

Germany's poor economic performance in the last decade: it's the macroeconomy, not institutional sclerosis

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**Germany's Poor Economic Performance
in the Last Decade:
It's the Macroeconomy, not Institutional Sclerosis**

Achim Truger

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Germany's Poor Economic Performance in the Last Decade: It's the Macroeconomy, not Institutional Sclerosis

by

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Abstract

This paper challenges the institutional sclerosis explanation of the German crisis according to which rigid labour markets and generous welfare state institutions have driven Germany into its position as „Europe's sick man“. In general, the explanation is not convincing, because the underlying hypotheses about the effects of labour market regulation and welfare state institutions on employment and growth cannot unambiguously be derived from modern labour market theory and are at least partially at odds with accepted empirical findings. In particular, the explanation is unconvincing, because in international comparison Germany's labour market and welfare state institutions are simply not as sclerotic as often supposed. In most of the aggregate indicators for structural rigidities Germany is not worse than the average OECD or EU country. Moreover, there is a macroeconomic explanation focusing on the combined effects of restrictive and procyclical monetary, fiscal and wage policy in Germany that is broadly consistent with mainstream macroeconomics and is well backed by empirical data.

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Germany's Poor Economic Performance in the Last Decade: It's the Macroeconomy, not Institutional Sclerosis¹

1. Introduction

The German economy is currently facing its most serious crisis in post-war history. After the economic downturn in the US at the end of 2000 German GDP growth went down from 2.9 % to only 0.6 % in 2001 and it has not recovered during the three years since then (see table 1).

Table 1: Macroeconomic Indicators for Germany (1992-2003).

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 ¹⁾
GDP-growth rate (%)	2.2	-1.1	2.3	1.7	0.8	1.4	2.0	2.0	2.9	0.6	0.2	0.3
Unemployment-rate (%)	6.2	7.5	8.0	7.7	8.4	9.2	8.7	8.0	7.3	7.3	7.8	8.3
Deficit-GDP ratio (%)	-2.6	-3.1	-2.4	-3.3	-3.4	-2.7	-2.2	-1.5	-1.4 (1.1)	-2.8	-3.6	-3.7

1) estimate.

Source: OECD (2003).

Projections for 2003 assume zero growth and though there are some signals of a weak recovery in 2004 it may well be that the German economy has entered an ongoing period of stagnation. It is the third crisis within only ten years, unemployment is rising again and may soon reach its post war record level. The budget deficit, though not spectacularly high in international comparison, has been rising despite strong consolidation efforts since 2001. In 2004 it will have exceeded the 3 % (of GDP) deficit limit of the Maastricht Treaty and the Stability and Growth Pact for the third time in three consecutive years, which has already led the European Commission to start the formal excessive deficit procedure which could in turn result in substantial fines for the German government. Of course, many other countries are currently facing economic problems, but in international comparison Germany has been hit much harder than most of the other countries. In rankings with respect to GDP growth, the reduction of unemployment and the budget deficit Germany has kept on occupying one of the worst positions during the last three years (see Hein/Mülhaupt/Truger 2002; OECD 2003). Consequently the current crisis is being discussed under the heading „Schlusslicht Deutschland“.

¹ Very special thanks to Dean Baker, Andrew Glyn, David Howell und John Schmitt for generously supplying the WSI with their complete data set from Baker et al. (2002). I would also like to thank Eckhard Hein and Torsten Niechoj for helpful comments. The usual disclaimer applies.

Of course, there is a lot of vivid discussion about the reasons for the German crisis and about how to overcome it. One thing that is particularly striking about this discussion in politics, the media and the economics profession is, that it relies almost exclusively on one explanation. With few exceptions almost all observers seem to agree that institutional sclerosis, i.e. rigid and overregulated labour markets and too generous welfare state institutions have driven Germany into crisis.² Consequently, there are many who call for far reaching structural reforms, a radical deregulation of the labour market and a radical dismantling of the welfare state. Alternative macroeconomic explanations and policy advice are hardly ever considered seriously and are often dismissed as pure attempts to block the (perceived) urgently necessary process of structural reforms. The proponents of radical deregulation have to a considerable extent been politically successful: After some reluctance during the red-green government's first term (1998-2002) the government has recently made clear with its „Agenda 2010“ that it is determined to implement far reaching structural reforms to overcome the (perceived) institutional sclerosis.

The purpose of the present paper is to fundamentally challenge the institutional sclerosis explanation of the German crisis. In general, the explanation is not convincing, because the underlying hypotheses about the effects of labour market regulation and welfare state institutions on employment and growth cannot unambiguously be derived from modern labour market theory and are at least partially at odds with accepted empirical findings. In particular, the explanation is unconvincing, because in international comparison Germany's labour market and welfare state institutions simply are not as sclerotic as often supposed; in most of the aggregate indicators for structural rigidities Germany is not worse than the average OECD or EU country. Additionally there is a macroeconomic explanation focusing on the combined effects of restrictive and procyclical monetary, fiscal and wage policy in Germany that is broadly consistent with mainstream macroeconomics and is well backed by empirical data.

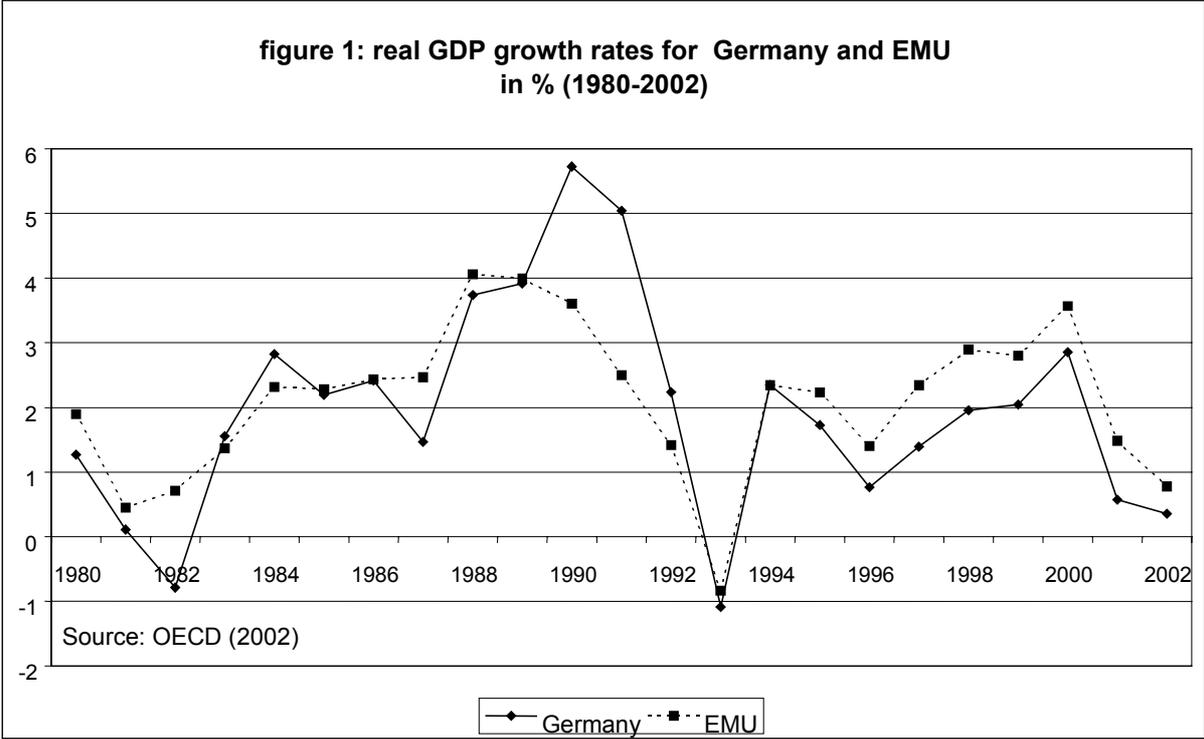
The paper is organised as follows. Section 2 draws a short picture of Germany's economic problems with respect to growth, unemployment and public deficits, in order to better identify the facts to be explained. Section 3 is preoccupied with the institutional sclerosis view. The economic theory behind the view is sketched (3.1), theoretical (3.2) and empirical reasons (3.3) are given, why generally this theory is not very convincing before its particular weaknesses with respect to the German data are analysed in 3.4. Section 3.5 gives some

² On a different level an additional sclerosis claim is being raised with respect to German democratic institutions. They are often said to be sclerotic, as complex and interwoven federal structures make legislation extremely difficult, with many laws being blocked in the process. This has come to be discussed under the heading „Reformstau“.

background information on the effects of German unification. Section 4 presents the alternative macroeconomic explanation of the German crisis. The basic idea is explained (4.1) and its relation to mainstream macroeconomic theory is sketched (4.2). After operationalising the key macroeconomic factors in section 4.3 section 4.4 demonstrates with the help of these factors for Germany compared with the EMU-average that restrictive and ill-coordinated macroeconomic policies have been responsible for the crisis. Section 5 sketches the economic policy implications of the findings.

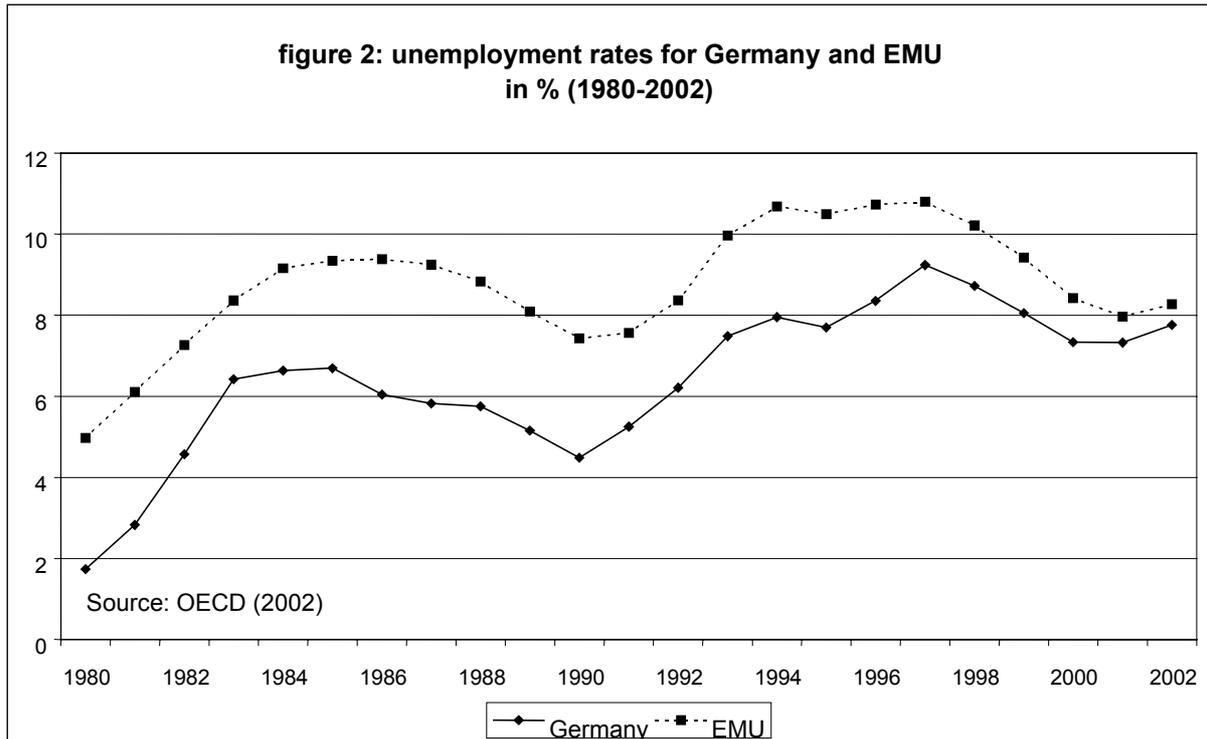
2. Slow Growth, Rising Unemployment Rates and Budget Deficits since the mid 1990s

A closer look at the annual German GDP growth data from 1981 to 2002 in comparison with the average of the European Monetary Union (EMU) countries’ growth rates reveals a long term absolute and relative growth problem in Germany since the mid 1990s (see figure 1):

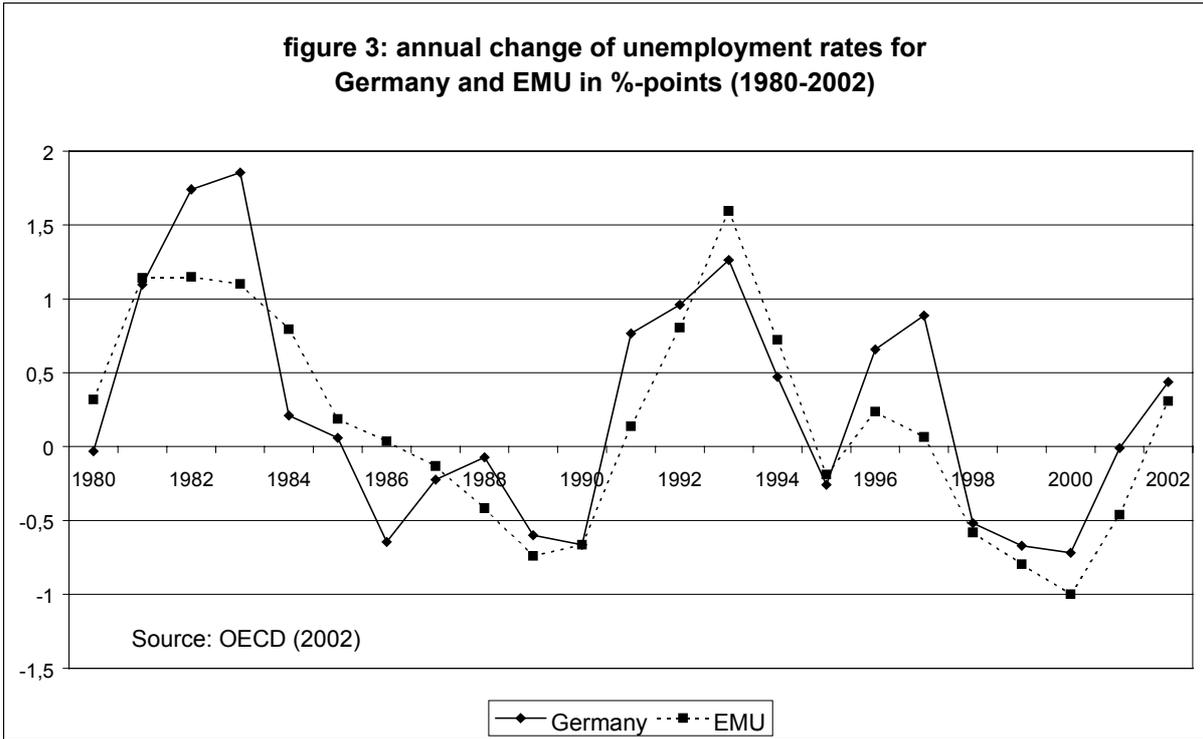


From 1981 until 1994 the German rate oscillates around the EMU average, but from 1995 onwards, the German growth rate is systematically lower than the EMU average. As growth determines (ceteris paribus) employment³ there is a similar picture for the development of the unemployment rate (see figure 2).

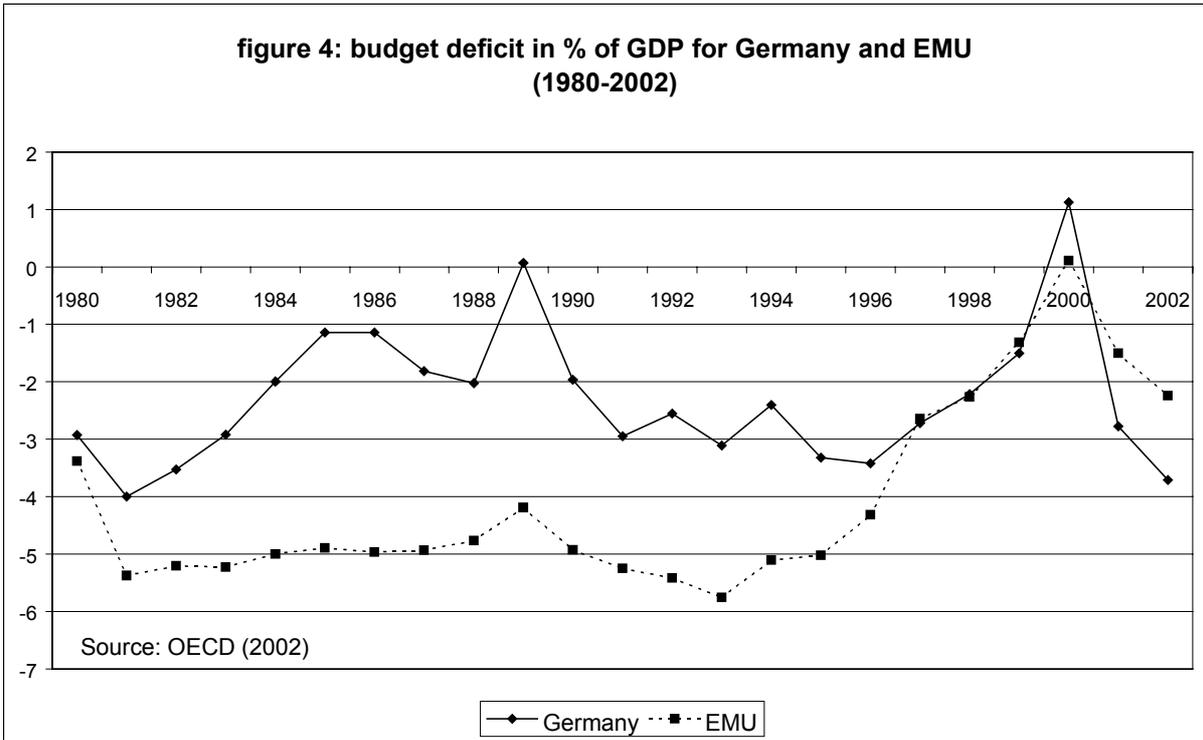
³ In order to lower the German unemployment rate currently a minimum annual GDP growth rate of slightly less than 2 per cent is necessary.



From 1996 on German unemployment has been decreasing more slowly/increasing faster than the EMU average. Whereas the German rate used to be substantially lower than the EMU average from 1981 till the mid 1990s, the difference has been decreasing since 1996 and has by now almost disappeared. The development is even more dramatic with respect to the budget deficit (see figure 3).



Whereas Germany used to be ahead with respect to budget consolidation by about two GDP percentage points, there was a three year process of catching up by the EMU average from 1994 to 1997 and by now the German deficit is considerably higher than the EMU average deficit (see figure 4).



A convincing explanation for Germany's current economic problems thus has to be able to explain the systematic lagging behind of the German growth rate in comparison with the EMU average since the mid 1990s. The development of the unemployment rate and the budget deficit can basically be seen as a consequence of the problem of slow growth.

3. Institutional Sclerosis is not the cause of Germany's Economic Problems⁴

3.1 The Institutional Sclerosis View

The institutional sclerosis view has its theoretical foundation in simple neoclassical labour market theory. The theoretical standard of reference is a complete and perfect neoclassical labour market. With such a standard of reference unemployment can only arise because of market imperfections preventing a market clearing real wage at full employment (see Siebert 1997).⁵ Institutions of collective wage bargaining, labour market regulation and the welfare state are seen as market imperfections and therefore creators of unemployment. To be more precise it is assumed that

- coordinated and/or centralised collective wage bargaining by trade unions and employers' associations on the regional, sectoral or even national level lead to unemployment via excessive wages and an inadequate wage structure due to market power,
- employment protection legislation raises firms' labour costs leading to lower labour demand and thus higher unemployment. The highest importance is often attached to the laws concerning protection against dismissals. The resulting higher dismissal and adaption costs are said to prevent firms from hiring employees.
- the reservation wages guaranteed by the welfare state lead to unemployment. First, unemployment benefits and social benefits are seen to reduce the unemployed's incentives to look for a new job thereby increasing search unemployment. Second, decreased competition because of lower job search activities and the „socialisation“ of the risk to get unemployed are said to reduce the trade union's incentives to behave responsibly in the process of wage bargaining, which in turn is said to raise wages and unemployment,
- taxes on labour (payroll taxes, labour income tax, social security contributions and consumption taxes), the so called tax wedge, lower the net wage thus lowering work incentives and the employees' and trade unions' inclination to accept wage moderation

⁴ This section borrows from and enlarges on earlier joint work with WSI colleagues published in German, namely Truger/Hein (2003) and Hein/Mülhaupt/Truger (2003).

which in turn is believed to raise wages above the market clearing level and therefore the unemployment rate.

From this theoretical point of view there is only one way to reduce unemployment: Reduce or better abolish the imperfections of the labour market, i.e. impede collective bargaining, deregulate the labour market and dismantle the welfare state as far as possible. Unleash the beneficial market forces and the labour market will start working well again.

In order to render a good explanation for the German crisis, the institutional sclerosis view must fulfill three conditions: First, it must be based on a consistent and generally accepted economic theory. Second, the derived theoretical relation between labour market regulation and welfare state institutions on the one hand and unemployment on the other hand should be confirmed by empirical studies. Third, in order to be applicable to the German case it must be shown, that German labour market and welfare state institutions are in fact as sclerotic as to be consistent with Germany's bad economic performance since the mid 1990s. In the following sections it will be shown that the institutional sclerosis view does not convincingly fulfill any of the three conditions.

3.2 Theoretical Doubts

Once the traditional model of a complete neoclassical labour market as a standard of reference is given up and replaced by the models of modern labour market theory it becomes difficult to derive unambiguous implications concerning the employment effects of labour market regulation and welfare state institutions (see Sesselmeier/Blauermel 1990, 37 ff.; Snowdon/Vane/Wynarczyk 1994, 292 ff. and Stiglitz 2002, 9ff.). As soon as asymmetric information between employers and employees, incomplete contracts and active price-setting behaviour are theoretically taken into account there are good reasons to question the institutional sclerosis view and its economic policy implications.

With respect to employment protection, it remains true that it raises firms' labour cost, which leads to less hiring compared with a situation without employment protection (see Jerger 2003). However, if trade unions take into account that employment protection increases workers' income stability and therefore demand lower wages, employment protection costs will be shifted to wages. As employment protection at the same time lowers employment fluctuation the matching between jobs and employees can be improved leading to lower hiring and training costs. Additionally long term relations between employees and firms increase the

⁵ Note that in this approach contrary to what has been stated in the previous section, it is unemployment which lowers the growth rate and not low growth which is responsible for rising unemployment.

incentives to invest into firm specific human capital which in turn raises productivity (see Schettkat 2003). Therefore the net employment effect of employment protection cannot be unambiguously derived from theory. It may have negative as well as positive effects. Theoretical considerations as well as some detailed empirical studies suggest that employment protection has no overall effect on unemployment, but that it influences the structure of unemployment. It seems to lower employment fluctuation and therefore short-term unemployment at the cost of increasing long term unemployment (see Nickell 1997; Nickell/Layard 1999 and OECD 1999).

In modern as well as traditional labour market theory the extent of replacement rates and the duration of unemployment and social benefits considered in isolation do increase the wage pressure both directly through providing a reservation wage and indirectly through reduced worker competition on the labour market. If, however, granting benefits is linked with active labour market policy improving job seekers' qualification and mobility, competition will be increased and wage pressure will go down (see Nickell 1997). Additionally, in incomplete labour markets a longer period of job search may improve matching between jobs and employees, which in turn has positive effects on firm specific human capital accumulation and productivity growth (see Schettkat 2003). Therefore, the overall effect of the replacement rate and duration of unemployment and social benefits on unemployment is theoretically ambiguous.

It is true even for modern labour market theory that increasing union density and higher union coverage increase wage pressure and thus also the unemployment rate. However, a high degree of wage bargaining coordination makes it possible to take into account the macroeconomic effects of excessive wage demands which in turn reduces the unemployment rate (see Nickell 1997). Instead, uncoordinated wage bargaining runs into the danger of neglecting macroeconomic effects of rising wages in favour of sectoral or firms specific relative improvements of wages thereby increasing inflationary pressures and unemployment in times of low unemployment. This positive employment effect of wage bargaining coordination is by now widely accepted: A detailed study by the OECD (1997) comes to the conclusion that there is „(...) some tendency for more centralised/co-ordinated bargaining systems to have lower unemployment and higher employment rates compared with other, less centralised/co-ordinated systems“ (OECD 1997, 64).

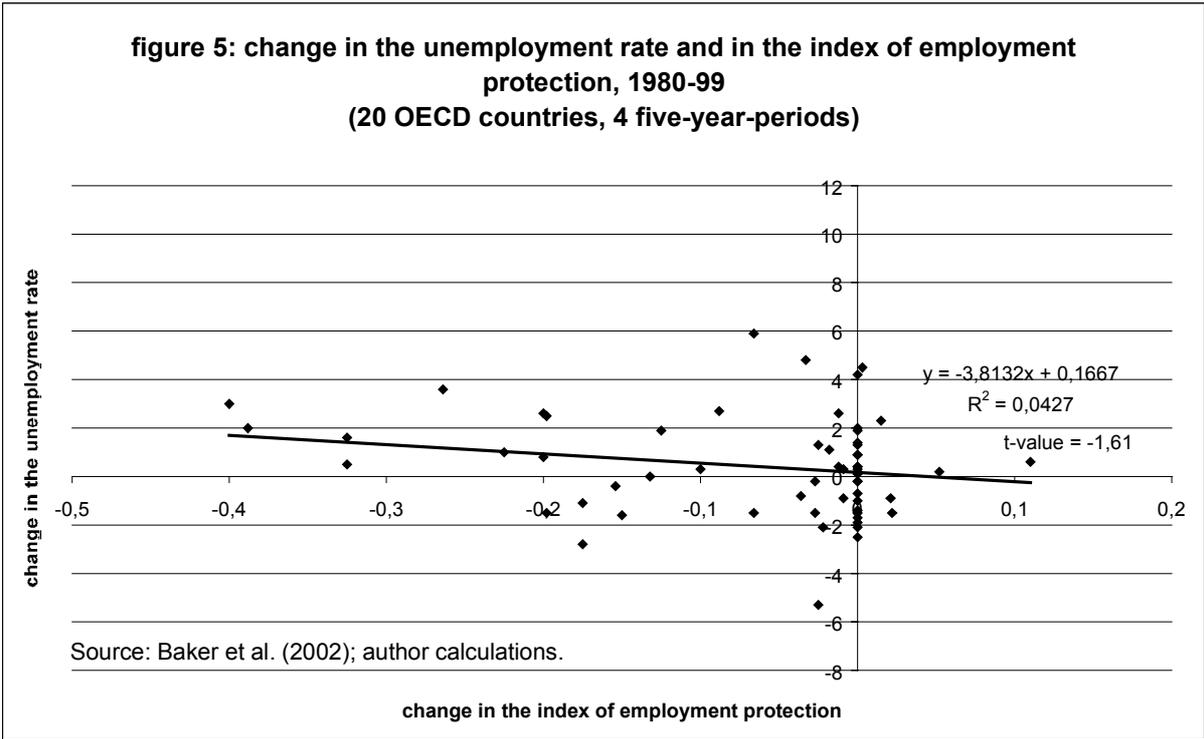
Finally, a high tax wedge will only lower labour demand and employment if it leads to higher wage pressure, i.e. if employees or trade unions try to compensate the taxes via higher wages

(see Nickell 1997). This implies that taxes decrease labour supply through lower individual incentives to work. The effects of taxes on labour supply, however, are theoretically indeterminate and seem to be quite moderate empirically (see Atkinson 1999 and Atkinson/Mogensen 1993).

3.3 Empirical Doubts

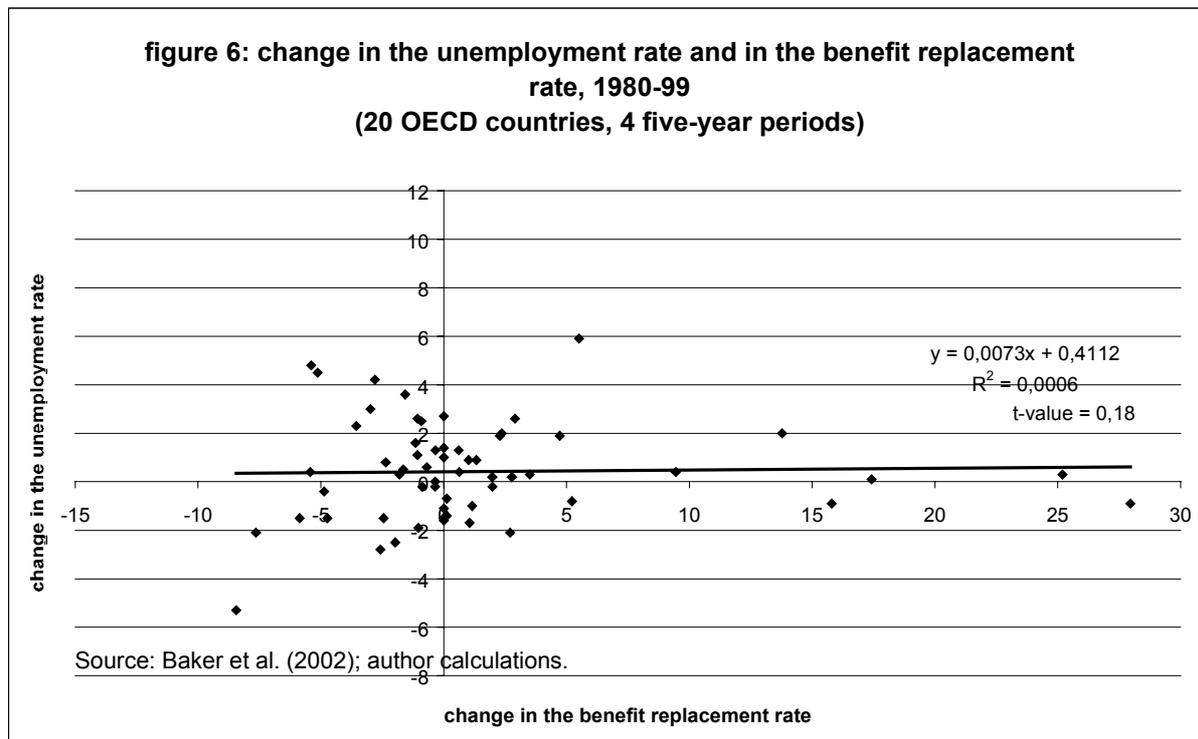
3.3.1 A First Look at the Data: Simple Correlations

In order to study the relation between labour market and welfare state institutions empirical indicators for these institutions are needed. For the present paper the set of indicators by Baker et al. (2002) has been chosen from the different sets of indicators existing in the literature. It is the most complete and up to date set comprising aggregate institutional data for 20 OECD countries for eight 5-year-periods from 1960 to 1999. And it is an updated version of the set by Nickell et al. (2002) who belong to the most recognized macroeconomic labour market researchers.



As a first approximation I present six simple correlation diagrammes with scatter plots relating the change in six relevant institutional indicators (index of employment protection, benefit replacement rate, benefit duration, union density, bargaining coordination and tax

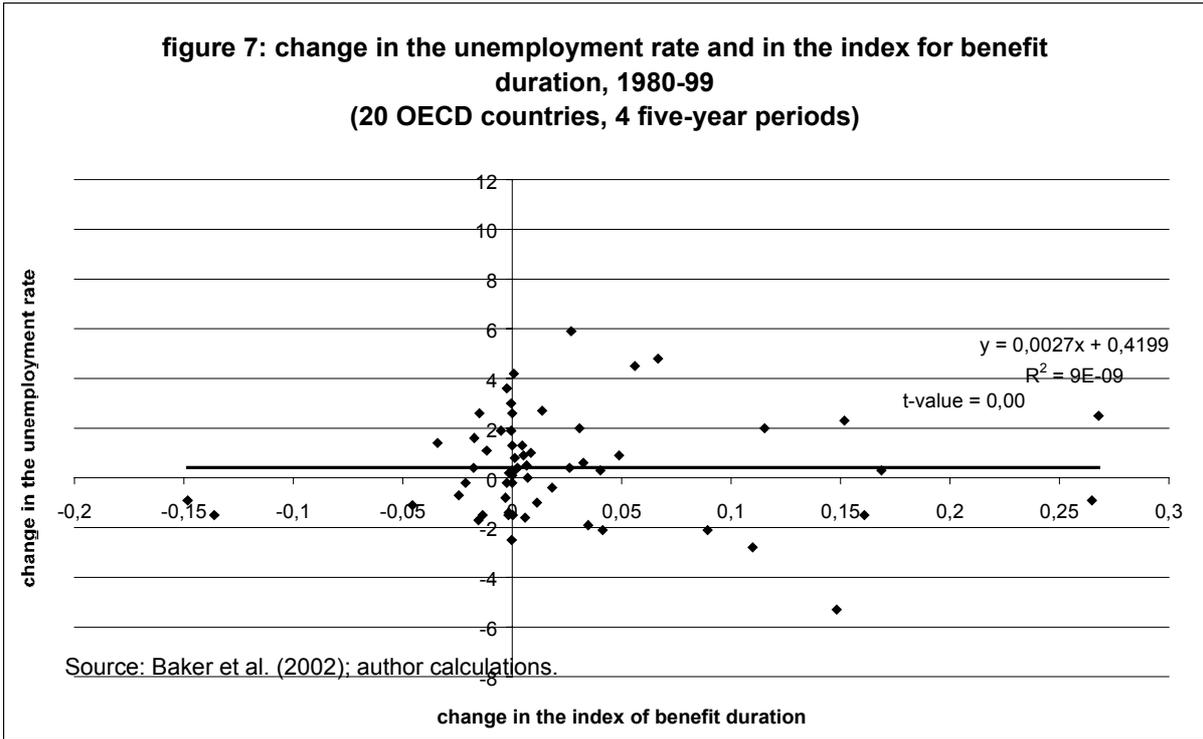
wedge)⁶ to the corresponding change in the standardised unemployment rate for the four 5-year periods from 1980 to 1999 in 20 OECD countries (see figures 5-10).⁷



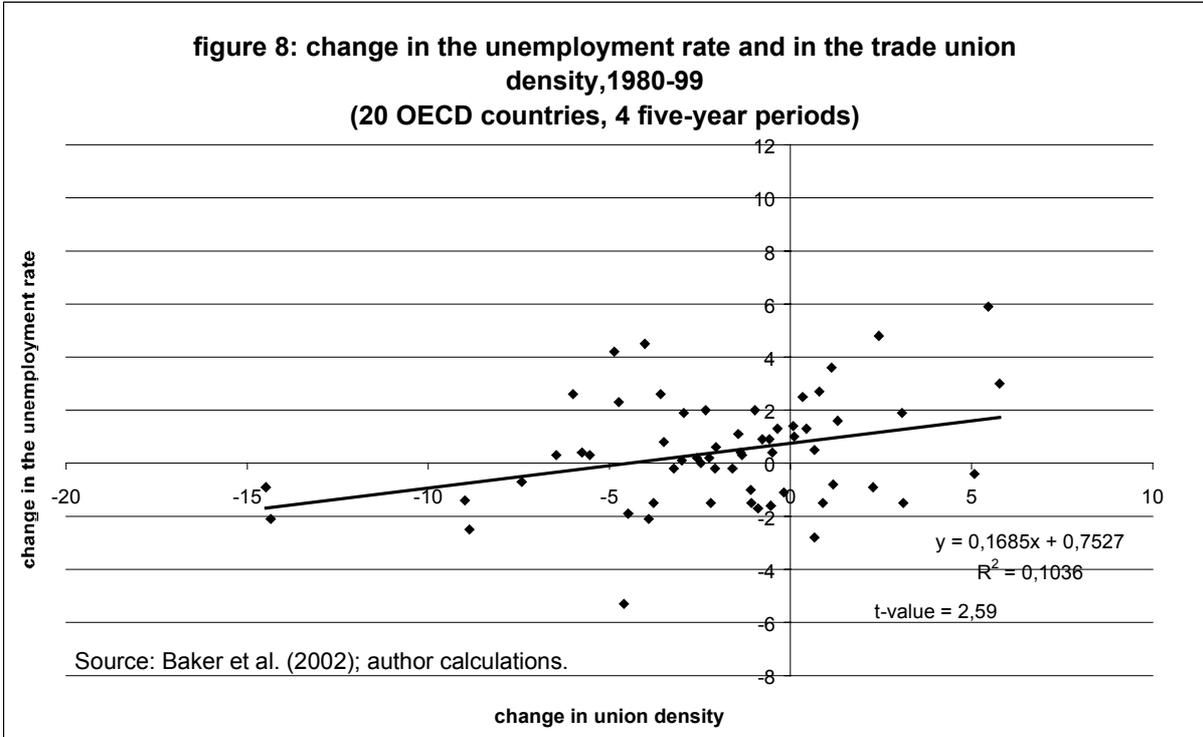
If there are countries that have decreased unemployment by institutional reforms and other that have fallen behind due to lack of such reforms, this will have to be reflected in the diagrammes by a positive relation between institutional change and change in the unemployment rate.

⁶ For a definition see table 2 in section 3.4.

⁷ The period from 1980 to 1999 has been chosen, because it was the 1980s when the phenomenon of persistently high unemployment in some countries occurred for the first time. At the same time some countries started with institutional reforms of the kind the present paper is concerned with. It should be noted, however, that the results remain essentially unchanged when the whole period from 1960 to 1999 is studied.

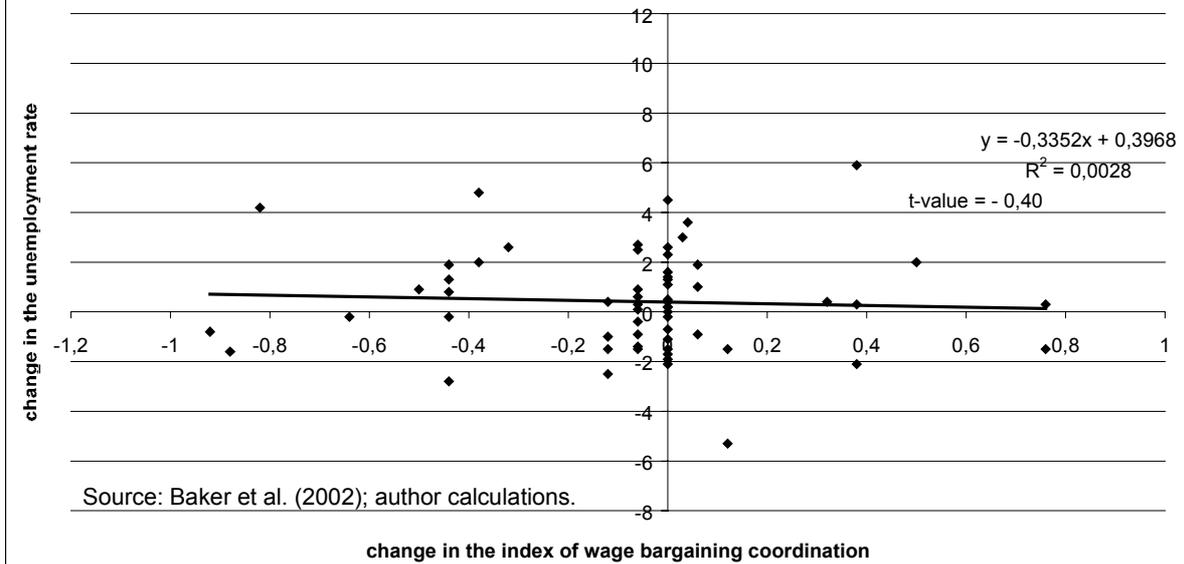


However, this is obviously not the case. The data points are extraordinarily dispersed with the regression lines explaining only a very small fraction of the variance (low values for R^2). Only one of the regression lines (for union density) has a significant positive sign.



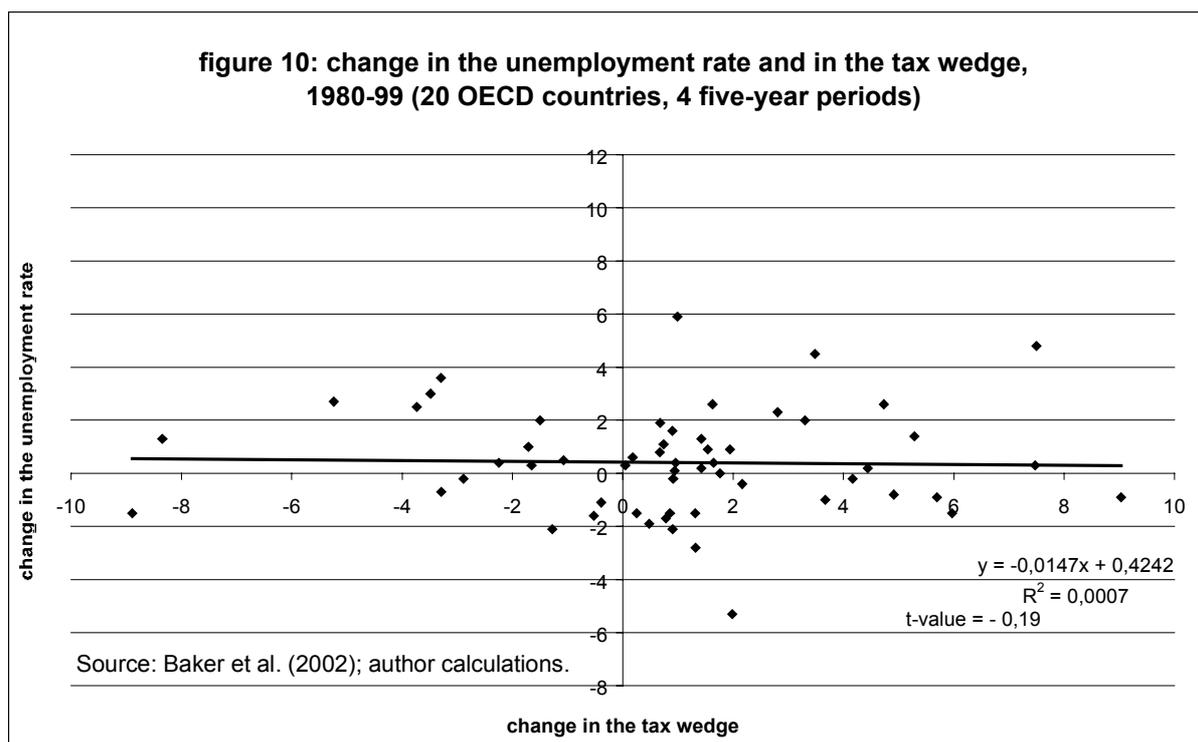
All the others are insignificant and almost zero or even negative.

**figure 9: change in the unemployment rate and in the Index of wage bargaining coordination, 1980-99
(20 OECD countries, 4 five-year periods)**



The deregulationists' claims cannot, of course, be refuted by simple correlation diagrams. However, as a first approximation they show, that there is no clear, simple and obvious relationship between deregulation and unemployment.⁸

⁸ This result is maintained if the level of institutional indicators and unemployment rates is considered instead of the change in these variables. This has been shown for the same period by Baker. et al. (2002, 14 ff.) for the 20 OECD countries and by Hein/Mülhaupt/Truger (2003, 331-343) for 13 EU countries.



3.3.2 Empirical Results from the Literature

What about empirical evidence from more complex econometric studies using multiple regressions? Since the fundamental work by Layard/Nickell/Jackman (1991) various other studies on this subject have been published.⁹ Usually they try to test with the help of pooled cross-country regressions whether the six institutional variables (index of employment protection, benefit replacement rate, benefit duration, union density, bargaining coordination and tax wedge) already introduced have a statistically significant effect on the unemployment rate in OECD countries. Sometimes additional or alternative institutional variables like the level of active labour market policy and the bargaining coverage rate are included in the regressions. The periods of observation usually cover the time span from the early 1960s till the mid 1990s, in some of the studies only from the mid 1980s till the mid 1990s.

The results from these works are rather mixed and not as clear as the proponents of deregulation like to claim: Only the tax wedge and benefit duration have a significantly positive effect on unemployment when they are included as explanatory variables. Employment protection and the benefit replacement rate exert a positive influence on unemployment in the clear majority of studies, as well. For the latter, however, in some countries the causality is not clear: It cannot be ruled out, that high replacement rates are a

political reaction to persistently high unemployment rates. Furthermore, in most of the studies union density and union coverage are not found to significantly influence the unemployment rate.

In striking contrast to the deregulationists' view all studies discussed by Baker et al (2002) come to the result that bargaining coordination exerts a significant and markedly negative influence on the unemployment rate. Moreover, half of the reviewed papers show a significantly negative effect of active labour market policy. In addition, macroeconomic shocks are found to be of considerable relevance to the explanation of unemployment in most empirical studies. Finally, in some of the works country and time specific factors play an important part. It is astonishing that such results are hardly ever noticed in the German economic policy debate on labour market and welfare state institutions.

The impression that econometric studies do not provide clear and unambiguous confirmations of the deregulationists' views has been further strengthened by a recent IMF study using a panel of 20 OECD countries from 1960 to 1998.¹⁰ According to this study some institutional variables, namely employment protection, union density, benefit replacement rate and tax wedge have the expected significantly positive effects on unemployment. However, bargaining coordination again has a significantly negative effect. Moreover, the unemployment rate depends strongly on its own evolution in the past (persistence) as well as on macroeconomic institutions and factors: The degree of central bank independence exerts a strong positive influence on unemployment, which can, however, be reduced by strong bargaining coordination. And both an increase in real interest rates and a slowdown in productivity growth lead to higher unemployment.

After the careful scrutiny of recent econometric studies already revealed that labour market and welfare state institutions can at best explain only a part of existing unemployment, Baker et al. (2002) have shown that those institutional effects that have in fact been found are not very robust. Even small variations in the observation periods or the institutional indicators used in the regressions can dramatically change the signs of the institutional effects. This is demonstrated with respect to the influential work by Nickell (1997), where shortening the observation period by only two years and adapting the specification of institutional indicators to those of later works by the same author (Nickell et al. 2002) led to a complete collapse of the results: Before the new specification seven out of eight institutional variables had the

⁹ Baker et al. (2002) provide a good overview of the more recent econometric studies. They discuss the following studies: Belot/van Ours (2001); Bertola/Blau/Kahn (2002); Blanchard/Wolfers (2000); Elmeskov/Martin/Scarpetta (1998); Nickell (1997) and Nickell et al. (2002).

expected significant sign, afterwards none of them was statistically significant and three even had completely unexpected signs: Employment protection, union density and the tax wedge were estimated to have negative effects on the unemployment rate!

Last but not least the ambiguity of econometric results is underlined by regressions Baker et al. (2002) ran using the same data set for 20 OECD countries from 1960 to 1999 as in the present paper. There employment protection is not significant, at all. Benefit replacement rate and duration are significant, but have a negative sign, i.e. the higher the benefit replacement rate and duration the lower is the unemployment rate. The same applies for bargaining coordination. The tax wedge does not influence unemployment. Dummies for the individual five-year periods are significant and country specific effects are important as well. Finally, the macroeconomic situation, represented by the inflation rate has a significantly negative effect on unemployment. Thus, on the basis of this study the deregulationists' view cannot be confirmed at all.

To sum it up recent econometric studies do not provide clear and unambiguous results in favour of the institutional sclerosis view concerning „rigid“ labour market and welfare state institutions and unemployment. A considerable part of the unemployment differences over time and between countries cannot be explained by differences in the institutional structures of the labour market. Rather time and country specific factors and macroeconomic variables have to be taken into account. Finally, some of the results actually found in favour of the institutional sclerosis view do not seem to be particularly robust.

3.4 German Labour Market and Welfare State Institutions in International Comparison

Table 2 lists the six institutional indicators (index of employment protection, benefit replacement rate, benefit duration, union density, bargaining coordination and tax wedge) for Germany for the eight five year periods from 1960 to 1999 taken from the data set by Baker et al. (2002). It also lists the differences between the values for Germany and the average values of 20 OECD and 13 EU countries.

Quite obviously the evolution of the indicators for Germany is not consistent with Germany's economic evolution and is therefore in striking contrast to the institutional sclerosis view. If the latter were true one would expect the values for Germany to be very high in international comparison and increasing both absolutely and in international comparison over time, especially during the 1990s when Germany entered its period of absolutely and comparatively

¹⁰ IMF (2003). The study is based on updated data from Nickell et al. (2002).

bad economic performance. However, only one indicator, the tax wedge, has consistently grown over time with considerable increases during the 1990s. Two indicators (bargaining coordination and benefit duration) have remained essentially constant since the mid 1970s. And three indicators have even decreased. Employment protection, the benefit replacement rate and union density have already been decreasing since the mid 1970s and have considerably been further reduced during the second half of the 1990s.

The contradictions to the institutional sclerosis view become even more apparent when the indicators for Germany are compared with the average indicator values for 20 OECD and 13 EU countries: In the second half of the 1990s two indicators for Germany (benefit replacement rate and union density) are lower than the OECD-20 average. In EU-13 comparison the former two indicators plus the tax wedge are below average, though the values for the tax wedge are moving closer to the average. With respect to the German indicators above average, only for bargaining coordination the difference has increased during the last 15 years. For employment protection and benefit duration the difference to the OECD-20 and EU-13 average has been continually decreasing since the early (employment protection) or the late (benefit duration) 1970s. In order to capture the sum of all relevant indicators and their changes over time an aggregate indicator for total institutional sclerosis has been constructed from the individual indicators for Germany, the EU-13 and OECD-20. As was to be expected from the individual indicators, Germany's total indicator in the second half of the 1990's is a little above OECD-20 average and exactly equal to EU-13 average.

Table 2: Indicators of labour market institutions and the welfare state: Germany in international comparison (1960-1999).¹⁾

Indicators for Germany⁸⁾						
Period	Employment protection ²⁾	Benefit replacement rate ³⁾	Benefit duration ⁴⁾	Union density ⁵⁾	Bargaining coordination ⁶⁾	Tax wedge ⁷⁾
1960-64	0.45	42.7	0,57	33,8	2,5	42,9
1965-69	0.80	41.9	0,57	32,4	2,5	42,8
1970-74	1.54	39.7	0,58	32,5	2,5	46,7
1975-79	1.65	39.6	0,62	35,1	2,5	48,3
1980-84	1.65	38.8	0,62	34,9	2,5	49,7
1985-89	1.63	37.8	0,60	33,4	2,5	50,5
1990-94	1.50	37.4	0,61	31,0	2,5	52,2
1995-99	1.30	36.3	0,60	27,4	2,5	53,9
German indicators minus average indicators for 20 OECD countries⁹⁾						
Period	Employment protection ²⁾	Benefit replacement rate ³⁾	Benefit duration ⁴⁾	Union density ⁵⁾	Bargaining coordination ⁶⁾	Tax wedge ⁷⁾
1960-64 ¹¹⁾	-0.34	17.1	0.22	-4.9	0.29	6.3 ¹²⁾
1965-69 ¹¹⁾	-0.05	13.0	0.22	-6.7	0.29	1.7 ¹³⁾
1970-74 ¹¹⁾	0.55	7.0	0.19	-8.9	0.26	1.5 ¹³⁾
1975-79	0.53	-0.1	0.21	-10.4	0.20	3.2
1980-84	0.50	-5.0	0.18	-10.5	0.37	1.8
1985-89	0.48	-8.9	0.15	-8.9	0.49	-0.3
1990-94	0.41	-10.1	0.12	-9.7	0.49	0.2 ¹⁴⁾
1995-99	0.34	-11.1	0.09	-12.0	0.58	1.8 ¹⁴⁾
German indicators minus average indicators for 13 EU countries⁹⁾						
Period	Employment protection ²⁾	Benefit replacement rate ³⁾	Benefit duration ⁴⁾	Union density ⁵⁾	Bargaining coordination ⁶⁾	Tax wedge ⁷⁾
1960-64 ¹¹⁾	-0.31	17.3	0.20	-5.9	0.23	4.0
1965-69 ¹¹⁾	-0.08	12.2	0.22	-8.5	0.21	-0.8
1970-74 ¹¹⁾	0.43	5.6	0.19	-12.9	0.11	-1.1
1975-79	0.33	-2.4	0.23	-15.9	0.10	0.6
1980-84	0.27	-6.7	0.19	-16.5	0.30	-1.5
1985-89	0.26	-10.1	0.15	-14.6	0.50	-4.8
1990-94	0.21	-11.7	0.09	-15.4	0.37	-3.4
1995-99	0.21	-12.5	0.05	-18.5	0.42	-2.3
Total indicator of institutional sclerosis¹⁵⁾						
1995-1999	Germany	Average of 20 OECD countries		Average of 13 EU countries		
	52	47		52		

1) An exact definition and a documentation of the origin of the data is given by Nickell et. al. (2002, 21ff.) and Baker et. al. (2002, 62 ff.).

2) Index of employment protection legislation (0-2): 0 = low, 2 = high.

3) Benefit replacement rate before taxes as percentage of previous income before taxes. Average values for two income levels (100 % and 67 % of average income) and three family types (single, family with one earner, family with two earners), based on OECD-data.

4) Index of benefit duration: weighed arithmetic mean of benefit replacement ratios after 2 to 5 years in proportion to first year benefit replacement ratio (see 3). Based on OECD data.

5) Index of trade union density: employed union members as percentage of total employed.

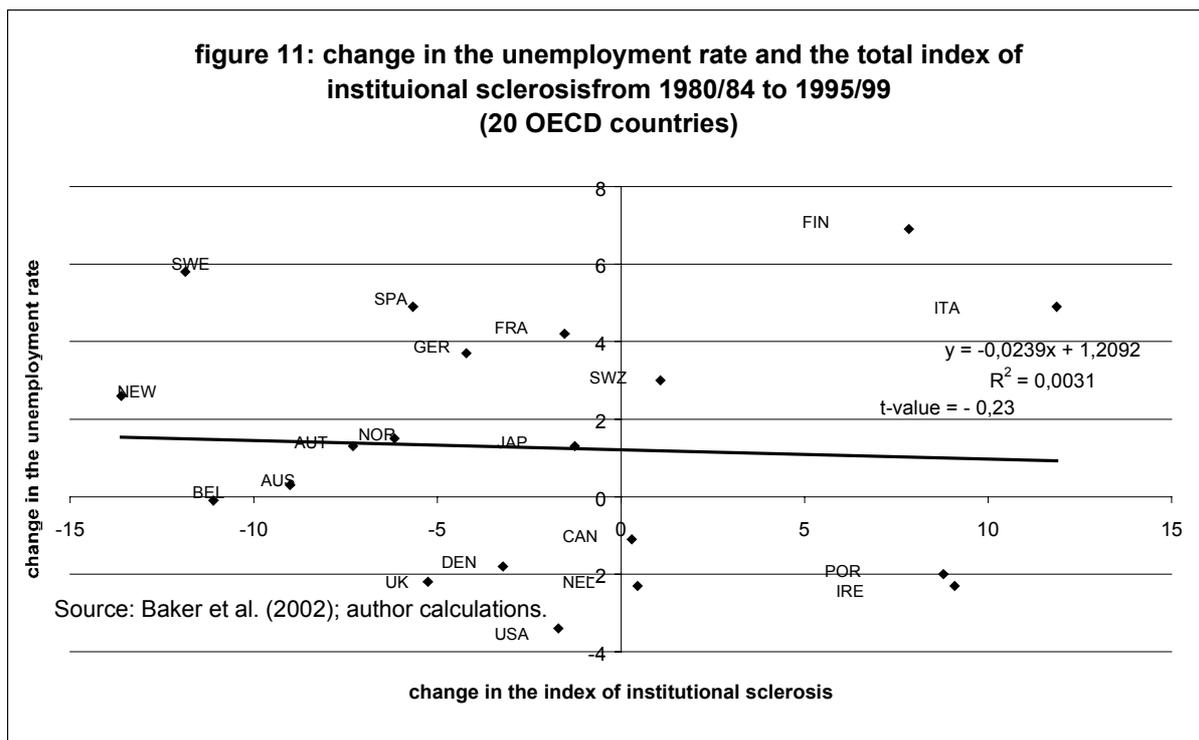
6) Index of wage bargaining coordination (1-3): 1 = low, 3 = high. Based on OECD data.

7) Total average labour tax burden (payroll taxes, social security contributions, labour income tax, consumption taxes).

8) Except for benefit duration: West Germany.

- 9) Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA.
 - 10) Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, United Kingdom.
 - 11) without Portugal.
 - 12) without Portugal, New Zealand und Norway.
 - 13) without Portugal and New Zealand
 - 14) without Australia and Neuseeland.
 - 15) arithmetic mean of the six single indicators previously scaled to the interval [0; 100].
- Source: Baker et al. (2002); Nickell et. al. (2002); author calculations.

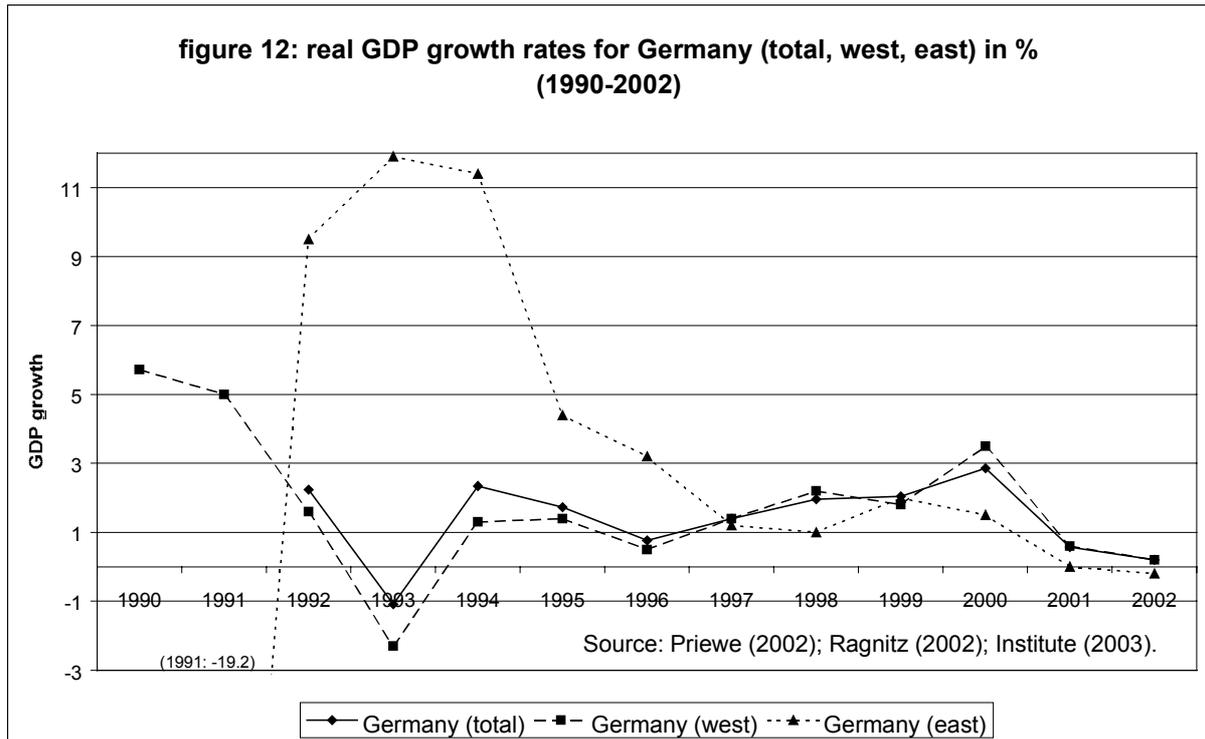
In addition, figure 11 relates the total change in the indicator of total institutional sclerosis from the first half of the 1980s to the second half of the 1990s to the corresponding total change in the unemployment rate for each of the OECD-20 countries. The values for the individual countries are identified by country abbreviations. Obviously there is no positive relation between overall institutional change and the unemployment rate. The regression line has an insignificantly negative slope. Although Germany and Denmark have reduced their „institutional sclerosis“ by almost the same amount (- 4 points) the German unemployment rate rose by about four percentage points whereas the Danish rate decreased by two points. On the other hand, the Netherlands, Portugal and Ireland were all able to decrease their unemployment rates by about two percentage points inspite of increasing sclerosis. To sum up, on the basis of the data presented for Germany hardly any institutional changes can be detected that could according to the institutional sclerosis view be made responsible for Germany's bad economic performance since the mid 1990s.



3.5 Some Effects of German Unification

In the preceding sections Germany's bad economic performance has been considered in the aggregate, i.e. without statistically splitting up West and East Germany. However, it is well known, that there are serious transition problems in East Germany and that consequently many of the problems (especially unemployment) are highly concentrated in East Germany without much affecting the West German economy. Then, of course, the whole institutional sclerosis debate may be seriously misleading and the discussion had better focus on solving East Germany's transition problems.

There are indeed some indications that the aggregate data do exaggerate the economic problems for West Germany since 1997: West German GDP has grown somewhat stronger since 1997 when the catching up process of the East came to a halt (see figure 12).

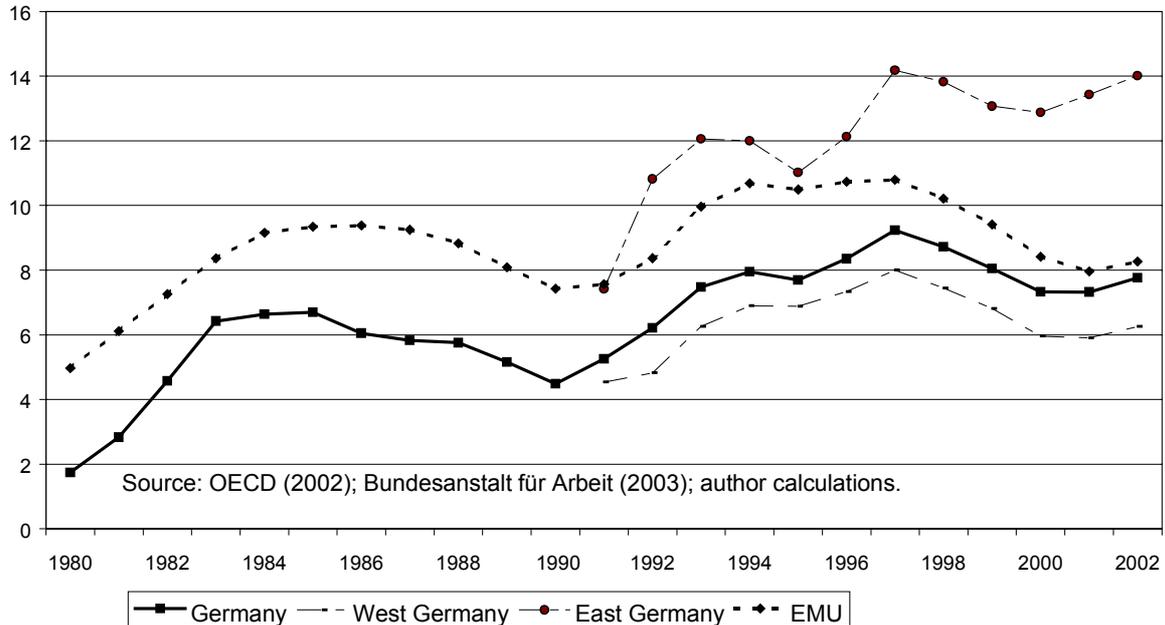


However, during the last 3 years West German GDP has nevertheless been almost stagnant.

With respect to unemployment the aggregate data for the level of unemployment (see figure 13) seem to be about 1 to 1.5 percentage points higher than the West German average data, because East German unemployment rates have grown spectacularly high.¹¹

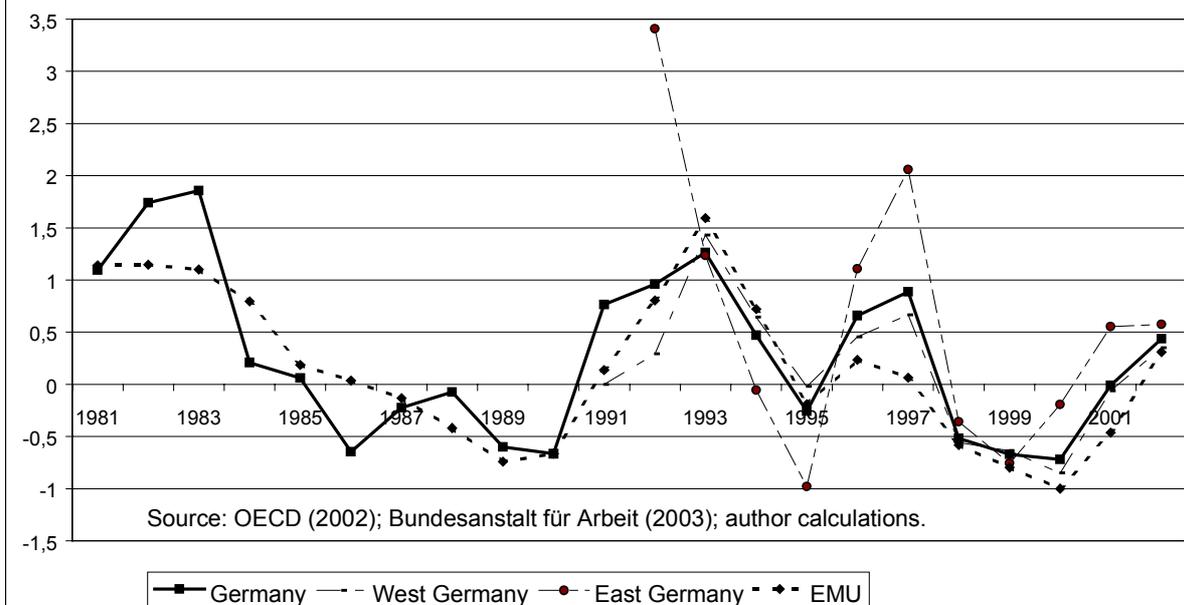
¹¹ Due to unavailability of internationally standardized separate (OECD) data for West and East Germany the data from the definition of national German statistics for West and East Germany have been scaled down to the OECD definition: The ratio of the total German unemployment rate according to national definition to that of the OECD definition has been calculated. Afterwards this ratio was used to scale down the separate national data for West and East Germany to the OECD definition. Therefore the numbers given are only estimates. They reflect the development of West and East German unemployment rates according to national definition scaled down to the lower level of the OECD definition.

figure 13: unemployment rates for Germany (total, west, east) and EMU in % (1990-2002)



To a lesser extent this is also true for the development of West German unemployment in comparison with the EMU average (see figures 13 and 14).

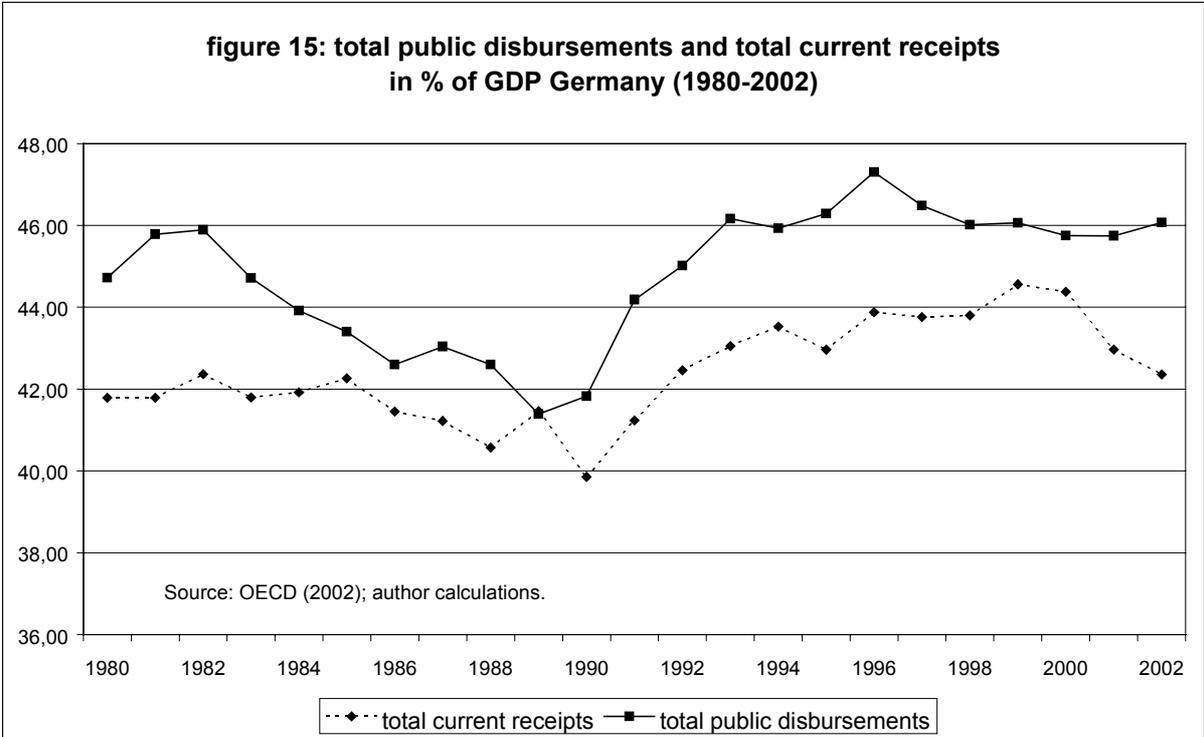
figure 14: change in the unemployment rates for Germany (total, west, east) and EMU in % (1990-2002)



There is still a process of convergence to the EMU average, but it is weaker than for Germany as a whole. With respect to the reactions of the West German labour market it is also worth

noting that only three years of moderate growth from 1998 to 2000 (2.2, 1.8 and 3.5 per cent) have been sufficient to diminish unemployment quite substantially compensating more than half of the preceding rise during a six year period of weak growth from 1992 to 1997 (1.6, – 2.3, 1.3, 1.4, 0.5 and 1.4 per cent) without creating anything close to inflationary pressures. All in all the West German problems with respect to growth and unemployment are considerably smaller than suggested by the aggregate data for Germany as a whole. However, they do not disappear and remain to be explained. Nevertheless regional differences in economic performance do pose a serious problem for proponents of the institutional sclerosis view: How is it that there are some German states as Bavaria and Baden-Wurtemberg who manage to perform much better than the average of the other states with respect to unemployment (see Bundesanstalt für Arbeit 2003), although they are subject to the same labour market and welfare state institutions?

German Unification is to a considerable extent responsible for the German budget deficit as Germany still has to overcome the fiscal problems of unification (Priewe 2002; Bach/Vesper 2000). Huge transfers from the West to the East – averaging an annual three to four percent of German GDP (Flassbeck 1999) – were needed in order to finance the transition to a market economy in the New Länder. These transfers are reflected to a large amount in a



corresponding rise of total German government spending (see figure 15).

Total government spending rose from about 43 % of GDP during the second half of the 1980s to about 46 % of GDP during the second half of the 1990s. Therefore, without German unification government spending and with it the budget deficit could be 3 to 4 percentage points lower than today – Germany would now be running a balanced budget or even a budget surplus! Even if one takes into consideration that taxes were increased by two to three percentage points to partially finance the expenditure needs, without the fiscal burden of German unification the German budget deficit would have been 1 to 2 % of GDP lower today and therefore safely within the deficit rules of European Monetary Union.

4. A Macroeconomic Explanation for Germany's Poor Economic Performance

4.1 Theoretical Foundations: Macroeconomic Policy Coordination as Key to Growth and Employment

The macroeconomic explanation of Germany's poor economic performance developed in this paper has its theoretical foundations in the concept of macroeconomic policy coordination. In this theoretical concept monetary fiscal and wage policy have a common short and long term responsibility for growth, employment and price stability. In order to attain these goals the three policy areas have to be coordinated at least at the national, better still at the international level (see Hein/Truger 2002).

In order to be more precise it is assumed in this conception that the development of aggregate demand determines growth and employment both in the short and the long run. Monetary policy and firms' profit expectations together essentially affect private investment which in turn is an essential determinant of effective demand and macroeconomic growth. Fiscal policy is a central short and long run determinant of aggregate demand as well, working both through the tax and the expenditure side, especially through public investment. And it is effective demand which via the level of aggregate output determines the level of employment realised in the labour market. The labour market, in this view, is a derived market as wage policy has no direct influence on employment. Instead employment is determined by the interplay of the financial market where the interest rate is set and the goods market where total output is determined. Nominal wages set by the unions and employers' associations, however, are the decisive factor for the development of the price level: With exogenous labour productivity and mark-up pricing with constant mark up the nominal wage rate determines the price level. Under these conditions the following division of labour with the unavoidable need to coordinate the different policy areas arises:

Wage policy for the most part determines the price level which is the central bank's target variable. If the growth rate of nominal wages is larger than the sum of productivity growth and the central bank's target inflation rate, i.e. if the scope for distribution is more than exhausted, the inflation rate will increase and the central bank will be driven into restrictive interest rate policy. If, on the other hand, there is wage restraint, the result will be immediate disinflation or, in the presence of price rigidities on the goods markets, a decrease in the wage share or even in the real wage, which in turn will negatively affect effective demand, private investment and hence growth and employment. Therefore nominal wage policy should be guided by the sum of productivity growth and the central bank's target inflation rate thereby working as an anchor of stability for the price level. Acceptance of this guideline will prevent disinflation and deflation while at the same time assuring that consumption demand grows in line with productive capacities. In this view wage policy can relieve the central bank of fighting both inflation and deflation contributing considerably to macroeconomic stability.

With such relief provided by wage policy the central bank can tolerate rising employment in times of economic upswing without endangering the goal of price stability. In the long run the central bank should assure through its interest rate policy that the long run real interest rate stays below the real GDP growth rate in order to prevent redistribution in favour of wealth owners and to stimulate real investment.

Fiscal policy should tolerate budget deficits and surpluses due to cyclical variations, i.e. it should allow full working of automatic stabilisers. Procyclical tax and expenditure policy should be avoided as well as attempts at short term discretionary intervention. Continuous and reliable growth rates for public expenditure, above all for public investment and redistribution in favour of lower income households with high propensity to consume should help stabilise demand in the short run, but also contribute to strengthening it in the long run. (Net) public investment may even in the long run be financed by public deficits. If the central bank succeeds in keeping the long run interest rate below the real growth rate, sustainability of public debt will be secured.

Within the European Monetary Union (EMU) a national coordination of monetary, fiscal and wage policy will in general no longer be sufficient. Instead the additional need arises to internationally coordinate the policy areas still under national control, i.e. fiscal and wage policy.

4.2 Theoretical Relationship with Mainstream Macroeconomics

The macroeconomic concept sketched in the previous section originates from post-keynesian economic theory and thus from a rather heterodox branch of economics. However, it is important to notice that with respect to the economic policy conclusions it has substantial backing from mainstream macroeconomics at least as far as the short run conclusions are concerned (see Truger 2003). The consensus models of mainstream macroeconomics textbooks (see Auerbach/Kotlikoff 1998; Blanchard 2003; Dornbusch/Fischer 1995; Mankiw 1998; Stiglitz 1997) distinguish between the short and the long run.¹² To put it simply the short run is keynesian whereas the long run is monetaristic/new classical and focuses on structural aspects. In the long run equilibrium in the absence of cyclical disturbances unemployment is determined by the NAIRU (non accelerating inflation rate of unemployment). Within the models the NAIRU may then depend on structural aspects as the ones discussed in section 2.1 (see Mankiw 1998, 139ff.).¹³

In the short run, however, the exact duration of which is not clear, but which may be assumed to last at least a few years (see Blanchard 2003, 34), effective demand determines growth and employment. Consequently mainstream economic policy implications for monetary and fiscal policy are rather similar to the post-keynesian concept of coordinated macroeconomic policy: Monetary and fiscal policy are without doubt capable of positively influencing growth and employment. In a situation of cyclical unemployment and underutilisation of productive capacities monetary and fiscal policy should then be expansive as long as actual unemployment is below the NAIRU. Crucial importance is assigned to the coordination of both policies. For example the boom after German unification and the subsequent deep recession at the beginning of the 1990s are often interpreted as a tug of war between overly expansive and inflationary fiscal policy and the subsequent very restrictive monetary policy by the German Bundesbank (see Blanchard 2003, 104 u. 431 f.). As the reverse case the successful consolidation of the US budget in the 1990s is explained by successful coordination of monetary and fiscal policy: Expansive monetary policy (over)compensated the negative demand effects of restrictive fiscal policy (see Blanchard 2003, 102 f.). The effectiveness of monetary and fiscal policy is not fundamentally challenged if international effects are included in the mainstream models (see Mankiw 1998, 357 ff.). On the basis of

¹² Sometimes an additional distinction is made between the medium and the long run. The long run then refers to the perspective of growth theory, i.e. a period within which the level of the capital stock is determined. The medium run in contrast refers to the macroeconomic equilibrium at a given capital stock. The former is estimated to last half a decade, the latter about a decade (see Blanchard 2003, 34 u. 203ff.).

¹³ See, however, the theoretical limitations discussed in section 2.2.

macroeconomic textbook knowledge, the use of fiscal and monetary policy to stabilise the economy and fight recessions can be recommended with good chances of success.

One has to admit, however, that mainstream analysis of wage policy may differ substantially from post-keynesian analysis. In the short run wage policy is strictly speaking not even a policy variable, as the short run is defined by exogenous and/or sticky nominal wages. And in the long run wage policy is completely endogenous as mainstream models assume that nominal wages will adapt to the level consistent with the NAIRU (see Blanchard 2003, 101 ff.). Therefore, in contrast to the post-keynesian view endogenous or exogenous nominal wage moderation in the sense of not exhausting the scope of distribution can be an effective way of bringing unemployment down to and even below the NAIRU. However, in many modern mainstream approaches this requires the active cooperation of the central bank appreciating lower wage and thus inflationary pressure by moderate interest rate policy which in turn leads to higher growth and employment (see Alsopp/Vines 1998). Therefore, the mainstream policy recommendations for wage policy and above all the coordination with monetary policy must not necessarily differ much from the approach taken in this paper.¹⁴

The necessity of and scope for monetary and fiscal macroeconomic policies will be increased considerably even further if hysteresis is taken into account. To put it simply hysteresis lengthens the duration of the short run. With hysteresis the NAIRU is not stable. Rather it depends on the development of the actual unemployment rate in the past (see Blanchard 2003, 283). In this case high unemployment rates will not exert sufficient downward pressure on nominal wages. Therefore the NAIRU will follow the actual unemployment rate with some delay. As then actual unemployment will over time automatically be transformed into structural unemployment, the prevention of unemployment in the first place becomes even more important and more active and expansive fiscal and monetary policy are called for even in the long run (see Auerbach/Kotlikoff 1998, 292). The existence of hysteresis as explanation of long term unemployment, besides structural problems of the labour market or reinforcing them, is to a great extent accepted in the mainstream literature (vgl. Blanchard 2003, 282 ff.).

4.3 Macroeconomic Factors: An Operationalisation¹⁵

In order to analyse whether macroeconomic policy factors like monetary, fiscal and wage policy can be made responsible for Germany's economic problems an empirical

¹⁴ See Hein (2002) for a post-keynesian interpretation of the NAIRU and Truger (2003) for a short sketch of possible ways of reconciling the post-keynesian and mainstream new-keynesian interpretation of the NAIRU.

¹⁵ This section borrows from and enlarges on earlier joint work with WSI colleagues published in German, namely Truger/Hein (2002) and Hein/Mülhaupt/Truger (2002) and on Hein/Truger (2003).

operationalisation of these factors is needed. In this section the indicators used in the subsequent empirical analysis are introduced. We concentrate on those indicators for which a relatively direct influence on GDP growth can be assumed in accordance with the theoretical background sketched in the previous section.

The effects of monetary policy can be measured by the short term real interest rate. The short term nominal interest rate in the money market can rather directly be controlled by the central bank's interest rate policy. As the central bank intends to control the inflation rate via control of the interest rate, it implicitly has to target a certain short term real interest rate. Changes in this rate then exert inverse effects on GDP growth via different transmission channels.¹⁶ An increase in the short term real interest rate has an immediate restrictive effect on those demand components which are short term financed. As an increase in the short term interest rate also leads to an increase in the long term interest rate via arbitrage and expectation effects investment as a key factor for growth which is usually long term financed will be negatively affected as well. In addition to such effects from the interest rate channel negative asset price effects of an increase in the interest rate (credit channel) and potential upward currency revaluations (exchange rate channel) have to be taken into account.¹⁷ The effects of interest rate changes will usually be subject to significant time lags of about one year.

In order to capture the effects of fiscal policy at least two alternative measures can be used. As a first approximation to capture the overall effects the annual change in the structural primary government deficit ratio (PDR) can be used. Using primary deficits allows focussing on those components of public debt directly connected with effective demand. By using cyclically adjusted data and relating them to potential GDP, the attempt is made to exclude the cyclical effects of automatic stabilizers on the budget deficit. This makes it possible – if only in an imperfect way – to view the budget deficit as an exogenous policy variable affecting demand and growth. An increase in PDR will have an adverse effect on real GDP growth and vice versa. A second important indicator for fiscal policy is the annual growth rate of government investment. In the short run government investment is an essential component of aggregate demand. Moreover it provides public infrastructure making it a key condition for growth also in the long run. In contrast to the PDR the endogeneity of which can never

¹⁶ For an overview see Cecchetti (1995) and Bernanke/Gertler (1995).

¹⁷ See Bondt (2000) for the relative importance of the different transmission mechanisms in European countries.

fully be excluded public investment is a variable effectively under the government's control. We assume a positive relationship between its growth rate and GDP growth.¹⁸

Finding a plausible indicator for the growth effects of wage policy is particularly difficult as the economic effects of wage policy are very complex. However, one suitable indicator may be the adjusted wage share which is admittedly not under wage policy's direct control. Furthermore, the investment and growth effects of changes in income shares are ambiguous (Bhaduri and Marglin 1990). If the scope for distribution (productivity growth rate plus target inflation rate) is not exhausted due to nominal wage moderation and prices cannot totally adjust downward the wage share will fall. With the propensity to save out of wages falling short of the savings propensity out of profits, a falling wage share means a cut-back in consumption with directly contractive effects on investment and GDP-growth. A fall in wage shares that is associated with nominal wage restraint would, on the other hand, improve international competitiveness and, therefore, stimulate investment and growth. With a slowdown in inflation, the central bank may also cut interest rates and stimulate investment and growth. Finally, a falling wage share is associated with rising unit profits which may also improve investment and growth. Since the stimulating effects of declining wage shares for investment and growth are rather indirect and uncertain, it can be assumed that the direct and contractive effects will dominate and that the relation between the adjusted wage share and GDP growth is (slightly) positive.

In order to test whether the theoretical assumptions concerning the macroeconomic policy factors and economic growth described above are at least broadly consistent with the data for EMU some empirical regressions have been run at the WSI (Hein/Mülhaupt/Truger 2002; Truger/Hein 2002 and Hein/Truger 2003). The tests are based on annual data of 11 EMU member countries for the period from 1981 to 2001 covering approximately two complete trade cycles. Pooled least squares regressions are used in order to increase the number of data points and to diminish the omitted variables problem (Pyndick and Rubinfeld 1998, pp. 250). The coefficients of the pooled least square estimations all have the expected signs and are statistically significant, predominantly even at the 1 per cent level. Therefore the regression results clearly support the theoretical claims made above with respect to the macroeconomic policy factors.

It should be added that there have been quite a few other comparative empirical studies analysing the reasons for Europe's or Germany's relatively bad economic performance

¹⁸ At least for Germany long term positive growth effects of public infrastructure investment should be

compared with the U.S., the United Kingdom or the Netherlands in the 1990s, which all stress the importance of some or all of the macroeconomic factors discussed in this paper as opposed to institutional sclerosis (see Flassbeck et al. 1997; Holtfrerich 1999; Solow 2000).

4.4 Explaining the German Crisis: Restrictive and Ill-coordinated Macroeconomic Policy¹⁹

In the previous sections it has been shown that the macroeconomic policy factors monetary, fiscal and wage policy are important to explaining GDP growth both from the point of view of macroeconomic theory and empirical results, *in general*. However, in order to give an explanation for the German crisis, it must be shown, that it is indeed consistent with the German data *in particular*. In order to explain Germany's bad economic performance in comparison with the EMU average since the mid 1990s then it must be shown that monetary policy as well as fiscal and wage policy for Germany have been more restrictive and less well coordinated than for the EMU average.²⁰ We should therefore expect German real interest rates to be higher, Germany's fiscal policy to be more restrictive and/or government investment to be lower and German wage shares to be lower than for the EMU average. In what follows it will be shown that these conditions are to a considerable extent met. Thus, Germany's poor economic performance can indeed be explained by these macroeconomic factors.²¹

With respect to monetary policy Germany has lost its former status as the key currency country (Deutsche Mark) within the European Monetary system since the start of EMU in 1999. Together with this status it has lost the interest rate advantage it used to have over the other countries. During the process of convergence these countries profited from a considerable decrease of short and long term nominal interest rates directed towards the lower German level. This convergence and decrease in nominal interest rates went together with a

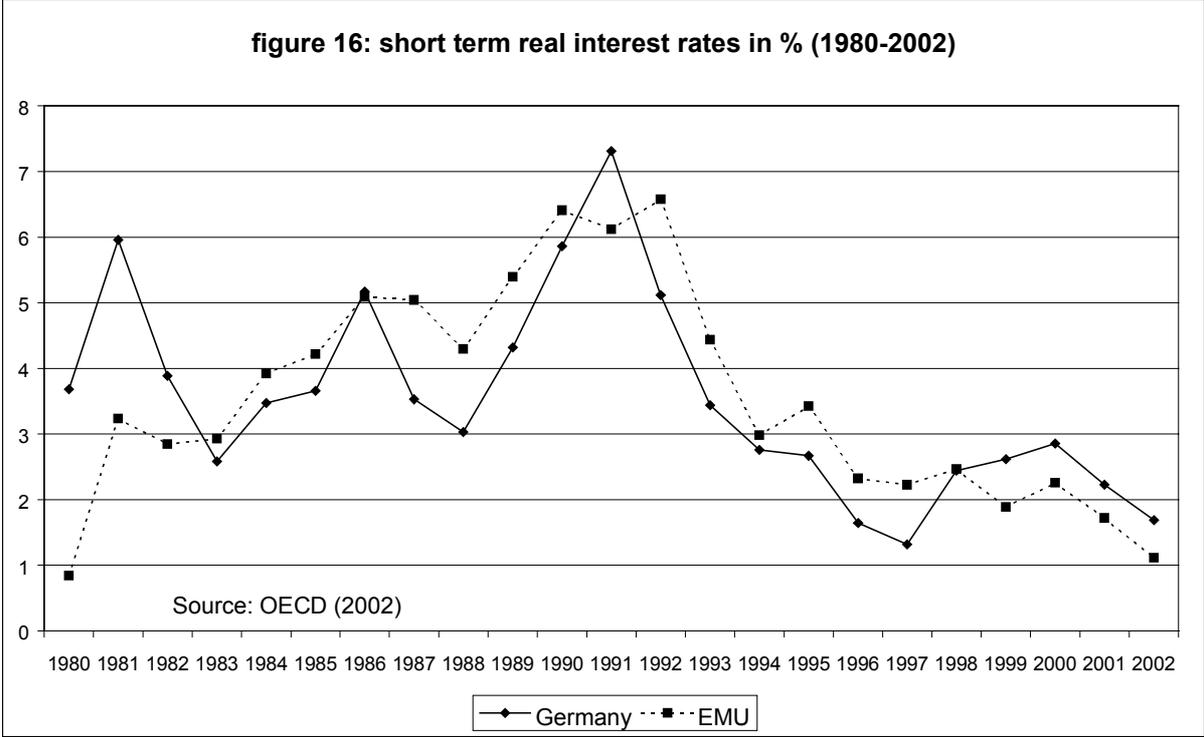
uncontroversial. See Kitterer (1998) and Pfähler et al. (1996).

¹⁹ This section borrows from and enlarges on earlier joint work with WSI colleagues published in German, namely Truger/Hein (2002) and Hein/Mülhaupt/Truger (2002) and on Hein/Truger (2003).

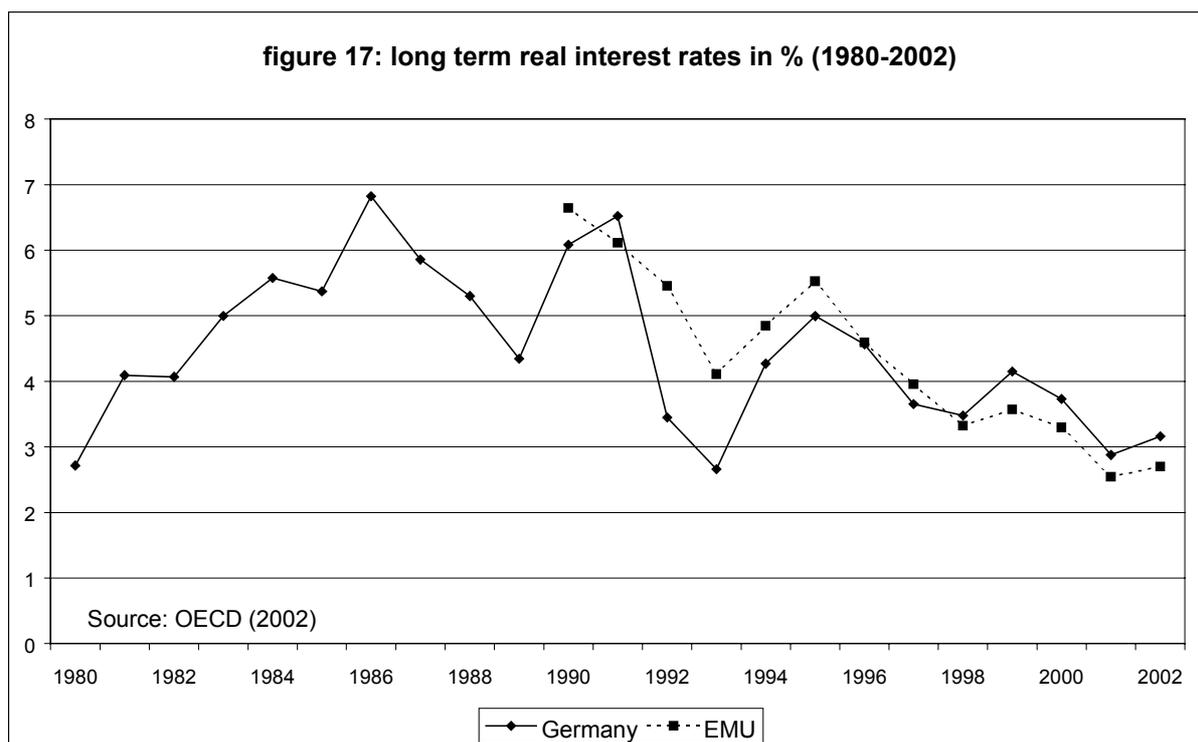
²⁰ It should be noted that using the EMU average as a standard of reference does by no means imply that macroeconomic policies for the EMU have been optimal or only so much as good. On the contrary EMU macroeconomic policy has on the average suffered from the same problems as Germany, i.e. from restrictivity and ill-coordination (see Hein/Truger 2003). Unfortunately German macroeconomic policies have even been worse.

²¹ There is a fourth macroeconomic factor that is not explicitly dealt with in the current paper, but that is nevertheless particularly suited to explaining the extraordinarily pronounced fall in relative German economic performance in 2001 and the subsequent years: The German economy depends considerably stronger on cyclical fluctuations of the US economy than the other EMU countries (see SVR 2001, 251ff.). This is true for the dependence of German exports from US export demand, the stronger correlation between German and US share price indices and the transmission of cyclical fluctuations via direct foreign investment. Furthermore the persistence of negative cyclical shocks from the US economy in Germany is higher than that of positive ones.

stronger decrease in the real interest rates for the EMU average than for Germany all over the 1990s.

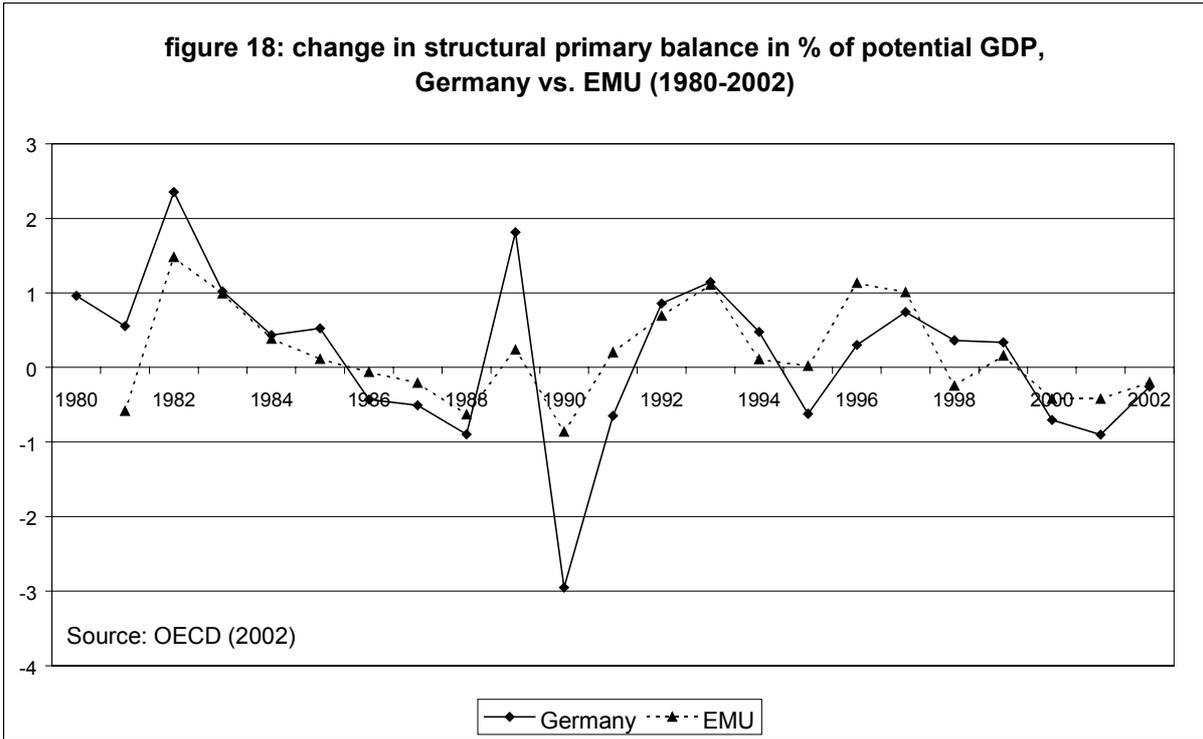


As the German inflation rate is lower than for the EMU average, at the unified nominal interest rate Germany's real interest rate has even been higher than the EMU average since 1998 (see figures 16 and 17).

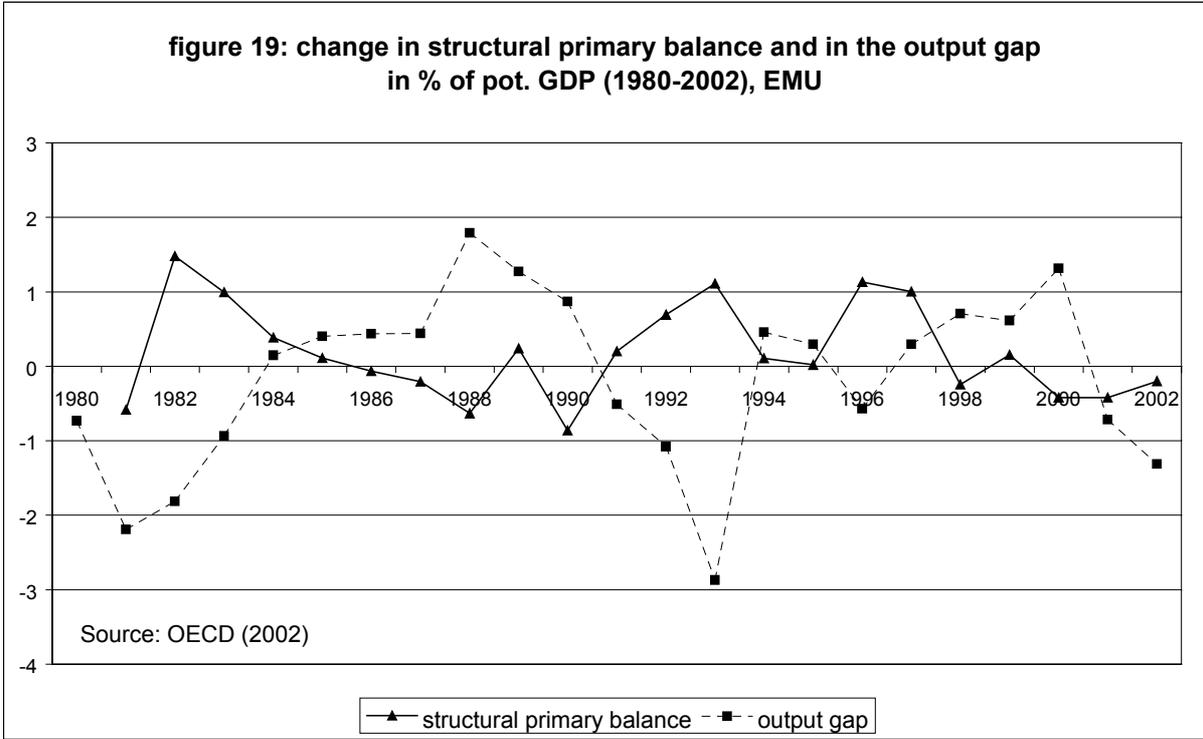


Thus, Germany currently suffers from uniform EMU monetary policy as the ECB has to react to average EMU growth and inflation and cannot take into account Germany's special economic situation with both a higher output gap and lower inflation than the EMU average.

The Maastricht Treaty (MT) and the Stability and Growth Pact (SGP) have led to budget consolidation and restrictive fiscal policy all over Europe. Looking at the annual budget deficits one might have guessed that Germany's fiscal policy must have been far less restrictive than the EMU average from the mid 1990s until now as it has lost its considerable consolidation advantage during this period. However, when looking at the annual change in the cyclically adjusted primary government deficit ratio (PDR) as a more accurate indicator, Germany's fiscal policy can at once be seen to have been almost as restrictive as the EMU average (see figure 18):

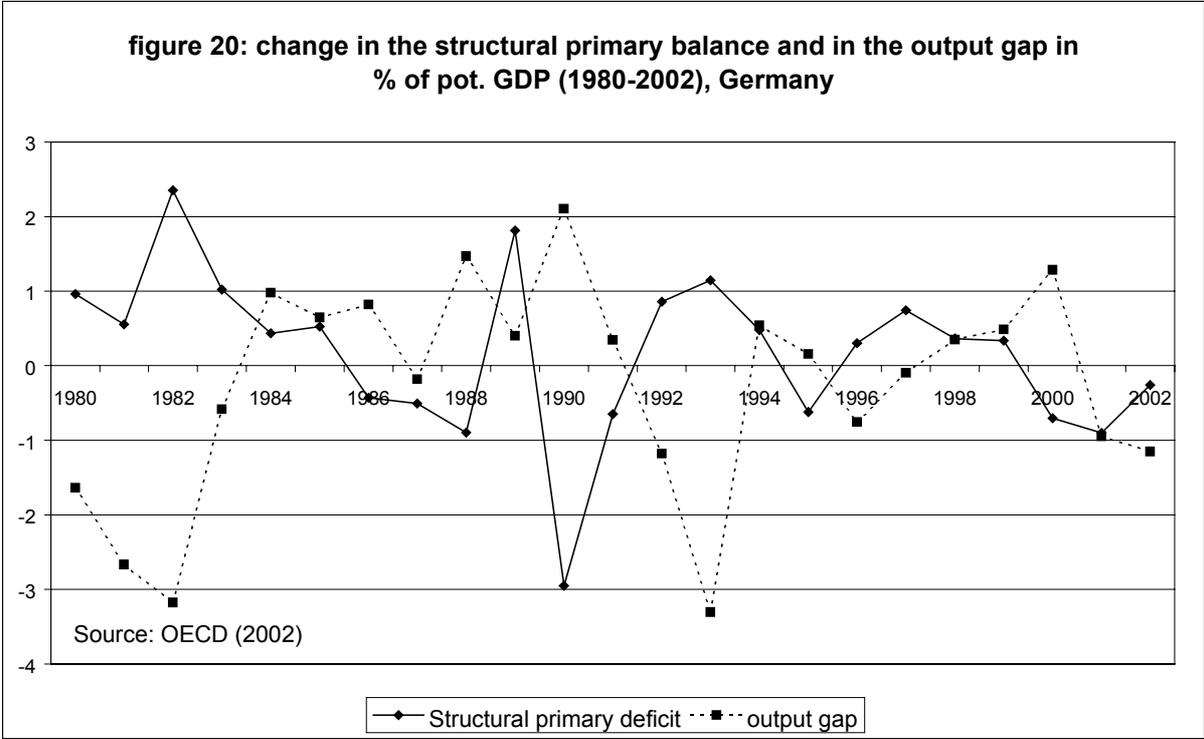


Germany's change in the PDR has been somewhat lower (less restrictive) than the EMU average from 1995 to 1997 and from 2000 on, but it has been higher (more restrictive) in 1998 and 1999.

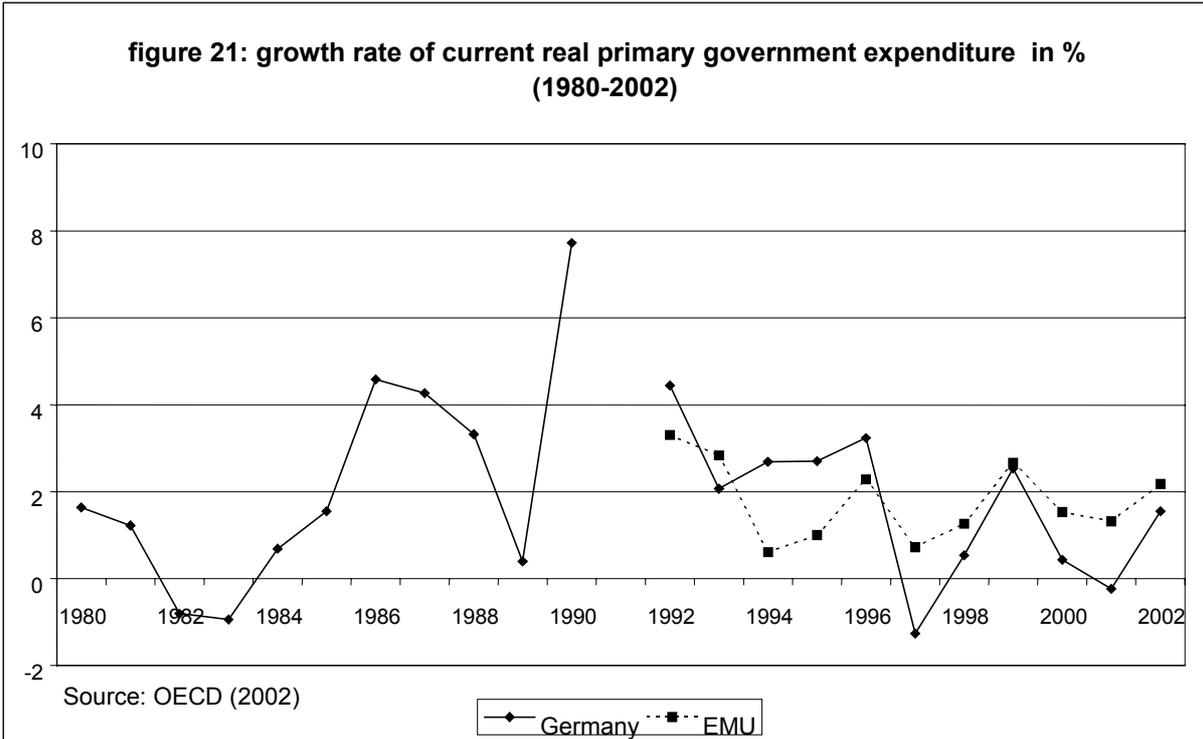


It has to be admitted, though, that German fiscal policy at first sight does not seem to have been more restrictive than the EMU average thus seemingly ruling out fiscal policy as an

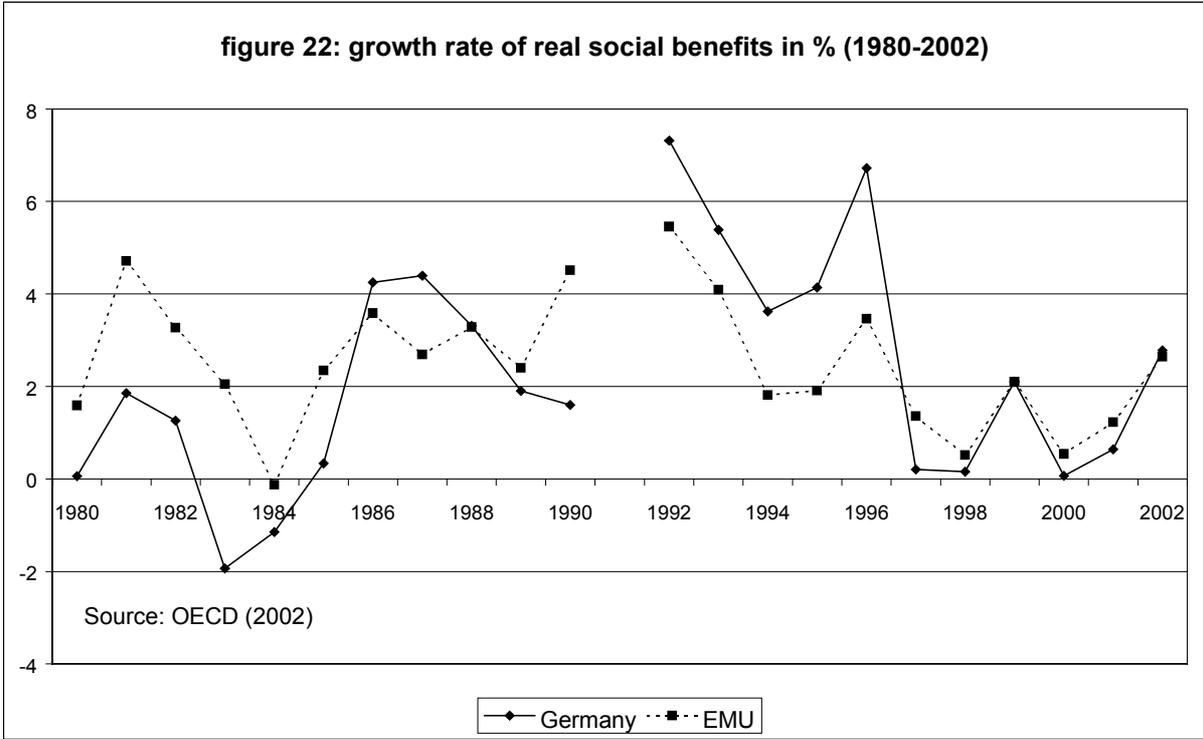
explaining factor for the German crisis. However, such a conclusion seems a bit too hasty, as the cyclical background of the economy, i.e. the change in the output gap should be taken into account in order to correctly assess fiscal policy's macroeconomic effect (see figures 19 and 20).



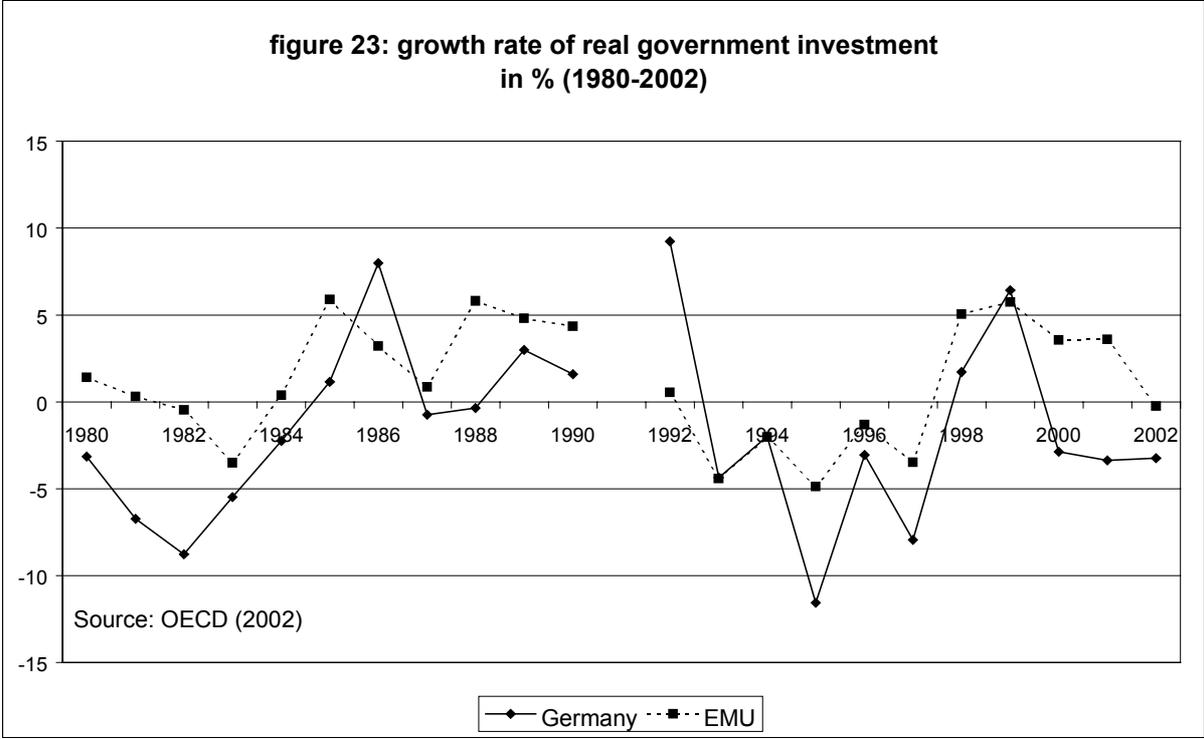
If this is done, it will be discovered that German fiscal policy in the period from 1995 until now has twice been restrictive (positive change in the PDR) during a slowdown of economic activity (negative change in the output gap) in 1996 and 1997 thereby pro-cyclically worsening the crisis. For the EMU average on the contrary this has happened only once in 1996. Furthermore, the restrictive stance of German fiscal policy becomes much clearer if one considers growth rates of government expenditure.



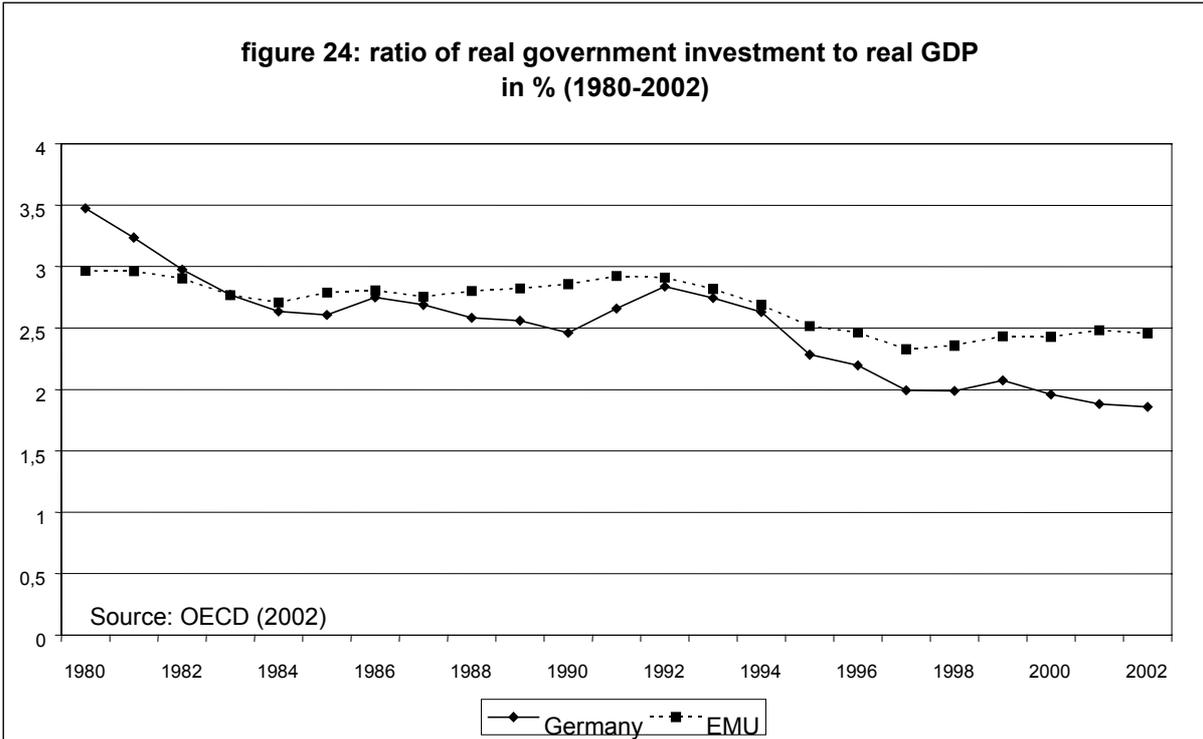
After being considerably higher than on EMU average, in 1997 there is a sharp fall and from then on the annual growth rates of real current primary disbursements continue to be substantially below EMU level (see figure 21).



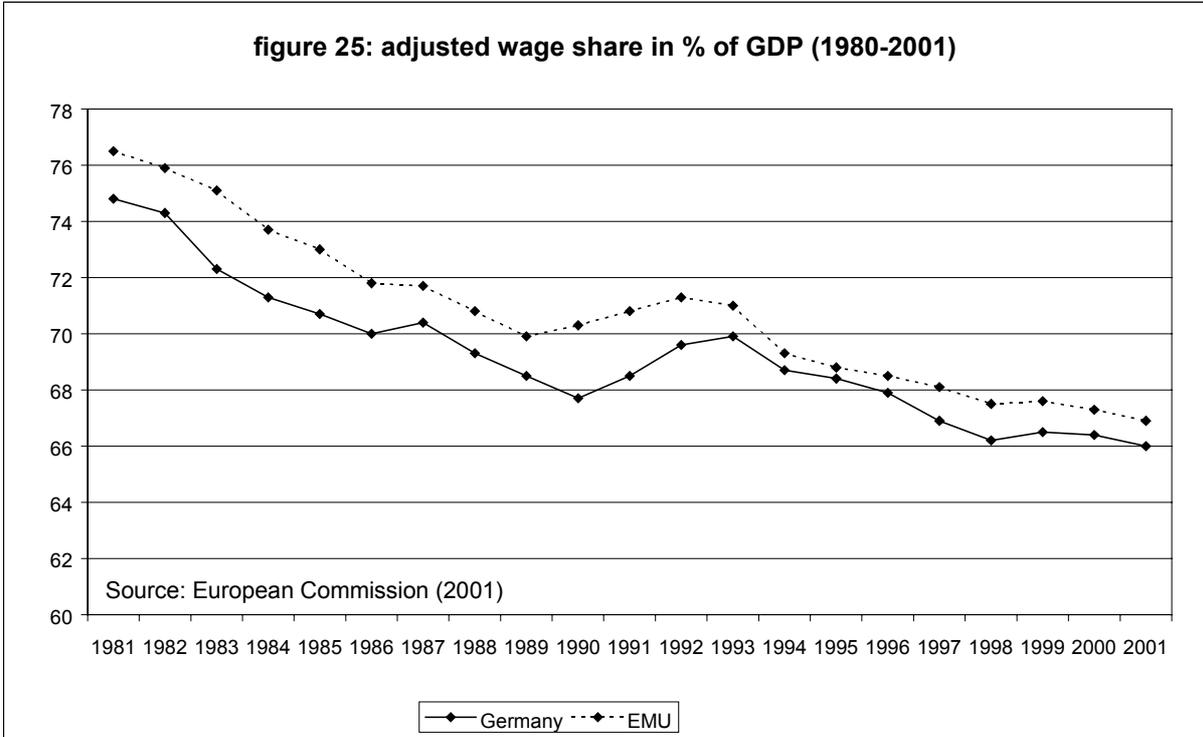
This is true even for the growth rates of real social benefits (see figure 22) and most particularly for real public investment as the key component of government expenditure with respect to growth (see figure 23).



The decline in public investment has led to a ratio of real public investment to real GDP in Germany which is low both in absolute terms and in comparison with the EMU average (see figure 24): After almost reaching the EMU level of about 2.8 per cent of GDP during the early 1990s it has continually decreased to only about 1.9 per cent against 2.5 per cent in the EMU as a whole in 2002.



Against the background of a falling trend in the adjusted wage share in both EMU and Germany, the gap between Germany and the EMU has increased again in the second half of the 1990s after a period of considerable catching up in the first half. (see figure 25).

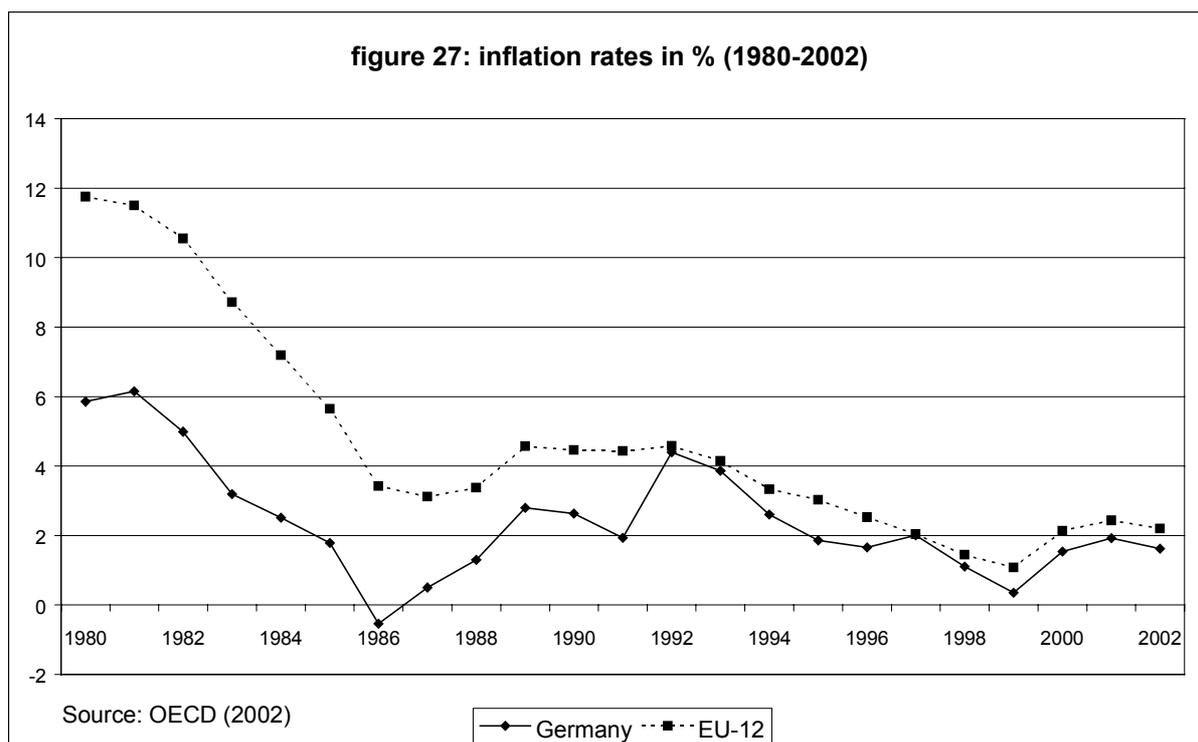


That means that during the EMU process of convergence German wage policy has succeeded even less than that of the other EMU countries in exhausting the scope for redistribution. As a consequence German domestic demand has been weaker than in the EMU as a whole, which further contributed to Germany's relatively bad economic performance.

As can be seen from the comparative development of nominal unit labour costs in Germany and the EMU nominal effective wage policy has really been more moderate in Germany than in the EMU as a whole (see figure 26).



This has not only led to a fall in the adjusted wage share but has also partly been transformed into substantially lower inflation rates for Germany (see figure 27).



However, this has also been true for earlier periods as for example the 1980s when Germany's absolute and relative economic performance had been much better. Is there nevertheless an explanation, why since the mid 1990s this development has been much more detrimental than in the 1980s? Yes, there is, because this is exactly where the interdependency between the macroeconomic policy areas and the need for macroeconomic policy coordination comes into play: During the 1980s low unit labour cost increases and the resulting low inflation rates were the basis for the Deutschmark's status as the regional key currency within the EMS allowing the German Bundesbank to set substantially lower nominal and actually also real interest rates than on EMU average, so that a specific national monetary policy could (over)compensate the negative effects of restrictive wage policy. Since the beginning of the interest rate convergence process in the mid 1990s and at the latest with the completion of EMU with uniform nominal interest rates in 1999, lower inflation rates for Germany do no longer pay off in terms of lower nominal interest rates. The result is higher real interest rates than on EMU average and certainly also much higher than adequate in Germany's current economic crisis. Finally, more expansive German fiscal policy which would be called for to compensate for the German divergences from EMU average that cannot be cured by uniform EMU monetary policy, cannot be implemented as the German government has committed itself and still feels committed to MT and SGP.

5. Economic Policy Implications

The economic policy implications from the analysis in this paper are quite straightforward: As institutional sclerosis, i.e. rigid labour markets and generous welfare state institutions can neither theoretically nor empirically be made responsible for Germany's economic crisis since the 1990s, the claims for radical deregulation of the labour market and dismantling of the welfare state in order to decrease unemployment are misguided.²² Putting them into practice would risk getting no or even a negative payoff in terms of growth and employment at the cost of a substantial weakening of employees' rights and a substantial loss in distributive justice. As long as the macroeconomic causes of the German economic crisis are not recognized and dealt with accordingly, the situation will not improve at all or only improve accidentally due to favourite external circumstances like a strong recovery of the world economy.

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²² This is not to say that there is no need for reforms or no scope for improving the existing institutions. For example ageing societies certainly pose a challenge for the welfare state that has to be addressed. However, this has nothing to do with the current crisis and is far from implying that deregulating the labour market, dismantling the welfare state or other supply side measures are automatically the best answers to these challenges.

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