



Hochschule für  
Wirtschaft und Recht Berlin  
Berlin School of Economics and Law

Institute for International Political Economy Berlin

# The development of the German labour market after World War II

Authors: Hansjörg Herr and Bea Ruoff

Working Paper, No. 114/2019

Editors:

Sigrid Betzelt, Eckhard Hein (lead editor), Martina Metzger, Jennifer Pedussel Wu,  
Martina Sproll, Christina Teipen, Achim Truger, Markus Wissen, Reingard Zimmer



# The development of the German labour market after World War II

Hansjörg Herr and Bea Ruoff

Institute for International Political Economy Berlin (IPE)

## Abstract

Labour market developments have Germany undergone two shocks: German reunification in the early 1990s, and the Hartz reforms in the early 2000s. They separated the German labour market into the traditional rather corporatist labour market segment, characterised by a high degree of coordination, and a new, less regulated labour market segment. The latter is characterised by low wages and precarious working conditions. A precariat living under conditions of high uncertainty developed. All these developments are mainly the result of legal changes in Germany – changes which, with respect to employment creation, were unneeded.

Keywords: labour markets, Germany, Hartz reforms, German unification

JEL code: J50, J51, O11

## Corresponding author:

Prof. Dr. Hansjörg Herr  
Berlin School of Economics and Law  
Badensche Str. 52  
10825 Berlin  
Germany  
E-mail: [hansjoerg.herr@hwr-berlin.de](mailto:hansjoerg.herr@hwr-berlin.de)

## 1. Introduction

After World War II, Germany became known as the role model of a social market economy. The concept of a social market economy was developed by Alfred Müller-Armack (1947) and Walter Eucken (1948), among others. Its origin can be found in a version of liberal thinking, the so-called ordoliberalism or social liberalism, which understood itself as an alternative to the Anglo-Saxon type of liberalism and capitalism in general. The social market economy was deeply rooted in the conservative Christian Democratic Party (CDU) which was able to appoint the head of government from the foundation of the Federal Republic of Germany (FRG) in 1949 until 1969 when the Social Democratic Party (SPD) was able to appoint the chancellor for the first time after World War II. The SPD itself had introduced the idea of the social market economy in its 1959 party programme. This shows that the idea of the social market economy in Germany was embedded in both the major political streams.

In substance, the social market economy presented a compromise between capital and labour after the disaster of fascism and the influence of the New Deal in the United States. It combined free markets with the idea of the welfare state and a strong voice of labour in the development of big companies and of the country as a whole. The German model established after World War II, also named "Rhine Capital" (Albert 1993), remained stable until the crisis in the 1970s and started to transform slowly without changing its fundamentals. However, two "shocks" led to a partial erosion of the model established in the 1950s. First, the German unification in 1990 and its effects, and second, the labour market reforms in the 2000s. It is the aim of this contribution to show and explain the changes in the German labour market as part of the overall German model.

After describing the traditional co-determination and wage bargaining model in Germany from the 1950s to the 1980s in section two, the third section discusses two major shocks to the German labour market: the German reunification in 1990 and the so-called Hartz labour market reforms in the 2000s. Section four, five and six discuss the three major effects of the changes in the labour market, the erosion of the wage bargaining system, the development of a large low-wage sector, and the increasing number of precarious jobs. The last section draws conclusions.

## 2. The traditional German model after World War II

There is a certain degree of workers co-determination in German companies. The co-determination system consists of works councils and workers' representatives in the supervisory board of big stock companies and other corporate enterprises.

Works councils represent employees of a company and can by law be elected if a firm has five or more employees. With the size of the company the number of works councils increases; in big companies there are full time works councils. Most works councils are union members, but also non-union members can be elected. Works councils have the right of co-determination in areas like daily working time, overtime, performance-based pay and bonuses or leave schedules; they have the right of consultation, for example in human resource management issues, such as cases of dismissals; and they have information rights in all important developments of the company and management decisions (Gerlach and Meyer 2010). In 2017, 85 percent of firms with more than 500 employees had work councils, while for firms with less than 50 employees, this was only 9 percent (Ellguth 2018).<sup>1</sup>

In German corporate enterprises with more than 2000 employees the board of managing directors is appointed by the supervisory board. In the supervisory board 50 percent of members are elected by the owners and 50 percent by the employees including trade union representatives from outside the company. The supervisory board appoints an additional member as a chairperson; in case of a standoff the chairperson is appointed only by the representatives of the owners. In the metal sector a labour director as equal member of the group of managing directors cannot be appointed against the will of the majority of the employee representatives in the supervisory board.

In spite of some attacks, the German co-determination model did not experience major legal changes and is still in place. Its establishment after World War II indicates the extent to which capital was weakened and all relevant political streams in Germany wanted to strengthen democracy in firms and create a regulated type of capitalism.

Let us come to trade unions. German trade unions are organized on a sectoral level and jointly form the German Trade Union Federation. As a rule, sectoral unions organize all employees in a sector. However, during the last decades some professions created own

---

<sup>1</sup> In 1993 51 percent of employees in West Germany worked in firms with work councils. This percentage shrank to 40 percent in 2017. In East Germany in 1996 43 percent of employees worked in firms with work councils. In 2017 it was only 30 percent (Ellguth 2018).

unions and tried to get better conditions for their members than the sectoral unions. The best example is the Trade Union of German Train Drivers which started independent bargaining processes shortly after the German reunification. But also trade unions of other professions like doctors or pilots became more powerful.

After World War II, employers established powerful associations. They are also organized on a sectoral level, for example the Federation of German Employers' Associations in the Metal and Electrical Engineering Industries (ME Metall). The head organization is the Confederation of German Employers' Associations.

Wage bargaining took and still takes place on a sectoral level between employers' associations and trade unions. In almost all years the wage round starts in the metal industry in the German state of Baden-Württemberg, an important hub for the German car industry. The outcome of the negotiations between the ME Metall and the IG Metal, the biggest German union, has a strong signalling effect for the whole metal industry in Germany, as well as for all other industries. This means Germany is characterized by pattern bargaining starting on a sectoral level, usually in the metal industry. National wage bargaining, which used to partly exist in Austria or Sweden for example, never took place in Germany. Firm level bargaining played no role either. There are some exceptions, such as Volkswagen's firm level wage contract, but these also follow the logic of pattern bargaining.

In many countries changes to minimum wages give an orientation for wage development (Caju 2008). In Germany statutory minimum wages were only introduced in 2015. This underlines the importance of the wage bargaining process between unions and employers' association and pattern bargaining in Germany.

Formally negotiated sectoral wages are only binding for companies belonging to employers' associations, and trade union members working in companies which joined employers' associations. There is no legal obligation of firms to join employers' association, as for example in Austria.<sup>2</sup> Legal extension mechanisms of sectoral bargaining to all companies in a sector, which are very common in France, are theoretically possible but judicially difficult to achieve and are almost never used in Germany. Despite the lack of legal mechanisms, the collective bargaining coverage of employees was high: collective bargaining

---

<sup>2</sup> Firms are obliged to join chambers of commerce. These do not negotiate wages.

coverage in West Germany was 85 percent between 1960 and 1990 (OECD 2018a).<sup>3</sup> In the decades after World War II employees were directly or indirectly covered by collective bargaining. Two mechanisms were responsible for the second effect. First, firms which belonged to employers' organizations paid negotiated wages more or less automatically also to non-union members. The motivation was to prevent non-unionized employees in these firms from joining unions. Second, a large part of the firms which did not belong to employers' associations voluntarily followed negotiated wages. It was a kind of unwritten law that firms would follow the negotiated wage development. Despite a lack of formal mechanisms, the German wage bargaining system in the decades after World War II was to a large extent coordinated (Soskice 1990).

Lars Calmfors and John Driffill (1988) argued that wage bargaining on both firm and national levels lead to moderate wage increases, as firm level negotiations must consider the competitive position of the firm, and on a national level through the macroeconomic effects of wage increases. In the latter case competitiveness and employment must be considered, especially the effects of wage increases on inflation. Wage bargaining systems in the middle were considered to lead to destabilizing wage increases, for example in Great Britain in the 1970s. David Soskice (1990) correctly argues that Germany in spite of sectoral bargaining very much belongs to the group of countries in which macroeconomic considerations plays a role in the strategies of unions and employers' organizations.

Immediately after the foundation of the Federal Republic productivity-oriented wage development became very popular in German trade unions. This idea was pushed by Viktor Agartz (1953), who was director of the trade union-ran Institute of Economic and Social Research from 1948 to 1955. According to this proposal macroeconomic productivity development should become the guideline for wage demands in all sectors and firms. Nominal wage increases in line with macroeconomic productivity developments are indeed of great importance for overall economic stability. The idea that wages should at least increase according to macroeconomic productivity increases plus a compensation for the expected inflation trend thus became very popular in Germany. This rule became known as the Meinhold-formula, named after Helmut Meinhold (1965), the arbitrator in wage bargaining conflicts in the metal industry during the early 1960s.

---

<sup>3</sup> Other estimation came from the 1960s until 1990 to 90 percent collective bargaining coverage in Germany (Ochel 2001).

The IG Metal has followed macroeconomic considerations in its wage policy since. As the wage rounds usually started in the metal industry it was clear that wage bargaining in this sector was of key importance. All key unions and employers' associations implicitly influenced the negotiations in the metal sector. In addition, the IG Metal always cared about the competitiveness of the German metal industry for employment reasons, for example in the car industry which is very important in the German economy.

Finally, the German central bank – the Bundesbank – was a tacit third partner in wage negotiations. Too high wage increases, which lead to an inflation rate above the norm of the Bundesbank, were feared to cause restrictive monetary policy. This was not a theoretical fear; the Bundesbank never hesitated to create a so-called stabilization crisis with unemployment when wage increases were too high (Soskice 1990). The Meinhold-formula can lead to an inflationary wage price spiral, in the case of an external shock pushing up the inflation rate and nominal wage demands. However, the fear of anti-inflationary monetary policy largely prevented this. This shows an important conclusion for a desirable wage development: To make nominal wage development anchored to the price level, nominal wage levels should increase according to medium-term productivity developments plus the implicit or explicit target inflation rate of the central bank (Herr 2009). Wage development in Germany typically followed this rule, however not always. For example, in 1974 this rule was violated when (as an exception) the public sector started the wage round and negotiated a wage increase of 11 percent. Days later, the Bundesbank increased interest rates and triggered a sharp recession which added to the problems following the oil-price shock in 1973 (Scharpf 1987).

The structure of co-determination and wage bargaining analysed in this section was only moderately modified in the 1970s and 1980s. Pattern bargaining characterised wage determination and the resulting high level of coordination held wage dispersion on a low level. But with the German reunification and the Hartz reforms the landscape changed drastically.



### **3. Two shocks: German reunification in 1990 and the Hartz reforms in early 2000s**

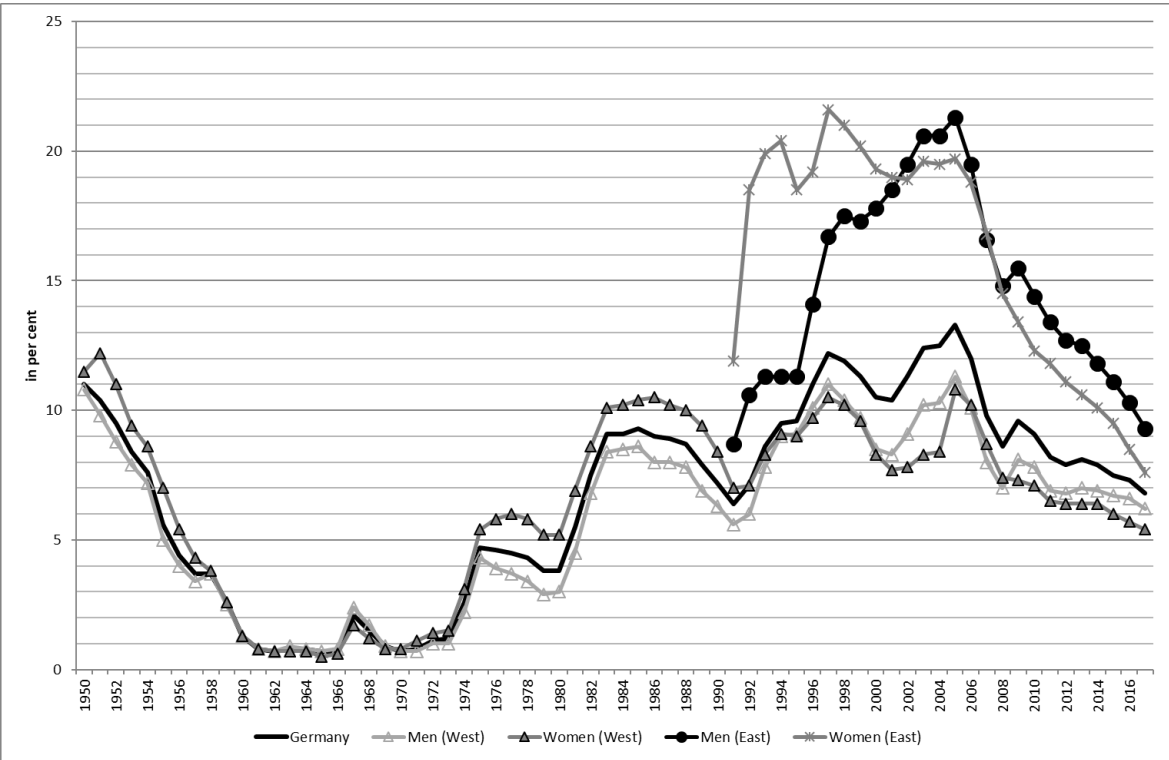
#### **a. German reunification in the early 1990s**

Shortly after the introduction of the D-Mark in East Germany, East and West Germany finally got reunified on October 3<sup>rd</sup> of 1990, after forty-one years of separation. At the time of reunification, the Federal Republic of Germany had 63.7 million residents, and the German Democratic Republic (GDR) 16 million (German Statistical Federal Office 2018c). In 1989 East German labour market participation was 90.9 percent for women and 93.3 percent for men, compared to 54.6 percent for women and 78.4 percent for men in West Germany in 1991 (Pierenkemper 2006). In 2016 labour market participation rates in East Germany were 72.1 percent of women and 76.1 for men; in West Germany the figures (for the same year) were 70.3 percent and 78.5 percent respectively (WSI 2018). The transformation from a command economy to a market economy was an extraordinary challenge for both parts of Germany.

In the GDR unemployment almost did not exist. There, working was seen as an obligation of honour. Increasing emigration to West Germany led to a lack of labour supply. The reunification and the beginning of the reconstruction of East Germany resulted in a short but strong cyclical upturn for West Germany, with decreasing unemployment and increasing inflation rates. Mainly due to restrictive monetary policy Germany in fell into a recession in 1993 and could only realise moderate GDP growth rates the following years. In East Germany unemployment exploded due to massive deindustrialisation. Compared with 1988 over 80 percent of employment in the industrial sector was lost and did not recover. This reduction has been much bigger than in countries like Poland or Hungary. Until today there is a lack of big companies and almost no headquarters of internationally relevant firms in in East Germany (Pohlmann 2005). In November 1989 in East German employment was at 9.3 million; by November 1991 this number shrank to 6.7 million (Bielenski et al. 1992). Due to a lower productivity level in East compared to West Germany, lack of sales canals and unfashionable brand names, most of the Eastern German industry had no chance in a monetary union with West Germany. The relatively quick privatisation of East German firms – mainly to West German firms in the same industry – prevented the development of large firms in East Germany.

Looking at the long-term development of unemployment rates (see Figure 1) it becomes clear that the West German miracle in the 1950s and 1960s brought unemployment down quickly. But starting in the 1970s unemployment rates sharply increased in every cyclical downturn and could not be reduced to old levels in the following upswing. After German reunification in 1990 unemployment rates increased further to over 12 percent for the whole of Germany. Also, in West Germany unemployment rates jumped over 10 percent, and in East Germany by over 20 percent. What West and East Germany had in common was that low-skilled workers, older employees, and women were more at risk to become unemployed. Long-term unemployment continues to be an issue in both parts of Germany. But after the Great Recession in 2008/09 unemployment rates in both parts of Germany decreased sharply and fell in 2018 to a level for whole Germany around 3.5 percent. Since 2008 unemployment of women is below the rate of men in both East and West Germany (Ruoff 2016).

**Figure 1: Unemployment rates in East and West Germany from 1950 to 2017**



Note: Data until 1990 only show unemployment rates in West Germany, percentage of civilian labour force. Figures include wage earners paying social security contributions (abhängige zivile Erwerbspersonen), soldiers are excluded.

Source: German Federal Statistical Office (2018a), Tables 1.1 and 2.2.1.

Figure 2 shows real GDP growth rates in Germany have a long-term decreasing trend. In the 2000s until the Great Recession German growth performance compared to other countries in the European Monetary Union (EMU), founded in 1999, was one of the poorest. Then in 2009 the Great Recession hit Germany hard. Germany recovered quickly, but only achieved low GDP growth rates in 2012 and 2013. Then growth recovered to relatively good values. However, compared to other EMU countries Germany became now one of the best performing countries in the EMU (Herr 2017).

**Figure 2: Real GDP growth rates in Germany 1950-2017, % change to the previous year, adjusted for inflation, chained \***



Note: \* Due to conceptual and definitional differences, the results from 1950 to 1970 (former federal territory) are not fully comparable with the results from 1970 to 1991 (former federal territory) and the data from 1991 (Germany). The price-adjusted results from 1950 to 1970 (former federal territory) are calculated in 1991 prices. The results from 1970 to 1991 (former federal territory) as well as the data from 1991 (Germany) are shown in prices of the respective previous year as a chain index. Moreover, in the 2014 revision of the National Accounts, only the results for Germany were recalculated up to 1991; Figures before 1991 have remained unchanged.

Source: German Statistical Federal Office (2018b).

Labour productivity increased continuously with some cyclical variations. With 2010 equal to 100 the index value of real GDP per hour by persons in employment increased from 92.3 in 2001 to 107.6 in 2017 (German Statistical Federal Office 2018d). As a consequence of relatively low real GDP growth and continuous increases in productivity, the working volume did not change much. With 2010 equal to 100 the volume of annual total number of hours worked in 2001 was 102.1. This remained more or less stable and only 2013 reached the 2001 level. Then the volume of hours worked increased to 107.9 (German Statistical Federal Office 2018d). The question is: How is such a reduction of the unemployment rates possible in spite of relatively low GDP growth rates? These figures suggest that working time per employee dropped. Indeed annual working time per employee dropped substantially. In 2001 the annual average working time per employee was 1360 hours; this number dropped to 1291 hours in 2017, more the 12 normal working days less per year (German Statistical Federal Office 2018d).

This reduction of working time per employee does not show a kind of solidarity in the form of cuts to general working time or extension of holidays. It reflects the development of a sector of precarious employment which is characterized by part-time jobs and instable employment.

An additional factor is the development of the labour force potential which is defined as the sum of employed and unemployed persons and the hidden reserve and covers the age span from 15 years to 74 years and gives more or less the maximum of the available labour supply. The labour force potential in Germany increased from 43 million in 1990 to 45 million in 2007 and then started to stagnate until today. The reason is the aging of the German population. Without the wave of migration of several million people the labour force potential would have decreased (Fuchs et al. 2015).

### **b. Deregulation of the labour markets – the Hartz reforms under the Red-Green-Coalition in the early 2000s**

Since the mid-1990s, compared to other European countries, Germany performed “poorly” in terms of GDP growth and unemployment rates and was considered the “sick man” of Europe – an image which Germany adhered to until the Great Recession in 2009. In the mainstream debate, Germany’s sluggish economic development was believed to be due to overly rigid labour market regulations alongside an overly generous welfare state (Rinne

and Zimmermann 2011: 3). This line of argument is controversial because a generous welfare state reduces inequality.

Following this argument, the Red-Green coalition – under Chancellor Gerhard Schröder, who came to power in 1998 – introduced four ambitious labour market reform packages between 2003 and 2005. These were the so-called Hartz reforms<sup>4</sup>, through which the concept of “challenge and promote” officially found its way into active labour market policy in Germany (Caliendo and Steiner 2005). The Hartz reforms were very much influenced by the policy of Toni Blair (Prime Minister of the United Kingdom from 1997 to 2007) which together with Gerhard Schröder wrote “The Third Way” (Blair and Schröder 1999) which is a synthesis of centre-right economic and centre-left social policies and marks a fundamental change of social democratic parties towards more liberal economic and social ideas.

In Hartz I (for details of the reforms see Jacobi and Kluve 2007) the upper limit of duration of temporary work (or labour leasing work) was lifted. Restrictions on fixed-term contracts were eliminated and regulations of dismissals simplified. Exceptions from dismissal protection were extended, especially for smaller companies. In addition, drastic cuts in unemployment benefits were enacted, and the income of spouses played a bigger role in their allocation. Sanctions were introduced like the reduction of benefits if unemployed workers did not report their dismissal immediately. Finally, the organisational structure of the employment agencies was reformed, allowing for a bigger role of private employment services.

Central to Hartz II and III was the concept of the “rights and duties” of job seekers. One example for the activation strategy is the so-called “Me Corporation” as a programme to support the start of new micro firm. Mini-jobs as well as midi-jobs were extended which implies that for these jobs no pension contributions have to be paid. In addition, it was decided to pay wage subsidies to employers that hire workers who are considered difficult to place. More sanctions were introduced if, e.g., the job seeker does not accept job offers.

Hartz IV fundamentally reformed unemployment benefits. Benefits used to be dependent on the level social security contributions paid before becoming unemployed and were in

---

<sup>44</sup> Hartz reforms are named after Peter Hartz, a top human resource manager of Volkswagen. He was head of a committee appointed in 2002 by Chancellor Gerhard Schröder from the SPD, who was the then-head government.

principle paid until retirement. Now such payments were paid for a maximum of one year. With the unemployment benefit that is paid after one year of unemployment (the so-called ALG II), in 2018 a person who is single receives €416 per month (11.0 percent of average wage and 27.8 percent of minimum wage) plus financial aid for health care and housing (which can amount to several hundred euros). Under ALG II, children up to the age of six are eligible to receive €240 per month (Bundesagentur für Arbeit 2018). These payments are based not on former earnings but on an inquiry of the needs of the individual. They fall down to the level of social welfare benefits which are based on a basket of goods considered to be the minimum a person needs in Germany. Benefits for ALG II and social welfare benefits are only paid if spouses have low income and assets of the unemployed are used to a minimum. Hartz IV also saw further restructuring of the employment agency.

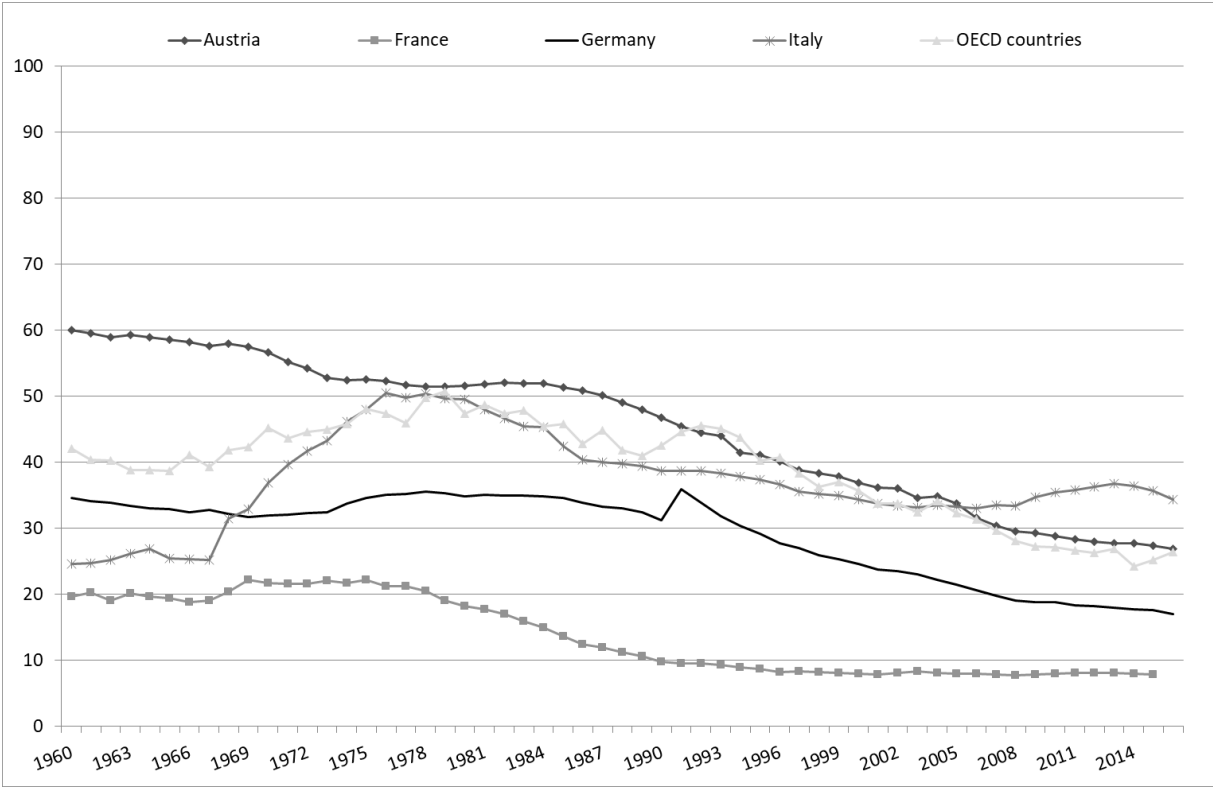
#### **4. The erosion of the German wage bargaining model**

The traditional German pattern bargaining system did not work in East Germany. Unions and employers' associations were too weak, and the institutional backing was insufficient as to preserve the signalling effect of negotiated wages to non-unionised firms. In the large majority of firms in East Germany wages became decoupled from the wage bargaining system and even started to fall. This also had repercussions for the West German wage bargaining model. A dual German labour market started to develop.

In 1991 the German Trade Unions Federation (DGB) got more than 4.1 million new members from East Germany, making up 35 percent of overall DGB membership. The share of women in the DGB rose from 24.4 percent in 1990 in West Germany to nearly 33 percent in unified Germany. In 1992 union membership in East Germany started to shrink sharply. In 1995 the DGB had lost 40 percent of the new East German members. The extensive member loss is linked to the deindustrialisation in East Germany after the reunification and rise of the service sector in East Germany with traditionally low union density (Fichter 1997). Union membership in West Germany also began to fall – moderately but continuously. Figure 3 shows that union density in Germany was stable around 35 percent until the early 1990s and then started to decline to below 20 percent in 2014. Development in Germany followed the general trend in OECD countries, where on average 30 percent of workers were members of a union in 1985. By 2017 this number had dropped to 17 percent (Cazes et al. 2017).

The general fall in trade union density has a number of reasons. First, sectors with traditional high union density (especially manufacturing) were shrinking and in growing sectors (especially the service sector) employees are more difficult to organise. Part of this tendency is that many tasks in manufacturing firms were outsourced to non-unionised sectors from cleaning to security services or to developing countries. Second, there have been partly hostile policies against trade unions. Third, the neoliberal ideology which dominated in many countries public discourse made it less attractive to join trade unions. Last not least in many countries state-owned enterprises were privatised with the result of union-hostile management, restructuring or decreasing employment (see Fitzenberger et al. 2011; Fichter (1997)).

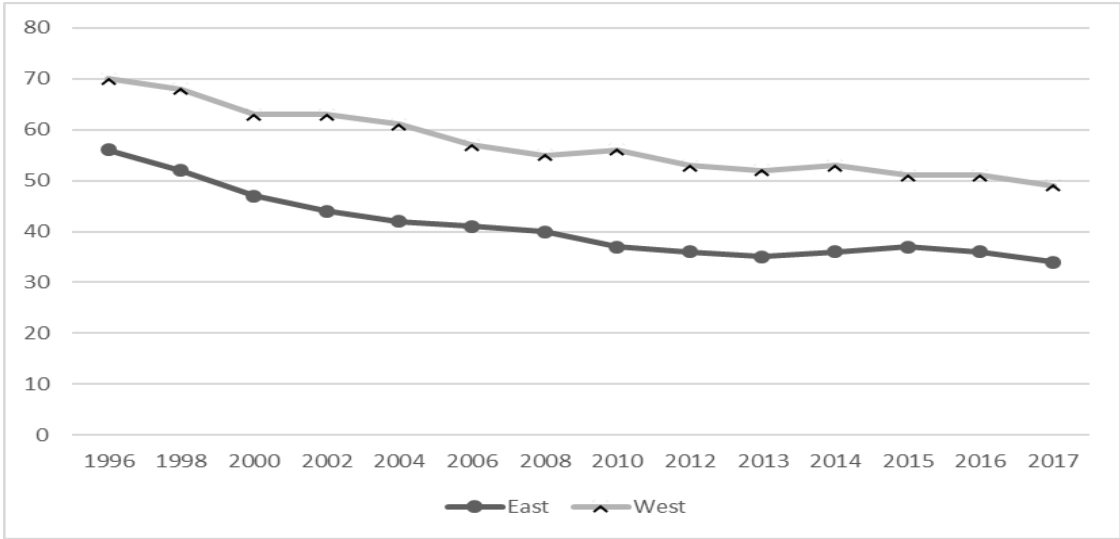
**Figure 3: Union density in selected OECD member countries (union members in percent of all employees), 1960-2014**



Source: OECD (2018a) and J. Visser, ICTWSS database (Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2010), version 3.0, URL: <https://stats.oecd.org/Index.aspx?DataSetCode=TUD#>

Collective wage bargaining coverage is an indicator showing the extent to which employees are covered by collective bargaining outcomes. Before German unification collective bargaining coverage was 85 or even 90 percent. In the old West German model collective bargaining coverage was 85 or even 90 percent. In the old West German model firms taking part in sectoral negotiations paid wages also to non-union employees. And most firms including small firms not belonging to employers' organisations would follow wage negotiations in the sector which had a strong signalling effect. Collective bargaining coverage started to erode in the 1990s (see Figure 4). Collective bargaining coverage in former West Germany dropped from 70 percent in 1996 to 50 percent in 2017. Following unification, collective bargaining coverage was consistently lower in the former GDR, and had dropped to 32 percent by 2017. Looking at this indicator the German development fits to the international trend. On average across OECD countries wage bargaining coverage shrank from 45 percent in 1985 to 33 percent in 2013. However, Germany used to have very high collective bargaining coverage comparable with Scandinavian countries which still have high coverages (Cazes et al. 2017).

**Figure 4: Collective bargaining coverage (percent of employees covered by collective bargaining agreements in percent of all employees, 1996-2017**



Source: IAB-Betriebspanel 2018, URL: [https://www.boeckler.de/wsi-tarifarchiv\\_2257.htm](https://www.boeckler.de/wsi-tarifarchiv_2257.htm)

There are several explanations for the erosion of wage bargaining coverage. First, shrinking union density has a direct effect for wage bargaining coverage.



Second, in Germany also employers' organisations in charge of collective bargaining massively lost members. There are no good statistics about how many employees are covered by firms organised in employers' organisations in Germany. But statistics about the metal industry are available. In 1970 almost 80 percent of West German employees in the metal industry worked in firms which belonged to employers' organisations. In 1990 the number decreased to 70 percent and in 2002 to around 60 percent. In East Germany membership dropped from the early 1990s from above 60 percent below 20 percent of employees working in firms belonging to employers' organisations (Schnabel 2005).<sup>5</sup> In a relatively new publication the OECD estimates that in Germany in 2005 overall around 60 percent of employees worked in firms belonging to employers' organisations (OECD 2017). These figures show that the establishment of the West German wage bargaining model in East Germany largely failed and had negative consequences also wage bargaining in West Germany.<sup>6</sup>

Third, in many countries and also in Germany governments did not sufficiently support a high wage bargaining coverage. For example, during the last decades in Germany the instrument of legal extension of sectoral wage bargaining outcomes, which was never extensively used, lost further importance. In the early 1990s 5.4 percent of collective bargaining agreements in Germany were legally extended, in 2012 the percentage shrank to 1.5 percent. The main reason for this is that the head organisations of employers' organisations have a veto right to block extension and that this is more intensively used (Bispinck and Schulten 2012).

Fourth, liberalisation and privatisation of public services also added to the erosion of collective bargaining coverage (Brandt and Schulten 2008).

---

<sup>5</sup> To stop decreasing membership employers' organisations allowed membership without wage negotiation obligation. Such members are not allowed to decide in matters concerning wage bargaining but can benefit from other services of employer organisation like training, information and lobbying. So-called "without-bargaining memberships" increased from the mid-1990s substantially in Germany (Behrens and Helfen 2010).

<sup>6</sup> In the OECD more or less the same development can be observed. In 2013 the average employer organisation density in the 26 OECD countries for which data is available was 51 percent (Cazes et al. 2017). But it should be kept in mind that in many countries there is no sectoral bargaining and employer organisation in these cases have different functions than for example in Germany (Caju 2008).

## **5. The development of a low-wage sector and the need for a minimum wage**

What happened in Germany from the early 1990s onwards was the working of the market process. An increasing number of employees were not protected directly or indirectly by collective bargaining agreements, and at the same time a statutory minimum wage did not exist. Unemployment which was especially high in the group of employees belonging to low-wage earners led to relative or even absolute wage cuts. Wages in this sector decreased to a large extent to the level of basic security payments which became a kind of soft and fussy minimum of wages.

One major effect of the Hartz reforms has been a sharp increase of the low wage sector (Herr 2002; Giannelli et al. 2016). This sector is defined as employees earning less than two thirds of the median wage. In Germany the low-wage sector increased from 16.6 percent in 1995 to 24.1 percent in 2011. Then it stabilised at 22.7 percent in 2016. In East Germany the level of the low-wage sector between 1996 and 2005 fluctuated between 36 percent and 40.6 percent. Low-skilled workers, women, young workers, employees with fixed-term contracts and foreign employees are especially affected by low wages (Kalina and Weinkopf 2017).

In the European Union (EU) Germany belonged in 2014 to the group of countries with the highest low-wage sector (22.5 percent). Only Estonia, Poland, Lithuania, Romania and Latvia with the highest value of 25.5 percent had higher values. The smallest low-wage sectors in 2014 were found in Sweden (2.6 percent) followed by Belgium (3.8 percent), Finland (5.6 percent) and Denmark (8.6 percent) (Kalina and Weinkopf 2016).

There is no doubt the Hartz reforms severely reduced unemployment benefits, changed income distribution, especially within the working class, and caused negative welfare effects for the short- and long-term unemployed (Krebs and Scheffel 2013).

Wage dispersion in Germany increases substantially. Taking 1992 as 100 real wages of the 20 percent percentile of wage earners dropped until 2010 to a value of 98.2; median real wages increased over the whole period to 100.6; the 80 percent percentile could increase real wages to 102.5 (Felbermayr et al. 2005). According to the same study the erosion of the wage coverage is the main factor to explain this development. During the last decades, the real wage level for the majority of employees did not increase very much as most of the

productivity gains only increased the wages of top earners and the profit share on income. Wage dispersion in Germany mainly increased because of the growth of the low-wage sector, a so-called collapsing floor, in comparison to the USA, where there is a greater polarisation of the wage structure at the bottom and the top (Herr and Ruoff 2014).

It should not be a surprise that inequality in Germany increases substantially over the last decades. The Gini coefficient for market income distribution increases in Germany from 0.35 to 0.43 in 2005, stagnating at this level but remaining above 0.4 until 2014 (the last available data). The Gini coefficient for disposable income in 1990 was below 0.25 and increased to above 0.39 in 2014 (Sachverständigenrat 2018). The difference between market and disposable Gini coefficient shows the extent of government redistribution policy via the tax system, social security, welfare transfers, etc. Redistribution is relatively high in Germany. Looking at the market Gini coefficient Germany belongs to one of the unequal countries in the OECD; taking the disposable Gini coefficient Germany is close to the average of OECD countries with a value of around 0.314 in 2014 (OECD 2018b).

The sharp increase of the segment in the German labour market which was not covered by wage bargaining and the explosion of a low-wage sector made it unavoidable to implement a statutory minimum wage in Germany in 2015. The German trade union movement was at first in disagreement about the introduction of statutory minimum wages. For example, the metal sector union was against the introduction of minimum wages with the argument that trade unions could set a minimum via collective bargaining – as for example in Austria, Denmark, Finland or Sweden where union density is very high or there are other powerful mechanisms to extend collective bargaining. In contrast the public sector union was pushing for statutory minimum wages. Eventually, the whole German trade union movement campaigned for statutory minimum wages, which were introduced under the grand CDU-SPD coalition at the beginning of 2015 at the value of €8.50, covering all sectors and all employees. Exceptions are made for youth below 18 years old, certain internships, apprentices, and for long-term unemployed in their first six months in employment. For some sectors the introduction of minimum wages had substantial effects. For example, in 2014 the percentage of employees earning below 8.50 Euro was 69.6 percent in the taxi sector, 51.5 percent in gastronomy, 40.1 percent in courier services, 33.2 percent in lodging, 32.0 percent in security services, 30.8 percent in bakery products sector, and 22.1 percent in

the retail sector. In the metal, construction, machine building, finance, and public sectors wages were already above €8.50 per hour (Mindestlohnkommission 2016: 42f.).

Compared with other countries in the EMU in early 2018, minimum wages in Germany were 8.84 Euro<sup>7</sup>, 9.88 Euro in France, 9.68 Euro in the Netherlands, 9.55 Euro in Ireland and 9.47 Euro in Belgium. Minimum wages in countries like Spain, Portugal and Greece were below 5 Euro. In comparison to the productivity level minimum wages in Germany are low. Also, in comparison to median wages German minimum wages are not very high. The level of minimum wage as share of median wages (the so-called Kaitz-Index) in 2016 was 0.46 in Germany. In France, for example, it was 0.61, in Great Britain 0.49, in the USA 0.35 or in Portugal 0.58 (OECD 2018b).

## **6. The development of a dual labour market**

The Hartz reforms allowed the development of so-called atypical or precarious jobs, not in an informal sector as in many developing countries, but within the existing legal framework. Precarious working conditions also affected a group of employees with higher income<sup>8</sup>, but the most affected employees were low-wage earners. Thus, the increasing low-wage sector in Germany was also characterised by precarious working conditions as many employees in this sector had fixed-term working contracts, worked part time, worked as temporary workers, etc. In addition, legal loopholes were used to reconvert the employee status in work contracts to freelance. For example, in slaughterhouses a large proportion of the workforce operates on the basis of labour contracts without any social protection or membership of social security systems. Last but not least, parts of the precarious jobs were not covered by the German social security system, for example the pension system (Oschmiansky 2007).

Figure 5 illustrates the development of atypical jobs in Germany since 1991 in millions. The ordinate on the right side of the graph shows that the number of employees paying social security contributions and are working more than 20 hours per week decreased steadily but rose again since 2006. This reflects the relatively good economic development in Germany after the Great Recession. But many of the new created jobs are in the normal low-

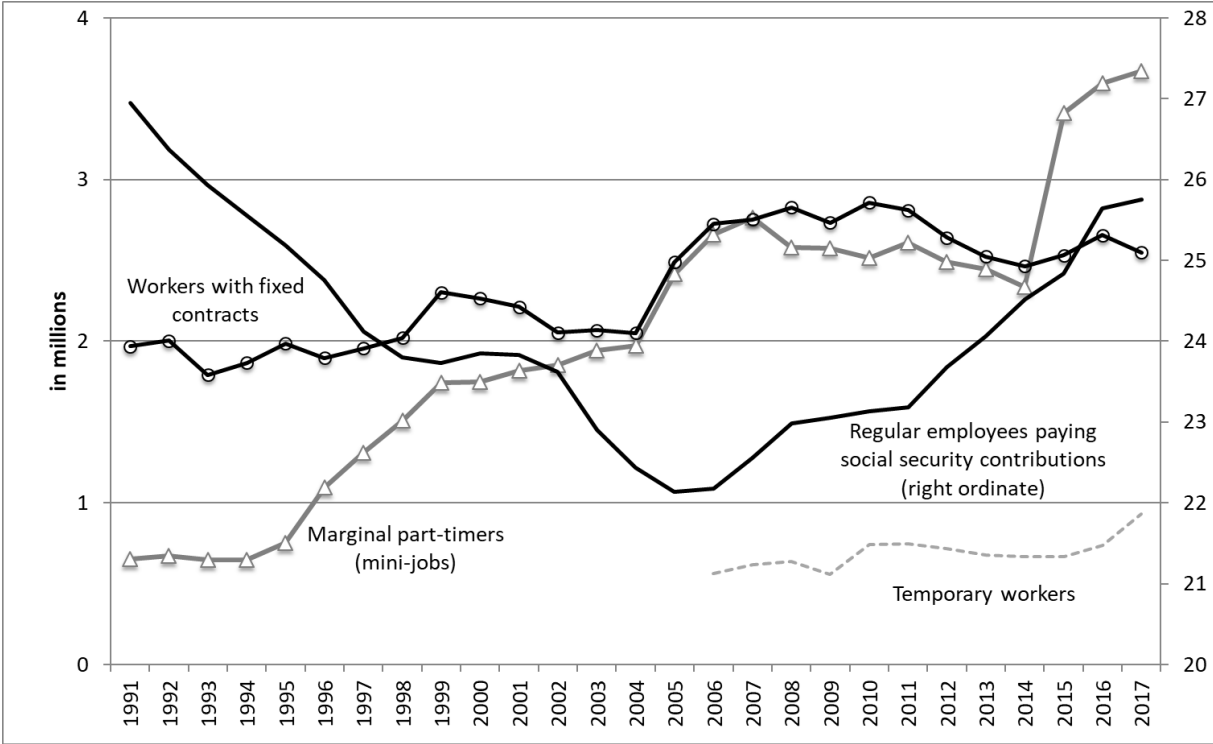
---

<sup>7</sup> From 1<sup>st</sup> of January 2019 until 31<sup>st</sup> of December 2019 minimum wages will be 9.19 Euro, in 2020 it will be 9.35 Euro (DGB 2018).

<sup>8</sup> For example, in universities young lecturers in many cases work on the basis of fixed-term working contracts which are renewed or on the basis of labour contracts of without any social protection.

wage sector. The development of atypical employment such as mini-jobs, fixed-term contracts and temporary work is shown on the left ordinate. Overall, these types of work have been increasing continuously since the 1990s. The growth of atypical employment shows a dual labour market developed not only in the field of wage bargaining, but also in the field of precarious jobs. Eichhorst and Tobsch (2015) argue that this duality does not undercut but complement regular employment and increasing atypical employment is not necessarily precarious. However, it has to be seen that firms are able to use precarious jobs because it became legally permitted to do so. Also, though a part of atypical employment may not be precarious, a large part is.

**Figure 5: Typical and atypical employment in Germany, 1991 – 2017**



Note: Atypical employment of workers between the age of 15 and 64, pupils, students, apprentices, and soldiers are excluded. Regular employees are defined as working more than 20 hours per week and paying social security contributions (right ordinate). All other data refers to the left ordinate.

Source: German Statistical Federal Office (2018a).

The development of a low-wage labour market segment with precarious features had repercussions for the traditional labour market segment. First, it stimulated outsourcing from sectors which were covered by wage bargaining and paid relatively good wages to sectors with low wages and/or precarious jobs. Second, competition from the low-wage sector created pressure in sectors covered by wage bargaining to have a more flexible wage policy. This pressure led to an increase of firm level collective agreements which until the 1980s existed almost nowhere. Such a development was made possible through so-called opt-out clauses, negotiated on a sectoral level. Trade unions had to accept this as otherwise even more companies would have left employer organisations or would have become members without collective bargaining commitment. In 2017 in West Germany 8 percent of employees are covered by specific firm level agreements, in East Germany this stands at 10 percent (Ellguth 2018).

According to a recent survey by the Hans-Böckler foundation, in Germany a precariat of around 12 percent of the economically active population has developed. It exists under conditions of high uncertainty, usually with low wages and non-regular jobs (Allmendinger et al. 2018). The rise of popular right-wing political parties also in Germany must be understood in regard to these developments.

## **7. Conclusion**

Germany used to have a highly coordinated pattern bargaining system based on sectoral wage negotiations usually starting in the metal sector. The signalling effect of the pattern bargaining system was so strong that statutory minimum wages were not necessary. Even firms not belonging to employers' organisations would follow the general wage trend as a kind of unwritten law. Precarious employment contracts were rare and to a large extent forbidden by law. This system came under massive pressure after German reunification in 1990 and labour market deregulation in the early 2000s. The West German labour market model could not be transferred to East Germany; the deregulation of labour markets under the Hartz reforms allowed a great variety of precarious employment contracts. Looking at income distribution Germany became more unequal, but still belongs to the group of economies with average inequality in the OECD.

We can agree with the OECD's view from 2004 that "an erosion of the German [wage bargaining] model is already underway" (2004: 154). In a weakened form the old German

wage bargaining system still exists in the core industrial sector and public sector. A dual labour market developed in Germany with one segment covered by wage bargaining and relatively stable and protected employment contracts and one sector with precarious employment and low wages.

Several studies stress positive effects of the Hartz labour market reforms and the development of a low-wage labour market segment with many precarious jobs. The argument is that increasing flexibility of labour markets paid off before and during the subprime-crisis in terms of declining unemployment, especially long-term unemployment rates (see for example Jacoby and Kluve 2007; Rinne and Zimmermann 2011; Hüfner and Klein 2012). Arguments in favour of positive employment effects of the Hartz reforms are explained by improved “matching efficiency” (Krebs and Scheffel 2013; Fahr and Sunde 2009), with an increasing number of low-wage jobs which were taken by the unemployed (Krause and Uhlig 2011).

We disagree that more labour market flexibility substantially reduced unemployment rates.<sup>9</sup> There might be that the Hartz reforms improved the bureaucratic structures of the employment agency and cut some unjustifiable high unemployment benefits, but it would be misleading to explain German economic performance by the effects of the deregulation of the labour market (Herr 2002; Hein and Truger 2014; Detzer et al. 2017: chapter 16). Employment first of all depends on aggregate demand which determines output and employment. Demand development in Germany before the Great Recession was poor and it was only after 2005 that investment and consumption began to pick up. Sluggish consumption demand can be attributed to the distributional effects and high uncertainty created by the Hartz reforms. Investment demand also was poor. And before the Great Recession in Germany there was no real estate bubble and no construction boom as in many other countries. Further, fiscal policy did not substantially contribute to GDP growth. German GDP growth much depended on export demand. After the Great Recession German exports exploded, and a bubble in German real estate developed from 2015, leading to a construction boom. These developments further stimulated consumption demand. All these developments led to a moderate increase of the volume of hours worked in Germany. This

---

<sup>9</sup> To a small extent the fall of statistically measured unemployment rates was also caused by changing statistical definitions of employed and unemployed. For example, the federal volunteer services (Bundesfreiwilligendienst) with around 40 000 persons are treated as jobs subject to social security contributions since 2014 (Frank and Grimm 2014: 12).

implies that the increase of part-time and precarious jobs explain a large part of the reduction of unemployment rates.

There is a link between Hartz reforms and export performance. The reforms led to a low-wage sector mainly in the non-tradable sector, but this also reduced the costs in the tradable sector as the latter outsourced many tasks to the low-wage sector. Also, the reforms weakened the German trade unions and added to the very low wage increases also in the sector covered by traditional wage bargaining. From the mid-1990s the inflation rate in Germany became very low with even deflationary dangers after the Great Recession. The low inflation rate in Germany reflects too low nominal wage increases which violated macroeconomic needs.<sup>10</sup> As in 1999 the EMU was established and other EMU countries could not any longer depreciate against the D-Mark, stagnating wage development in Germany increased German price competitiveness and added to high and increasing German current account surpluses (Herr 2017).

Without government help the German wage bargaining model will further erode. Statutory minimum wages introduced in 2015 have been preventing a further decoupling of wages in the low-wage sector from general wage development, but it is likely that without legal changes the sector without collective bargaining coverage and precarious jobs will expand further in the long-term. Government interventions would be needed to re-establish broad collective bargaining coverage. Widespread extension of collective bargaining mechanisms or mandatory membership of firms in employers' organisations for sectoral wage negotiations would be suitable instruments to re-establish. Also, regulation of certain working contracts would be needed, for example the limitation of contract labour and strict regulation of "contract for work" labour, in order to reduce the precarious employment sector. For a mature industrial country, reductions in working time are possible and preferable. But this should be done in a solidary way, for example by increasing holidays or cutting weekly working time for all, and not through a sharp increase of part-time jobs and precarious self-employment.

---

<sup>10</sup> Nominal unit-labour costs in Germany between the mid-1990s and the Great Recession remained almost at the same level, reflecting that nominal wage increases were at the same level as productivity increases. A macroeconomic stabilising wage development would follow the rule that the nominal wage level should increase according to trend productivity increases plus the target inflation rate of the central bank. Then the inflation target of the central bank would be supported by wage development. This rule was violated in Germany (Herr 2009).



## References

- Agartz, Viktor (1953), Expansive Lohnpolitik, in: Mitteilungen des Wirtschaftswissenschaftlichen Instituts der Gewerkschaften in Köln, 6. Jahrgang, 1953, Heft 12, p. 246ff. Reprinted in: Reinhard Bispinck, Thorsten Schulten, Peter Raane (ed.), Wirtschaftsdemokratie und expansive Lohnpolitik. Zur Aktualität von Viktor Agartz, Hamburg 2008.
- Albert, Michael (1993), Capitalism vs. capitalism. How America's obsession with individual achievement and short-term profit has led it to the brink of collapse. Four Walls Eight Windows, New York.
- Allmendinger, Jutta, Jahn, Kerstin, Promberger, Markus, Schels, Brigitte / Stuth, Stefan (2018), Prekäre Beschäftigung und unsichere Haushaltslagen im Lebensverlauf: Gibt es in Deutschland ein verfestigtes Prekariat?, in: WSI-Mitteilungen Vol. 76, 259-269
- Behrens, Martin; Helfen, Markus (2010), Employers' Exit from Multi-Employer Bargaining. Organizational Change in German Employers' Association, 9th European Congress of the International Industrial Relations Association, 28<sup>th</sup> June-1<sup>st</sup> July 2010, Copenhagen, Denmark.
- Berthold, Norbert, Coban, Mustafa (2013), Ordnungspolitische Beurteilung geringfügig entlohnter Beschäftigung (Minijobs), Institute for Employment Research.
- Bielenski, Harald, Magvas, Emil, Parmentier, Klaus (1992), Arbeitsmarkt-Monitor für die neuen Bundesländer, in: Mitteilungen aus der Arbeitsmarkt- und Berufsforschung 2/92, Vol. 25, 136-157.
- Bispinck, Reinhard; Schulten, Thorsten (2012), Erosion der Tarifvertragssysteme stoppen - Sicherung der Allgemeinverbindlichkeitsregelung von Tarifverträgen, Bundestag-Drucksache 17/8459.
- Blair, Tony, Schröder, Gerhard (1999), The Third Way, URL: <https://web.archive.org/web/>
- Brandt, Torsten, Schulten, Thorsten (2008), Liberalisierung und Privatisierung öffentlicher Dienstleistungen und die Erosion des Flächentarifvertrags, in: WSI Mitteilungen, Vol. 66, 570-576.
- Bundesagentur für Arbeit (2018), ALG II und Sozialgeld, URL: [https://con.arbeitsagentur.de/prod/apok/ct/dam/download/documents/Merkblatt-ALGII\\_ba015397.pdf](https://con.arbeitsagentur.de/prod/apok/ct/dam/download/documents/Merkblatt-ALGII_ba015397.pdf)
- Caliendo, Marco, Steiner, Viktor (2005), Aktive Arbeitsmarktpolitik in Deutschland: Bestandsaufnahme und Bewertung der mikroökonomischen Evaluationsergebnisse, German Institute for Economic Research, DIW Discussion Paper, No. 515.

- Caju, Philip Du, Gautier, Erwan, Momferatou, Daphne, Ward-Warmedinger, Melanie (2008), Institutional Features of Wage Bargaining in 23 European Countries, The US and Japan, European Central Bank Working Paper Series, No. 974.
- Calmfors, Lars; Driffill, John (1988), Bargaining Structure, Corporatism and Macroeconomic Performance, in: *Economic Policy*, Vol. 3, 13–61.
- Cazes, Sandrine, Garnero, Andrea, Martin, Sébastien (2017), The state of trade unions, employer organisations, and collective bargaining in OECD countries, 10 July 2017, Vox CEPR Policy Portal, <https://voxeu.org/article>
- Daniel Detzer, Nina Dodig, Trevor Evans, Eckhard Hein, Hansjörg Herr, Franz J. Prante (2017), The German Financial System and the Financial and Economic Crisis, Springer International.
- DGB (2018), Gesetzlicher Mindestlohn und Branchenmindestlöhne. Was ändert sich 2019 beim Mindestlohn, URL: <http://www.dgb.de/schwerpunkt/mindestlohn/mindestlohn-2019-was-aendert-sich-in-2019>
- Eichhorst, Werner, Tobsch, Verena (2015), Not so standard anymore? Employment duality in Germany, in: *Journal of Labour Market Research*, Vol. 48, 81–95.
- Ellguth, Peter (2018), Die betriebliche Mitbestimmung verliert an Boden. IAB-Forum 24. Mai 2018.
- Eucken, Walter (1948) (reprinted 1982), The Social Question, in: H. Wünsche (ed.): *Standard Texts on the Social Market Economy – Two Centuries of Discussion*, Stuttgart: Gustav Fischer Verlag, 1982, 267 – 276.
- Eurostat (2018), Proportion of low wage earners by economic activity in Germany [earn\_ses\_pub1n] and [earn\_ses\_pub2n].
- Fahr, René, Sunde, Uwe (2009), Did the Hartz Reforms Speed-Up the Matching Process? A Macro-Evaluation Using Empirical Matching Functions, in: *German Economic Review*, Vol. 10, 284-313.
- Felbermayr, Gabriel, Baumgarten, Daniel, Lehwald, Sybille Sybille (2005), Bertelsmann Stiftung, Gütersloh.
- Fichter, Michael (1997), Trade Union Members: A Vanishing Species in Post-Unification Germany?, in: *German Studies Review*, Vol. 20, 83-104.
- Fitzenberger, Bernd, Kohn, Karsten, Wang, Qingwei (2011), The Erosion of Union Membership in Germany: Determinants, Densities, Decompositions, in: *Journal of Population Economics*, Vol. 24, 141-165.

- Flassbeck, Heiner, Lapavitsas, Costas (2013), The Systemic Crisis of the Euro – True Causes and Effective Therapies. Studien, Rosa-Luxemburg-Stiftung, Berlin.
- Frank, Thomas, Grimm, Christopher (2014), Beschäftigungsstatistik Revision 2014, Methodenbericht, Bundesagentur für Arbeit, Statistik, Nürnberg.
- Fuchs, Johann, Kubis, Alexander, Schneider, Lutz, (2015), Szenarien für ein konstantes Erwerbspersonenpotenzial – unter Berücksichtigung der zukünftigen inländischen Erwerbsbeteiligung und der EU-Binnenmobilität, Gütersloh, Bertelsmann Stiftung.
- Gerlach, Knut, Meyer, Wolfgang (2010), Wage Effects of Works Councils and Collective Agreements in Germany, in: Brown, Claire, Eichengreen, Barry, Reich, Michael (eds.), Labor in the Era of Globalization, Cambridge, Cambridge University Press, 295-316.
- German Statistical Federal Office (2018a), (Statistisches Bundesamt, Destatis), Mikrozensus, URL:  
<https://www.destatis.de/DE/ZahlenFakten/GesamtwirtschaftUmwelt/Arbeitsmarkt/Erwerbstaetigkeit/TabellenArbeitskraefteerhebung/AtypKernerwerbErwerbsformZR.html>
- German Statistical Federal Office (2018b), (Statistisches Bundesamt (Destatis), Verdienste und Arbeitskosten, Reallohnindex und Nominallohnindex, URL:  
[https://www.destatis.de/DE/Publikationen/Thematisch/VerdiensteArbeitskosten/ReallohnNetto/ReallohnindexPDF\\_5623209.pdf?\\_\\_blob=publicationFile](https://www.destatis.de/DE/Publikationen/Thematisch/VerdiensteArbeitskosten/ReallohnNetto/ReallohnindexPDF_5623209.pdf?__blob=publicationFile)
- German Statistical Federal Office (2018c), (Statistisches Bundesamt (Destatis), Bevölkerungsstand, URL:  
[https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/Bevoelkerung/Bevoelkerungsstand/Tabellen/\\_lrbev03.html](https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/Bevoelkerung/Bevoelkerungsstand/Tabellen/_lrbev03.html)
- German Statistical Federal Office (2018d), (Statistisches Bundesamt, <https://www.statistik-bw.de>
- Giannelli, Gianna C., Jaenichen, Ursula, Rothe, Thomas (2016), The evolution of job stability and wages after the implementation of the Hartz reforms, in: Journal of Labour Market Research, Vol. 49, 269-294. Hein, Eckhard; Truger, Achim (2014), Future fiscal and debt policies: Germany in the Context of the European Monetary Union, in: Arestis, Philip, Sawyer, Malchom (eds.), Fiscal and debt policies in the future, Palgrave Macmillan, Basingstoke.
- Herr, Hansjörg (2002), Arbeitsmarktreformen und Beschäftigung – über die ökonomietheoretischen Grundlagen der Vorschläge der Hartz-Kommission, in: Prokla. Zeitschrift für kritische Sozialwissenschaft, Vol. 32, 515-536.
- Herr, Hansjörg (2009), The Labour Market in a Keynesian Economic Regime: Theoretical Debate and Empirical Findings, in: Cambridge Journal of Economics, Vol. 33, 949-965.

- Herr, Hansjörg (2017), A history of the crises of the European Monetary Union, in: Hansjörg Herr, Jan Priewe, Andrew Watt (eds.), Saving the Euro: Redesigning Euro Area economic governance, Social Europe.
- Herr, Hansjörg, Ruoff, Bea (2014), Wage dispersion as key factor for changing personal income distribution in: Journal of Self-Governance and Management Economics, Vol. 2, 28–71.
- Hüfner, Felix, Klein, Caroline (2012), The German Labour Market: Preparing for the Future, OECD Economics Department Working Paper, No. 983.
- IAB-Betriebspanel 2018, URL: [https://www.boeckler.de/wsi-tarifarchiv\\_2257.htm](https://www.boeckler.de/wsi-tarifarchiv_2257.htm)
- Jacobi, Lena, Kluge, Jochen (2007), Before and After the Hartz Reforms: The Performance of Active Labour Market Policy in Germany, in: Journal for Labour Market Research, Vol. 40, 45-64.
- Kalina, Thorsten, Weinkopf, Claudia (2012), Niedriglohnbeschäftigung 2010: Fast jed/r Vierte arbeitet für Niedriglohn, IAQ-Report, Aktuelle Forschungsergebnisse aus dem Institut für Arbeit und Qualifikation, 2012/01.
- Kalina, Thorsten, Weinkopf, Claudia (2016), Niedriglohnbeschäftigung 2016 – beachtliche Lohnzuwächse im unteren Lohnsegment, aber weiterhin hoher Anteil von Beschäftigten mit Niedriglöhnen, IAQ-Report, Aktuelle Forschungsergebnisse aus dem Institut für Arbeit und Qualifikation, 2018/06.
- Krebs, Tom, Scheffel, Martin (2013), Macroeconomic Evaluation of Labor Market Reform in Germany, IMF Working Paper, No. 13/42.
- Krause, Michael, Uhlig, Harald (2011), Transitions in the German labor market: structure and crisis, German Bundesbank Discussion Paper Series 1, Economic Studies, No. 34.
- Meinhold, Helmut, (1965), Das Dilemma der Lohnpolitik, in: Die Zeit, Nr. 51, 17.12. 1965, 16.
- Mindestlohnkommission (2016), Erster Bericht zu den Auswirkungen des gesetzlichen Mindestlohns, Berlin.
- Müller-Armack, Alfred (1947) (reprinted 1982), The Social Aspect of the Economic System, in: H. Wünsche (ed.): Standard Texts on the Social Market Economy – Two Centuries of Discussion, Stuttgart: Gustav Fischer Verlag, 1982.
- Ochel, Wolfgang (2001), Collective bargaining coverage in the OECD from the 1960s to the 1990s, CESifo Forum, ifo Institute - Leibniz Institute for Economic Research at the University of Munich, Vol. 2, 62-65.

OECD (2004), Employment Outlook, Paris.

OECD (2017), Employment Outlook, Paris.

OECD (2018a) Visser, J. ICTWSS database (Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2010), version 3.0, Collective Wage Bargaining, URL: <https://stats.oecd.org/#>

OECD (2018b), OECD Economic Outlook, Volume 2018 Issue 1, URL: [https://doi.org/10.1787/eco\\_outlook-v2018-1-en](https://doi.org/10.1787/eco_outlook-v2018-1-en)

Oschmiansky, Heidi (2007), Der Wandel der Erwerbsformen und der Beitrag der Hartz-Reformen: Berlin und die Bundesrepublik Deutschland im Vergleich, WZB Discussion Paper 2007-104.

Pierenkemper, Toni (2006), Vierzig Jahre vergebliches Mühen – die Beschäftigungs- und Arbeitsmarktpolitik, in: Steiner, André (ed.) (2006), Überholen ohne Einzuholen: Die DDR-Wirtschaft als Fußnote der deutschen Geschichte?, Berlin, Christoph Links.

Pohlmann, Markus (2005), Die Industriekrise in Ostdeutschland. Zur Rolle ökonomischer Eliten und ihrer Unternehmenspolitiken, in: Deutschland Archiv, Vol. 38, 417-424.

Rinne, Ulf, Zimmermann, Klaus F. (2011), Another Economic Miracle? The German Labor Market and the Great Recession, Institute for the Study of Labor, IZA Discussion Paper, No. 6250.

Ruoff, Bea (2016), Labour market developments in Germany: tales of decency and stability, Global Labour University (GLU) Working Paper, no. 39, Geneva.

Sachverständigenrat (2018): Gutachten des Sachverständigenrates 2018/19, Berlin.

Scharpf, Fritz (1987), Sozialdemokratische Krisenpolitik in Europa, Frankfurt, Campus.

Schnabel, Claus (2005), Gewerkschaften und Arbeitgeberverbände: Organisationsgrade, Tarifbindung und Einflüsse auf Löhne und Beschäftigung, Diskussionspapiere, Friedrich-Alexander-Universität Erlangen-Nürnberg, Lehrstuhl für Arbeitsmarkt- und Regionalpolitik, No.34.

Schnabel, Claus, Wagner, Joachim (2003), Trade Union Membership in Eastern and Western Germany: Convergence or Divergence?, IZA Discussion Paper No. 707.

Soskice, David (1990), Wage Determination: The Changing Role of Institutions in Advanced Industrialized Countries, in: Oxford Review of Economic Policy, Vol. 6, 36-61.

WSI (2018), Erwerbstätigkeit, <https://www.boeckler.de/53509.htm>

Imprint

Editors:

Sigrid Betzelt, Eckhard Hein (lead editor), Martina Metzger, Jennifer Pedussel Wu, Martina Sproll, Christina Teipen, Achim Truger, Markus Wissen, Reingard Zimmer

ISSN 1869-6406

Printed by  
HWR Berlin

Berlin, January 2019