Institutions and Inequality in Liberalizing Markets: Explaining Different Trajectories of Institutional Change in Social Europe

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This paper examines cross-national differences in the development of sectoral collective bargaining in the European telecommunications industry following comparable changes in market regulations. We seek to explain why centralized, coordinated bargaining institutions were established in Austria and Sweden, both within incumbent telecommunications firms and at the sector level, while Germany and Denmark experienced decentralization and disorganization of bargaining at both levels. We argue that these outcomes were the result of differences in institutional loopholes that employers were able to exploit to avoid centralized bargaining and past union structures that influenced patterns of inter-union cooperation. These two explanatory factors were interrelated: the presence or absence of institutional loopholes affected the basis for cooperation between unions, while labor cooperation was an important power resource that unions could draw on to close emerging loopholes. Findings demonstrate the importance of sector-level political dynamics for the construction or erosion of solidaristic bargaining structures under pressure from market liberalization.

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The expansion of service jobs within European coordinated economies has been accompanied by growing inequality in pay and working conditions.¹ In the past, these economies were dominated by strong manufacturing unions that were able to distribute productivity gains to their members in core sectors, but also across workplaces with weaker collective bargaining institutions. As employment shifts to service industries characterized by low union density and volatile jobs, unions find it increasingly difficult to maintain encompassing bargaining arrangements. These developments are often connected to broader processes of economic globalization and European integration that are driving the liberalization of protective institutions and dualization between labor market insiders and outsiders.²

A large body of research investigates the political dynamics through which coordinating institutions are undermined or sustained in different European political economies undergoing liberalization. Scholars associated with the Varieties of Capitalism (VoC) tradition have argued that cross-national divergence is due to factors such as the role and size of the state,³ the degree of centralization in business associations,⁴ and the structure of electoral and party systems.⁵ These analyses concentrate overwhelmingly on the politics of coalition-building at the national level, with most studies reflecting the bias towards manufacturing typical of the VoC literature. Where service industry actors are included in these frameworks, they are typically either treated as peripheral groups or analyzed for their interactions with representatives of manufacturing employers or unions in peak associations.⁶

In this paper, we present an alternative industry-based approach to studying the causes of divergent patterns of institutional change and their labor market effects. Institutional change has been argued to occur through processes of 'drift' or 'conversion' as actors re-interpret institutions.⁷ Much of this reinterpretation takes place within specific industry and workplace settings, where actors negotiate over pay and the distribution of productivity gains. By neglecting heterogeneous sectoral developments, theorists may overestimate institutional stability and the distributional effects of formal policy changes. Understanding the political dynamics of institutional change at the micro- or meso-levels within national political economies is necessary for developing broader theories concerning sources of institutional change from below, evaluating weaknesses or pressure points in national models, and identifying the power resources that key actors draw on to pursue their distinctive interests.

We demonstrate the value of this approach by comparing trajectories of institutional change in national telecommunications industries, based on case studies in Austria, Denmark, Germany, and Sweden. Our analysis traces developments in sectoral and firm-level bargaining following market liberalization and the privatization of incumbent firms in the 1990s. Despite similarities in the challenges to established institutions, we observe different outcomes in the four countries. In Austria and Sweden, unions were able to maintain and extend encompassing collective bargaining institutions within the sector. In contrast, Germany and Denmark experienced decentralization and disorganization, resulting in growing inequality between industry segments as well as between and within incumbent firms. These trends were exacerbated by firms' restructuring strategies that reduced pay and conditions for formerly core workers.

This pattern of outcomes is surprising from the perspective of recent comparative research on political responses to liberalization, which would predict greater stability of solidaristic institutions in the macrocorporatist Scandinavian countries compared to the enterprise- or industry-corporatist Central European countries.⁸ We demonstrate that variation between the cases can be explained by two factors, rooted in historic differences in sectoral collective bargaining institutions. First, liberalization of the telecommunications industry in Germany and Denmark exposed exit routes from existing institutional arrangements – which we refer to as 'institutional loopholes' – that gave

employers significant opportunities to by-pass or undermine collective agreements. Equivalent loopholes were not available to firms in Austria and Sweden. Second, historic union structures in lead firms and at sector level in Sweden and Austria were more supportive of inter-union cooperation within the new telecommunications sector and across networked workplaces, while those in Denmark and Germany encouraged substantial inter-union competition. These factors were interrelated through positive or negative feedback loops. The presence of institutional loopholes further undermined the potential for union cooperation, whereas bargaining structures promoting union cooperation played a role in preventing the expansion of loopholes.

Our findings contribute to broader debates on the relationship between institutions, actor strategies, and changing patterns of labor market inequality. First, we demonstrate that the distinctive characteristics of sector-level industrial relations within a major service industry can lead to outcomes that are poorly predicted by the dominant theoretical frameworks in comparative political economy. This includes the VoC literature on national models of industrial relations⁹ as well as recent scholarship in this tradition focusing on the role of national-level coalitions in labor market reforms.¹⁰ An alternative body of research in industrial relations and the sociology of work has drawn attention to sub-national processes of institutional change,¹¹ including several studies focusing on the telecommunications industry.¹² However, findings from these studies are either broadly consistent with outcomes predicted by the literature on national models, or they reflect heterogeneous combinations of causal variables that are difficult to generalize. The context-specific character of these findings may be one reason why these scholars' critique of the macro-level focus of most comparative political economy scholarship has largely been ignored within the wider literature. Our research design, based on two sets of matched pair case studies in a rapidly liberalizing service industry, allows us to demonstrate that distinctive institutional legacies at the sector level can lead to surprising patterns of institutional change where a range of contextual factors are very similar.

Second, we map out the mechanisms at sector level that contributed to these different sub-national trajectories of institutional change. Past studies have argued that factors such as institutional loopholes, union density, and the strength of collective voice institutions influence employers' ability to differentiate pay and conditions across networked workplaces.¹³ We show that employers' restructuring strategies can not only affect patterns of inequality in the short term, but also have persistent effects on worker representatives' power resources as they seek to develop a coordinated response to these measures. Accordingly, the political capacity of employers to segment pay and working conditions and the power resources that unions are able to mobilize to contest these strategies are closely linked and mutually reinforcing. This suggests that it is necessary to analyze both together to explain different trajectories of institutional change.

The article is organized as follows. We first provide background on our four case studies and describe differences in the outcome we seek to explain: the degree of centralization and coordination in the collective bargaining institutions that were established in the telecommunications industries of each country between the late 1990s and 2010s. We then review past research that has sought to explain variation in trajectories of institutional change in coordinated economies. In the third section, we return to the cases to demonstrate the parallel ways in which prior institutions influenced trajectories of institutional change. The final section summarizes our findings, and discusses the broader contribution to debates in the literature. Our analysis is based on company publications and 76 semi-structured interviews with union representatives and employers at sectoral and at workplace level, which we conducted by phone and face-to-face in the four countries between 2010 and 2015.

Common challenges and divergent outcomes in national telecommunications industries

Prior to the 1990s, state-owned Public Telecommunications Operators (PTOs) held monopolies or near-monopolies on telecommunications services in the four countries included in our study. These included Telekom Austria (later A1) in Austria; Televerket (later Telia and then TeliaSonera) in Sweden; Deutsche Telekom in Germany; and Tele Danmark (later TDC) in Denmark. Competition in national telecommunications markets was encouraged by the development of competing technologies, such as mobile networks and the internet, and by regulatory changes aimed at giving competitors access to the incumbent monopolists' fixed networks. National governments ended monopolies on telecommunications network infrastructure and voice telephony by 1998 to comply with an EU directive. Denmark, Austria, and Germany introduced similar legislation complying with this directive between 1996 and 1998, while Sweden liberalized telecommunications significantly earlier, between the mid-1980s and early 1990s.

Following liberalization, each incumbent's share of the fixed-line market in its respective country declined, although with some variation: TDC's market share was the most stable, remaining at close to 70% of the fixed-line traffic volume between the late 1990s and 2013, while A1 experienced the steepest reduction, falling from over 80% to 46% in the same period.¹⁴ This decline was exacerbated by shrinking revenues in this segment in all four companies, which they compensated for somewhat by retaining high (40-70%) market share in expanding mobile and broadband market segments.¹⁵ The incumbents also shifted from public or state ownership to partial or full private ownership over this period. TDC is fully privatized; TeliaSonera has the highest state ownership (51%); while A1 and Deutsche Telekom have close to 30% state ownership.

Incumbent firms subsequently came under pressure in the late 1990s and 2000s to reduce costs and develop new strategies to attract and retain customers. Downsizing and outsourcing led to massive shedding of staff, with reductions of between 35% (Deutsche Telekom) and 73% (TeliaSonera) between 2000 and 2010.¹⁶ At the same time, each company continues to represent close to half of telecommunications employment in their respective countries, or up to 70% in the case of Deutsche Telekom.¹⁷

These developments challenged established collective bargaining structures. Traditionally, one or several major unions were responsible for negotiating with the incumbent firm. Moreover, in the countries compared here, there were special bargaining arrangements for civil servants, who made up a majority of the incumbents' workforce prior to privatization. As new competitors entered the industry, a collective bargaining structure that had been based on a combination of public sector bargaining, legislated pay and conditions for civil servants, and enterprise-level agreements had to be adjusted to a more diverse private sector industry, made up of a growing proportion of small firms and foreign-owned competitors. These new entrants often had diverging interests from the incumbent firms, which sought to protect their markets and limit competition. Often by extension, the new competitors' employees were reluctant to join the union or unions representing the incumbent's workforce. These new companies also tended to employ younger workers who were less likely to be union members than the older, civil servant-dominated workforce of the incumbent firms.

In addition, incumbent firms established or purchased subsidiaries in order to expand into new market segments. These subsidiaries typically had lower union density and newer collective bargaining institutions, leading to increasingly heterogeneous union representation across each corporate group. Unions thus faced the challenges of maintaining and extending the generous terms

and conditions of historic collective agreements with incumbent firms, while establishing new institutions for an increasingly diverse and competitive telecommunications sector.

Despite these similarities, collective bargaining institutions developed along two distinct trajectories. Centralized and coordinated collective agreements were established in Austria and Sweden, while bargaining became increasingly decentralized and disorganized in Germany and Denmark.

In Austria and Sweden, encompassing collective bargaining institutions were extended to new entrants and across each incumbent's major subsidiaries. In Austria, the Union of Post and Telecommunications Employees (GPF) continued to represent employees at A1, while the Union of Salaried Employees (GPA) organized employees in new market entrants. In December 1997, both unions concluded the first collective agreement with the Austrian Federal Economic Chamber (WKÖ), which established terms and conditions for new private telecommunications companies. This agreement did not cover A1, which negotiated a separate collective agreement with the GPF. However, the two agreements were closely coordinated, with nearly identical pay scales for similar jobs. Together, these two collective agreements covered 100% of firms and of the workforce in the telecommunications industry. In addition, within A1 bargaining remained centralized, with terms and conditions automatically extended to subsidiaries.

In Sweden, TeliaSonera's workforce was represented by two major unions, the Swedish Union for Service and Communications Employees (SEKO) and Unionen, as well as several smaller unions in the academics and professionals confederation SACO. These unions also represented employees at new competitors. Both unions signed an agreement with TeliaSonera at the corporate group level and a sectoral agreement with the employers association Almega IT Employers. Within TeliaSonera, local agreements on pay were closely coordinated and could not derogate from the terms of the sectoral and corporate group agreements. According to union officials, the sectoral agreement covered 86% of firms and 88% of employees in the industry in 2011. Moreover, telecommunications firms that were not members of the employers association typically applied the same basic terms and conditions from the collective agreement.

In contrast, collective bargaining in Germany and Denmark became increasingly decentralized and disorganized at industry level and across incumbent firms' subsidiaries. In Germany, Deutsche Telekom's employees were initially represented by the German Postal Union (DPG). The DPG merged with four other service unions in 2001 to form ver.di, which continued to negotiate collective agreements with Deutsche Telekom. By 2010, there were an estimated 80 separate agreements across the corporate group that were poorly coordinated, with widely varying wage scales and terms and conditions at subsidiary level. In addition, a sectoral collective agreement was never established for the German telecommunications industry. Some new industry entrants negotiated company-level agreements with other unions, including IG Metall, Transnet, ötv, and IG BCE. However, most small firms (and some larger firms) in the new industry did not negotiate collective agreements. In 2009, an estimated 80 percent of the telecommunications workforce was covered by company-level collective agreements.¹⁸ However, these agreements varied substantially, with no coordination of pay scales or terms and conditions across firms.

In Denmark, TDC's employees were represented by the Telecommunications Association (TKF) union, which merged with the Danish Metalworkers (Dansk Metal) in 2003. Employees in most new telecommunications entrants were represented by the Union of Commercial and Clerical Employees (HK), although some smaller unions were also present in the industry. There were two competing employers' associations for the telecommunications industry, the Confederation of Danish Industries (DI) and the Danish Chamber of Commerce (DE), both of which negotiated separate sectoral agreements. TDC was a member of DI, and applied the basic terms of its white-

collar agreement. However, Dansk Metal negotiated separate company-level agreements at the TDC corporate group level and across its subsidiaries, which were allowed to derogate from levels in the company's historic, core business units. Union officials estimated that collective agreements covered around 60 percent of the telecommunications workforce in 2012. Many small firms did not negotiate agreements, and pay and terms and conditions differed substantially at company level.

A related concern is the degree to which collective bargaining institutions were encompassing for employees in externalized jobs. Telecommunications firms in all countries shifted some proportion of their work during the late 1990s and 2000s to subcontractors or staffing agencies, which could be covered by different (or no) collective bargaining arrangements. Services such as call center, technician, and IT support jobs were most affected by subcontracting. In Austria and in Sweden, sectoral collective agreements setting base pay and conditions covered a large proportion of staffing agencies and subcontractors. Additionally, company agreements at A1 and TeliaSonera ensured that agency workers had similar pay and conditions to in-house staff. In Germany and Denmark, a majority of subcontractors handling work in the telecommunications sector were not covered by collective agreements, or were covered by weaker company agreements with much lower pay and conditions compared to incumbent firms. Deutsche Telekom did have company agreements requiring equal pay and conditions for agency workers. However, agency workers at TDC were paid according to a separate sectoral agreement and some company-level agreements negotiated by the larger agencies, which allowed lower pay relative to permanent staff.¹⁹

The encompassing collective bargaining institutions in Austria and Sweden led to more homogenous and compressed wages in the telecommunications sector and between similar internal and subcontracted jobs compared to those in Germany and Denmark. This appears to have been coupled with a higher degree of wage restraint in the incumbent firms in Austria and Sweden. For example, pay for call center agents at TDC ranged from a starting salary of 1,589/month at a dedicated call center subsidiary to a top salary of 2,607/month for employees serving large business customers, with a range of salaries in different business units serving distinct customer segments.²⁰ Field technicians' salaries were similarly spread between 2,343 and 2,804/month. In addition, both TDC's competitors and subcontractors in Denmark paid significantly lower rates in both areas of work.

In contrast, at TeliaSonera, call center agents received between $1,350 \in$ and $1,792 \in$ /month across customer segments, with no systematic differentiation between subsidiaries or for employees serving different customer segments.²¹ This basic pay structure was applied across similar jobs in the telecommunications sector. All technicians working for TeliaSonera were employed by subcontractors, but salaries had not changed following outsourcing, and ranged from $1,542 \in$ to $2,333 \in$ /month. We observed a similar pattern of variation in the German and Austrian cases, with more compressed wages in Austria across job and industry segments, coupled with more significant wage restraint at the upper end compared to Germany.

Explaining outcomes

To explain these contrasting patterns of outcomes across the cases, we employ a research design that combines 'most-similar' and 'most-different' systems comparisons. This permits controlling for some explanatory factors, while identifying systematic patterns across cases. Most-similar systems designs compare very similar cases that differ with respect to only few explanatory factors but have contrasting outcomes. In brief, most-similar comparison 'assumes that the factors that are common to relatively homogeneous countries are irrelevant in explaining their differences.²² Conversely, most-different systems designs compare different cases with a similar outcome but with few explanatory variables in common.²³ The logic of most-different system designs is that those factors that differ between countries cannot explain a common outcome. Here, we examine two sets of 'most similar' cases that show different outcomes within each case pair.

Our study is distinctive in examining matched company- and sector-level cases nested within countries. Some possible explanations of diverging outcomes at company- and sector-level – such as the timing and substance of market liberalization, levels of competition, or pressures to cut costs and increase 'shareholder value' – are similar across all cases. Those factors that do differ appear to cross-cut outcomes. For example, Sweden liberalized its telecommunications market earliest and TeliaSonera downsized most significantly, outsourcing all of its technician services; while A1 in Austria experienced the most dramatic drop in market share of the companies. We might expect these factors to be associated with strong cost-based pressures to restructure work and aggressive union avoidance strategies by employers. Nonetheless, both firms established encompassing collective bargaining institutions in the period after liberalization. In another example, the Austrian and German telecommunications markets liberalized around the same time, while A1 and Deutsche Telekom had similar proportions of state ownership, as well as a similarly steep decline in average return on assets between the late 1990s and mid-2000s. However, these two cases have diverging outcomes, with enhanced coordination in Austria and increasing disorganization in Germany.

Our case selection also allows us to hold constant national-level variables that the comparative political economy literature argues explain variation in both actor strategies and trajectories of institutional change. All four countries are considered coordinated market economies (CME), characterized by strong unions and corporatist industrial relations traditions. The VoC literature assumes that private service industries in coordinated economies benefitted from positive spillover effects of encompassing bargaining institutions in manufacturing.²⁴ The dualism literature similarly points to the dependence of service industries on the strategies of manufacturing employers and unions, but argues that these strategies have led to increased deregulation of service industries and jobs as core workers have sought to preserve their privileged status in the face of increased pressures to reduce labor costs.²⁵ Conversely, our case studies show distinctive dynamics of bargaining centralization or disorganization within a large service industry across major coordinated economies. In Austria and Sweden, new, encompassing institutions were built that established similar pay structures and working conditions across telecommunications firms and between core and peripheral worker groups.

Other possible sources of variation could be systematic differences in models of coordination within CMEs, with a contrast typically drawn between 'macrocorporatist' Scandinavian and 'industry-' or 'enterprise-corporatist' Central European countries.²⁶ Previous research explained diverging trajectories of institutional change in these two groups of countries through differences in the role of peak-level service industry actors in national coalitions, and in the role of the state as employer in different welfare state models.²⁷ However, the outcomes we observe cross-cut these models: the telecommunications sectors in both Denmark and Germany experienced similar trends of bargaining disorganization, associated with growing inequality and downward pressure on pay and conditions for the employees of incumbent firms.

Thus, the different patterns of institutional disintegration or institution building that we observe at sector-level do not easily map onto the analytical categories developed in the VoC literature to explain different patterns of institutional change at the national level. To explain these differences, it is necessary to compare the changing political dynamics of collective bargaining within each country's telecommunications industry. The process of constructing new sectoral institutions in this

industry was influenced by national labor market and industrial relations institutions. However, they took distinctive forms as employers and unions sought to adapt to the changing competitive conditions brought about by market liberalization and to build new bargaining structures that extended negotiated protections to new firms and worker groups.

Our argument has two components. The first concerns the role of employer strategies in driving the liberalization of protective institutions. Past research has shown that employer strategies can take the form of open challenges to collective bargaining arrangements, or result in more gradual changes as employers 'test new behavior inside of old institutions.'²⁸ Manufacturing employers in Germany have been found to publicly lobby for bargaining decentralization and to leave the employers' association.²⁹ Other studies have examined the actions of employers in undermining bargaining institutions from within. For example, Shire et al. found that call centers in several European countries used specific forms of temporary contracts to avoid sectoral collective agreements, contributing to the fragmentation of bargaining coverage.³⁰ Similarly, Jaehrling and Méhaut argue that German and French service employers exploited distinctive gaps in labor market regulations and union enforcement to pursue similar segmentation strategies.³¹ This line of analysis focuses on the agency of employers in by-passing institutional constraints in context-specific ways, with some studies arguing that these actions themselves can have disorganizing effects on formal institutions.³² It provides fewer insights into the conditions under which more encompassing institutions can be built or maintained, with unions typically assumed to be largely passive or ineffective.

This leads to the second component of our argument, which addresses organized labor's capacity to extend encompassing and coordinated collective bargaining institutions. This capacity has broadly been found to be influenced by past collective bargaining structures. One set of arguments holds that the degree of centralization in unions' decision-making and bargaining structures affects outcomes via their effect on union strategy. First, unions with more centralized decision-making structures have been shown to adopt strategies that incorporate more diverse worker interests.³³ For instance, Oliver argues that the centralized, confederal structure of the Italian labor movement contributes to keeping the wage structure more compressed than in the Swedish system, where there are separate blue-collar and white-collar union confederations.³⁴ Second, more centralized (or centrally coordinated) bargaining structures – such as those in Scandinavian countries – have been associated with solidaristic bargaining strategies, in which higher skilled worker groups accept wage levelling in the interests of increasing the pay of groups with weaker labor market power. A related observation is that decentralization of these institutions may lead unions to focus on the particularistic interests of their core members. Where labor has strong bargaining rights at company-level but sectoral bargaining is weak(ening), scholars have found high segmentation of wages and working conditions. This trend is often attributed to the 'enterprise egoism' of companylevel representatives who enter a coalition of interests with the company management at the expense of the peripheral, low wage workforce.35

These analyses share the view that union capacity to extend bargaining is largely a question of their strategies, which, in turn, are rooted in past bargaining or union structures. However, this leads to a circular argument: encompassing bargaining structures lead to more inclusive strategies, which in turn lead to more encompassing bargaining outcomes. This raises the question of why differences in centralization and coordination develop, and under what conditions these are undermined or sustained.

It is here that the connection to arguments concerning employer strategies is useful. Research has shown that employers use restructuring measures such as subsidiary creation or outsourcing in order to avoid institutional protections and to decentralize bargaining. Unions' capacity to maintain or establish encompassing bargaining depends not only on their willingness to represent the interests of diverse worker groups, but also on their success in mobilizing heterogeneous forms of bargaining power to block or reverse these employer strategies. One form of bargaining power is based on state support, through extending collective agreements at sector level, permitting various forms of industrial action (such as sympathy strikes), and maintaining legislated protections in firms and workplaces where unions are weaker.³⁶ However, countervailing power also depends on unions' success in cooperating with each other to counter employer strategies that play different groups of workers, or unions representing these groups, off of one another.³⁷ An important feature of union and bargaining structures is thus not only how they affect union strategies toward different groups of core and peripheral workers, but also the extent to which these structures promote inter-union cooperation. This cooperation is an important power resource for sustaining or extending encompassing collective agreements. A related implication concerns the relative power resources employers have as they seek to reduce costs in the face of union resistance. Employers are more likely to succeed in differentiating pay and conditions through strategies relying on institutional 'escape and avoidance' whenever labor is less unified.

This discussion suggests that it is useful to examine how prior institutions affect both employers' capacity to undermine or escape collective bargaining, and unions' capacity to develop coordinated strategies aimed at enforcing and extending collective bargaining institutions. Our research setting permits analyzing how and why these factors changed over time, as well as the interaction between them, in an industry where bargaining structures changed quickly.

Austria and Sweden: the 'virtuous circle' of few loopholes and labor cooperation

In Austria and Sweden, encompassing collective bargaining institutions were established both at sectoral level and at corporate group level within incumbent firms. This was possible due to prior institutions that limited employers' ability to exit agreements or decentralize bargaining and that created a strong platform for inter-union cooperation. In each case, we can observe a positive feedback loop between these two factors: encompassing institutions provided a platform for labor cooperation, which in turn enabled unions to maintain more encompassing and solidaristic bargaining structures in the face of ongoing pressure for decentralization.

Austria. Austria is distinctive among our cases in having legal extension of collective agreements via mandatory membership in the Austrian Federal Economic Chamber (WKÖ). This mechanism was crucial to the establishment of a sectoral bargaining structure following liberalization. Initially, several different sections within the WKÖ had responsibility for distinct segments of the industry. However, these were reorganized into a telecommunications section by the late 2000s. The section negotiated a sectoral agreement with the incumbent's union GPF and the service union GPA. Unusual in Austria, this agreement did not cover Telekom Austria/A1, which continued to negotiate a separate agreement with the GPF under the terms of legislation that transformed the incumbent into a private-law company.³⁸ Still, these two collective agreements were closely coordinated and established a nearly identical pay structure for similar job categories.

This high degree of coordination was possible because of strong union cooperation based on a clear division of responsibility. As new competitors entered the market, the GPA initially competed with the Commerce and Transport Union (GHTV), as both unions attempted to organize and represent employees at new competitor firms. After lobbying the works councils of these firms, the GPA succeeded in establishing itself as the major union responsible for the sector. Traxler attributes the GPA's success to its stronger 'bargaining capacities' as the largest member of the central confederation (ÖGB) that had become a major 'pattern setter' in collective bargaining across a range of industries.³⁹ Meanwhile, the GPF confined its activities to A1.

The combination of encompassing collective bargaining and inter-union cooperation also constrained opportunities for employers to externalize work. Within A1, agency workers were widely used to introduce greater flexibility in hiring and firing, as the permanent workforce enjoyed strong job security due to the large number of civil servants. However, agency employees were covered by equal pay terms in line with national law and collective bargaining by the GPA. Many services that telecommunications firms subcontracted were in GPA represented industries, which also ensured their coverage through existing bargaining structures. For example, call center subcontractors were incorporated into the 'miscellaneous business services' agreement in the late 1990s. This established a parallel structure of wage increases across networked sectors in line with productivity growth.⁴⁰

This collective bargaining system was not free of loopholes. Service employers in Austria began to make extensive use of a special category of freelance contracts to introduce more varied terms and conditions. Employees on these contracts were considered self-employed and thus not covered by collective agreements.⁴¹ The GPA placed a high priority on closing this loophole, and had the capacity to do so as it was the major union responsible for 'nearly all private sector white-collar employees.⁴² The union set up the interest grouping work@flex in the early 2000s to represent freelance workers and other employees on 'atypical' contracts. This group had some success in campaigning for extending legislated employment protections to these workers. In particular, the GPA worked together with the regional health insurers, which began to investigate freelance contracts from 2005. These contracts were often exposed as false self-employed contracts, used as a tactic to evade social security contributions and minimum terms and conditions as defined in the relevant collective agreement. After the health insurers conducted nation-wide audits of these contracts, employers had to make retroactive social security contributions and wage payments. Following this, the union managed to persuade the WKÖ to give up its resistance to legislative change and in 2008 to amend the national insurance law, such that most freelance contracts would be converted into standard employment contracts. This contributed to a radical decline in use of freelance contracts. In call centers, according to one interviewee, 'they practically don't exist anymore. We have done away with this almost entirely. There may still be 10% where that still exists, but as soon as we find them, we'll change that.' (Interview, GPA official, 27/01/2015).

Encompassing bargaining and strong inter-union cooperation were also resources for the GPF in preserving centralized collective bargaining at A1. The GPF and GPA negotiated a provision in both A1's company agreement and the telecommunications sectoral agreements that extended their terms automatically to subsidiaries and spun-off subcontractors. This made it difficult to introduce varied terms and conditions across the production chain:

We wanted to prevent a flight from the collective agreement, where there would be different agreements. And so, in the first or second collective agreement [...] we negotiated a passage that the GPF also adopted, which says that collective agreements are also valid for companies that have been spun off and that provide services chiefly for the parent company. (Interview, GPA works councilor, 23/06/2014).⁴³

It is unclear whether the passage would withstand legal challenges.⁴⁴ However, at the time of writing employers had not attempted to contest it. This has been an important institutional obstacle to the segmentation of pay and working conditions within large firms.

Sweden

In Sweden, there is no formal mechanism for mandatory extension of collective agreements. However, unions have traditionally been able to rely on different sources of bargaining power to encourage employers to comply with agreements, including high membership rates and recourse to strikes and secondary boycotts. The structure of collective bargaining that developed in the Swedish telecommunications industry allowed unions to use these traditional resources to establish encompassing sectoral bargaining with high coverage.

In 1996, the incumbent Televerket became a member of the Swedish Employers Association (SAF), which established a new industry association for telecommunications and IT that later became Almega IT and Telecom Industries. This was one of seven service industry employers associations working together in the 'Almega' organization. Thus, both the incumbent and competitor firms were organized in one major association, which negotiated one encompassing sectoral agreement. Major service subcontractors working for telecommunications firms were also either members of Almega IT and Telecom or members of employers' associations affiliated to the larger Almega organization.

Similar to Austria, encompassing bargaining in the Swedish telecommunications and subcontractor industries both supported and was supported by a union structure that promoted inter-union cooperation at both levels. The union structure appears much more fragmented than in the Austrian case, as several major confederations were present both within TeliaSonera and at sector level. TeliaSonera employees were members of SEKO in the blue-collar LO confederation, Unionen in the white-collar TCO confederation, and several small unions in the academics and professionals confederation SACO.⁴⁵ However, each union formally represented different occupational groups, limiting competition for members. The unions were also accustomed to working together, as there had been considerable continuity in collective bargaining and union structures from the period prior to liberalization, with the major unions including their traditional occupational constituencies in new firms and industries. The presence of one sectoral agreement for telecommunications and a central agreement with TeliaSonera at the corporate group level provided a strong platform for cooperation.

These unions also represented employees in other industries providing subcontracting services to the major telecommunications firms. IT and technician service subcontractors were incorporated into the IT and telecoms agreement. Call center subcontractors were members of an Almega association negotiating an agreement with Unionen. This structure allowed close coordination in negotiations of sectoral agreements, with pattern bargaining focused on similar jobs. For example, negotiation over the telecommunications agreement occurred in the spring, and Unionen would then seek to achieve similar gains (with a high degree of success) in its negotiations with call center subcontractors later in the year. Most staffing agencies were also covered by collective agreements, and union representatives in telecommunications firms typically negotiated local agreements requiring identical terms and conditions for these workers. Union representatives observed that shop stewards at major telecommunications and call center firms were able to demand that all agency workers be covered by collective agreements.

Union representatives estimated that the agreement with Almega IT and Telecom covered 88% of the telecommunications workforce. Other employers typically applied the terms of the agreement – which included minimum pay rates for employee groups – to both attract employees and to avoid public scrutiny and conflict with the unions. This also gave employers an incentive to either join the employers association, or to negotiate company-level agreements with the major unions applying similar terms. Union officials noted that the threat of strikes served to maintain high bargaining coverage in sectors with weaker union presence, such as call center subcontractors. This, in turn, increased the reluctance of large firms to contract with firms that did not adhere to agreements.

The bigger the call centers become... they are as well demanding that they have to have something that is going to make the peace so there won't be a strike. If the larger companies are going to start outsourcing to a call center and the call center starts up and they don't have a collective agreement, it's a gamble for the company. (Interview, Unionen representatives, 14/02/14)

Unionen helped to organize a large strike in 2013, in a call center subcontractor that had refused to negotiate a collective agreement. Although the center was closed and its workers laid off, the campaign was viewed as a success by the union, gaining wide media attention and the intervention of the Swedish Minister of Industry and Trade. This subsequently became an example for other firms that might be tempted to avoid collective bargaining.

Similar to Austria, the combination of centralized and coordinated bargaining and strong interunion cooperation were important resources that the unions were able to use to preserve terms and conditions across subsidiaries within TeliaSonera. Collective agreements remained centralized at the corporate group level, with some local flexibility to distribute bonuses and agreed pay increases. These agreements did not permit the company to alter pay and conditions of employees who were moved to subsidiaries, or to introduce systematic differences in subsidiaries. In addition, when workplaces were sold or spun off, the terms of collective agreements were typically extended, while the union responsible for the spun-off employees remained unchanged. For example, between 2001 and 2007, TeliaSonera subcontracted all of its technician services and a range of business services – representing close to 11,000 jobs – via spin-offs of formerly internal subsidiaries. However, employees continued to be represented by the same union, and maintained the same salary and basic employment terms and conditions following the transfer, as they did not shift to a new sectoral agreement. Employees moved to staffing agencies were also paid the same salary as colleagues doing similar work.

The Austrian and Swedish cases thus show similar outcomes, which can be traced to similar dynamics of collective bargaining despite very different sectoral bargaining and union structures. In both countries, encompassing bargaining was built using distinctive political resources: the system of mandatory membership in the federal chambers in Austria and the presence of centralized and encompassing employers' associations and union structures in Sweden. These encompassing collective bargaining systems were largely extended to related subcontracted or externalized jobs and workplaces, and to the major subsidiaries of incumbent firms, over the period after liberalization. This was underpinned in both cases by strong inter-union cooperation: although several major unions represented telecommunications employees in each country, these unions developed a relatively clear division of responsibility and coordinated their negotiations of company- or sector-level agreements. This cooperation, in turn, was crucial to sustaining encompassing institutions in the face of the restructuring strategies of employers aimed at externalizing and differentiating employment contracts across firms and workplaces.

Germany and Denmark: the vicious circle of expanding loopholes and interunion conflict

In sharp contrast, Germany and Denmark experienced bargaining decentralization and disorganization within the incumbent firm, across telecommunications firms, and across internal and externalized jobs in the sector. Liberalization exposed a series of institutional loopholes that did not exist in similar form in the Austrian and Swedish cases, allowing employers to by-pass collective bargaining at sectoral level and decentralize bargaining at company and subsidiary level.

These trends were exacerbated by fragmented union structures that inhibited unions from cooperating to build more encompassing, coordinated institutions.

Germany

Austria and Germany share many similarities in their industrial relations systems and the structure of collective bargaining. In contrast to the Nordic cases, union membership in both countries is low at the national and sectoral level, particularly outside of large, core firms. However, unlike Austria, Germany lacks a straightforward mechanism for extending collective bargaining to more poorly organized firms and workplaces. According to the Collective Agreement Act of 1949, the Ministry of Labor can only extend collective agreements when the extension is applied by at least one bargaining party; bargaining coverage is at least 50% of the workers in the sector concerned; and the extension is in the public interest and supported by a special collective bargaining committee..

These constitute high hurdles, and have contributed to a fragmented, largely firm-level system of collective agreements in 'new' sectors like telecommunications. Germany is distinctive among our cases in lacking any sectoral bargaining structure for telecommunications or related subcontracting industries. The absence of a sectoral collective agreement or mechanisms to extend the terms of company-level agreements meant that many competitor firms were able to avoid collective bargaining altogether – particularly small service re-sellers and internet service providers, but also some larger firms. For example, the major wireless competitors E-plus and Telefónica/O2 established works councils, but union membership was low, union affiliation of the works councilors was fragmented, and there was no progress toward an agreement. Bargaining coverage was much lower in subcontractors performing work for Deutsche Telekom and its competitors. Only one major call center subcontractor, Walter Services, negotiated a company-level agreement with ver.di. However, starting pay was close to half the level for call center workers at Deutsche Telekom.⁴⁶

Bargaining disorganization both encouraged and was exacerbated by inter-union competition. As described above, Austrian unions had a clear division of labor and jointly established a coordinated bargaining structure. In contrast, in Germany several industry-based unions negotiated companylevel agreements with Deutsche Telekom's newer competitors, with little or no coordination of terms and conditions at sector level. Many of these competitors were originally established as subsidiaries of larger firms based in the public, metalworking, chemical, and energy sectors – and thus historically had agreements with, e.g. Transnet, ötv, IG Metall, and IG BCE. The constant reorganization of these firms intensified conflict among unions seeking to defend or expand their representation domains.

The major unions negotiated a formal agreement in 2000 that divided up responsibility for telecommunications and IT companies; however, this did not prevent conflict. For example, ver.di had agreed that the mobile phone company D2 Mannesmann Mobilfunk fell under IG Metall's jurisdiction, as it was a subsidiary of a metal industry firm. After the British company Vodafone took over Mannesmann, ver.di representatives argued that they should be responsible for the new company. In another example, Deutsche Telekom established a strategic partnership with Nokia Siemens Networks that led to the transfer of 1,600 technicians in 2008. In this case IG Metall had agreements with Nokia, leading to some uncertainty about whether the service union or the metal union should have responsibility for this group.

As the major service industry union in an industry-corporatist industrial relations system, ver.di can be compared to the GPA in Austria. Like the GPA, it represented workers across a range of service industries, including several connected through subcontracting relationships. However, unlike the GPA, ver.di included the members and union representatives from the incumbent firm, Deutsche Telekom, which in Austria remained in the union GPF. Ver.di experienced legitimacy problems as it sought to establish itself as broadly representative of telecommunications workers because most of its membership was at Deutsche Telekom. In addition, different service industries were represented by departments that competed for resources within the union. Ver.di initiated several cross-department campaigns to organize across increasingly networked service industries in the period following the merger that formed the conglomerate union. However, many of these were abandoned in the face of resource scarcity and intra-union competition.⁴⁷

The most dramatic effect of this fragmented bargaining structure was to open up large differences in pay and conditions between Deutsche Telekom employees and those performing similar jobs at its competitors and its subcontractors. This encouraged a further expansion of subcontracting, as management could gain substantial labor cost savings by moving work to firms with weak or no collective bargaining institutions. In some cases, this was accomplished through spin-offs. For example, between 2006 and 2008, Deutsche Telekom transferred 12 call center locations, representing around 1,800 employees, to the subcontractors Walter Services and Arvato. As described above, Walter Services had a collective agreement with ver.di, but in a different department responsible for 'miscellaneous services' at a lower level; while Arvato had no collective agreement. The transferred employees saw their pay cut by around a third as their existing agreements expired.

In another example, Deutsche Telekom spun off its training centers to a hotel chain. This led to the transfer of employees to a new collective agreement, again, in a different department within ver.di, with lower pay and conditions:

It is the same as in other cases: as long as they are Telekom employees, they are at a relatively higher standard. But if you look at the industry branch 'Hotels and restaurants', pay is a lot lower there. (Interview, ver.di official, 14/8/2008)

The lack of encompassing bargaining also had effects on collective bargaining coordination within Deutsche Telekom. The high union wage premium enjoyed by internal employees was used by management to argue (successfully) for a series of concessions aimed at bringing pay and conditions for certain groups of service employees closer to market levels.⁴⁸ Unlike in Austria, there was no rule requiring subsidiaries to adhere to central collective agreements. Works councils at Deutsche Telekom's subsidiaries had traditionally enjoyed a great deal of autonomy, and had developed a structure of separate (if coordinated) agreements in the 1990s.⁴⁹ This was later exploited to further differentiate pay and conditions. Deutsche Telekom established several new service subsidiaries for technician and call center services in the mid- to late-2000s, which involved negotiating new, less favorable company-level agreements.

Denmark

Unlike Germany, Denmark developed sectoral bargaining institutions in the telecommunications and related subcontractor industries. Similar to Sweden, these collective agreements were not automatically extended, relying instead on voluntary compliance by employers. Overall, Denmark has maintained moderately high bargaining coverage, often attributed to common features of Scandinavian countries: high union density, recourse to sympathy strikes, and strong employer norms of voluntary compliance.⁵⁰ However, several peculiarities of how collective bargaining institutions developed in telecommunications and subcontracted services, as well as in the incumbent firm Tele Danmark/TDC, created a range of institutional loopholes that employers exploited to decentralize bargaining and avoid collective agreements.

First, unlike in Sweden, no unified employers association with clear responsibility for the

telecommunications industry developed in Denmark. Tele Danmark joined the Confederation of Danish Industries (DI) in the mid-1990s, and applied the DI white collar agreement. However, a competing association, the Danish Chamber of Commerce (DE), formed out of the merger of two major service industry confederations in 2007 and negotiated a separate white collar agreement. Major telecommunications employers were typically members of one or both associations, but could choose which agreement to apply. Union officials observed that this led to some degree of shopping around by employers.

A second peculiarity of collective bargaining in Denmark's service industries was a historic agreement stating that when employers were members of associations negotiating white-collar agreements, it was necessary for unions to document that 50% of the workforce were union members before they were able to apply the collective agreement to that employer. Unions could not strike or picket service employers who were members of the major employers' associations until they passed this membership threshold. Recruiting members above the 50% threshold was often challenging due to Denmark's weak legislated and negotiated employment protections. Union officials observed that employers engaged in illegal labor practices in service firms, such as firing union activists or not renewing their contracts to undermine union organizing. However, a HK official stated that the union can get a conviction only "if the employer is stupid enough to write down on a note: 'I am firing you because you joined the union.'" (Interview, HK official, 26/4/12).

The challenges to bargaining coordination from fragmented, decentralized bargaining structures on the employers' side was exacerbated by a high degree of inter-union competition. Prior to liberalization, Tele Danmark's employees were represented by TKF, a small enterprise union based in the former monopolist. In 2003, TKF merged with the metalworkers union, Dansk Metal. Primary responsibility for the telecommunications industry was taken over by the Union of Commercial and Clerical Employees (HK), the major white-collar union. Both Dansk Metal and HK were members of the union confederation LO, and adhered to an agreement whereby all companies in which TDC had over 50% ownership were the responsibility of Dansk Metal, while other telecommunications and IT companies were the responsibility of HK.

Thus, similar to Germany and Austria, the incumbent's historic union (Dansk Metal) was primarily responsible for the incumbent firm, with other unions negotiating with its major competitors. An HR Manager described how this history influenced labor-management relations at TDC:

Actually, I think our unions are very [...] dualistic in a way that they're extremely loyal to TDC; extremely loyal. But you also have to keep in mind that they are unions directed only at TDC. [....] So they have their life and everything in TDC. They can't be cool in the same sense and say: 'this shitty company, I'll direct my work to somebody else, union wise'. So they are part of the TDC, so they also fight for TDC. (Interview, TDC HR manager HQs, 23/4/12)

Similar to Austria, and different from Germany, there was a clear division of responsibility between Dansk Metal in the incumbent firm and HK, which represented the workforce of new entrants. However, unlike in Austria, union cooperation remained weak. This can partly be attributed to the more fragmented collective bargaining structure in Denmark, which led to large differences between conditions in TDC's core business units, and those in newer firms and subcontractors that fell under weaker agreements or did not apply collective agreements.

TDC was able to exploit these differences to introduce a widely varying structure of pay and conditions across similar groups of employees. TDC diversified within Denmark by acquiring flexible start-up companies in different segments and continuing to operate them as independent subsidiaries. While responsibility for their workforce was shifted to Dansk Metal, the subsidiaries

often maintained lower pay and conditions than those in core business units. For example, TDC purchased the subcontractor Call Center Europe in the early 2000s and retained the terms of its previous agreement with HK. According to this agreement, the typical salary of a call center agent was almost 10% lower than at TDC and the wage structure was more compressed, as the highest salary level at the subsidiary was lower than at TDC. TDC also acquired a number of smaller service providers, which it operated as 'no-frills' brands. These competed to some extent with the TDC brand, but with a focus on lower price market segments. Most did not have collective agreements prior to being purchased by TDC, and continued to have low union membership and little involvement of Dansk Metal.

Inequality between similar jobs within TDC and between TDC and its competitors gave the incumbent firm a stronger argument for aligning its pay and conditions with those in the poorly regulated external market. Similar to Deutsche Telekom, TDC management sought to use the large gap in labor costs between the core workforce and both subcontractors and TDC's own service subsidiaries to convince union representatives to negotiate concessions. These were particularly targeted at call centers, where union membership density was lowest. In 2012, Dansk Metal agreed to a more flexible working time model and reduced terms for new workers in exchange for a two-year commitment not to outsource these jobs. Then in 2014, management demanded further concessions – and when the union did not agree, the company transferred half of its call center workforce to the multinational subcontractor Sitel, which negotiated a company-level agreement with HK. As at Deutsche Telekom, this would result in a substantial reduction in pay and employment terms and conditions when workers were shifted onto HK's agreement after 2016.

Large differences in collective agreements generated conflicts between unions as TDC outsourced work. For example, between 2003 and 2008, TDC outsourced around 1,000 IT employees to Computer Sciences Corporation (CSC), a US-based subcontractor specializing in IT and business process outsourcing. Transferred employees remained under Dansk Metal agreements for two years, but were then moved to the 'lower value' white collar agreement with the DE employers association, negotiated by HK. A Dansk Metal official observed that this had contributed to tensions between the unions:

We tried to negotiate with the union who should take them over [HK], and ask them if they would allow us to renew their agreement, because that would be a stronger position for the workers... But they were so interested in getting those 1,000 members, so it didn't work to the benefit of the workers in my opinion... We tried everything, but they were not interested. (Interview, Dansk Metal official, 19/8/11)

The origin of this lower value agreement lies in the linked challenges presented by competing agreements and a high degree of inter-union competition. In 2011, CSC decided to join the DE employer's association and thus shift employees from a collective agreement with the small IT union PROSA to a less favorable agreement for the IT industry negotiated with HK. PROSA challenged this in the labor courts and organized a series of strikes. However, because PROSA was not a member of the LO union confederation, it was not able to get support from other LO unions for sympathy strikes or actions. In addition, HK's sectoral agreement had legal priority over PROSA's company-level agreement. In the end, CSC moved to the DE sectoral agreement, allowing it to reduce pay and conditions for its workforce, which came to include TDC's outsourced IT services.

This example illustrates how union competition was exacerbated in the Danish telecommunications industry by the presence of multiple collective agreements with widely varying terms. While several unions were also present in the Swedish case, the structure of agreements was more

coherent, and the organization of these unions by occupation ensured that employees could remain within one union (and under its agreements) despite being shifted between employers.

Thus, in Germany and Denmark, employers had more opportunities and higher incentives to switch between agreements or to escape collective bargaining altogether by externalizing work; while a coordinated union response was undermined by significant inter-union competition. It is striking that such similar patterns of institutional disorganization can be observed in these two cases, despite large differences in their industrial relations systems. While the details of each case vary, both experienced growing inequality and concession bargaining resulting from employer actions to exploit institutional loopholes and union structures that inhibited unions from cooperating to close those loopholes.

Discussion and conclusions

In the above comparison, we have sought to establish why national telecommunications industries followed different trajectories of institutional change in four coordinated European economies. We have emphasized two major structural factors that influenced outcomes. First, differences in institutional loopholes affected employers' ability to escape agreements or differentiate pay and conditions for similar employee groups. Austria and Sweden shared stronger legal or institutional mechanisms that facilitated the extension of bargaining to subsidiaries and new industry entrants. In Germany and Denmark, mechanisms to extend bargaining were substantially weaker due to pre-existing institutional loopholes. Liberalization and privatization increased employer opportunities to exploit these loopholes to renegotiate or avoid collective agreements.

Second, historic collective bargaining structures influenced developing patterns of inter-union cooperation or competition. In Austria and Sweden, inter-union cooperation was favored by a clear division of responsibility and the difficulty of moving work between different unions' representation domains. In Germany and Denmark, inter-union competition was exacerbated by a bargaining structure in which enterprise agreements dominated and firms could easily move work between different collective agreements with different unions or competing departments within a conglomerate union.

These two factors were connected in positive or negative feedback loops: prior loopholes exacerbated inter-union competition; while inter-union cooperation was necessary to develop coordinated strategies needed to close emerging loopholes. The presence of a strong and united labor front in Austria and Sweden prevented employers from exiting encompassing agreements, while inter-union competition in Germany and Denmark further undermined the possibility of developing new coordination or extension mechanisms.

Our findings demonstrate the analytical strength of a research design based on matched pairs of companies and sectors nested within countries for explaining diverging trajectories of institutional change. The recent VoC-inspired literature on institutional change in CMEs has focused overwhelmingly on the politics of coalition building at the national level.⁵¹ This has led scholars to predict the relative stability of 'macrocorporatist' Scandinavian coordinating institutions relative to those in 'industry-' or 'enterprise-corporatist' Central European countries. We show that national level institutions can be poor predictors of outcomes at sector level. Patterns of institutional change in the telecommunications industry were influenced to some extent by national bargaining structures and legislation. However, they took distinctive forms due to the unfolding political dynamics of collective bargaining at the sectoral and firm levels.

We further argue that industry-based matched case comparison produces distinctive insights on why institutional change follows trajectories deviating from the expectations of the VoC literature. Past research has shown that employers' segmentation strategies such as subcontracting and outsourcing can undermine encompassing sectoral agreements and exacerbate worker-to-worker competition.⁵² Our argument and findings go further, showing that employers' segmentation strategies are both related to and can affect unions' capacity to cooperate to enforce and extend collective bargaining institutions: the strategies of employers and unions are thus not only closely linked but also mutually reinforcing. Historic sectoral institutions affected the trajectory of institutional change in two ways. First, they gave employers different opportunities to escape existing bargaining structures and to further fragment them. Second, they impaired or supported labor's ability to develop a coordinated response to these strategies.

An industry-based research focus also gives insights into the conditions under which social solidarity can be constructed or maintained. In her recent analysis of the different trajectories of change between liberal, Scandinavian, and continental political economies, Thelen argues that the resilience of national institutions associated with solidaristic social outcomes depends on employer coordination, a highly organized and united labor front, state support, and the 'ongoing mobilization of support coalitions.⁵³ However, these structural preconditions are necessarily built through the actions of actors at multiple levels within a society. In our case studies, the presence of legal extension mechanisms, a clear division of responsibility among unions, and high union membership constituted contingent and shifting power resources for achieving encompassing bargaining arrangements. These took a different form in each country as employers and unions sought to variously exploit or close off loopholes permitting escape from these arrangements.

The political dynamics we observe are specific to the telecommunications industry, and thus we would not expect identical outcomes in other sectors in these countries. For example, a recent study in the waste sector of Denmark and Austria shows opposite patterns to those described here, with Danish unions more successfully cooperating to establish encompassing institutions and close emerging loopholes compared to those in Austria.⁵⁴ We have identified common mechanisms that can be used to analyze contingent, industry-level trajectories of institutional change. Findings suggest that expanding institutional disorganization will be most likely where major employers are able to exploit gaps in regulation to escape or decentralize bargaining; and where sectoral bargaining structures encourage inter-union competition. Together, these factors undermine labor's relative power resources, creating a vicious cycle of intensifying worker-to-worker competition and declining institutional coordination that worker representatives find difficult to reverse.

Critics may argue that industry developments have marginal importance, with more consequential action occurring at the national level. To counter this argument, it is worth returning to our case study that is most surprising from the perspective of this literature: Denmark. A number of studies have praised the Danish model, widely seen as perhaps the last successful case of social democracy.⁵⁵ However, other recent literature describes cracks in this model, presenting evidence of growing inequality and union avoidance.⁵⁶ Our findings suggest that these cracks may be indicative of more systematic weaknesses in a national system that rests on a fragile balance of power between labor and management within large industries and at major employers within those industries. Collective bargaining institutions in Denmark's growing service industries have substantial loopholes that employers are willing and able to exploit, resulting in the opening up of further gaps in regulation. If the dynamics we observe continue, this could pose serious challenges to a system based on voluntary adherence to increasingly unequal collective agreements. Strengthening or sustaining cooperation between unions at sectoral and national level may be essential to both close these gaps and prevent their further expansion.

⁸ Thelen. Varieties of Liberalization.

⁹ Peter A. Hall and David Soskice, eds., Varieties of Capitalism: The Institutional Foundations of Comparative

Advantage (Oxford: Oxford University Press, 2001). ¹⁰ Thelen, *Varieties of Liberalization*.

¹¹ Barbara Bechter, Bernd Brandl, and Guglielmo Meardi, "Sectors or Countries? Typologies and Levels of Analysis in Comparative Industrial Relations," European Journal of Industrial Relations 18, no. 3 (2012): 185-202. Paul Marginson, Keith Sisson, and James Arrowsmith, "Between Decentralization and Europeanization: Sectoral Bargaining in Four Countries and Two Sectors," European Journal of Industrial Relations 9, no. 2 (2003): 163-187; Harry C. Katz and Owen Darbishire, Converging Divergences. Worldwide Changes in Employment Systems (Ithaca/London: Cornell University Press, 2000).

¹² Virginia Doellgast, Hiroatsu Nohara, and Robert Tchobanian, "Institutional Change and the Restructuring of Service Work in the French and German Telecommunication Industry," European Journal of Industrial Relations 15, no. 4 (2009): 373-394; Hajo Holst, "The Political Economy of Trade Union Strategies in Austria and Germany: The Case of Call Centres," European Journal of Industrial Relations 14, no. 1 (2008): 25-45; Andreas Kornelakis (2015) "Inclusion or Dualization? The Political Economy of Employment Relations in Italian and Greek Telecommunications". British Journal of Industrial Relations, early view.; Mari Sako and Gregory Jackson, "Strategy Meets Institutions: The Transformation of Management-Labor Relations at Deutsche Telekom and NTT," Industrial and Labor Relations Review 59, no. 3 (2006): 347-366.

¹ Werner Eichhorst and Paul Marx, "Whatever Works: Dualisation and the Service Economy in Bismarckian Welfare States." in The Age of Dualization: The Changing Face of Inequality in Deindustrialising Societies, eds Emmenegger, P., Hausermann, S., Palier, B, and Seeleib-Kaiser, M. (Oxford: Oxford University Press, 2012): 73-99; Bruno Palier and Kathleen Thelen, "Institutionalizing Dualism: Complementarities and Change in France and Germany," Politics & Society 38, no. 1 (2010): 119-148; Kathleen Thelen, Varieties of Liberalization and the New Politics of Social Solidarity (Cambridge: Cambridge University Press, 2014). See also Manuel Castells, The Information Age: Economy, Society and Culture. Vol. 1, the Rise of the Network Society (Oxford: Blackwell, 1996).

² Torben Iversen and David Soskice, "Distribution and Redistribution: The Shadow of the Nineteenth Century," World Politics 61, no. 03 (2009): 438-486; Cathie J. Martin and Kathleen Thelen, "The State and Coordinated Capitalism: Contributions of the Public Sector to Social Solidarity in Postindustrial Societies," World Politics 60, no. 1 (2007): 1-36.

³ Martin and Thelen, "The State and Coordinated Capitalism".

⁴ Cathie J. Martin and Duane Swank, The Political Construction of Business Interests: Coordination, Growth, and Equality (Cambridge: Cambridge University Press, 2012).

⁵ Iversen and Soskice, "Distribution and Redistribution."

⁶ Palier and Thelen, "Institutionalizing Dualism"; Thelen, Varieties of Liberalization.

⁷ Ines Wagner, "Rule Enactment in a Pan-European Labour Market: Transnational Posted Work in the German Construction Sector," British Journal of Industrial Relations (2014) early online view; Wolfgang Streeck and Kathleen Thelen, "Introduction: Institutional Change in Advanced Political Economies," in Beyond Continuity: Institutional Change in Advanced Political Economies, eds Streeck, W. and Thelen, K. (New York: Oxford University Press, 2005): 1-39; James Mahoney and Kathleen Thelen, "A Theory of Gradual Institutional Change," in Explaining Institutional Change: Ambiguity, Agency, and Power, eds. Mahoney, J. and Thelen, K. (Cambridge: Cambridge University Press, 2010): 1-37.

¹³ Karen Jaehrling and Philippe Méhaut, "Varieties of Institutional Avoidance': Employers' Strategies in Low-Waged Service Sector Occupations in France and Germany," Socio-Economic Review 11, no.4 (2013): 687-710; Virginia Doellgast, Rosemary Batt, and Ole H. Sørensen, "Introduction: Institutional Change and Labour Market Segmentation

in European Call Centres," European Journal of Industrial Relations 15, no. 4 (2009): 349-371.

¹⁴ European Commission, Financial indicators, fixed and mobile telephony, broadcasting and bundled services indicators - 2014 (xls), http://ec.europa.eu/digital-agenda/en/connectivity (accessed 25 June 2015).

¹⁵ Ibid.; European Commission, Broadband indicators - January 2015 (xls), <http://ec.europa.eu/digital-

agenda/en/connectivity> (accessed 28 June 2015).

¹⁶ Calculations based on company reports.

¹⁷ Total telecommunications employment by country from: OECD, OECD Communications Outlook 2013,

<http://www.keepeek.com/Digital-Asset-Management/oecd/science-and-technology/oecd-communications-outlook-2013_comms_outlook-2013-en#page92> (accessed 16 August 2015).

¹⁸ The major telecommunications companies with collective agreements in 2009 included the Deutsche Telekom group (131,300), Vodafone/Arcor (13,000 employees), and O2 (5,100) which adds up to around 150,000 employees covered by an agreement – out of an estimated 187,000 employees in the industry.

¹⁹ Virginia Doellgast, Katja Sarmiento-Mirwaldt and Chiara Benassi, "Contesting firm boundaries: Institutions, cost structures and the politics of externalization", *ILR Review* (forthcoming).

²⁰ Danish hourly wage rates are calculated in Euros based on purchasing power parity (PPP) for actual individual consumption in 2011 (1 Euro = 10.9 Danish Kroner). OECD, *Purchasing Power Parities for GDP and related indicators*, http://stats.oecd.org/Index.aspx?DataSetCode=PPPGDP (accessed 16 August 2015).

²¹ Ibid. Swedish hourly wage rates are calculated in Euros based on purchasing power parity (PPP) for actual individual consumption in 2011 (1 Euro = 12 Swedish Kroner).

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²³ Adam Przeworski and Henry Teune, *The Logic of Comparative Social Inquiry* (New York: John Wiley, 1970); Landman, *Issues and Methods in Comparative Politics*.

²⁴ Peter A. Hall and David Soskice, eds., *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* (Oxford: Oxford University Press, 2001).

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²⁷ Martin and Thelen, "The State and Coordinated Capitalism"; Thelen, *Varieties of Liberalization*.

²⁸ Gerhard Bosch, Ken Mayhew, and Jerome Gautié, "Industrial Relations, Legal Regulations and Wage Setting," in *Low Wage in the Wealthy Work*, eds. Gautié, J. and Schmitt, J. (New York: Russel Sage Publications, 2010): 91-146; Hajo Holst, "Commodifying Institutions': Vertical Disintegration and Institutional Change in German Labour Relations," *Work, Employment & Society* 28, no. 1 (2014): 3-20.

²⁹ Daniel Kinderman, "Pressure from without, subversion from within: the two-pronged German employer offensive", *Comparative Euroepan Politics* 3, no. 4 (2005): 432-463.

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³⁷ On the importance of unions extending their organization to encompass a changing 'product market' see John R. Commons, "American Shoemakers, 1648-1895. A Sketch of Industrial Evolution," *Quarterly Journal of Economics* 24, no. 1 (1909): 39-84.

³⁸ Franz Traxler Industrial Relations in Posts and Telecommunications (2002),,
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³⁹ Ibid.

⁴⁰ Holst, "The Political Economy of Trade Union Strategies," p.36

⁴¹ A survey in the mid-2000s showed that 34% of the call center workforce in Austria was on these contracts. See Shire et al., "Collective Bargaining and Temporary Contracts", p.445

⁴² Susanne Pernicka, "The Evolution of Union Politics for Atypical Employees: A Comparison between German and Austrian Trade Unions in the Private Service Sector," Economic and Industrial Democracy 26, no. 2 (2005): 205-228, p.215. ⁴³ See also Holst, "The Political Economy of Trade Union Strategies."

⁴⁴ Günther Löschnigg, Nora Melzer-Azodanloo, Sabine Ogriseg (eds.) Telekom-KV 2013, Reihe kommentierte Kollektivverträge 3 (Vienna: Verlag ÖGB, 2013).

⁴⁵ A union representative from SEKO estimated that Unionen had 2,700 members; SEKO had 2,003 members; and SACO unions had 1,600-1,700 members in 2012 - out of a workforce of 9,000 (Interview, SEKO official, 27 June 2012). According to these calculations, union density would be just over 70%.

⁴⁶ Doellgast et al. "Contesting firm boundaries".

⁴⁷ Ursula Holtgrewe and Virginia Doellgast, "A Service Union's Innovation Dilemma: Limitations on Creative Action in German Industrial Relations," Work, Employment & Society 26, no. 2 (2012): 314-330.

⁴⁸ Virginia Doellgast, Disintegrating Democracy at Work: Unions and the Future of Good Jobs in the Service Economy (Ithaca: Cornell University Press, 2012).

⁴⁹ Sako and Jackson, "Strategy Meets Institutions"...

⁵⁰ Bjorn Gustavsen, "Work Organization and `the Scandinavian Model'," Economic and Industrial Democracy 28, no. 4 (2007): 650-671: Kristine Nergaard, "Social Democratic Capitalism," in The Oxford Handbook of Employment Relations: Comparative Employment Systems, eds. Wilkinson, A. Wood, G. and Deeg, R. (Oxford: Oxford University Press, 2014): 292-315.

⁵¹ See also Christel Lane and Geoffrey T Wood *Capitalist diversity and diversity within capitalism*. Oxon/New York: Routledge (2012); Erik O. Wright and Rachel Dwyer, "The Patterns of Job Expansion in the USA: A Comparison of the 1960s and the 1990s,". Socio-Economic Review 1, no. 3 (2006): 289-325.

⁵² Doellgast and Greer, "Vertical Disintegration and the Disorganization of German Industrial Relations." Chiara Benassi and Lisa Dorigatti "Straight to the Core - Explaining Union responses to the Casualisation of Work: The IG Metall Campaign for Agency Workers", British Journal of Industrial Relations 53, no. 3 (2015).

⁵³ Thelen, Varieties of Liberalization. p. 203-7

⁵⁴ Ursula Holtgrewe, Vasil Kirov and Ole Sorensen Converging Trends, Path-dependent actors: The Quality of Work and Industrial Relations in Three European Countries. (2015) unpublished manuscript.

⁵⁵ Ton Wilthagen and Frank Tros, "The Concept of 'Flexicurity': A New Approach to Regulating Employment and Labour Markets," Transfer: European Review of Labour and Research 10, no. 2 (2004): 166-186; Per Kongshøj Madsen, "The Danish Model of ,Flexicurity: Experiences and Lessons," Transfer: European Review of Labour and Research 10, no. 2 (2004): 187-207.

⁵⁶ Henning Jørgensen and Michaela Schulze, "Leaving the Nordic Path? The Changing Role of Danish Trade Unions in the Welfare Reform Process," Social Policy & Administration 45, no. 2 (2011): 206-219; Anna Ilsøe, "The Flip Side of Organized Decentralization: Company-level Bargaining in Denmark", British Journal of Industrial Relations 50, no. 4 (2012): 760-781.

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