

The German Model of Industrial Relations: Balancing Flexibility and Collective Action

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Germany—the world’s fourth-largest economy—has remained partially insulated from the growing labor market challenges faced by the United States and other high-income countries. In many advanced economies, the past few decades have seen sustained increases in earnings inequality, a fall in the labor share, the disappearance of “good jobs” in manufacturing, the rise of precarious work, and a deterioration in the power of organized labor and individual workers.¹ These developments threaten to prevent economic growth from translating into shared prosperity.

Compared to the United States, German organized labor has remained strong, as shown in Figure 1. Half of German workers are covered by a collective bargaining agreement, compared to 6.1 percent of private-sector Americans (Bureau of Labor Statistics 2022). Trust in unions is almost twice as high in Germany compared to the United States. Employees in Germany work fewer hours, the country’s low-wage sector is 25 percent smaller, and labor’s share of national income is higher. The German manufacturing sector still makes up almost one-quarter of GDP (compared

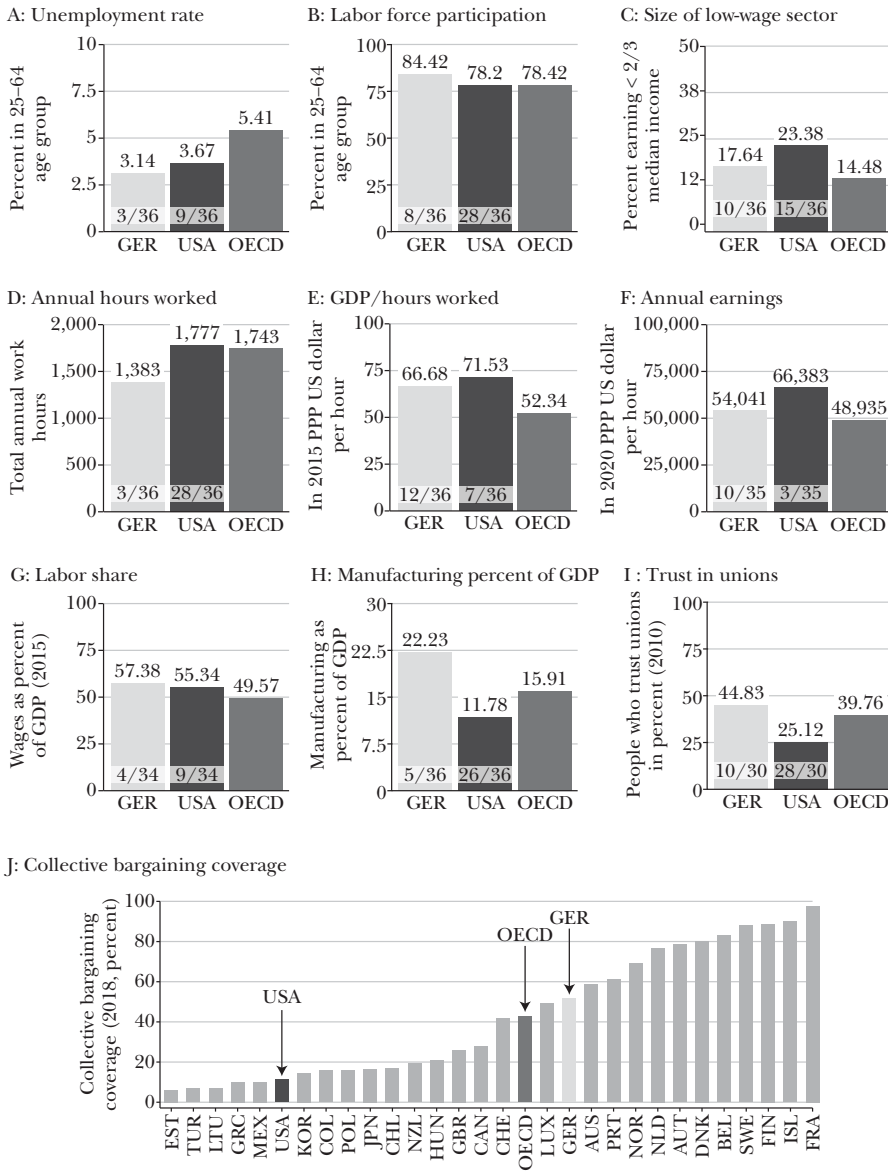
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¹ See, for example, Autor (2014) and Chancel et al. (2022); Karabarbounis and Neiman (2014); Autor, Dorn, and Hanson (2013) and Acemoglu and Restrepo (2020); Weil (2014); and Stansbury and Summers (2020) and Farber et al. (2021).

Figure 1

The German Labor Market in International Comparison



Source: Unemployment = annual percentage of unemployed aged 25 to 64 (OECD 2022f). Employment rate = employed aged 25 to 64/population aged 25 to 64 (OECD 2022e). Low wage sector share = share of employees earning less than two-thirds of the annual median wage (OECD 2022h). Annual working hours = total annual working hours/employed population (OECD 2022d). Annual wage = total annual wage in constant prices 2020 US dollars at the purchasing power parity exchange rate (OECD 2022a). GDP per hour = annual GDP in constant prices 2020 US dollars at the purchasing power parity exchange rate/total annual working hours (OECD 2022c). Labor share = employee compensation as share of GDP (OECD 2022b). Manufacturing share = manufacturing sector output as share of GDP (OECD 2022g). Trust in unions = share of people who tend to trust unions (Germany) or who are “greatly” or “quite a lot” confident in unions (United States) (OECD 2019). Bargaining coverage = share of workers covered by a collective agreement (Visser 2021; OECD 2021).

Note: Unless otherwise noted, the data are for 2019. Numbers above the bars denote the heights of the bars; the numbers at the bottom of the bars denote the US/Germany’s rank in the OECD in terms of each measure (with ranks closer to 1 being “better” for all measures). Variation in the total number of OECD countries is due to missing data (for example, no data for annual wages for Turkey) and different years (manufacturing share data from 2018). Both manufacturing and labor share OECD averages were calculated by the authors from OECD data.

to 12 percent in the United States). Germany has one of the highest robot penetration rates in the world (International Federation of Robotics 2017)—yet in contrast to the United States (Acemoglu and Restrepo 2020), robotization has not led to net employment declines in Germany, especially in areas with high union strength (Dauth et al. 2021). At the same time, relative to other OECD countries—many of which, like France or Italy, have maintained even higher collective bargaining coverage through more rigid bargaining systems—the German labor market features low unemployment and high labor force participation (though also a larger low-wage sector).

Motivated by these facts, observers and policymakers in other countries have paid increasing attention to the German model of industrial relations (for example, Anderson 2012; *The Economist* 2017, 2020; Matthews 2019; Strine, Kovali, and Williams 2021). In the 2020 US Democratic primaries, the policy platforms of several candidates contained proposals explicitly based on German labor market institutions (Campbell 2019). And American workers, frustrated with their lack of voice, exhibit demand for workplace representation mechanisms in the mold of the German system (Hertel-Fernandez, Kimball, and Kochan 2022).

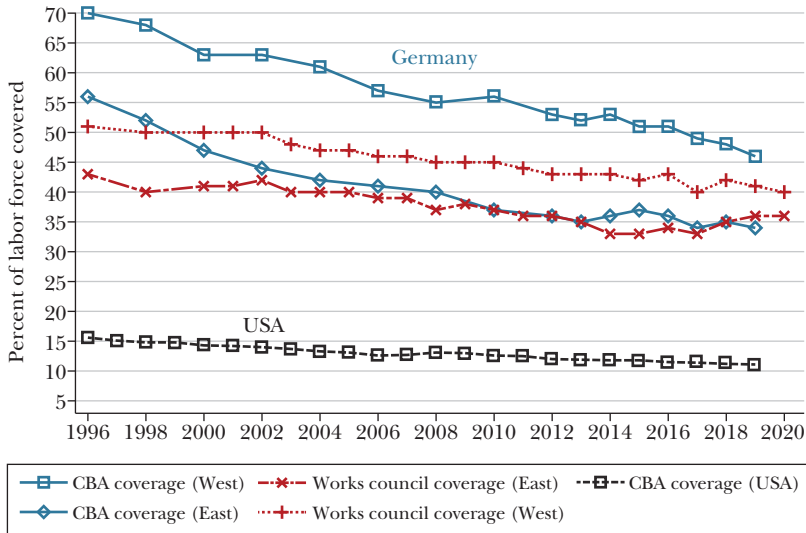
In this article, we present a primer on the “German model” of industrial relations. We organize our paper along its two key pillars. The first pillar is the sectoral bargaining system. In Germany, unions and employer associations engage in bargaining at the industry-region level, leading to broader coverage than in the United States. Meanwhile, partial decentralization of bargaining to the firm level—through flexibility provisions in sectoral agreements, or direct negotiations between individual firms and sectoral unions—gives firms some space to adapt to changing circumstances. However, this flexibility has also resulted in a gradual erosion of bargaining coverage. The second pillar of the German model is firm-level codetermination. Workers are integrated into corporate decision-making through membership on company boards and the formation of “works councils,” leading to ongoing cooperative dialogue between shareholders, managers, and workers.

Overall, the German model combines centralized “social partnership” between unions and employer associations at the industry-region level with decentralized mechanisms for local wage-setting, dialogue, and customization of employment conditions.

The US industrial relations system is starkly different. American firms are run by managers on behalf of shareholders, within a legal structure that effectively bans cooperative forms of institutionalized worker voice akin to codetermination, in pursuit of “unencumbered” managerial decision-making (Harlin 1982).² US collective bargaining occurs exclusively at the bargaining unit or establishment level—rather than at the sectoral level—thereby giving individual employers strong incentives to resist unionization. Unionization elections are highly contentious and successful unionization is associated with lower profits and establishment closures (Lee and Mas 2012; Frandsen 2021; Wang and Young 2022). Over the past few

²These legal provisions were historically designed to ban employer-dominated unions (for example, see §8(a)(2) of the National Labor Relations Act), and subsequent judicial decisions have further narrowed the scope of unions’ bargaining rights.

Figure 2

Institutional Coverage over Time in Germany and the United States

Source: Ellguth and Kohaut (2020) for the German numbers; Visser (2021) and OECD (2021) for the US numbers.

Note: This figure shows collective bargaining coverage in East and West Germany (blue lines) and the United States (black line), as well as works council coverage in East and West Germany (red lines) from 1996 to 2020. CBA stands for “collective bargaining agreement.”

decades, private-sector collective bargaining coverage has been almost completely eroded (Farber et al. 2021).

A recurrent theme in our discussion of the German model will be a tension at the heart of the model: between firms’ flexibility and workers’ collective bargaining strength. Since the 1990s, the German model has become more decentralized and flexible. This evolution has arguably contributed to reductions in unemployment and increases in economic growth, but it has also entailed a substantial erosion of collective bargaining and works council coverage (as Figure 2 illustrates) and a weakening of bargaining agreements. This erosion may explain Germany’s slowly increasing—and perhaps underappreciated—exposure to the afflictions suffered by other developed-world labor markets: rising wage inequality and the spread of low-wage, precarious jobs.

Sectoral Collective Bargaining

The German labor market is shaped by large-scale collective bargaining agreements containing schedules of minimum requirements for wages, hours, working conditions, entitlements, and promotion criteria for workers in different industries, regions, and occupations, and with different levels of skill and experience.

These agreements, typically negotiated at the industry-region level,³ have broad coverage and create significant standardization in wages and working conditions—a sharp contrast to the patchwork system of employer-dominated wage-setting, individual bargaining, and (rare) establishment-level union bargaining prevalent in the United States. At the same time, the collective bargaining system in Germany allows for an unusual degree of decentralization and flexibility in wage-setting relative to the more rigid bargaining systems of many of its European neighbors—and even makes it relatively easy for employers to avoid coverage altogether.

The Bargaining Parties: Unions, Employer Associations, and Firms

Figure 3 visualizes the system of collective bargaining between sectoral trade unions and industry-region employer associations. The left of Figure 3 shows the worker side, the right shows the employer side, and the center illustrates the typical industry-region agreements. As we describe later, collective bargaining agreements can also sometimes be concluded between unions and individual firms.

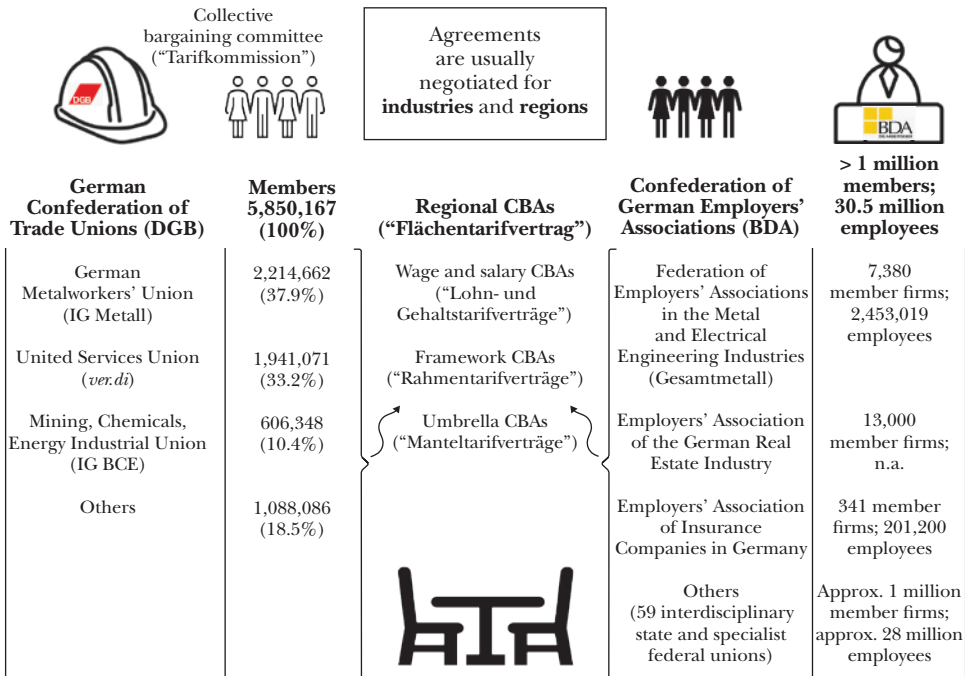
Unions. German unions are mostly organized at the sectoral level and belong to a small number of major trade union confederations. The most powerful confederation, the *Deutscher Gewerkschaftsbund* (DGB), oversees many of Germany's biggest unions, including *IG Metall* (manufacturing workers), *ver.di* (public-sector and services), *IG BCE* (mining and chemical industries), *GEW* (education and science), *IG BAU* (construction), and *NGG* (catering and restaurants) (DGB 2021). The DGB covers about 6 million workers; other union confederations include the *Deutscher Beamtenbund* (DBB), overseeing mainly civil service unions and covering about 1.3 million workers, and the Christian CGB, overseeing a variety of independent unions and covering about 300,000 workers (ETUI 2021). The union confederations compete for members and are differentiated by their political slant and attitudes toward collective bargaining. The DGB is mostly aligned with the center-left Social Democratic Party, though it maintains formal political neutrality and strives to always include a member of the center-right party (the Christian Democratic Union) on its governing staff. It remains strongly committed to broad sectoral bargaining. The DBB and CGB, by contrast, lean more toward the Christian Democrats and are less committed to industry-level bargaining—for example, the DBB contains several member unions organized at the level of granular occupations rather than industries.

German unions enjoy widespread public support and trust—about 73 percent of Germans agree that “workers need strong unions,” compared to 49 percent of Americans.⁴ The partisan gap in support for unions is also much smaller in Germany

³The industry-region bargaining system has its origins in the Stinnes-Legien Agreement and Collective Agreements Order of 1918, negotiated between moderate trade unions and major industry leaders against the backdrop of an unstable post-World War I provisional government and the threat of violent revolution from radical worker movements (Winkler 1998; Silvia 2013). The agreements institutionalized collective bargaining at the industry-region level, because this was the natural intersection between existing industry-region employer associations and industry-level trade unions. German employers had been organizing in local cartels throughout the nineteenth century, while trade unions formed at the industry level (Lepinski 1959; Silvia 2013).

⁴ Authors' calculations using the International Social Survey Panel (ISSP Research Group 2017).

Figure 3
The German Bargaining Framework



Source: Deutscher Gewerkschaftsbund (2021) and BDA Die Arbeitgeber (2022).

Note: This figure illustrates the structure of collective bargaining between unions (left-hand side) and employer associations (right-hand side), with the center illustrating typical industry-region agreements. CBA stands for "collective bargaining agreement."

than in the United States.⁵ The Christian Democrats (center-right party) are broadly supportive of collective bargaining: the party's election manifesto (Bundestagswahl 2021) asserted that the "social partnership" between unions and employer associations is at the core of Germany's economic success, called for more sectoral bargaining in the EU, and declared an intention to legislatively extend a greater number of bargaining agreements (see below for a discussion of these extensions).

German unions are prominent in public discourse, and often engage in policy lobbying. For example, they were instrumental in campaigning for the introduction of a federal minimum wage in 2015. They also fund research centers and think tanks, most notably the DGB-affiliated Hans Böckler Foundation. Trade union research institutes (and rival research institutes sponsored by employer associations) play a major role in economic policy discussions, frequently appearing in the media or writing widely covered reports.

⁵For example, 83 percent of 2013 Social Democratic Party (center-left) voters and 68 percent of Christian Democratic Union (center-right) voters agree with the statement in the text, compared with 63 percent of 2012 Obama voters and 26 percent of Romney voters.

Employer Associations. German employers organize in associations at the industry-region level, similarly to workers, with these associations in turn belonging to umbrella employer federations ultimately organized in the Federal Society of the German Employer Associations (*Bundesvereinigung der Deutschen Arbeitgeberverbände*, BDA). The BDA comprises 14 interdisciplinary regional associations and 48 federal umbrella associations representing more than 6,500 individual employer associations. Among the largest and most powerful umbrella associations are the metal and electrical industry association *Gesammetall*, the insurance companies association *Arbeitgeberverband der Versicherungsunternehmen in Deutschland*, and the chemical industry association *Bundesarbeitgeberverband Chemie*, as illustrated in Figure 3.

The primary function of employer associations is to engage in coordinated collective bargaining, but like unions, they also have several auxiliary functions. First, they engage in business lobbying focused on labor market policy, complementing the lobbying efforts of trade associations (*Wirtschaftsverbände*) and chambers of commerce and industry (*Industrie und Handelskammern*). For example, they have campaigned against wealth and inheritance taxes and lobbied for the abolition of a tax on high-earning individuals and firms (BDI 2021; BDA 2021). Second, employer associations often provide member companies with additional benefits such as legal advice and strike insurance. Third, they fund research institutes that play a major role in public discourse and also engage in lobbying and advocacy. Finally, employer associations are prominent networking hubs in the business world (Silvia and Schroeder 2007).

Relationships between Unions and Employer Associations. Interactions between major employer associations and major trade unions in Germany tend to be adversarial but respectful. The DGB and BDA are protective of their status as the economy's defining "social partners," and take pride in the industrial peace and low levels of strikes accompanying their partnership: for example, Germany lost only 5 days per 1,000 employees to strikes between 2001 and 2007, compared to 30 days in the United States (Lesch 2009). Both the DGB and BDA are wary of fragmentation of the industrial relations system; for example, they jointly lobbied for the introduction of a 2015 "unity law" declaring that only the largest bargaining agreement (in share of unionized workers) in an establishment could apply to that establishment. The law was intended to undercut a proliferation of occupation-specific unions representing highly skilled or hard-to-replace workers such as train conductors (*Gewerkschaft Deutscher Lokomotivführer*), who were demanding large wage increases and threatening to strike. Employer associations disliked the high wage demands and threat of strikes; the DGB argued that the demands of specific worker groups would exacerbate inequality and undermine the solidaristic principle of moderating wages at the top in order to boost wages at the bottom. The DGB was perhaps also motivated by an opportunity to consolidate its own power (Behrens 2016).⁶

International Perspective. Comparing Germany to the United States, it is tempting to draw analogies between, for example, the DGB in Germany and the AFL-CIO in

⁶Several large unions, such as *ver.di*, opposed and even unsuccessfully challenged the law before Germany's Federal Constitutional Court, asserting that it curtailed the freedom of association and individual unions' rights to strike (1 BvR 1571/15 -, Rn. 1-24, 1 BvR 571/16 -, Rn. 1-23).

the United States, or the BDA and the US Chamber of Commerce. However, there are several crucial differences.

First, membership is the lifeblood of American unions, whose influence is directly determined by the share of workers who have voted to collectivize their workplace and join a union. By contrast, membership matters only indirectly for German unions, because (as we describe below) bargaining happens at the sectoral level and agreements apply to both unionized and non-unionized workers in participating firms. To a German worker, joining a union is closer to becoming a fee-paying member of a political party. This has a few implications. It means German unions (mostly) do not have to engage in conflictual employer-specific unionization drives, which may help explain their enduring and bipartisan popularity. It also means that German unions have remained strong in the private sector even as union membership has diminished, whereas in the United States, diminishing membership has devastated private-sector union influence.

Second, American employer associations like the Chamber of Commerce traditionally adopt an actively hostile stance toward organized labor. By contrast, engaging in collective bargaining is the *raison d'être* of German employer associations, which derive their public legitimacy and membership appeal from their status as “social partners” with the unions. They are therefore highly tolerant of organized labor.

The German model of collective bargaining is also distinct from other European countries with strong unions. Countries such as Sweden, Norway, France, and Italy also feature two to four large, competing, widely legitimate union confederations paired with a large employer confederation in a stylized “social partnership” built around sectoral bargaining. However, this structural similarity obscures several axes of heterogeneity. First, unlike the Nordic countries and France—which have a “tripartite” industrial relations system where the government plays an active role—the German government is largely excluded from the industrial relations system.⁷ Second, unlike in Denmark, Sweden, and Finland, where unions directly administer social insurance, in Germany social insurance is handled by the government, with no direct role for unions. Third, while most Western European countries maintain a notion of “social partnership” between unions and employer associations, the national ideology of cooperative partnership appears historically strongest in Germany and the Nordic countries.

⁷The principle of bargaining autonomy (*Tarifautonomie*) bans the government from intervening in collective negotiations; this rule dates back to the collective agreements of 1918, which were negotiated under a temporary provisional government while the future of the German state was highly uncertain. The federal government has occasionally experimented with soft-touch tripartism during crises, inviting employer associations and unions to roundtable discussions with legislators. This happened during the 1960s, when the government attempted to organize macroeconomic Keynesian coordination with the bargaining parties; in July 2022, the government convened talks under the same name (*Konzertierte Aktion*) in an attempt to tame rising inflation (*Deutsche Welle* 2022). This also happened in the 1990s (the “Joint Initiative for More Jobs in Eastern Germany”), when the government tried to tackle high unemployment and sluggish growth in East Germany by encouraging flexibility provisions and attentiveness to employment effects in bargaining agreements (Eurofound 1997).

The Contents of Collective Agreements

German unions and employer associations negotiate a range of industry-region-level collective agreements (*Flächentarifvertrag*), which are differentiated by the topics they cover, as shown in Figure 3. First, wage and salary agreements (*Lohn- und Gehaltstarifverträge*), usually renegotiated on an annual or biannual basis, specify wage and salary floors for workers in the industry-region, often by occupational, skill, and experience group. The “favorability principle” (*Günstigkeitsprinzip*) allows employers to offer higher salaries or better working conditions than those stipulated in wage and salary agreements. Second, longer-running framework agreements (*Rahmentarifverträge*) define criteria for assigning workers or positions to salary groups. Finally, umbrella agreements (*Manteltarifverträge*) regulate general working conditions, including termination rules, vacation duration, sick leave, and overtime, and are typically in place over longer periods. There are a huge number of active collective bargaining agreements at any given moment—82,000 in 2021 (Schulten et al. 2021).

As one example, a 2021 framework agreement between the metalworkers’ union (*IG Metall*) and the corresponding regional employer association (*Südwestmetall*) regulates how workers in the metal and electronics industry in the German state of Baden-Württemberg are assigned to salary groups. It defines a points system, with points assigned for a worker’s education and experience as well as the complexity and autonomy of the worker’s job.⁸ A separately negotiated collective bargaining agreement then stipulates wage floors for each points group.

Although collective bargaining agreements are typically negotiated at the industry-region level, there is substantial coordination in bargaining behavior across regions. Representatives of a national union confederation or umbrella employer organization are usually involved in guiding negotiations in a pilot region, and other regions then often imitate the agreement reached in the pilot region, deviating to match local conditions.

The collective bargaining structure allows for flexible firm- or establishment-level bargaining in a few circumstances. First, some (typically very large) individual employers negotiate separate firm level agreements with the relevant union (*Firmentarifverträge* and *Haustarifverträge/Werkstarifverträge*). For example, *RAFI GmbH & Co. KG*, an electronics manufacturer of human-machine interface technology, concluded a 2020 agreement with the relevant union (*IG Metall*) which binds *RAFI* to the conditions of the pertinent industry-region-level agreements, including the one described above, and specifies several additional provisions for *RAFI* employees, including bonus payments and sabbaticals (Wochenblatt-Online 2020). As this example illustrates, the main function of firm-level bargaining agreements is to bind large, productive firms to *even higher* standards than those stipulated in industry-level agreements. (Of course, firms can also voluntarily pay above the wage floors without such formal agreements, as discussed above.)

⁸See *Entgeltrahmen-Tarifvertrag für Beschäftigte in der Metall- und Elektroindustrie in Baden-Württemberg* (Salary Framework Collective Bargaining Agreement for Employees in the Metal and Electronics Industry in Baden-Württemberg) (IG Metall Bezirk Baden-Württemberg 2021).

Second, “hardship” and “opening” clauses, which are included in some collective bargaining agreements, allow firms to negotiate agreements (*Betriebsvereinbarung*) with their workforce that involve deviations *below* the wage, hour, or amenity requirements imposed by the industry-region agreements.

Hardship clauses apply only to firms or establishments in severe financial distress, and negotiations under these clauses involve, for example, workers agreeing to delay the implementation of collectively bargained wage increases until the financial situation of the establishment improves, or agreeing to temporary wage and hour cuts to prevent layoffs (Rehder 2003; Seifert and Massa-Wirth 2005). Dubbed “employment pacts,” the latter kind of agreement likely played a role in preventing layoffs during the Great Recession of 2008–2009, although government-administered “short-time work” policies were the most important lever blunting the employment impacts of the crisis (Burda and Hunt 2011).

Meanwhile, *opening* clauses allow the negotiation of permanent employer-specific deviations from bargaining agreements. The criteria for using an opening clause vary; as one illustrative example, general opening clauses included in bargaining agreements in the metal industry since the mid-2000s allow companies to make deviations that “secure employment and create new jobs” or “[improve] competitiveness, innovative capability, and investment conditions” (Schulten and Bispinck 2018).

To use a hardship or opening clause, an employer typically negotiates an agreement with its works council (a shop-floor codetermination institution we cover in greater depth in the next section) and then submits the agreement to the sectoral union and employer association for approval.⁹

The relatively widespread use of hardship and opening clauses is unique to Germany and is one source of the unusual flexibility of the German system, on top of the state-level regional differentiation built into the bargaining system (compared to national sectoral bargaining as in, for example, Italy). In other countries, the scope of any such firm-level deviations from sectoral bargaining agreements is typically tightly circumscribed (as in France, for example), or they are simply less common (ETUI 2021).

Collective Bargaining Coverage

A bargaining agreement negotiated between a German union and an employer association covers all firms belonging to the signatory employer association. Covered firms typically extend coverage to all employees, regardless of union membership.¹⁰

⁹However, even employers who report not having a works council appear to use opening clauses with similar frequency to employers with a council (authors’ calculations using the IAB establishment panel; Bellmann et al. 2021). We do not know of research reconciling this empirical pattern with the conventional wisdom we describe above.

¹⁰The law in principle allows for discrimination by union membership (for example, BAG 4 AZR 64/08). The law does not prohibit firms from granting coverage to all employees (BAG 4 AZR 366/09), a route firms typically take to reduce individual employees’ incentives to unionize. An important exception is high-paid jobs, like managers or senior engineers with individually negotiated, above-collective-agreement salaries and working conditions (*Außertariflicher Arbeitsvertrag*); bargaining agreements often leave out these jobs.

Thus, although only 15 percent of German workers belong to a union (ETUI 2021), about 52 percent work in establishments covered by a collective bargaining agreement (Ellguth and Kohaut 2020). This stands in striking contrast to the United States, which had a private sector unionization rate of 6.1 percent in 2021 (Bureau of Labor Statistics 2022), and which has no capacity for bargaining coverage to substantially exceed unionization rates. This decoupling of coverage and union membership means German unions usually do not engage in employer-specific unionization drives as in the United States.

The German Labor Ministry can legislatively extend an agreement to cover *all* firms in the relevant industry-region (not just those belonging to the signatory employer association), if supported by a committee composed of union and employer representatives (*Tarifausschuss*). The threat of legislative extension was historically used to deter firms from exiting bargaining agreements en masse. These extensions were often supported by high-wage employers who wished to raise rivals' costs (Haucap, Pauly, and Wey 1999). However, extensions have become somewhat less common over time (Müller and Schulten 2019).

Why Do German Employers Opt into Coverage?

In contrast to the United States, where bargaining coverage is determined by whether *workers* choose to unionize, in Germany, individual *employers* opt in or out of coverage by industry-region collective bargaining agreements by joining or leaving the signatory employer association.¹¹ A growing number of employer associations even allow membership without participation in the relevant collective bargaining agreements (*OT-Mitgliedschaft*, see Behrens and Helfen 2016). This voluntary participation is a defining feature of the German model and the second contributor to its flexibility—and to the recent deterioration in bargaining coverage, as we discuss below. By comparison, in countries like France or Sweden, coverage is essentially mandatory and hence much higher, either due to frequent legislative extensions, as in France, or near-universal union membership and pressure to join agreements, as in Sweden (ETUI 2021).

Why do German employers ever join employer associations, thereby restricting their wage-setting discretion? First, membership in an association guarantees employers access to peaceful, coordinated, and widely legitimate mechanisms of dispute resolution through sectoral bargaining. In fact, active collective bargaining agreements preclude unions from strikes pertaining to any matters regulated in the pertinent collective bargaining agreement (*Friedenspflicht*).

Second, membership brings various side benefits, including access to strike insurance, legal advice, lobbying support, and professional networking.

Third, employers—especially large ones—may face pressure to join from workers and sectoral unions. Tesla's 2022 expansion into Germany provides an illustrative example.¹² During the first half of 2022, a new Tesla factory near Berlin has

¹¹ In the latter case, existing collective bargaining agreements remain active until expiry for incumbent workers (§3 (3) TVG).

¹² However, active exercises of union power like this are relatively uncommon, and Germany, unlike the United States, does not regularly see acrimonious conflicts over collective bargaining in major firms.

faced several complaints over its wage policies. In particular, wages are low relative to nearby manufacturing firms covered by sectoral agreements (Raymunt 2022), and Tesla has begun raising the wages offered to new hires in an effort to increase recruitment, which has introduced a wage gap between new recruits and identically qualified incumbents (*Der Spiegel* 2022). Discontented workers have appealed to the local *IG Metall* (manufacturing union) branch, which has begun publicly agitating for Tesla to enter collective negotiations. The union suspects Tesla may try to fend off the pressure by offering a local wage agreement to the plant’s works council (which, unlike the sectoral union, cannot call a strike during wage negotiations). *IG Metall* has also rebuffed Tesla’s instruction to all Tesla employees to return to work in-person, stating: “In Germany an employer cannot dictate the rules just as he likes . . . Whoever does not agree with such one-sided demands and wants to stand against them has the power of unions behind them” (as reported by Kay 2022).

Facts about German Bargaining Coverage

As of 2020, 27 percent of German establishments employing 52 percent of German workers are covered by a collective bargaining agreement, as shown in panel A of Figure 4 (Ellguth and Kohaut 2020). In particular, 43 percent of workers are covered by a sectoral agreement and 8 percent by firm-specific agreements. A further 20 percent of workers are employed by establishments reporting an “orientation” toward a bargaining agreement, meaning that they informally imitate the relevant agreement’s prescribed wages and working conditions, but retain discretion to deviate from those prescriptions. This leaves 29 percent of German workers who are not covered, explicitly or by imitation, by a bargaining agreement.

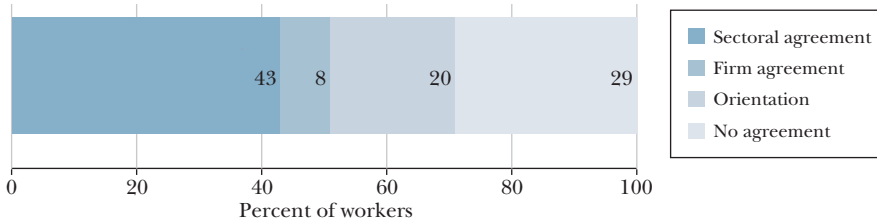
Formal bargaining coverage in Germany is hence fairly high—substantially exceeding American union coverage even at the latter’s mid-twentieth-century peak (Farber et al. 2021)—though significantly lower than coverage rates achieved through national bargaining or legislative extensions in countries like Sweden or France (as shown earlier in Figure 1).

Panel B of Figure 4 shows that coverage rates are strongly increasing in establishment size, reflecting the higher propensity of larger firms to join employer associations: only 10–20 percent of establishments with under 100 employees are covered by a collective bargaining agreement, compared to 50–60 percent of establishments with more than 500 employees. Larger firms are more likely to join employer associations for several reasons: they tend to be more productive and are hence more likely to pay high wages anyway, they may benefit more from the non-bargaining functions of employer associations (like lobbying), and unions tend to focus their pressure on large firms. Indeed, panel C of Figure 4 shows that coverage rates are also higher among more productive firms (by value added per worker), supporting the hypothesis that some firms join employer associations because they would have paid high wages anyway.

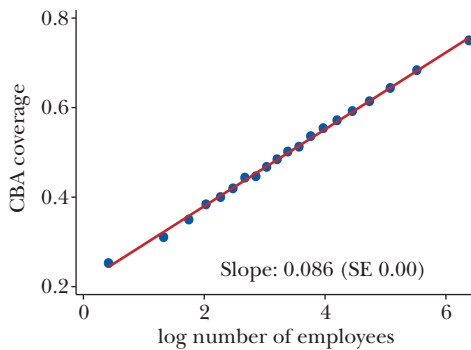
Erosion and Decentralization. The aforementioned statistics for 2020 reflect a steep drop in German bargaining coverage since the mid-1990s, when about 70 percent of German workers were covered, as shown in Figure 2. Employer association membership (and hence coverage by a collective bargaining agreement)

Figure 4
Collective Bargaining Coverage

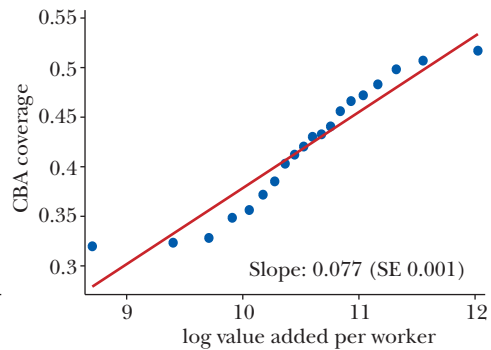
A: Bargaining coverage in 2020



B: Coverage by establishment size, 1993–2020



C: Coverage by productivity, 1993–2020



Source: Panel A based on Ellguth and Kohaut (2020). Panels B and C based on IAB Establishment Panel (Umkehrer 2017; Bellmann et al. 2021); authors’ own calculations.

Note: Panel A illustrates the share of German workers in 2020 covered by a sectoral bargaining agreement, a company-level bargaining agreement, or an informal orientation toward a collective bargaining agreement. Panels B and C plot establishment-level regressions of a dummy for being covered by a bargaining agreement on log number of employees (panel B) or log value added per worker (panel C), controlling for year dummies interacted with an East/West Germany dummy, and three-digit industry dummies.

has declined substantially, especially among small- and medium-sized firms (Hassel 1999; Bispinck and Schulten 2010; Kügler, Schönberg, and Schreiner 2018). Informal “orientation” toward collective bargaining agreements has grown over the same period (Oberfichtner and Schnabel 2018). Among covered firms, the proliferation of general “opening clauses” since the mid-2000s have allowed firms to negotiate deviations below the floors set by a collective bargaining agreement. Representative data on opening clauses is scant and at times conflicting. Based on a 2015 survey of works council members, 21 percent of establishments with at least 20 employees (and a works council) made use of opening clauses—for example, to pay wages below the level set by the collective bargaining agreement (Amlinger and Bispinck 2016)—and data from the IAB Establishment Panel show a substantially higher prevalence of opening clauses (Boeri et al. 2021). Finally, large and high-paying firms have increasingly evaded collective bargaining agreements for their lowest-paid workers by outsourcing jobs to uncovered supplier firms. For example, the proportion of retail establishments with a cleaning worker on their

own staff declined from 82 percent in 1975 to 20 percent in 2009 (Goldschmidt and Schmieder 2017), reflecting a surge in outsourcing of food, cleaning, security, and logistics jobs in the economy.

The sources of the erosion and decentralization of German collective bargaining since the 1990s remain an active area of debate; here, we name the main candidates.

First, increasing exposure to foreign competition and a prolonged recession in the 1990s drove many German firms—especially small ones—into financial distress and provoked a flight from employer associations to avoid wage floors of collective bargaining agreements (Silvia and Schroeder 2007; Dustmann et al. 2014; Raess 2014).

Second, the dissolution of the Soviet Union allowed employers to more credibly threaten outsourcing production to low-wage Eastern European neighbors (Dauth, Findeisen, and Suedekum 2014), giving employer associations greater bargaining power and allowing them to lobby for opening clauses and other flexibility provisions in collective bargaining agreements. Unions also began to embrace opening clauses and to negotiate firm-level “employment pacts” to protect against the growing threat of layoffs (Schulten and Bispinck 2018).

Third, beginning in the 1980s, small, unproductive employers could not keep up with the wage floors negotiated by employer associations dominated by large, highly productive firms, and hence exited the associations (Silvia 1997; Dustmann, Ludsteck, and Schönberg 2009).

While similar factors have been linked to the decline of collective bargaining coverage in the United States (Acemoglu, Aghion, and Violante 2001; Farber and Western 2001), the collapse of US unions was also partially driven by political and legislative changes (including growing employer hostility to unions, the rise of the shareholder value paradigm, and the spread of right-to-work laws). By contrast, in Germany, the basic consensus in favor of the industrial relations regime has remained solid since the 1950s. Moreover, although some of the changes since the 1990s were informally encouraged by the government (for example, through the Joint Initiative for More Jobs in Eastern Germany mentioned in footnote 7), they were not implemented through legislative reforms.

The decline in German collective bargaining coverage shows no sign of abating, as coverage has kept dropping in each new cohort of firms (Card, Heining, and Kline 2013). However, growing inequality and the expansion of a nascent low-wage sector unconstrained by collective bargaining agreements has also motivated pushback against the erosion and decentralization of collective wage-setting. First, in 2015, following a successful union campaign, the government introduced Germany’s first federal minimum wage (Dustmann et al. 2022). Second, as mentioned above, unions and employer associations lobbied successfully for a collective bargaining agreement “unity law” in 2015, in an attempt to arrest the gradual fragmentation of bargaining in specific sectors. Third, political parties have declared intentions to mandate broader coverage. For instance, legislative extensions of bargaining agreements are on the table (Soziale Politik für Dich 2017, 2021; Bundestagswahl 2021), and the 2021 *Gesundheitsversorgungsweiterentwicklungsgesetz* (Health Care Advancement Act) will restrict public payments to only those long-term care providers that pay wages compliant with collective agreements.

Evidence on the Effects of the German Sectoral Bargaining System

What are the effects of German wage-setting institutions on employment levels and the wage structure? While causal estimates of these effects are scarce, we review the existing evidence that speaks to this question.

Zooming out to the aggregate time series suggests that the erosion and decentralization of collective bargaining since the 1990s weakened an institution that had previously held up wages at the bottom, constrained wage inequality, and increased unemployment by restricting firm-level wage setting. Several patterns support this account. First, beginning in the 1990s, real wages have declined in the lower deciles of the German wage distribution (Dustmann, Ludsteck, and Schönberg 2009). Second, earnings inequality has risen dramatically, with about 25 percent of the increase driven by growing heterogeneity in pay across firms (Card, Heining, and Kline 2013).¹³ Third, the German economy experienced a remarkable resurgence beginning in the mid-2000s, with the unemployment rate dropping from about 10 percent to below 5 percent, potentially due to increased competitiveness of manufacturing exporters thanks to lower real wages at the bottom of the distribution (Dustmann et al. 2014).¹⁴

One inherent limitation of this time series perspective is the presence of other contemporaneous trends, like globalization and skill-biased technological change. (In fact, the erosion of collective bargaining may itself have been an outcome of these forces, as discussed in Acemoglu, Aghion, and Violante 2001.) Such time series narratives also tend to be quite flexible: in the 1950s–1980s, Germany’s strong performance was attributed to the bright side of sectoral bargaining (Silvia 1997), a narrative that flipped in the 1990s (Ochel 2005; Schulten and Bispinck 2018) and has been changing again following Germany’s success since the late 2000s.

Cross-sectional international comparisons paint a picture similar to the time-series narrative. As reproduced in Figure 5, a striking figure by Boeri et al. (2021) shows that the German system—thanks to non-mandatory employer participation, the regionalization of sectoral bargaining, and the spread of opening clauses—allows wages to vary according to regional productivity and hence maintains high employment rates everywhere, even in lower-productivity areas, particularly East Germany. By contrast, the Italian system—which imposes uniform wage floors across all regions with limited local wage adjustments—largely delinks wages from regional productivity and hence depresses employment in low-productivity regions, such as Southern Italy. Again, these results are consistent with claims that the more rigid twentieth-century German bargaining system compressed wages at the expense of elevated unemployment, and reforms to the bargaining system since the 1990s have resulted in greater wage dispersion but increased employment.

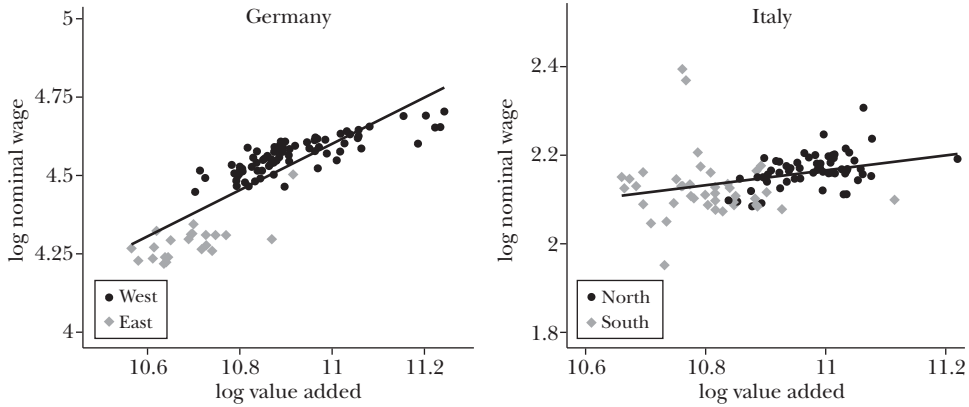
¹³Hirsch and Mueller (2020) provide evidence that this increase in dispersion of firm pay premia is partially explained by declining bargaining coverage.

¹⁴An important alternative hypothesis for this resurgence points to the Hartz reforms of the early 2000s. These reforms were the closest German analogue to the Reagan/Thatcher reforms of the 1980s. They cut the generosity of unemployment benefits and reformed active labor market policies (for discussion, see Krebs and Scheffel 2013; Price 2018; Hartung, Jung, and Kuhn 2018).

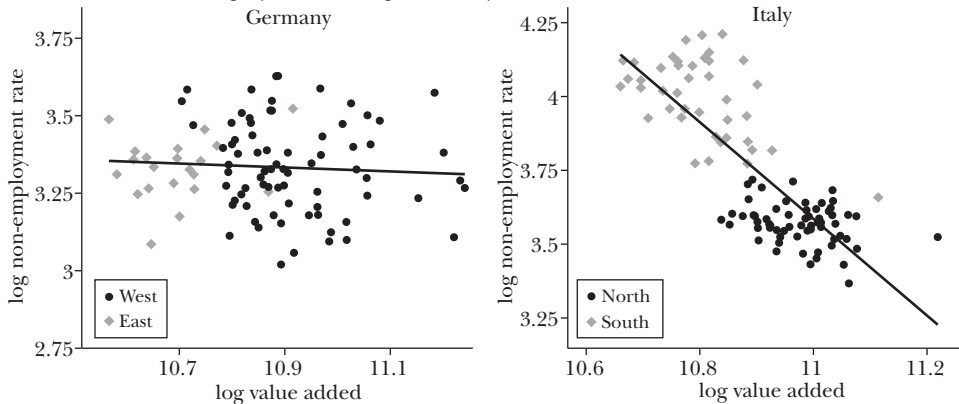
Figure 5

Collective Bargaining Flexibility in Germany and Italy

A: Province-level wages versus productivity



B: Province-level nonemployment versus productivity



Source: This figure reproduces Figures 4 and 6 of Boeri et al. (2021).

Note: Panels A and B show scatterplots (each dot representing a province) of mean log wages against mean log value added, separately for Germany and Italy. Panels C and D show province-level scatterplots of log nonemployment against mean log value added, again separately for Germany and Italy. The distinction between West/East Germany is analogous to the distinction between North/South Italy, in that the former region tends to be wealthier and more productive in each case. Data are from 2010.

Firm-level evidence also suggests that the contemporary collective bargaining system slightly raises mean wages in covered firms, compresses within-firm wage distributions, and raises the average proportion of rents shared with workers (while reducing firm-level wage-setting discretion at the margin). More specifically, *uncontrolled* cross-sectional comparisons of firms covered and uncovered by sectoral bargaining indicate 10–30 percent higher average wages in covered firms (Dustmann and Schönberg 2009; Addison et al. 2016). However, controlling for worker and firm characteristics reduces this premium to about 2 percent (Hirsch and Mueller 2020), with event studies of firms exiting and entering agreements

suggesting a 3–4 percent premium (Addison, Teixeira, Evers, and Bellmann 2014, 2016). Increases in profits or productivity are passed on to workers *less* so in covered firms (Gürtzgen 2009), but wages conditional on (static) rents are higher (Hirsch and Mueller 2020). Meanwhile, within-firm wage dispersion tends to be lower in covered firms (Dustmann and Schönberg 2009), which also invest more in apprenticeship training in line with theories of wage compression and training provision (as in Acemoglu and Pischke 1999).

As coverage is largely voluntary for firms in Germany, these firm-level comparisons need not only reflect the causal effect of coverage. Firms opting into collective agreements might pay high and compressed wages anyway. There is no existing source of identification for calculating the union wage premium in Germany mirroring the close union election regression discontinuity design in the United States (DiNardo and Lee 2004) or sharp policy variation as in Portugal (Hijzen and Martins 2020). More broadly, even an ideal firm-level experiment would leave open the question of equilibrium effects of sectoral bargaining through market spillovers or norms and expectations about pay, as suggested by the phenomenon of “orientation” to collective bargaining agreement wages by uncovered firms (see also Falk, Fehr, and Zehnder 2006; Western and Rosenfeld 2011).

Sectoral Bargaining and the Quality of Industrial Relations

The collective bargaining system also plausibly contributes to Germany’s remarkably harmonious industrial relations, which are built around the “social partnership” between union confederations and employer associations. It does so through two mechanisms.

First, Germany’s system of sectoral bargaining elevates zero-sum bargaining over the division of rents to the higher level of industry-region negotiations, in contrast to the adversarial firm-level bargaining system in the United States (Moene, Wallerstein, and Hoel 1992). When negotiations do take place at the firm level in Germany (as under opening clauses), these negotiations still occur in the shadow of the industry-region agreements, as evidenced by the frequent requirement to submit deviations to the sectoral bargaining parties for approval, and by the increasing number of firms informally “orienting” their pay policies to collective bargaining agreements.

Second, employers’ ability to opt in or out of collective bargaining coverage, and the decoupling of bargaining coverage from firm-level union membership, eliminates individual employers’ incentives to crack down on union activity in the firm.

Codetermination

The second pillar of German industrial relations is codetermination (*Mitbestimmung*), which refers to the legally mandated integration of workers into corporate governance and decision-making. German codetermination comes in two forms: representation on corporate boards, and works councils. In the first form, workers

elect representatives to company boards, thereby gaining a vote in major decisions and the appointment, supervision, and dismissal of top corporate management. Board representation is restricted to relatively large firms, and is mandatory in those firms. In the second form, workers elect establishment- and firm-level works councils tasked with participating in day-to-day managerial decision-making. Workers have a right to form works councils in all firms except the very smallest ones, so that this second form of codetermination is more widespread. Corporate governance under codetermination contrasts with the American system of corporate governance, where boards are composed exclusively of shareholder representatives and executives, and day-to-day decision-making is purely in the hands of managers.

In this section, we describe how codetermination operates, illustrate its interaction with industry-level bargaining, review evidence on its effects, and connect it to the overall trends of erosion and decentralization in the German model.

Board Representation

Germany was the first country in the world to implement wide-scale board-level codetermination, with legal provisions for board-level representation going back to the Weimar Republic (Winkler 1998). Following World War II, the institution in its modern form was introduced by the British occupiers, who imposed “parity” codetermination requirements (50–50 shareholder-worker board representation) on firms in the iron, coal, and steel sectors, with the goal of breaking up the power of industry leaders who had helped drive both World Wars. Lobbying campaigns by German unions later led to the extension of the institution (in a substantially weaker form) to all sectors by legislation passed in 1952 and 1976 (for more historical background, see Jäger, Noy, and Schoefer 2022a). Other European countries later followed suit; however, board-level codetermination remains uncommon internationally, with fewer than 20 countries featuring the institution today (Jäger, Noy, and Schoefer 2022b).

In general, German firms with more than 500 employees must have worker representatives on their supervisory boards, alongside the regular shareholder representatives. A firm’s *supervisory board* selects and oversees the firm’s *executive board*, which is composed of senior executives and is tasked with day-to-day management. The supervisory board also participates in major decisions, such as decisions about large investments or significant changes to company operations.

Minority, Quasi-Parity, and Parity Representation. There are three tiers of board-level codetermination requirements, applying to different groups of German firms (Jäger, Schoefer, and Heining 2021; ETUI 2021). First, under *minority representation*, firms with between 500 and 2,000 employees (and stock corporations incorporated before August 1994, regardless of size) must appoint worker representatives to 33 percent of the seats on their supervisory board. In these firms, the worker representatives are company employees directly elected by workers. Second, under *quasi-parity representation*, firms with more than 2,000 employees must appoint worker representatives to 50 percent of the seats on their supervisory board, though shareholder representatives receive the tie-breaking vote. In these firms, some worker representatives are elected company employees, others are external representatives

of the union covering the company's workforce, and at least one is chosen by senior managers as a representative of their interests as employees. Finally, there exists true *parity representation*, where 50 percent of the seats go to workers, and shareholder representatives do *not* receive a tie-breaking vote (instead, a neutral chair, appointed by majorities of both the shareholder and worker representatives, holds the deciding vote). However, parity representation is limited to firms with more than 1,000 employees in the iron, coal, and steel sectors, as a political relic of the post-World War II arrangements.

Quasi-parity and parity representation are unique to Germany and are the strongest forms of board-level codetermination in the world; all other countries with board-level codetermination laws have implemented minority representation. Apart from this, the German board-level codetermination system is virtually identical to the systems present in many other European countries (Jäger, Noy, and Schoefer 2022b).

Labor in the Boardroom. Worker representatives have the same rights and obligations as shareholder representatives, and they can discuss and vote on any matter that comes before the supervisory board. In this way, workers have a direct voice in major strategic decisions. For example, in interviews, worker representatives describe lobbying for more generous pension plans, alerting shareholder representatives to job security and task duplication issues following a merger or acquisition, providing input on the construction of new company buildings, and pushing back against a focus on maximizing short-run returns (Gold, Kluge, and Conchon 2010, pp. 74, 84, 85, 94). They also describe collaborating with works councils or union representatives, to coordinate messaging or to lobby for legislative changes (Gold, Kluge, and Conchon 2010, pp. 76, 96, 97). Like shareholder representatives, worker representatives have a fiduciary duty to the company (rather than to workers), which leads to occasional tensions (for example, Gold, Kluge, and Conchon 2010, pp. 76, 77, 84).

Anecdotally, the relationships between worker and shareholder representatives on supervisory boards are friendly and collaborative. Most German executives are broadly supportive of board-level codetermination laws (Paster 2012), with some evidence that minority codetermination is viewed more favorably and quasi-parity codetermination is more likely to be opposed (Stettes 2007). Shareholder representatives appreciate the insights into workers' preferences and company operations provided by worker representatives (Gold, Kluge, and Conchon 2010, p. 93). Votes on supervisory boards are usually unanimous (Gold, Kluge, and Conchon 2010). Since worker representatives on their own cannot outvote shareholder majorities and recognize the importance of maintaining friendly and cooperative relationships, they are usually acquiescent and recognize the limits of their influence (see, for instance, Gold, Kluge, and Conchon 2010, pp. 74, 82).

The Effects of Board-Level Codetermination. The available quasi-experimental evidence suggests limited causal effects of board-level worker representation on, for example, wage-setting or investment, perhaps consistent with the limited power held by worker representatives owing to their minority vote share (Jäger,

Schoefer, and Heining 2021). A large literature using cross-sectional comparisons or simple regression-discontinuity designs similarly finds mixed effects (Conchon 2011). Firms also do not appear to bunch below the relevant size thresholds to avoid codetermination requirements (Jäger, Noy, and Schoefer 2022b), providing revealed-preference evidence that the institution does not harm firm performance enough to lead firms to distort their size to evade it.

According to anecdotal reports, board-level representatives may complement unions' and works councils' activities—for example, by sharing information gained from board meetings. Board-level codetermination has also been hypothesized to contribute to the environment of cooperation and social partnership that characterizes German industrial relations (Thelen 2014)—more on this below.

Board-Level Codetermination and the Erosion of the German Model. Setting aside a reform in 1994 (Jäger, Schoefer, and Heining 2021), board-level codetermination laws have remained largely untouched since the last major reform in 1976. There are no reliable statistics on the coverage of the institution, so it is difficult to tell whether it has experienced a decline in coverage over the past 30 years analogous to the decline experienced by collective bargaining agreements and works councils. There is anecdotal evidence of increasing attempts by large firms to evade board-level codetermination requirements through legal restructuring or by simply ignoring the mandates, suggesting that the gradual erosion of the German model may be affecting board-level representation as well (Sick 2020).

Works Councils

Works councils—the second facet of German codetermination—are committees of representatives elected by workers who have rights to participate in a variety of managerial decisions. They typically are a form of lower-level, “shop-floor” codetermination that complements board-level codetermination, although firms with multiple works councils across establishments also have a firm-level works council (*Gesamtbetriebsrat*). German works councils possess broader and stronger co-decision-making rights compared to board-level representatives—who, as we have noted, lack formal power due to their minority share on boards—and compared to other European countries' often anemic shop-floor codetermination institutions (Jäger, Noy, and Schoefer 2022b). The German works council system dates back more than a century, to the Stinnes-Legien Agreement of 1918 and the Works Council Act of 1920.

German law gives workers in any establishment with at least five employees the *right* (but not a requirement) to form a works council. If a works council is set up, the number of representatives on the council scales with the establishment's size, ranging from one in establishments with 5–20 workers to 15 in establishments with 1,001–1,500 workers (ETUI 2021). There are quotas for gender representation on councils. Responsibilities also scale with establishment size. In larger establishments, the works council sets up various subsidiary committees: a health and safety committee (in establishments with more than 50 workers), an economic committee (more than 100 workers) that scrutinizes company financials and is consulted on related matters, and a works committee (more than 200 workers) that deals with

day-to-day managerial issues. Additionally, in these larger establishments, some works council members are allowed to perform their duties full-time.

Almost 40 percent of German workers are covered by a works council (Ellguth and Kohaut 2020). These tend to be at larger establishments. As Figure 2 shows, these coverage numbers represent a moderate decline since the early 1990s, when about 50 percent of workers were covered by a works council (more on this below).

Works Council Powers. Works councils have a spectrum of powers in various areas (ETUI 2021). At the weaker end, they have various information and consultation rights: a right to be kept informed about the company's financial situation and a right to be consulted about planned changes that might affect workers, including changes to work methods, training, and health and safety procedures—though the employer usually has no obligation to follow their advice. At the stronger end, works councils can veto transfers, dismissals, or appointments of employees if they can show that the employer has acted unfairly or violated an existing agreement. Employers can appeal to a labor court to override the veto. At the very strongest end, works councils have full co-decision-making rights regarding working hours, vacations, workplace monitoring, bonuses and payment schemes, redundancy payments, and workplace amenities. In these areas, decisions must be jointly reached and approved by the employer and the works council, with both sides having the power to initiate proposals. However, works councils cannot initiate strikes. Disagreements are adjudicated by a conciliation committee (consisting of worker and employer representatives and chaired by a neutral arbiter who holds the deciding vote). Works councils are also responsible for the increasingly important job of negotiating over firm-level deviations from the requirements of the collective bargaining agreements.

These powers make German works councils among the strongest shop-floor codetermination institutions in the world, along with Swedish and Norwegian firm-level union representatives. While many other countries have shop-floor codetermination institutions, these institutions tend to grant workers narrow information, consultation, and arbitration rights, in contrast to the sweeping co-decision-making powers held by German works councils (Jäger, Noy, and Schoefer 2022b).

Works Councils and Unions. Although works councils were originally conceived as local representatives of industry-level trade unions, German law now maintains a clear legal separation between the two institutions (dating back to reforms in the 1950s aimed at weakening unions, as discussed in Jäger, Noy, and Schoefer 2022a). However, in practice, works council members frequently occupy leadership positions in unions, and unions are closely involved in the procedures to set up works councils. Works council elections even frequently feature political-party-style union lists, and councils engage in membership drives for unions (Behrens 2009). Councils are additionally formally tasked with monitoring compliance with collective bargaining agreements and employment regulations (§80 Works Council Act) and engage in negotiations under opening clauses.

The Effects of Works Councils. A long empirical literature compares firms and establishments with and without works councils, with the common finding that works councils are associated with slightly higher wages and productivity and more

compressed wage distributions (Addison 2009; Jirjahn and Smith 2018; Adam 2019; Hirsch and Mueller 2020; Schnabel 2020). However, the voluntary nature of works council coverage, the low employment threshold for workers' right to demand one, and an absence of compelling natural experiments make causal inference difficult. In general, it is plausible that works councils are more directly impactful than board-level codetermination, given that councillors are allocated a variety of direct decision-making powers that board-level representatives lack and interact more often with workers (at the shop floor). But due to a lack of sharp and exogenous variation, the effects of works councils on worker and firm outcomes remain an open research question.

Works Councils and the Erosion of the German Model. Works councils have played a dual role in the changes to German industrial relations since the 1990s. On the one hand, works councils have facilitated the partial decentralization of collective bargaining to the firm level, specifically the utilization of opening clauses. The associated negotiations under opening clauses have blurred the boundaries between cooperative codetermination and adversarial bargaining, and shifted Germany somewhat closer to the Nordic model, where establishment-level union representatives hold both codetermination and bargaining rights.

On the other hand, works councils have themselves been victims of the decline in collective institutions over the past three decades, as Figure 2 shows. The decline in coverage has been concentrated in medium-sized firms and, perhaps surprisingly, appears evident in all sectors (Addison et al. 2017). The causes of the decline are not well understood; one hypothesis is that it is part of a generalized decline in worker mobilization and the power of unions, and an increased willingness by managers and employers to avoid collective worker institutions.

Codetermination and the Quality of Industrial Relations

A longstanding hypothesis holds that Germany's codetermination institutions are partially responsible for its unusually harmonious industrial relations and culture of "social partnership" (for discussion, see Thelen 1991). By providing systematic opportunities for cooperation and conversation between employers and workers at the firm level while adversarial bargaining is outsourced to the sectoral level, codetermination might provide the foundations for friendlier partnership between firms and workers (Freeman and Lazaar 1995). We do not know of compelling tests of this hypothesis. In cross-country event studies, Jäger, Noy, and Schoefer (2022b) find no evidence that codetermination reforms in European countries are associated with subsequent improvements in industrial relations, but their results have wide confidence intervals and only study incremental shifts in this single institution.

Conclusion

Overall, the contemporary German model shows that powerful unions, a relatively robust collective bargaining system, and involvement of workers in corporate decision-making are compatible with friendly and peaceful industrial relations and

with the avoidance of distortionary pitfalls traditionally thought to be associated with strong labor power. Several features of the model may underlie these outcomes: i) the outsourcing of most distributional conflicts to the industry-region (rather than firm) level; ii) the decoupling of bargaining coverage from workers' unionization status, which reduces employers' incentives to oppose unionization; and iii) the institutionalization of worker-management cooperation through codetermination. The result has been a long history of unusually harmonious industrial relations stretching back to the 1950s. Meanwhile, the (increasing) ease of nonparticipation in collective bargaining, the proliferation of opening clauses and other flexibility provisions, and the regionalization of bargaining mean that the contemporary German system seems much less likely to reduce employment, exclude potential labor market entrants, or slow down growth than sectoral bargaining systems in peer countries with more comprehensive and stricter coverage rules.

At the same time, the increasing flexibility of the German system means that Germany is no longer a poster child for strong sectoral bargaining. Bargaining coverage in Germany is middling, and decreasing. The flexibility to which Germany's strong macroeconomic performance is often attributed involves the omission of large segments of the labor market from bargaining coverage. Germany is now starting to face many of the challenges that its historically more rigid industrial relations system used to suppress: significant increases in earnings inequality, the spread of precarious work, and the gradual expansion of a low-wage sector that is now larger than the OECD average (though still 25 percent smaller than in the United States).

Frustration with these developments in Germany has led to the introduction of a more rigid national minimum wage and louder calls to strengthen both pillars of worker representation. The new, center-left government has proposed to extend collective bargaining coverage to more employers: for example, by formally extending more collective bargaining agreements and by making public procurement contingent on compliance with the relevant collective bargaining agreement (SPD, Gruene, and FDP 2021). Members of the governing coalition also plan to make it easier to prosecute employers who (illegally) oppose works council elections, to facilitate works councils for gig and platform workers, and to close loopholes that allow evasion of board-level codetermination (SPD, Gruene, and FDP 2021; *Handelsblatt* 2022).

The German model of industrial relations will continue to evolve as fault-lines that opened up in the 2000s continue to widen. The model will also shape and be shaped by new challenges. For instance, in response to the pandemic, collective bargaining agreements have started to include remote work provisions. "Crisis summits" between the bargaining partners and the government have discussed responses to issues like high inflation, an energy crisis precipitated by the Russian invasion of Ukraine, and gradual decarbonization of the economy (Kell 2022; *Deutsche Welle* 2022).

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