

DISCUSSION PAPER SERIES

IZA DP No. 17862

**The German Labor Market After the Long
Boom: What's Next?**

Werner Eichhorst
Paul Marx

APRIL 2025

DISCUSSION PAPER SERIES

IZA DP No. 17862

The German Labor Market After the Long Boom: What's Next?

Werner Eichhorst

IZA

Paul Marx

University of Bonn and IZA

APRIL 2025

Any opinions expressed in this paper are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but IZA takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The IZA Institute of Labor Economics is an independent economic research institute that conducts research in labor economics and offers evidence-based policy advice on labor market issues. Supported by the Deutsche Post Foundation, IZA runs the world's largest network of economists, whose research aims to provide answers to the global labor market challenges of our time. Our key objective is to build bridges between academic research, policymakers and society.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ISSN: 2365-9793

IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

The German Labor Market After the Long Boom: What's Next?*

Germany has long been portrayed as the best real-world example of an export-oriented economic model associated with a dualized labor market and welfare state. The success of this export-centered model over the last decades has typically been ascribed to competitiveness due to wage restraint and widening wage dispersion in line with declining collective bargaining coverage. This paper starts from this widely shared perception, but sheds a new light on the dynamics and structures of employment in Germany after a long boom period for the late 2000s to the most recent period. The paper argues that much of this change is rather market driven than to be explained by institutional reforms. Employment growth was driven by service sector expansion while wage dispersion and non-standard work stagnated and declined somewhat, reducing the extent of these forms of dualisms in the labor market. Following a cyclical argument about political decision-making, we only saw limited re-regulatory activity. However, the favourable economic climate has changed more recently.

JEL Classification: J21, J24, J31, J38

Keywords: Germany, non-standard employment, dual labor markets, labor market reforms, political economy

Corresponding author:

Werner Eichhorst
IZA
Schaumburg-Lippe-Str. 5-9
53113 Bonn
Germany
E-mail: Eichhorst@iza.org

* We are grateful to comments received when presenting earlier versions of this paper at the Second Research Network in Political Economy Workshop held at the Max Planck Institute for the Study of Societies in Cologne, 3 May 2024, and at an IZA Seminar, Berlin, 22 May 2024. We would also like to thank Lenya Häusler for excellent research assistance.

Updating our understanding of the German labor market

The German labor market is arguably one of the closest real-world resemblances of the employment model in Coordinated Market Economies, based on firm or industry specific skills. More recently, it has been portrayed as a key example for labor market dualization (Thelen 2014). In this perspective, post-industrial labor market inequality has taken the form of a division between well protected and unionised insiders in manufacturing and more or less precarious outsiders in parts of the service economy. The main argument is that the German production model benefits from firm-specific skills developed in long-term employment relationships. Actors' long-term orientation is facilitated by a set of institutional complementarities (Estevez-Abe et al. 2001). The interpretation of the German political economy in the dualization literature is essentially an adaptation of this argument to a post-industrial economic structure. Drawing on the model of insider-outsider conflicts (Rueda 2007), it is argued that a coalition of industrial unions, employers, and centrist political parties has preserved the logic of a coordinated market economy for the shrinking manufacturing sector. Political pressure for deregulation and retrenchment has been channelled into reforms that target precarious segments of the service sector (Hassel 2014; Palier and Thelen 2010; Thelen 2014). Recently, the dualization argument has been incorporated into the literature on the political economy of growth models (Hassel and Palier 2023; Baccaro and Pontusson 2016), where Germany is the paradigmatic case of an export-led economy (Germann 2021; Baccaro and Höpner 2022). The economic success of this regime depends on competitive disinflation. Dualization supports disinflation, because it allows creating a low-wage sector containing prices. It also fosters intra-firm competition between standard and non-standard workers as a disciplinary device encouraging wage moderation (Hassel 2017; Baccaro and Benassi, 2017; Weisstanner 2021).

These stylized models have arguably captured decisive institutions, policies and outcomes characterising the German labor market at various points in times. But changing economic circumstances regularly force scholars to revise their image of the German labor market (Diessner et al. 2022; Streeck 2009; Thelen 2019). Considering the pace and the depth of current socio-economic transformations, this task certainly remains relevant. These depictions are meant to provide useful models, reducing complexity by pointing to essential features of the German labor market. Dualization, currently the dominant interpretation of German labor market change (e.g. Ferragina et al. 2023), is based on important real-world trends with undeniable relevance. As in many other countries, the share of non-standard workers has grown

considerably in Germany (OECD 2018). This has been facilitated by incremental reforms that cumulatively amounted to an asymmetric deregulation of temporary employment (e.g. Emmenegger 2014; Thelen 2014). However, Eichhorst and Marx (2011) highlight considerable variability in reform strategies over time. During periods of high unemployment, insiders reluctantly consent to dualism to deflect pressure for deregulation and retrenchment. Conversely, in times of low unemployment, calls for re-regulation emerge, driven partly by insiders' recognition that segmentation subjects them to harmful labor-cost competition with non-standard workers (see also Baccaro and Benassi 2017; Simoni and Vlandas 2020; Marx and Starke 2017; Vlandas 2013). Eichhorst and Marx (2011) formulated the hunch that dualization, because of these tensions, could turn out to be "a transitory period" (86).

To update our understanding of the German case after the peak of the "age of dualization" (Emmenegger et al. 2012), this paper provides descriptive evidence of how the logic of the German labor market has changed since the early 2010s. In particular, we ask if dualization is still a valid characterization of the German trajectory. Our goal is to tease out and make sense of transformative processes that are protracted and often not easy to discern. They only become visible when one looks at change over a longer period and goes beyond prominent instances of institutional reform.

In contrast to typical perspectives in comparative political economy on labor markets, we therefore shift attention away from an exclusive focus on policies and institutions. By focussing on actual employment practices, we emphasize the (often unforeseen) interpretations of labor market institutions at the micro level as well as their reciprocal impact on actors' preferences and strategies (Benassi and Dorrigatti 2015; Eichhorst and Marx 2012; 2021; Doellgast et al. 2018; Ochsenfeld 2018; Pulignano and Doerflinger 2018; Rubery et al. 2022). As opposed to policies, interpretations and the behaviours they inspire are in constant flux. In change processes, political actors are often relegated to a secondary, although non-negligible role.

In fact, the transformation of the German labor market towards a model that has ever less in common with its stylized depictions in the literature is almost exclusively driven by demographic changes as well as the preferences and behaviours of market participants within an institutional setting that has been rather stable over the last 15 years or so. Policy makers have clearly been in the backseat. Of course, important policy ingredients of the German model remain in place. Dismissal regulation, temporary employment, unemployment insurance, short-time work, co-determination, and vocational training have been subject to few fundamental reform attempts, if any. Our bottom-up perspective (broadly in line with the institutions-as-

regimes perspective in Streeck and Thelen 2005) asks how their functioning has been altered in the absence of reform through the cumulative effects of micro-level adaptations.

Overall, we argue that the German labor market in the first half of the 2020s looks less dualized than expected. Wage growth has taken off in recent years, also in the bottom end of the distribution (Kalina and Weinkopf 2023). This has included typical ‘outsider occupations’ in personal services. In spite of the challenge to integrate large numbers of immigrants with diverse backgrounds and skill profiles, wage inequality has gone down (Grabka 2022, DIW 2024). As the expansion of non-standard work has come to a halt or has even been reversed, dualism does not appear as a one-way street in the German context. We will show this in detail below, but we also highlight dimensions of inequality that have become more visible lately, not least in the flexibility of time and location of work.

It is worth asking whether the story we present here is mainly a reflection of cyclical patterns. As is well known, Germany has experienced a remarkably long-lasting period of full employment and eventually skill shortages. It is an interesting research question in its own right how the dualized or export-led employment models have held up in a context with a dramatically improved bargaining position of labor. In our view, the relationship of labor supply and demand indeed goes a long way, but is not sufficient to understanding the observed changes. The long German boom period has been accompanied by socio-political trends that challenged the dualism of the 2010s. Public mood and policy generally have a procyclical nature in Germany (Eichhorst and Marx 2011; Marx and Starke 2017). When unemployment is high, attitudes and policies towards jobseekers tend to become harsher, and labor market regulation tends to be loosened. In a more favourable economic context issues of job quality, reregulation of substandard form of employment become more of a priority for the majority of the electorate. The most notable political expression is, first, the introduction and, later, the politicisation of a statutory minimum wage.

Taking stock of what has been achieved during the long boom period is particularly relevant, as it is about to come to an end. Soaring demand from China and cheap energy from Russia are no longer viable ingredients for an overperforming labor market. Technological change might turn out to be a particular challenge for German manufacturing, not least its automotive sector. If the cyclical model of German labor market policy we laid out in our earlier work has predictive power, we can expect a harsher stance towards ‘outsiders’ to return as the dominant logic of the years ahead, as we can already see with regard to the ongoing discourse around minimum income protection. There will also be the temptation to bring back insider-oriented early retirement (and concession bargaining in core sectors). That the German labor market is

increasingly segmented along ethnic lines, and that radical right-wing politics is on the rise, only strengthen concerns about a return of dualistic policy path. At the same time, main features or dimensions of dualism may well change gradually over time from divides between types of contract or levels of pay as main dimensions of dualisms to ‘softer’ issues such as autonomy regarding working time, place of work or work content that have received more attention lately.

Labor market change in Germany over the last two decades

When studying the change in the German labor market since the mid-2000s, three main findings are essential:

1. There has been a significant shift towards service sector employment associated with occupational upgrading;
2. The patterns of labor market dualisms have changed, with a stagnating or even declining role in non-standard work and low pay, but emerging new forms of inequality in the German labor market;
3. All in all, the role of institutional reforms was very limited over this cycle.

The transition to a post-industrial service economy

The main feature of the German labor market in the 2000s and 2010s is the massive increase in employment, both in absolute terms and relative to the working age population. While the employment rate was around two thirds of those in working age, it increased by about ten percentage points over the last two decades, reaching 77.2 percent in 2023. This also brought about a significant long-term decline in unemployment that dropped from over ten percent of the labor force in the mid-2000s to constantly less than six percent since 2017, recently rising moderately to 6.0 percent in 2024 - despite a weak economic development since 2022. However, it is in no way sufficient to look at these aggregate figures. In the very same period, while the absolute number of jobs in industry (outside construction) was remarkably stable and increased even slightly from 7.7 million to 8.1 million between 2010 and 2024, job creation was driven by public services, education and health (from 9.9 to 12.2 million), business services (from 5.2 to 6.2 million) and trade, transport and hospitality (from 9.5 to 10.1 million). It is notable that services that are not related to outsourcing from manufacturing have contributed significantly to that shift (Figure 1).

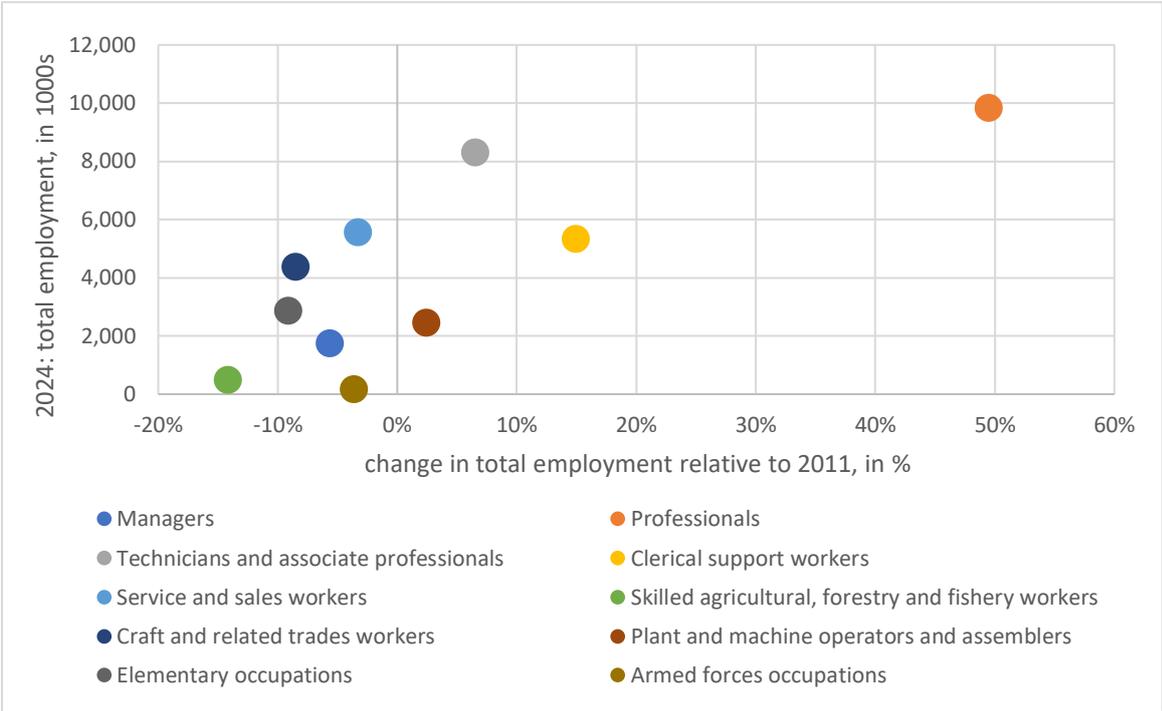
Hence, employment growth was mainly due to an expansion of different types of private services as well as public sector job creation, i.e. outside manufacturing-oriented activities so that we can argue that the German labor market has become much more post-industrial in this phase – despite remarkably stable absolute employment figures in industry. This was associated with a remarkable change in the occupational structure of employment in Germany. The most important feature there is the massive growth of professions and the overall upgrading of the occupational structure as measured by job wage quintiles (see Figures 1 and 2).

What is striking is that, within given institutional arrangements, a massive shift towards diverse types of service sector employment and medium to high skilled occupations in services occurred. This is particularly true for private services, e.g. business-related professional activities and for the expansion in the public sector, i.e. in health and elderly care, research and education. This represents an upgrading of the occupational structure rather than polarisation (Oesch and Piccitto 2019, Oesch 2022).

A possible explanation is a move from industry (and within industry, by the way) towards less automatable tasks allocated in services, an expansion of demand for education, health and care as well as for diverse other services for industry and private households. The marked upgrade in the occupational structure was fueled by an increase in academically trained in the working age population (25-64 years) from 26.7 to 33.3 percent from 2010 to 2023.² This came at the expense of the share of those with upper secondary education, typically vocational training which declined from 59.4 to 49.8 percent between 2010 and 2023 (while the low skilled group increased slightly from 13.9 to 16.9 percent). The traditional dominance of vocational degrees in the German labor market has eroded as more young people have entered and graduated from higher education. This trend can be attributed to behavioral choice rather than a conscious policy to expand higher education. Apart from a trend towards an educational structure with more academic graduates (and low skilled) in the labor force, the shift towards services was characterized by further increases in female labor market participation, a longer working life and net migration, creating a more diverse labor force.

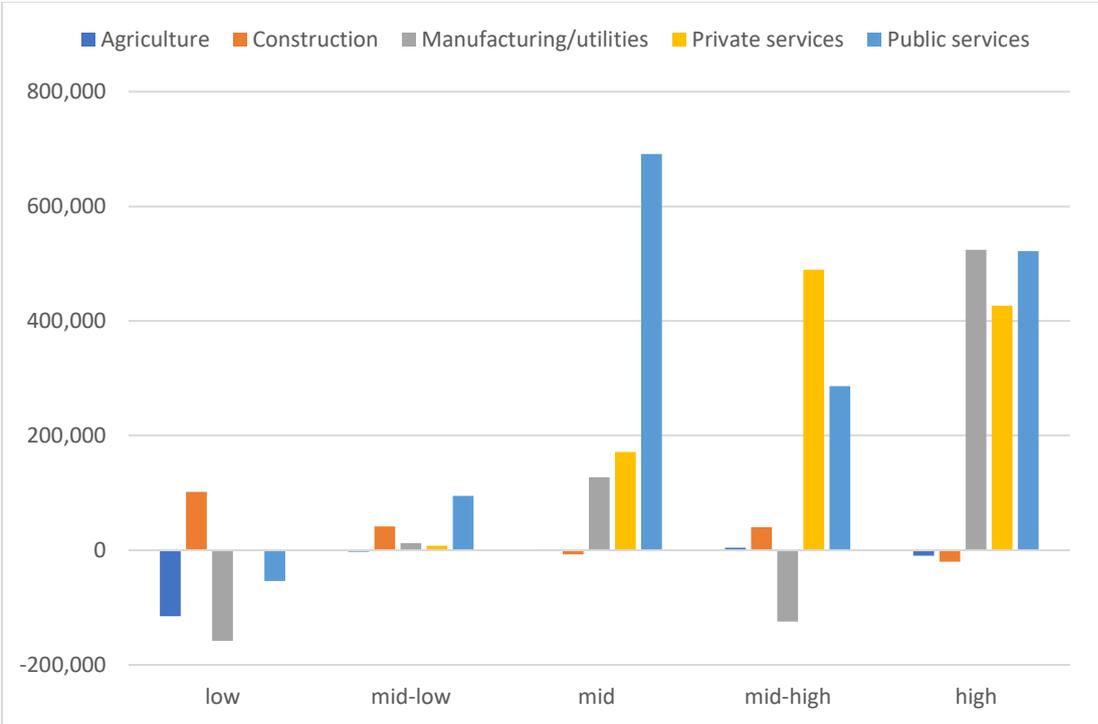
² Eurostat - Population by educational attainment level, sex and age (%) [edat_lfs_9903]

Figure 1: Occupational change in Germany, 2011 to 2024



Note: size of bullets corresponds to employment in the respective occupation. Source: Eurostat. Employed persons by detailed occupation (ISCO-08 two digit level) [lfsa_egai2d]

Figure 2: Employment change by job-wage quintile in Germany (2011-2022)



Source: Eurofound: European Jobs Monitor.

First, regarding women, Eurostat data shows that the female employment rate in Germany grew by 7.4 percentage points from 2010 to 2023 to reach 73.6 percent while male employment increased by 4.5 percentage points, reaching 80.8 percent. While the gender employment gap could thus be closed partially, women in Germany still work fewer hours in paid employment. In fact, along with the increase in employment, their part-time share grew over the last years, reaching 50 percent in 2023 (while it was 13 percent with men). Second, as for workers aged 55 to 64, their overall employment rate has increased massively from 57 percent in 2010 to 74.6 percent in 2023, according to Eurostat. Large cohorts from the baby boom generation are now in this age bracket and tend to be employed much longer as their predecessors, and there is some increase in employment of the population 65+. Finally, Germany has experienced substantial net migration over the last ten to 15 years, driven by intra-EU migration, mainly from Central and Eastern Europe, on the one hand and two major waves of refugees in 2015 (mostly from Syria) and 2022 (from Ukraine) on the other hand so that net migration exceeded one million persons in those two years (Destatis 2024b).

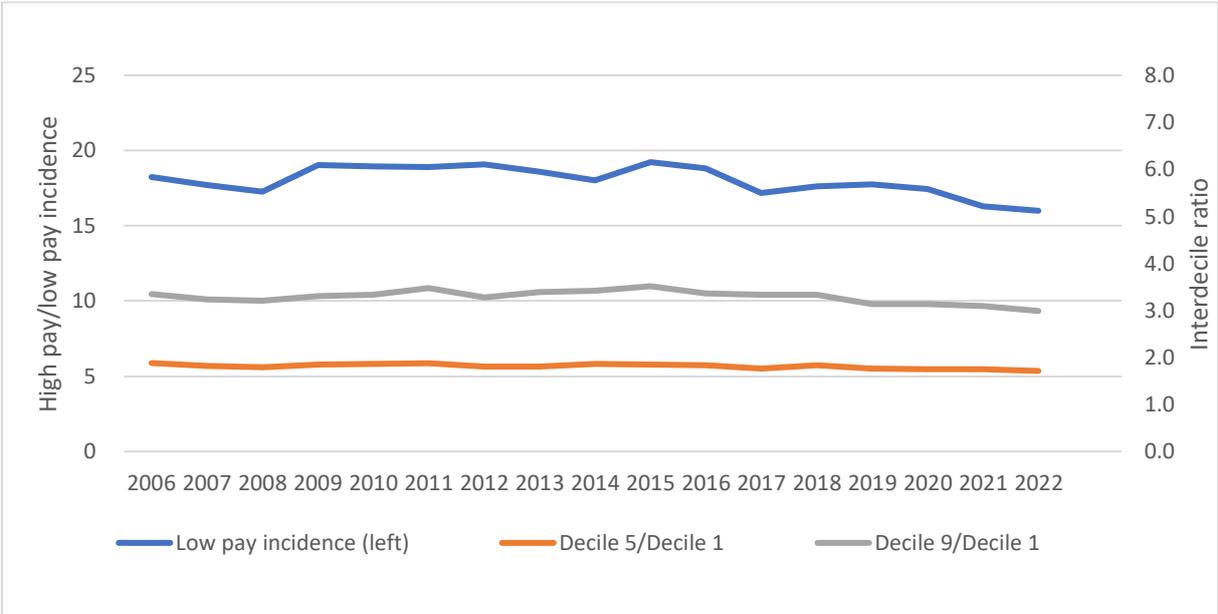
That also means that the bulk of the expansion of employment that Germany saw over the last 15 years or so was driven by women entering the labor market, older workers staying in employment longer and the arrival and integration of a growing migrant labor force, making the labor force much more diverse than before. Policies addressing the employment situation cannot explain these shifts fully as there has been quite some stability in the overall setting. Regarding women, care policies have expanded, but incentives to part-time work have not been removed (see below). The employment increase with older workers goes way beyond the direct effects of (back and forth) policies to reduce early retirement incentives. Targeted skill-oriented migration policies, that have been adopted in Germany in recent years, are certainly not the main reason for larger shares of migrants in the labor force. Hence, one could argue that regarding these groups behavioral factors in an open labor market that creates many job opportunities seem to dominate.

The changing face of labor market dualism

The change in the structure of the German labor market went along with a reshuffling of inequality and dualism. This concerns three main aspects: wage inequality, non-standard work and other dimensions of job quality such as working time and autonomy at the workplace.

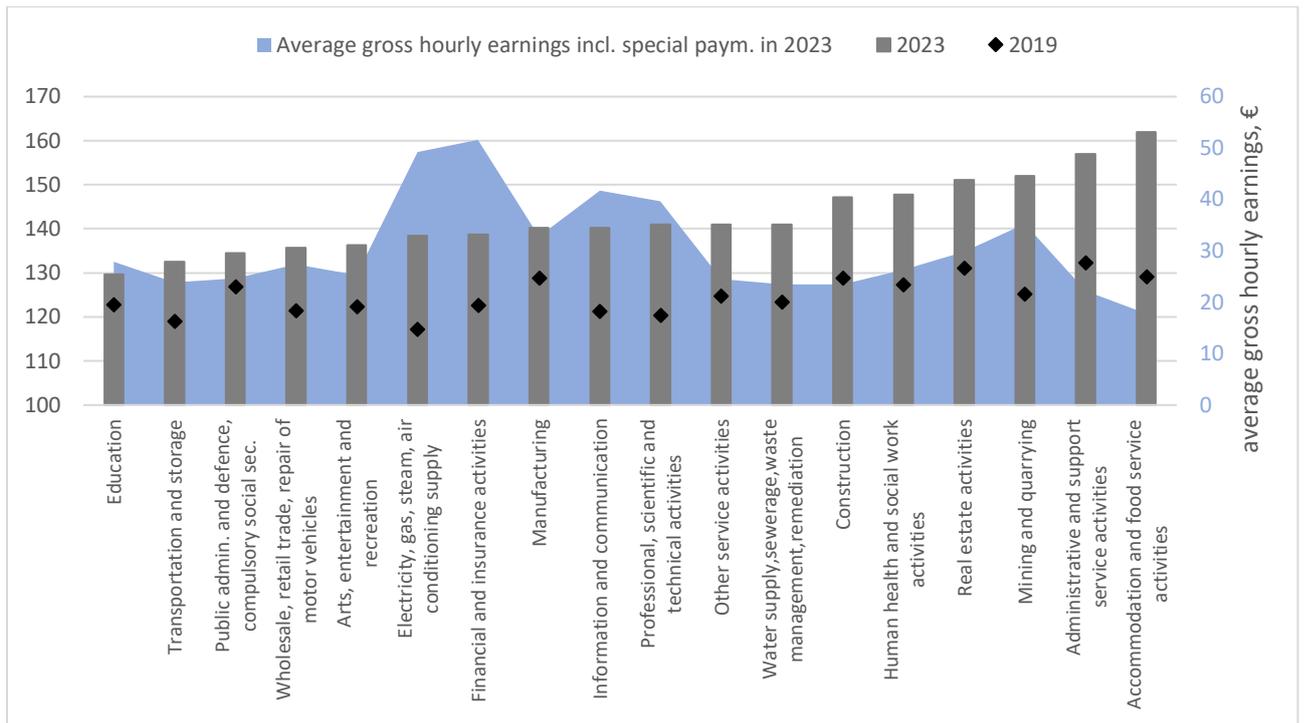
First, and foremost, in Germany wage dispersion and low pay shares did stagnate and even decline somewhat after 2010, after it had increased in the 2000s. This can be shown with data on full-time workers as provided by the OECD (see Figure 3). This narrowing of wage dispersion corresponds to a catching-up process in nominal wage in sectors with low average wages over the period concerned (Figure 4) (Börschlein et al. 2024). The strong increase in the lowest wage quintiles also holds for the most recent period up to fall 2024 (Figure 5).

Figure 3: Wage dispersion and low pay in Germany over time



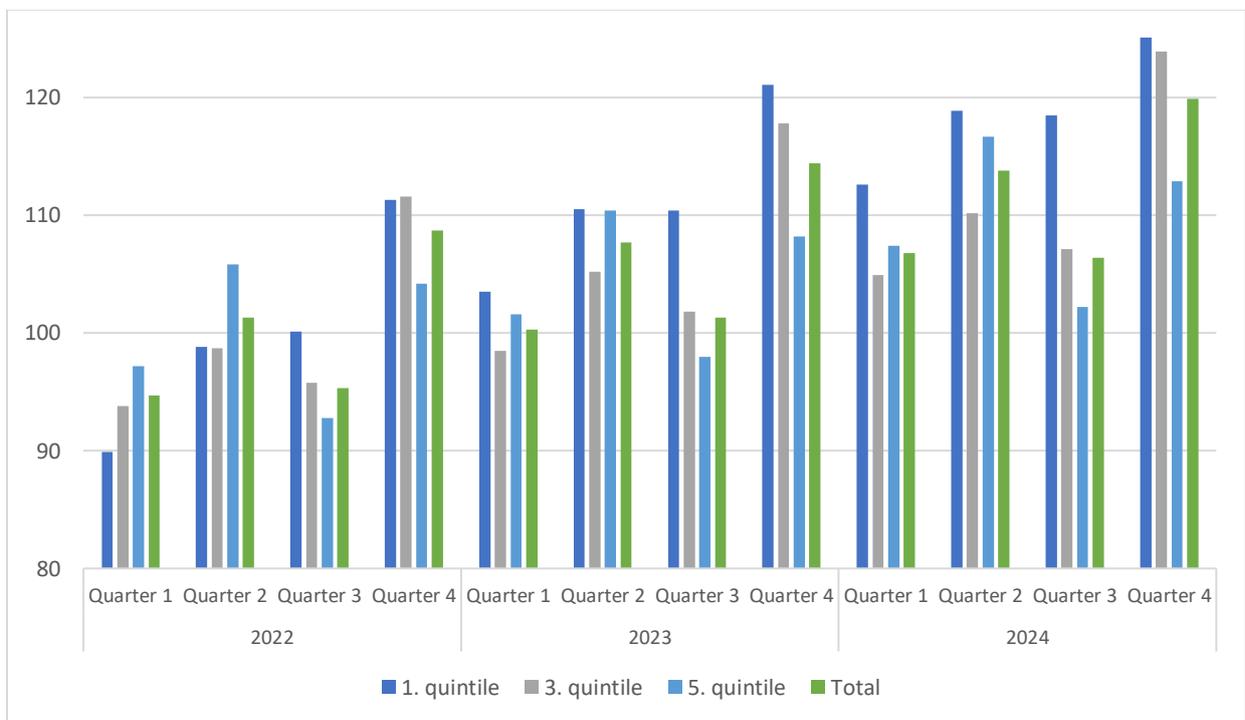
Source: OECD. Note: full-time workers only. Low pay: less than two thirds of median gross monthly earnings, high pay: more than 1.5 median gross monthly earnings.

Figure 4: Nominal wage index by NACE sectors (without agriculture), 2010=100



Source: Federal Statistical Office of Germany. Note: Earnings of all employees by constant composition of workforce.

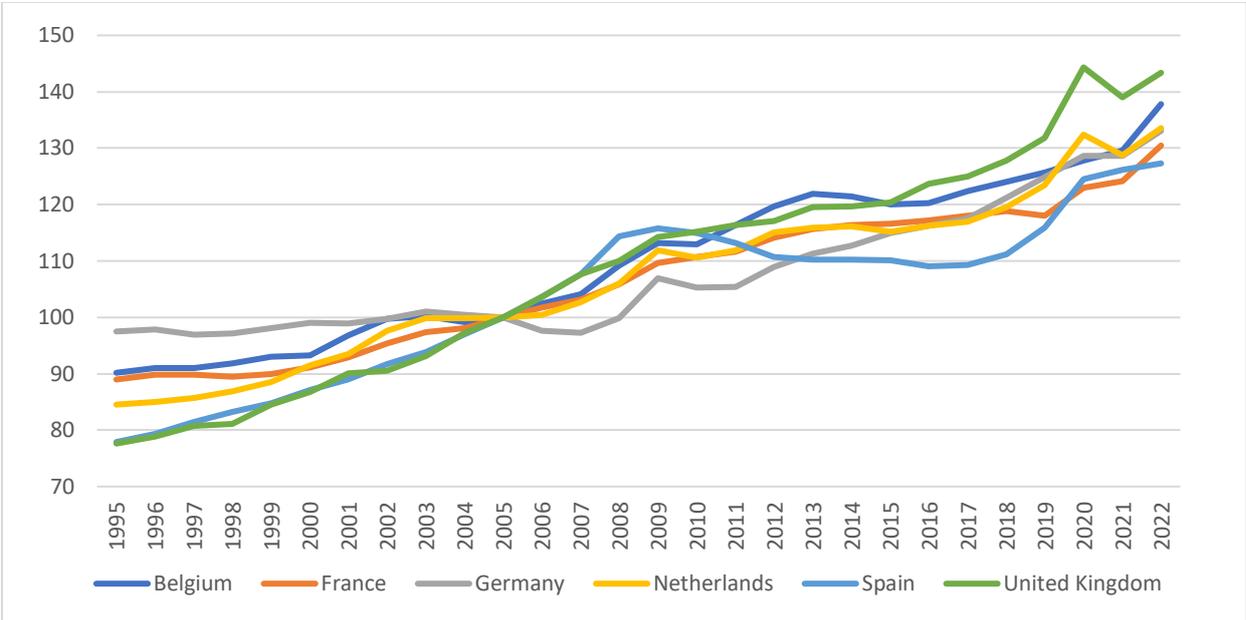
Figure 5: Development of nominal wages by quintile, 2022-24, full-time workers (2022 = 100)



Source: Federal Statistical Office of Germany, Verdiensterhebung.

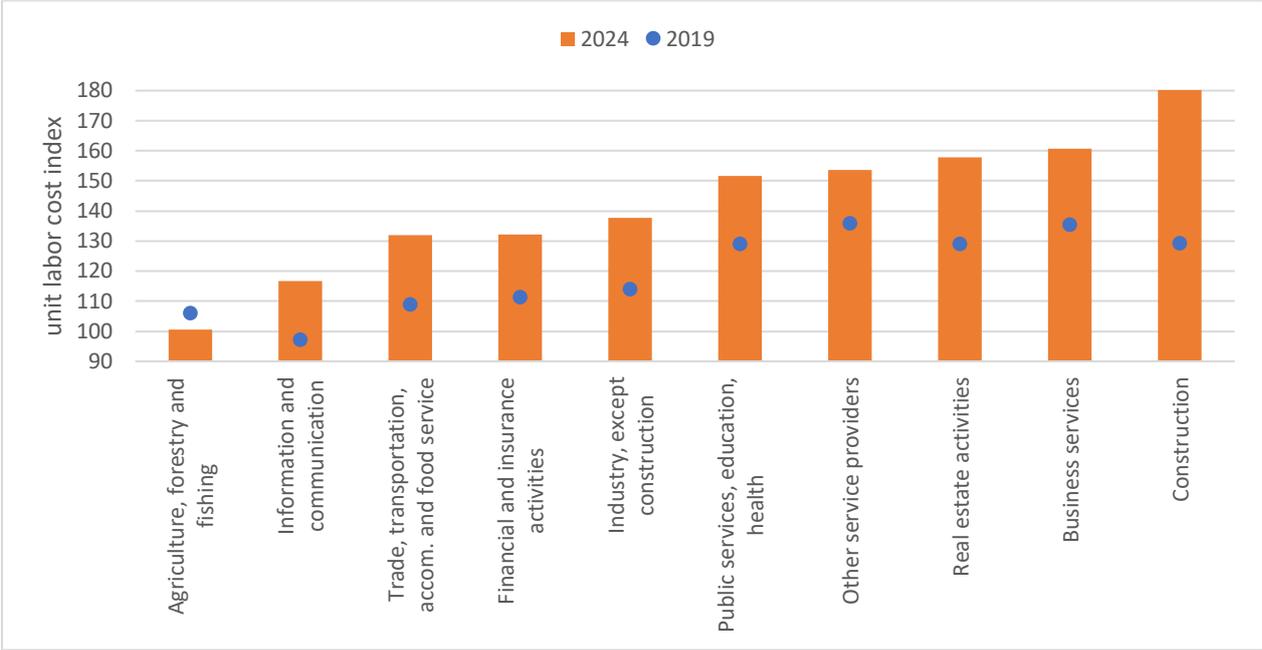
Parallel to this, Germany departed from its long-standing wage restraint which had resulted in stagnating unit labor costs and a relative cost improvement of German exporters between the mid-1990s and the late 2000s. Unit labor costs started to increase again in the 2010s, bringing the development of labor productivity and labor compensation more in line again. This normalized the German unit labor cost dynamism relative to other countries (Figure 6). When disaggregating this by broad sector we see above average increases in unit labor costs in many service sector activities while industry was more moderate (Figure 7).

Figure 6: Unit labor costs by hours worked, 2005 = 100



Source: OECD, own calculations. ULC, according to the OECD, “[...] are defined as the average cost of labour per unit of output produced. They can be expressed as the ratio of total labour compensation per hour worked to output per hour worked (labour productivity).” (<https://www.oecd.org/en/data/indicators/unit-labour-costs.html>).

Figure 7: Unit labor costs in Germany per hour and economic sector, 2010=100



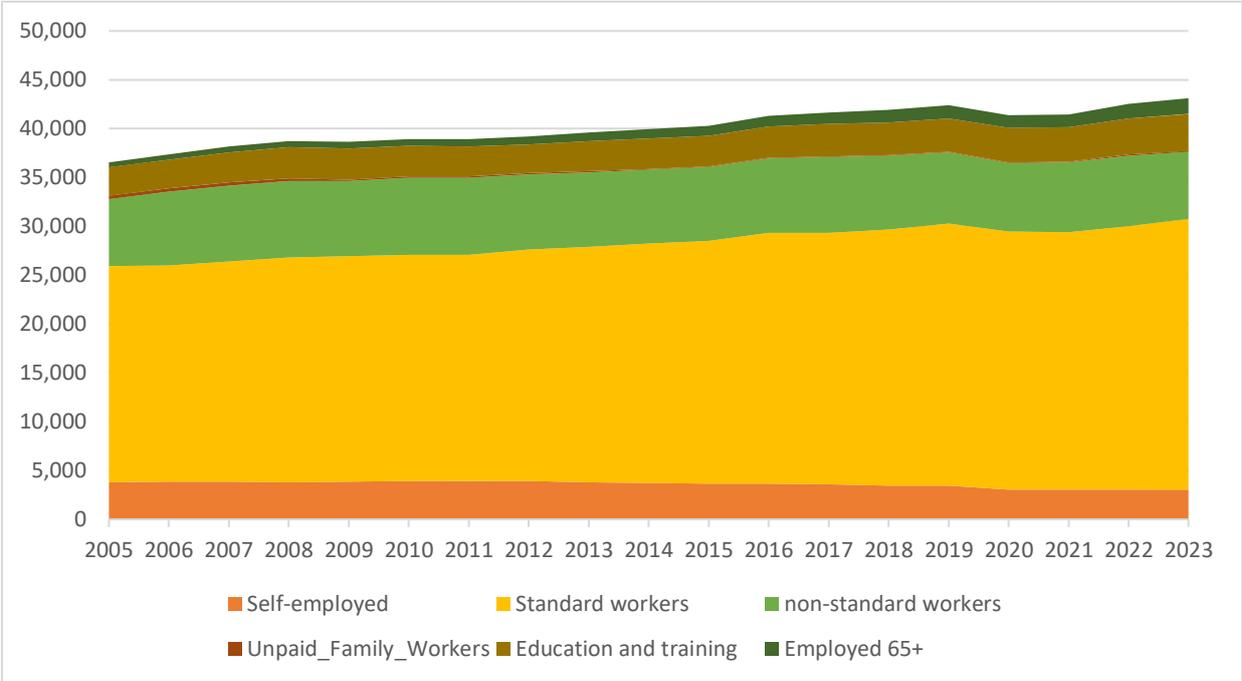
Source: Federal Statistical Office of Germany, own calculations. Unit labor costs per hour (domestic concept) as wage costs per employee hour in relation to labor productivity per employee hour.

Hence, over the period studied here, the trend towards ever larger wage dispersion was reverted. In parallel, the share of non-standard work in total employment has stabilised and declined somewhat over the last years. One could argue that For now there is a more or less stable pattern of standard and non-standard work side by side in German labor market, at least for the time being (Figure 8, see also Walwei 2022 and Hohendanner 2023). While the growing and substantial segment of part-time work is clustered with full-time permanent, i.e. standard employment, due to its complete institutional embedding, non-standard forms of employment play a stable, but limited role in the labor market, with long-standing strongholds in particular sectors and occupations. For example, temporary agency work is still used systematically by rather large firms in the industrial sector and in business services, including logistics, while marginal part-time work is particularly widespread in the hospitality and retail sectors and mostly used by smaller firms. Fixed-term contracts (with longer phases of temporary employment) are rather typical in the social and higher education sector while freelance work is most frequent in (higher) adult education, culture and IT (Hohendanner 2023).

It is fair to say that over time standard employment has become more flexible internally, in particular regarding wages and working time, making it attractive to both employees and employers in an era of shortages of skilled workers and relatively more ‘competitive’ again

relative to non-standard work options. The latter, however, this seems fair to say, have become somewhat less casual and cheap for employers, given the partial reregulation and disproportionate wage increases at the lower end.

Figure 8: Employment and employment types in Germany over time, in 1,000s



Note: core working-age population 15-64, plus trainees and working pensioners. Standard work includes part-time with more than 20 hours per week. Non-standard work is fixed-term and temporary agency work as well as marginal part-time. Source: Federal Statistical Office of Germany.

Internal flexibility and new dualisms

While established forms of internal flexibility such as wage adjustments within or outside collective agreements or a large variety of working time models as well functional forms of flexibility by way of retraining and rearrangement of work have been around for long, it makes sense to look more carefully into more recent and potentially far-reaching developments that affect job quality differentials between occupational groups in the labor market and within firms. We would like to stress three main aspects here: working time patterns and preferences, working from home, and new work practices.

First, regarding working time, the degree of working time autonomy as regards is much higher with highly skilled and otherwise privileged groups in the labor market. Recently, there has also been an intense debate about a better balance between work and private or family life by way

of shorter working weeks, e.g. four days of work instead of five or more, in Germany and elsewhere. Preferences for reduced hours of work have grown over the last years. Yet, these there are significant differences by working time pattern, skill level and income. Preferences for working less are typically expressed more often by high skilled full-time workers that work overtime, but could afford lower hours and pay (Table 1). In contrast, medium and low-skilled earners well as part-time workers rather express preferences for longer working hours (and higher earnings). Regarding occupations, preferences for shorter working hours are more prevalent among white collar occupations such as IT and science professionals and managers, but also in the building trades while preferences for longer hours are expressed by workers in the food and hospitality sectors. In that respect, working time patterns, preferences and discourses related to inequalities in the labor market (BAuA 2022, Chapter 3; Blömer et al. 2021).

Table 1: Working time preferences by selected socio-economic variables, 2021

Working time preference	Shorter	Unchanged	Longer
Total	53	37	10
Current working time			
Part-time (10-34 hours per week)	24	49	27
Full-time (35+ hours)	63	33	4
Gender			
Male	57	35	8
Female	49	38	12
Education			
Low	39	35	26
Medium	51	38	11
High	59	34	7
Main occupational segment			
Occ. in agriculture, forestry and horticulture	48	41	(11)
Manufacturing occupations	57	33	10
Occupations concerned with production technology	56	36	8
Occ. in building and interior construction	58	36	[6]
Occ. in food industry, gastronomy and tourism	44	35	21
Medical and non-medical health care occupations	52	37	11
Service occ. in social sector and cultural work	51	38	11
Occupations in commerce and trade	48	38	14
Occ. in business management and organization	55	36	10
Business related service occupations	56	36	7
Service occ. in IT and the natural sciences	60	34	6
Safety and security occupations	55	34	[11]
Occupations in traffic and logistics	53	37	10
Occupations in cleaning services	.	39	.
Hierarchical superiority			
yes	59	34	7
No	51	38	11

Source: BAuA Employee Survey 2021 (BAuA 2022).

Second, developments in the share of employees partly or fully working from home during the different phases of COVID-19 have shown that this type of internal flexibility depends very much on the teleworkability of jobs, moderated by firm-level policies than either enhance or limited to practical take-up of remote work opportunities. It has become clear and visible that highly skilled (and often highly paid) white collar professional and managerial jobs are much more often done via telework than others with more locally bound job profiles, requiring presence with machines, clients and patients (Alipour et al. 2022, Goebel et al. 2024). Based on labor force survey data, in 2023 (Destatis 2024a) 49 percent of employees in research and 41 percent of those in managerial roles and 26 percent of technicians as well as office staff worked regularly or occasionally from home. Only five percent or less were able to work remotely in trade, machine operation, crafts and helper jobs. This highlights a labor market divide that was hardly studied and debated before the pandemic hit. It potentially creates tensions between different occupational groups within firms, partly explaining why some firms try to bring their employees back to their offices.

Third, new work practices that go beyond time and place of work have attracted quite some attention in public discourse and human resource policies over the last few years. Apart from the option to work from everywhere (i.e. remotely), this holds in particular for dimensions such as autonomy and participation, self-organisation or individual empowerment and development. Also there, core elements of this interpretation of the new work paradigm tend to affect certain types of firms and occupations within firms more than others as an employer survey shows. These new work practices mostly reach professionals in HR, IT, R&D, marketing or general management that also stand out with regard to other ‘softer’ dimensions of job quality (such as working time and locational autonomy) discussed above (Schermuly and Meifert 2023).

All these dimensions, that have received more attention lately, add to inequalities and dualisms in the labor market that we would not see when just looking into non-standard vs. standard employment relationships. Options to work remotely, preferences for shorter working weeks or demands and opportunities for more autonomous work tend to reinforce as well as change established patterns of occupational differences. In an era of stagnating non-standard employment or low pay share they seem to add new dualisms in employment driven by developments at the upper end of the job spectrum. Most notably, these diverse work arrangements exist without major policy intervention into weekly working time, remote work or internal work practices.

The role of core labor market institutions

Collective bargaining and wage setting

We have seen major changes in labor market structures occurring over the last decade or so. However, we cannot establish a clear link to significant institutional changes in the same period (if we exclude policies to expand employment in education and care for the moment). In fact, the main issue with regard to the period we cover in this contribution is that after the massive overhaul of labor market policies in the early 2000s, that have been widely described and debated, the institutional setting in Germany has proven to be rather stable so that labor change basically took place within this (rather flexible) institutional arrangement. We can show this with respect to different institutional features.

Bargaining coverage continued to decline as it had done over a long period of time (Table 2). Collective bargaining coverage including company-based agreements reaches just one half of the workforce. About half of those not covered work in companies that follow collective agreements but can still deviate – which, in fact can also occur through using so-called opening clauses within collective agreements, a phenomenon that has become more widespread lately (Jäger et al. 2022). In addition, less than half of all employees are represented by works councils. Behind this general trend there is a quite diverse landscape of collective bargaining and worker representation. There is still a considerable gap between West and East Germany. While large and older firms, in particular in utilities, manufacturing, finance and the public sector continue to exhibit rather stable and high bargaining coverage and works council presence whereas the private service sector, young and smaller firms are covered less (Oberfichtner and Schnabel 2019).

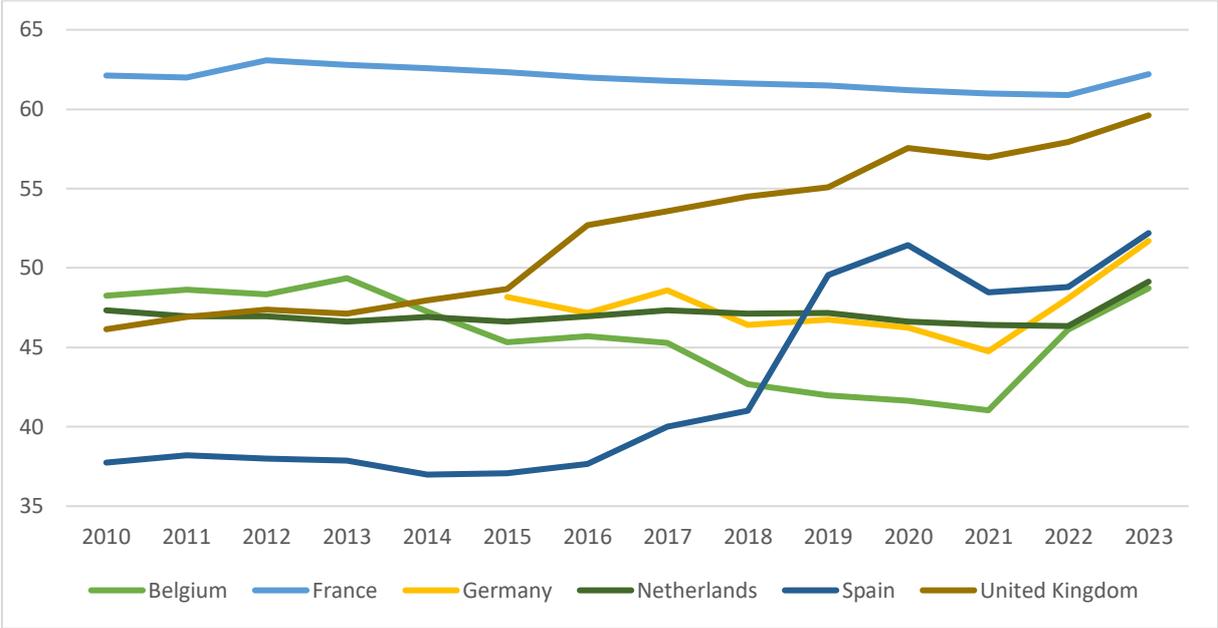
Table 2: Coverage by collective bargaining and works councils, in percent of employees

	Sectoral collective agreement	Company based agreement	No bargaining coverage	<i>(out of which: following collective agreements)</i>	Works councils (all establishments)	Works councils (5+ employees)	Neither collective bargaining nor works councils
2000	60	8	32	50	52	55	25
2005	56	8	36	48	48	52	30
2010	52	8	39	50	47	51	32
2015	48	9	43	49	45	48	36
2020	43	8	49	40	44	47	40
2023	42	8	51	51	41	43	42

Source: IAB Establishment Panel.

In this context, the most prominent institutional reform in the German labor market after 2010 was certainly the introduction of a statutory minimum wage as of early 2015 which has created an effective wage floor in an era of declining collective bargaining coverage (Bruttel 2019). Germany had been one of the few countries without a statutory minimum wage in Europe before, and given the massive decline in collective bargaining coverage this had led to a significant increase in low pay and wage dispersion since the 1990s which received much political and scholarly attention subsequently. This led to a massive trade union campaign to set a binding general wage floor as autonomous collective bargaining at the sectoral level did not work in many service sectors. This was eventually done with wide public support during a Grand Coalition phase in 2015 (see Marx and Starke 2017). Since 2015, the minimum wage – initially fixed at 8.50 EUR - has been uprated regularly, in most years mirroring the preceding development in nominal wages, based on a proposal by an independent minimum wage commission, but in 2022 a political intervention overrode this mechanism to raise the minimum wage exceptionally up to 12 EUR. The German statutory minimum wage is currently at 12,82 EUR gross per hour, having reached more than 50 percent of the median wage for the first time in 2023 (see Figure 9), and the decision to adjust the statutory minimum wage has become more politicized recently, questioning the role of the minimum wage commission also in future adjustments.

Figure 9: National minimum wages relative to median wages (full-time workers), 2010-23



Source: OECD.

Further, an increasing (but still limited) number of sectors is covered by specific minimum wages that are based on collective agreements but extended through the government, based on a set of legal bases, this holds e.g. for construction and related trades, waste management, adult learning, cleaning, meat processing, old-age care and temporary agency work. There has not been a major, state-sponsored attempt to raise bargaining coverage, however, despite a political and scholarly debate about revising extension procedures and public procurement standards (Günther and Höpner 2023). Eventually, we might see some move in that direction, in particular after the adoption of the EU Minimum Wage Directive in 2022 that calls for steps towards an 80 percent bargaining coverage, which is a major challenge in the German context.

Evaluation studies show that the introduction of the minimum wage has led to disproportionate decrease in low pay, setting incentives for employers to raise productivity of labor. In the long run, combined with declining unemployment and an overall tighter labor market, wage dispersion in Germany has declined again, and the size of the low pay sector has shrunk, as data from the OECD (covering full-time workers) show (see Figure 8). Recent data from the German Federal Statistical Office additionally point at relatively strong wage increases of the lowest quintiles (partly supported by inflation premia, however) (see Figure 9).

Regulation of standard and non-standard contracts

Regarding non-standard work, the other main axis of labor market dualization besides wage dispersion, reforms were much less relevant and obvious. A somewhat more restrictive policy regarding temporary agency work was adopted in 2017, limiting maximum assignment periods to 18 months and establishing equal pay from day one in principle. This reform aimed at ruling out pay differentials in long-run temporary agency work assignments, however, deviations were still allowed for by collective agreements (e.g. for equal pay up to nine months). As a consequence, this reform did not change temporary agency work practices substantially (Brändle et al. 2022). Agency work makes up for about two percent of total employment in Germany, with a specific role in (semi-skilled) manufacturing as well as service sector jobs such as logistics. On the one hand, agency work is a cyclical buffer that creates an additional channel of flexibility at firm level, on the hand it offers labor market (re)entrants a first access to employment while transitions to permanent employment are still difficult (Hohendanner 2023). During the pandemic, following a wave of media and political attention, agency work and contract labor was banned in the meat processing industry, a small, but highly debated segment of precarious employment in Germany, mainly relying on migrant workers (Ban et al. 2022).

Apart from temporary agency work, employment protection and the legal regulation of non-standard contracts has not been modified over the last two decades. Although an upper threshold to the share of fixed-term contracts relative to the size of the workforce in individual firms had been announced in the 2017 governmental agreement, no such reform was adopted. Dismissal protection in case of open-ended contracts in the private sector was not changed either. In fact, this topic, which had been a prominent issue around the millennium, has virtually disappeared from the policy agenda since.

Hence, the long-standing divide between temporary and permanent contracts persists. However, this divide is less severe than in many other European countries as the average of temporary contracts is rather long, and in the private sector they are often used as an extended probationary period, with good and recently improving chances of promotion to permanent employment (Hohendanner 2023). The only area where there is a clear divide between permanent and temporary contracts is the public sector (Hohendanner et al. 2015), in particular higher education, where particularly strict dismissal protection for tenured academic (and administrative) staff goes hand in hand with a high share of research and teaching staff on temporary contracts. Changing this has been under debate for long now, however, this divide seems hard to overcome by any reform, given strong employment protection for some on the

one hand, and heavy reliance of universities and research institutions on outside funding (i.e. temporary project budgets).

Permanent workers are still well protected by dismissal protection, unemployment benefits – and short-time work allowances in case of a temporary decline in hours worked due to a recession, as experienced again during COVID-19. Germany provided one of the most generous and long-lasting short-time work schemes in Europe (Fitzenberger and Walwei 2023, Müller et al. 2022). They are also the core target group of a 2014 pension reform that opened access to full monthly pensions at the age of 63 for employees after 45 years of contributory employment (“Rente mit 63”, originally covering all those born before 1953, with subsequent gradual increases in the retirement age). Over the last ten years, this has become a popular option for (mainly) skilled male workers with long-term employment records to leave the labor market prematurely. In a situation of demographic ageing the pension system has become a major political focus, mostly to set a minimum pension for people with long employment biographies, but low earnings (“Grundrente”) and ongoing efforts to stabilise the standard public pension replacement rate for the years to come. At the same time, there was no move to postpone the standard retirement age beyond 67, however, the combination of income from work with a pension was facilitated, e.g. by removing the prior upper threshold of earnings that pensions can be obtained irrespective of pension receipt.

Germany also maintained the segment of marginal part-time work as a zone of flexible, typically low-paid and predominantly female jobs in the service sector, most notably in the hospitality cleaning and retail sectors (see e.g. Hohendanner 2023). These jobs are tax-free both as first and second jobs, and they are privileged by reduced social security contributions rates so that they had become popular both with workers and employers. In fact, over the last years there has been a notable expansion of earnings thresholds of marginal part-time work (“Minijobs”) and intermediate part-times jobs in the zone above (“Midijobs”). The current 2025 threshold for marginal part-time work is 556 EUR per month while the zone of intermediate jobs now runs from 556 to 2,000 EUR per month. In this segment, the employee contribution rate to social insurance increases progressively, but earnings are fully taxable. While the introduction of the minimum wage had initially established a de facto working time limit on marginal part-time work and destroyed some of these low pay jobs, more recent reforms have re-stabilised marginal part-time work. To achieve that, in 2022 the earnings threshold was tied to the statutory minimum wage so that any increase in the minimum wage leads to a proportional rise in the upper limit of marginal part-time work. This means that a minimum

wage rise does not require reductions in reported (formal) working time in a Minijob anymore. Despite being announced, to date there has not been a reform regarding policies to subsidize and formalize personal and household services (and live-in care arrangements) that are typically done by way of unregistered, informal employment in Germany. Hence, all in all, Germany has not shifted away from institutions that favor (marginal) part-time work over moves towards substantially larger part-time or full-time work as the social contribution and tax advantages of Minijobs, in combination with joint taxation of married couples, continue to exist.

Lastly, the share of self-employment has declined over the last years from 11 percent in 2010 to 8.4 percent in 2022 (Krause-Pilatus and Rinne 2024). While there was relative stability of entrepreneurs, i.e. self-employed with employees, the number of solo self-employed shrank significantly, corresponding also to the increased availability of job opportunities in dependent employment. Parallel to this, the role of freelance work by way of contracts for services in the labor market continued to be limited. The decline during the COVID-19 pandemic was not fully reversed since (Hohendanner 2023). Platform work as a main activity is about ten times smaller in its share in employment than self-employment (Urzi Brancati et al. 2020). From an institutional point of view, there were no changes in the rules governing the coverage of platform work and self-employment by social insurance, in particular unemployment insurance, but the debate on this has intensified over the last years, not least with the economic vulnerability of self-employed and the expansion of platform-based food delivery during and after COVID-19. Hence, access to unemployment insurance is still voluntary for those starting their own business, however, only few of them join the unemployment fund (Jahn and Oberfichtner 2020). There was just one minor reform easing access of workers with interrupted employment spells to unemployment insurance benefits. All in all, it seems fair to say that there has not been a major re-regulation of non-standard work (outside the minimum wage).

Active labor market policies and activation

Over the last years, the German government devoted more ALMP spending on publicly supported training for employed, mainly low-skilled workers, at risk of becoming unemployed due to skill obsolescence in a changing labor market. Since the late 2010, training subsidies to firms have been expanded through a sequence of legislative acts, culminating in legislation widening access to public support for training both for firms and workers (as of 2024, “Weiterbildungsgesetz”). Until now, however, in reality take-up has been rather limited, not least to employers’ reluctance in accessing funds available as well as limited and highly

selective individual adult learning initiatives (which collectively agreements on adult learning continue to have a rather marginal role). The government has not yet introduced an individual training leave scheme combined with a benefit modelled in line with unemployment insurance. This had been announced already, but it was not part of adult learning legislation in 2023.

Regarding those out of work, training has also become a stronger priority, moving from a “work first” to a “train first” approach to some extent. Most significant in this turn away from rather demanding to more enabling or “friendly” activation policies is the shift from means-tested income support “Unemployment Benefit II” (“Hartz IV”) to “Citizens Income” (“Bürgergeld”) in 2023 (Weber 2024). This has not only brought about a more generous benefit level, but also reduced requirements regarding the means-testing for income, wealth and housing, and sanctioning. Through this reform, Germany significantly weakened the strings attached to minimum income support both conceptually and in practical implementation (Weber 2024). This means a departure from the activation path adopted in the early 2000s, but it is still too early to assess to what extent this affects employment and benefit receipt. The transition to Bürgergeld, in turn, has triggered a renewed debate about work (dis)incentives for benefit recipients and about more stricter sanctioning in case of non-cooperative behavior of beneficiaries (again). One could argue that more training / more decommodification is complementary to a more demanding wage floor (minimum wage) in particular with regard a) to the employed that are at risk of being affect by restructuring due to technological change and / or biting minimum wage standards and b) to those (long-term) unemployed that are relatively close to the labor market and can therefore be seen as potential skilled workers after some training investment.

Some speculations about the future

The German labor market looks different today from what it was around the turn of century, but it is also different from what was observed and stylized during the peak of labor market dualization in the early 2010s. A long phase of economic stability has brought about a record level of employment as well as a massive decline in unemployment and an overall increase in job quality. The different segments of the service sectors have driven job creation over the last years, not least the emergence of new jobs in the upper and medium segment of pay, skills and job quality. The long-lasting trend towards greater inequality at the lower end of the German

labor market as regards non-standard work and pay dispersion has come to a halt. However, ‘softer’ features of job quality regarding working time, remote work and autonomy show renewed inequality.

Political reforms have not been the decisive factor to explain these changes. Rather, a favorable economic environment, along with demographic change, has brought about a tighter labor market. As a consequence, bargaining power of workers and pressure on employers to provide decent jobs have increased in most segments of the German labour market. This has changed the patterns of job quality and labor market inequality. The main institutional change has been the introduction of a statutory minimum wage, which has helped compressing wage dispersion at the lower end. Apart from that, our claim is that market dynamism has dominated the developments over the last decade or so.

Important long-term demographic changes notwithstanding, we are thus dealing with a cyclical logic. The boom phase with very limited distributional struggles has come to an end as the economic recovery after the pandemic did not proceed as expected. This can be attributed to a changing geo-political and economic environment in which the German model seems particularly vulnerable. The export-oriented manufacturing sector appears to be the Achilles’ heel now while the service sector, both private and public, continues to expand. The industrial sector has to cope with spreading trade restrictions, higher energy cost as well as growing market shares of new competitors that challenge the comparative technological advantages and cost competitiveness of German manufacturing. Car making and the transition towards electrical vehicles are the key example.

Industrial production has not recovered fully relative to the late 2010s and is on a declining path since, while value added in the industry has been more resilient. The situation differs starkly within the industrial sector (Lehmann and Wollmershäuser 2024, Destatis 2024d, OECD 2024). Particular difficulties have emerged in the automotive sector, including suppliers, and in chemical industry. In fact, Germany has been experiencing sluggish economic growth now for some time. While real GDP had grown by 1.1 percent annually between 2010 and 2020, it stagnated in 2023 and 2024. Overall employment has not (yet) reacted significantly. Indeed, it seems that overall growth is slowing down at a peak level of total employment and total hours worked (Destatis 2024c, 2025). However, the unemployment rate has increased only moderately from 5.7 to 6.0 percent from 2023 to 2024. This points at rather low fluctuation of employment in the current situation (IAB 2025).

The adverse economic environment also brings about an increasingly limited fiscal space to fund public sector employment expansion and the welfare state. Tensions about the appropriate budgetary stance have also contributed to the breaking up of the government coalition in November 2024. Even before entering office, the prospective new government already had to burn significant political capital for debt-financed investment in defense and infrastructure. The political climate might change even more dramatically if unemployment would rise more steeply (which is currently delayed or mitigated by demographic labor shortages). Economic stagnation will likely trigger a new round of cyclical policy reactions in line with our earlier argument (Eichhorst and Marx 2011), potentially reiterating and reinforcing existing dualisms. This is even more so as social policy debates are increasingly linked with questions of deservingness of migrants and refugees. Against this background, we formulate a number of expectations for the coming years.

1. Demographically induced shortages of (skilled) labor remain relevant despite economic stagnation. We would expect intensified efforts on the firm-level to attract and retain workers needed, e.g. through working time policies allowing for more choice and flexibility, pay upgrades as well as other forms of ‘new work’ arrangements. This works without much intervention from policy makers, as we have already seen.
2. Regarding the current difficulties of the industrial core sectors, that are still well organised and crucial in the German political economy, we expect intensified industrial policies and state-supported adjustment assistance. To the extent that short-term economic pressure on firms increases, we can also expect public support for existing business models through subsidies on energy cost or on sales, e.g. for electrical vehicles. The short-term coping strategy on the firm level will likely involve a new wave of fissuring or trimming of seemingly unprofitable business entities. This could, as in the past, come with concession bargaining between employers and unions in the sectors and firms affected. To some extent, firm-sponsored early retirement, complemented with relaxed pension rules, might become popular again, in particular in traditional industries.
3. Given a new wave of austerity we would expect a more restrictive policy stance in social and labor market policies, somewhat similar to the reform phase in the early 2000s. This will likely once more focus on minimum income support and support measures for the long-term unemployed while unemployment insurance and pensions will rather be left untouched (or even more cross-subsidised in the latter case). As in the past, the focus

will be on work (dis)incentives, stricter means-testing and sanctioning as well as fewer enabling policies. This can be seen already in the discussions about reversing the latest Bürgergeld reform.

4. It seems less probable - after the last round of partial re-regulation of the labor market - that we will see a significant deregulation in formal rules governing dismissal protection or non-standard work. Given the political sensitivity of these issues and the virtual absence of calls for labor market deregulation from the business community we would rather expect stability of existing legal provisions apart (except for the announcement of a more flexible weekly working time limited and tax-free overtime bonuses). There is some room for struggles about an increasingly politicized adjustment of the minimum wage, as we have already seen. The incoming government has reached a potentially ambiguous compromise to continue working with the formally independent minimum wage commission, but expecting it to observe the (non-binding) EU 60 percent minimum wage benchmark as well as reaching a politically set level of 15 EUR gross per hour soon. In the German context, however, it is more difficult to imagine a strategy to increase collective bargaining coverage (as required by the EU) which would entail not just a stronger emphasis on observing collective agreements in public procurement, as suggested by the new coalition agreement, but an extension of collective agreements.
5. To ease fiscal pressure on the public budget and welfare state, it will be important to maintain high employment and raise the employment rate and total hours worked by the labor force even further. This could be achieved through enhanced adult learning and job mobility policies to support the economic transition. Policy-wise this would require a better-funded, less segmented continuous vocational training policies for adults, overcoming the administrative complexities and intransparencies there (see e.g. Eichhorst and Marx 2022). While the expansion of adult learning has been popular policy advice for decades, we expect little movement in this direction. First, the upfront investment is relatively large and difficult to finance in the current fiscal contexts. Second, as indicated above, the German adult learning system is highly fragmented, which makes a coherent reform approach particularly difficult. Third, the current wave of technological change makes it difficult to predict which types of skills are helpful and realistic to obtain in the group most affected. For these reasons, and in light of previous experiences, German labour market policy is likely to lean again towards fiscal

cuts and a work-first orientation – although it certainly is not conducive to bring more vulnerable groups into sustainable employment.

References

- Alipour, J.-V., Falck, O. & Schüller, S. (2022). Germany's capacity to work from home. *European Economic Review*, 151. 104354. [10.1016/j.euroecorev.2022.104354](https://doi.org/10.1016/j.euroecorev.2022.104354).
- Baccaro, L., & Benassi, C. (2017). Throwing out the ballast: growth models and the liberalization of German industrial relations. *Socio-Economic Review*, 15(1), 85–115.
- Baccaro, L., & Höpner, M. (2022). The Political-Economic Foundations of Export-Led Growth: An Analysis of the German Case. In L. Baccaro, M. Blyth, & J. Pontusson (Eds.), *Diminishing Returns: The New Politics of Growth and Stagnation* (pp. 238–267). Oxford; New York: Oxford University Press.
- Baccaro, L., & Pontusson, J. (2016). Rethinking Comparative Political Economy: The Growth Model Perspective. *Politics & Society*, 44(2), 175–207.
- Ban, C., Bohle, D., & Naczyk, M. (2022). A perfect storm: COVID-19 and the reorganisation of the German meat industry. *Transfer: European Review of Labour and Research*, 28(1), 101–118.
- Benassi, C., & Dorigatti, L. (2015). Straight to the Core — Explaining Union Responses to the Casualization of Work: The IG Metall Campaign for Agency Workers. *British Journal of Industrial Relations*, 53(3), 533–555.
- Blömer, M. et al. (2021). Zwischen Wunsch und Wirklichkeit: Unter- und Überbeschäftigung am deutschen Arbeitsmarkt. *Ifo Forschungsbericht* 119.
- Börschlein, E.-B., Bossler, M. & Popp, M. (2024). Scarce Workers, High Wages? IZA Discussion Paper No. 17447.
- Brändle, T. et al. (2022). Evaluation des Arbeitnehmerüberlassungsgesetzes (AÜG). Endbericht zum Forschungsvorhaben. *BMAS Forschungsbericht* 614.
- Bruttel, O. (2019). The effects of the new statutory minimum wage in Germany: a first assessment of the evidence. *Journal for Labour Market Research* 53, 10 (2019). <https://doi.org/10.1186/s12651-019-0258-z>.
- Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (2022). Arbeitszeitreport Deutschland. Ergebnisse der BAuA-Arbeitszeitbefragung 2021. DOI: [10.21934/baua:bericht20221103](https://doi.org/10.21934/baua:bericht20221103).
- Destatis (2024a). Erwerbstätige, die von zu Hause aus arbeiten.
- Destatis (2024b). Nettozuwanderung 2023 mit 663 000 Personen deutlich gesunken. Pressemitteilung Nr. 247 vom 27. Juni 2024.
- Destatis (2024c). Employment almost unchanged in October 2024. Press release No. 451 of 29 November 2024.

- Destatis (2024d). Bruttoinlandsprodukt: Ausführliche Ergebnisse zur Wirtschaftsleistung im 3. Quartal 2024. Pressemeldung Nr. 438 vom 22. November 2024.
- Destatis (2025). Employment stagnates in December 2024. Press release No. 041 of 31 January 2025.
- Diessner, S., Durazzi, N., & Hope, D. (2022). Skill-Biased Liberalization: Germany's Transition to the Knowledge Economy. *Politics & Society*, 50(1), 117–155.
- DIW (2024). Niedriglohnsektor auf Tiefstand, aber Einkommensungleichheit nimmt nicht ab. Pressemitteilung vom 31. Januar 2024.
- Doellgast, V., Lillie, N. & Pulignano, V. (2018). From dualization to solidarity: halting the cycle of precarity. In: Doellgast, V., Lillie, N., & Pulignano, V. (eds). *Reconstructing Solidarity: Labour Unions, Precarious Work, and the Politics of Institutional Change in Europe*. Oxford: Oxford University Press, 1–58.
- Eichhorst, W. & Marx, P. (2011). Reforming German labour market institutions: A dual path to flexibility. *Journal of European Social Policy*, 21(1), 73–87.
- Eichhorst, W. & Marx, P. (2012) Whatever Works: Dualisation and the Service Economy in Bismarckian Welfare States, in: P. Emmenegger et al. (Eds.): *The Age of Dualization*, Oxford University Press, 73-99.
- Eichhorst, W., & Marx, P. (2021). How stable is labour market dualism? Reforms of employment protection in nine European countries. *European Journal of Industrial Relations*, 27(1), 93–110.
- Eichhorst, W. & Marx, P. (2022). Reform der beruflichen Weiterbildung. Bertelsmann Stiftung.
- Emmenegger, Patrick et al. (eds.) (2012). *The Age of Dualization*, Oxford University Press.
- Emmenegger, Patrick (2014). *The Power to Dismiss*, Oxford University Press.
- Estevez-Abe, M., Iversen, T., & Soskice, D. (2001). Social protection and the formation of skills: A reinterpretation of the welfare state. In P. A. Hall & D. Soskice (Eds.), *Varieties of capitalism: The institutional foundations of comparative advantage* (pp. 145–183).
- Ferragina, E., Filetti, F. D., & Arrigoni, A. (2023). Assessing labour market policy change. In D. Clegg & N. Durazzi (Eds.), *Handbook of Labour Market Policy in Advanced Democracies* (pp. 68–86). Cheltenham: Edward Elgar.
- Fitzenberger, B. & Walwei, U. (2023). Short-time Work during the COVID-19 Crisis: Lessons learned. (IAB-Forschungsbericht 05/2023 (en)), Nürnberg. DOI:10.48720/IAB.FB.2305en.
- Germann, J. (2021). *Unwitting Architect: German Primacy and the Origins of Neoliberalism*. Stanford University Press.
- Goebel, J., Satilmis, S. & Seikat, L. (2024). Homeoffice auch nach Ende der Pandemiemaßnahmen weit verbreitet, DIW-Wochenbericht 91 (2024) 43, 667-674.
- Grabka, M. M. (2022). Löhne, Renten und Haushaltseinkommen sind in den vergangenen 25 Jahren real gestiegen. DIW Wochenbericht, 2022(23), 330–337.
- Günther, W. & Höpner, M. (2023). Why Does Germany Abstain from Statutory Bargaining Extensions? Explaining the Exceptional German Erosion of Collective Wage Bargaining. In: *Economic and Industrial Democracy* 44(1), 2023, 88–108.
- Hassel, A. (2014). The Paradox of Liberalization—Understanding Dualism and the Recovery of the German Political Economy, *British Journal of Industrial Relations* 52 (1), 57-81.
- Hassel, A. (2017). No Way to Escape Imbalances in the Eurozone? Three Sources for Germany's Export Dependency: Industrial Relations, Social Insurance and Fiscal Federalism. *German Politics*, 26(3), 360–379.
- Hassel, A., & Palier, B. (2023). Same Trend, Different Paths: Growth and Welfare Regimes Across Time and Space. *Annual Review of Political Science*, 26(1), 347-368.

- Hohendanner, C., Ostmeier, E. & Ramos Lobato, P. (2015). Befristete Beschäftigung im öffentlichen Dienst. Entwicklung, Motive und rechtliche Umsetzung. IAB-Forschungsbericht Nr. 12.
- Hohendanner, C. (2023). Atypische Beschäftigung im Strukturwandel. IAB Forschungsbericht 23/2023.
- IAB (2025). Die aktuelle Eintrübung am Arbeitsmarkt führt zu einem Rückgang der Personalfuktuation. Press release. 1 April 2025.
- Jäger, S., Noy, S. & Schoefer, B. (2022). "The German Model of Industrial Relations: Balancing Flexibility and Collective Action." *Journal of Economic Perspectives*, 36 (4): 53-80.
- Jahn, E. & Oberfichtner, M. (2020). Freiwillige Arbeitslosenversicherung: Nur wenige Selbstständige versichern sich gegen die Folgen von Arbeitslosigkeit, *IAB-Kurzbericht*, 11.
- Kalina, T., & Weinkopf, C. (2023). Niedriglohnbeschäftigung 2020 - Rückgang des Anteils von Niedriglöhnen in den letzten Jahren. IAQ-Report, 2023/02.
- Krause-Pilatus, A. & Rinne, U. (2024). Selbstständige Erwerbstätigkeit in Deutschland (Aktualisierung 2024). IZA Research Report No. 145.
- Lehmann, R. & Wollmershäuser, T. (2024). Struktureller Wandel im Verarbeitenden Gewerbe: Produktion unterzeichnet Bruttowertschöpfung, ifo Schnelldienst, 2024, 77, Nr. 02, 55-60.
- Marx, P., & Starke, P. (2017). Dualization as destiny? The political economy of the German minimum wage reform. *Politics & Society*, 45(4), 559–584.
- Müller, T., Schulten, T., & Drahoukoupil, J. (2022). Job retention schemes in Europe during the COVID-19 pandemic – different shapes and sizes and the role of collective bargaining. *Transfer: European Review of Labour and Research*, 28(2), 247-265.
- Oberfichtner, M. & Schnabel, C. (2019). The German model of industrial relations: (where) does it still exist? In: *Jahrbücher für Nationalökonomie und Statistik*, Jg. 239, H. 1, S. 5-37.
- Ochsenfeld, F. (2018). The Relational Nature of Employment Dualization: Evidence from Subcontracting Establishments. *European Sociological Review*, 34(3), 304–318.
- OECD (2018). Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy. OECD. Retrieved June 14, 2019, from https://www.oecd-ilibrary.org/social-issues-migration-health/good-jobs-for-all-in-a-changing-world-of-work_9789264308817-en.
- OECD (2024). OECD Economic Outlook 2024.
- Oesch, D., & G. Piccitto (2019). The Polarization Myth: Occupational Upgrading in Germany, Spain, Sweden, and the UK, 1992–2015. *Work and Occupations*, 46(4), 441–469.
- Oesch, D. (2022). Contemporary Class Analysis. JRC Working Papers Series on Social Classes in the Digital Age 2022/01.
- Palier, B., & Thelen, K. (2010). Institutionalizing Dualism: Complementarities and Change in France and Germany. *Politics & Society*, 38(1), 119–148.
- Pulignano, V., & Doerflinger, N. (2018). Expanding social actor-based explanations in labour market dualisation research: A combined macro-micro and micro-macro approach. *Employee Relations*, 40(1), 75–88.
- Rubery, J., Grimshaw, D., Méhaut, P., & Weinkopf, C. (2022). Dualisation and part-time work in France, Germany and the UK: Accounting for within and between country differences in precarious work. *European Journal of Industrial Relations*, 09596801221120468.
- Rueda, D. (2007). *Social democracy inside out: Partisanship and labor market policy in advanced industrialized democracies*. Oxford: Oxford University Press.
- Schermuly, C. & Meifert, M. (2023). Ergebnisbericht zum New Work Barometer 2023.

- Simoni, M., & Vlandas, T. (2020). Labour market liberalization and the rise of dualism in Europe as the interplay between governments, trade unions and the economy. *Social Policy & Administration*, *spol.12648*.
- Streeck, W. (2009). *Re-forming capitalism: Institutional change in the German political economy*. Oxford; New York: Oxford University Press.
- Streeck, W., & Thelen, K. (2005). Institutional change in advanced political economies (pp. 95–131).
- Thelen, K. (2014). *Varieties of liberalization and the new politics of social solidarity*. Cambridge: Cambridge University Press.
- Thelen, K. (2019). Transitions to the Knowledge Economy in Germany, Sweden, and the Netherlands. *Comparative Politics*, *51(2)*, 295–315.
- Urzi Brancati, M.C., Pesole, A. & Fernandez Macias, E. (2020). *New evidence on platform workers in Europe*, EUR 29958 EN, Publications Office of the European Union, Luxembourg.
- Vlandas, T. (2013). The Politics of Temporary Work Deregulation in Europe: Solving the French Puzzle. *Politics & Society*, *41(3)*, 425–460.
- Walwei, U. (2022). Wandel der Erwerbsformen: War normal gestern? *Zeitschrift für Sozialreform* *68(2)*, 151-179.
- Weber, E. (2024). *The Dovish Turnaround: Germany's Social Benefit Reform and Job Findings*, IAB-Discussion Paper 202407, Institute for Employment Research, Nuremberg.
- Weisstanner, D. (2021). Insiders under pressure: Flexibilization at the margins and wage inequality. *Journal of Social Policy*, *50(4)*, 725–744.