

Codetermination and Power in the Workplace*

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Abstract

How does codetermination—entitling workers to participate in firm governance, either through membership on company boards or the formation of works councils—affect worker welfare and corporate decision making? We critically discuss the history and contemporary operation of European codetermination arrangements and review empirical evidence on their effects on firms and workers. Our review suggests that these arrangements are unlikely to significantly shift power in the workplace, but may mildly improve worker welfare and firm performance, in part by boosting information-sharing and cooperation and in part by slightly increasing worker influence.

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1 Introduction

In the United States, shareholders and owners exercise exclusive discretion over the governance of private firms. This model of corporate governance aligns with an influential strain of thought, dating back to Friedman (1970), which asserts that shareholder control produces the right incentives for economic growth while not endangering the welfare of workers, who are protected by the forces of labor market competition. Alternative strains of thought claim that pervasive employer labor market power necessitates countervailing "worker power institutions," and argue that recent ailments suffered by American workers can be traced back to the steady decline of pro-worker institutions over the past five decades (Stansbury and Summers, 2020).

This latter perspective has motivated recent proposals to boost worker power by giving workers formal rights to participate in workplace governance. In 2018, the *Reward Work Act* and the *Accountable Capitalism Act*, proposed by Democratic senators, included provisions that would require large companies to allocate 33-40% of the seats on their boards to worker-elected representatives. These proposals emulate the German model of "board-level codetermination," which originated in the aftermath of World War II and has since spread to many European countries, including Austria, Denmark, Finland, Norway, and Sweden. In addition, the German model of "shop-floor codetermination" through elected works councils has received widespread attention in the past several years, in part due to the widely-covered 2014 and 2019 unionization drives at Volkswagen's Chattanooga plant (Liebman, 2017; Silvia, 2018, 2020).

Other papers in this volume examine the effects on labor market outcomes of specific restrictions on firm decision-making, e.g., in the areas of wage setting (minimum wages) or the determination of other job characteristics (safety or flexibility regulations). This paper examines the impact of codetermination laws—broader interventions that restructure firms' internal authority structures by integrating workers into decision-making.

American corporate law has historically been hostile to such arrangements, which impinge on owners' or managers' exclusive discretion. In 1981, a landmark Supreme Court ruling narrowed the scope of unions' bargaining rights, citing "an employer's need for unencumbered decision-making" (Harlin, 1982). The Chamber of Commerce's *amicus curiae* brief in the same case asserted that decisions about aspects of workplace governance apart from wages, hours, and working conditions "are uniquely the central burdens and prerogatives of management [...] They are matters over which the collective bargaining process is unlikely to be useful, but likely to be obstructive or destructive."¹

These statements echo influential arguments in the academic literature, which claim that involving workers in firm governance impedes efficient decision-making, distorts incentives, and leads to "hold-up problems" that deter capital formation and stunt economic growth,

¹Chamber of Commerce brief in *First National Maintenance Corp. v. NLRB*: 452 US 666 (1981).

ultimately leaving both employers and workers worse off (Jensen and Meckling, 1979; Hansmann and Kraakman, 2000). In contrast, alternative perspectives in the literature emphasize the potential benefits of codetermination for firms and workers through enhanced trust and information flows (Freeman and Lazear, 1995). In addition, recent arguments stress that shared governance requirements can mitigate imbalances of power between employers and workers and thereby prevent exploitation of workers (Anderson, 2017; Strine Jr., Kovvali, and Williams, 2021).

In this paper, we critically assess these competing perspectives on codetermination. We begin, in Section 2, with a historical discussion: we describe the background of existing codetermination laws and ask whether there are successful precedents for proposals to rectify workplace power imbalances through codetermination reforms. Then, in Section 3, we ask how contemporary codetermination institutions operate in practice. The aforementioned perspectives assert, respectively, that shared governance beneficially "boosts worker power" or that it harmfully "constrains employer discretion." Both of these statements are vague and in need of substantial clarification. In which areas of decision-making does codetermination boost workers' influence, and to what extent? How do worker representatives use their newfound authority? Are shared governance arrangements characterized by adversarial struggles between worker representatives and employers, or by cooperative relationships in which worker representatives and employers work together toward mutually agreeable goals? We draw on surveys, interviews, and case studies to answer these questions. Finally, in Section 4, we briefly survey the existing quantitative evidence on the economic impacts of codetermination, drawing heavily on a recent survey article by Jäger, Noy, and Schoefer (2021).

We conclude that, historically, codetermination reforms have not been a key standalone vehicle for increasing worker power, and have instead been intended to supplement core frameworks of union representation and centralized collective bargaining. Meanwhile, contemporary codetermination arrangements mostly function as amicable venues for workers and employers to share information and perspectives, and for workers to shape decisions about immediate working conditions. For example, board-level codetermination creates bilateral knowledge flows that give employers a more intimate understanding of company operations and the desires of workers, and give workers financial and strategic information that may inform collective bargaining strategies. However, the presence of worker representatives on company boards does not substantially shift high-level decision-making; workers usually occupy a minority of seats and therefore lack the ability to outvote shareholders, and often worker representatives defer to shareholder representatives in recognition of the fact that workers benefit when the company performs well. Meanwhile, shop-floor codetermination gives workers some control over decisions about hours and amenities, but (apart from, e.g., German works councils) little control over wage setting or layoff decisions. One notable

exception is that worker representatives' influence may grow during economic downturns, when qualitative evidence suggests they sometimes play an important role in negotiating wage or hour cuts that prevent layoffs.

Probably reflecting the limited authority conveyed by most existing codetermination arrangements, the quantitative evidence suggests that both board-level and shop-floor codetermination have mostly zero or slight positive impacts on worker and firm outcomes (Blandhol, Mogstad, Nilsson, and Vestad, 2020; Jäger, Schoefer, and Heining, 2021; Harju, Jäger, and Schoefer, 2021). On the worker side, minority board-level representation does not affect wages, and may slightly increase job security and subjective job satisfaction; on the firm side, it has zero or small positive effects on productivity, capital intensity, and profitability. Relatively weak forms of shop-floor codetermination have similarly slight effects on both worker and firm outcomes, while stronger shop-floor codetermination arrangements (which allocate broader and more substantive powers to worker representatives) may slightly boost wages, reduce within-firm earnings inequalities, and raise job security (possibly at the expense of non-incumbent workers). Strong forms of shop-floor codetermination do not appear to worsen firm performance, and may even increase productivity, but there is still a dearth of credible quasi-experimental evidence on the effects of these arrangements, so we are hesitant to make confident pronouncements.

Our overall conclusion is that most existing codetermination arrangements are relatively weak and have, at most, incremental positive effects. This conclusion leaves us unable to decisively confirm or reject the important claim, implicit in American corporate law, that employers must retain exclusive discretion over firm governance or else economic performance will suffer. On the one hand, the existing evidence shows it is possible to involve workers in workplace decision-making in ways that, if anything, weakly improve firm performance while also plausibly benefiting workers. However, the representation arrangements for which we possess the most credible evidence do not involve very substantial restrictions on employer discretion. Causal evidence on the economic performance effects of shared governance arrangements that more substantively limit employer discretion—such as powerful German works councils or parity codetermination in German iron, coal, and steel sector firms—remains scarce. We close by noting that even codetermination laws may perform valuable functions even if they do not substantially affect the balance of power in workplaces.

2 A Brief History of Codetermination

We begin by sketching the historical origins of modern codetermination laws, focusing on the countries with the strongest contemporary codetermination systems: Germany, Austria, the Netherlands, and the Nordic countries. We use the history of German codetermination as

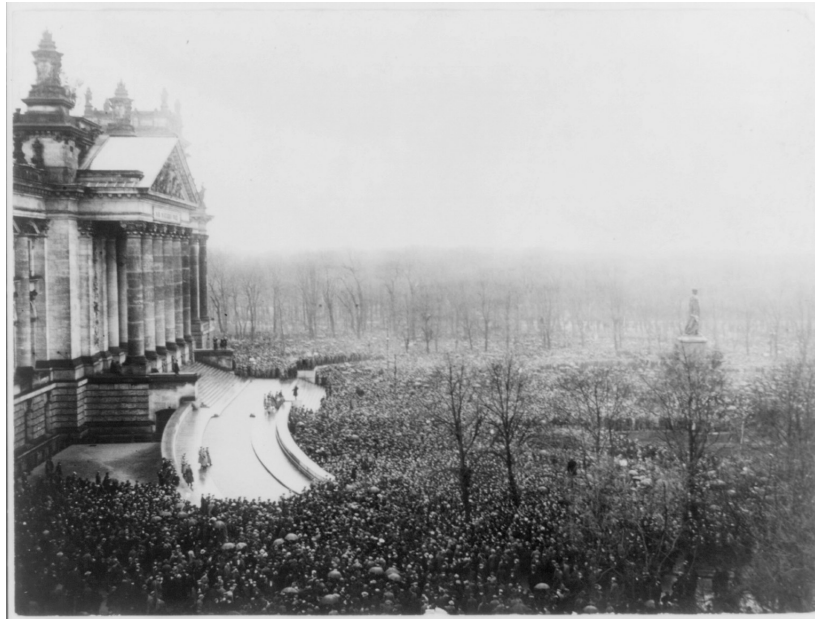
a case study, and then note parallels to the historical trajectories of codetermination in the others.

The purpose of this historical discussion is threefold. First, we illustrate that codetermination laws or agreements tended to arise because powerful national labor movements mobilized and overcame employer resistance to shared governance—they did not constitute a sudden empowerment of workers by government fiat. Second, we emphasize that codetermination laws and agreements were one specific byproduct of a wider campaign by unions and labor groups to shift toward an egalitarian relationship of social partnership between labor and capital. Other products of this movement include widespread union representation in workplaces and strong, centralized collective bargaining frameworks; codetermination reforms have often been intended to supplement or extend core frameworks of union representation. Third, we show that labor movements often fell short of securing codetermination arrangements that they believed would result in significant workplace power-sharing; they were instead forced to settle for arrangements that they considered weak or insufficiently radical.

Germany In Germany, the world's first national codetermination law was introduced in the aftermath of World War I. As McGaughey (2016) notes, German labor movements had been advocating for shared governance since the popular revolutions of 1848-1849, but before World War I these efforts had been successfully suppressed by the aristocracy and by major business owners. The political and economic devastation wrought by the war shattered existing power structures and dramatically worsened the bargaining position of major industrialists, putting labor movements on a stronger footing. In addition, as "workers councils" seized control of several cities in the months following the end of the war, the looming threat of widespread proletarian revolution put immense pressure on employers to placate workers (Beal, 1955; Thelen, 1991). The result was a series of collective agreements negotiated between employer associations and labor unions, beginning in November 1918 with the Stinnes-Legien Agreement (Winkler, 1993). The Agreement consisted of a package of reforms, including the introduction of an eight-hour working day, official recognition of labor unions by employers, and the establishment of industry-level collective bargaining frameworks through which unions and employer associations would jointly negotiate standards for wages, hours, and working conditions (Beal, 1955; Silvia, 2013). In addition, the Agreement permitted the creation of "works councils" (shop-floor codetermination institutions under union supervision) in firms with 50 or more employees; the rising German union movement viewed works councils as a promising avenue through which to extend and entrench their influence in workplaces (Addison, 2009).

In 1919 and 1920, the political position of the German labor movement worsened as a successful revolution failed to materialize and moderate parties won a Parliamentary majority in the Weimar Republic's first elections (Beal, 1955). Under pressure from labor activists

Figure 1: German Workers Gather at the Reichstag to Protest the Works Council Act 1920



Note: The photograph shows a January 13, 1920 demonstration in front of the Reichstag in Berlin. Striking workers, mobilized by the Independent Social Democratic Party of Germany and the Communist Party of Germany, protested against the proposed Works Council Act, which they viewed as an attempt to undermine the labor movement. The protest eventually turned bloody, with several dozen protesters shot by the police and military. Source: https://en.wikipedia.org/wiki/Reichstag_Bloodbath

and striking workers, the newly elected Parliament passed a national codetermination law: the Works Council Act of 1920, which introduced mandatory establishment-level worker representation in firms with 20 or more employees. However, labor activists believed the law allocated far too little power to worker representatives, and 100,000 workers gathered in front of the Reichstag to protest the law's introduction, as shown in Figure 1 (Weipert, 2012). As Scherrer (1983) writes:

[...] after the *revolutionary* workers councils had been crushed [the 1920 law] was introduced which provided for workers councils, but with a very different meaning. The original councils were stripped of all their previous influence, indeed control, over production and were relegated to the status of something like a grievance board. (Scherrer, 1983, p.45)

Over the next decade, German judges and employers further weakened the works councils established by the Act (Thelen, 1991; McGaughey, 2016), thus eliminating any semblance of substantive codetermination. With the ascent of the Nazis in the early 1930s, the Works Council Act was dealt its final deathblow as labor groups were banned, union leaders were imprisoned or murdered, and major industrialists regained their former power.

Codetermination was reintroduced after World War II partially through the grassroots efforts of German workers and unions, and partially via an external imposition by the British

occupiers (Silvia, 2013; Zahn, 2015; McGaughey, 2016). In the immediate aftermath of the war, German workers moved quickly to re-establish labor unions and works councils, taking advantage of the temporarily weak position of employers. Meanwhile, the British imposed geopolitically motivated labor reforms. Business leaders in the German heavy industries had played a crucial role in bankrolling the Nazis and supplying the machinery of both World Wars, and the Allies were determined to prevent a re-occurrence of the same dynamic. They therefore took steps to democratize the heavy industries and decentralize power away from major industrialists. In 1948, an Allied Statute imposed "parity codetermination" on large firms in the iron, coal, and steel industries—under parity codetermination, workers elect representatives to 50% of the seats on a company's board. The Statute also formalized the role and rights of works councils, declaring them to be local support bodies for the industry-level labor unions and giving them a set of formal codetermination rights (that, although valued by union leaders, were considered quite weak; Silvia, 2013). Finally, the Allies helped reintroduce the short-lived industry-level collective bargaining frameworks set up by the Stinnes-Legien Agreement.

German labor groups, which had initially taken advantage of the decimated post-war position of German employers to push for widespread nationalization, were impressed by parity codetermination. They softened their stance, dropped their demands for nationalization, and began instead to push for an economy-wide adoption of parity codetermination (Scherrer, 1983; Silvia, 2013). They were only partially successful; in 1952, the German legislature introduced a law requiring only *one-third* board-level representation in large firms in industries other than iron, coal, and steel, due to strong resistance from resurgent employer associations to the idea of extending parity codetermination requirements. Failure to secure full parity codetermination was seen as a dispiriting defeat for labor groups, who did not view one-third representation as an authentic form of shared governance (Silvia, 2013).

Labor groups were further dispirited by the passage, in the same year, of a new Works Council Act, which significantly weakened the works councils that had been established via the Allied Statute, *ad hoc* arrangements, and state-level legislation (Thelen, 1991; Silvia, 2013). The Act narrowed the mandate of works councils and formally separated them from labor unions, in an attempt to curtail the influence of unions. The rights of German works councils were later strengthened by reforms in 1972 and 2001 (Addison, Bellmann, Schnabel, and Wagner, 2004).

In the two decades following the 1952 board-level and shop-floor codetermination laws, the primary aim of West German labor movements was to secure the extension of parity codetermination to all large German firms (Silvia, 2013; McGaughey, 2016). With the decline of the center-right Christian Democrats and ascent of the left-wing Social Democratic Party in the late 1960s and early 1970s, German labor movements came close to achieving their

goal. In 1976, a major codetermination reform initiated by the governing Social Democrats extended 50% board-level representation to all German firms with 2,000 or more employees. However, the reform included a crucial concession to the Social Democrats' coalition partner, the classically liberal, business-friendly Free Democratic Party: shareholders would be given a tie-breaking vote on company boards, meaning that workers could always be outvoted by unanimous shareholders and hence would enjoy only "quasi"-parity representation. Once again, labor movements were disappointed with this concession.

Since the 1970s, there have been several amendments to German codetermination laws (Page, 2018). In 1994, a push to simplify corporate regulations culminated in the abolition of board-level codetermination requirements in small newly-formed stock corporations (which had, uniquely, previously been subject to codetermination requirements regardless of their size; this reform is studied by Jäger, Schoefer, and Heining, 2021). The reform was very narrow in scope, in part because the ambitions of the Christian Democrat/Free Democrat government were limited to begin with (they aimed only to harmonize regulations between stock corporations and limited-liability companies and did not pursue a wider rollback of codetermination requirements), and in part because the government was forced to compromise with the Social Democratic upper house (*Bundesrat*). A few years later, in 2001, a Social Democratic government passed legislation broadening works councils' coverage and slightly strengthening their codetermination rights, in response to a gradual decline in works council coverage and a report released by a codetermination review commission (Addison, 2009).

Overall, since the reforms of the 1970s, codetermination laws have not been a major source of political conflict in Germany. Employer associations officially oppose codetermination requirements, but a comfortable majority of individual businesses and managers are supportive of them (Paster, 2012). Paster suggests that these facts can be reconciled by noting that employer associations strategically overemphasize the views of vocal opponents of shared governance mandates, since opponents have much to gain from abolition but proponents have little to lose (as they would be able to voluntarily retain their codetermination arrangements).

To sum up: from the 1910s to the 1970s, German codetermination reforms were only one element of a wider competition between employers and labor groups, with the economic devastation of the World Wars and the external intervention of the British providing the substantial boost of worker power that enabled labor groups to secure major reforms. These reforms primarily involved the strengthening of unions and the establishment of industry-level collective bargaining frameworks; shop-floor codetermination was intended as a mechanism to supplement the operations of industry-level unions, while parity board-level codetermination *was* viewed as a stand-alone method of boosting worker power but was never extended beyond the iron, coal, and steel sectors. More broadly, many of the imposed codetermination

arrangements, including minority board-level representation as well as the works councils originally established by both Works Council Acts, were perceived by labor groups to be weak and inauthentic forms of shared governance. Only parity board-level representation was considered a really substantive example of codetermination; interestingly, the top-down imposition of parity codetermination by the Allies constitutes perhaps the only historical example of a dramatic equalization of power through the fiat-based imposition of codetermination arrangements. But this occurred in a very unique historical context, and parity codetermination has not since been introduced in any other context.

Other Countries The histories of codetermination in Austria, the Netherlands, and the Nordic countries share the three key features we highlighted in the German context.

First, in each of these countries, the introduction of codetermination was enabled by pre-existing factors that helped boost workers' influence. In Austria, codetermination originated largely in parallel with Germany, with worker mobilization following World War I leading to the Austrian Works Councils Act of 1919, and post-WWII reforms re-establishing and extending the codetermination arrangements that arose in the interwar years (Kummer, 1960).

Meanwhile, in the Netherlands and the Nordic countries, this boost to worker power came through the establishment of national frameworks for negotiation and collective agreement between powerful union associations and employer associations (e.g., via the Danish "Constitution of the Labor Market" negotiated in 1899, the first Dutch national agreement in 1914, the Norwegian Basic Agreement of 1935, and the Swedish Saltsjöbaden Agreement of 1938; Wheeler, 2002; Haug, 2004a,b; Trampusch, 2006; Bergene and Hansen, 2016). Under these frameworks, unions and employer associations met regularly to jointly determine national or industry-level standards for wages and working conditions. Labor movements secured the creation of these frameworks through massive and extended strikes, and through the legislative efforts of social democratic parties, which were for a long time deeply intertwined with Nordic labor movements (Alestalo and Kuhnle, 1986).

Firm-level codetermination arrangements in the Nordic countries were introduced in the decades following the creation of these frameworks, initially through collective negotiations and then through legislation (Bjorheim, 1974; Knudsen, 2006; Votinius, 2012). Codetermination reforms consisted of the allocation of new co-decision-making rights to establishment-level union representatives, who were already present in most workplaces. National unions pursued codetermination rights for their representatives out of a desire to have a say on issues of workplace organization broader than the narrow set of decisions (about wages, benefits, etc.) covered by collective bargaining agreements (Wheeler, 2002). Nordic codetermination representatives inherited much of their power from the broader social power of the national unions (Votinius, 2012).

Second, in all of these countries, codetermination rights were secured as part of broader

Figure 2: Swedish Miners Striking for Better Pay and Changes to Workplace Hierarchy in 1969



Note: The photograph shows a December 9, 1969 miners' strike in Malmö, Sweden. The miners demanded better pay and a reorganization of workplace hierarchy and monitoring. The strike ignited a subsequent series of wildcat strikes that led eventually to the introduction of the Swedish Codetermination Act of 1976. Source: <https://www.lkab.com/en/news-room/news/50-years-since-the-great-miners-strike/>

packages of reforms aimed at empowering workers. As we have mentioned, codetermination reforms in the Nordic countries simply extended the role of union representatives, whose near-universal presence in workplaces was a result of the organizing and legislative efforts of national unions. In addition, codetermination arrangements were introduced alongside shorter working weeks, systems of unemployment or sickness insurance, and other labor reforms (Van Leeuwen, 1997; Haug, 2004a,b).

As an example to illustrate these first two points, consider the Swedish miners' strike of 1969 photographed in Figure 2. The strike, and the wave of nation-wide worker mobilization it triggered, were instrumental in leading to the passage of the 1976 Codetermination Act—showing how codetermination reforms were built on pre-existing structures of worker organization. Additionally, the miners' demands ranged from better pay and better working conditions to a reorganization of workplace hierarchies and the removal of intrusive managerial monitoring, showing how demands for workplace democracy were often bundled with a variety of more traditional demands.

Third, political compromises meant that many of the codetermination reforms in these countries introduced weaker shared governance arrangements that left labor groups unsatisfied. For example, in Norway, the codetermination arrangements established in the 1960s and 1970s were later criticized by labor activists for conveying too little power to workers and focusing too narrowly on firm performance (Bergene and Hansen, 2016). In Finland, political compromises in the drafting of a 1990 board-level codetermination law meant that the law applied to far fewer companies than preferred by the Social Democrats (Harju, Jäger, and Schoefer, 2021). The 1950 Works Council Act in the Netherlands introduced mandatory works councils in

firms with 50 or more employees; however, these councils had to include managers, they had only information and consultation rights without substantive codetermination powers, and their mandate was to improve firm performance rather than to advocate for workers. Thus, these councils were essentially toothless until a 1979 reform substantially strengthened them (Van het Kaar, 1997). Similarly, a 1971 reform in the Netherlands gave works councils the right to nominate representatives to company boards, but these nominations could be rejected by the incumbent board. This was changed by a 2004 reform, but it remains the case that works councils cannot nominate candidates who are either an employee of the firm or a representative of a union engaged in a collective agreement with the firm (Van het Kaar, 2007); consequently, Dutch worker-nominated board members are only "worker representatives" in a thinner sense.

Conclusion To understand modern European codetermination, we must place it in its historical and institutional context. Firm-level codetermination requirements are only one (often relatively weak) component of a wider institutional environment shaped by European labor movements over the 20th century to advocate for workers. Our description of contemporary codetermination arrangements, in Section 3, will frequently refer to interactions between codetermination and this wider institutional structure.

3 Does Codetermination Shift Power in the Workplace?

We now draw on detailed qualitative evidence to answer the following questions: in which domains, and to what extent, do existing codetermination arrangements shift power in the workplace? How do worker representatives deploy their powers, and how does shared governance play out in practice? What are the interactions between codetermination and other pro-labor institutions, including unions and collective bargaining frameworks? In Section 3.1, we cover board-level codetermination, and in Section 3.2 we discuss shop-floor codetermination.

3.1 Board-Level Codetermination

Existing Board-Level Codetermination Laws Under board-level codetermination, workers elect representatives who fill a share of the seats on their company's board. As in the United States, the boards of European companies are charged with making major strategic decisions and with appointing and supervising senior executives; board-level codetermination therefore gives workers the right to participate in a limited set of high-level decisions (Conchon, 2011;

Jäger, Schoefer, and Heining, 2021).²

As of 2022, a large number of European countries (including Austria, Germany, the Nordic countries, and France) have board-level codetermination laws (Jäger, Noy, and Schoefer, 2021). Virtually all such laws give workers a minority of seats on their company's board—usually 20% or 33%, ranging up to 50% minus the casting vote in the case of quasi-parity representation in Germany as described above (ETUI, 2020; Jäger, Schoefer, and Heining, 2021). Under minority and quasi-parity representation, workers can always be overruled by shareholders voting unanimously, and consequently these codetermination arrangements give workers very little direct decision-making authority. The sole exceptions to this rule are firms in the German iron, coal, and steel sectors. Our discussion in this section focuses on minority and quasi-parity board-level codetermination arrangements, under which shareholders hold majority voting rights.

How Does Board-Level Codetermination Operate in Practice? Board-level worker representatives are upfront about the fact that their minority status leaves them without formal decision-making power. For example:

Our action as board-level employee representatives is very limited by the fact that our voting right is not powerful enough. So I know full well that I couldn't... well, if you like, I've never managed to overturn a vote since I was first elected in 1999. (A French worker representative interviewed by Gold, Kluge, and Conchon, 2010, p.62)

When asked to assess the impacts of board-level codetermination, one Finnish worker representative responds simply:

The employer always has a majority. No direct effect. (Harju, Jäger, and Schoefer, 2021, p.28)

Probably as a consequence of the fact that worker representatives have little hope of out-voting shareholders, formal voting does not figure prominently in the day-to-day operations of

²Some European countries, such as Norway and Sweden, join the United States in having a unitary board structure where a single board of directors appoints and supervises a company's senior management and helps make important decisions (Conchon, 2011). In other European countries, including Austria and Germany, large companies have two boards: a supervisory board and an executive board. The supervisory board's functions are similar to those of a unitary board: it is involved in major decisions, and it appoints, supervises, and sets the compensation for the executive board. The executive board, meanwhile, effectively comprises the company's senior management and handles the day-to-day governance of the firm. In Austria and Germany, worker representatives are appointed to the *supervisory* board (Jäger, Schoefer, and Heining, 2021; ETUI, 2020). In Denmark, Finland, and the Netherlands, companies can choose between unitary and dual board structures, and there is some flexibility over where worker representatives are appointed; for example, Finland's board-level codetermination law lets the employer choose whether worker representatives sit on the supervisory or executive board (Conchon, 2011; Harju, Jäger, and Schoefer, 2021).

codetermined boards. Instead, board meetings are focused on cooperative dialogue and the mutual sharing of information and perspectives. Boards aim for consensus decisions, and split votes are unusual. (Of course, these collaborative, consensus-oriented discussions occur with the majority status of the shareholder representatives looming quietly in the background, which likely affects worker representatives' behavior.³) For example, worker representatives interviewed by Gold, Kluge, and Conchon (2010) say that:

Our whole *modus vivendi* on the supervisory board is oriented towards consensus. To that extent, the outcome of formal voting does not carry so much weight. In 11 years on the supervisory board I have never encountered the kind of fundamental conflict with shareholders or managers the question refers to. (A representative from the Czech Republic, on p.28)

[...] we sit around the same table and we have the same powers and responsibilities, but of course I know where the power lies. Of course, if we come to a vote, then we lose—but the [shareholder representatives] always seek consensus [...] Very frequently, they ask us, they challenge us, and so they want our opinion. That must have some impact as well, or there's not much point in asking. (A Finnish representative, on p.35 and p.40)

I don't feel in a minority or any kind of inferiority. Both sides try to achieve unanimity. (A German representative, on p.103)

Boards are able to arrive at consensus decisions in part because of the compliant attitudes of worker representatives. Either in recognition of their inability to overrule shareholders or due to a belief that the interests of workers are mostly aligned with the interests of the company, worker representatives often defer to directors and shareholder representatives, especially when boards make major strategic decisions with important profit implications. For example, Levinson (2000) reports that Swedish worker representatives are almost totally inactive during board-level discussions of company strategy; meanwhile, fewer than 5% of Finnish worker representatives report wielding influence over strategic decisions, or decisions about production, outsourcing, or investment (Harju, Jäger, and Schoefer, 2021). An Austrian worker representative argues that:

It's my task to be there for the workforce [and] It's the task of the management to run the company. I don't interfere with that [...] Everyone is concerned with the long-term survival of the company. (Gold, Kluge, and Conchon, 2010, p.17)

³It is possible that, conversely, the presence of board-level worker representatives shapes the behavior of shareholder representatives—for example, by making them more attentive to worker welfare. However, little evidence exists on this possibility.

Worker representatives' reluctance to participate in strategic discussions may also be attributable to a perception that strategic decisions are made out of their view, and discussed during board meetings only as a formality. A Finnish representative interviewed by Harju, Jäger, and Schoefer (2021) reports that:

[...] management has, in fact, already decided the course of action at the stage when I become aware of it. At that point, it is virtually impossible to influence the big lines anymore; maybe you can say your words and negotiate some details.⁴

If worker representatives are stranded in a perpetual minority and often defer to shareholder representatives, what is their purpose on the board? The qualitative evidence suggests that they serve three main functions. First, they share information with managers and communicate the perspectives and ideas of workers. As two Finnish board-level representatives describe:

It often feels that the members of the management group want to talk to me because they feel that they are separated from the employees and want to hear my opinions.

[...] I can bring the personnel's thoughts and ideas to the management team very freely. And bring different types of thinking from employees.

(As quoted in Harju, Jäger, and Schoefer, 2021, p.30-31)

A French board-level representative notes that:

[Shareholder representatives] do appreciate us because they live in their bubble, they're in their stratosphere. Quite visibly, when I explain things to them that [workers] might find very basic, they're often completely taken aback [...] While they regard everything as a cost item, I for my part try to show them that it doesn't represent a cost when it enables the company to operate better, live better, and even to sustain. That can even serve the shareholders' interests [...] They do listen when I talk like that. (Gold, Kluge, and Conchon, 2010, p.62)

Possibly due to the benefits of increased access to information (paired with little relinquishment of formal influence), European directors and shareholders hold mostly positive views of board-level codetermination. Levinson (2000) observes that 61% of Swedish directors believe board-level codetermination has net positive effects on companies, citing increases in information sharing and the legitimacy of decisions; meanwhile, 30% believe the institution has a neutral effect and only 9% believe it has a negative effect. In addition, 80% of Swedish directors report that the degree of cooperation between worker and shareholder representatives is "good"

⁴Some of our quotes from Finnish worker representatives in this section, including this one, are drawn from interviews or surveys conducted as part of the research for Harju, Jäger, and Schoefer (2021) that were not specifically quoted in the final version of the paper.

or "very good." According to Paster (2012), 71% of German executives and 63% of German private investors oppose the repeal of board-level codetermination laws.

The second function of board-level worker representatives is to directly influence decisions about working conditions—an area of decision-making where shareholders appear (somewhat) willing to allow workers to shape outcomes. Levinson (2000) reports that worker representatives in Sweden are highly active during board-level discussions of personnel or working conditions, and over 90% of Swedish directors claim that worker representatives have a "large" impact on decisions about working conditions. Anecdotally, European worker representatives describe using their platform to secure a variety of goods for their fellow workers, including subsidized commuter tickets, a budget for leisure activities, or expansions of pension eligibility (Gold, Kluge, and Conchon, 2010; Harju, Jäger, and Schoefer, 2021). Worker representatives also occasionally mention influencing decisions about layoffs, mergers, or wages, though these examples are the exception rather than the rule and there is widespread frustration at the difficulty of affecting important decisions and the unwillingness of employers to listen to worker representatives on these topics (Gold, Kluge, and Conchon, 2010). For example, Finnish representatives interviewed by Harju, Jäger, and Schoefer (2021) protest that:

We don't get the opportunity to influence and provide help [in cases of personnel transfers and redundancies]. We can't influence these matters.

Yes, I can freely participate in the discussion [about layoffs], but usually these issues are not discussed in the board meetings. The agenda is usually decided in advance, and then the board of directors simply goes through the agenda by stating facts rather than having discussions. [...] It is always the employer who makes the decision on [wage setting].

Of course, even if worker representatives rarely exert direct influence over layoff decisions, worker representation may indirectly deter layoffs by raising the costs (consultation, negotiation, etc.) associated with firing workers (Keskinen, 2017). However, this seems more likely to be true for shop-floor than board-level codetermination, as shop-floor representatives are usually given specific powers over decisions about layoffs or personnel transfers (ETUI, 2020).

Third, board-level representatives sometimes use the information they acquire through board meetings to support the activities of shop-floor representatives or union representatives (notably, sometimes the same individual will be both a board-level representative *and* a shop-floor or union representative). For example:

I feel that I am well-informed about the economic background with regard to [my company] [...] Needless to say, that is a great help to me in our wage negotiations, in which I am the chief trade union negotiator [under an industry-level collective agreement] (An Austrian representative in Gold, Kluge, and Conchon, 2010, p.20)

The benefit to the union of having one or more board-level employee representatives is to get information upfront and to display its stances at a high level, meaning that the union can anticipate events. (A French representative in Gold, Kluge, and Conchon, 2010, p.54)

My dual role as a [board-level and shop-floor] representative helps me to get more information, which is helpful when dealing with salary negotiations. (A Finnish representative interviewed by Harju, Jäger, and Schoefer, 2021)

One particularly notable and high-stakes example of cooperation between board-level, shop-floor, and union representatives is the negotiation of "employment pacts" that protect workers from layoffs during recessions in exchange for reductions in compensation. We describe this example in depth in Section 3.2.

However, we should take care not to overrate the importance of institutional interactions; many of the representatives surveyed by Gold, Kluge, and Conchon (2010) report having little to no contact with shop-floor or union representatives, and having no input on collective bargaining strategies. One Norwegian representative even notes that all of the financial information that could usefully inform collective bargaining strategies is publicly available. Interactions between board-level representatives and other worker representation institutions are therefore far from a universal phenomenon.

Conclusion As a consequence of workers' minority vote share under existing laws, board-level codetermination does not allow workers to directly wield decision-making authority. Rather, existing board-level codetermination arrangements enhance information flows between managers and workers, allow workers to secure marginal improvements in working conditions, and may complement other worker representation institutions, including trade unions and shop-floor codetermination.

The available quantitative evidence suggests that these three mechanisms add up to produce neutral or slight positive impacts of board-level codetermination on worker and firm outcomes, as we describe in Section 4. Meanwhile, Finnish worker representatives surveyed by Harju, Jäger, and Schoefer (2021) do not perceive board-level codetermination as particularly impactful. Many believe the institution has no effects at all—citing the powerlessness inherent in a minority vote share, or attempts by employers to bypass worker representatives by making decisions unofficially and out-of-view and treating board meetings as a formality. The Finnish representatives who *do* believe the institution has an impact mostly point to increases in "trust," "transparency," or "communication," or "the staff feeling better taken into account." They do *not* claim the institution affects wages, layoffs, or other economic outcomes.

3.2 Shop-Floor Codetermination

Existing Shop-Floor Codetermination Laws Under shop-floor codetermination, workers elect shop-floor representatives or committees (e.g., "shop stewards" or "works councils") who participate in day-to-day decisions about working conditions and dismissals. Most countries in Europe, and many countries outside of Europe, have laws that give workers rights to shop-floor codetermination (Jäger, Noy, and Schoefer, 2021). The strength and breadth of authority conveyed to shop-floor representatives by these laws varies from country to country.

In the majority of countries with shop-floor codetermination laws, shop-floor representatives are merely given information and consultation rights, meaning that employers must inform shop-floor representatives in advance about planned layoffs or changes to working conditions, and must consult shop-floor representatives about the changes (ETUI, 2020; Visser, 2021). However, employers have no general obligation to take the perspective of shop-floor representatives into account, meaning that these laws convey no formal decision-making authority to workers.

In Austria, Germany, and the Nordic countries, shop-floor representatives are given more substantive formal authority, with the breadth of this formal authority varying across countries. In Austria, shop-floor representatives have co-decision-making rights in several areas, including disciplinary procedures, the allocation of working hours, workplace monitoring technologies, and performance pay systems (Aumayr, Stavroula, Foden, Scepanovics, and Wolf, 2011; ETUI, 2020). Austrian shop-floor representatives also have the right to demand external arbitration when employers make decisions with which they disagree in a broader set of categories (ETUI, 2020). In Germany, shop-floor representatives have co-decision-making rights over a similar set of areas, can veto dismissals and force the employer to take the issue to a labor court, and (where industry-level collective bargaining agreements permit) can engage in local wage bargaining on behalf of workers. In Sweden and Norway, most changes to working conditions must be negotiated with establishment-level union representatives (ETUI, 2020). In the Netherlands, major changes to workplace regulations must be approved by shop-floor representatives (ETUI, 2020). Notably, the right to participate in decisions about working conditions or dismissals gives shop-floor representatives some indirect control over production decisions; proposals to alter production techniques by restructuring workflows or introducing automation technologies must pass through worker representatives charged with evaluating the impacts of these changes on workers. We return to this point in Section 4, when we discuss the relationship between codetermination and automation.

Overall, the majority of existing shop-floor representation laws convey very little formal authority to workers, but Austria, Germany, and the Nordic countries give shop-floor works councils or union representatives substantive powers over a variety of decisions relating to immediate working conditions and dismissals or transfers of staff. Shop-floor representatives,

by contrast to board-level representatives, are directly granted decision-making authority and are highly involved in day-to-day firm governance; however, they have no direct mandate to deal with higher-level strategic decisions.

How Does Shop-Floor Codetermination Operate in Practice? It is difficult to draw sweeping conclusions about how shop-floor codetermination operates in practice, because of the considerable heterogeneity across countries in the responsibilities and rights assigned to shop-floor representatives. Since the available qualitative evidence largely consists of case studies or surveys of Nordic or German shop-floor codetermination, we focus on the activities of shop-floor representatives in countries that allocate them substantive decision-making powers. A few broad conclusions are evident.

First, shop-floor representatives are highly engaged in day-to-day discussions about working conditions, they manage to exert moderate influence over the outcomes of these discussions, and their contributions to these discussions are valued by employers. For example, Swedish shop-floor representatives interviewed by Wheeler (2002) describe influencing decisions about working hours and health and safety, helping set up education and training programs for workers, and helping resolve conflicts among workers or between workers and managers. Managers interviewed in the same study appreciatively cite the influence of the shop-floor representatives, saying that their input improves decision-making and increases worker satisfaction.

The interview evidence from Wheeler (2002) is consistent with broader survey evidence on the impacts of shop-floor representatives and their relationships with managers. In the 2019 European Company Survey, about 50% of managers across Europe claim that worker representatives have a "moderate" or "great" amount of influence on decisions about working conditions (Jäger, Noy, and Schoefer, 2021).⁵ Levinson (2000) cites surveys showing that 80-90% of Swedish managing directors agree that shop-floor representatives exert "large" or "very large" influence over decisions about the workplace environment or working hours.

Meanwhile, managers have mostly positive views of the impacts of shop-floor codetermination on day-to-day decision-making. In the 2013 European Company Survey, about 80% of managers agree that worker representatives behave in a constructive and trustworthy way, that worker representation increases employee buy-in to decisions, and that worker representation "grants a competitive edge." That said, the majority of managers indicate that they prefer to consult workers informally (authors' own calculations), a point explored in-depth by Jäger, Noy, and Schoefer (2021). Levinson (2000) shows that 80-90% of Swedish managers approve of shop-floor representation, believing that the institution causes decisions to be "better rooted among employees." Swedish managers also reject the claim that shop-floor representation

⁵This statistic encompasses all forms of worker representation (including board-level representation), but shop-floor representation is much more widespread among surveyed firms than board-level representation.

impedes timely or effective decision-making or is a drain on resources—repudiating the Supreme Court’s assertion, quoted in the Introduction, that involving workers in decisions that are "the central burdens and prerogatives of management" necessarily drags out or worsens decision-making.

The second general observation we can make is that, while shop-floor representatives are also highly engaged in discussions about layoffs, outsourcing, or personnel transfers, they wield less influence in this area than over decisions about working conditions. Representatives interviewed by Wheeler (2002) describe instances where they delayed layoffs or negotiated more generous severance packages, but report a general inability to prevent layoffs from happening. In the European Company Survey, only 25% of managers claim that employee representatives wield a "moderate" or "great" amount of influence over decisions about dismissals (Jäger, Noy, and Schoefer, 2021).⁶

While shop-floor representatives appear unable to routinely influence dismissals, they may be more able to affect layoff decisions during economic crises. German works councils, for example, have a long history of negotiating "employment pacts" during recessions that ward off layoffs in exchange for cuts to wages or hours—effectively permitting firms to adjust employment on the intensive, rather than extensive, margin (Rehder, 2003; Burda and Hunt, 2011). This practice appears to be enabled by other kinds of worker representation as well. For example, Gregoric and Rapp (2019) show that Scandinavian firms with board-level codetermination were less likely to lay off workers during the Great Recession and more likely to cut wages or hours instead; Burdín and Dean (2009) show that Uruguayan worker-managed firms behave similarly.

Why might worker representation, specifically, enable this behavior? Traditional firms are reluctant to adjust wages or hours downwards (Bewley, 2002)—perhaps because workers learn to reflexively resist proposed cuts to compensation, out of fear that such cuts can be used to opportunistically exploit them. Worker involvement in decision-making might give workers access to the information they need to verify that cuts are genuinely necessary, or may increase trust and enhance the legitimacy of decision-making enough to permit firms to propose wage or hour cuts. By thus enabling intensive-margin employment cuts, worker representation can benefit both workers and firms by insulating workers from unemployment and preserving productive worker-firm matches.

That said, the ability of European firms to avoid layoffs by cutting wages and hours during crises is also driven by other European labor market institutions, including short-time work policies, working time accounts, and clauses in industry-level collective bargaining agreements

⁶A notable exception may be Germany, where works councils have the authority to veto all "unwarranted" dismissals and force their employer to take the issue to an employment court. However, even in Germany, only 28% of managers in the European Company Survey say that worker representatives wield "moderate" or "great" influence over dismissal decisions.

(Burda and Hunt, 2011; Rinne and Zimmermann, 2012; Herzog-Stein, Lindner, and Sturn, 2018). We should not attribute this phenomenon entirely (or, perhaps, even predominantly) to codetermination.

The third general observation we can make is that shop-floor representatives, at least outside of Germany, do not exert much influence over wage-setting *in their role as codetermination representatives*. Here, it is crucial to draw clear distinctions between different European worker representation institutions, which often blend together. In countries with "single-channel" shop-floor representation, such as the Nordic countries, establishment-level union representatives function both as codetermination representatives (who have co-decision-making rights) *and* as union representatives (who have rights to engage in local wage negotiations and collective bargaining). Often, the distinction between "co-decision-making" and "negotiation" breaks down in practice, and shop-floor representatives simply engage in general advocacy on behalf of workers (Sippola, 2012). Crucially, however, any authority that these shop-floor representatives have to influence wage-setting comes through their role as union representatives, *not* through their role as codetermination representatives. In cases where the two roles do come apart—for example, Finnish law allows for the election of codetermination representatives who are *not* union representatives—the codetermination representatives report wielding very little influence over wage-setting, and point to union representatives as the parties responsible for securing better wages (Harju, Jäger, and Schoefer, 2021).

Meanwhile, countries like Germany have "dual-channel" shop-floor representation, meaning that shop-floor codetermination arrangements are clearly separate from shop-floor union representation (ETUI, 2020). In Germany, shop-floor codetermination representatives ("works councils") *do* sometimes engage in wage negotiations (as permitted by the works council law), and there is indeed some evidence that German works councils boost wages and create mild within-firm wage compression (Hirsch and Mueller, 2020). That said, sectoral bargaining conducted by industry-level unions remains by far the most dominant form of collective negotiation in Germany.

Overall, under both single-channel and dual-channel regimes, it is collective bargaining and union-based negotiation that ultimately influence wage-setting; while shop-floor codetermination can affect decisions about, e.g., the adoption of performance pay schemes, the institution is not set up to influence overall wage levels.

Conclusion Shop-floor representatives in the Nordic countries and Germany wield moderate authority in day-to-day firm governance, which they use to shape non-pecuniary aspects of working conditions. They are largely unable to influence routine decisions about layoffs or wage-setting, but they may have a greater capacity to affect these decisions during economic crises. Relationships between shop-floor representatives and employers are generally amicable, with both parties viewing shop-floor shared governance as mutually beneficial.

This qualitative evidence is once again consistent with quantitative evidence on the impacts of shop-floor representation, which suggests the institution has zero impacts on wages, may slightly reduce separations, and may improve subjective job quality (Addison, 2009; Keskinen, 2017; Harju, Jäger, and Schoefer, 2021). We now turn to surveying the quantitative evidence on the impacts of codetermination.

4 What Are the Economic Impacts of Codetermination?

Section 3 paints the following picture: board-level and shop-floor codetermination arrangements affect some decisions about working conditions, result in increased information flows and increased worker trust in company management, and have little impact on major decisions—including decisions about wage-setting, layoffs, investment, and company strategy.

If we had to extrapolate from this qualitative characterization of codetermination to a prediction about the economic impacts of the institution, we would probably conjecture that codetermination has few impacts on observable economic outcomes and mildly improves non-pecuniary aspects of job quality. In particular, on the worker side, we would predict that codetermination does not affect wages, and that it reduces turnover—either by directly insulating workers from layoffs during crises or by increasing job quality and hence reducing voluntary separations. On the firm side, we would predict null or small positive effects of codetermination on firm performance—not negative effects—for two reasons. First, the qualitative evidence is inconsistent with all of the channels through which negative effects of codetermination on firm performance are hypothesized to materialize. Codetermination does not give workers influence over wage-setting or decisions about investment or expansions, meaning that the "hold-up" and "worker rent-seeking" mechanisms postulated by Jensen and Meckling (1979) cannot get off the ground. Additionally, surveys of managers suggest that codetermination does not significantly slow down or obstruct decision-making. Second, the survey evidence described in Section 3 suggests that European managers, directors, and even investors have mostly positive views of codetermination, which would be hard to reconcile with the institution having substantial negative impacts on firm performance. Managers and directors even cite positive impacts of codetermination on decision-making, information flows, and trust, which might lead us to expect small positive impacts on firm performance.

We would also predict that shop-floor codetermination has greater impacts than board-level codetermination, at least in countries like Germany or Sweden that grant shop-floor representatives meaningful powers. Our qualitative discussion in Section 3.1 showed that board-level representatives almost completely lack substantive decision-making authority, while in Section 3.2 we noted that shop-floor representatives in Germany, Austria, and the Nordic countries exercise at least *some* authority over decisions about working conditions, may

also influence layoff decisions, and (in Germany) can also be involved in wage negotiations.

Happily, these predictions are largely consistent with the available quantitative evidence on the economic impacts of codetermination, which we now briefly summarize.

Sources of Evidence The available evidence comes from two sources. First, a large set of studies, surveyed by Jäger, Noy, and Schoefer (2021), estimate the partial-equilibrium effects of codetermination on individual firms and their workers by comparing codetermined to non-codetermined firms. The central challenge faced by these studies is that firms with and without codetermination (e.g., firms above versus below the size thresholds for codetermination mandates, or firms whose workforces do versus do not take up their rights to codetermination) may differ unobservably in ways that make a simple comparison of their outcomes misleading. Several studies therefore use "quasi-experimental" techniques that attempt to isolate variation in codetermination status that is plausibly unrelated to these underlying unobservable factors.

For example, Jäger, Schoefer, and Heining (2021) and Harju, Jäger, and Schoefer (2021) analyze codetermination reforms in Germany and Finland that abolished or introduced codetermination requirements for specific subsets of firms delineated by size or legal form. They use micro datasets on individual firms and their workers to compare the outcomes of similar firms, affected versus unaffected by the reforms, before and after the reforms. By zooming in on these specific comparisons, these studies uncover the causal effects of the codetermination reforms under the reasonable assumption that affected and unaffected firms would have experienced identical *trends* in outcomes in the absence of the reforms.

Studies comparing the outcomes of codetermined and non-codetermined firms vary in the plausibility of the assumptions required to make their estimates have a causal interpretation. Consequently, Jäger, Noy, and Schoefer (2021) do not simply aggregate the findings of all existing studies, but instead weight existing results by the plausibility of the underlying "identifying assumptions." Their survey, and our brief summary below, focuses mainly on the studies with the most persuasive quasi-experimental strategies.

The second source of evidence consists of cross-country event study estimates by Jäger, Noy, and Schoefer (2021), which try to uncover the general-equilibrium impacts of codetermination reforms on aggregate economic outcomes and the quality of industrial relations, using a similar difference-in-differences (comparing affected versus unaffected countries, before and after a reform) strategy at the country level. This strategy is less reliable at the level of countries than at the level of firms, since sample sizes are smaller and it is harder to find similar comparison countries that plausibly are on an otherwise similar trend, but these event study estimates nevertheless constitute the best available evidence on the general-equilibrium impacts of codetermination laws.

We now summarize the conclusions from these two sources of evidence.

Worker Outcomes First, both board-level and shop-floor codetermination have few (if any) impacts on observable worker outcomes, with shop-floor codetermination having slightly stronger effects. Board-level representation has zero or very small positive impacts on wage levels, with recent studies finding point estimates on the order of 1-2% and confidence intervals that include zero (Blandhol et al., 2020; Jäger, Schoefer, and Heining, 2021; Harju, Jäger, and Schoefer, 2021). Meanwhile, some evidence indicates that shop-floor representation in Germany moderately boosts wages and narrows within-firm earnings gaps, perhaps thanks to the special wage negotiation rights held by German works councils (Jirjahn and Smith, 2018; Hirsch and Mueller, 2020; Schnabel, 2020).

Board-level representation also does not appear to reduce voluntary turnover, which constitutes revealed-preference evidence that this form of codetermination does *not* substantially improve job quality (Jäger, Schoefer, and Heining, 2021; Harju, Jäger, and Schoefer, 2021). However, strong forms of shop-floor codetermination are associated with lower voluntary turnover (Addison, Schnabel, and Wagner, 2001). Both forms of codetermination *do* seem to reduce involuntary separations (i.e., layoffs), and may commensurately be accompanied by slight reductions in hiring in codetermined firms (Addison, Schnabel, and Wagner, 2001; Keskinen, 2017; Harju, Jäger, and Schoefer, 2021). Finally, there is suggestive evidence that both kinds of codetermination improve subjective job quality (Harju, Jäger, and Schoefer, 2021). Cross-country event studies confirm that codetermination reforms do not appear to affect wage levels, the labor share, or income inequality (Jäger, Noy, and Schoefer, 2021).

Firm Performance Second, both types of codetermination have neutral or small positive impacts on firm performance, including productivity, capital intensity, revenue, and profitability (Jäger, Schoefer, and Heining, 2021; Harju, Jäger, and Schoefer, 2021). There is even some evidence that German works councils raise productivity (Mueller and Stegmaier, 2017). This is consistent with the results of cross-country event studies, which find no effects of codetermination on productivity growth, capital formation, or GDP growth (Jäger, Noy, and Schoefer, 2021).

Industrial Relations Finally, codetermination laws do not appear to improve the quality or cooperativeness of a country's industrial relations, though the evidence here is murkier. Some scholars argue that codetermination institutions have been responsible for shaping cultures of cooperative industrial relations, e.g., in Germany (Thelen, 1991). However, Jäger, Noy, and Schoefer (2021) find no evidence that codetermination reforms affect a country's subsequent strike intensity, and find no cross-sectional correlation between the "cooperativeness" of a country's industrial relations and whether the country has codetermination laws; that said, they do find suggestive evidence for increases in union density as a result of codetermination reforms. In addition, they argue that the qualitative historical evidence suggests that codetermination

arose in countries with pre-existing cultures of social partnership and worker-management dialogue, rather than *causing* the development of such cultures.

Overall, the empirical evidence is not yet conclusive on this front.

Institutional Complementarities Jäger, Noy, and Schoefer (2021) also discuss whether evidence on the economic impacts of codetermination in Europe can be translated to the United States, given major differences in institutional context between the US and Europe (for example, unions are much weaker and collective bargaining coverage is much lower in the US). The qualitative evidence we have surveyed contributes to this discussion by highlighting historical and contemporary complementarities between codetermination and other worker representation institutions—including the fact that codetermination has historically played a subsidiary role to industry- or national-level trade unions and collective bargaining frameworks, and that many contemporary worker representatives describe their ability to supply unions with information as one of their main functions. These important complementarities mean we should be cautious about extrapolating from the European evidence to conclusions about the effects codetermination would have in the United States.

The Future of Work Technological change and automation will continue to reshape labor markets over the next several decades, with the effects of these transformations on worker welfare likely to be mixed (Acemoglu, 2021). Some authors hypothesize that worker involvement in production/job design through codetermination will help ensure that automation is handled in ways appropriately sensitive to the welfare of workers (Autor, Mindell, and Reynolds, 2019; McKay, Pollack, and Fitzpayne, 2019). There is important historical precedent for this view: in the 1970s, Swedish unions' campaign for broad workplace codetermination rights was motivated by a perception that new technologies were being implemented in ways that eroded job quality and that workers needed a voice in production and workplace design in order to correct this trend (Sandberg et al., 1992). Nordic unions have even at times actively pushed for faster adoption of new technologies: Figure 3 shows Norwegian protesters in 1950 carrying a sign that reads "We demand from the leaders of the shipping industry that they show more interest in modernization and rationalization."

On the one hand, by boosting wages or increasing firing costs, codetermination could raise the price of workers relative to robots and thereby unintentionally accelerate the substitution of humans with machines. Indeed, there is evidence that wage increases among low-paid workers spur increased automation of routine tasks (Dechezleprêtre, Hémous, Olsen, and Zanella, 2021), and union density is cross-sectionally correlated with higher automation (Acemoglu and Restrepo, 2022). We have noted that codetermination does not appear to substantially boost wages, but it does reduce involuntary separations—plausibly in part by increasing firing costs—which leaves room for this mechanism to operate (although higher

Figure 3: A Labor Demonstration in Norway in 1950



Note: The photograph shows a May 1, 1950 demonstration in Oslo with workers calling on the shipbuilding industry's leaders to show more interest in modernization and rationalization. Source: <https://digitaltmuseum.no/021015847224/>

firing costs may also lead to a shift from labor-saving *process* innovations to *product* innovations; Manera and Uccioli, 2021). On the other hand, codetermination might do exactly what Nordic unions hoped it would: give workers the power to persuade employers to build up their human capital and assign them to more sophisticated tasks that complement advanced technologies, rather than keeping them on routine manual tasks and replacing them when those manual tasks are automated.

Unfortunately, there is very little concrete evidence to help us adjudicate between these potential channels. A pair of studies using data from the European Company Survey provide suggestive support for the latter hypothesis. The first study shows that the presence of employee representation in an establishment is correlated with the adoption of more sophisticated and automation-resistant job designs (Belloc, Burdín, Cattani, Ellis, and Landini, 2021). The second shows that codetermination is *positively* associated with take-up of advanced technologies, arguably because those technologies are complementary to workers' newly acquired sophisticated skills (Belloc, Burdín, and Landini, 2022).

In a similar vein, evidence from the German manufacturing sector, where works councils and board-level representatives are very influential, suggests that automation does not threaten the job security of *incumbent* workers and instead causes them to transition to higher-skilled and higher-paying tasks within their firms (though automation does negatively affect the outcomes of young workers and labor market entrants; Dauth, Findeisen, Südekum, and

Woessner, 2021).⁷ These findings stand in contrast to other studies with similar methodologies showing substantial negative effects of automation on job security and employment in the United States (Acemoglu and Restrepo, 2020), perhaps owing to the weakness of employee representation in the US relative to Germany and a corresponding failure of the "upskilling" mechanism to materialize there.

Overall, the (small amount of) existing evidence suggests that worker representation does not obstruct automation or the adoption of advanced technologies, but does encourage automating firms to upskill rather than replace their incumbent workers. (Importantly, the fact that worker representation protects *incumbent* workers in these cases does not necessarily mean it improves overall welfare.)

A Puzzle Before concluding our discussion of the economic impacts of codetermination, we turn to an interesting puzzle raised by the evidence we have surveyed so far. If codetermination has weakly positive impacts on both workers and firms, and if directors and managers mostly approve of the institution, why are codetermination laws necessary? Why don't American firms voluntarily adopt shared governance arrangements? The answer has a few layers.

First and most obviously, the National Labor Relations Act imposes significant legal barriers to voluntary codetermination arrangements in the United States (Liebman, 2017). Even when a jurisdiction's corporate law does not explicitly *prohibit* codetermination, by enshrining owner/shareholder control as the default form of firm governance, established legal frameworks can make experimentation with alternative governance systems difficult and risky (Anderson, 2017).

Second, information asymmetries or "prisoner's dilemma" dynamics may block unilateral voluntary adoption of worker participation even if the institution is beneficial (Levine and Tyson, 1990). For instance, firms that voluntarily adopt shared governance may thereby signal to the stock market that workers have gained the upper hand in their internal labor relations, resulting in a stock price decline (Hayden and Bodie, 2021); alternatively, mild wage compression induced by codetermination may cause talented workers to leave codetermined firms for non-codetermined ones (Burdín, 2016).

These explanations are consistent with the observation that in Europe, where worker participation in firm governance is normalized by formal codetermination laws, we *do* observe widespread voluntary adoption of worker participation in firms without formal codetermination. Jäger, Noy, and Schoefer (2021) discuss evidence from the European Company Survey showing that firms without formal worker representation still frequently involve their workers in decision-making, and claim that informal worker involvement has a

⁷Similarly, Hirvonen, Stenhammer, and Tuhkuri (2021) provide quasi-experimental evidence that firms' investment in new technologies increases firms' employment in Finland (see Harju, Jäger, and Schoefer, 2021, for an overview of Finnish codetermination institutions).

considerable impact on the outcomes of decision-making.

Conclusion Quantitative studies of the economic impacts of codetermination produce results consistent with our qualitative characterization of the institution. Board-level and shop-floor codetermination do not significantly shift core economic outcomes; both forms of codetermination may cause slight increases in job quality and job security, and strong forms of shop-floor codetermination may also slightly boost wages and productivity. The weakly positive impacts of codetermination on firm performance are arguably consistent with the absence of voluntarily adopted codetermination arrangements in many contexts. Finally, potential interactions between codetermination and other European labor market institutions, or between codetermination and emerging technologies, place important limits on our ability to extrapolate from the existing evidence.

5 Overall Conclusion

According to the evidence, existing codetermination arrangements are mild, mostly benign institutions with nonexistent or small positive economic impacts. European-style codetermination institutions, especially minority board-level representation, convey very little authority to workers, and are hence unlikely to significantly shift power from employers to workers. It remains possible that stronger codetermination arrangements, such as German-style works councils, parity board-level codetermination, or a bicameral governance system where decisions require joint approval by shareholder- and worker-elected bodies, provide a larger boost to worker power (as speculated by a group of academics in *The Guardian*; Fraser et al., 2020). However, empirical evidence on the economic impacts of such strong shared governance institutions is scant (Jäger, Noy, and Schoefer, 2021).

Although existing codetermination arrangements do not significantly shift power within workplaces, they do appear to increase information-sharing and worker-management cooperation, which may explain the evidence for small positive impacts of these institutions on worker welfare and firm performance. Notably, the purpose of codetermination laws need not be to dramatically restructure workplace hierarchies or influence major economic decisions. As Jäger, Noy, and Schoefer (2021) note, proponents of codetermination often emphasize the intrinsic importance of fostering open and democratic workplaces by giving workers formal channels to express a voice in firm governance. Codetermination laws may successfully deliver on this front even if they do not have large effects on measurable economic outcomes.

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