Chapter 8 The atypical and gendered 'employment miracle' in Germany: a result of employment protection reforms or long-term structural changes?

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1. Introduction

Unlike in other countries, the 'Great Recession' has not intensified the growth in atypical employment in Germany; in fact, the last few years even saw a slight decrease. However, this has barely changed the high levels of income inequality and labour market segmentation which had evolved in the years before the crisis. The current situation is therefore characterised by novel labour market structures in which a high level of atypical employment and precariousness co-exist with an all-time high for the level of employment. According to the view shared by most observers, Germany is thereby a long way from a more inclusive employment model that, up until the 1990s, used to be a defining feature for large parts of the national economy.

Despite these ambiguous developments in long-term perspective, the resilience of the German economy in the face of the crisis and continuous employment growth against European trends has made the German employment system a role model in political reform debates across Europe in the aftermath of the crisis. The 'Hartz' reforms at the beginning of the 2000s feature as an important element of the new employment-friendly institutional environment in Germany that helped to buffer the effects of the crisis. In this reading, the reforms – much in line with the OECD's 1994 Jobs Strategy – have removed barriers to job creation to the benefit of labour market outsiders. The asymmetrical relaxation of employment protection legislation has, however, given rise to critical assessments, including by the OECD itself, pointing to consequential limits on upward mobility for non-permanent workers who remain trapped in insecure jobs, and to negative effects for social cohesion (OECD 2006; OECD 2014).

Against the background of these ambiguous and partly contradictory evaluations it is therefore of particular relevance to assess empirically what factors have contributed to the novel labour market structure in Germany and how the costs and benefits of this change are distributed. The following analysis aims to show that this requires taking account of the *wider institutional environment* of employment protection reforms and both to acknowledge the impact of *long-term structural changes* on the labour market and analyse how they are amplified or mitigated by forms of employment protection.

Taking stock of the available literature and statistics, it is shown, firstly, that the 'employment miracle' that started in the mid-2000s was predominantly based on a growth of 'atypical employment', not least as a result of institutional reforms (section 3). By contrast, the reforms were of rather little importance to one long-term trend that has contributed strongly to employment expansion, namely the growth of part-time jobs in

female-dominated quasi-public industries — a trend that has been largely ignored by most reviews of the 'German job miracle' (section 4). Finally, section 5 looks at available evidence on the upwards mobility of non-standard employees and discusses potential explanations for the obviously rather limited 'stepping stone' effect of atypical jobs. To start with, however, section 2 gives a brief overview of the most important changes in the institutional environment, including employment protection reforms.

2. Asymmetrical employment protection reforms and their wider institutional environment

Germany is among the countries with the most polarised employment protection legislation, according to the OECD EPL index. Traditionally high restrictions on the individual and collective dismissal of employees with regular contracts have remained virtually unchanged, but the EPL index value for employees with a temporary contract has dropped considerably since the mid-1990s (see the Introduction chapter by Myant and Piasna in this volume). Table 1 summarises the most important legislative changes. It confirms that there have already been substantial relaxations in the use of fixed-term and temporary agency contracts since the mid-1980s. The reforms at the beginning of the 2000s have brought about the further deregulation of temp agency work in particular, as well as the introduction of mini-jobs.

The apparent stability for employees on regular, open-ended contracts conceals important changes for this group, however. At the legislative level, the most important reform was to raise the firm-size threshold for the application of dismissal protection law from five to ten full-time equivalent employees. The result is that an additional 10 per cent of dependent employees were thereby excluded from dismissal protection (Koller 2010) and, overall, it can be assumed that around 20 per cent of dependent workers are not covered by this law.¹ It is therefore difficult to understand why this reform in 2004 has not translated into any change in the OECD index value for individual and collective dismissal regulation.²

Moreover, by focusing exclusively on the legislative level, the EPL index tends to underestimate changes in *de facto* employment protection as a result of weakened institutional preconditions for the effective enforcement of the law. In the case of collective dismissals, the application of the law hinges essentially on the existence of works councils since they are endowed with substantial bargaining power in the event of individual and collective dismissals. In fact, empirical evidence shows that works councils generally reduce the separation rate in German companies (e.g. Hirsch *et al.* 2010; Grund *et al.* 2015). Apart from their co-determination rights in case of dismissals, this is also attributed to a more indirect effect, namely works councils' general ability to 'voice' employees concerns and thereby reduce voluntary 'exits' by employees. The

^{1.} In 2014, 17 per cent of employees were working in micro enterprises with up to nine employees (either full-time or part-time) (Bechmann *et al.* 2015: 17); the group excluded from dismissal protection is still larger since the law only applies to firms with more than ten full-time equivalent employees.

^{2.} Dependent employees in small firms nevertheless remain covered by social security and other statutory labour rights (e.g. on sickness pay, paid holidays, etc.).

Table 1 Most important employment protection reforms in Germany since mid-1980s

Standard empl	ovment						
2004	Firm-size threshold for application of dismissal protection raised from minimum of five to ten FTE						
(1996*)	In the case of dismissal on operational grounds, employers can offer a redundancy payment (of 0.5 mon						
	wage per year employed) in a letter of notice, in exchange for the employee forgoing appeal to court						
Fixed-term cor	stracts (FTC)						
1985	FTC possible without specifying an objective reason, for up to 18 months (no limits imposed on FTC with objective reason)						
1996	Overall duration of FTC without objective reasons increased (18 \rightarrow 24 months). Three permissible (seamless) renewals within 24 months						
	Specific rules implying fewer restrictions for persons aged 60 and older						
2001	Specific rules extended to persons aged >58 (age limit further lowered to >52 in 2003)						
	FTC without objective reasons restricted to new hires. Clarification of 'objective' reasons for FTC (based on previous jurisprudence)						
Temp agency v	vork (TAW)						
Since 1985	Maximum assignment period at same hiring company progressively widened (1985: three → six months; 1994: nine; 1997: 12; 2001: 24 months)						
1997	Relaxations with regard a) 'synchronisation ban' = ban on employing TAW on a contract covering only the assignment period; b) employing TAW on a fixed-term contract (FTC) c) re-employing TAW						
2002/2003	Maximum limits for assignment period lifted. Synchronisation ban + restrictions with regard to FTC + reemployment abolished						
	Equal pay principle introduced; but opening clause for collective agreements						
2012	Introduction of hourly minimum wage for TAW: (€ 7.89 West/€ 7.01 East); increased to € 9.00/€ 8.50 in 2016						
From 2017	Maximum assignment period restricted to 18 months; equal pay after 9/15 months at the latest (on condition of collective agreement, otherwise from 1st day); loophole closed for 'hidden' TAW (bogus subcontract work)						
Marginal part-	time employment ('mini-jobs')						
Since 1960s	Exemptions from taxes and social security contributions for jobs with low monthly income. Income threshold progressively increased (1999: DM 630 = € 325)						
1999	Tax + social security exemptions for mini-jobs as a second job abolished						
	Employers' contributions to social security introduced (at 22 per cent of gross income = level of regular employees)						
2003	Income threshold raised (€ 325 → € 400 / month); hours threshold (max 15h/week) abolished						
	Tax+social security exemptions for mini-jobs as a second job reintroduced						
2006	Mini-jobbers can opt-in to statutory pension insurance						
	Employers' contributions to social security raised from 22 per cent to 30 per cent						
2013	Mini-jobbers have to opt-out if they wish to remain excluded from pension insurance. Pay threshold raised to \le 450/month						

^{*} Firm-size threshold was first raised in 1996; the regulation was cancelled in 1999 and reintroduced in 2004. Source: author's compilation

decline in the presence of works councils in German establishments, in particular in medium-sized companies (see Ellguth and Trinczek 2016), is therefore bound to weaken the effective enforcement of employment protection legislation. Changes in the Works Council Act in 2001 have tried to address the representation gap in small and medium sized companies, e.g. by speeding up the procedures for setting up a works council in companies with 5-50 employees, and by granting temp agency workers (after three months in the same hiring company) voting rights in works council elections. However, in 2012, only 6 per cent of small firms (5-50 employees) had a works council (Ellguth and Kohaut 2013). More far-reaching reform proposals from trade unions and some political parties aimed at increasing the prevalence of works councils and/or their co-determination rights with regard to the use of atypical employment have, so far, failed (see Absenger and Priebe 2016; Deutscher Bundestag 2015).

These reforms in employment protection legislation have been accompanied by social policy reforms which have indirectly affected employment protection, mostly by modifying incentives on the labour supply side.

Firstly, the 'Hartz' reforms have supported a general recommodification of labour, in two ways: the unemployed are now expected to accept any job offer, virtually without restrictions regarding occupation, skill levels and wages.³ Additionally, earnings-related benefits have lost in importance (the reforms have abolished unemployment assistance, reduced the maximum duration of unemployment benefit and tightened eligibility criteria). In conjunction with the high share of low-wage work – leading to very low-wage replacement even for part of those still entitled to unemployment benefits⁴ – this has contributed to raise the at-risk-of-poverty rate among the unemployed to the highest level in the EU (2013: 86 per cent, compared to 67 per cent in the EU-28).⁵ Thus, the imminent risk of falling into poverty is certainly higher for those in atypical employment, but the risk is real for standard employees as well.

A second important reform bundle relates to early retirement which was used extensively in the past in order to cushion negative demand shocks and structural unemployment. From the second half of the 1990s, a number of reforms to the pension system and the unemployment benefit system have reduced early retirement options and increased the financial disincentives for exiting the workforce before the legal retirement age (which, additionally, is currently being successively delayed to 67). This might contribute to diminish the employment effects of negative demand shocks — and this was indeed noted as one factor explaining the 'resilience' of the German labour market in the Great Recession (Knuth 2014: 27). However, it also raises the question if and how employers seek to substitute for this loss of external flexibility through other means, e.g. the use of temp agency work.

^{3.} This means that the unemployed risk being sanctioned with benefit cuts if they refuse job offers that do not match their occupation and skill level. In practice, employment agencies may nevertheless first try to place the unemployed in jobs matching their occupational profile.

^{4.} More than 50 per cent of male unemployment benefit recipients received a monthly benefit of less than € 900 in 2014; among female benefit recipients, the share was 75 per cent (Sozialpolitik aktuell 2016).

^{5.} Source: data provided by Eurostat, based on EU-SILC, referring to the share of the unemployed (aged between 18 and 64) with household income below 60 per cent of median equivalised household income.

The interdependent or complementary relationship between EPL in a narrower sense (i.e. the de- or re-regulation of the labour market) and other policy fields, in particular social policy and industrial relations, has been widely acknowledged in academic research on the rise of precarious forms of work in Germany and elsewhere. This research is challenging orthodox economic theory which predicts that the negative effect of rigid EPL is reinforced by highly centralised collective bargaining, high union density and high unemployment benefits (see e.g. Heckmann 2003; and Abrassart 2015 for a recent study testing these assumptions). A range of authors have highlighted how, rather to the contrary, a decline in union density, the decentralisation of collective bargaining and cuts in unemployment benefits have tended to reinforce the asymmetrical relaxation of EPL and to channel the risks to the periphery of the labour market, either intentionally or unintentionally (Palier and Thelen 2010; Eichhorst and Marx 2012; Hassel 2014). The evidence presented below generally confirms the asymmetrical distribution of risks, but also points to the increased risks for standard workers and highlights how this, in turn, might paradoxically additionally hamper upwards mobility for non-standard workers.

3. The atypical employment miracle: the role of institutional reforms and the long-term trend in 'wage flexibility'

The mid-2000s saw a trend reversal on the German labour market. Unemployment had almost continuously increased since the 1990s, but unemployment and inactivity began to drop from 2005 and an increasing GDP was accompanied by a substantial and steady employment growth that was only briefly interrupted by the economic crisis in 2009 (Figure 1).

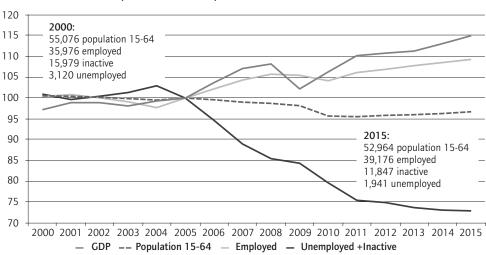


Figure 1 Trends in GDP, working age population, employment and unemployment 2000-2015 (Index: 2005=100)

Source: EU-LFS, provided by Eurostat, own calculations

The 'German employment miracle' is, however, to a large extent based on a growth in atypical employment: more than 1.5m (60 per cent) of the additional employment created between 2000 and 2015 was in either fixed-term contracts, temp agency work, mini-jobs or regular part-time work of up to 20 hours per week (see Table 2). The number of atypical employees has slightly declined since 2010 but, at 23.3 per cent, their share is still larger than it was at the last cyclical peak in 2000 (20.1 per cent). Within standard employment (as defined by the Federal Statistical Office, i.e. an open-ended contract of more than 20 hours/week, covered by social security, and excluding temp agency work), there has been a shift from full-time to part-time jobs of more than 20 hours per week. Their inclusion in the definition of 'standard employment' is debatable, given that part of these long(er) part-time jobs provide relatively low earnings and a limited upwards perspective. The assertion of a recent decline in the overall number of atypical jobs therefore needs to be treated with some caution.

Table 2 Employees in atypical and standard jobs, 2000-2015 (in 000)

	Solo	Dependent employment							
	self-empl.			Atypical					Total
		Full-time	Part-time > 20h	Total*	Fixed- term	Part-time up to 20h	Mini-job	TAW	
1991	1,284	25,197	1,751	4,437	1,968	2,555	654	n.a.	31,385
2000	1,697	22,130	1,720	6,012	2,265	3,944	1,749	n.a.	29,862
2005	2,110	20,159	1,979	6,854	2,498	4,673	2,416		28,992
2010	2,169	20,560	2,571	7,945	2,858	4,942	2,517	743	31,076
2015	1,991	21,422	3,410	7,534	2,531	4,844	2,339	666	32,367
2000-15	294	-708	1,690	1,522	266	900	590	n.a.	2,504

Figures refer to employees aged 15-64, not in education, and to their main job only.

Source: Statistisches Bundesamt (website), based on German LFS (Mikrozensus)

The question to what extent this trend reversal, as well as the particular form it took, has been caused by the institutional reforms and who was affected by it has fueled political debates and stimulated research ever since.

Firstly, with regard to the question of the extent to which the increase in atypical and low-waged jobs is an effect of the institutional reforms, the available empirical evidence suggests that the institutional reforms at the beginning of the 2000s did not kick-off, but rather amplified, more long-standing trends that had started in the 1990s. Both wage inequality and non-standard employment had already begun to grow during the 1990s (see Table 1 and Dietz *et al.* 2013 for atypical employment; and, for wage inequality, Bosch and Weinkopf 2008; Dustmann *et al.* 2009). However, as we have seen above, atypical employment increased strongly after 2000 as well, and the bulk of this increase occurred between 2002 and 2007, taking its share of all dependent employees from

^{*}The different categories of atypical jobs (fixed-term, part-time...) are overlapping, but the total number of employees on atypical jobs does not double-count them.

^{6.} However, the figures above exclude an important number of atypical jobs - e.g. those held by students or elderly people aged 65 and over.

20.4 per cent to 25.7 per cent. Atypical employment increased most strongly among lowskilled workers (from 31.3 per cent in 2001 to 39.9 per cent in 2007), but it increased for those with a vocational degree as well (from 19.5 per cent to 25.0 per cent) (Statistisches Bundesamt 2008) - including employees in core manufacturing sectors (see Benassi 2016). Wage inequality, which increased from the mid-1990s following long years of wage moderation, outsourcing and the decline in collective bargaining, also received a strong additional boost from 2003 that lasted until 2009. The drop in real wages was particularly strong in the lowest quintile of the wage distribution (Card et al. 2013; Felbermayr et al. 2015) but also led to decreases at the median wage level.⁷ Focusing on low-waged work (two-thirds of the median wage), Kalina and Weinkopf (2015) provide some approximate evidence on how standard and non-standard workers have been affected by the rise in wage inequality; between 1995 and 2013, the share of low-wage workers has increased most strongly in fixed-term employment (+13 percentage points) and mini-jobs (+9 percentage points), raising their share to 42 per cent among fixedterm workers and 76 per cent among mini-jobbers (compared to 24 per cent in the overall group of dependent employees). Even so, low-wage work has also increased for those in open-ended contracts (+4 percentage points), according to the same study.

With regard to the question of how exactly the institutional reforms have translated into this atypical employment miracle, observers predominantly emphasise the effect on the labour supply side, as intended by the reforms. A number of studies (Fahr and Sunde 2009; Klinger and Rothe 2012; Krebs and Scheffel 2013; Klinger and Weber 2014; Stops 2016) have found that the reforms have contributed to a better functioning of the labour market, by permanently (not just cyclically) increasing job-search intensity among the unemployed and improving 'matching efficiency', i.e. speeding up the matching of the unemployed and job vacancies. This is consistent with findings which show that the reform has increased employees' fear of unemployment (Erlinghagen 2010) and altered the job concessions and search behaviour of unemployed people (e.g. Rebien and Kettner 2011). Knuth has pointed out that this can be seen as indicating a sort of 'deterrent effect' of the 'Hartz' reforms that both accelerated the transitions of the short-term unemployed into employment (as they want to avoid having to claim the new means-tested benefit after the first year of unemployment) and also prepared employees to make wage concessions in return for keeping their job during the Great Recession (Knuth 2014: 6).8 This view is supported by the analysis of Engbom et al. (2015) showing that earnings losses after a spell of short-term unemployment considerably increased after the 'Hartz' reforms. Other elements of the overall reform package, namely the reduced early retirement options mentioned above, partly explain why the rise in employment was particularly strong among older people (aged 55-64). Yet it is also a result of a cohort effect, since female cohorts entering this age group had a higher employment rate than the previous generation (Knuth 2014: 22).

Thus, there seems to be little doubt that the reforms have increased pressure on the part of both employees and the unemployed to take up (or stick to) jobs even with poor terms

^{7.} This is a different pattern than in the previous decade, when the rise in earnings inequality was mainly a result of disproportionally strong increases at the higher end (Dustmann *et al.* 2014).

^{8.} Even so, from 2007 the absolute number of the long-term unemployed dropped strongly as well and, since 2011, stands at less than 1.1m, a lower level than in the mid-1990s (source: Sozialpolitik aktuell).

and conditions, thereby contributing to the rise in wage inequality and non-standard employment. By contrast, it is a less consensual matter whether this growth of low-waged and atypical jobs has also contributed to the increase in aggregate employment levels or whether overall employment growth has been caused by other factors and would have occurred even without the help of the rise in inequality. With regard to these macroeconomic effects, a few researchers hold that the reforms had few effects and that the 'German jobs miracle' is mainly to be explained by strong GDP growth (Herzog *et al.* 2013). A predominant reading in the economic literature is, however, that the rise in low-waged and atypical employment has, in fact, contributed to employment growth and greater job opportunities, in particular for those at the margins of the labour market.

Two distinct explanations for such a positive relationship can be distinguished in the literature: Summarised in a somewhat stylised way, the first explanation stresses that additional employment has been created through greater flexibility and market-clearing wages, in particular in low-paid service sector occupations (e.g. Eichhorst and Tobsch 2015; Burda and Seele 2016). The second explanation focuses rather on the external effects of wage moderation in the service sector: this has created a cost-containing environment for the manufacturing sector and helped to keep labour costs in export-oriented sectors down, thereby improving competitiveness (e.g. Hassel 2014; Dustmann 2014; Klinger and Weber 2015).

Both explanations are certainly plausible assumptions that are, in part, backed up by the empirical findings provided by the studies, but some aspects raise some doubt with regard to the magnitude of these effects as well as with regard to the lessons to be learnt:

- Firstly, wage moderation, particularly at the lower end of the wage distribution, tends to depress private consumption and thereby internal demand. According to model calculations by Herzog-Stein et al. (2013), employment growth between 1999 and 2011 would have been stronger if wages had developed in line with productivity increases and inflation, and even more so if supported by higher public demand made possible by forgoing cuts in taxes and social security contributions. This finding does not contradict the assumption that employment growth in Germany was a result of wage moderation (and occurred at the expense of other countries' employment levels), but rather highlights that there would have been other alternatives yielding the same or even better macroeconomic results, without the downside of a strong increase in inequality. In a similar vein, another recent simulation study finds that German gross domestic product would have increased more strongly between 1991 and 2015 if income inequality had remained the same as in 1991. The study attributes this to the immediate negative effect on consumption, but also to the more long-term negative effect of income inequality on individuals' ability and propensity to invest in skills and training (Albig et al. 2016).
- Secondly, the available empirical evidence suggests that atypical employment has, in fact, partly substituted for regular employment: for instance, Hohendanner and Stegmaier (2012) show that, in some of their companies, mini-jobs grew simultaneously with a decline in jobs covered by social security, thus pointing

at substitution effects. This negative correlation was strong and significant in particular in industries with a high share of mini-jobs – retail, hospitality, health and social care – and in small firms across the economy. With regard to temp agency work, Jahn and Weber (2012) apply a more rigorous method of estimating substitution effects (including possible macroeconomic effects) and find that around half of the temp agency jobs created between 1991 and 2010 substituted regular dependent employment covered by social security.

Against this background, it seems fair to conclude that, while there have undoubtedly been important changes in job security and earnings, there is less clarity if and to what extent this has had beneficial effects on aggregate employment levels. With a few exceptions (e.g. Jahn and Weber 2012), most analyses finding positive employment effects fail to quantify in a meaningful way how much of the employment growth can be attributed to greater (wage) flexibility. Both the magnitude of the employment effects and the question whether there would have been alternatives is, however, crucial when it comes to drawing policy conclusions since a weak effect would hardly justify the strong downside of greater insecurity across large parts of the workforce.

With regard to the latter, the available evidence allows the conclusion that the institutional reforms are part of the explanation for this rising inequality, albeit that other long-term trends account for this as well. The evidence also confirms that the risks of being low-paid and on an atypical contract are strongly correlated and concentrated at the margins of the labour market (e.g. among low-skilled employees). Yet the unequal distribution of risks does not mean that standard workers have been spared. Over the last 15 years, not only have unemployment benefits come to provide lower and shorter social protection for all, but available jobs provide less security and income for standard workers as well, as indicated by the decrease in the median wage, the spread of low-wage work among standard workers and the increased share of atypical employment among those with a vocational degree. This is important to retain, not only for the sake of getting a more nuanced picture of changes in job security and earnings in the aftermath of the reforms, but also for the sake of explaining mobility patterns in the labour market, as I will argue further below (section 5).

4. A gendered employment miracle: the role of working time flexibility, part-time work and public sector employment

There is a more or less converging view across different research strands that, besides the institutional reforms and the long-term trend of wage moderation, other longterm structural changes need to be taken into account in order to explain the 'German employment miracle'.

One trend in particular has received attention, namely the re-distribution of working time. Several studies have, for instance, highlighted the use of short-time working and other instruments of internal flexibility, such as working time accounts, as a means of buffering the employment impact of the Great Recession – which was comparatively short-lived in Germany (Möller 2010; Burda and Hunt 2011; Herzog-Stein and Zapf

2014). However, the re-distribution of working hours across a larger number of employees started well before the Great Recession and also well before the 'Hartz' reforms: Figure 2 shows that, while the volume of working hours increased by merely 1.9 per cent between 2000 and 2015, the number of employees increased almost four times as much (+7.8 per cent).

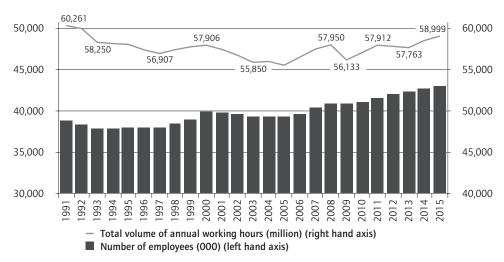


Figure 2 Volume of annual working hours (million) and number of employees (000),

Figures refer to all employees and all working hours (i.e. including self-employed and secondary jobs). Source: own compilation based on data from IAB. Working time accounts data provided by Wanger et al. 2015 and Fuchs et al. 2016

Therefore, the instruments of internal flexibility, such as the use of short-time working, working time accounts and the reduction of overtime, etc., have certainly helped to stabilise employment levels over the short-term (i.e. during the crisis), but they seem to play a minor role in explaining the long-term increase in employment levels. This is, almost exclusively, the result of an increase in part-time employment (see Table 3): (near) full-time employment (35+ hours) has merely returned to the levels it had during the peak of the last economic boom (2000), but the number of part-time employees increased by 3.4m between 2000 and 2015. According to calculations provided by Burda and Seele (2016: 12), the growth of part-time employment was strongest in the lower segments of the hourly wage distribution after 2003, whereas it had previously been concentrated on the upper segments.

Strikingly, the critical role of (low-waged) part-time employment has received little attention in the debate about the 'German labour market miracle', which is mirrored in the restriction of many of the analyses quoted above to full-time employment and some even to male full-time employment. The result, often left unmentioned, is the gender bias of employment growth: 80 per cent of employment growth between 2000 and 2015 is female employment and more than 90 per cent of this is part-time work (see Table 3).

Employees by usual hours worked in main job, 2000-2015 (000) Table 3

	Total	By usual weekly working hours in main job					
		1 to 19	20 to 29	30 to 34	Total 1 to 34	35 +	
	All						
2000	35,977	3,276	2,922	1,271	7,469	28,508	
2015	39,176	4,366	3,925	2,587	10,878	28,298	
2000-15	+3,199	+1,090	+1,003	+1,316	+3,410	-210	
	Women						
2000	15,789	2,733	2,586	1,070	6,388	9,401	
2015	18,368	3,372	3,335	2,069	8,776	9,592	
2000-15	+2,579	+639	+750	+999	+2,387	+192	
	Men						
2000	20,188	544	336	201	1,081	19,107	
2015	20,808	995	590	518	2,103	18,705	
2000-15	+620	+451	+254	+317	+1,022	-402	

Figures refer to all employees (including self-employed) aged 15-64.

Source: EU-LFS (via OECD.Stat), own compilation

Given the strong gender segregation of the German labour market, this part-time and gender bias requires a review of common explanations for the 'resilience' of the German labour market which emphasise dynamics of particular importance to the male-dominated manufacturing sector (e.g. short-term working and wage moderation) and help to explain why employment has not decreased here to the same extent as in other countries. However, in order to explain the steady employment growth, it seems to be of much greater importance that the Great Recession obviously has not stopped one long-term structural trend, namely the shift to predominantly female part-time employment. This job growth was strongest in sectors that are only very weakly linked to the manufacturing sector: the bulk of additional jobs was created in 'quasi-public' service industries, in particular education, health and social care. More than 50 per cent of the overall employment growth between 2000 and 2008 was in education, health and social care and more than 40 per cent of it in the period between 2008 and 2013 (see Brenke 2015: 83). This was not merely reached through a re-distribution of working time across more heads: the volume of working hours increased by 11 per cent in 'quasi-public' sectors in the period between 2000 and 2015, while it shrank by 6 per cent in manufacturing.9

The contributions in Karamessini and Rubery (2014) have shown that the differential impact of the crisis by gender is a rather common feature across European countries, primarily as a result of gender segregation in labour markets: the industries hit hardest and most immediately by the fall in demand were those dominated by male employees; whereas the austerity measures set in the second round of the crisis predominantly affected female-dominated (quasi-public) industries. Overall, female employment rates dropped less strongly than male ones. Even so, the Great Recession has thereby

Source: own calculations, based on National Accounts (VGR) data provided by the Federal Statistical Office Website (www.destatis.de).

interrupted the long-term upwards trend in female employment in many European countries. This is different from the growth pattern in Germany (see Table 4). Here, the increase in the female employment rate and the growth in quasi-public sector employment remained strong, and was virtually the same in the seven years leading up to the crisis (2000-07) and in the seven years afterwards (2008-15), whereas the average growth dynamic in the EU-27 strongly slowed down after 2008, for both public sector employment and the female employment rate.

Table 4 Change in employment rates and in quasi-public sector employment between 2000-07 and 2008-15

	Gern	nany	EU-27		
	2000-07	2008-15	2000-07	2008-15	
Employees in (quasi-) public sector employment*	+10%	+10%	+13%	+6%	
Female employment rate	2007: 63.2%	2015: 69.9%	2007: 58.2%	2015: 60.4%	
(change in percentage points)	(+5.5 pp)	(+5.6 pp)	(+4.5 pp)	(+1.5 pp)	

^{*=}public administration, education, health and social care (sectors L-N in NACE Rev 1.1 (till 2007); O-Q in NACE Rev. 2 (from 2008)

This raises the question of what may be the reasons behind these different dynamics. One obvious factor is certainly that Germany has not experienced the same pressure on public budgets as other European countries. There might, however, also be other reasons that have had an impact more specifically on female participation rates, such as the delayed modernisation of gender roles in Germany which resulted, among others, in a delayed expansion of institutional child care facilities from the mid-1990s. This could explain not only the strong rise in the female labour supply but also the increasing labour demand in quasi-public services as care tasks are transformed into paid work.

In any case, this continuous employment growth in the 'quasi-public' segment is, to some extent, at odds with the functionalist explanation that low wages in the service sector helped to keep down labour costs in export-oriented sectors since these jobs are, to an important extent, funded by social security contributions and company taxes. One might argue that the strong performance of export-oriented industries has contributed to refinance job growth in the quasi-public sector – albeit often in the form of jobs with relatively low and obviously even declining wages. In fact, the available data on hourly earnings show that 'wage moderation' was much stronger in the service sector than in the manufacturing sector. Between 2006 and 2014, median nominal wages increased by 14 per cent in industry and construction (NACE B-F), but only by 5 per cent in business services (NACE G-N) and by 4 per cent in other service industries (NACE P-S) dominated by education, health and social care; and there was even no increase at all (o per cent) for part-time employees in this last group of industries.¹⁰

^{10.} Source: own calculations based on data from Structure of Earnings Survey, provided by Eurostat.

5. Labour market mobility: Stepping stones or traps

Even if atypical and low-waged employment has partly replaced regular employment and is therefore not entirely or even not predominantly additional employment, a beneficial effect that both might have is in being more accessible to disadvantaged groups and serving as entry points for them to the labour market and, further on, as stepping stones to regular employment. It is something often assumed in political debates, but the share of atypical employment increasing strongly among, for example, young people is not by itself indicative here as it does not indicate higher entry rates for these groups but only that, if they enter the labour market, they are increasingly forced to take this route. Gebel and Giesecke (2016), for instance, find that deregulating the use of temporary contracts across several European countries has increased the risks for young people of temporary employment but it has not reduced the risks of unemployment among them. More fine-grained analyses are therefore required that follow the labour market trajectories of individuals and try to disentangle how, for example, taking up a mini-job or a temporary contract benefits them in the longer run - compared both to peers who have not experienced spells of atypical employment and to previous cohorts.

Empirical studies on transition rates (from atypical to regular employment) have repeatedly confirmed that fixed-term contracts are better 'stepping stones' than minijobs or temp agency jobs (e.g. Gensicke *et al.* 2010; Gebel 2013) — albeit with the exception of low-skilled workers for whom firms obviously predominantly use fixed-term contracts as a means of external flexibility and not as an extended probation period (Schmelzer *et al.* 2015).

With regard to mini-jobs, one study finds that, compared to remaining unemployed, taking up a mini-iob only increases the probability of transition to regular employment for a very specific group, namely for the long-term unemployed, and this only if the mini-job is in the same sector as the previous job (Caliendo et al. 2012). The findings of Wippermann (2012) also call into question the 'transitory' character of mini-jobs; according to his retrospective survey, people employed as mini-jobbers remained on average in such jobs for 79 months. It is important to retain here that the limited upwards mobility of mini-jobbers cannot be explained solely by their (adaptive) preferences, e.g. the intention of mothers to match working time volume to care responsibilities: even after controlling for working time preferences and further socio-demographic factors, mini-jobbers move considerably less frequently into standard employment relationships (Brülle 2013). A recent study by Lietzmann et al. (2016) focuses on the group of unemployed singles taking up a mini-job and finds that, for those who are unemployed for at least five months, the probability of being employed in a regular job increases by between ten and twenty percentage points compared to their unemployed peers.

Finally, with regard to temp agency workers, their upwards mobility has been shown to be very weak, if indeed it exists at all. Baumgarten and Kvasnicka (2011) and Burkert *et al.* (2014) find no statistically significant effect, while Lehmer and Ziegler (2010) find that TAW is a 'small bridge', at least for the long-term unemployed, raising their

probability of being employed in a job outside the temp agency (compared to their statistical twins who remained unemployed) by twenty percentage points. Nevertheless, according to the additional calculations of the same authors, despite the economic upswing, only a small minority of the unemployed who took up a TAW job in 2006 were predominantly employed in a job outside the temp agency industry in the following two-year period (ranging from 13 per cent to 22 per cent, depending on their previous employment history).

These findings broadly confirm, in particular for mini-jobs and temp agency work, something that the OECD has identified as a problem, namely that atypical employment very often works as a trap, or even a revolving door, instead of as a stepping stone; and hence that the disadvantages of atypical jobs are not offset by higher upwards mobility at a later stage of individual careers. The OECD has tended to attribute this to high(er) levels of EPL among standard workers: 'When regulations on regular contracts remain overly strict, employers tend to recruit mainly through temporary contracts and are reluctant to convert these contracts into permanent ones. The result is an increased concentration of labour turnover on workforce groups who are over-represented in temporary jobs, potentially trapping some of them into a future of "precarious" jobs' (OECD 2006: 96).

However, there is a possible alternative explanation which relates to changes in overall mobility patterns; several studies show that labour turnover decreased compared to the economic upswing around 2000, and more strongly so as a result of a decrease in separation rates (Gianelli et al. 2013; Bechmann et al. 2015). Around half of this decrease is due to a reduction in voluntary leavers (Bechmann et al. 2014). Apart from fewer early retirement options that, at least transitorily, reduce elderly workers' premature exit from the workforce, another likely explanation for this lower separation rate is, again, the 'deterrent effect' of the institutional reforms as well as the general deterioration in wages and job quality: if unemployment is associated with higher income losses and insecurity, both during unemployment spells (due to lower and shorter benefits) and afterwards (because the jobs 'on offer' are more often low-paid and/or atypical), this will also reduce voluntary exits by those in employment. The strong increase in the use of fixed-term contracts and TAW as a prolonged probation period also increases the risks of job-to-job transitions for employees.

This is a different explanation for reduced levels of mobility in dualised labour markets than the orthodox explanation offered by the OECD (see above): the OECD attributes the reduced opportunities for upwards mobility to employers' strategies in adjusting to 'overly strict' employment protection for regular workers, but the reduced number of voluntary leavers points to the role played by employees' strategies in coping with increased levels of insecurity (via making fewer voluntary exits). Obviously, addressing the latter source of mobility requires distinct political responses than merely levelling down employment protection for regular workers.

6. Conclusion

It is widely acknowledged across different research strands and ideological camps that the institutional reforms at the beginning of the 2000s, as well as the asymmetrical relaxation of employment protection legislation in the previous decade, have tended to increase labour supply and speed up the matching process, mainly through their impact on the supply side (job search behaviour, wage concessions). This has allowed employers to recruit on worse terms and conditions than before, albeit that the reforms have merely amplified trends that were already underway since the mid-1990s. It is a less consensual matter if and to what extent the deterioration of wages and the spread of atypical forms of employment have also contributed to increase aggregate employment levels, or whether this is mostly the effect of other structural changes – like the redistribution of working time that was made possible in particular by an increase in the female labour supply.

With regard to these long-term structural changes, the above analysis reveals that reviews of the 'German labour market miracle' have so far neglected the importance of one trend in particular, namely that the last 15 years were characterised by a heavily gender-biased employment growth. This requires a review of the common explanations of the 'resilience' of the German labour market which have emphasised dynamics that were of particular importance to the male-dominated manufacturing sector (e.g. shortterm working and wage moderation) and help to explain why employment has not decreased here to the same extent as in other countries. But in order to explain the pattern of steady employment growth, it seems to be of much higher importance that, unlike in other European countries, the Great Recession has not slowed down or even frozen one long-term structural trend, namely employment expansion in female and part-time dominated occupations, mostly in sectors that are only very weakly linked to the manufacturing sector (education, health, social care). Thus, in a comparative perspective the different employment dynamics in Germany compared to its European neighbours cannot merely be attributed to the competitiveness of the German manufacturing sector, but also seem to have their roots in the different development of female labour supply and demand. This requires further research on the factors behind this development.

One factor that is rather obvious is the delayed modernisation of gender roles in Germany, as noted above. The demographic change – implying not least an increasing share of elderly people in need of care – also contributes to increased labour demand in the quasi-public sector. Several indicators presented above, however, suggest that employment growth in these services has been accompanied by a decline in job quality (in terms of wage levels, or a spread of mini-jobs substituting for jobs covered by social protection). Hence the EPL reforms have probably contributed to shape the form in which job growth took place. However, it seems likely that, even without these reforms, increased labour demand would have materialised in more (and rather better) jobs.

With regard to policy implications, two more results of the analysis above require specific attention. Firstly, the reviewed evidence shows that institutional reforms have certainly channelled risks asymmetrically to those on atypical contracts. However, the decline in real wages has affected a much larger group, including standard workers, and this can, not least, be attributed to a 'deterrent effect' emanating from unemployment benefit reform and from increased levels of atypical employment that contribute to raise workers' willingness to make concessions on wages and other working conditions. Moreover, the long-term trend of a re-distribution of working hours and the widespread use of all kinds of instruments allowing for internal working time flexibility have also contributed to increase employers' leeway for flexibly adapting the workforce to fluctuations in demand. All this, however, does not seem to have greatly reduced the use of atypical work as an additional source of flexibility, as its persistently high level shows. This calls into question the usual assumption (by OECD and the EU) that standard and non-standard forms of work substitute for each other (i.e. the more flexibility for standard employment, the less flexibility is required to be shifted to non-standard work). It rather suggests that once companies have become accustomed to an extensive use of atypical forms of employment they stick to them even when the environment changes, or at least they are slow in changing these practices.

Secondly, next to the obvious disadvantage of increased inequality, greater (wage) flexibility and a general sense of increased insecurity may also be responsible for the reduced number of voluntary leavers which, in turn, also limits the number of job vacancies that are open to unemployed or employees on non-standard jobs. This is a very different explanation for the limited upwards mobility of non-standard workers than the orthodox explanation advanced by the OECD, which stresses the negative impact of too high EPL for standard workers. Obviously, supporting job-to-job transitions and thereby enhancing labour turnover requires distinct political responses than simply levelling down employment protection for regular workers. At the same time, this is also a somewhat different explanation than that suggested by the insider/outsider theorem underlying much of the current political and academic debates: the latter implies that non-standard workers' risks have increased because standard workers have been spared, whereas the hypotheses advanced here means that non-standard workers' risks have increased even more because standard workers have been affected as well.

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