out that despite "the most resolutely conservative government since World War II", which launched "a generalized attack on the welfare state", Great Britain suffered more unemployment between 1979 and 1987 than in the entire 1939-1979 period. Unemployment rates in the United Kingdom did not decrease before the mid-1990s, which – if anything – may be an indication of the delayed effect of institutional reform. A similar reasoning applies to the United States during the Reagan administration.

5. Unemployment in Germany

Like most European countries, unemployment in Germany started to rise significantly in the mid 1970s. Despite political intervention (i.e., early retirement legislation, active labor market policies) this increase continued until the mid 1980s. A small recovery from roughly 1985 to 1991 quickly ended after Germany's reunification, which proved to be an immense economic burden. In the 1990s, mainly two factors exerted pressure on the German labor market where the unemployment rate peaked at 13% in 1997: (i) at an average of 1.3%, low rates of economic growth combined with (ii) severe economic problems in the the *Neue Länder*, the federal states in the Ex-GDR (Sinn, 2002). The latter aspect not only increased unemployment in East Germany, where figures in some areas have increased well beyond 20%; it also harmed

the economy in the West, which has annually transferred 15 billion Euros[23] to stimulate economic recovery in the East since 1990. Recently, the Schröder administration enacted drastic reforms of the social security and labor market system after unemployment continued to be a major problem under the Social-Democratic government.

The following section will give a brief overview of the German unemployment problem during the past thirty years. It will present reasons and possible explanations for the sharp increase of unemployment and discuss the effectiveness of previous labor market policies as well as the most recent reform efforts. In particular, this section will focus on the new reform initiative of chancellor Schröder, who, in March 2003, introduced his so called *Agenda 2010* – a broad reform concept, aimed at overcoming Germany's socioeconomic problems and preparing the country for the challenges lying ahead. An integral part of this initiative is concerned with modernizing the labor market. Already, the so called Hartz reforms have introduced significant modifications of Germany's labor market legislation.

5.1 Overview of Germany's Unemployment Problem

After two decades of continues economic growth and full employment during the recovery process directly following World War II, Germany experienced its first recession in 1966. Still, unemployment did not become a mayor problem until the mid-1970s; on the contrary, Germany continued to hire "guest workers" (mainly from Turkey, Yugoslavia, Spain and Portugal) to satisfy an excess demand for labor.[24]

When signs of unemployment first started to appear the government responded with supply side policies, which essentially centered on a make-work-pay strategy. This approach rests on following assumption: if the labor market did not clear, there was either too much labor supplied or the qualifications of job-seekers did not correspond to the needs of employers. Examples of this supply side policy are the introduction of early retirement legislation and the Employment Promotion Act of 1969. The former reduced the supply of labor and, to some extent, certainly soothed the situation on the German labor market (i.e., the portion of employed men between 60 and 64 decreased from 72% in 1970 to 35% in 1993, comp. Taylor-Gooby, 2001: 8). The latter aimed at fighting unemployment through adequate training and job-guidance of the unemployed.

When unemployment started to rise again in the early 1980s, the newly elected Christian-Democratic government gradually modified the supply side approach as it introduced measures to promote self-employment and wage subsidies. Nevertheless, it also expanded early retirement opportunities and drastically increased the number of people in work programs and training measures, which concealed the true magnitude of the unemployment problem. During the first ten years of the Kohl administration, participation in active labor market programs among the unemployed increased from 13% in 1982 to 44% in 1992.

German reunification in 1990 and the post-unification boom only led to a temporary recovery of the labor market.[25] As the economic problems of the East became evident, the

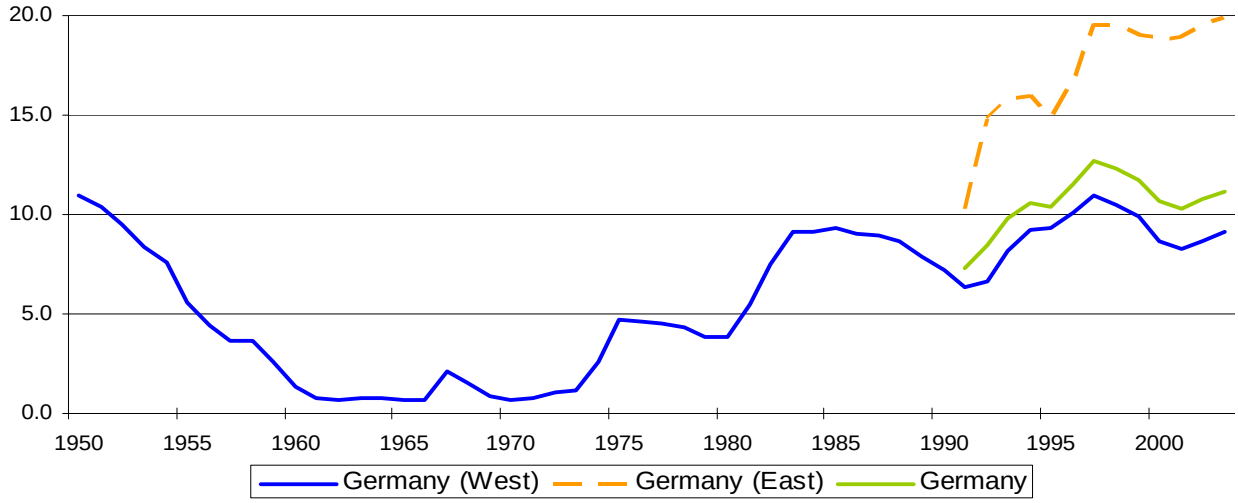
[23] Net transfers to the East amount to 950 billion Euro (1990-2003); of these, the federal government provided 250 billion Euros for reconstruction measures (infrastructure, subsidies etc.). 15 billion Euro p.a. refer to the amount paid by the West German tax payer (IWH, 2003).

[24] In 1964, the number of "guest workers" exceeded 1 Mio. In 1972, this number had more than doubled and reached 2,158,551.

[25] The short recovery process actually started before the unification. Dornbusch (1993: 883) reports that more than 2 million jobs were created during 1987-1991, which translates into an 8.6% increase in employment. He further explains that most of this increase was demand driven as employers expected high domestic consumption of their products.

government worked towards a paradigm shift by reducing wages for job creation measures, cutting unemployment benefits and tightening criteria for benefit eligibility. This trend to increasingly focus on incentives and individual responsibility was consolidated in the 1997 Employment Promotion Act. Among others, the new law cut the proportion of the unemployed on active measures to 21%. Fig. 14 gives an overview of Germany's unemployment statistics since 1950.

Fig. 14: Unemployment in Germany (1950-2003)



Note: 1950-1958 excluding Saarland; 1950-1965 in % of total non-independent workforce, since 1966 in % of all dependent workforce (excluding soldiers).
Source: Own illustration. Data: Bundesanstalt für Arbeit (2004).

The new paradigm of incentives and individual responsibility has influenced German labor market policies ever since. It was only interrupted in the first few months of the present Social- Democratic government, which came into power in 1998. Oskar Lafontaine, who led the traditionalist wing of the Social-Democratic Party and became finance minister in Schröder's cabinet, initially tried to reverse some of the reforms of the Kohl administration. After internal quarrels with the chancellor, which led to the resignation of Lafontaine as finance minister

and indeed ended his political career, Schröder returned to the path of incentives and individual responsibility with his program of *Fordern und Fördern*.

This method of sticks and carrots included a strengthening of active unemployment policies (i.e., job creation measures, training opportunities for the unemployed, and promotion of women's employment[26]) and a revival of a so called "Alliance for Jobs" – a platform for employer and employee associations to reach consensus on labor market policies.[27] In February 2002, Schröder also set up the *Hartz Commission* to develop guidelines for a new institutional framework of the German labor market.

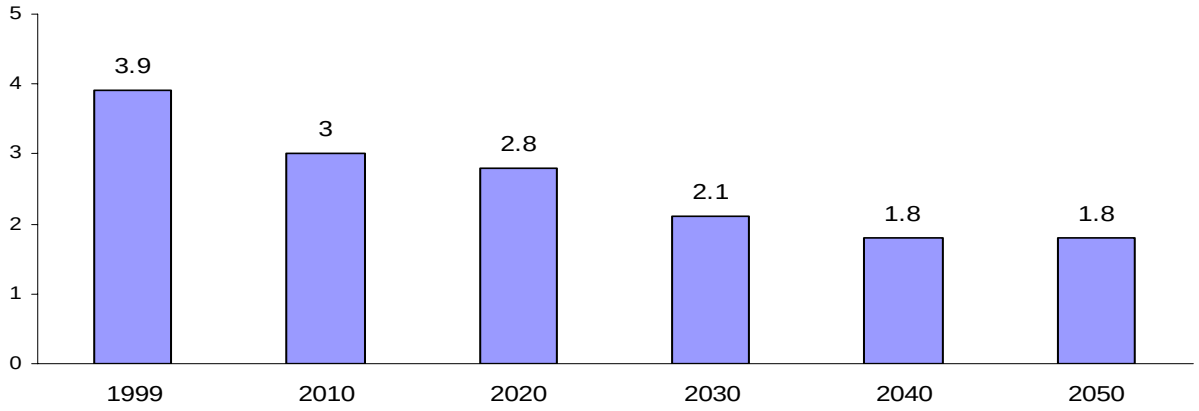
The work of this independent commission has to be seen in the greater picture of the government's reform program called *Agenda 2010*.[28] Beyond tackling some of the most crucial and immanent problems of Germany's social insurance system (especially stemming from Germany's demographic situation, which makes it increasingly difficult to finance the welfare state in its current structure, comp. Fig. 15), the agenda also intends to propose solutions for the tense situation on the German labor market. Despite previous efforts to reduce unemployment, figures continuously increased until 1997 and leveled off at more than four million unemployed, which corresponds to an unemployment rate of over 10% (October 2004: 4.207 Mio. = 10.1%).

[26] *Job-AQTIV* law from January 2002, which includes active unemployment policies, re-integration measures, and the development of service center. *Kapital für Arbeit* program from November 2002, which provides wage subsidies for the re-integration of unemployed persons.

[27] A similar approach had been applied during Germany's first recession period with the so called "Konzertierte Aktion". The first meeting of labor unions, employer associations, and members of the federal and state government took place in February 1967. The "Konzertierte Aktion" remained an important institution of the German labor market until 1977.

[28] The Agenda 2010 aims at restructuring the social system and the labor market in Germany. Important features concern (i) the economy, (ii) the system of apprenticeship, (iii) taxes, (iv) education, (v) the labor market, (vi) the health system, (vii) retirement insurance, and (viii) families.

Fig. 15: Employed People Relative to One Retiree (Projection)



Source: Own illustration. Data: SPD (2003: 4).

5.2 Recent Reform Efforts – The Hartz Program

Proposals of the *Hartz Commission* were put into four reform bills, which have been implemented since January 2003.[29] The main premise of the reform program claims that high unemployment in Germany is supply driven; that is, the market does not provide sufficient labor or the right supply of workers for a potentially existing demand, especially in the low-wage service sector. Consequently, the first two Hartz laws aim at improving the procurement of new jobs (creation of *Jobcenter* and *Personal Service Agencies)* and allow new forms of low-wage, temporary and self employment (*Mini-* and *Midijobs* and so called *Ich-AGs*).

The third Hartz law transformed the *Bundesanstalt für Arbeit* into the *Bundesagentur für Arbeit*, emphasizing that the new Federal Labor Office isn't so much a bureaucratic entity, but a service agency for the unemployed. Beyond a mere terminological modification (*Anstalt* becomes *Agentur*), this change also included a conceptual refocusing of the *Bundesagentur* onto its core mission, which is to (re-) integrate unemployed persons into the labor market and promote new employment opportunities. Furthermore, the length of work-creation-measures

[29] Hartz I through IV will be used as synonyms for the four laws on modern service provision on the labor market (*Gesetze für moderne Dienstleistungen am Arbeitsmarkt*).

(*ABM/SAM*[30]) was reduced from 36 to 24 months for people below the age of 55 in order to give a stronger incentive for active re-integration.

The most recent law, which completes the initial reform package, was passed in June of 2004. It includes a reduction of eligibility periods for insurance based unemployment benefits and the combination of tax-paid social aid and unemployment aid. The last law in particular has aroused strong opposition and stirred up severe protests against the implementation of the reform package. Important features of the Hartz laws are discussed in more detail below. Specifically, this section will present the focus of the reforms, describe their most important instruments, and critically assess their means to achieving the proposed objectives.

5.2.1 Job Procurement and Personal Service Agencies

Several Hartz laws aim at improving the allocation of open positions to unemployed persons. In fact, a scandal about the inefficiency of the previous *Bundesanstalt für Arbeit* led to the implementation of the *Hartz Commission*. It was argued that the old agency had only administered the unemployed while falling short of actively helping its clients to (re-) enter the labor market. The new *Bundesagentur* is now primarily concerned with procuring jobs to unemployed persons.

In order to be eligible for benefits each person has to register unemployed immediately (that is, right after being laid off or three months before a temporary contract expires). A new electronic search system then helps to identify adequate positions while the range of unacceptable offers is clearly defined (i.e., a person can only refuse an offer if the new job pays less than 80% (70%) of the previous position for unemployment spells below three (six) months; for unemployment spells of more than six months, all offers must be accepted that pay more than current unemployment benefits or unemployment aid).

Furthermore, Personal Service Agencies (PSA) help to (re-) integrate unemployed persons into the labor market by giving firms incentives to hire new personnel. This instrument is particularly designed to support individuals with a long unemployment spell to re-join the labor force. PSAs are private entities that support the work of the *Bundesagentur* by finding temporary employment for their clients. Due to public subsidies, PSAs can offer their services at a below-market-rate, which is expected to induce initial hiring and eventually lead to regular employment of the unemployed.

Apart from offering competitive prices, PSAs also reduce firing costs as they allow firms to easily employ and dismiss workers according to their particular needs. Ideally, this should lower a firm's hiring threshold and promote the (re-) integration of unemployed individuals into the labor market. Some of the bigger PSAs include contractors like Manpower and Randstat, who employ and then lend workers to firms for a particular period of time. Regardless of the actual hiring situation of an individual, the employment status of this person is guaranteed while being contracted by the PSA (contracts usually last 9-12 months). Furthermore, the PSA has to provide training possibilities for individuals when they are not subcontract by a firm.

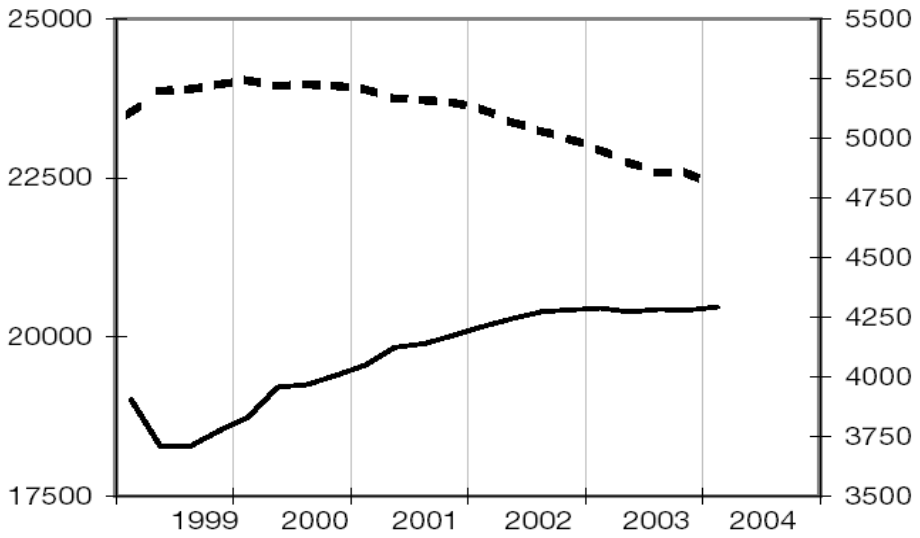
Critics of this approach claim that PSAs can only find employment for their clients during times of economic growth, that is, when firms would probably employ new personnel anyways. Following Bentolila and Bertola's findings, the hiring threshold of firms may not react as sensitive to exogenous factors as proponents of the *Eurosclerosis* debate would like to believe. It therefore remains questionable if PSAs do in fact provide sufficient incentives to

[30] ABM = *Arbeitsbeschaffungsmaßnahme*; SAM = *Strukturanpassungsmaßnahme* (publicly subsidized temporary employment, usually in the low-skill sector; i.e. community work).

hire additional workers, which would thus lead to higher employment beyond the regular growth-induced level.

So far, PSAs have not been very successful in promoting a true (re-) integration of unemployed into the labor market. Only around 30% of all temporary jobs could be transferred into regular employment; this is a relatively low rate compared to similar wage-subsidy programs (Weinkopf, 2004: 162). Furthermore, it is uncertain whether the positive effects on new employment will not be offset by job reductions in other employment sectors. As indicated in Fig. 16, regular employment decreased significantly more in absolute numbers than growing temporary employment could absorb.

Fig. 16: Regular and Temporary Employment in Germany (1998-2003)



Source: Hinze (2004: 397). Dashed-line is regular employment (left scale); solid line is temporary employment (right scale). Seasonally adjusted figures in thousand.

Especially for jobs that do not demand extensive training, firms seem to increasingly rely on part-time workers. In this respect, PSAs can have a negative effect on existing regular employment, particularly when the agencies have difficulties to subcontract workers and start offering their services at increasingly lower rates.[31] Besides replacing regular employment, PSAs may consequently also deteriorate future wage contracts. Evidence from the room-cleaning business seems to indicate that wages of regular employment were indeed decreased in April 2004 as a response to new rates of PSAs (Labournet, 2003).

In 2003, the bankruptcy of Maatwerk, one of the biggest PSAs in Germany, further shed doubts upon the usefulness of this labor market tool. After their initial introduction in early 2003, the number of PSAs reached a peak in February 2004, when almost 1000 agencies were offering their services. By the end of June, this number had already dropped to 807, which corresponds to a total of 34,873 workspace offers; 74% of which were actually taken by individuals (Weinkopf, 2004: 162).

[31] Not even half of the workers in PSAs were subcontracted by other firms in 2003. Jahn and Windsheimer (2004: 4) report a rate of 43.1% for the first half of 2003, which dropped to 40.7% in October 2003.

5.2.2 Low-Wage Sector and Mini- and Midijobs

The *Eurosclerosis* debate emphasizes that the lack of a low-wage sector in most European countries potentially increases unemployment beyond its natural level. The Hartz reforms try to respond to this situation by introducing *Mini-* and *Midijobs* as well as other forms of low-wage employment.[32] Considering the limited possibilities for such employment prior to the reforms, the new legislation can be considered as an initial step towards establishing a systematic low-wage sector in Germany.

Above all, *Mini-* and *Midijobs* are designed for low-skilled workers, who are particularly affected by the outsourcing efforts of manufacture-based industries. As a consequence of liberalized international trade and globalization, firms have increasingly shifted their production into low- and middle-income countries.[33] As for all OECD economies, the creation of new employment opportunities in the low-skill sector is therefore a key challenge for the German labor market. As illustrated in Tab. 5, workers without completed professional training constitute a large and constantly growing unemployment segment in Germany.

Tab. 5: Unskilled Workers and the German Unemployment Problem

	Skilled Workers[i]			***Unskilled Workers[i]***		
Year	***West***	***East***	***Total***	***West***	***East***	***Total***
1980	*2,1*			*5,9*		
1985	*5,5*			*14,9*		
1990	*4,0*			*13,3*		
1991	*3,6*	*10,7*	*5,4*	*12,8*	*31,0*	*14,5*
1995	*5,4*	*11,8*	*6,8*	*20,0*	*44,1*	*21,9*
2000	*5,1*	*14,8*	*7,1*	*19,4*	*50,3*	*22,2*

i: (Un-)skilled Workers refers to amount of people with(out) completed professional training (i.e., university degree, apprenticeship). Numbers represent percentage of total unemployment in specific group.
Source: IAB (2002).

In order to promote regular (that is, non black-market) low-wage work, expenditures for *Minijobs* in private households are exempt from social security contributions and are partly tax deductible. Similarly, recipients of low-wage income are either exempt from payments to social security or pay a reduced rate.[34] Finally, individuals can have a *Minijob* beside their regular occupation and still be exempt from social security contributions for this extra activity. In 2003, the number of *Minijobs* increased by 300,000.

Although technically not considered as employment, people with long unemployment spells are also encouraged to engage in community activities. Commonly referred to as "One-

[32] The low-wage sector includes (i) *Minijobs* with an income of up to 400 Euros, (ii) Temporary Jobs with an annual employment of up to 50 days, and (iii) jobs in private households (i.e., Au-Pair). *Midijobs* include jobs where income lies between 400 and 800 Euros.

[33] There is no reliable data on the exact magnitude of this phenomenon. Geishecker and Görg (2004: 2) report that international outsourcing grew by approximately 30% between 1970 and 1990; outsourcing in the German manufacturing industry even increased by up to 60% between 1991 and 2001. For the German labor market, the authors estimate that, as a result, wages in the low-skill sector have decreased by 1.8% while high income groups have gained up to 3.3%.

[34] Providers of low-wage work are exempt from social security contributions while the employer pays a lump-sum of 26.3% (*Minijobs*) and 13.3% (Temporary Jobs) respectively. Providers of *Midijobs* pay contributions between 4% and 21.5% depending on gross income while the employer always pays 21.5% for retirement and health insurance as well as for taxes.

Euro-Jobs", these activities are supposed to help long-term unemployed people to re-adjust to a work environment and maintain their labor market aptitude. Employments range from six to nine months while each activity needs to contain at least 120 hours of formal training. Despite serious concerns of possible wage dumping, the government apparently considers to expand "One-Euro-Jobs" for commercial employers (Spiegel Online, 2004a).

The creation of a low-wage sector is a key element of the Hartz program as the reforms are largely based on the belief that there is considerable demand for such services. The implications and actual labor market effects of its initialization are nevertheless controversial. Apart from positive views on its job creation potential (Zimmermann, 2003; Klös, 2000) several economists[35] and especially labor unions have expressed doubts on the usefulness of this labor market tool.

It has been argued that creating a low-wage sector in Germany would open the doors for a general decline of the wage level. Rather than creating additional jobs, existing employments could be transferred into the low-wage sector, thus exerting a downward pressure on the German wage structure. Recent labor market statistics provide some evidence for this concern. Even though low-wage employment grew significantly between mid-2003 and mid-2004 (plus 523,000) this positive development is almost completely counterbalanced by a simultaneous reduction of regular work contracts (minus 487,000). Overall, the net outcome of this shift towards more low-wage employment may even be negative. Not only with respect to income, but also as regards the actual number of work-places. Many low-wage jobs are obviously taken by non-members of the labor-force (i.e., high school and university students).

Apart from creating social hardship for some groups in society, a low-wage sector could equally destabilize the structure of Germany's social market economy and destroy the so called "German Model" (Offe, 2000). Germany has traditionally been a high-wage country; changing this status could weaken domestic demand, lower the skill level of workers and thus the skill-intensity of production, which could clearly have negative repercussions on the economy as a whole.

5.2.3 Long-Term Unemployment and Entrepreneurial Spirit – The Ich-AG

Another labor market tool of the Hartz reforms is the so called *Ich-AG*, which aims at helping unemployed persons to start a business. As long as the business owner's annual revenue does not exceed 25,000 Euros, the government provides financial support for a maximum period of three years. If a person is eligible (above all, he or she needs to be unemployed before starting the business), the government is supporting the *Ich-AG* with monthly payments of 600, 360, and 240 Euros during the first, second, and third year respectively.[36] Furthermore, the state offers partial tax deductions for payments made to *Ich-AGs* and thus indirectly subsidizes and stimulates the demand for their services. Once again, the focus of the reforms primarily lies on the promotion of low-wage employmenht and particularly the legalization of black market work. High-skill individuals, on the other hand, will hardly be attracted by this labor market tool (relatively small benefit payments and low level of maximum revenue in order to remain eligible for this program).

[35] 760 European labor market experts have supported a critical memorandum on the Hartz reforms, which was published by the *Working Group: Alternative Economic Policy for Europe* at the University of Bremen.

[36] In 2002, this support corresponded to 50%, 30%, and 20% of average unemployment aid.

Even though the bureaucratic process of starting an *Ich-AG* is not as easy as proposed by the *Hartz Commission*,[37] the administrative requirements are still relatively small. Potential start-ups have to present a business plan and an initial budget overview in order to receive benefits. However, these documents do not get reviewed by professional analysts. Rather, requests are approved by an applicant's personal representative at the *Bundesagentur* without further consultation of business specialists; no managerial knowledge or accounting skills need to be attested. Also, for the first year of support as well as in the case of business failure the applicant does not have to demonstrate whether the financial aid was used efficiently. Although desirable for its quick bureaucratic process, the low level of formal requirements also allows the misuse of *Ich-AGs* (Scherl, 2003). Stricter requirements have recently been announced by the *Bundesagentur* for the end of 2004.

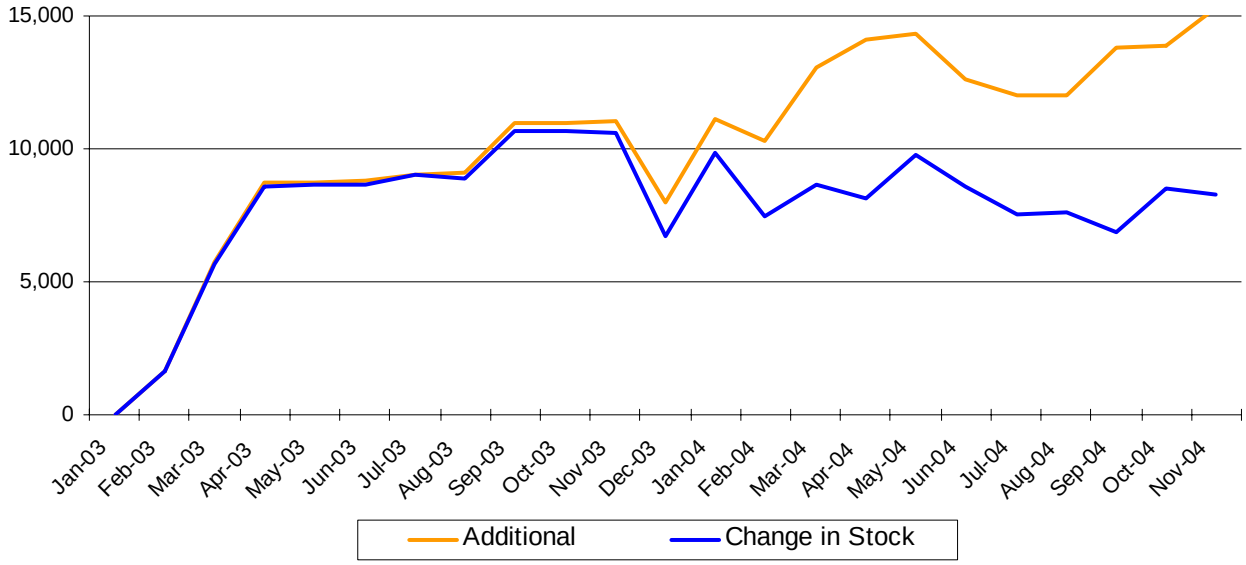
Ich-AGs quickly became one of the catchphrases of the *Hartz-Reforms* as they seemed to underline the innovative design of the reform program.[38] Nevertheless, some difficulties with this new labor market tool have already appeared and need to be discussed. It has been argued that *Ich-AGs* promote the creation of pseudo businesses (*Scheinselbstständigkeit*) – entities, which are only created to receive benefits even though the jobs had already existed as dependent employment. In the case of *Ich-AGs*, firms could dismiss workers or encourage a voluntary termination of work contracts to then re-hire these persons as independent service suppliers. Shortly after the introduction of *Ich-AGs*, such plans were indeed discussed for the public transportation system in Berlin (*Berliner Verkehrsbetriebe, BVG*).

Recently, the criticism concerning the usefulness of *Ich-AGs* has grown considerably. Especially after the introduction of the fourth Hartz law, which increases the pressure on unemployed persons to find new employment, *Ich-AGs* became the center of political debate. As discussed before, their design bears the danger of fraud and misuse as unemployed people have a clear incentive to apply for this aid program, even though they do not intend to start a business. With the new eligibility criteria for unemployment benefits and the reduced duration of benefit payments this incentive has even become greater. Despite the fact that the monthly augmentation of existing *Ich-AGs* has leveled off at around 8000 additional start-ups, there has been an increase of new *Ich-AGs* since February 2004. To some extent, this may support the notion of the predicted misuse of *Ich-AGs* (comp. Fig. 17).

[37] In contrast to the original design, the actual law did not adapt a lump-sum tax for *Ich-AGs* of 10%. *Ich-AGs* are required to join the social insurance system while only the contributions for retirement are significantly lower than for other start-ups. Furthermore, *Ich-AGs* have the same bookkeeping requirements than other small businesses.

[38] There is, however, some debate about whether or not this expression is useful and appropriate in the context of the unemployment problem. In 2002, it was awarded the price for being the faux-pas word of the year.

Fig. 17: *Ich-AGs* Since Their Introduction in January 2003



Source: Own calculations. Data: Bundesagentur für Arbeit (2004: 7).

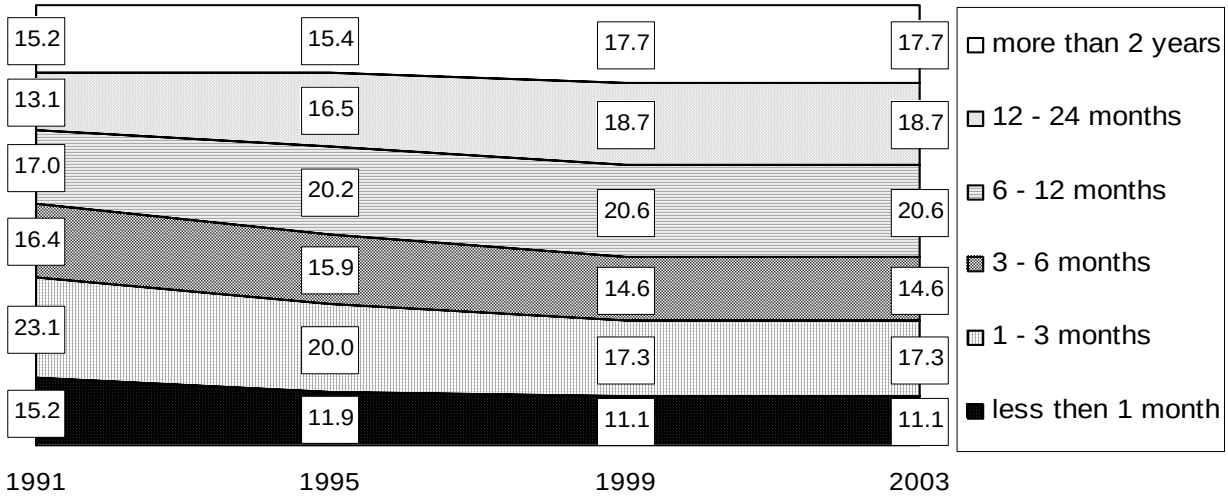
A factoid view at the statistics nevertheless reveals a success of the *Ich-AG*: around 12,000 applications get approved each month and add to the presently existing 180,000[39] micro-businesses. For the first half of 2003, the number of *Ich-AGs* (52,000) corresponded to 25% of all new start-ups in Germany and 33% of all new businesses that were set up by unemployed people. Yet, critics point out that the costs for this labor market policy largely exceed its positive impact. In fact, some[40] even claim that the true intention of the *Ich-AG* is to pay people to leave the unemployment statistics; after all, 172,763 persons (October 2004) no longer need to be counted unemployed as they receive the support (not including possible employees of the start-up owners). The significant costs for this program recently required an increase of public funds for the federal employment agency (Spiegel Online, 2004).

[39] This is the figure reported by the Bundesagentur für Arbeit in November 2004. However, recent data (Bundesagentur für Arbeit, 2005) suggest that the number of *Ich-AGs* is even higher; i.e., November 2004: 199,438 and February 2005: 257,128.

[40] Hermann Scherl, expert on social policy, argued in this direction (Manager Magazin, 4. October 2004).

Furthermore, it is doubtful whether the program cures the right maladies of the German labor market. As indicated in the following figures, the average unemployment spell in Germany has significantly increased over the last 30 years and long-term unemployment constitutes a big sub-sector of total unemployment. However, long-term unemployed are less likely to start an *Ich-AG* as compared to people with a relatively short employment spell. Off all recipients of *Ich-AG*-support, only 12.53% come from the long-term unemployment sector (spells exceeding one year). Yet, according to recent figures (Bundesagentur für Arbeit, 2004a: 1), 40.33% of all unemployed persons are considered long-term.

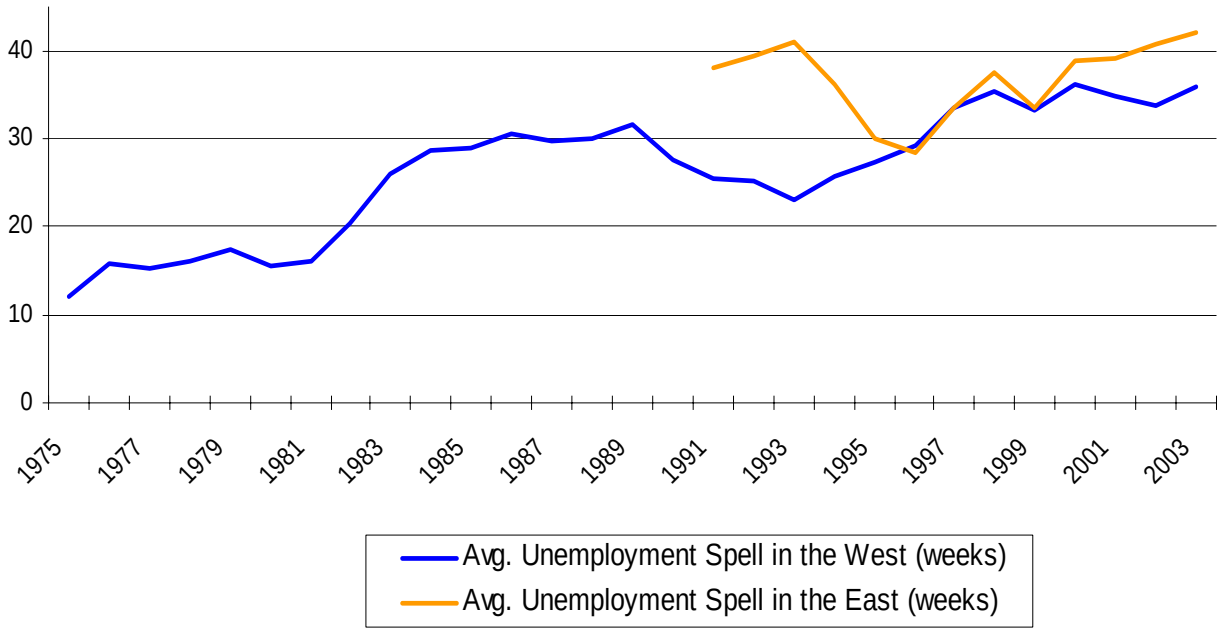
Fig. 18: Short- and Long-Term Unemployment in Germany (%-split)



Source: Own illustration. Data: Bundesanstalt für Arbeit (2004b).

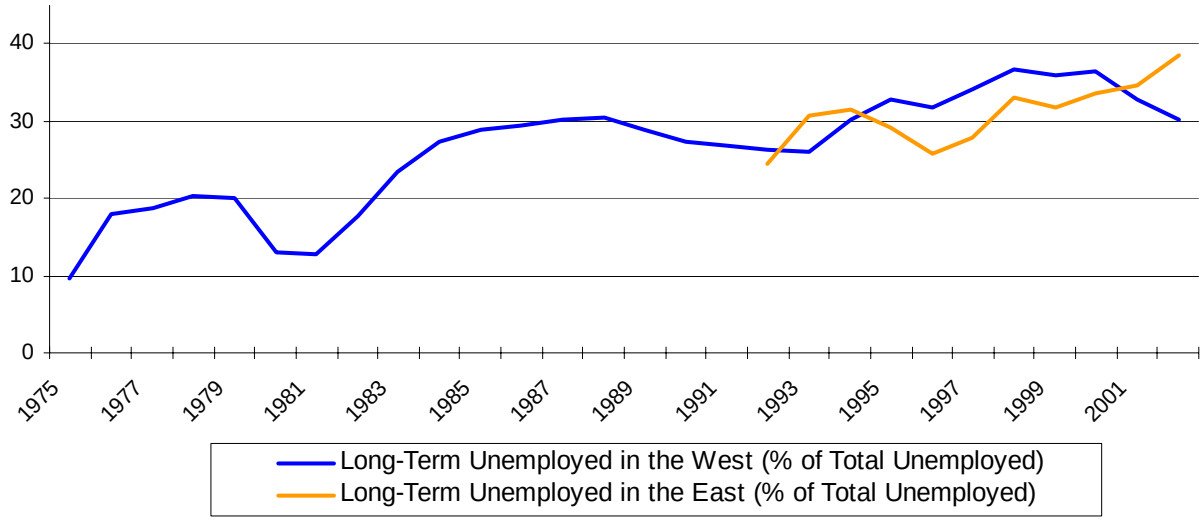
This means that there are only 1.19 formerly long-term unemployed owners of *Ich-AGs* for every 100 currently long-term unemployed persons. On the other hand, 5.66 formerly short-term unemployed owners correspond to 100 currently short-term unemployed persons. People with a short unemployed spell are thus almost five times more likely to start an *Ich-AG* than long-term unemployed. Similar conclusions can be drawn for women, people aged over 55, job-seekers in the *Neue Länder*, and handicapped persons, who all constitute a focus group of the reforms, but are greatly underrepresented in the *Ich-AG* program.

Fig. 19: Average Duration of Unemployment Spell in Germany (1975-2003)



Source: Own illustration. Data: Bundesanstalt für Arbeit (2002) and (2003).

Fig. 20: Long Term as Percentage of Total Unemployment in Germany (1975-2002)



Source: Own illustration. Data: Bundesanstalt für Arbeit (2002).

5.2.4 Incentives and Disincentives

Apart from supporting the (re-) integration of job-seekers into the labor market, the new legislation also requires active participation of the unemployed. As mentioned above, individuals need to be registered unemployed in order to receive benefits. Eligibility criteria also require that a person has to actively try to (re-) join the labor market by applying for open positions and attending job interviews. Moreover, the guidance and supervision of long-term unemployed persons is intensified as each agent does now assist no more than 150 persons (previously around 800; in July 2005, this rate will drop to 75).

As of January 2005, financial support will be divided into two categories: (i) insurance-based unemployment benefits, which will only be paid for 12 (18) months for people below (above) the age of 55 and which are based upon previous earnings (formerly 26 and 32 months respectively) and (ii) tax-paid unemployment aid, which will be combined with social aid to become the so called *Arbeitslosengeld 2* (AL 2).[41] The rationale for this new arrangement is mostly bureaucratic efficiency as beneficiaries for unemployment aid and social aid were often the same.

For recipients of AL 2, basically every job offer is considered acceptable[42] while refusal will drastically be sanctioned (i.e., minus 30% of benefits; for people below the age of 25, financial support may even be transferred into food stamps). Before being entitled to AL 2 individuals have to use own savings and funds to support themselves. AL 2 will only be granted after personal assets have been exhausted down to a maximum of 13,000 (33,800) Euros[43] for people born after (before) 1948. Recent estimates predict that the number of beneficiaries of unemployment aid will drop by 25% due to AL 2. The new legislation will entail severe cuts of unemployment benefits, especially for the long-term unemployed. Specifically,

[41] Currently, 345 Euros base-pay (331 in the East) plus sup port for housing and heating where applicable. Couples get 90% of combined individual rates; children between 15 and 18 years receive 80%, children below 15 60% of the regular benefits. Previous recipients of unemployment benefits can get additional support for a maximum period of 2 years.

[42] According to the Federal Labor Court, a wage is considered acceptable if it does not lie below 1/3 of the average wage in a region.

[43] Specific regulations apply for cars, life-insurances, retirement plans etc.

they will bring about both a reduction of the level[44] and duration of unemployment benefits,[45] which is intended to create additional incentives to rejoin the labor market and stimulate the supply of labor.

Especially this last component of the Hartz reforms has aroused tremendous opposition among the German population. Apart from mere technical and political aspects[46] of the reform process, the protests, which climaxed in the summer of 2004, may also have been driven by deeply rooted fears of financial decline and social exclusion. Work still constitutes the most important binding element within a social community; it is much more than a mere source of income as it helps people to integrate into society (Sen, 1997). This appraisal would correspond to a study of the International Labor Office (ILO, 2004), which found that, despite tight employment and social protection mechanisms, people in Germany feel economically much more insecure than citizens of other developed countries.[47] The same logic may also apply to explain the larger magnitude of the protests in East Germany.

Many critics question the stimulating effects of benefit cuts that presumably generate strong incentives to re-enter the labor market. Again, opponents of the reforms point out that reducing financial support would above all weaken domestic demand, especially since low-income groups and recipients of unemployment benefits have a high consumption rate relative to their limited resources. Some economists (i.e., Hickel, 2003) even distrust the proclaimed objectives of the reforms as they argue that the true driving force of the new legislation was to merely cut government expenses for social security. Although this claim is not correct as the level of social spending will not change due to the reforms, the reorganization of benefits may do harm to the "wrong" people and move benefits to where they are not as effective.

Assuming that the reforms do in fact shift resources to potential employers and create an investor-friendly environment, it nevertheless remains uncertain if people will indeed invest into a market with potentially lower aggregate demand. Benefit cuts in the United States during the Reagan administration and Thatcher's neo-liberal reforms in Great Britain initially increased unemployment rather than stimulating the creation of new jobs. Although in some respect these two countries now represent a labor market success-story, this recovery came at a price: resources of low- and middle-income families have drastically decreased since the initiation of the reforms.

Furthermore, there are counterexamples where the reduction of unemployment was demand driven despite tight labor market regulation. The creation of new jobs in post-unification Germany is primarily attributed to the fact that firms anticipated higher domestic consumption of their products (Dornbusch, 1993: 883) Thus, even in a high-wage/high-benefit environment, companies will expand their production capabilities as long as they expect this investment to be worthwhile.

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[44] Former recipients of unemployment aid (*Arbeitslosenhilfe*) will now receive the base-pay of AL 2 after unemployment spells exceeding one year.

[45] Eligibility period for unemployment benefits is reduced from 18 to 12 months.

[46] The technical question whether or not the new AL 2 should also be paid in the first few days of 2005, even though the recipients of the conventional *Arbeitslosenhilfe* get their last payment at the end of December 2004 (and thus, to some extent, receive a double-payment), created additional confusion about the usefulness of the reforms. Furthermore, the *Bundesagentur* initially only used staff from West Germany to implement the reforms and paid additional premiums to people who were willing to support agencies in the *Neue Länder*. Some of this confusion could certainly have been avoided with a better reform strategy; in August 2004, the government launched an information campaign in response to increasing protests.

[47] Most notably Great Britain, which is far less restrictive in terms of its employment protection legislation, but where employees feel less threatened by economic degradation.

It has also been argued that literally forcing people with long unemployment spells into new employment by having them take jobs that do not correspond to their previous education and skill-level would cause more harm than it would do good. Certainly, people need to re-enter the labor market as quickly as possible; not only for reasons of income security and personal satisfaction, but also in order to maintain the qualities demanded in the labor market. In this respect, the model of Ljungqvist and Sargent offers an interesting and enlightening analytical tool as it explicitly incorporates the negative effects of long unemployment spells on the market qualities of an individual. As we have seen before, the chances of re-entering the labor market are reduced from both the demand and the supply side of labor the longer an individual remains unemployed.

Yet, the model does not analyze involuntary employment decisions and possibly it would yield a different conclusion in case it did. Labor unions claim that the chances of rejoining the labor market in the previous, potentially skill intensive occupation is reduced with each year spent in an unfamiliar job. This might not completely nullify the positives effects of maintaining a certain labor market capability, but it is nevertheless an aspect to be considered.

5.3 Discussion of the Hartz Reforms

Despite severe opposition from unions and large parts of the German population, the Hartz reforms were passed by a wide majority of the Bundestag in 2003 and 2004. To some extent they do mark an important turning point of Germany's labor market system, even though the paradigm shift towards more incentive based policies started much earlier than the current debate. As the Green coalition partner underlines in a position paper (Greens, 2002: 5), some of the proposals of the *Hartz Commission* only confirm measures of the previous Kohl administration (i.e., rules on acceptability of job offers). Similarly, the reforms had already lost some of their rigor at the time when they were passed in parliament; i.e., new rules and regulations concerning the *Ich-AG* now delude much of its divergence from already existing instruments like the *Übergangsgeld*. From a theoretical perspective and thus without discussing matters of equity and social justice, the usefulness of the Hartz reforms for the German labor market can be summarized as follows.

5.3.1 Sticks and Carrots

The general approach of a well balanced mix of sticks and carrots complies with the theoretical findings on labor market inefficiencies. It is a basic assumption of economic theory that people respond to incentives. These incentives can either be positive, i.e. professional consultation for job-seekers and specific training programs to adapt to the quickly changing demands of the labor market. But effective incentives can equally be negative, i.e. benefit cuts or stricter eligibility criteria for unemployment aid. Increasing the search intensity of individuals by reducing benefits and at the same time helping them effectively to re-enter the labor market may consequently improve the performance of the labor market.

To quote a famous economist (Easterly, 2002), incentives also seem to work in Germany in the sense that they do activate people. Even though the last stages of the Hartz reform have not even come into force, unemployed persons already seem less reluctant to accept unattractive job-offers (evidence exists for low-wage harvest jobs that previously had been occupied by foreign employees) and actively try to re-enter the labor-market (increase of temporary employment). Yet, it is uncertain whether these incentives will also solve the labor market problems in Germany. Activating people is one, and certainly an important aspect of suc

cessful labor market reform; the true impact of the Hartz program will nevertheless depend on whether people have been activated for the right ends.

Predictions that a 10% reduction in the replacement ratio will potentially increase employment by 1% (Nickell et al., 2002) are unrealistic and misleadingly deterministic. In the social sciences there simply is no guaranteed outcome when certain parameters are changed. Furthermore, the debate on generous unemployment benefits and an overly soft social security cushion in Germany exclusively focuses on pecuniary aspects. Taking into account the importance of work for a decent and dignified life in society, the price of unemployment is much higher than the loss of income. Simply emphasizing the utility maximizing benefit seeker[48] is certainly an easy and (economically speaking) rational explanation of high unemployment; yet, it is far from capturing the whole dimension of the unemployment problem.

5.3.2 Long-Term Unemployment

The focus of the reforms also corresponds to the needs of the German labor market that have been identified in the literature. Considering the fact that average unemployment spells are constantly increasing in Germany, mediating between the long-term unemployed and potential employers through PSAs can help bridge a gap that allegedly seemed impassable. Furthermore, measures such as mandatory training for people who are not subcontracted may prevent the loss of valuable skills and even increase their labor market value.

It is hardly surprising that *Mini-* and *Midijobs* are primarily criticized by labor unions and other employee associations as these groups fear wage dumping. Arguing with an insider-outsider approach, the creation of a low-wage sector can help amplify the voice of those left outside of the labor market. It nevertheless remains uncertain if this measure proves to be a useful tool for a high-wage economy like Germany. As outlined above, an increase of employment among low-skill workers may be accompanied by a decline of regular employment. Similarly, wages may simply be pushed downward without much effect on the labor market. In view of highly mobile capital markets that allow a quick relocation of production facilities the fear of wage dumping certainly deserves attention

5.3.3 Job Creation

A mayor criticism of the Hartz reforms concerns the fact that most measures only promote job guidance without stimulating the labor market or inducing higher employment *per se*. This aspect becomes even more evident considering the fact that only 15% of all new employment is administered by the *Bundesagentur* (Greens, 2002: 1). Even if this rate may increase as a result of the reforms, improving the work of the agency will consequently not affect a large part of the German labor force.

Yet, it is important to keep in mind that the state can never create employment per legislative decree. In a market economy, a state merely sets the institutional framework that hopefully will generate new jobs. In this respect, the Hartz reforms do contain some important changes as they set incentives for more employment, especially in the low-skill/low-income segment. On the other hand, this particular scope of the reforms further reduces the portion of the German labor force for which the program is relevant. Whether or not the reforms have set the right priorities in focusing on the low-wage sector will only be assessable considering the future development of the German labor market.

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[48] Heckman (2002: 16) explains that "as the generosity of benefits increases, so does the incentive not to work. Germans like all people respond to these incentives."

Effects on the entire economy are difficult to measure and certainly impossible to forecast. Potential problems connected to the introduction of a low-wage sector have already been outlined above. A possible scenario of the overall effects of the Hartz reforms may include a stimulation of new employment and a simultaneous reduction of average family income, especially among low-wage workers. The German society will have to decide whether it prefers such scenario over the current situation.

5.3.4 Hartz Reforms – Vision and Reality

The proclaimed goals of the Hartz reforms are extremely ambitious. Beyond halving unemployment until the year 2005, they intend to stimulate the labor market in the *Neue Länder*, fight long-term unemployment, and raise the number of women in the labor market. In view of the latest unemployment statistics, which still report an unemployment rate of over 10%, these objectives will hardly be achievable. As indicated in Tab. 6, the situation in basically all target areas of the reforms has not changed or even deteriorated from the time the *Hartz Commission* presented its report.

Tab. 6: Labor Market Indicators Two Years After The Hartz Report

	16.08.2002 (announcement of Hartz Report)	***16.08. 2004***	***Change 2002-2004***
Unemployed persons	*4,018,000*	*4,359,000*	*+ 341,000*
Unemployed (East)	*1,387,000*	*1,600,000*	*+ 213,000*
*Regular jobs**	*27,580,000*	*26,449,000*	*- 1,131,000*
Employed persons	*38,692,000*	*38,183,00*	*- 509,000*
Open positions	*458,004*	*296,588*	*- 161,416*
Unemployed persons per open position	*8.8*	*14.7*	*+ 5.9*

** Regular Jobs include all employments that need to be insured in the social security system.*
Source: Frankfurter Allgemeine Zeitung, 17 August 2004.

Certainly, exogenous factors like the global economic slowdown in the aftermath of the attacks of September 2001, international conflicts like the war in Afghanistan and Iraq, and the increased security risks due to international terrorism have contributed to the stagnation of the German labor market. After all, the German (or European) unemployment problem may simply be an economic *growth* problem, as suggested by a study of the DIW (Stille et al., 2003).[49]

Most importantly though, people need to realize that such wide reform programs as the one proposed by the *Hartz Commission* will not have an immediate effect that can be measured as quickly as two years after its initial implementation. Such comprehension would demand better communication and information strategies, but also a more realistic evaluation of the identified problems and proposed remedies. First and foremost, these duties fall within the responsibility of the political class and other political pressure groups (i.e., labor unions). The German case study unfortunately offers many examples where these groups have not lived up to this responsibility. It may consequently not be the reforms that need to be criticized, but the tendency to encourage unrealistic expectations in an attempt to satisfy a specific constituency.

[49] According to the DIW, labor market policy should consequently only be a subset of a broader effort toward better economic performance. Similarly, some authors ascribe the better performance of the American labor market to the role of the Federal Reserve System (FED). In contrast to the European Central Bank, the FED actively aims at stimulating growth besides keeping inflation low.

6. Conclusion

This paper has presented theoretical and empirical dimensions of the *Eurosclerosis* debate. Although the evidence for the discussed models is relatively weak and unconvincing, it would nevertheless be short-sighted to deny the importance of labor market rigidities for the performance of a labor market. Time lags between the introduction or abolishment of a certain rigidity and this measure's effect on the labor market may complicate empirical analyses (i.e., actors may not be very responsive to changes in the institutional setup as indicated by the wage and unemployment elasticity; clearly, this itself might be due to inefficient labor market institutions).

Similarly, analyzing the effect of certain rigidities in a separate and isolated fashion is problematic as the whole institutional setup will influence the behavior of individuals and affect market outcomes. As argued by Bentolila and Bertola (1990), employment protection may raise employment in economies where average tenure is long enough to allow high discounting of firing costs, but may possibly lower employment when average tenure is short. Thus, the impact of a particular rigidity will always depend upon the overall institutional context. As Bean (1994: 614) remarks "there does not seem to be any single cause of the rise in European unemployment."

The diversity of the European labor market rules out any universal explanation of the European unemployment problem as each analysis requires a careful consideration of the specific institutional setup of the particular economy. This aspect refers to the wide range of unemployment rates in European countries as well as other institutional, cultural, or historical factors that characterize and distinguish European labor markets. Merely comparing *the* unemployment rate in Europe with the unemployment rate in the United States undoubtedly runs the risk of oversimplifying the matter. Not only would such analysis neglect the fact that some European countries show a lower unemployment rate than the U.S.; it would similarly not take into account that despite standardization efforts even the comparability of unemployment rates remains problematic.[50]

Nickell (1997: 55) therefore criticizes the level of generalization found in many studies on the European unemployment problem and demands a more differentiated analysis. Yet, even the study of one particular institutional system will always face the problem of recognizing and cherishing all important institutional features that might influence the performance of the labor market. The previous case study clearly underlines this aspect as it necessarily had to be restricted to the most obvious features of the German labor market.

For the same reason, it is equally unrealistic to believe that merely reducing the number or the extent of labor market rigidities can be a general solution to dealing with high unemployment. Some studies (i.e., Siebert, 1997) seem to indicate that such policy is the only way in which Europe could leave the path of persistently high unemployment. Even though the existence of rigidities potentially does reinforce itself and creates an even finer institutional web of rules and regulations, it is not certain whether this will necessarily have a negative effect on the overall performance of the labor market. In this respect the German reform program may be a little too receptive to the general critique on labor market rigidities as it does not seem to take into account the specific strengths of the German labor market. Alternative studies on the effects of the Hartz reforms even estimate an increase of unemployment due to the elimination of labor market rigidities (Hickel, 2003).

[50] Unlike West-European countries, the United States does not have a central unemployment registry but bases its figures on a monthly survey of 50,000 households. People who have worked for no matter how short in the preceding week as well a large prison population is not counted unemployed.

However, there is some empirical evidence that governments could reduce the magnitude of the unemployment problem by implementing more incentive based labor market policies. This aspect particularly addresses to the high and constantly growing percentage of long-term unemployed in many European countries. This group of individuals is less able to enter the labor-market (due to preferences on the demand side of labor) and probably also less motivated to invest time and effort into such an endeavor (due to preferences on the supply side of labor). Given these constraints, the state can try to generate the necessary incentives in order to encourage people to try to re-join the labor market.[51]

As suggested by search theory, institutional parameters (i.e., unemployment benefits) and active labor market policies (i.e., job re-integration measures) may stimulate the search effort of an unemployed individual and especially improve the situation in long-term unemployment segment. Above all the duration of unemployment benefits seems to have a significant impact on the level and composition of the unemployed. The longer persons are entitled to receive benefits, the longer they will have an incentive to invest relatively little effort to get out of this situation. At the same time, their chances of successfully re-entering the labor market at an acceptable wage rate deceases with the duration of their unemployment spell. Thus, the probability that individuals will be able to get out of unemployment is reduced over time from both the demand and supply side of labor. Disregarding possible side-effects of the proposed measures, the German reforms certainly try to tackle the right elements of the unemployment problem.

Seen from this perspective, the low flexibility of European labor markets is indeed a *Eurosclerosis* rather than a *Eurosuccess*. Even though the direct impact of such rigidities as hiring and firing costs may be indeterminate, the literature usually acknowledges the fact that rigidities decrease the responsiveness and mobility of market actors – this is almost true by definition of the term rigidity (comp. certain indicators of flexibility at the end of this chapter). Long reaction times and relatively static behavior of individuals may have a positive impact under specific assumptions about economic parameters; i.e., rigidities may stabilized the economy and prevent large shocks on the labor market during times of high economic security. If, on the other hand, we assume greater economic turbulence (i.e., higher competition from low-income countries, international outsourcing) this may no longer be true. Especially considering the level of capital mobility already found in today's economies, the labor market will hardly be able to remain static and inflexible.

Not surprising, the impact of rigidities will thus depend on the assumptions we make about key economic variables. Given the current level of internalization and globalization, which will likely continue in the future and increase the pressure on European labor markets, a rather pessimistic forecast seems appropriate. Without major institutional reform European unemployment will hardly decrease in the near future.

[51] The recent increase of the U.S. unemployment rate despite a simultaneous boom on the labor market (as mentioned above, more than 300,000 new jobs in October 2004) was actually perceived as a positive sign. People have apparently regained confidence that they can eventually re-join the labor market and thus registered unemployed.

Tab. 7: Percentage of People in Jobs for Less Than One Year

	Women aged			Men aged		
Country	**<=25**	**26-45**	**46-60**	**<=25**	**26-45**	**46-60**
France	48.89	15.42	4.54	44.87	11.39	4.68
Germany	35.98	15.23	7.54	36.49	16.34	6.85
Italy	29.06	9.64	3.41	29.55	8.19	3.56
Japan	23.46	7.61	4.51	25.36	4.32	2.97
Netherlands	42.97	20.69	11.32	47.16	20.44	8.64
Spain	75.73	29.38	14.7	76.50	28.76	13.09
Sweden	53.46	16.47	7.01	44.94	18.19	5.33
U.K.	40.80	20.14	9.90	39.65	14.83	9.77
U.S.A.	51.62	23.81	11.82	52.23	20.00	12.22

Source: Burgess (1999: 14). All industries weighted within each country.

Tab. 8: Percentage of People in Jobs for More Than Ten Years

	Women aged		Men aged	
Country	**25-45**	**46-60**	**25-45**	**46-60**
France	38.81	71.57	42.85	76.77
Germany	23.64	45.23	29.29	59.54
Italy	36.71	70.82	39.89	28.05
Japan	26.55	54.75	44.43	76.65
Netherlands	22.15	46.28	30.61	66.85
Spain	33.70	66.58	36.67	72.66
Sweden	36.75	64.33	33.45	69.03
U.K.	21.40	44.32	36.03	58.11
U.S.A.	19.46	43.95	25.80	56.04

Source: Burgess (1999: 15). All industries weighted within each country.

Tab. 9: Percentage of People in Jobs for More Than 20 Years

	Women		Men	
Country	**25-45**	**46-60**	**25-45**	**46-60**
France	10.02	47.18	9.68	56.29
Germany	n.a.	n.a.	n.a.	n.a.
Italy	8.30	43.39	8.62	52.40
Japan	5.17	23.26	10.78	60.55
Netherlands	3.77	15.79	7.41	36.67
Spain	8.83	33.53	10.67	50.24
Sweden	7.37	29.28	7.16	45.56
U.K.	3.26	15.93	8.97	34.76
U.S.A.	2.74	16.01	4.01	33.53

Source: Burgess (1999: 15). All industries weighted within each country.

References

BEAN, Charles R. (1994): "European Unemployment – A Survey", in: Journal of Economic Literature, Vol. 32, June 1994, pp. 573-619.

BENTOLILA, Samuel and Guiseppe BERTOLA (1990): "Firing Costs and Labour Demand – How Bad is Eurosclerosis?", in: Review of Economic Studies, Vol. 57 (3), pp. 381- 402.

BENTOLILA, Samuel and Gilles SAINT-PAUL (1992): "A Model of Labor Demand with Linear Adjustment Costs", in: Labour Economics, Vol. 1, pp. 303-326.

BERTOLA, Giuseppe (1992): "Labor Turnover Costs and Demand", in: Journal of Labor Economics, Vol. 10(4), pp. 389-411.

BERTOLA, Giuseppe (1990): "Job Security, Employment, and Wages", in: European Economic Review, Vol. 34(4), June 1990, pp. 851-879.

BLANCHARD, Olivier J. and Pedro PORTUGAL (2000): What Hides Behind an Unemployment Rate – Comparing Portuguese and U.S. Labor Markets, NBER Working Paper No. 6636.

BLANCHARD, Olivier Jean (1991): "Wage Bargaining and Unemployment Persistence", in: Journal of Money, Credit, and Banking, Vol. 23(3), August 1991, pp. 277-292.

BLANCHARD, Oliver J. and Lawrence H. SUMMERS (1988): "Why is Unemployment So High in Europe? Beyond The Natural Rate Hypothesis", in: American Economic Review, Vol. 78(2), pp. 182-187.

BLANCHARD, Oliver J. and Lawrence H. SUMMERS (1986): "Hysteresis and the European Unemployment Problem", in: NBER Macroeconomic Annual, ed. by Stanley Fischer, Cambridge: MIT Press, pp. 15-74.

BLS (2004): Employment Statistics – October 2004, Bureau of Labor Statistics, electronically published at www.bls.org [read on 5. November 2004].

BUNDESAGENTUR FÜR ARBEIT (2005): Arbeitsmarkt in Zahlen, März 2005, Nürnberg: BA.

BUNDESAGENTUR FÜR ARBEIT (2004): Arbeitsmarkt in Zahlen – Statistische Auswertung, November 2004, Nürnberg: BA.

BUNDESAGENTUR FÜR ARBEIT (2004a): Arbeitsmarkt in Zahlen, September 2004, Nürnberg: BA.

BUNDESANSTALT FÜR ARBEIT (2004b): Arbeitsmarkt in Zahlen – Strukturanalyse, June 2004, Nürnberg: BA.

BUNDESANSTALT FÜR ARBEIT (2003): Arbeitsmarkt in Zahlen – Strukturanalyse: Zu- und Abgänge an Arbeitslosen, 2002, Nürnberg: BA.

BUNDESANSTALT FÜR ARBEIT (2002): Arbeitsmarkt 2002, Nürnberg: BA.

BURGESS, Simon M. (1999): An International Comparison Using Job Tenure Data, Center for Economic Performance, London School of Economics and Political Science, March 1999, London: LSE.

BURGESS, Simon M. (1992): "A Search Model With Job Changing Costs – 'Eurosclerosis' and Unemployment", in: Oxford Economic Papers, Vol. 44, pp. 75-88.

CHEN, Yu Fu, Dennis SNOWER and Gylfi ZOEGA (1999): Firing Costs – Eurosclerosis or Eurosuccess?, HWWA Discussion Paper No. 78, Hamburg: HWWA.

DANIEL, Kirstin and W. Stanley SIEBERT (1999): Labor Market Regulation and Production Worker Recruitment – International Comparison, working paper, Birmingham Business School.

DEUTSCHE BANK (2004): More Growth for Germany, DB Research, 10 August 2004, Frankfurt: DB.

DEUTSCHER BUNDESTAG (2002): Schlussbericht der Enquete-Kommission "Globalisierung der Weltwirtschaft – Herausforderungen und Antworten", Berlin: Deutscher Bundestag, 14. Wahlperiode, Drucksache 14/9200, 12 June 2002.

DIAMOND, Peter A. (1981): "Mobility Costs, Frictional Unemployment, and Efficiency", in: Journal of Political Economy, Vol. 89(4), pp. 798-812.

DORNBUSCH, Rüdiger (1993): "The End of the German Miracle", in: Journal of Economic Literature, Vol. 31, June 1993, pp. 881-885.

EASTERLY, William (2002): The Elusive Quest for Growth – Economists' Adventures and Misadventures in the Tropics, MIT University Press, Cambridge: MIT.

EUROPEAN COMMISSION (2004): Employment in Europe 2004, Brussels: European Commission.

EUROPEAN COMMISSION (2001): Employment in Europe 2001 – Autumn Update, Brussels: European Commission.

EUROPEAN COMMISSION (2000): Employment in Europe 2000, Brussels: European Commission.

FELLA, Giulio (2000): When Do Firing Costs Matter?, LSE Working Paper No. 400, London School of Economics and Political Science, London: LSE.

FREEMAN, Richard B. (1998): "War of the Models – Which Labour Market Institutions for the 21st Century?", in: Labour Economics, Vol. 5(1), pp. 1-24.

GEISHECKER, Ingo and Holger GÖRG (2004): "Winners and Losers, Trade and Wages Revisited", updated version, DIW Discussion Paper 385, March 2004, Berlin: DIW.

GIERSCH, Herbert (1985): Eurosclerosis, Kiel Discussion Paper Series, No. 112, Institut für Weltwirtschaft an der Universität Kiel, Kiel: IfW.

GLYN, Andrew (2003): Labour Market Deregulation and Europe's Employment Problems, paper prepared for panel on "Recession, Inflation and the Prospects for Equitable Growth", AEA/URPE session, Washington, DC, January 2003.

GREENS (2002): Vorschläge der Hartz-Kommission zur Reform des Arbeitsmarktes – Bewertung, Kritik, Implementierung, position paper of the economics group of Bündnis90/Die Grünen, Berlin.

GOTTFRIES, Nils and Hendrik HORN (1987): "Wage Formation and the Persistence of Unemployment", in: Economic Journal, Vol. 97(388), pp. 877-884.

GOTTSCHALK, Peter and Robert MOFFIT (1994): "The Growth of Earnings Instability in the U.S. Labor Market", in: Brookings Papers of Economic Activity, No. 2, pp. 217-254.

GREENWALD, Bruce C. and Joseph E. STIGLITZ (1995): "Labor Market Adjustments and the Persistence of Unemployment", in: The American Economic Review, Vol. 85(2), pp. 219-225.

HECKMAN, James J. (2003): "Flexibility, Job Creation, and Economic Performance", paper presented at the Munich Economic Summit, 2/3 May 2003.

HECKMAN, James J. (2002): Flexibility and Job Creation – Lessons for Germany, NBER Working Paper No. 9194.

HICKEL, Rudolf (2003): "Motiv der Hartz-Gesetze – Sozialausgaben einsparen", Tagesschau-Interview, electronically published at http://www.tagesschau.de/aktuell/meldungen/__0,1185,OID2408678_TYP6THE2415058_NAV2415058_REF2_BAB,00.html [read on 2 November 2004].

HINZE, Jörg (2004): "Keine Entwarnung für den Arbeitsmarkt", in: Wirtschaftsdienst, Vol. 84(6), pp. 395-399.

IAB (2002): Institut für Arbeits- und Betriebsforschung, IAB-Werkstattbericht 4/2002, Nürnberg: IAB.

ILO (2004): Economic Security for a Better World, International Labor Office, Geneva: ILO.

IWH (2003): Transferleistungen für die Neuen Länder – Eine Begriffsbestimmung, Institut für Wirtschaftsforschung Halle, IWH Press Release No. 21/2003, 27 October 2003.

JACKMAN, Richard and Richard LAYARD (1991): "Does Long-Term Unemployment Reduce a Person's Chance of a Job? A Time-Series Test", in: Economica 58, pp. 93-106.

JACOBSON, Luis S., Robert J. LALONDE, and Daniel G. SULLIVAN (1993): "Earnings Losses of Displaced Workers", in: American Economic Review, Vol. 83, pp. 685-709.

JAHN, Elke and Alexandra WINDSHEIMER (2004): "Personal-Service-Agenturen – Teil II: Erste Erfolge zeichnen sich ab", IAB-Kurzbericht No. 2, Institut für Arbeit und Berufsforschung, Nürnberg.

KLÖS, Hans-Peter (2000): "Der Niedriglohnsektor als ein Beitrag zur aktivierenden Sozialpolitik", in: Jürgen Schupp and Heike Solga (ed.): Niedrig entlohnt = gering qualifiziert? Chancen und Risiken eines Niedriglohnsektors in Deutschland, conference paper, Berlin: DIW/MPIfB.

LABOURNET (2003): "Dummheit, die Schatten wirft… Brot & Rüben – Reinigungskräfte in der Falle", electronically published at http://www.labournet.de/branchen/dienstleistung/rg/ dummheit.html [read on 2 November 2004].

LAYARD, Richard, Stephen NICKELL, and Richard JACKMAN (1991): Unemployment – Macroeconomic Performance and the Labour Market, Oxford: Oxford UP.

LINDBECK, Assar and Dennis J. SNOWER (1986): "Wage Setting, Unemployment, and Insider-Outsider Relations", in: American Economic Review, Vol. 76(2), May 1986, pp. 235-239.

LJUNGQVIST, Lars and Thomas J. SARGENT (1998): "The European Unemployment Dilemma", in: Journal of Political Economy, Vol. 106(3), pp. 514-550.

MADDISON, Angus (1992): Dynamic Forces in Capitalist Development, Oxford: Oxford University Press.

NICKELL, Stephen (1997): "Unemployment and Labor Market Rigidities – Europe versus North America", in: Journal of Economic Perspectives, Vol. 11(3), pp. 55-74.

NORTH, Douglass C. (1990): Institutions, Institutional Change and Economic Performance, New York: Cambridge University Press.

NORTH, Douglass C. (1987): "Institutions, Transaction Costs and Economic Growth", in: Economic Inquiry, Vol. 25(3), Oxford: Oxford University Press, pp. 419-428.

OFFE, Claus (2000): "Der Niedriglohnsektor und das 'Modell Deutschland'", in: Jürgen Schupp and Heike Solga (ed.): Niedrig entlohnt = gering qualifiziert? Chancen und Risiken eines Niedriglohnsektors in Deutschland, conference paper, Berlin: DIW/MPIfB.

OECD (2003): Economic Outlook 2004, Paris: OECD.

OECD (2003): Economic Outlook 2003, Paris: OECD.

OECD (1994): Jobs Studies – Evidence and Explanations, Paris: OECD.

OECD (1994a): Employment Outlook 1994, Paris: OECD.

OLSON, Mancur (1965): The Logic of Collective Action – Public Goods and the Theory of Groups, Cambridge: Harvard University Press.

PAQUÉ, Karl-Heinz (1999): Structural Unemployment and Real Wage Rigidity in Germany, Kieler Studien 301, Institut für Weltwirtschaft Kiel, Tübingen: Mohr.

PRASAD, Edward (2000): The Unbearable Stability of the German Wage Structure – Evidence and Interpretation, IMF Working Paper, WP/00/22-EA, Research Department, Washington: IMF.

SAINT-PAUL, Gilles (1997): "The Rise and Persistence of Rigidities", in: American Economic Review, Vol. 87(2), May 1997, pp. 290-294.

SAINT-PAUL, Gilles (1995): "The High Unemployment Trap", in: Quarterly Journal of Economics, Vol. 110(2), pp. 527-550.

SCHERL, Hermann (2003): "Die Vorschläge der Hatz Kommission und deren Umsetzung – Eine Zwischenbilanz", in: List-Forum für Wirtschafts- und Finanzpolitik, Vol. 29(3), Nomos Verlagsgesellschaft, pp. 216-236.

SCHRÖDER, Christoph (2000): "Spreizung der westdeutschen Arbeitseinkommen – Messung, Trends und Einflussfaktoren", in: iw-trends, No. 2/2000, pp. 5-23.

SEN, Amartya (1997): "Arbeitsplätze sind das wichtigste Bindeglied in der sozialen Kette – Über Gerechtigkeit, die Folgen der Arbeitslosigkeit und die Forderung nach Selbsthilfe", in: Frankfurter Rundschau, 21. November 1997.

SIEBERT, Horst (1997): "Labor Market Rigidities – At the Root of Unemployment in Europe", in: Journal of Economic Perspectives, Vol. 11(3), pp. 37-54.

SINN, Hans-Werner (2002): "Die rote Laterne – Die Gründe für Deutschlands Wachstumsschwäche und die nötigen Reformen", Lecutre for the Nordrhein-Westfälische Akademie der Wissenschaften, 13 November 2002, Ifo-Institut, Berlin.

SPD (2003): Übersicht über die Maßnahmen der Agenda 2010, SPD Bundestagsfraktion, November 2003, Berlin.

SPIEGEL ONLINE (2004): "Ich AG droht Milliardengrab zu werden", Spiegel Online, 4. Oktober 2004, electronically published at: http://www.spiegel.de/wirtschaft/0,1518,321347,00.html [read on 2 November 2004].

SPIEGEL ONLINE (2004a): "Ein-Euro-Jobs auch in Privatunternehmen", Spiegel Online, 4.Sepember 2004, electronically published at: http://www.spiegel.de/spiegel/vorab/0,1518, 316660,00.html [read on 2 November 2004].

STILLE, Frank, Brigitte Preissl, Jürgen Schupp (2003): Zur Dienstleistungslücke – Dienstleistungsmuster im internationalen Vergleich, DIW Sonderheft 2003, Berlin: Duncker & Humblot.

TAYLOR-GOOBY, Peter, Johannes KANANEN, and Trine LARSON (2004): "Paradigm Shifts and Labour Market Reform", working paper, University of Kent.

WEINKOPF, Claudia (2004): "Personal-Service-Agenturen", IAT Jahrbuch 2003/04, Institut für Arbeit und Technik,Gelsenkirchen, pp. 153-170.

WHITEFORD, Peter (1995): "The Use of Replacement Rates in International Comparisons of Benefit Systems", SPRC Discussion Paper No. 54, February 1995, University of York.

WOODBURY, Stephen A and Robert G. SPIEGELMAN (1987): "Bonuses to Workers and Employers to Reduce Unemployment – Randomized Trials in Illinois", in: American Economic Review, Vol. 77(4), pp. 513-530.

WORLD BANK (2000): World Development Indicators 2000, CD-Rom, Washington: World Bank.

ZIMMERMANN, Klaus F. (2003):" Beschäftigungspotentiale im Niedriglohnsektor", in: Stefan Bach and Jürgen Schupp (ed.): Beschäftigung im Niedriglohnbereich – Probleme, Lösungsansätze und wirtschaftliche Implikationen, Vierteljahrshefte zur Wirtschaftsforschung, Vol. 72(1), pp. 11-24.

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