

# The politics of mandatory extensions of collective bargaining

Balder Blinkenberg



Master's Thesis

Spring 2023

Department of Comparative Politics  
University of Bergen

## Abstract

The proportion of workers covered by collective agreements has fallen in most OECD countries over the last decades. One of the main ways governments can increase collective bargaining coverage is through mandatory extensions. This is when the government extends a collective agreement so that it also applies to firms that did not sign the agreement. It is a policy that carries important implications for the division of power between the state and the social partners. It can also have considerable distributional consequences for the labour market. Countries vary greatly with regards to mandatory extension practices; while some extend sectoral agreements on a semi-automatic basis, others do so only in special cases, and still others have no legal mechanism for extending collective agreements. In this thesis I investigate the causes of this policy variation, with a focus on the role of political actors. I build on dominant strands of theory within comparative political economy to generate hypotheses. Empirically, I show that leftist parties and labour unions are important factors for explaining variation in mandatory extensions. The empirical strategy follows a mixed methods research design. Based on a time-series cross-sectional analysis of 33 OECD countries in the period between 1980 and 2017, I find that left-party government participation is associated with increased extension practice. Additionally, countries with high union density make more use of mandatory extensions. This relationship is less clear cut for very high union density rates, indicating that labour unions might fear that mandatory extensions create free-rider problems that can damage membership incentives. In addition, I conduct a case study of Norway, based on semi-structured interviews and policy documents. The Norwegian labour unions have been a driving force in promoting mandatory extensions, both in the creation of the Extension Act and in subsequent debates in the Tariff Board. Both the quantitative and the qualitative evidence shows that the political actors that represent wage-earners play a key role in shaping mandatory extension practices.

## Acknowledgements

Først og fremst vil jeg takke min veileder, Georg Picot. Vi ble først kjent da jeg begynte å jobbe i forskningsprosjektet Wagereg i starten av 2021, og han har mye av æren for at jeg begynte å interessere meg for arbeidslivspolitik. Jeg er heldig som har hatt en så dyktig og kunnskapsrik veileder i arbeidet med denne masteroppgaven, og vil takke for all hjelp og støtte i både utformingen og gjennomføringen av dette prosjektet. Jeg vil også takke både nåværende og tidligere kolleger i Wagereg-teamet, som har lært meg mye om lavlønnspolitik, og spesielt Trond Erlie, som har gitt verdifulle innspill om norsk lønnsdannelse.

En stor takk går også til mine medstudenter på masterprogrammet i sammenlignende politik. Gjennom innspurten på lesesalen har dere vært mine aller nærmeste rent geografisk. Takk for mer og mindre faglige samtaler på lunsjrommet, og for å ha holdt humøret oppe. Spesielt vil jeg takke kollokviepartnerne mine Sara, Bastian og Juni, som har tatt seg tid til å sette seg ordentlig inn i oppgaven min og gi gode tilbakemeldinger. Det samme skal også min far, og min venn Matias, ha takk for.

Jeg vil takke familien min, min mor, min far, og min bror Mads, for all støtten gjennom dette året. Jeg er heldig som får se dere så ofte som jeg gjør. Til slutt vil jeg takke min kjæreste Juni, den samme som nevnt over. For gode diskusjoner og kloke innspill, for støtte og oppmuntring, og for å ha gjort dette året til det lykkeligste i mitt liv.

# Contents

<b>Abstract</b> .....	<b>i</b>
<b>Acknowledgements</b> .....	<b>ii</b>
<b>Contents</b> .....	<b>iii</b>
<b>Tables and figures</b> .....	<b>iv</b>
<b>1. Introduction</b> .....	<b>1</b>
<b>2. Mandatory extension of collective agreements</b> .....	<b>8</b>
<b>3. Literature review</b> .....	<b>19</b>
<b>4. Theory</b> .....	<b>27</b>
<b>5. The mixed-methods research design</b> .....	<b>37</b>
<b>6. Statistical analysis</b> .....	<b>42</b>
<i>6.1. Data</i> .....	<i>42</i>
<i>6.2. Method</i> .....	<i>49</i>
<i>6.3. Results</i> .....	<i>54</i>
<b>7. A case study of Norway</b> .....	<b>62</b>
<b>8. Discussion and conclusion</b> .....	<b>74</b>
<b>References and appendices</b> .....	<b>84</b>
<i>Appendix A: Data</i> .....	<i>92</i>
<i>Appendix B: Robustness test, Model 4</i> .....	<i>93</i>
<i>Appendix C: Brant test</i> .....	<i>94</i>
<i>Appendix D: Case study source material</i> .....	<i>95</i>

## Tables and figures

### Tables

Table 2.1. Extension practices in OECD countries, 2019.....	13
Table 2.2. Mandatory extensions, all cases of within-country change. ....	18
Table 6.1. Variable overview. ....	48
Table 6.2. Mandatory extensions – proportional odds logistic regression.....	56
Table 6.3. Brant test results. ....	58
Table 6.4. Mandatory extensions – OLS-regression. ....	60
Table 8.1. Overview of hypotheses. ....	75

### Figures

Figure 2.1. OECD Collective bargaining coverage rates in 2017.....	15
Figure 2.2. OECD Extension practices, sample overview (1980-2017). ....	16
Figure 2.3. Extension practices, reduced sample (1980-2017). ....	17
Figure 6.1. Union density and mandatory extensions (Model 6). ....	61
Figure 7.1. Generally applicable collective agreements in Norway. ....	70

# 1. Introduction

*“Work is of two kinds: first, altering the position of matter at or near the earth’s surface relatively to other such matter; second, telling other people to do so. The first kind is unpleasant and ill paid; the second is pleasant and highly paid.”*

- Bertrand Russell (1932)

Wages are, in a simplified sense, decided by the relationship between the supply of and demand for labour. Both factors may differ between labour market sectors, and across skill levels. This is the main reason for wage disparities within the economy. High demand and low supply of specific competencies gives certain workers the ability to bargain a high price for their labour. On the other hand, if the supply of labour outweighs the demand, this gives employers the freedom to maintain low wage levels and thus keep production costs down. Since the supply of low-skilled labour is high, these workers are most at risk of participating in low-wage work. This has always been the case, but it is especially true as increased labour mobility expands the potential supply of low-skilled labour. Contemporary trends of globalization and internationalization therefore affect market forces in ways that can increase wage disparities.

This stylized economic model of the labour market is insufficient, however, since it does not take into account the institutions that limit and ameliorate the raw market forces. Firstly, there are laws that directly regulate which terms of employment are acceptable. Statutory legislation imposes limits of maximum working hours and minimum standards of occupational health and safety. Many countries also have a statutory minimum wage, creating a floor below which wages are not allowed to fall. Collective bargaining is the other important institution that works to decommodify labour. By pooling their bargaining power in labour unions, workers can secure wages above the market equilibrium level. Within the framework of statutory regulation, collective agreements between unions and employers set stricter standards that all employment contracts covered by the agreement must adhere to. Since collective bargaining aims to represent workers of different skill levels, the wage provisions in collective agreements can cover the entire wage scale. This is a key difference from statutory wage regulation, which in practice only covers the minimum wage.

Governing the labour market thus falls to two institutions: the state and collective bargaining. Statutory regulation is universal, but is therefore limited in substance. Collective agreements can secure more comprehensive terms of employment, but their influence is conditional on employers' and workers' ability and willingness to organize. Facing the challenge of low-wage work, it is not obvious which institution is best positioned to improve conditions for those at the bottom of the wage scale. It is a dilemma that depends on contextual factors like how many workers are covered by collective agreements, the strength and priorities of unions, and on the level of the statutory minimum wage relative to the minimum pay rates in collective agreements. All these vary greatly, both between countries and between the different sectors of the labour market.

There is one policy, however, that bridges the gap between statutory and collective regulation of the labour market. Through a declaration of general applicability, the provisions of a collective agreement can be extended to all workers within a sector, industry or country. This mechanism, called mandatory extension, creates a statute based on the content of a collective agreement. All workplaces are required by law to adhere to the provisions within the agreement, which can cover wage levels as well as other conditions of employment. Effectively, it combines the substantive advantage of collective regulation with the universality of statutory regulation. All workers in a sector are granted access to the bargaining gains of labour unions. By drawing more directly on state resources, the provisions of the agreement can also become easier for the social partners to enforce.

Mandatory extension practices vary greatly between countries. This is to be expected; industrial democracies have different institutions for wage bargaining. Countries vary with respect to bargaining centralization, autonomy, and coordination, among other key factors, and it is therefore clear that mandatory extensions should play varying roles in different bargaining systems. The observed variance still leaves the question of what roles political actors play in shaping these institutions. The current dispersion of countries reveals a puzzling variance that does not correlate cleanly with world regions, welfare regimes or other traditional ways of dividing industrial capitalist democracies.<sup>1</sup> What can account for these differences? What roles do political parties play in shaping extension practice on behalf of

---

<sup>1</sup>For an overview of differences in current mandatory extension practices, see Chapter 2, and in particular Table 2.1 (page 13).

their core constituencies, or interest groups on behalf of their membership bases? By addressing these questions, this thesis is an attempt to understand the politics of mandatory extensions.

Recent labour market developments suggest that mandatory collective bargaining extensions might become more politically salient moving forward. In most advanced capitalist democracies, the portion of workers covered by a collective agreement has decreased in recent decades (Schnabel 2020, 20-21). Based on this trend, some observers have posited that collective bargaining is eroding (Hyman 2015). This calls for a policy response if collective bargaining is to continue to fulfil its function. Increased labour mobility, as well as the rise of new forms of employment, can threaten established wage floors. To the extent that these new sources of cheap labour can undercut minimum wage provisions in collective agreements, this increases insecurity for the individual worker, as well as undermining domestic labour market institutions. There is a wide literature documenting the importance of collective bargaining in reducing income inequality (Hayter 2015, 106; Bosch 2015). If collective bargaining continues to erode, policies to introduce or expand mandatory bargaining extensions can be expected to grow in salience.

In the member states of the European Union, an additional contemporary development can increase the political salience of mandatory extensions in the near future. The recently adopted EU Directive for Adequate Wages aims to ensure adequate wage floors for all workers in the European Union. As the directive states, minimum wages can be provided either by national law or through collective agreements (EU 2022, 34). Strengthening collective bargaining institutions is thus an essential part of the EU labour and social policy agenda. Collective bargaining coverage in EU member states have remained comparatively high and stable, something often attributed to the continued prevalence of multi-employer bargaining (Schulten, Eldring, and Naumann 2015, 361-362). Mandatory extensions are a part of this picture. The new Adequate Wages directive, however, states that all EU member states where collective bargaining coverage is below 80 percent, will be required to “establish an action plan to promote collective bargaining” (EU 2022, 37). Most EU member states currently fall below this threshold, in some instances far below (see Figure 2.1, page 15). It is therefore reasonable to expect increasing pressure from the EU towards many of its member states to bolster collective bargaining coverage through concrete, targeted policies.



Implementing or strengthening the mechanism of mandatory bargaining extensions is one obvious policy measure, which is likely to feature in the action plans of many EU countries.

In some ways, mandatory extensions support the institution of collective bargaining. In a context of shrinking associational membership numbers and an increasingly fragmented labour market, extensions can be a useful tool for maintaining collective bargaining coverage. At the same time, this policy can pose a threat to the autonomy of collective bargaining. The state exerts itself quite powerfully by extending agreements to unorganized workplaces, potentially reducing their ability to bargain for themselves. And although extensions clearly provide a potential benefit for labour unions by improving agreement coverage, this also creates a potential free-rider problem that might reduce membership incentives. From the outset, then, it is not immediately clear whether this is a policy that primarily benefits unions or employers. It is also not clear if it strengthens the institution of collective bargaining by shoring up coverage, or weakens it by making it more dependent on the state.

Countries differ greatly regarding the extent to which this mechanism is used. Some states extend collective agreements on a semi-automatic basis. In others it is more limited. A declaration of general applicability can be conditional on strict policy criteria, for example the requirement that the collective agreement is representative for working conditions within the sector. Still others have no legal provisions for mandatory extensions. These differences have implications for wage dispersion, low-wage work, labour market segmentation, and for the power resources of labour unions and employers. In spite of this, there have been relatively few attempts to explain this policy variation. The aim of the thesis is to account for varying extension practices among OECD countries. I pay special attention to the roles of political actors and their power relations, while also investigating other factors.

*Research question: What political factors can account for the varying mandatory extension practices among OECD countries?*

## **Research design, findings, and contributions**

This thesis employs an integrated mixed-method approach to study the politics of mandatory extensions. In the quantitative component of the research design, a time-series cross-sectional analysis of the extension practices in 33 OECD countries examines what political indicators are connected to higher instances of mandatory agreement extensions. Dominant strands of theory in comparative political economy implies several theoretical expectations, which the time-series cross-sectional analysis is well suited to test empirically. There are many ways in which the practices concerning mandatory extensions vary among countries. In the ICTWSS-database (OECD and AIAS 2021a), the institutional features of this mechanism are summarized into a singular categorization. The resulting variable groups country-year observations by whether mandatory extensions are “frequent”, “limited”, or “rare”, with a bottom category for cases with no legal provisions for extending collective agreements. This four-point ordinal scale is used as the dependent variable in an ordered response model, making it possible to test which of the theoretically relevant variables are connected to categorical increases in the prevalence of mandatory extensions. Based on the same data set and the same selection of variables, I also conduct a linear regression analysis. The findings indicate that the political actors associated with organized labour should be the starting point in an account of the politics of collective bargaining extensions. The statistical association between extension practices and unionization is particularly strong, but there are also clear partisan effects apparent across all statistical models.

In the qualitative empirical component of this thesis, the politics of mandatory extensions in Norway are examined more closely. I conduct a qualitative case study where the main focus is the political and procedural impact of the Norwegian labour union movement. Norway is an interesting case from a theoretical standpoint. In the Nordic region Norway occupies a unique middle ground, as the other countries either use mandatory extensions on a semi-automatic basis or not at all. The case study follows the introduction and gradually increased use of mandatory extensions between the 1990s and the present day. It is based on semi-structured interviews with key informants as well as publicly available case documentation from the Tariff Board, the body deciding mandatory extensions. These provide insight into the policy preferences and political influence of key stakeholders.

Evidence from the case study suggests that labour unions were the principal actors pushing for mandatory extensions in Norway, both in the legislative process and in subsequent debates within the Tariff Board. Their main opposition in this endeavour has come from employers. This indicates that the conflict line in this field of labour market policy is quite clear cut, between organized labour and business. Furthermore, the Norwegian case illustrates that the simplifications necessary for the statistical analysis mask important variation on the dependent variable, and is thus a good argument for a multimethod approach in this exploratory thesis.

While there is a long tradition for studying the relationship between the state and collective bargaining, mandatory extensions specifically have received relatively little attention. This thesis contributes to our understanding of the politics of mandatory extensions in multiple ways. As the literature review in Chapter 3 shows, the sparse body of previous research into the politics of mandatory extension policies is almost entirely qualitative. The time-series cross-sectional analysis is therefore an important first step towards a more systematic study of this topic.

The strong positive association between union density and mandatory extensions merits a closer inspection. The thesis contributes to our understanding of this relationship in two ways. Firstly, the statistical results indicate a curvilinear relationship between these two variables. This finding might suggest that mandatory extensions are de-emphasised, either by governments or by unions themselves, when a very large portion of the workforce is unionised. At the very least, it seems from this finding that the preferences and considerations of key political actors change based on the degree of organisation within the workforce. Secondly, the role of labour unions in determining extension practices is examined closer in the Norwegian context. The evidence suggests that the union movement has had considerable impact, and a strong preference for extensions as Norway entered the common European labour market through the EEA agreement.

Employing a mixed-methods approach has given additional insight into this topic. Having access to both correlational and contextual evidence provides a fertile ground for developing further hypotheses concerning the politics of mandatory extensions. As a relatively exploratory project, this thesis contributes to the literature by pointing out promising avenues for further research. This contribution is strengthened by employing a wide-reaching

theoretical framework based on multiple schools of thought within comparative political economy. The conclusion supports a power resource theory approach to the study of mandatory extensions. Based on both correlational and case-study evidence indicating pronounced interest-based conflict in this policy field, I argue that the findings conflict with the more functionalist Varieties of Capitalism-framework. The attempt to integrate mandatory extensions into the growth model perspective within comparative political economy remains inconclusive, but some possible next steps are laid out in the final chapter.

As a contribution in its own right, the case study on Norway synthesises relevant case-specific literature and provides original empirical evidence in the form of qualitative interviews. Along with the document analysis, this represents an empirical contribution that sheds light on what I argue is an important case of extension politics. Furthermore, the case study serves to situate Norway within the broader framework of the statistical analysis. It can function as a methodological blueprint for future case studies on the politics of mandatory extensions in other contexts.

## **Overview of the thesis**

The remainder of the thesis is structured as follows. Chapter 2 provides a general introduction to mandatory extensions as a policy field, describing the institutional variation that this thesis seeks to explain. Previous explanatory literature is presented in Chapter 3. Chapter 4 introduces relevant strands of theory from comparative political economy, culminating in a set of hypotheses that guide the analysis. The research design is outlined in Chapter 5, with an emphasis on the interplay between quantitative and qualitative research methods. Chapter 6 presents the statistical analysis, divided into three sections devoted to data, methods and results. Chapter 7 contains the case study of mandatory extensions in Norway. The results of both the empirical chapters and their implications for the research question are discussed in Chapter 8, which also concludes the thesis.

## 2. Mandatory extension of collective agreements

This thesis falls within the realm of comparative politics and comparative political economy, as it studies the political determinants of a labour market policy. Since the policy in question affects collective bargaining, the thesis also builds on industrial relations literature. This chapter serves as a general introduction to this area of policy, laying the substantive groundwork for the analysis. The first two sections introduce some core concepts from industrial relations, and provide a thorough explanation of what is meant by mandatory extensions within this thesis.

The second half of this chapter presents the empirical variation found within this field of policy. I build on descriptive literature, highlighting the institutional variety that affects how much mandatory extensions are used in practice. As the analysis in this thesis is aimed at policy explanation, the consequences of mandatory extensions fall outside its scope. In order to understand the preferences of various political actors, however, I briefly present some of the policy outcomes highlighted in the literature. Descriptive statistics based on the data set that is used for the statistical analysis later on in the thesis, are also presented in this chapter. This is to give the reader a sense of the cross-sectional variation found in the policy field of mandatory bargaining extensions, as well as its development over time.

### **Collective bargaining**

Collective bargaining is the process wherein groups of employees negotiate wages and other working terms with their employer. This can provide workers with a better bargaining position than negotiating their contracts individually, as they avoid wage competition amongst themselves. Collective bargaining may take place at different levels. At the most local level, a union negotiates directly with an employer on behalf of the employees at a single workplace. At the sectoral level, organized unions and employers can set industry-wide standards through multi-employer bargaining. At its most centralized, collective bargaining can also take place at the national level between the peak-level associations on both the employee and employer side. The balance struck between plant-level, industry-level and national-level bargaining varies between countries.

The structure of collective bargaining can have significant consequences for the national economy. High degrees of bargaining centralization are connected to lower levels of wage inequality (Garnero 2021; Traxler and Brandl 2011, 248). In terms of unemployment, some studies suggest that the extremes of bargaining centralization work best (Calmfors and Driffill 1988; Driffill 2006). Their findings indicate that highly centralized systems with national-level coordination like Austria and the Nordic countries, as well as highly decentralized systems with isolated plant-level bargaining like the US or Japan, are best equipped to maintain high employment levels. This finding is in line with the “Varieties of Capitalism”-framework (Hall and Soskice 2001)<sup>2</sup>, which posits that liberal and coordinated political economies represent two different equilibria of high performance.

Many scholars studying the development of collective bargaining point to a contemporary trend of liberalization. Coordinated wage bargaining through encompassing producer group organizations was at its strongest in the decades following the second world war. In the period since the late 1970’s, advanced capitalist countries have gone through a process of deregulation and flexibilization that has increased the discretion of employers in industrial relations (Baccaro and Howell 2017). The results of this process have varied between countries (Thelen 2014), but generally, liberalization in its various forms has made collective bargaining weaker, more decentralized, and more dependent on the state.

Collective bargaining coverage (CBC) refers to the portion of the workforce covered by a collective agreement. Coverage can come from agreements either at the plant, industry or national level. In most advanced capitalist countries, the CBC rate has fallen over the recent decades (Schnabel 2020, 20-21). This means that an increasing portion of the labour force falls outside the scope of collective agreements. CBC has been shown to correlate negatively with income inequality and shares of low-wage employment (Bosch 2015), suggesting that collective bargaining can be an important resource for low-wage workers. The most direct way the state can expand collective bargaining coverage is through mandatory extensions of collective agreements.

---

<sup>2</sup> For a more thorough explanation of the “Varieties of Capitalism”-framework, see Chapter 4.

## Extending the coverage of collective agreements

In principle, the provisions of collective bargaining agreements apply only to the participants of the negotiations. Both the employer and the labour union participate either directly or through their membership in peak-level associations, often referred to as federations. However, there are different ways to widen the scope of these provisions beyond the parties directly or indirectly participating in collective bargaining.

Most countries have so-called *erga omnes*-provisions which automatically extend agreement coverage to non-unionized employees in workplaces covered by a collective agreement (Schulten, Eldring, and Naumann 2015, 364). This makes it impossible for organized employers to discriminate between their unionized and non-unionized employees. They also remove the ability of employers to evade the provisions of their collective agreements by hiring more unorganized workers. These kinds of provisions are fairly ubiquitous and typically uncontroversial. They can benefit unions by removing employers' ability to undercut wages, and they can benefit employers by removing the incentive for non-organized workers to unionize once the agreement is in place (Hayter and Visser 2021, 172). Most importantly, *erga omnes*-provisions in their various forms can benefit workers by preventing one form of discrimination from employers as well as rivalry between co-workers doing the same work under different conditions.

In this thesis, as well as in the literature, “mandatory extensions” refer rather to the extension by law of collectively bargained multi-employer agreement provisions to *unorganized workplaces*, meaning workplaces where there is no collective agreement. This means that the main target of extensions are employers rather than employees (Traxler, Kittel, and Blaschke 2001, 183), namely the unorganized employers that operate within the scope of a sectoral bargaining agreement without being part of it. Mandatory extension must also be distinguished from voluntary extension, which occurs when unorganized employers decide to adopt the provisions of a collective agreement of their own volition. Voluntary extensions often occur due to pressure from trade unions, but without state interference (Hayter and Visser 2021, 173). Throughout this thesis, when used alone, the term “extension” will denote mandatory rather than voluntary extensions of collective agreements.

Forcefully extending an agreement beyond its signatory parties on both the employer and the employee side raises important questions about the freedom of association and the relationship between statutory regulation and autonomous collective bargaining. Mandatory extensions are also generally met with greater resistance than erga omnes-provisions because they conflict with the interests of key actors in the labour market. Most obviously, a declaration of general applicability is against the interests of non-organized firms, since it can force them to pay their workers an above-market wage. There are also reasons for unions to oppose extension in certain circumstances. This could be because it removes or diminishes their opportunity to negotiate their own collective agreement, thereby reducing their bargaining autonomy. Alternatively, labour unions might fear that free-rider problems can impact the incentives for unionizing in the long run. Whether or not a country will engage in widespread mandatory extensions is therefore a political question. It has distributive consequences for workers and employers, as well as institutional consequences for the system of collective bargaining.

### **Empirical variation of mandatory extensions**

Not all countries have legal provisions for mandatory agreement extensions. Those that do, vary greatly in how much this mechanism is used. There are many different reasons for this. One reason concerns the legal provisions themselves. There are different ways in which legislation can limit its usage. A common way is through coverage thresholds, whereby the original agreement needs to already cover a certain portion of workers within the sector in order to be considered “representative” for its working conditions and thus fit for extension. The coverage threshold is usually set at around 50 percent of workers in the sector, but it varies among countries (Schulten, Eldring, and Naumann 2015, 370). Not all countries with mandatory extensions have a clear-cut representativeness criterion.

Elsewhere, the use of mandatory extensions is limited by the stated policy goals of the extension legislation. This means that the proposed extension of a collective agreement to unorganized workplaces needs to fulfil public policy criteria. In Norway, for instance, the explicit aim of the 1993 Mandatory Extension Act (Allmenngjøringsloven) is to ensure that foreign workers enjoy comparable standards of employment to their Norwegian-born colleagues. Wage dumping, or social dumping, occurs when employers evade domestic social



regulation in order to get a competitive advantage. This topic has been much discussed in debates around the common market of the EU, particularly as the eastern enlargement of the EU has given many firms access to cheaper labour (Bernaciak 2014, 21). So too in Norway, where mandatory extensions are limited to sectors affected by social dumping. The burden of proof rests on the labour federation (LO) to provide documentation showing widespread wage dumping among foreign workers, and thus make the case that extension of the collective agreement is necessary.

Representativeness criteria, public policy criteria, veto players, as well as other institutional differences all affect how prevalent mandatory bargaining extensions are within a country's wage setting system. In Table 2.1, countries are categorized based on the prevalence of mandatory extensions. The categorization summarizes the different sources of institutional variation. It is retrieved from the OECD and AIAS (2021a) database on the Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts (ICTWSS), commonly referred to as the Visser dataset. This categorization is used as the dependent variable in the quantitative empirical component of this thesis. I present the details and discuss the merits of this categorization further in Section 6.1.

Table 2.1 shows that extension practice cuts across many conventional subdivisions of modern capitalist economies, as many otherwise similar countries are placed far apart. One example is the comparison of Australia, where agreements are extended frequently, and New Zealand, where no legal extension procedure exists. In addition to being anglophone neighbours and former British colonies with a lot of shared history, these countries are both liberal market economies with similar systems of labour market regulations. They were also the first two countries in the world to introduce mandatory extensions in the early 1900's (Hamburger 1939, 159). Their systems of conciliation and arbitration have evolved along similar paths throughout most of the 20<sup>th</sup> century, with a slight divergence as New Zealand has gone further in deregulating employment relations in the neoliberal era (Harbridge and Walsh 2002). As can be seen in Table 2.2 (page 18), both countries moved from the top category of semi-automatic extensions in the early 90's. According to the ICTWSS-data, Australia limited its regulatory framework somewhat, while New Zealand abolished it entirely. This suggests that the study of mandatory extension practices can give a good indication of divergent trends in countries belonging to the same broad employment regulations regime.

Table 2.1. Extension practices in OECD countries, 2019.

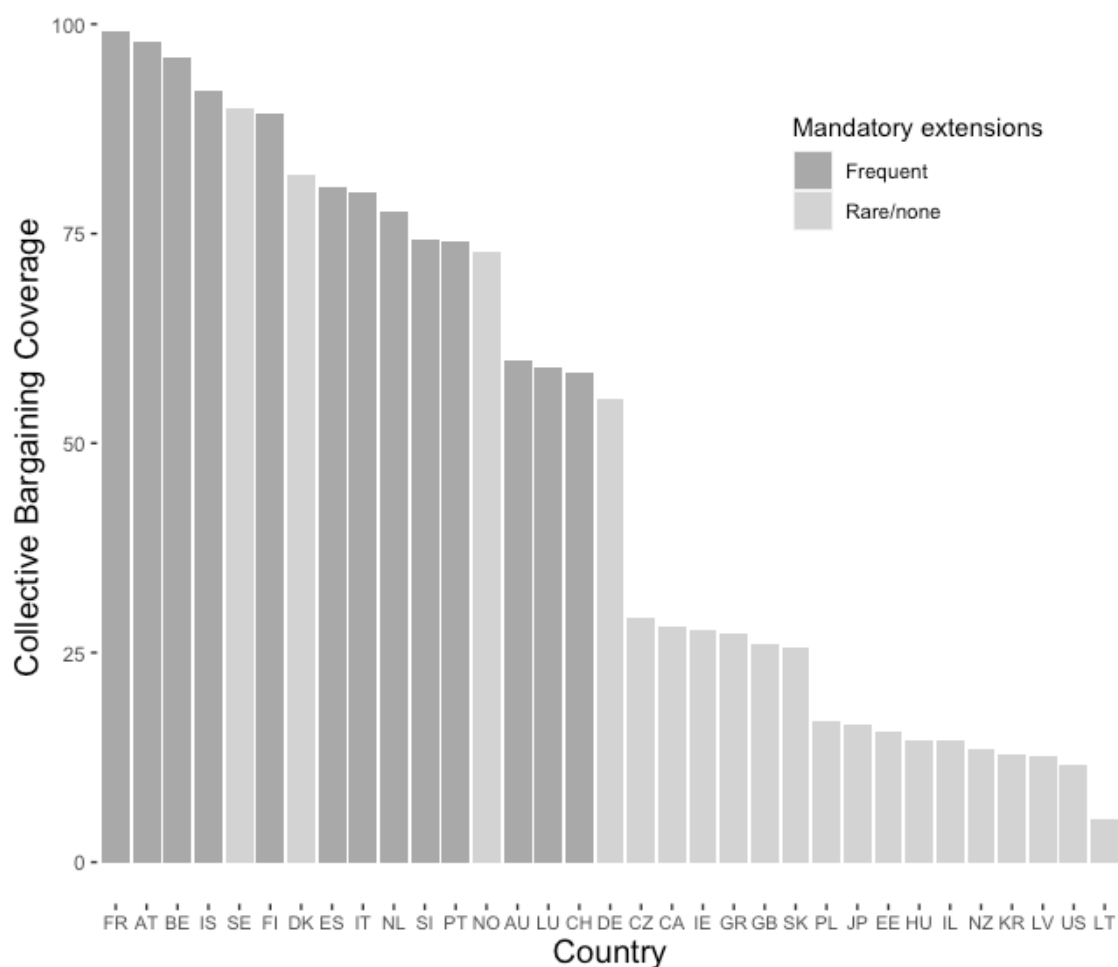
Extension practices		Countries
<b>3. Semi-automatic</b>	Extension is virtually automatic and more or less general.	Austria, Belgium, Finland, France, Iceland, Italy, Portugal, Spain.
<b>2. Frequent</b>	Extension is used in many industries, but there are thresholds and Ministers can decide not to extend collective agreements.	Australia, Greece, Luxembourg, the Netherlands, Slovenia, Switzerland.
<b>1. Rare</b>	Extension is rather exceptional, used in some industries only.	Czech Republic, Estonia, Germany, Hungary, Ireland, Israel, Latvia, Lithuania, Norway, Slovakia.
<b>0. No legal provisions</b>	There are no legal provisions for mandatory extensions.	Canada, Denmark, Japan, New Zealand, Poland, South Korea, Sweden, United Kingdom, United States.

Additionally, the five Nordic countries are evenly spread between the top (Finland and Iceland) and bottom (Denmark and Sweden) categories. Norway occupies the Nordic middle ground, with a limited use of mandatory extensions. Some candidate explanations for Norway's unique position are presented as part of the case study in Chapter 7. As a group, the Nordic countries perhaps present the puzzle of this thesis most clearly. This puzzling spread suggests that mandatory extensions are not simply a byproduct of the "Continental" or "Nordic" models of collective bargaining, but that their relationship to the political system as a whole is rather quite complex.

Other institutional features of a country's collective bargaining system can function as automatic mandatory extensions. This pertains to two of the countries in the top category of Table 2.1. Austria and Italy have no formal extension mechanism, but rather functional equivalents that extend sectoral agreement provisions to all workplaces. In Austria, membership in the national employer association (WKO) is compulsory for all employers (Glassner and Hofmann 2019, 34). This means that collective agreements struck with the WKO are de-facto generally applicable, which is why Austrian collective bargaining has a coverage rate of almost 100 percent. The functional equivalent in Italy applies only the minimum wage provisions of collective agreements. Article 36 of the Italian Constitution ensures all workers fair remuneration for their work. The prevailing constitutional jurisprudence grants all workers access to the collectively agreed minimum wage (Pedersini 2019, 345). Both these institutional equivalents are automatic in nature, extending collective agreement coverage by default. This is why both Austria and Italy are placed in the highest category of extension practice.

Mandatory extensions are important for maintaining a high collective bargaining coverage in many countries. In a study of OECD countries, Hayter and Visser (2021, 173-175) estimate that the bargaining extension increase collective bargaining coverage by on average 12 percent. Evidence from Portugal suggests that that changes in extension practice have significantly impacted bargaining coverage (Neumann 2018, 100). Similarly, countries that have removed the mandatory extension mechanism have seen coverage rates drop markedly (Hayter and Visser 2018, 22). This relationship is also clear from the data used in this thesis. Figure 2.1 displays a clear correlation where countries in which extensions are frequent have markedly higher rates of bargaining coverage. Interestingly, the three countries that deviate from this trend are Sweden (SE) and Denmark (DK), which have no legal extension provisions, and Norway (NO), where mandatory extensions are rare. In addition to the Scandinavian countries, Germany (DE) also maintains CBC comparable to the group of countries that frequently use extensions, although at a slightly lower level.

Figure 2.1. OECD Collective bargaining coverage rates in 2017.<sup>3</sup>



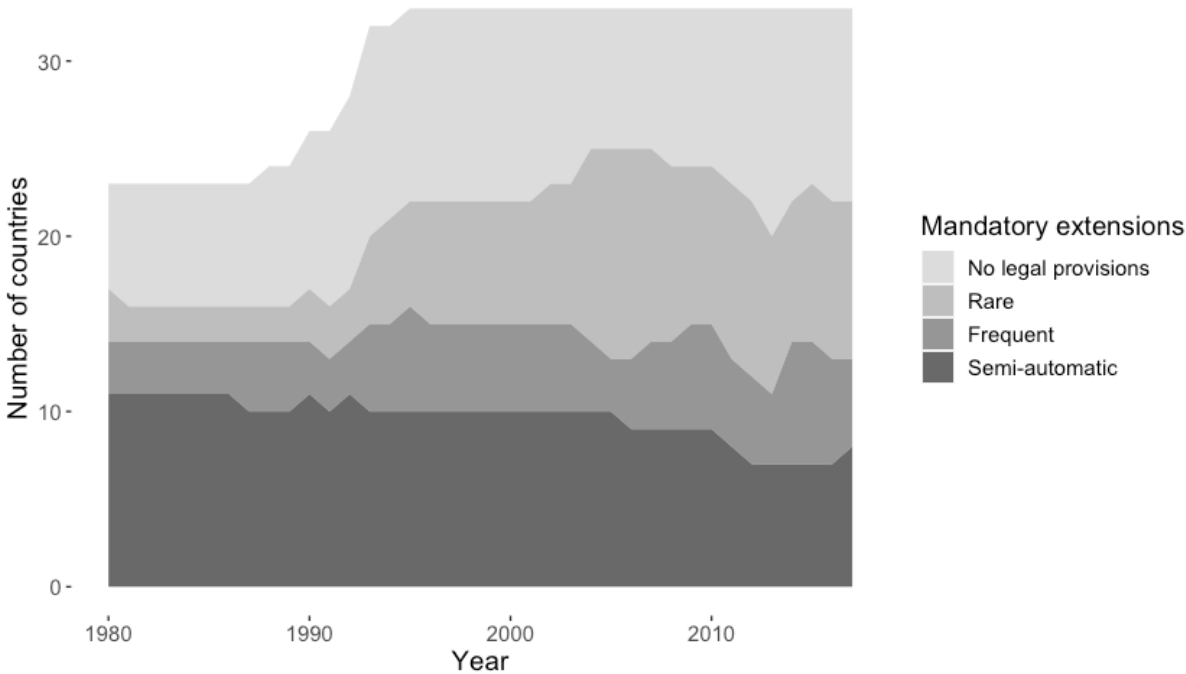
Note: “Frequent” mandatory extensions correspond to the top two categories in Table 2.1.

Besides the widely reported finding that extensions increase bargaining coverage, research on the wider economic implications of this mechanism remains largely inconclusive. Studies indicate a reduction in wage dispersion and a negative employment effect, both of which are context-dependent (Villanueva and Adamopoulou 2022; Hijzen and Martins 2020; Martins 2021). Furthermore, Visser (2018, 54) argues that the existence of mandatory extensions as a public policy can affect the content of the collective agreements themselves. As the bargaining partners become dependent on extensions to ensure sufficient coverage, the public interest criteria may be prioritized in the bargaining process.

<sup>3</sup> Source: ICTWSS (OECD and AIAS 2021)

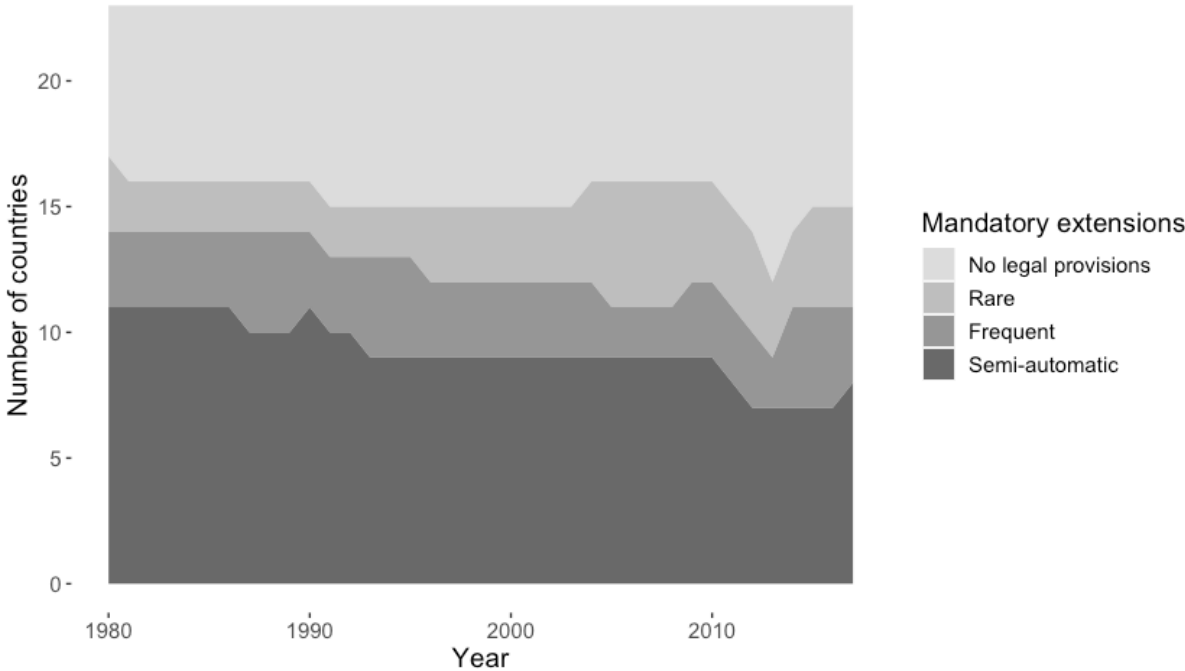
This section has so far given an overview of the spatial variation regarding mandatory extension practices among the sample of countries covered in this thesis. I now turn to the temporal variation on the same ICTWSS-variable. Figure 2.2 shows how the distribution of countries develops throughout the period of analysis. As one would expect with an institutional variable like this, the distribution remains relatively stable over time. Some temporal variance is observable, though, particularly in more recent years. The total number of countries included in the sample increases markedly in the early 90's, as the collapse of the Soviet Union caused an influx of new democracies in Eastern Europe. This makes it difficult to discern a clear trend in the extension variable over the entire period. However, between 1980 and 2017, the number of countries with semi-automatic mandatory bargaining extensions seems to decrease, and the number of countries in which such extensions are rare seems to increase. The latter development seems to coincide with the influx of new democracies. In sum, it is hard to tell whether the general trend points to mandatory extension becoming more or less prevalent in the complete sample.

Figure 2.2. OECD Extension practices, sample overview (1980-2017).



The composition effects of adding additional units can be avoided by plotting only the 23 countries that have a complete time-series of observations from 1980-2017. Figure 2.3 has the same specifications as Figure 2.2, but excludes the 10 countries that enter the analysis late. Here we see fairly little aggregate change in the prevalence of mandatory extensions over time. There does seem to be a slight overall decrease in extension practices within the reduced sample.

Figure 2.3. Extension practices, reduced sample (1980-2017).<sup>4</sup>



Figures 2.2 and 2.3 display two key features of the distribution of observations on the dependent variable. Firstly, the spatial variation is considerable; countries are dispersed between all four categories, with the extremes containing the largest shares of observations most of the time. Secondly, the fairly stable relationships between extension practice categories apparent in Figure 2.3 suggests limited within-country variation. Upon closer inspection, this is indeed the case. Table 2.2 contains a complete overview of all country-year

<sup>4</sup> The graph excludes countries that democratized after 1980 and therefore enter the data set during the period of analysis. These include the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia, Slovakia and South Korea. Luxembourg is also excluded from this graph because it lacks current account balance data from UNCTAD up until 1995, making the time-series incomplete over the period.

observations in the data set where extension practice changed from the previous year. There are only 28 such observations among the total 1135 in the sample. The temporal variation is particularly limited early on.

Table 2.2. Mandatory extensions, all cases of within-country change.

<b>Country</b>	<b>Year</b>	<b>From</b>	<b>To</b>	<b>Country</b>	<b>Year</b>	<b>From</b>	<b>To</b>
United Kingdom	1981	1	0	Slovak Republic	2007	1	2
Israel	1987	3	2	Poland	2008	1	0
Greece	1990	2	3	Australia	2009	1	2
New Zealand	1991	3	0	Greece	2011	3	0
Australia	1993	3	2	Slovak Republic	2011	2	1
Estonia	1993	0	1	Portugal	2012	3	0
Poland	1994	0	1	Australia	2013	2	0
Australia	1996	2	1	Ireland	2013	1	0
Latvia	2002	0	1	Australia	2014	0	2
Lithuania	2004	0	1	Portugal	2014	0	2
Norway	2004	0	1	Slovak Republic	2014	1	2
Slovak Republic	2004	2	1	Ireland	2015	0	1
Israel	2005	2	1	Slovak Republic	2016	2	0
Slovenia	2006	3	2	Portugal	2017	2	3

*Note: Increases in extension practice are highlighted in dark grey, decreases in light grey.*

### 3. Literature review

This chapter presents the relevant political science and industrial relations literature dealing explicitly with mandatory extensions of collective bargaining agreements, with a focus on explaining policy variation. The overview reveals that there is not a very large comparative literature devoted to this field of policy. Still, some key contributions are highlighted, and these represent the point of departure for the analysis in this thesis. The chapter begins with a section devoted to the different perspectives on mandatory extensions found in different strands of research. I then present what amounts to an explanatory literature focused on this field of policy, divided by different modes of explanation.

#### **Perspectives on mandatory extensions**

Within the literature on mandatory extensions there exists some conceptual variation. The different perspectives on mandatory extensions presented here are not conflicting conceptualizations. Rather, they highlight the complex nature of this mechanism. The difference in perspective arises from the perceived target of the policy. Is it mainly targeted at interest organizations in an effort to increase their ability to represent the entire workforce, or is it aimed directly at unorganized workers in an effort to create a sectoral wage floor?

#### ***Support for the institution of collective bargaining***

Mandatory extensions can be viewed as a means for the state to solve the collective-action problem of collective bargaining. Traxler, Kittel, and Blaschke (2001, 182) point out that a well-functioning system of collective bargaining is a public good, providing predictable and reliable wage bargaining outcomes. Individual employers as well as employees may seek to exploit this public good by undercutting the industry standards of pay, thereby gaining a competitive advantage whilst undermining the institution of collective bargaining. This collective-action problem manifests itself in two ways. Individual firms or lower-level associations may choose not to engage in centralized bargaining, or they may choose not to comply with their collective agreements. In this framework, extensions are viewed as a way to solve the horizontal dimension of this collective-action problem, which is the problem of



insufficient coverage. Mandatory extensions are seen as regulatory support for the ability of business and labour federations to impose binding decisions on their constituencies (Traxler, Kittel, and Blaschke 2001, 175). In short, extensions support associations in their effort to provide full coverage. The rationale is that the state benefits from upholding the institution of centralized collective bargaining because it allows the state to delegate its regulatory power to organized interest.

Many observers share the view that mandatory extensions play an important role as state support for collective bargaining (Schulten, Eldring, and Naumann 2015, 395; Hayter and Visser 2021, 189). Some observers are sceptical of mandatory extensions as a solution to the perceived erosion of collective bargaining, however. Hyman (2015) argues that even though bargaining coverage remains high in many European countries, in part thanks to mandatory extensions, “the real efficacy of collectively agreed standards is decreasing” (2015, 6). Hyman’s analysis of contemporary trends in industrial relations sees the hollowing-out of collective labour market regulations as part of a large-scale erosion of the class compromises characteristic of the post-war era. In a similar vein, Howell (2016) views state intervention in employment relations as a part of a neoliberal economic trajectory. In this perspective, mandatory extensions are part of a regulationist framework whereby the state, in the absence of encompassing labour unions, compensates workers for the consequences of liberalization (Howell 2016, 581).

Some have also suggested that the extension mechanism itself can contribute to the displacement of collective bargaining. When bargaining partners become dependent on the state to extend their agreements, they can be required to prioritize public policy objectives which might not coincide with their own interests. As a public policy, extensions may cast a “shadow of hierarchy” over collective bargaining. Visser (2018, 54) argues that the threat to withhold extension has been used by the Dutch state to enforce wage moderation in sectoral bargaining. It is not clear, then, whether mandatory bargaining extensions should be viewed as a way for the state to support social partners in their effort to secure bargaining coverage, or as part of a gradual displacement of autonomous collective bargaining.

### *Minimum wage regimes*

A related, but somewhat different way to conceptualize mandatory extensions is to view it as one of several regulatory solutions to the issue of low-wage employment. In this view, there are two main ways in which workers may be protected from the risk of low-wage employment: statutory minimum wages and collective bargaining. In countries that lack a statutory minimum wage, collective bargaining can work as a functional equivalent if coverage is widespread (Schulten 2008, 427). Some studies suggest that as an alternative approach to tackling low pay, collective bargaining compares quite favourably with statutory minimum wages. Boeri (2012) finds that wage floors set by collective agreements are generally at a higher level than statutory minimum wages. This advantage is of course dampened by the fact that bargaining coverage varies, which can leave parts of the labour force without access to minimum wages of any kind.

Some studies suggest that there is an inverse relationship between statutory minimum wages and the role of collective bargaining in determining the wage floor. Pedersen and Picot (2023, 10) found that countries where the state played an active role in supporting collective bargaining, were less likely to have a high statutory minimum wage. This implies a trade-off between the two forms of wage floor determination, consistent with Kozak and Picot's (2021) finding that statutory minimum wages are most often introduced in a context of declining bargaining coverage.

Despite this trade-off, most countries have both a statutory minimum wage and at least some degree of collective bargaining. This means that there is a large degree of overlap between these two modes of wage floor regulation. Focusing on their interaction, Dingeldey, Schulten, and Grimshaw (2021) distinguish between five "minimum wage regimes". In creating their typology, they recognize the fact that institutional features like *erga omnes* provisions or mandatory extensions are often necessary to ensure high agreement coverage (Dingeldey, Schulten, and Grimshaw 2021, 6). This can work either as a substitute for a statutory minimum wage, or the two can interact in some way. Close interaction between collective bargaining and a statutory minimum wage can drive up minimum pay rates to a higher level than in cases where the statutory minimum wage is the only available wage floor guarantor (Grimshaw, Dingeldey, and Schulten 2021, 268). This suggests that mandatory extensions can reduce low-wage work even in countries where a statutory minimum wage is in place.

## **Explanatory literature**

The following is a review of the available political science literature that seeks to explain the policy variation in mandatory extension between countries. Such a task involves identifying the differentiating factors causing the state to act in a certain way vis-à-vis the social partners. As an interconnected part of the overall bargaining system, accounting for the different levels of mandatory extensions is a complex endeavour. Candidate explanations may be grouped into categories common in comparative welfare state research. The four modes of explanation are politics in a narrow sense, economics, institutions and ideas.

Explanations based on politics, in a narrow sense, explain policy variation by pointing to the actions of political actors (persons or parties on the national political stage). These actions can in turn be explained by ideological commitment, vote-maximizing behaviour, or other strategic considerations, but the central point is that the political arena is the key area of study. The legal framework of extension can indeed be susceptible to partisan turnover in government. A clear example of this is taken from the Australian case, where a Conservative government swiftly dismantled the legal basis of mandatory extensions in 2005, a reform that was partially reversed by the following Labour government in 2009 (Doellgast and Chiara 2020, 243). Similarly, some insights can be gained by studying the economic restructuring of southern European countries in the wake of the Euro crisis. Particularly in Portugal, changes in extension practice has “reflected the political complexion of the relevant government” (García Calavia and Rigby 2020). Examples like these suggest that government partisanship plays an important role. Despite this, there is a lack of comparative research systematically analysing partisan effects on mandatory extensions.

Multiple plausible hypotheses can be formulated about the effects of macroeconomic factors on the prevalence of mandatory extensions. High unemployment may reduce the incentive for governments to extend collective agreements due to fears of exacerbating the problem. In a natural experiment from Portugal, Hijzen and Martins (2020) find evidence that suggests that mandatory extensions have a negative impact on employment growth. Purely economic explanations like this one fall outside the scope of the present thesis, which is focused on the politics of mandatory extensions. The interest in economic factors is limited to how they

relate to actors, institutions and ideas. The finding does suggest, however, that the unemployment rate should be controlled for in the statistical analysis.

Institutionalist approaches to explaining policy development stress the effect of existing decision-making and incentive structures for conditioning political outcomes, therefore placing the analytical focus on the effects of institutions themselves rather than aggregate individual preferences (Immergut 1998). Rational actors will seek to uphold existing mutually beneficial institutional structures conducive to increasing returns, leading to “path dependent” historical policy developments (Pierson 2000). This theoretical paradigm has come under some criticism for undervaluing the role of political ideas. Béland (2005) suggests that ideational processes could and should be brought into the institutionalist framework because policy change depends on the ability of actors to draw upon existing paradigms to frame a coherent political alternative. This refinement of historical institutionalism thus places a greater emphasis on the ability of public preferences to alter the course of institutional development. The tension between institutional and ideational approaches is apparent in the sparse comparative explanatory literature on mandatory extensions, to which I now turn.

### *Historical policy origins*

As a part of the aforementioned 2018 ILO report, Jelle Visser conducted a comparative study of the extension policies in Norway, Finland, the Netherlands, and Switzerland. The chapter concludes that the historical context in which the policies of mandatory extension originate, to a large degree can explain the policy variation. In the Netherlands and Switzerland, the practice of extending collective agreements through statutory regulation originated in the Great Recession of the 1930s. The decline of collective bargaining combined with a severe downward pressure on wages led unions and socialist parties to push for extension legislation in both countries (Visser 2018, 36). In both Finland and Norway mandatory extensions were introduced more recently, in 1970 and 1993 respectively. This historical difference has had implications for the use of extensions in the present. The policy goal of mandatory extensions in the Netherlands and Switzerland was to strengthen the institution of collective bargaining during a time of crisis, promoting social partnership and industrial peace. Consequently, statutory extension typically aims to preserve the original agreement in full (Visser 2018, 54). In Norway and Finland, extensions were introduced as an alternative to a national minimum wage in an effort to protect low paid workers from social dumping by establishing a wage

floor. These two Nordic countries differ widely with respect to the prevalence of mandatory extensions, as they are much more widely used in Finland (see Table 2.1, page 13). What they have in common, however, is that these extensions are typically limited to the minimum provisions within the original agreement.

The comparison highlights the fact that historical origins might explain important policy variation in the field of mandatory extensions. The comparative analysis therefore posits a new-institutionalist explanation for varying extension practices. The variation mostly concerns what kind of mandatory extension takes place in different systems of collective bargaining. However, it is not necessarily related to systematic differences in the prevalence of mandatory extensions. This points to the possibility that there are other key variables in play which may explain why extensions are more common in some countries than others.

### *Collective bargaining and organized interest*

As previously mentioned, there is a lack of large-n country comparisons seeking to explain the variation in this policy field. In a rare exception, Hayter and Visser (2021, 176) point out an apparent correlation between main bargaining level and extension practice. The article surveys the bargaining systems of 80 countries. Almost all countries where industry-level bargaining dominates, actively use mandatory bargaining extensions, while the same is not true for enterprise or plant level bargaining. This finding is logical, as the existence of a wide-reaching multi-employer collective agreement is a prerequisite for mandatory extension in most cases. It also demonstrates how collective bargaining institutions can be mutually reinforcing.

A few studies utilizing qualitative single-case study or comparative case study methods have tried to identify the roles and preferences of key actors regarding mandatory bargaining extensions. The central actors identified by this literature are labour unions and employer organizations. Neither of these are unitary actors. The national-level federations on both the employer and the union side comprise member organizations with different and sometimes contradictory interests. These can be expected to shape policy outcomes, as both unions and employer's organizations play a key institutional role in most systems of mandatory bargaining extension. Various interview-based case studies have attempted to capture the preferences of these key actors.

In a comparative study of union members' attitudes in Finland, Germany and the Netherlands, Wolfgang Günther (2021) finds that unions are generally supportive of mandatory extensions. This is because the advantage of increasing agreement coverage outweighs the potential downside of creating a free-rider problem, where non-unionized workers can benefit from the agreement. If the bargaining gains of labour unions are attainable without paying the cost of a membership fee, then the incentives for organizing might be damaged. Günther attributes union support for extensions to the fact that unions in most cases are too weak to provide full collective bargaining coverage through their organizational strength alone. Mandatory extensions therefore become a necessary evil. Union representatives are aware of the free-riding problem, and they evaluate the dilemma somewhat differently in different organizational contexts. In countries where multi-employer bargaining is eroding, and in sectors where workers are hard to organize, unions' support for mandatory extensions is most pronounced (Günther 2021, 353-354). If union attitudes shape policy outcomes, this may lead to the hypothesis that mandatory bargaining extensions are most common in countries and sectors with a low union density. However, unions' ability to achieve extensions in the first place may be conditional on their organizational strength.

The effect of employers' attitudes towards mandatory bargaining extensions is examined by Paster, Oude Nijhuis, and Kiecker (2020). Similar to Günther (2021), this study employs controlled case comparison in a most similar systems design, interviewing employers in Germany and the Netherlands. The authors point to the puzzling fact that these two countries have very similar legal provisions for bargaining extension, and yet such extensions are much more frequent in the Netherlands. They point to an "ideational path dependency" that has led German employers to be more sceptical of state intervention in collective bargaining and more positive towards wage competition from outsider firms. This causes them to use their veto power in questions of extensions more frequently than their Dutch counterparts (Paster, Oude Nijhuis, and Kiecker 2020, 550-551). In other words, there is an ideational explanation for how similar institutions can produce diverging outcomes.

Günther and Höpner (2022) approach the puzzle of the German extension deficit somewhat differently. Their focus is on the intersectoral dynamics that cause the frequent veto use by the main German employer federation (BDA). The argument here is that there is a key institutional difference between Germany and the Netherlands. This is the fact that extensions

in Germany require something close to an intersectoral consensus, as the veto power on the employer side lies with the BDA as a whole rather than with the affected employer organization. In practice, this means that employers organizations in certain industries are able to block bargaining extension in another industry, despite agreement between unions and employers for extension within that sector. The authors outline how employers in export-oriented sectors like manufacturing successfully block bargaining extensions in neighbouring sectors like cleaning and construction, in order to cut costs and remain competitive on the international market (Günther and Höpner 2022, 12).

## **Summary**

The sparse comparative literature on the politics of mandatory extensions suggests different potential explanations for the observed differences in extension practice. Explanations based on politics in a narrow sense are particularly absent from the literature. Partisan effects are touched on anecdotally, but I could not find any systematic attempt to tie government partisanship to policy developments regarding mandatory extensions. Broadening the definition of politics, the literature highlights the impact of organized interest in the form of labour unions and employers' associations.

It is clear from the review that mandatory extensions are an integrated part of a country's collective bargaining system, and that explanations can be context-specific. This is perhaps part of the reason why previous attempts to explain extension practices do so mainly through single case studies or controlled case comparison. But although some studies focus on extension practices in Norway and the Nordic region, most detailed explanatory work has been devoted to Continental Europe, in particular Germany and the Netherlands. At the same time, little attention has been devoted to more general explanations that can be tested in a systematic way.

## 4. Theory

This chapter presents the theoretical framework of the thesis. I draw on dominant strands of comparative political economy relevant for explaining labour market policy developments, namely power resource theory, the Varieties of Capitalism-framework, and the growth model perspective. These schools of thought highlight different features of modern capitalist countries as potential explanatory factors, leading to a set of hypotheses which guide the empirical analysis.

The research question in this thesis is focused on the role of political actors in shaping extension practices. The theoretical perspectives presented in this chapter differ with regards to their emphasis on political contestation. This has consequences for the implicit assumptions of what explains cross-country differences in mandatory extensions, made explicit in the hypotheses. Based on a class struggle perspective, power resource theory views the setup and development of bargaining institutions as a political settlement between conflicting interests. In the Varieties of Capitalism-framework, these institutions are viewed as mutually beneficial arrangements aimed at facilitating competitive advantages for the national economy as a whole. The more recent growth model perspective reintroduces interest-based conflict through the concept of “growth coalitions” formed by dominant interests in the key growth-driving sectors of the economy.

In line with the political focus of the research question, the aim of this chapter is to develop hypotheses regarding how extension practices can be explained by the relative strength of political and interest-based actors. Power resource theory and the growth model perspective both place political actors in the centre of their explanatory models. They differ with regards to the mechanisms of political influence and thus emphasise different explanatory variables. Varieties of Capitalism, on the other hand, is an important source of alternative explanations for this policy variation, providing valuable input to the empirical analysis as well as the discussion of the results. This chapter proceeds with a brief overview of the roles the state can play in collective bargaining. I then move on to discuss each of these strands of theory in its own right, and how it relates to the research question.



## **Collective bargaining and the role of the state**

The state has three main roles in industrial relations (Traxler 1999). Firstly, in the public sector, the state acts as the employer. Secondly, in the private sector, the state may play a substantive role by taking part in wage bargaining. State intervention in private wage bargaining varies in intrusiveness. Everything from playing a mediating role in tripartite arrangements, all the way to forced arbitration, is subsumed under the substantive role of the state in private wage bargaining. Finally, the state plays a procedural role in creating the legal framework in which collective bargaining takes place.

Mandatory extensions only apply to collective bargaining in the private sector. In public bargaining the state is the only employer, so there are no unorganised workplaces. Extensions represent a substantive intervention in collective bargaining on the part of the state. This falls into the second category of state presence in industrial relations. By declaring a collective agreement generally applicable, the state intervenes directly in the private wage bargaining of unorganized firms and unions, setting wage levels and other provisions unilaterally. The state also plays a procedural role in the creation and development of the legal framework that makes mandatory extensions possible.

As we have seen, modern capitalist democracies differ greatly with regard to the ability and/or willingness of the state to intervene in collective bargaining in this way. This theory section seeks to explain why this might be the case. By drawing on relevant strands of theory within comparative political economy, some general theoretical expectations about the drivers of mandatory extensions are identified. These expectations are formulated as hypotheses, which guide the further analysis.

### **Power resource theory**

Mandatory extensions can, where they are prevalent, have a considerable impact on the labour market and on work life in general. The strength of labour as a political bloc could therefore be an important part of the explanation. Power resource theory (PRT) emphasises the ability of workers to overcome market inequalities between labour and capital through their organization. From a classical class struggle point of view, workers are at a disadvantage

since their basis of power (their numerical superiority) is much less concentrated than that of employers (capital). Overcoming this disadvantage and expanding social democratic policies requires mobilising their basis of power, improving their societal bargaining position and exploiting their numerical superiority in democratic politics (Korpi 1983). In short, workers draw on their latent power vis-à-vis employers by organizing in labour unions and voting for left-wing parties. How successful workers are in this endeavour is then ascribed a key role in explaining institutional and distributive differences among countries. Thus, in the framework of PRT, the strength of labour unions and left-wing parties are the key explanatory factors. Hypothesizing about their effects on the prevalence of mandatory extensions depends on theoretical expectations of their policy preferences. What developments regarding mandatory extensions can be expected when labour unions and leftist parties are strong?

The titular “power resources” in PRT are defined by Korpi (1983, 15) as “characteristics which provide actors – individual or collective – with the ability to reward or punish other actors”. Recent contributions in this tradition emphasize the importance of distinguishing analytically between different kinds of power resources – power resources can be structural, associational, or institutional, among other categories (Refslund and Arnholtz 2022, 5-9; Schmalz, Ludwig, and Webster 2018, 116-124). These categories can overlap, and in some instances, they build on one another. Institutional power resources, for example, are usually the result of struggles in which organized workers have mobilized their structural and associational power (Schmalz, Ludwig, and Webster 2018, 121). The investment of power resources from one domain into another can be rational if it will allow for more efficient deployment in the future (Korpi 1983, 19). This is particularly relevant for understanding the behaviour of labour unions in this framework.

Labour unions are complex entities, and their role as political actors requires a contextualising introduction. Understanding the “essence” of unions is an ongoing topic of debate within industrial relations theory (Hodder and Edwards 2015). In a highly influential contribution, Hyman (2001) highlights three sources of polarization, as unions position themselves in relation to the market, class and society. This stylized approach gives rise to a typology of “trade unionisms” with three ideal-types based on whether unions see themselves mainly as labour market actors, representatives of the working class, or social partners. It is argued that this self-identification is the basis for national differences in labour union identities, ideologies and strategies. In his study of comparative European trade unionism, Hyman draws

on illustrative examples from three different countries to highlight how these differences manifest themselves.

Dividing countries into models of trade unionism is too simplistic an employment of this framework, however, as “in practice, union identities and ideologies are normally located *within* this triangle” (Hyman 2001, 4, emphasis in original). Still, it is important to keep in mind the fact that the preferences of unions are composed of multiple concerns. As a market actor, they seek to improve the wage bargaining position of their members. As an agent of class or as a social partner, however, unions might have a broader social concern and a solidaristic focus. In elucidating the strategic policy preference of unions regarding mandatory extensions, it is useful to keep these different potential orientations of trade unions in mind.

Using Korpi’s (1983, 19) terminology, strong unions can “invest” their associational and structural power resources into a favourable institutional environment which lets them exert power more efficiently. Preceding research has identified mandatory bargaining extensions as an institutional power resource for labour unions (Günther 2021). Mandatory extensions create an institutional mechanism which allows unions to exert their power in a more efficient way than in autonomous wage bargaining, particularly in sectors that are hard to organize. By expanding coverage to workers in non-organized workplaces, they amplify the gains of a collective agreement. Moreover, if collectively agreed wage provisions are extended to all workplaces, union members do not risk being undercut by cheaper labour in unorganized labour market spheres. In other words, unions do not have to be solidaristic towards non-members to want extensions. They provide a theoretical benefit to union members as well, by ensuring equal terms of competition.

If labour unions have a strategic preference for mandatory extensions, it follows in the logic of power resource theory that there should be a correlation between union strength and the prevalence of extensions. Unions’ ability to negotiate such institutional concessions will depend on their associational power resources, chief among which is their membership numbers. This leads to the hypothesis that increases in union density are linked to more frequent mandatory bargaining extensions in a given country.

*H1A: Mandatory extensions are more prevalent when union density is high.*

This hypothesis is conditional on the assumption that mandatory extensions provide a strategic benefit for labour unions vis-à-vis employers, or at least that this is the perception within the leaderships of labour unions. As Günther (2021) shows, this is often the case. However, in a context of very high union membership the expectation becomes less clear. It is possible that if unions perceive their associational power resources to be sufficient to ensure full bargaining coverage, for example by pressuring employers to accept voluntary extensions, they might refrain from mandatory extensions. For labour unions, mandatory extensions are a mixed blessing since they can disincentivize union membership by creating a free-rider problem (Bhuller et al. 2022, 33). If the utility of mandatory extensions is lower for unions in cases of very high membership, it is logical to assume that the fear of free-riders becomes more salient in relation. I therefore hypothesize that as union density increases, so will the prevalence of mandatory extensions, to a certain point. This relationship will be reversed for very high union density rates. Therefore, the effect of unionization on the prevalence of extensions might be best captured by a quadratic relationship, following an inverted u-shape.

*H1B: For high union density levels, union density will be negatively associated with mandatory extensions.*

In PRT, party politics also plays an important role. I expect left-wing parties to support mandatory extensions. Extending bargaining coverage can be expected to strengthen the general standing of wage-earners, traditionally the key constituency of leftist parties. Many observers point to a weakening link between leftist parties and their traditional working-class constituencies. This trend is particularly well-documented for the mainstream left and social democratic labour parties. These are also most likely to participate in government. In an influential contribution, Rueda (2005) highlights a division within the wage-earning electorate between those in secure employment and those in a more precarious position, arguing that social democratic parties see the former as their core constituency. Mandatory extension is a mechanism that, on the face of it, seems to favour labour market outsiders most directly, since these are the workers that stand to gain access to better terms of employment. Still, as discussed above, insiders can also benefit indirectly by avoiding a race to the bottom. Extensions are therefore not necessarily a policy area that divides wage-earners between insiders and outsiders, as they can both benefit.

Mandatory extensions can also have a “predistributive” effect, forcing unorganized employers to share a larger portion of their profits with their employees. As leftist parties are generally committed to social and economic equality, this is another reason why they might support extensions. As organizations, leftist parties are not directly affected by the free-riding problem of labour unions. Acting on behalf of the state, leftist governing parties have fewer incentives that run counter to supporting extensions compared to labour unions. I therefore hypothesise that the chance that extension legislation will be introduced or strengthened likely increases when the government is led by a leftist party.

*H2: Left-led governments are more likely to increase mandatory extension practices.*

## **Varieties of Capitalism**

In an alternative approach to comparative political economy, the Varieties of Capitalism (VoC) framework sees the capitalist economy in a more harmonious light than the class struggle perspective on which PRT is founded. First presented by Hall and Soskice (2001), VoC shifts the analytical focus from workers to employers. Rather than the outcomes of power struggles between class-based collective actors, modern institutional variation in political economy is the result of different solutions to the various coordination problems that arise for business. Firms overcome these coordination problems through the relationships they develop with their workers, customers, investors, and other firms, and the nature of these relationships depends on national political and economic institutions. As such, VoC represents a functionalist rather than political approach to explaining institutional variation among capitalist economies.

The central point in VoC is that institutions in different economic spheres complement one another, giving rise to two distinct archetypes, or varieties, of the capitalist political economy. In Liberal Market Economies (LME's) firms coordinate with other actors mainly via competitive market arrangements, while Coordinated Market Economies (CME's) are characterized by a greater degree of non-market coordination. The latter is dependent upon an institutional structure which facilitates information-sharing and makes it possible to sanction breaches of cooperative agreements (Hall and Soskice 2001, 10). Many different institutions

can have this function. For this thesis, however, the most relevant sphere of coordination is that of industrial relations.

In the VoC-approach, the strategic interaction between firms and labour unions is structured by collective bargaining institutions. CME's are characterized by more centralized wage bargaining than LME's on average (Hall and Soskice 2001, 58-59). This makes coordination in wage bargaining easier. To facilitate a highly coordinated system of wage bargaining, it is vital to reduce outsider competition from unorganized firms or workers which can undermine the system. Mandatory extensions can help in this regard, by establishing sector-wide standards which outsiders must also adhere to. It is therefore natural to view mandatory extensions as a labour market policy that is more in line with the CME model of industrial relations. This generates the theoretical expectation that mandatory bargaining extensions are more prevalent in CME's than in LME's.

In reality, advanced economies exist on a spectrum between the ideal types of the LME and the CME. In a quantitative analysis, it is therefore too crude to place all country-year observations in one of these two categories. Rather, a more targeted way to operationalize varieties of capitalism is to narrow down the LME/CME-distinction to the most relevant single institutional feature. Among the key factors distinguishing LME's from CME's, collective bargaining centralization is the one most obviously related to extension practice. Logically, sector-wide mandatory extension requires an underlying agreement that represents an industry standard. Some instance of multi-employer bargaining is a prerequisite for having this kind of collective agreements in the first place. Hayter and Visser (2021, 176) have already pointed to the fact that mandatory extensions are almost exclusively used in countries where sectoral bargaining predominates over local bargaining. Marginson and Dølvik (2020, 396), meanwhile, find that CME's have tended to bolster their coordinated models of wage setting through measures like mandatory extensions in the face of common labour market challenges like the eastern enlargement of the EU and the 2008 financial crisis. By including bargaining level in the forthcoming statistical analysis, I control for this effect in order to try to isolate the political factors.

## Growth models

Both PRT and VoC attempts to explain institutional variation among modern capitalist economies by the patterns that emerge in the organization of production. PRT analyses the impact of workers' organization, while VoC focuses on the strategic interaction of firms. The focus on producer groups, whether on the worker or the employer side, is a focus on the supply side of the national economy. In a recent addition to comparative political economy, the "growth model perspective" (Baccaro and Pontusson 2016) shifts the analytical focus to demand-side variation. The concept of a growth model is based on a decomposition of aggregate demand within a country. The basic argument is that one can identify distinct and internally consistent growth models based on what kinds of economic activity are the main drivers of growth. In export-led growth, increases in demand come mainly from foreign markets, while wage-led and debt-financed growth rely on domestic demand.

Growth models, the authors argue further, are supported by certain "growth coalitions" comprising class-based and sector-based interests. These growth coalitions may differ from the ruling electoral coalition, but key growth model policies are nonetheless mostly insulated from electoral competition due to (1) high degree of institutionalization, (2) low salience among voters, and (3) convergence among mainstream parties (Baccaro and Pontusson 2022, 210-211). However, in times of crisis brought about either by external shocks or the internal inconsistency, the growth model policies may become subject to electoral competition as political entrepreneurs mobilize discontent with the status quo. Thus, this approach to policy choice sees the domain of growth model policies as one characterized by relative stability due to the hegemony of the dominant growth coalition, occasionally interrupted by electoral intervention in times of crisis.

Statutory regulation of wages is an important part of the policy package which serves to uphold a growth model. Export oriented and domestically oriented sectors have different needs regarding wage growth (Baccaro and Pontusson 2022, 207). Export-led growth is hypothesised to rely on wage moderation in order to maintain international price competitiveness. Baccaro and Hadziabdic (2022, 21) find that cost competitiveness, measured by the real exchange rate, is a significant driver of export-led growth. Moderation in wage bargaining is an important factor for reducing production costs, which is necessary in export-oriented sectors exposed to international price competition. Wage-led growth, which was

dominant in the post-war era, relies on domestic wage growth to drive demand for goods and services. Since the mid-1970s, household debt has played an increasingly important role in growth models which rely mainly on domestic demand. Still, domestic consumption-led growth is characterized by more pronounced real wage increases (Baccaro and Pontusson 2016, 192-194). Wage-setting institutions are therefore an important part of the framework which support a particular growth model.

Mandatory extensions of collective bargaining agreements are a mechanism for statutory regulation of wage levels. It is therefore a growth model policy. In a case-study of the German growth model development, Baccaro and Höpner (2022, 254) point to the suppression of mandatory extensions as an important factor for supporting an export-led growth model. Exporting this observation to a more general hypothesis, export-led growth models can be expected to de-emphasise mandatory bargaining extensions. Domestic demand-led growth, on the other hand, can benefit from the real wage increases which can follow from mandatory bargaining extensions.

There are different ways to operationalize growth models, but the most straightforward way is to measure it by the current account balance of the country in question. This method, used by Picot (2021, 138), is based on a decomposition of gross domestic product. If demand is increased by domestic economic activity, i.e. private or public consumption and investment, then the growth model is domestic demand-led. If demand is mainly increased by trade surpluses, growth is predominantly export-led. Summarized in a single variable, a positive current account balance means export-led growth, and a negative current account balance entails domestic demand-led growth. An advantage of this operationalization is that it is continuous; a country can have a very export led, very domestic demand-led or somewhat balanced growth model. The hypothesis is therefore that current account surpluses correlate negatively with the prevalence of mandatory extensions.

*H3: Mandatory extensions are used more extensively under conditions of domestic demand-led growth.*

Using net exports as the sole explanatory variable, H3 is based on the assumption that the growth coalition manages to insulate policy choice from electoral competition. Within the growth model perspective, electoral politics can also play a role. The growth coalition can



break down during times of crisis. For that reason, “elections cannot be ignored” (Baccaro & Pontusson 2022, 210). If the growth model breaks down, either due to external shocks or internal inconsistencies, the policies at the core of the growth model may become subject to electoral competition. Additionally, government partisanship can affect policy choice in countries characterized by a balanced growth model, meaning that there are multiple drivers of growth (Baccaro and Pontusson 2022, 211). The fact that growth model policies can also be affected by electoral politics, opens for a partisan effect on mandatory extensions. This means that H2, while based on PRT, is also compatible with the growth model perspective.

## 5. The mixed-methods research design

The research design in this thesis is based on a mixed-methods approach, combining a statistical analysis with a single-country case study. The statistical methods employed are presented more thoroughly in the next chapter (section 6.2). This chapter presents the research design in a holistic fashion, with a focus on the interplay between the quantitative and the qualitative empirical components. I argue that a mixed-methods research design is well suited to answer the research question in this thesis. I also address some of the limitations of mixed-methods research highlighted in the methodological discourse.

### **Design and case selection**

A mixed-method research design (MMR-design) is a common term for all research designs that combine qualitative and quantitative methods of analysis. As such, it covers a vast variety of different possible research designs. A distinction can be made between statistics-oriented and case-oriented mixed-methods designs (Maggetti 2020)<sup>5</sup>. This thesis falls into the first category, as the main inferential burden rests on the statistical analysis. The hypotheses are tested through a time-series cross-sectional analysis of extension practices in OECD countries, investigating the associations between macro-level indicators of political factors and extension practice.

The qualitative case study aims to explore the interaction of the relevant variables more closely. The case chosen for closer study is Norway. This choice of case has both theoretical and practical advantages for this thesis. Within the full realm of possible cases in the data set, Norway is one of the 14 countries that undergo change on the dependent variable during the period of analysis (see Table 2.2, page 18). Furthermore, Norway presents an interesting puzzle as something of a regional deviant. Among the Nordic countries, Finland and Iceland use mandatory extensions regularly and have done so for a long time. In the Scandinavian countries, on the other hand, there is no historical precedent for this mechanism as collective bargaining autonomy has been strongly emphasized (Bruun 2018, 119). Norway introduced

---

<sup>5</sup> Maggetti (2020) adds Qualitative Comparative Analysis (QCA) as a third category of MMR-designs.

its mandatory extension mechanism during the process of entering the EEA-agreement and started using it after the eastern enlargement of the EU to combat wage dumping of foreign workers. Thus, the Norwegian regulatory trajectory deviated from that of Sweden and Denmark, who were also affected by the same external developments. This suggests that Norway could have taken a different path, as something close to a counterfactual exists in its neighbouring countries.

As mandatory extensions are a relatively new phenomenon in Norway, the circumstances of their origins are available for study. The law creating the framework for mandatory extensions was implemented in 1994, and the first decision to extend an agreement came in 2004. Interviews with key informants provides insight into both these events, which can be considered “critical junctures” in the Norwegian policy path. For many countries with mandatory extension mechanisms, these laws date back to the earlier parts of the 20<sup>th</sup> century (Hayter and Visser 2018, 4). The case choice in this thesis permits an assessment of why mandatory extensions came about in Norway in the first place. Such claims would be more uncertain if the law was older. Finally, Norway is also a convenient case choice due to familiarity with both the language and the political and institutional context. This permits an analytical efficiency that would not be present for any other case choice.

The case study is focused on the role of labour unions in shaping mandatory extension practices in Norway. Thus, it has a more limited substantive scope than the statistical analysis, and mainly sheds light on the first set of hypotheses in the case study. These hypotheses build on the assumptions that unions are able to affect extension practices in some way, and that this influence is conditional on their membership numbers. They also build on the assumption that the strategic preferences of unions change based on their membership numbers. In order to inspect the relationship between union density and mandatory extension practices in the Norwegian case, I analyse both the policy preferences and the influence of Norwegian labour unions in these questions.

The choice to focus on labour unions and interest politics rather than parliamentary party politics is based on the results from the statistical analysis, owing to the integrated nature of the research design. The results, presented in section 6.3, indicate that union density has a stronger effect on extensions than leftist presence in government. The relationship between union density and mandatory extensions is also less straightforward. As both a political actor

as well as a participant in collective bargaining, the union movement both affects and is affected by the use of extensions. As discussed in Chapter 4, the preferences of labour unions regarding mandatory extensions can be expected to vary due to their various strategic concerns. This merits closer study of the relationship between unions and mandatory extensions in a specific context. The choice to focus on labour unions as the main political actor is also based on case knowledge. Due to the close ties between the main labour federation, LO, and the labour party, Ap (Stokke, Evju, and Nergaard 2013, 30), Norway can be considered a “most likely” case of union influence on labour market policy. These ties also suggest that if there is an effect on government partisanship on extension practices in Norway, these may to some extent originate in the preferences of the unions organized in LO. I therefore place party politics in the background, focusing on the union movement as the principal political actor in the Norwegian case study. This substantive delimitation facilitates a more in-depth analysis of the relationship in question.

### **Strengths and limitations of MMR**

A central argument for employing an MMR-design in this thesis concerns the state of the literature. As highlighted in Chapter 3, little attention has been paid to mandatory extensions as a political field. This thesis is therefore quite exploratory. This presents both opportunities and challenges for the empirical strategy. The lack of previous specialized research means that there is a large potential for making a contribution on both sides of the methodological divide. This is particularly true regarding quantitative political science, as this to my knowledge is the first statistical analysis focused on the political drivers of mandatory extensions. The qualitative component also represents a contribution in its own right, by highlighting the interest constellations and patterns of influence in the Norwegian context. Previous in-depth studies that examine mandatory extensions from the point of view of social partners, have tended to focus on Central-Europe, Germany and the Netherlands in particular.

There are multiple methodological frameworks for case selection in statistics-oriented MMR-designs. The most influential of these is the “nested analysis”-framework proposed by Lieberman (2005). Within the scope of this thesis, I do not have the resources necessary to conduct multiple case-studies or to base the case selection on the regression results. This rules out some of the more ambitious approaches to MMR that require close study of multiple cases

selected from an analytical template. The inferential ambition from the Norwegian case is more modest. It is intended to ascertain whether or not unions impacted mandatory extension practices in Norway. Moreover, it provides insight into candidate causal mechanisms linking the variables of interest to the outcome in at least one instance.

Whether or not the combination of qualitative and quantitative methods of analysis can contribute to something greater than the sum of their parts has been subject to much debate. Critics maintain that different methods cannot contribute to a shared causal inference because they ask fundamentally different questions (Beach 2019). These criticisms are particularly levied at the more ambitious approaches to MMR, for example nested analysis (Rohlfing 2008). This is less relevant for this pragmatic, exploratory MMR-approach. The discussion in Chapter 8 reflects this cautious approach to the question of causality. Moreover, while the two empirical approaches ask different kinds of questions, they still provide insight into the same phenomenon. In choosing to employ a mixed-methods approach, I adopt a pragmatist stance towards the methodological divide between qualitative and quantitative methods of analysis (Feilzer 2010). At this early stage, it is more pressing to identify the potential explanatory factors rather than try to provide definitive causal evidence. Developing new hypotheses can be more easily achieved through an MMR-design, simply because it offers access to different kinds of empirical evidence. I therefore argue that the benefits of the MMR-design outweigh the analytical drawbacks in this case, as long as the limitations for causal inference are kept in mind.

MMR-designs have the distinct advantage of offering access to different kinds of empirical evidence. Mixing methods can be particularly useful in situations where the availability or quality of comparable quantitative indicators is a concern. As I discuss in section 6.1, the measurement of the dependent variable used in the statistical analysis has certain limitations. A single figure masks variation across different dimensions, and it is based on an expert assessment with limited transparency. Case study research can be useful for validating measurements used in regression-based analyses (Seawright 2016, 48-50). The Norwegian case study will provide a better description of what a one-unit increase on the dependent variable may look like in practice, and it points out some of the developments the measurement can miss.

In interpreting the results of mixed-methods research, it is important to keep the limitations in mind. The interpretation of a statistical association between two variables can be distorted if too much emphasis is based on evidence from the in-depth study of a single case. One important reason for this is mechanistic heterogeneity: a situation where the “the same cause and outcome are linked together through different mechanisms in different contexts (Beach 2019, 166). This is one of the analytical weaknesses of methods triangulation, or the process of testing a hypothesis through different methods (Maggetti 2020, 5). Due to these inherent limitations for parallel theory testing, Seawright (2016, 4-10) recommends integration as a superior alternative to triangulation in approaches to MMR.

The empirical section of this thesis is divided into two separate chapters. The statistical analysis is presented in Chapter 6, the case study in Chapter 7. They are presented separately, but they are mutually informing and have been conducted at least partially in parallel. The purpose of the ordering is to avoid the particularities of the Norwegian case shaping the interpretation of the regression results, since there might be considerable causal or mechanistic heterogeneity between different countries. The generalizability of the insights gained from studying Norway closely, in light of the correlational evidence from the statistical analysis, is discussed further in Chapter 8.

## 6. Statistical analysis

This chapter presents the time-series cross-sectional analysis of mandatory extension practices in OECD countries. The chapter is subdivided into three sections, covering the data, methods, and results from the time-series cross-sectional analysis.

### 6.1. Data

The time-series cross-sectional analysis covers 33 countries over the period between 1980 and 2017. The dataset comprises all current OECD members apart from Chile, Colombia, Mexico and Turkey. These are excluded due to having a markedly lower GDP per capita than the remaining members, and distinct institutional contexts. This delimitation of OECD countries is in line with Pedersen and Picot (2023). Although the data set covers the period from 1980, some countries enter the analysis later. Many of the countries in question gained sovereignty or became democratic after 1980. Pre-democratization observations from Eastern Europe and South Korea have been removed.<sup>6</sup> The complete data set contains 1135 country-year observations in total.

#### **Measuring mandatory extensions**

This thesis seeks to account for the varying prevalence of mandatory collective agreement extensions between countries. As discussed in Chapter 2, this variance is caused by multiple different institutional factors. The measurement approach for the dependent variable in this analysis is based on an expert assessment of extension practices. The ICTWSS dataset (OECD and AIAS 2021a), commonly referred to as the Visser dataset, contains multiple numeric categorizations which attempt to quantify the institutional features of collective bargaining systems. One of these categorizes the role of mandatory bargaining extensions. The variable is ordinal, covering four possible categories ranging from low to high prevalence

---

<sup>6</sup> Details in Appendix A.

of mandatory extensions. The bottom category covers the cases where there is no legal basis for extending a collective agreement through statutory regulation. This category also covers cases where such legal provisions exist, but are not used (Visser 2021, 44). The remaining three categories tell us that extension is either “rather exceptional”, “used in many industries”, or “virtually automatic”. The top and bottom categories contain the largest shares of total observations in the sample.<sup>7</sup>

In the methodological note accompanying the dataset, Visser (2021, 43) suggests three fitting research questions the coding can be used for. One of them is to examine the relationship between “frequent” mandatory extensions (the top two categories) and total collective bargaining coverage. This relationship can be seen visually in Figure 2.1 (page 15). All three suggested topics of research enabled by this categorization share two things in common: they rely on a dichotomization of the ordinal variable, and they use it as an explanatory factor rather than as a dependent variable. My analysis takes a different approach, both in keeping all levels in the coding scheme distinct and in trying to explain varying extension practice as a phenomenon of interest in itself.

The same document provides some information about the criteria used for placing country-year observations on the different levels of the extension variable. The coding is based on institutional features stemming from the legal framework and its application: What actors request extensions, who makes the decision, and who are consulted? Is there a public interest criterion in the legal text, or a set coverage threshold criterion? These features guide the categorization according to a handful of “general rules or hypotheses” (Visser 2021, 43-44), but ultimately the coding process is not entirely transparent. This comes with both validity and reliability problems. For the purpose of a time-series cross-sectional analysis of mandatory extension practices across developed democracies, however, the Visser extension variable is the best comparative measure available.

The dependent variable in this analysis is based on the institutions that facilitate or limit the use of extensions. An alternative approach could be to measure the prevalence of mandatory extensions in the labour market more directly. There are different possible strategies for directly measuring the impact of mandatory extensions on collective bargaining coverage.

---

<sup>7</sup> See Table 6.1 (page 48) for full distribution.



Visser (2018, 47) suggests three ways to quantify this: the share of sectoral agreements which are extended, the total coverage of extended agreements as a proportion of total agreement coverage, or the proportion of covered workers who would not be covered without extension. All these have their distinct theoretical advantages, and they share the statistical advantages that come with being measurable as continuous variables. However, none of these indicators are available for a large number of countries over a significant time period. Moreover, this approach would be focused on policy outcomes rather than policy outputs. As this thesis is mainly focused on the impact of political actors, it can be argued that it is more appropriate to analyse the institutions themselves.

### **Independent variables**

This analysis tests several explanations for the variance in extension practice across countries and over time. Firstly, the effect of union strength is assessed in line with the first set of hypotheses. I use union density, meaning the share of wage earners who are members of a trade union, to measure union strength. This figure is available from the Visser dataset. There are 194 missing values across the 1135 total observations. Since union density is a slow-moving variable with very small fluctuations from year to year, the missing values can be interpolated linearly for an approximate estimate.

Secondly, in line with H2, I test the partisan effects on extension prevalence. Left-party government participation is expected to be connected with higher degrees of extension practice. I use the measure available from ParlGov, which is the percentage proportion of parliamentary representatives from leftist parties relative to other parties in government. Thus, it ranges from 0 when no leftist parties are in government, to 100 when only leftist parties are in government. In cases of government coalitions between leftist and non-leftist parties, the proportion is based on relative seat shares of governing parties in the legislature. As such it is not an entirely reliable measure of cabinet share. The two can be expected to correlate closely, however, and the variable is therefore a good proxy for cabinet share.

The third hypothesis proposes a relationship between a country's growth model and likelihood that mandatory extensions are prevalent. Specifically, mandatory extensions are expected to be less prevalent in economies that rely on export-led growth. Growth models are

operationalized with the use of current account balance. This is a combination of all transactions between members and non-members of a national economy (IMF 2009, 9), and it can therefore measure to what extent aggregate demand is stimulated by foreign versus domestic consumption (Picot 2021). Current account balance data based on IMF's definition for the countries in the sample is retrieved from the United Nations Conference for Trade and Development (UNCTADstat 2022). For the sake of cross-country comparability, the variable measures current account balance as a proportion of total GDP. The theoretical expectation is a negative correlation, since current account balance will be positive if the growth model is export-led.

Related to the growth model hypothesis, I also include a dummy variable for pattern bargaining in the model. The identification of this explanatory variable stems from the work with the Norwegian case study, owing to the integrated implementation of the mixed-methods design. The Norwegian front-runner model of pattern bargaining has in some instances been used to argue for the need for mandatory extensions in the export-oriented sectors.<sup>8</sup> These pattern-setting collective agreements need to be considered representative. Maintaining high bargaining coverage is therefore important for legitimizing the front-runner bargaining model, and mandatory extensions are one way to ensure this. This mechanism could be at play in other countries that have pattern bargaining as well. I include this control variable to separate this particular aspect of certain types of export-led growth models from the more general point about wage levels that H3 is based on.

Statutory bargaining extensions depend on strong centralized bargaining on the national or sectoral level. This is because the agreement being extended needs to be representative at least to some extent. I therefore include the ICTWSS-variable measuring predominant bargaining level in the analysis. There are some arguments for dichotomizing this variable, separating the lowest level from the rest. Logically, a minimum of multi-employer bargaining could be thought of as a necessary condition for mandatory extensions. In Appendix A, I show that this necessary condition cannot be found in the data. As presented in the literature review, previous work has identified a strong correlation between the predominant level of wage bargaining and the prevalence of mandatory extensions. I therefore include the variable

---

<sup>8</sup> See chapter 7 for details on the Norwegian case.

as is, keeping the difference between all levels intact. Despite being measured as an ordinal variable, it operates as a numeric covariate in the regression analyses.

As discussed in Chapter 3, mandatory extensions can to some extent fill the role of a statutory minimum wage. Extending the minimum wage provisions of sectoral collective agreements can function as an alternative tool for providing wage floor protection to at-risk workers through statutory regulation. The model will therefore control for national minimum wages. While the two are far from mutually exclusive, since sectoral agreements cover more than just wage floors, the presence of a statutory minimum wage can nonetheless affect the perceived necessity of extending collective agreements to unorganized workplaces. The measurement is a dummy variable coded 1 if there is a national statutory minimum wage policy in place, and 0 if not. It does not capture the level of the minimum wage. The source of this variable is the Visser data set.

The sample includes countries with very different political institutions. It is important to control for this variation in some way, as these factors can have a large impact on the ability of political actors to introduce, abolish, or change extension policies. Political institutions vary in many different ways between countries, which makes them hard to control for completely. Broadly, political institutions in established democracies can be said to vary between more majoritarian on one hand and more consociational on the other (Lijphart 1999). I use the effective number of political parties as a proxy for this dimension of political institutions, and thereby attempt to capture the effects of different features of the political system. The number of parties in parliament influences the chance of obtaining a simple electoral majority, and thus the number of veto players. The directionality is not entirely clear. On the one hand, the inclusive policy making that characterizes consensus democracies can allow different actors more opportunities to push for increased mandatory extension practice. On the other, it might be easier for governments to carry out sweeping changes to the bargaining system in majoritarian political settings.

The main variables of interest are those describing the relative strength of key political actors and the institutional context in which they operate. In addition, it is necessary to control for the apolitical economic factors that can affect the willingness and ability of states to interfere in collective bargaining. I control for macroeconomic fluctuations by including the unemployment rate in the model. Among the various options for quantifying economic

performance, the unemployment rate is most directly relevant for extension practice. High unemployment rates can be assumed to negatively affect mandatory extensions, as policymakers might see elevated wage floors as a potential barrier to labour market entry for the unemployed.

The composition of the workforce is another important contextual factor that needs to be accounted for. Mandatory extensions are mainly targeted at industries with high prevalence of low-skilled labour, because unorganized workers there are likely to be most susceptible to wage dumping and other forms of labour market exploitation. Many of these industries are found in the service sector. Therefore, I include the share of workers employed in the service sector as a control variable, with the expectation that high shares of service sector employment correspond to higher degrees of extension practice. I also include government expenditure as a proxy for public employment. As mentioned in chapter 4, mandatory extensions target unorganized employers in the private sector. If public employment is high, the perceived necessity for mandatory extensions may be lower.

It would also be beneficial to in some way control for the number of foreign or posted workers in the labour force. Large numbers of posted workers can increase the risks of wage dumping. The Norwegian case study included in this thesis shows that an influx of posted workers can cause mandatory extensions to suddenly become politically salient. The Norwegian extension law also has the explicit policy goal of securing equal standards of employment to foreign and domestic workers. While this public policy requirement is particular to Norway (Visser 2021, 43-44, see table), low-wage labour immigration can be expected to play a role for extension practices in other countries as well, particularly within the EU. Unfortunately, there is no available data that captures the number of foreign or posted workers by country over a significant period of time.<sup>9</sup>

---

<sup>9</sup> For EU member states, the European Commission has only very recently begun collecting data on the number of posted workers (De Wispelaere, De Smedt, and Pacolet 2022). Another possible proxy for foreign participation in the labour market are within-EU/EEA immigration rates. These are available for EU-member states from Eurostat (2023), but the data only goes back to 2013. Therefore, neither of these options can be used to account for the effect of foreign labour import in the time-series cross-sectional analysis.

## Summary of variables

Table 6.1 provides an overview of all the variables used in the analysis. Most of the numeric variables are measured as percentages, as they measure a share of the workforce (union density, unemployment rate, service sector employment), a share of GDP (current account balance, government expenditure), or a share of representation in government (left government share).

Table 6.1. Variable overview.

<b>Numeric variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>25 %</b>	<b>75 %</b>	<b>Max</b>
Union density (%)	1135	36	22	4.3	19	51	99
Left government share (%)	1135	34	40	0	0	68	100
Current account Balance (%)	1135	-0.49	5	-23	-3.4	2.5	16
Main bargaining level	1135	2.6	1.2	1	1	3	5
Effective number of Parties	1135	4.7	1.8	2	3.4	5.7	18
Unemployment rate (%)	1135	7.7	4.2	0.21	4.8	9.6	28
Government expenditure (%)	1135	44	9.3	7.3	38	50	79
Service sector employment share (%)	1135	66	9.2	36	59	73	90
<b>Categorical variables</b>		<b>Levels</b>					
Mandatory extensions	1135	None (31 %)	Rare (21 %)	Frequent (15 %)	Semi-automatic (32%)		
National minimum wage	1135	No (35 %)			Yes (65 %)		
Pattern bargaining	1135	No (78 %)			Yes (22 %)		

## 6.2. Method

In the following I present the modelling approach to the statistical analysis. I conduct a proportional odds logistic regression analysis due to the ordinal nature of the dependent variable. I also conduct an OLS-regression as a robustness test. This section begins with a presentation of the ordered logit model and the proportional odds assumption. It proceeds with a brief discussion of how to account for unobserved heterogeneity between countries.

### **Choice of regression model**

The dependent variable in the time-series cross-sectional analysis is an ordinal variable; the levels of extension practice are discrete and ranked, but there is no basis for assuming equal distance between the levels. For example, one might expect a more pronounced difference in rate of extensions between the categories “rare” and “frequent”, than between “rare” and “none”. More importantly, the measurement of the Visser extension variable is an expert assessment of institutional features rather than any transparently quantified metric. This means that the categories can be quite confidently ordered, but we cannot make assumptions regarding the distance between the levels.

Avoiding the assumption of linearity means instead applying discrete choice models to the ordinal response variable. The most common discrete choice models in empirical work are logit and probit models, two slightly different ways of estimating a maximum likelihood function for modelling a binary outcome variable based on a set of input variables. The difference between the two is that the probit model uses the normal distribution function to model discrete choice, whereas the logit model uses the standard logistic distribution function (Horowitz and Savin 2001, 44-45). The logistic distribution has slightly heavier tails and is therefore somewhat less susceptible to outliers, but the two approaches tend to yield very similar results in empirical work (Verbeek 2017, 217). The main model in the following analysis is a logit model, simply because it is the more common of the two methods. Based on a number of Monte Carlo simulations, Hahn and Soyer (2005, 11) conclude that the probit approach tends to produce a better fit in multivariate random effects models. I therefore

conduct a robustness test of the main model with a probit link function. The results are very similar to the main ordered logit model.<sup>10</sup>

For the purpose of the present analysis, the simplest way to apply a discrete choice model would be to collapse the four-level ordinal variable to a binary response. However, this would entail a large loss of information, and it is not clear what the theoretically appropriate cut-off point would be. Keeping all values on the dependent variable distinct requires a different approach. Multinomial logistic regression allows for more than two categorical outcome groups. These models are sometimes used to analyse ordered outcome variables, but for this purpose they are somewhat inefficient and hard to interpret since they do not take into account the fact that the outcome groups are ordered (Fullerton 2009, 323). To take into account the ordinal nature of the dependent variable, the main method of analysis will be an ordered logit model. This regression method is explained in the following section.

### **Ordered logit regression**

Ordered logit models build on binary logistic regression. There are different ways to apply logistic regression to an ordinal dependent variable. This analysis uses proportional odds logistic regression (McCullagh 1980). This is the “traditional” approach to ordinal logistic regression and the most commonly used method for analyzing ordinal outcome variables with logistic regression (Fullerton 2009, 311). For that reason, the terms ordered logit (ordinal logistic regression) and proportional odds regression are sometimes used interchangeably. The proportional odds method (1) compares logged probabilities in a cumulative manner and (2) applies the proportional odds assumption to all independent variables. These two features of the approach will be explained in turn.

Applying logistic regression to an ordinal response variable rather than a binary one requires the creation of multiple regression equations. In the cumulative approach to ordered logit regression, the dependent variable is split into a number of equations equal to the number of levels on the dependent ordinal variable minus one (Fullerton 2009, 311). The estimate compares the logged probabilities of belonging to the lowest level relative to all those above,

---

<sup>10</sup> See Appendix B for ordinal probit regression results

the bottom two levels to all those above, and so on. For the present analysis, this means that three logistic equations will be created, since the mandatory extensions variable has four levels (0-3). The three regression equations will compare logged probabilities between level 0 vs 1-3, levels 0-1 vs 2-3, and levels 0-2 vs 3. In other words, the method produces a common estimate for all possible ways of collapsing the ordinal variable into a binary response.

The modelling approach used in this analysis builds on the proportional odds assumption, sometimes referred to as the parallel regression assumption. In creating the regression estimate, the model assumes that the effects of the independent variables are the same for all pairs of outcome groups (Peterson and Harrell Jr 1990, 205). A single set of coefficient estimates, one per covariate, is applied across the different regression equations. In practice, this means that the model can be summarized by one coefficient estimate for each independent variable, since the only thing separating the regression equations is the intercept. This is a great advantage for model interpretability, since the total estimated effect of a variable of interest across all levels of the ordinal outcome is summarized in a single coefficient estimate with an associated p-value. The validity of the proportional odds assumption is assessed by applying the Brant (1990) test.

### **Country effects**

One important consideration in the model specifications for a time-series cross-sectional analysis of this kind is how to deal with the unit effects of the countries in the sample. As each unit is measured multiple times, the clusters of observations for each unit are likely to be highly correlated independently from the chosen explanatory variables. This is due to the effect of unobserved heterogeneity not captured by the selected control variables, since it is practically impossible to control for all potentially relevant features of each country. The effects of individual units on the dependent variable can be entirely accounted for in a fixed effects (FE) model, which controls for dummy variables for each unit (minus one for the reference category). This approach in its pure form neglects variation between units, focusing only on within-unit variation for its estimation.

The dependent variable in this analysis has limited within-unit variance. Among the total 1135 country-year observations, the sample contains 28 cases where extension practice



changed from one year to the next. These are split across 14 of the 33 countries. In other words, most units experience no change on the dependent variable, which would mean that they could not contribute in a fixed effects regression model. On the explanatory side of the regression equation, fixed effects models are unable to estimate the effects of time-invariant variables, and inefficient for slow-moving or sluggish variables (Clark and Linzer 2015, 403). Several such sluggish (or time-invariant) variables are included in this analysis as either explanatory or control variables. These include institutional features of the collective bargaining system such as the predominant level of wage bargaining, as well as other rarely changing variables like the presence of a statutory minimum wage.

The main alternative to a fixed effects model is to instead include random effects to control for unobserved heterogeneity between countries. A random effects estimate assumes that the unit effects are drawn from an underlying normal distribution. Based on this assumption, a mean and a standard deviation for the unit effects are estimated (Bell and Jones 2015, 136). This comes with the drawback of potential omitted variable bias. The upshot is that it allows the between-country variance that remains after controlling for the random effects estimate to add to the explanatory analysis. It is not immediately obvious which of these two alternatives will suit the analysis best. I therefore run both.

The proportional odds logistic regression model is based on three logit equations with the same covariate coefficients. The estimates for the country effects, whether fixed or random, are kept constant across the different logit equations in the proportional odds model (Agresti et al. 2000, 53), similarly to the covariate coefficients. This means that only one set of country dummies, or one random effects estimate, is created for each proportional odds model.

### **Software and model specifications**

Proportional odds logistic regression will be performed using the “clmm” function from the *ordinal* software package for R version 4.1.1. The function fits a cumulative link mixed model, which allows the inclusion of random effects in a proportional odds logistic regression (Christensen 2022). The term “cumulative link function” is yet another almost-synonym for proportional odds regression. “Cumulative” refers to the fact that binary choice models are applied to ordered classification in a cumulative manner, as discussed above. The “link

function” can be logit, probit, or otherwise specified. Cumulative regression with a logit link function is commonly known as proportional odds logistic regression (Christensen 2022, 3). This function is used to perform both random effects and fixed effects ordered logit regression. OLS regression is performed with the *plm*-package (Croissant et al. 2019).

### 6.3. Results

The regression estimates for the proportional odds models are presented in Table 6.2. The coefficients estimate the effect of each independent variable on the mandatory extension practice in a given country-year. The figure reported is equal to the expected increase in log odds for the dependent variable, given one unit increase for the independent variable. As described in chapter 6.1, this estimate is a summary of three logit equations with different intercepts, dichotomizing the ordinal variable in different ways. As such, each regression estimate should be interpreted as the changed probability of an observation belonging to a higher rather than a lower category of mandatory extension practice.

I use McFadden's pseudo- $R^2$  as a measure of each model's "goodness of fit". Unlike the analogous  $R^2$  from linear regression models, the pseudo- $R^2$  used in categorical outcome models does not represent the proportion of explained variance. Rather, it is a measure of the improvement in explanatory power relative to a null model. There are multiple ways to calculate a pseudo- $R^2$  for logit models, but the widely used McFadden measure has been found to be less susceptible to asymmetric distributive properties on the dependent variable (Hemmert et al. 2018, 517). This is useful for the proportional odds model, since the different logit equations within the model deal with different dichotomizations of the ordinal dependent variable.

Model 1 contains all the independent variables that feature in the analysis, with a random-effects estimate accounting for unobserved heterogeneity between countries.

Three variables are implicated in the theoretically derived hypotheses. The first one is union density, which is used as a proxy to measure union strength. This variable is positively correlated with mandatory extensions, in line with the first hypothesis. The same is true for left-party government participation. These two variables are both measured on the same scale, from 0 to 100. Due to electoral turnover, the government proportion of leftist parties often fluctuates between the extremes of the scale. Union density is by contrast a sluggish variable, and its extremes of either zero or full unionization are less realistic. Despite this, the coefficient estimate of union density is around 10 times larger than that of leftist government share, and at a much higher level of statistical significance. Keeping in mind that union density is less likely to fluctuate than the government share of leftist parties, the results

indicate that unions strength has a bigger role in explaining the prevalence of mandatory extensions.

The final theoretically interesting variable is current account balance. This variable is expected to correlate negatively with mandatory extensions, as extensions are more conducive to domestic demand-led growth than export-led growth. The association is indeed negative, but the relationship is not statistically significant.

Hypothesis 1B stipulates a quadratic relationship between union density and mandatory extensions. Adding a squared union density term to Model 1 caused convergence issues in such a way that the statistical software package was not able to create a random effects estimate. This was most likely due to limited diversity on the dependent variable. Three control variables had to be dropped from the model in order to produce a random-effects estimate when the squared term was included. The choice of which control variables to drop from the models was not obvious, since all variables were either highly significant or theoretically important. The theoretical implications, as well as the results in Model 1, were used in the evaluation. I chose to exclude government expenditure, since it was originally included as a proxy for public sector employment but does not measure it directly. Pattern bargaining was also dropped, since its inclusion in the first place was based on evidence from the Norwegian case and not the more general literature. Finally, I chose to exclude effective number of parties from the trimmed models, since it was not statistically significant in Model 1.

Models 2 and 3 are based on this smaller group of covariates, the latter including the squared union density term. Because Models 2 and 3 exclude certain significant control variables, their results only provide useful information with respect to H1B. The regression estimate for the squared union density term in Model 3 is negative, and it is also statistically significant. Along with the first-degree union density term remaining positive, this is indicative of an inverted u-shaped relationship between union density and the chance of high mandatory extension prevalence. The positive association between union density and mandatory extensions seems to decrease as union density increases, in line with H1B. The added explanatory power of adding the quadratic term is extremely modest, however. The increase in pseudo- $R^2$  of Model 3 compared to Model 2 is minimal, and does fall outside the 3-digit rounding error.

Table 6.2. Mandatory extensions – proportional odds logistic regression.

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
Union density	0.052 ***	0.055 ***	0.076 ***	0.057 ***
(Union density) <sup>2</sup>			-0.001 *	
Left-party government	0.005 *	0.005 *	0.005 ***	0.006 *
Current account balance	-0.023	-0.035	-0.034 ***	-0.024
Main bargaining level	1.067 ***	0.899 ***	0.982 ***	1.05 ***
National minimum wage	-1.648 **	-1.910 ***	-1.982 ***	-1.80 ***
Unemployment rate	-0.208 ***	-0.134 ***	-0.138 ***	-0.22 ***
Service sector employment	0.035	0.061 ***	0.065 ***	0.044 *
Government expenditure	0.096 ***			0.098 ***
Effective number of parties	-0.136			-0.15
Pattern bargaining	2.394 ***			2.54 ***
Country effects	Random	Random	Random	Fixed
Pseudo-R <sup>2</sup>	0.673	0.656	0.656	0.731
Observations	1135	1135	1135	1135

*Significance codes: p<0.05\*, p<0.01\*\*, p<0.001\*\*\**

Finally, Model 4 is based on the same selection of independent variables as Model 1, but includes fixed rather than random country effects. The results are similar to Model 1 overall. The effects of union density and leftist participation in government are both slightly stronger, while remaining at the same level of significance. This indicates that the effects of unions and leftist parties are present within countries over time, rather than just driven by between-unit variance. This means that that when unions grow or leftist parties enter government, there is a higher chance that mandatory extensions will become more prevalent. Among all the proportional odds models, Model 4 performs best with respect to McFadden's pseudo- $R^2$ . The difference in model fit between Model 1 and Model 4 indicates that a considerable portion of the unobserved heterogeneity between countries is not captured by the random effects estimate. The fact that the effects of union density and leftist government participation remain statistically significant when fixed country effects are included, shows that their associations with the dependent variable is not caused by common country affiliation. It means that changes union density and government partisanship are systematically associated with changes in extension practices within countries over time.

In total, the results of the proportional odds logistic regressions lend support for H1A and H2. The positive associations with union density and left-party government participation indicates that these actors promote mandatory extensions. The results from the main model do not suggest that the growth model, measured by current account balance, is significantly correlated with mandatory extensions, leading to the preliminary rejection of H3. It is interesting to note, however, that there is a strong positive association with pattern bargaining, as this variable is tangentially related to growth models. The Norwegian case study suggests a potential mechanism linking pattern bargaining to wider use of mandatory extensions.

### **Testing the proportional odds assumption**

In testing the proportional odds assumption, I create a separate pooled ordinal logit model based on the same covariates as Models 1 and 4. This is necessary because the “brant” R-package (Schlegel and Steenbergen 2022) is not compatible with the *ordinal* package used to fit random and fixed effects ordinal regression models. The regression results of the model are reported in Appendix C. Pooling the country-year observations in this way is a poor bases for inference with regards to effect estimates, as it does not account for unobserved heterogeneity

between units. However, for the purpose of testing the proportional odds assumption, a pooled model provides something akin to a “hoop-test” for the main models. If the proportional odds assumption does not hold for a pooled model based on the same data and the same selection of covariates, it is unlikely that it holds for Models 1-4.

The null hypothesis for the Brant test is that the proportional odds assumption holds. The results of the test therefore indicate that the proportional odds assumption does not hold for the pooled model. In Table 6.3, the results from the Brant test of the pooled model are reported. For most of the covariates in the model, the results are indicative of non-proportional odds as the probabilities of the null hypothesis approach zero. The only covariate that falls outside the 95 percent confidence interval is government expenditure, indicating that this variable is closer to having a similar impact on extension practice across all levels. The “omnibus”-category is an assessment of the model as a whole. The probability is close to or equal to zero, meaning that the null hypothesis is rejected.

Table 6.3. Brant test results.

	<b>X2</b>	<b>Probability</b>
<u>Omnibus</u>	640.11	0.00
Union density	72.04	0.00
Left-party government	19.44	0.00
Current account balance	152.09	0.00
Main bargaining level	7.94	0.02
National minimum wage	29.82	0.00
Unemployment rate	46.98	0.00
Service sector employment	9.51	0.01
Government expenditure	4.32	0.12
Effective number of parties	16.37	0.00
Pattern bargaining	49.49	0.00

Although the proportional odds model does not hold in this instance, the results of the ordered logit models still provide a good indication of the general direction of the statistical associations in the data material. There is little doubt that union density and leftist government participation are associated with more mandatory extensions in general. The results of testing the proportional odds assumption indicate that the covariates are likely to have different effects across the different levels of the dependent variable.

## **OLS**

As I argue in the methods section 6.2, ordered logistic regression is the most appropriate modelling approach given the ordinal nature of the dependent variable. Nonetheless, there are multiple advantages of supplying the main model with an OLS regression analysis. In this instance it is easy to justify the addition of a secondary modelling approach, as the proportional odds assumption is unlikely to hold for the ordered logistic models. In addition to functioning as a robustness test for the analysis as a whole, the OLS-approach is better suited for modelling the curvilinear relationship between union density and mandatory extensions. This is because a linear regression estimate makes the results easier to interpret. Lastly, the OLS model does not face the same convergence issues as the proportional odds model when including the squared term. This allows the curvilinear relationship to be tested while including all control variables.

The OLS regression results are presented in Table 6.4. The sizes of the coefficients cannot be directly compared between with the foregoing proportional odds regression due to modelling differences. In the OLS model the covariate coefficients correspond to the expected increase on the dependent variable given one unit increase on the independent variable, and the dependent variable (mandatory extension practice, ranging from 0 to 3) is taken as a continuous scale. Both OLS models include fixed rather than random country effects, as the results from the proportional odds regression indicated that this was the better approach. Across both models, the regression results concur with the results from the ordered logit models. As a robustness test, then, these results further strengthen H1 and H2, as well as the grounds for rejecting H3.



Table 6.4. Mandatory extensions – OLS-regression.

	<b>Model 5</b>	<b>Model 6</b>
Union density	0.011 ***	0.023 ***
(Union density) <sup>2</sup>		-0.00014 **
Left-party government	0.0008 **	0.0009 **
Current account balance	-0.003	-0.0026
Main bargaining level	0.208 ***	0.21 ***
National minimum wage	-0.136	-0.16 *
Unemployment rate	-0.033 ***	0.036 ***
Service sector employment	0.004	0.007 *
Government expenditure	0.01 ***	0.012 ***
Effective number of parties	-0.034 **	-0.038 ***
Pattern bargaining	0.35 ***	0.32 ***
Country effects	Fixed	Fixed
R <sup>2</sup> / Adjusted R <sup>2</sup>	0.293 / 0.266	0.299 / 0.271
Observations	1135	1135

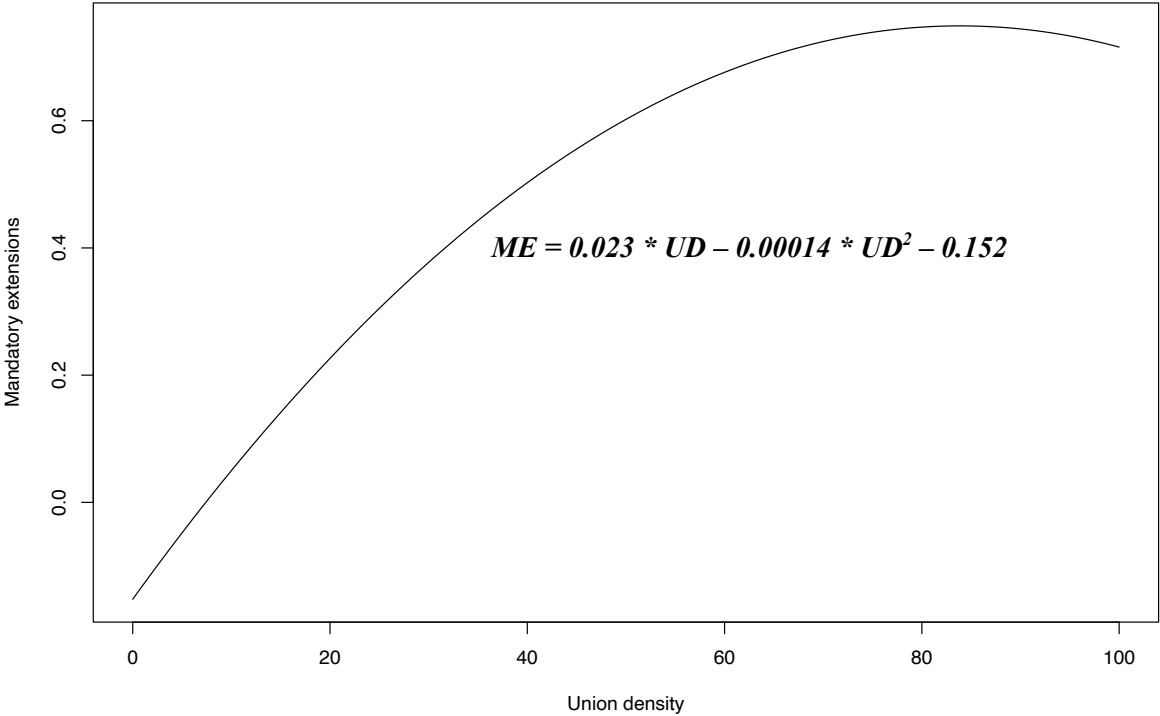
*Significance codes: p<0.05\*, p<0.01\*\*, p<0.001\*\*\**

The linear regression results give a stronger indication of a curvilinear relationship between union density and mandatory extensions. Firstly, the squared union density term included in Model 6 is at a higher level of significance than the corresponding estimate in Model 3. This is of course not directly comparable, as the models include a different set of control variables and are modelled with different approaches. The difference in adjusted R<sup>2</sup> between Model 5 and Model 6 is a better indication that the curvilinear relationship exists. Unlike the corresponding proportional odds models, the explanatory power of the model as a whole seems to increase noticeably. The adjusted R<sup>2</sup> increases from 0.266 to 0.271 when the squared union density term is added. The direction of this curvilinear estimate is the same as in Model 3, and in accordance with theoretical expectations: An inverted u-shape when union density is on the x-axis.

In Figure 6.1, the curvilinear regression estimate of union density from Model 6 is plotted graphically. The curve is based only on the coefficient estimates for union density as well as the squared union density term. Being a fixed-effects model, Model 6 does not have one

single intercept but rather one per country. The intercept for the equation plotted in Figure 6.1 is constructed using the “within\_intercept” function in the *plm* package. The mandatory extensions variable ranges from 0 to 3, as it is based on a four-level ordinal variable. The values on the y-axis in Figure 6.1 range from 0 to 0.7, suggesting that the average effect size of union density is moderate. Since the intercept is based on a weighted average of all the country-fixed effects, the y-axis is not reflective of any actual predicted values. Rather, the purpose of this plot is simply to display the direction of the estimated effect of union density according to Model 6, something that is not immediately obvious from the coefficient estimates themselves. Figure 6.1 indicates that union density has a clear positive effect on mandatory extensions. This relationship flattens when union density is above 60 percent, and it is reversed when union density passes 80 percent.

Figure 6.1. Union density and mandatory extensions (Model 6).



## 7. A case study of Norway

This case study is focused on the influence of labour unions in shaping mandatory extension practices in Norway. The decision to place the main focus on interest politics, rather than party politics, is partly based on the results from the statistical analysis, as these hint that the effect of labour unions might be stronger. It is also partly based on case knowledge. Adding to preceding in-depth research from the Netherlands and Germany (Paster, Oude Nijhuis, and Kiecker 2020; Günther 2021; Günther and Höpner 2022), I want to examine how the social partners position themselves around this issue in Norway. The in-depth study of a single case will complement the findings from the statistical analysis by ascertaining that labour unions can, based on their organisational strength, affect the practice of mandatory extensions. This strengthens the interpretation of the causal direction between these two variables, and provides some insight into the mechanisms between them.

This case study builds on existing literature describing developments within the Norwegian system of wage-setting. Parts of this literature describes the processes driving the rate of mandatory extensions in Norway. I add to this literature empirically by drawing on in-depth interviews with key informants. The group of informants are a combination of collective bargaining leaders, politicians, and civil servants. There are ten interviews in total. I conducted two of these, Interviews 1 and 2, specifically for this case study. These two informants are for different reasons uniquely well-positioned to provide insights into the research question at hand. Most of the weight will be placed upon these. The remaining eight interviews were not conducted by myself but were kindly made available to me by Trond Erlien and Georg Picot. Primarily conducted for a different case study examining the politics of Norwegian low-wage policies in general (Erlien and Picot 2023, unpublished), these interviews contain a lot of information about mandatory extensions in Norway.

Another important set of sources for the case study are the publicly available decisions from the Norwegian Tariff Board (Tariffnemnda), the legal body tasked with mandatory extension decisions. These documents are valuable sources for multiple reasons. They detail the Board's conclusion in each case, and the reasoning behind it. As the Board contains representatives from peak-level organisations from both the union and the employer side, the discussions between board members can reveal the main points of contention between the social partners

more broadly. Furthermore, because these cases are frequently submitted for consultation, the documents detail the positions of the main stakeholders. These include the peak-level associations themselves, as well as individual labour unions, employers' associations, and public authorities. This provides insights into how the various actors position themselves in relation to mandatory extensions, and what the main points of contention were in each case.

The case study is structured as follows. The main section of the chapter tells the story of mandatory extensions in Norway chronologically. This includes the creation of the law that enables extensions in the first place and the subsequent policy developments as the mechanism was used in more and more labour market sectors. I focus on the moments when extensions have been most strongly contested, since these highlight the preferences and relative influence of key actors best. These include the pioneering extension of the general construction agreement, as well as the legal challenge to extensions in the shipyard industry. Wrapping up the case study I extract the theoretically relevant points and examine the role of labour unions in these developments. I also situate the evidence from Norway within the broader framework of the thesis and the results of the statistical analysis.

### **Mandatory extensions in Norway**

Wage setting in Norway is based on an export-led two-tiered system of collective bargaining where wage rates are set centrally, but with local adjustments (Bhuller et al. 2022, 41). The bargaining coordination between sectors is organized through the so-called front-runner model. In this model of pattern bargaining, the export-oriented sectors bargain for wages before everyone else, setting economy-wide wage norms (Nymoen 2017, 13). The purpose of this model is to encourage wage moderation in an effort to protect the price competitiveness of the exporting sectors. While a continuing subject of debate within the union movement (Heiret 2012, 58), the front-runner model continues to shape bargaining coordination in Norwegian wage setting.

The centrality of collective bargaining means that state regulation has played a limited role in Norwegian wage-setting. That does not mean that the state has been absent, however. Compared to other Nordic countries, industrial action often results in government intervention through forced arbitration (Elvander 2002, 125-126). The comparative strength of state

institutions for bargaining mediation may provide part of the explanation for why mandatory extensions reached the policy agenda in Norway, but not in the other Scandinavian countries.

The legal framework for extending collective agreements by force dates back to 1993, when the Norwegian Mandatory Extension Act (*Allmenngjøringsloven*) was adopted. The legislation was drafted as Norway prepared to join the EEA and thus to participate in the common European labour market. The explicit purpose of the law was to secure access to equal terms of employment for foreign and Norwegian workers (*Allmenngjøringsloven* 2022, §1). The need to protect minimum employment standard in the face of increased labour immigration as Norway entered the common European labour market was recognised by many actors, but “it was on the trade union side that the need for regulations was identified first and endorsed the strongest” (Interview 2). Against this backdrop, the process towards a legal framework for mandatory collective bargaining extensions got underway.

The first draft for a law intended to secure equal working conditions for Norwegian and foreign labourers was sent for consultation in June of 1992. This proposal stipulated a procedure where an independent wage board would set minimum wage rates in sectors exposed to social dumping (*Ot. Prp. Nr 26 1992-1993*, 13). The National Wage Board (*Rikslønnsnemnda*) is otherwise tasked with, among other things, deciding wage rates in cases where industrial conflict is settled through forced arbitration. Labour unions were firmly opposed to this proposed wage-setting arrangement that was independent of any collective bargaining agreement and therefore more akin to a sectoral statutory minimum wage. The alternative endorsed by labour unions, and eventually settled on in the final proposal, was to base this regulatory instrument on provisions within existing collective bargaining agreements. In the words of a public servant involved in this drafting process:

“The original proposal was different from the law we ended up with in 93/94. The change was, among other things, based on the formal response from LO, who wanted a different solution from the one we had proposed. So yes, it is right to say that their influence was considerable. (...)

LO, among others, preferred an arrangement where all or parts of the collective agreement could be extended in key sectors, because the agreements contain much more than just wage provisions, other things that they believed could also be important to extend.” (Interview 2)

The Mandatory extension Act came into force on January 1<sup>st</sup> 1994, simultaneously with the EEA agreement. The law created the procedure whereby collective agreements can be made legally binding for workplaces outside its initial jurisdiction, as a means of combating wage dumping of foreign workers. The decision to extend falls to the Tariff Board, an appointed body consisting of five members. Three of these are neutral, including the board's leader. The remaining two members are representatives from the largest labour federation (LO) and the largest employers' federation (NHO). Requests for mandatory extensions have to be made by an organisation taking part in the underlying agreement, either on the employee or employer side. If the agreement in question is not between LO and NHO, two additional members are appointed to the Tariff Board to represent both parties (Allmenngjøringsloven 2022, §3-4).

Although both parties are entitled to request extension, all requests so far have come from LO on behalf of employees.<sup>11</sup> Every two years, when collective agreements are regularly renegotiated, the standard procedure has been for LO to reapply based on the updated agreement, citing the continued need for mandatory extensions to fight wage dumping in the given sector.

### ***The first instance of mandatory extension***

The legal framework had been in place for over a decade when mandatory extensions were first used in Norway in 2004. The first cases of mandatory extension were limited in scope, targeting specific parts of a sector where widespread wage dumping of foreign workers could be documented. In the very first case of its kind, three collective agreements (the general agreement for construction workers, the national agreement for electrical workers, and the workshop agreement) were extended to seven on-shore petroleum plants in 2004. The first mandatory extensions that were not specifically targeted at any named workplaces, but rather at a sector as a whole, came in the construction sector. Initially, these were geographically limited. In 2005, general agreements for construction workers and electrical workers were extended to all construction sites in and around Oslo. This was quickly followed by a decision to extend the general construction agreement to sites in and around Bergen later the same year. The following year, in 2006, the construction agreement was made nationally applicable.

---

<sup>11</sup> In the transportation sectors, joint extension requests were put forward by LO together with YS, another national labour federation.

As the first sector where widespread and eventually national collective bargaining extension occurred, the construction sector gave an early indication of the patterns that would repeat themselves in following extension debates. In order to extend a collective agreement, the applicant needs to provide sufficient documentation that wage dumping is taking place (Allmenngjøringsloven 2022, §4). In treating the first application for a mandatory extension in the Oslo area in 2004, the social partners and their representatives on the Tariff Board were quite far apart, as a then-leader within the builders' union movement explains:

“There was a big fight in the Tariff Board around documentation. NHO was very much against mandatory extensions. With support from their members, they were in favour of cheap labour and wage competition. (...) We were eventually able to win the battle in the Tariff Board. The vote was 3 against 2, so it was a very large discussion, one that ended with the extension of the general construction agreement.” (Interview 1)

By 2006, the decision to extend the construction agreement nationwide met with understanding and partial support from the Federation of Norwegian Construction Industries (BNL). The support was rooted in small- and medium sized construction enterprises who were losing out due to wage competition (Alsos and Eldring 2021, 56). On the other hand, the Trade and Services Federation (HSH) expressed scepticism about mandatory extensions as a tool to fight social dumping, and concern that it would “intervene in the bargaining freedom and flexibility of serious enterprises” (Tariffnemnda 2006, 9). This division between different employer interests was also present in the battle for extension in the Oslo region two years earlier.

“There were the large entrepreneurs, who saw this as an opportunity for cheap labour, while the smaller agencies thought it was great that we demanded extension, because they too saw this new situation as a competition factor since they were losing out to businesses that could hire much cheaper labour” (Interview 1)

### ***Differing views within the union movement***

Initially, there were fears within the union movement that mandatory extensions could damage the incentives for organizing. These have largely disbanded. Within the construction sector, labour unions found that they were able to use extended agreements as a recruitment tool. Many foreign workers were still paid below minimum provisions in the extended agreement. The unions had the necessary resources and legal knowledge to demand the extended wage level on behalf of their members. Therefore, union membership became a way for foreign workers to access extended wage provisions.

“There was a situation where, even though extension was decided, many did not get it. When people organized themselves, that very often contributed to them receiving the extended wage level. (...) So, we eventually concluded that mandatory extensions actually increased the opportunities for recruitment and for collective agreements.” (Interview 1)

As a tool for recruitment, mandatory extensions would prove very effective in the construction sector. The number of members from new EU-member countries in Central and Eastern Europe grew rapidly in the years immediately following the extension of the general construction agreement (Eldring 2010, 67). This has likely increased the labour federations’ confidence in applying for bargaining extensions in other sectors.

### ***Mandatory extensions in the Supreme Court***

In addition to using their voting power within the Tariff Board, employers have also challenged mandatory extensions on legal grounds. In 2008, LO requested the extension of the Workshop Agreement to shipyards, a sector with widespread use of temporary work agencies (Alsos and Eldring 2021, 54). The Tariff Board decided to extend the agreement in line with the request, with a dissenting vote from its NHO representative. Having lost the battle in the Tariff Board, employers took the extension to court, arguing that it was in violation of the EEA agreement and the Posted Workers Directive. The main point of contention was not the wage floor, but the extended provisions that require employers to cover expenses for travel, board and lodging. The employers lost the case and the following appeals, which ended in a Supreme Court decision ruling that the extensions were legal. The decision was in part based on the court finding the extension of travel, board and lodging



provisions to be important for safeguarding the front-runner model (HR-2013-469-A, 170). This is because the shipyard industry's status as a frontrunner in the pattern bargaining model is conditional on the representativeness of the sectoral collective agreement.

The Supreme Court's decision in the shipyard case was later used in the Tariff Boards justification to extend travel, board and lodging provisions for workers in the construction sector as well. Although this was a case related to a different collective agreement, the legal precedence of the Supreme Court's decision became "a deciding factor" (Tariff Board 2013, 2) in settling what was a contentious issue in the construction sector at the time. The court's decision thus had consequences outside the front-runner sector.

### *Overview and current picture*

In the period since 2004, the use of mandatory extensions has gradually increased, spreading to different labour market sectors. Figure 7.1 provides an overview. In reading the figure, it is important to keep in mind that in all cases the underlying collective agreement is only extended in a limited fashion. The common trend is that minimum wage provisions are extended, as well as what are seen as minimum terms of employment, in line with the stated policy goal of the Extension Act. What can be said to constitute minimum terms of employment is the subject of fierce debate between the social partners, as the example from the shipyard industry illustrates. In some cases, the mandatory extension only relates to specific kinds of workers within the sector covered by the agreement in question. The extension of the general bus transport agreement (Bussbransjeavtalen), for instance, only covers passenger transport by tour bus. Similarly, the extension of the workshop agreement (Verkstedsavtalen) pertains exclusively to shipyards.

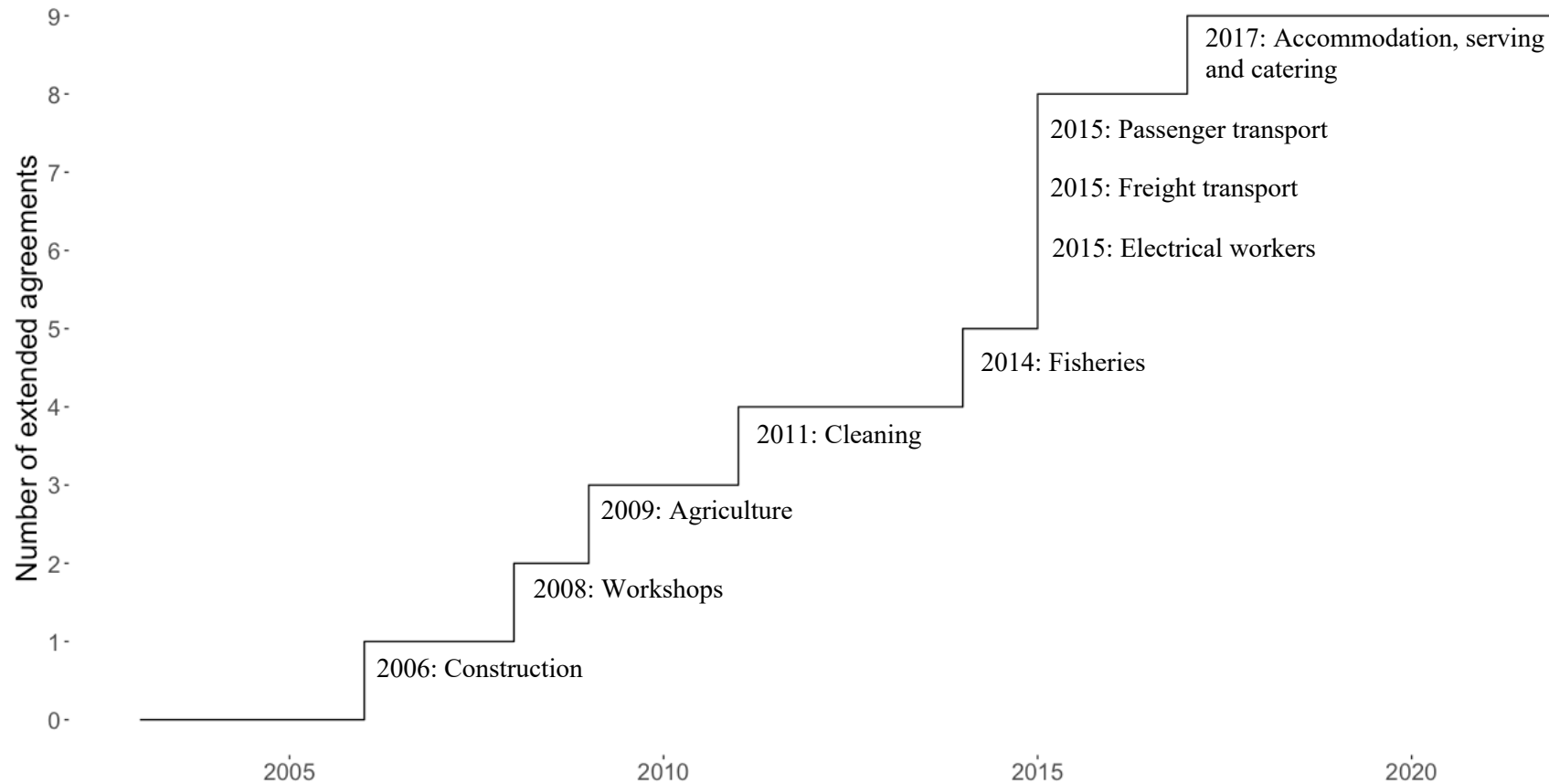
The year of the first decision to extend a collective agreement through the Tariff Board, 2004, is the year the ICTWSS extension variable changes its value from 0 to 1. Comparing Table 2.2 (page 18) to Figure 7.1, it is clear that the crude categorization that constitutes the dependent variable in the statistical analysis can overlook important developments. In the period since the eastern enlargement of the EU, after a ten-year period as a "sleeping" law, mandatory extensions have become a gradually larger part of Norwegian wage floor

regulation. For each labour market sector, previous decisions to extend have always been carried forward.<sup>12</sup> Mandatory extensions thus accumulate, something reflected in Figure 7.1.

---

<sup>12</sup> The exception to the rule is the Tariff Board's 2010 decision not to carry forward the original 2004 extension to selected onshore petroleum plants. By 2010, the Board felt that working conditions on these plants had basis. No nationally applicable extension statute has ever been removed.

Figure 7.1. Generally applicable collective agreements in Norway.



*Note: In 2004, collective agreements for construction, workshops and electrical workers were extended to seven onshore petroleum plants. This selective extension is not included here; this graph only covers nationwide extensions. At present, all collective agreement extensions have nationwide jurisdiction.*

## **Conclusions from the Norwegian case**

The many different perspectives discussed in chapters 3 and 4 of this thesis posit a variety of factors that might condition the preferences of unions and employers' organizations with regards to mandatory extensions. While the simplest expectation is that organized workers support extensions and employers oppose them, empirical examination and theoretical refinement has highlighted variation in bargaining structure, the orientation of labour unions (Hyman 2001), and employer ideology (Paster, Oude Nijhuis, and Kiecker 2020), among others, as variables that might condition this assumption.

Nevertheless, it is quite clear that the social partners in Norway position themselves along the expected lines. The evidence presented here suggests that in more than one arena, labour unions and the labour federation LO have been and continue to be the key actors pushing for mandatory extensions. The unions exerted critical influence over the creation of the legal framework that permits the extension of collective bargaining agreements. In the practical use of this legislation, labour unions are again the "primus motor". Requests to the Tariff Board for extending agreements have so far always come from the labour federations, even though both parties are entitled to make such requests.

Employers have tended to fight mandatory extensions. The clearest case of this was the legal challenge employers mounted against the mandatory extension in the shipyard sector, but this was only the most striking manifestation of a latent general opposition. The NHO representative on the Tariff Board regularly votes in dissent to the majority when agreements are extended. The consultation statements the Board receives from affected parties indicates some difference in opinions based on enterprise size, since it was mostly large employers who were able to benefit from cheap foreign labour.

The general picture arising from the Tariff Board's list of decisions is that, in most cases, the labour federation is successful in extending an agreement when they apply for it. This does not necessarily mean that unions by and large get what they want. Quite often, some concessions are made. One indicative set of decision, the 2010 decisions to carry forward extension in the construction sector and in the shipyard sector, was made with dissenting votes from both the LO and the NHO representative. LO wanted a larger portion of the agreement extended, while NHO argued that wage dumping was not sufficiently documented

to merit extension in the first place. Cases like this make it clear that the Tariff Board is navigating a space between two actors with opposing interests. In some instances, the Board has also rejected LO's request for mandatory extension. This happened in 2008, when LO applied for the national extension of the agreement for electrical workers, which was at that point only extended to the Oslo and Bergen regions. The application was rejected in a 3 vs 2 vote, and the agreement was not extended nationally until 2015. The basis for rejection in 2008 was that widespread wage dumping among foreign workers had not been sufficiently documented (Tariff Board 2008, 2). In this question the votes from the three neutral members were split. More recently, in December 2022, the Board rejected an extension application for delivery drivers.

Viewing the Norwegian case in light of the theoretical expectations and corresponding statistical results, it is somewhat surprising that unions seem to place relatively little weight on the potential damage extensions might cause to organization incentives. This must be seen in light of the situation the unions found themselves in at the time. The Norwegian trade union federation became a proponent of mandatory extensions due to the influx of foreign workers in the wake of the eastern enlargement of the EU. This greatly increased the chance of wage dumping undermining domestic standards of employment that unions tried to uphold, likely shifting the strategic considerations of unions as the protection of collectively agreed standards became a more pressing than maintaining membership incentives. The strategic considerations were shifted further by the fact that unions were able to use the extensions as a recruitment tool. In many workplaces, unions were key for insuring that the extended provisions were upheld, leading to a situation where access to extended agreements hinged on union membership. This meant that unions could offset potential membership losses by recruiting more foreign-born workers.

Still, the eastern enlargement of the EU cannot be the only important factor explaining extensions in Norway. Sweden and Denmark faced similar as they were also part of the common European labour market, yet neither of these countries have made use of mandatory bargaining extensions. The comparison with other Scandinavian countries places the reaction of the Norwegian labour unions in line with theoretical expectations. Union density in Sweden and Denmark in 2017 was 62 percent and 65 percent respectively, compared to 50 percent in Norway, and the difference has been at a similar level for many years. One possible

explanation for why Sweden and Denmark never introduced mandatory extensions might be the strategic considerations of labour unions, in line with H1B.

Finally, the evidence from Norway suggests that growth model considerations may have impacted extension practices. The front-runner model aims to protect the international competitiveness of the export sector by promoting economy-wide wage moderation. Within the data set used for the statistical analysis, Norway has had a positive current account balance every year apart from three (1986-88), indicating a predominantly export-led growth model. In the Norwegian Supreme Court, the front-runner pattern bargaining model that supports this export-oriented growth model was used to justify mandatory extensions in the shipyard sector. This ruling was later used as legal precedent in questions of extension in other sectors. It is therefore a plausible interpretation that the export-oriented nature of the Norwegian economy has had an effect on the prevalence of mandatory extensions, since extensions are used to strengthen the front-runner bargaining model. The introduction and increased use of mandatory extensions in Norway is clearly not the outcome of an export-oriented economy alone. But the particular role of the export-oriented sector in the Norwegian collective bargaining arrangement may be a part of a composite explanation along with the influx of foreign workers and the strategic considerations of labour unions.

## 8. Discussion and conclusion

This thesis has demonstrated that mandatory collective bargaining extensions is a policy field contested by strong and conflicting interests. The evidence from both analyses in the mixed-method research approach shows that the relative strength of political actors within the parliamentary as well as the interest group domain is an important part of the explanation for why extension practices differ among countries. Extension is a policy tool with considerable distributive and institutional implications for the labour market, and the results from this thesis indicate that it is recognised as such by the political actors that traditionally represent wage-earners, as well as by employers.

In this concluding chapter, I first discuss the main findings from this thesis. The discussion is structured according to the hypotheses. It draws on both the quantitative and the qualitative empirical sections, and discusses their implications in light of the various strands of theory presented in Chapter 4. In interpreting results based on two different kinds of evidence, I place great emphasis on using each for what it is best suited for. The statistical results assess the hypotheses in light of correlational evidence. The evidence from the case study is used to examine the relationship between unions and mandatory extensions more closely. It provides an example of how unions can affect extension practices. Evidence from the case study sheds some light on the statistical results, but it does not explain them. Due to possible mechanistic heterogeneity, more case-focused research is needed to examine this relationship further. In the final sections of this chapter, I discuss the limitations of the thesis and present some possible pathways for future research.

### **Main findings**

The statistical analysis set out to test four hypotheses concerning what explains national-level variation in the prevalence of mandatory extensions. Three of these are based on power resource theory. The final hypothesis is based on the growth model perspective. This thesis has employed a broad definition of politics, where the social partners are considered political actors. Employing power resource theory as the main theoretical framework has allowed for the examination of political processes both in the interest sphere and in the parliamentary

sphere. Table 8.1 provides an overview of the hypotheses and the theoretical framework each is based on.

Table 8.1. Overview of hypotheses.

Hypothesis	Theory
H1A: Mandatory extensions are more prevalent when unions density is high.	PRT
H1B: For very high levels of union density, the relationship is reversed.	PRT
H2: Left-led governments are more likely to increase mandatory extension practices.	PRT
H3: Mandatory extensions are used more extensively under conditions of domestic demand-led growth.	GMP

The findings support the idea that labour unions and leftist parties – the main political actors representing wage-earners in the framework of power resource theory – play an important role in promoting mandatory extensions. The results from the statistical analysis are thus in line with H1A and H2. National-level indicators for both union strength and left-party government participation were associated with more widespread use of extensions. This is the main finding in this thesis, and it has multiple implications for our understanding of mandatory bargaining extensions as a policy field. First and foremost, it indicates that mandatory extensions is a policy question that separates business interests from those of wage-earners, along the traditional labour-capital cleavage. Though this finding is not surprising, it represents an important first step towards a theory of the politics of mandatory extensions. More broadly, this finding supports the idea that power resource theory is fruitful for analysing labour market policies that regulate wages for the low paid.

In hypothesising about the preferences of labour unions in this policy field, there was good theoretical and empirical reason to expect that unions view mandatory extensions as a somewhat double-edged sword. The results from the statistical analysis show correlational evidence that indicate a drop-off in the association between union density and mandatory extensions. For cases of very high union density, above around 80 percent, the relationship seems to flatten or indeed reverse. Interpreting this finding in line with H1B, this could be due



to union shifting their preferences based on their organizational strength. Another interpretation is that states with high union density also have near total bargaining coverage, and that extensions therefore do not reach the policy agenda in the first place.

Within the Norwegian labour movement, surprisingly little weight seemed to be placed on the drawbacks of mandatory extensions. The fact that it took ten years from the adoption of the extension law until the first application for the extension of a collective agreement, is indicative of initial caution on the part of the unions. In the wake of the EU's eastward expansion, however, the trade union federation has become a clear proponent of extensions in Norway. One interpretation of this somewhat surprising observation could be that labour unions are more concerned with their ability to uphold an all-encompassing wage floor than with upholding incentives for unionization. As pointed out in Chapter 4, this does not necessarily entail concern for the welfare of non-organized workers. It could be a sign of solidarity, of course, but union members can also benefit from widespread coverage as they avoid being undercut.

However, the more or less undivided support for mandatory extensions from the Norwegian labour federation must be seen in light of the fact that unions were able to use extensions as a tool to recruit foreign workers. They therefore experienced that the effect on union membership was positive rather than negative. The question is how generalizable this mechanism is to the wider universe of cases. On the one hand, Norway is a special case since the extension law is designed specifically to ensure a wage floor for foreign workers. These workers are less likely to unionize. Therefore, mandatory extensions may contain a larger recruitment potential in Norway than in other countries. This would mean that Norwegian unions have less of a reason to worry about free-riders, as long as extensions are limited to industries with low organizational density.

On the other hand: To the extent that non-unionized workers are denied access to the minimum wages stipulated in extended collective agreements, the same mechanism could be at play elsewhere as well. There is no obvious reason why this would only apply to foreign workers. If union membership increases access to extended agreements, as seems to be the case in Norway, then this adds another dimension to the free-rider dilemma the hypothesis builds on. The result is nonetheless the same. In countries with low or moderate union density, the potential for recruitment based on an extended agreement would weigh stronger

than the fear of free-rider problems. When coverage is very high, the recruitment potential is lower. This would in theory shift the strategic emphasis to the free-rider dilemma, and thus unions would oppose mandatory extensions. This interpretation of my quantitative results is in line with the findings from the Norwegian case study. The recruitment potential for labour unions is a relatively underexplored perspective in the literature on mandatory extensions. It could be a fruitful angle in future research, as a challenge to the prevailing “free-rider”-perspective.

The final hypothesis, H3, was the odd one out theoretically. It was based on the increasingly popular growth model perspective in comparative political economy. According to this perspective, certain policies that are closely connected to a country’s main source of economic growth are to some extent insulated from political influence. Examining this empirically, there was no significant correlation between current account balance and mandatory extensions. I choose to interpret this not as a weakening of the growth model perspective in comparative political economy, but as another indication that mandatory extensions should primarily be understood politically rather than economically. This mechanism is not a growth model policy, or at the very least, it is not *just* a growth model policy.

While no statistical association between current account balance and mandatory extension practices could be established in the time-series cross-sectional analysis, evidence from Norway suggests that the export-led growth model may have played a part in increasing the use of extensions. One particularly contentious extension case in the shipyard industry was settled in a Supreme Court ruling in favour of the extension. The ruling cited the need to uphold decent standards in the export sector in particular, in order to maintain the legitimacy of the front-runner wage bargaining model. As this case law has been used to settle extension cases in other, non-export industries as well, it has arguably made a lasting impact on mandatory extension practices in Norway. This point is based on a single ruling in the Norwegian Supreme Court, and its importance should perhaps not be overstated. But it does imply that mandatory extensions serve a more complex role in the growth model than hypothesised. The expectation put forward in H3 was that mandatory extensions are less likely to be prevalent under conditions of export-led growth. The Norwegian case seems to present some evidence to the contrary. The challenge is how to fit this observation into the broader growth model perspective.

The Norwegian case suggests potential causal heterogeneity in the relationship between growth models and mandatory extension practices. Perhaps export sector dominance has different consequences depending on institutional context. As Günther and Höpner (2022) note, in Germany export-oriented business interests have been able to block initiatives for mandatory extensions through a veto power granted them by the institutional procedure. From closer inspection it seems that the statistical analysis in this thesis may be underspecified with regards to examining the relationship between growth models and extensions practices, apart from the observation that no clear-cut statistical relationship between trade surpluses and the extension of collective agreements could be found.

It is also possible that the hypothesis was focused on the wrong aspect of growth models. Across all regression models, there was a strong association between pattern bargaining and widespread use of mandatory extensions, and in light of the Norwegian case, this could have something to do with an export-led growth model. There are no grounds for conclusion here, however. There are other forms of pattern bargaining than the Norwegian front-runner model, and it is not necessarily related to concerns for the export sector. Building on this thesis, future research is needed to elucidate the role of mandatory extensions within distinct growth models. Based on the observation from the Norwegian case, the various model of bargaining coordination might provide a fruitful starting point. As of now, the preliminary conclusion from testing H3 is that since political struggles shape mandatory extension practices, the growth model perspective seems less fitting than power resource theory.

The main finding in this thesis, that mandatory extensions are subject to considerable interest-based conflict, indicates that the Varieties of Capitalism-framework is not in itself sufficient to explain variation in this policy field. The main bargaining level in each country was included in the statistical analysis in order to control for the difference in institutional setup between LME's and CME's. Highly centralized bargaining systems were found to make much more use of mandatory extensions, in line with previous findings. This indicates that this policy can be thought of as a part of the CME-model of capitalist economic organization. Mandatory extensions can be a tool for the state to facilitate coordination in industrial relations by protecting organized social partners from outsider competition. This is likely part of the picture, but findings in this thesis indicate that mandatory extensions cannot simply be ascribed to the CME-model. Evidence from the statistical analysis has shown that the use of

mandatory extensions depends on the strength of organized labour and leftist parties. High union density rates could be a consequence of a CME-model (Hassel 2015, 237). However, the spurious effect of a CME-model would not explain the partisan effect found in the statistical analysis. Moreover, the CME-model in VoC is based on an assumption that coordination is in the interest of firms, because it supports a common economy-wide competitive advantage. The Norwegian case study shows that the bulk of opposition to mandatory extensions has come from employers, and in particular from large firms. In total, then, the findings indicate that mandatory extensions have both functionalist and political explanations. This means that VoC provides a useful perspective, but ultimately not a comprehensive account of the policy variation found in this field of labour market regulation.

## **Limitations**

The statistical analysis in this thesis spans four decades. This is enough to cover important developments regarding mandatory extension practices through periods characterized by economic restructuring for many OECD countries. But it is not enough to get a full picture of the history of mandatory extensions. The time-series cross-sectional analysis captures variation in extension practices back to 1980. Many countries included in the sample have extension laws that date much further back in time, many to the 1930s or earlier (Hamburger 1939). While the analysis says something about what political actors are connected to changes in extension practice, it gives limited insight into how these policies come about in the first place. Identifying the impacts of political actors on policy introduction requires close study of historical sources, and is beyond the scope of this thesis.

Furthermore, it is possible that the cross-country variation in extension practices have deeper historical roots which this analysis fails to capture. It can be argued that the propensity to have left-dominated governments and strong unions, on the one hand, and mandatory bargaining extensions, on the other, are both path dependent consequences of a social democratic political heritage. This would mean that the limited timeframe of the analysis introduces omitted variable bias. The inclusion of a fixed effects model goes some way in accounting for this possibility, as it removes time-invariant cross-country variation from its estimation. Nonetheless, there could be unmeasured factors that cause certain countries to be more likely both to have high union density, a high likelihood of leftist government

participation, as well as the propensity to increase extension practices. The relatively short temporal scope of the statistical analysis is made necessary from a data perspective, but it reduces the degree to which causal claims can be made. There are simply too many previous causes that can be proposed.

The measurement of the dependent variable in the statistical analysis is a four-category ordinal variable based on an expert assessment. This presents two main challenges for interpreting the results. Firstly, as an expert assessment, it is hard to make exact interpretation of what each category means for actual extension practice. The assessment is based on multiple dimensions of variation: the legal procedure for extending agreements, the number of veto players, public policy criteria, as well as the observed prevalence of extensions. Simplifying these different sources of variation into a single index is necessary in order to conduct a large-n comparative analysis, but it limits the potential for detailed interpretation of the results.

The second, more acute challenge presented by the dependent variable is the limited nuance of the measurement. By collapsing all possible variation into four categories of extension practice, important policy developments may be hidden. This is evident from the Norwegian case study. From the first decision to extend a collective agreement in 2004, mandatory extensions grew to cover nine different industries in 2017. Meanwhile, the ICTWSS-variable measuring extension practices did not change in the period between 2004 and 2017. Much of the variation that provides the basis for the in-depth analysis of the Norwegian case, is therefore absent in the statistical analysis. In a way, the limited nuance of the dependent variable strengthens the inferences from the statistical analysis. The correlational evidence indicates that strong unions and leftist parties lead to quite substantial increases in extension practice, since the changes on the dependent variable are presumably indicative of important shifts as a country moves from one broad category to another. Still, there is a need for more detailed case-focused research in order to gain a better understanding of what these categorical shifts, and the politics around them, look like in practice.

The time-series cross-sectional analysis was based on both ordered logit regression and OLS-regression. Each of these two modelling approaches have their own limitations in analysing the quantitative data material. The proportional odds assumption was not met in the ordered logit models. This means that the effects of each covariate may differ for different

dichotomizations of the dependent variable. The OLS-models, meanwhile, assume linearity for the ordinal outcome variable. The two modelling approaches showed similar results. This strengthens the robustness of the general relationships between the covariates and the dependent variable. Still, the complete picture of extension variance is not captured by either analysis. A multinomial logistic regression might reveal interesting level-specific statistical associations. For the purposes of testing the hypotheses in this thesis, however, it has been more useful to employ models that provide information about the entire range of the dependent variable.

The limitations discussed so far have been mostly based on the potential shortcomings of the statistical analysis. This is because the quantitative empirical component has carried most of the inferential weight vis-à-vis the research question as it was aimed at hypothesis testing. Still, the limitations of the case study are also relevant for discussion insofar as they impact the general discussion of the results. As a source, the Tariff Board decision documents privilege the position of LO as representative of the union movement's preferences. This is a simplification, and may mask internal divisions in the union movement. Furthermore, only the formal extension applications make it to the Tariff Board documents, and most of these are put forward by LO. In the case of internal divisions in the labour movement, it is possible that initiatives for extension have been rejected by LO centrally, and that consequently no formal request has been made. The observation that there was surprisingly little scepticism towards mandatory extensions within the Norwegian union movement may therefore be challenged by closer examination.

### **Pathways for future research**

As an essentially exploratory analysis into the politics of a relatively understudied policy field, a central task of this thesis is to point out promising areas for further examination. The mixed methods research design has been useful in this regard. While the findings from the statistical analysis posits open questions about how the relevant variables are related, the Norwegian case study points out a number of potential hypotheses that can provide the basis for further investigation.

The assumption that extensions negatively impact the incentives for workers to organize, was challenged by the case study in this thesis. In fact, Norwegian labour unions found a recruitment potential in mandatory extensions. In order to properly estimate the strategic preferences of labour unions, it is necessary to gain a better understanding of the policy outcomes. Previous studies have examined the effects of mandatory extensions on wage and unemployment levels (Villanueva and Adamopoulou 2022; Hijzen and Martins 2020; Martins 2021). Future research should investigate the organizational outcomes of this policy for labour unions, both in the short and the long term. In doing so, the reality of the “free-rider”-problem can be assessed. Based on findings from the Norwegian case, such studies have to take into account the potential that union membership can, depending on context, provide additional benefits to workers in extended industries. This might imply the hypothesis that extensions have a positive effect on union density in the short run, while the free-rider effect becomes a more important factor in the long term.

The hypotheses based in power resource theory focused on the impact of government partisanship and on the strength of labour unions, as these factors were expected to have the most pronounced impact on extension practices. As a political actor in the interest space, employers and their associations have been placed in the analytical background. Previous contributions have emphasised these as key actors for explaining varying extension practices (Paster, Oude Nijhuis, and Kiecker 2020). Evidence from the Norwegian case suggests a potential divide between large employers that are able to take advantage of cheap labour more efficiently, and small and medium sized employers that lose out in this race to the bottom. This is not captured in the statistical analysis. Incorporating the different interests of employers could be an important next step towards a systematic account of the interest politics of mandatory extensions. One way to examine this could be through a focus on sectoral variation in extension practice. This way one could look for a relationship between the prevalence of large employers as opposed to small and medium-sized firms on the one hand, and the rate of extensions on the other, on a sectoral basis. In doing so one would have to take into account the possibility that intersectoral dynamics could play a role in certain contexts. This is indicated by the Norwegian case study as well as previous research (Günther and Höpner 2022).

Taking the Norwegian case study in this thesis as a point of departure, more qualitative work is necessary to gain a better understanding of how the politics of mandatory extensions

manifests itself in different contexts. Future research should seek out the less studied cases. As can be seen in Table 2.2 (page 18), Australia as well as the Slovak Republic undergo a large number of changes in extension practice during the period assessed in the statistical analysis. These could prove fruitful case choices in order to develop further hypotheses concerning political actors. A natural next step from the Norwegian case study is a comparative study of policy development in the Scandinavian countries, following a most similar systems design. As discussed, despite a similar industrial relations legacy and being faced with similar labour market challenges, Norway deviated from Sweden and Denmark when it introduced mandatory extensions. In light of the results from the statistical analysis, I have posited the hypothesis that this difference can be explained by the markedly higher union density rates in Sweden and Denmark compared to Norway. As the labour union movement was found to be the main proponent for mandatory extensions in Norway, the research question that presents itself for such an investigation is as follows: How did Swedish and Danish unions view mandatory extensions, and to what extent can their views be explained by their high organizational numbers? Controlled comparison in this mould could contribute to a better understanding of labour union strategies in the Scandinavian countries, and possibly also beyond, in their approach to the question of mandatory extensions. A qualitative comparative study might also provide more insight into the role of government partisanship.



## References and appendices

- Agresti, Alan, James G Booth, James P Hobert, and Brian Caffo. 2000. "Random-effects modeling of categorical response data." *Sociological Methodology* 30 (1): 27-80.
- Allmenngjøringsloven. 2022. Lov om allmenngjøring av tariffavtaler av 4. juni 1993, nr. 58.
- Alsos, Kristin, and Line Eldring. 2021. "Securing wage floors in the absence of a statutory minimum wage\_ Minimum wage regulations in Scandinavia facing low-wage competition." In *Minimum Wage Regimes: Statutory Regulation, Collective Bargaining and Adequate Levels*, edited by Irene Dingeldey, Damian Grimshaw and Thorsten Schulten, 39-63. New York: Routledge.
- Baccaro, Lucio, and Sinisa Hadziabdic. 2022. *Operationalizing growth models*. MPIfG Discussion Paper.
- Baccaro, Lucio, and Chris Howell. 2017. *Trajectories of Neoliberal Transformation*. Cambridge: Cambridge University Press.
- Baccaro, Lucio, and Martin Höpner. 2022. "The Political-Economic Foundations of Export-Led Growth: An Analysis of the German Case." In *Diminishing Returns: The New Politics of Growth and Stagnation*, edited by Lucio Baccaro, Mark Blyth and Jonas Pontusson, 238-267. Oxford: Oxford University Press.
- Baccaro, Lucio, and Jonas Pontusson. 2016. "Rethinking Comparative Political Economy: The Growth Model Perspective." *Politics & Society* 44 (2): 175-207.  
<https://doi.org/10.1177/0032329216638053>.
- . 2022. "The politics of growth models." *Review of Keynesian Economics* 10 (2): 204-221.
- Beach, Derek. 2019. "Multi-Method Research in the Social Sciences: A Review of Recent Frameworks and a Way Forward." *Government and Opposition*: 1-20.  
<https://doi.org/10.1017/gov.2018.53>.
- Béland, Daniel. 2005. "Ideas and social policy: An institutionalist perspective." *Social Policy & Administration* 39 (1): 1-18.
- Bell, Andrew, and Kelvyn Jones. 2015. "Explaining Fixed Effects: Random Effects Modeling of Time-Series Cross-Sectional and Panel Data." *Political Science Research and Methods* 3 (1): 133-153. <https://doi.org/10.1017/psrm.2014.7>.
- Bernaciak, Magdalena. 2014. "Social dumping and the EU integration process."

- Bhuller, Manudeep, Karl Ove Moene, Magne Mogstad, and Ola L Vestad. 2022. "Facts and Fantasies about Wage Setting and Collective Bargaining." *Journal of Economic Perspectives* 36 (4): 29-52.
- Boeri, Tito. 2012. "Setting the minimum wage." *Labour Economics* 19 (3): 281-290. <https://doi.org/https://doi.org/10.1016/j.labeco.2012.01.001>.
- Bosch, Gerhard. 2015. "Shrinking collective bargaining coverage, increasing income inequality: A comparison of five EU countries." *International Labour Review* 154 (1): 57-66.
- Brant, Rollin. 1990. "Assessing proportionality in the proportional odds model for ordinal logistic regression." *Biometrics*: 1171-1178.
- Bruun, Niklas. 2018. "Extension of collective agreements: The Nordic situation." In *Collective Agreements: Extending Labour Protection*, edited by Susan Hayter and Jelle Visser, 119-136. International Labour Organization.
- Calmfors, Lars, and John Driffill. 1988. "Bargaining structure, corporatism and macroeconomic performance." *Economic policy* 3 (6): 13-61.
- Christensen, Rune Haubo B. 2022. "Regression Models for Ordinal Data [R package ordinal version 2022.11-16]."
- Clark, Tom S., and Drew A. Linzer. 2015. "Should I Use Fixed or Random Effects?" *Political Science Research and Methods* 3 (2): 399-408. <https://doi.org/10.1017/psrm.2014.32>.
- Croissant, Yves, Giovanni Millo, Kevin Tappe, Ott Toomet, Christian Kleiber, Achim Zeileis, Arne Henningsen, Liviu Andronic, and Nina Schoenfelder. 2019. "Package 'plm'." CRAN. Accessed 30/05. <https://mran.revolutionanalytics.com/snapshot/2020-01-27/web/packages/plm/plm.pdf>.
- De Wispelaere, F, L De Smedt, and J Pacolet. 2022. "Posting of workers Collection of data from the prior declaration tools Reference year 2020." *Network Statistics FMSSFE, EC-DG EMPL: Brussels*.
- Dingeldey, Irene, Thorsten Schulten, and Damian Grimshaw. 2021. "Introduction: Minimum wage regimes in Europe and selected developing countries." In *Minimum Wage Regimes: Statutory Regulation, Collective Bargaining and Adequate Levels*, edited by Irene Dingeldey, Damian Grimshaw and Thorsten Schulten, 1-16. New York: Routledge.
- Doellgast, Virginia, and Benassi Chiara. 2020. "Collective bargaining." In *Research Handbooks in Business and Management series*, 239-258. Edward Elgar Publishing.

- Driffill, John. 2006. "The centralization of wage bargaining revisited: what have we learnt?" *JCMS: Journal of Common Market Studies* 44 (4): 731-756.
- Eldring, Line. 2010. "Norske erfaringer med allmenngjøring." In *Allmenngjøring i EU og Norge - Fafo-rapport (2010:14)*, edited by Torgeir Aarvaag Stokke, 59-68.
- Elvander, Nils. 2002. "The labour market regimes in the Nordic countries: A comparative analysis." *Scandinavian Political Studies* 25 (2): 117-137.
- Erlie, Trond Holmen, and Georg Picot. 2023. Low wage policies in Norway - case study. Unpublished.
- EU. 2022. "Directive of the European Parliament and of the Council of 19 October 2022 on adequate minimum wages in the European Union." *Official Journal of the European Union* 65 (L 275): 33-47.
- Eurostat. 2023. Immigration by broad group of country of previous residence. European Union.
- Feilzer, Martina Yvonne. 2010. "Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm." *Journal of mixed methods research* 4 (1): 6-16.
- Fullerton, Andrew S. 2009. "A Conceptual Framework for Ordered Logistic Regression Models." *Sociological Methods & Research* 38 (2): 306-347.  
<https://doi.org/10.1177/0049124109346162>.
- García Calavia, Miguel Ángel, and Michael Rigby. 2020. "The extension of collective agreements in France, Portugal and Spain." *Transfer: European Review of Labour and Research* 26 (4): 399-414.
- Garnero, Andrea. 2021. "The impact of collective bargaining on employment and wage inequality: Evidence from a new taxonomy of bargaining systems." *European Journal of Industrial Relations* 27 (2): 185-202.
- Glassner, Vera, and Julia Hofmann. 2019. "Chapter 2. Austria: from gradual change to an unknown future." In *Collective bargaining in Europe: towards an endgame*, edited by Torsten Müller, Kurt Vandaele and Jeremy Waddington, 33-51. Brussels: ETUI.
- Grimshaw, Damian, Irene Dingeldey, and Thorsten Schulten. 2021. "Conclusion: Understanding the multiple interactions between institutions of minimum wages and industrial relations." In *Minimum Wage Regimes: Statutory Regulation, Collective Bargaining and Adequate Levels*, edited by Irene Dingeldey, Damian Grimshaw and Thorsten Schulten, 259-280. New York: Routledge.

- Günther, Wolfgang. 2021. "Defending institutional power? Unions' positions towards the extension of collective agreements in Finland, Germany, and the Netherlands." *Zeitschrift für Sozialreform* 67 (4): 333-361.
- Günther, Wolfgang, and Martin Höpner. 2022. "Why does Germany abstain from statutory bargaining extensions? Explaining the exceptional German erosion of collective wage bargaining." *Economic and Industrial Democracy*: 0143831X211065783.
- Hahn, Eugene D, and Refik Soyer. 2005. "Probit and logit models: Differences in the multivariate realm." *The Journal of the Royal Statistical Society, Series B* 67: 1-12.
- Hall, Peter A., and David Soskice. 2001. "An Introduction to Varieties of Capitalism." In *Varieties of capitalism : the institutional foundations of comparative advantage*, edited by Peter A. Hall and David W. Soskice, 1-68. Oxford: Oxford University Press.
- Hamburger, Ludwig. 1939. "The extension of collective agreements to cover entire trades and industries." *International Labour Review* 40: 153-194.
- Harbridge, Raymond, and Pat Walsh. 2002. "Globalisation and labour market deregulation in Australia and New Zealand: Different approaches, similar outcomes." *Employee Relations*.
- Hassel, Anke. 2015. "Trade Unions and the Future of Democratic Capitalism." In *The Politics of Advanced Capitalism*, edited by Hanspeter Kriesi, Herbert Kitschelt, Pablo Beramendi and Silja Häusermann, 231-256. Cambridge: Cambridge University Press.
- Hayter, Susan. 2015. "Unions and Collective Bargaining." In *Labour Markets, Institutions and Inequality: Building Just Societies in the 21st Century*, edited by Janine Berg, 95-122. Geneva: International Labour Office.
- Hayter, Susan, and Jelle Visser. 2018. "The Application and Extension of Collective Agreements: Enhancing the Inclusiveness of Labour Protection." In *Collective Agreements: Extending Labour Protection.*, edited by Susan Hayter and Jelle Visser, 1-31. Geneva: ILO.
- . 2021. "Making collective bargaining more inclusive: The role of extension." *International Labour Review* 160 (2): 169-195.
- Heiret, Jan. 2012. "Three Norwegian varieties of a Nordic model-a historical perspective on working life relations." *Nordic Journal of working life studies* 2 (4): 45.
- Hemmert, Giselmair AJ, Laura M Schons, Jan Wieseke, and Heiko Schimmelpfennig. 2018. "Log-likelihood-based pseudo-R 2 in logistic regression: deriving sample-sensitive benchmarks." *Sociological Methods & Research* 47 (3): 507-531.

- Hijzen, Alexander, and Pedro S Martins. 2020. "No extension without representation? Evidence from a natural experiment in collective bargaining." *IZA journal of Labor Economics* 9 (5).
- Hodder, Andy, and Paul Edwards. 2015. "The essence of trade unions: understanding identity, ideology and purpose." *Work, employment and society* 29 (5): 843-854.
- Horowitz, Joel L, and NE Savin. 2001. "Binary response models: Logits, probits and semiparametrics." *Journal of economic perspectives* 15 (4): 43-56.
- Howell, Chris. 2016. "Regulating class in the neoliberal era: the role of the state in the restructuring of work and employment relations." *Work, employment and society* 30 (4): 573-589.
- Hyman, Richard. 2001. *Understanding European trade unionism: between market, class and society*. Sage.
- . 2015. "Three scenarios for industrial relations in Europe." *International Labour Review* 154 (1): 5-14.
- IMF. 2009. *Balance of Payments and International Investment Position Manual*. (Washington DC, USA: International Monetary Fund).
- Immergut, Ellen M. 1998. "The theoretical core of the new institutionalism." *Politics & society* 26 (1): 5-34.
- Korpi, Walter. 1983. *The democratic class struggle*. London: Routledge.
- Kozak, Michal, and Georg Picot. 2021. "The politics of the minimum wage: explaining introduction and levels." *Unpublished*.
- Lieberman, Evan S. 2005. "Nested Analysis as a Mixed-Method Strategy for Comparative Research." *American Political Science Review* 99 (3): 435-452.  
<https://doi.org/10.1017/S0003055405051762>.
- Lijphart, Arend. 1999. *Patterns of democracy: Government forms and performance in thirty-six countries*. Yale university press.
- Maggetti, Martino. 2020. "Mixed-Methods Designs." In *Handbuch Methoden der Politikwissenschaft*, edited by Claudius Wagemann, Achim Goerres and Markus B. Siewert, 193-210. Wiesbaden: Springer Fachmedien Wiesbaden.
- Marginson, Paul, and Jon Erik Dølvik. 2020. "Northern European collective wage bargaining in the face of major political-economic challenges: Common and differing trajectories." *Transfer: European Review of Labour and Research* 26 (4): 383-398.
- Martins, Pedro S. 2021. "30,000 minimum wages: The economic effects of collective bargaining extensions." *British Journal of Industrial Relations* 59 (2): 335-369.

- McCullagh, Peter. 1980. "Regression Models for Ordinal Data." *Journal of the Royal Statistical Society: Series B (Methodological)* 42 (2): 109-127.  
<https://doi.org/https://doi.org/10.1111/j.2517-6161.1980.tb01109.x>.
- Neumann, Reinhard. 2018. "Reregulating the extension of collective agreements in Portugal: A case study." In *Collective Agreements: Extending Labour Protection*, edited by Susan Hayter and Jelle Visser, 93-118. International Labour Organization.
- Nymoen, Ragnar. 2017. "Between institutions and global forces: Norwegian wage formation since industrialisation." *Econometrics* 5 (1): 6.
- OECD, and AIAS. 2021a. *Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts*. Paris: OECD Publishing.
- . 2021b. "OECD/AIAS ICTWSS Database Codebook." OECD.  
<https://www.oecd.org/els/emp/Codebook-OECD-AIAS-ICTWSS.pdf>
- Paster, Thomas, Dennie Oude Nijhuis, and Maximilian Kiecker. 2020. "To extend or not to extend: Explaining the divergent use of statutory bargaining extensions in the Netherlands and Germany." *British Journal of Industrial Relations* 58 (3): 532-557.
- Pedersen, Siri Hansen, and Georg Picot. 2023. "Regulating low wages: cross-national policy variation and outcomes." *Socio-Economic Review*.  
<https://doi.org/10.1093/ser/mwad019>.
- Pedersini, Roberto. 2019. "Chapter 16. Italy: Institutionalisation and resilience in a changing economic and political environment." In *Collective bargaining in Europe: towards an endgame*, edited by Torsten Müller, Kurt Vandaele and Jeremy Waddington, 337-360. Brussels: ETUI.
- Peterson, Bercedis, and Frank E Harrell Jr. 1990. "Partial proportional odds models for ordinal response variables." *Journal of the Royal Statistical Society: Series C (Applied Statistics)* 39 (2): 205-217.
- Picot, Georg. 2021. "Models: Three Sources of Extra Demand." *Growth and Welfare in Advanced Capitalist Economies: How Have Growth Regimes Evolved?:* 135.
- Pierson, Paul. 2000. "Increasing returns, path dependence, and the study of politics." *The American Political Science Review* 94 (2): 251-267. <https://doi.org/10.2307/2586011>.
- Refslund, Bjarke, and Jens Arnholtz. 2022. "Power resource theory revisited: The perils and promises for understanding contemporary labour politics." *Economic and Industrial Democracy* 43 (4): 1958-1979.

- Rohlfing, Ingo. 2008. "What You See and What You Get: Pitfalls and Principles of Nested Analysis in Comparative Research." *Comparative Political Studies* 41 (11): 1492-1514. <https://doi.org/10.1177/0010414007308019>.
- Rueda, David. 2005. "Insider–Outsider Politics in Industrialized Democracies: The Challenge to Social Democratic Parties." *American Political Science Review* 99 (1): 61-74. <https://doi.org/10.1017/S000305540505149X>.
- Russell, Bertrand. 1932. "In praise of idleness." *Harper's Magazine* 165: 552-559.
- Schlegel, Benjamin, and Marco Steenbergen. 2022. "Package 'brant'." CRAN. <https://cran.r-project.org/web/packages/brant/brant.pdf>.
- Schmalz, Stefan, Carmen Ludwig, and Edward Webster. 2018. "The power resources approach: Developments and challenges." *Global Labour Journal* 9 (2).
- Schnabel, Claus. 2020. "Union Membership and Collective Bargaining: Trends and Determinants." In *Handbook of Labor, Human Resources and Population Economics*, edited by Klaus F. Zimmermann, 1-37. Cham: Springer International Publishing.
- Schulten, Thorsten. 2008. "Towards a European Minimum Wage Policy? Fair Wages and Social Europe." *European Journal of Industrial Relations* 14 (4): 421-439. <https://doi.org/10.1177/0959680108097494>.
- Schulten, Thorsten, Line Eldring, and Reinhard Naumann. 2015. "The role of extension for the strength and stability of collective bargaining in Europe." In *Wage bargaining under the new European Economic Governance: Alternative strategies for inclusive growth*, edited by Guy Van Gyes and Torsten Schulten, 361-400. Brüssel: ETUI.
- Seawright, Jason. 2016. *Multi-method social science: Combining qualitative and quantitative tools*. Cambridge University Press.
- Stokke, Torgeir Aarvaag, Stein Evju, and Kristine Nergaard. 2013. *Det kollektive arbeidslivet: organisasjoner, tariffavtaler og lønnsoppgjør*. 2 ed.: Universitetsforlaget.
- Tariffnemnda. 2004-2023. "Vedtak i Tariffnemnda." Accessed 20/5. <https://www.nemndene.no/tariffnemnda/Vedtak/?query=vedtak=>.
- Thelen, Kathleen. 2014. *Varieties of liberalization and the new politics of social solidarity*. Cambridge university press.
- Traxler, Franz. 1999. "The state in industrial relations: A cross-national analysis of developments and socioeconomic effects." *European Journal of Political Research* 36 (1): 55-85.

- Traxler, Franz, and Bernd Brandl. 2011. "The economic impact of collective bargaining coverage." In *The role of collective bargaining in the global economy*, edited by Susan Hayter. Cheltenham: Edward Elgar Publishing.
- Traxler, Franz, Bernhard Kittel, and Sabine Blaschke. 2001. *National labour relations in internationalized markets : a comparative study of institutions, change, and performance*. Oxford: Oxford University Press.
- UNCTADstat. 2022. Balance of payments, Current account balance, annual.
- Verbeek, Marno. 2017. *A guide to modern econometrics*. John Wiley & Sons.
- Villanueva, Ernesto, and Effrosyni Adamopoulou. 2022. "Employment and wage effects of extending collective bargaining agreements." *IZA World of Labor*.
- Visser, Jelle. 2018. "Extension policies compared: How the extension of collective agreements works in the Netherlands, Switzerland, Finland and Norway." In *Collective Agreements: Extending Labour Protection.*, edited by Susan Hayter and Jelle Visser, 33-64. Geneva: ILO.
- . 2021. *OECD/AIAS ICTWSS database: Detailed note on definitions, measurement, and sources*. Paris: Organisation for Economic Co-operation and Development.



## Appendix A: Data

### Unit overview

Countries	Time-series
Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, UK, US.	1980-2017
South Korea	1988-2017
Hungary, Poland	1990-2017
Estonia, Slovenia	1992-2017
Czech Republic, Latvia, Lithuania, Slovak Republic	1993-2017
Luxembourg	1995-2017

*Note: Luxembourg enters the analysis late due to shortage of current account data from UNCTAD.*

*All other countries that enter the analysis late do so because they became democratic after 1980.*

### Multi-employer bargaining as a necessary condition

The “Bargaining level”-variable in the matrix below is a dichotomization of the Level-variable from the ICTWSS-dataset. The bottom category (Level = 1) is defined as “bargaining predominately takes place at the company or enterprise level” (OECD and AIAS 2021b, 9). In the first quadrant of the matrix, we see that there are 89 country-year observations where predominantly plant-level bargaining coexists with mandatory extensions. This means that the Level-variable cannot be used as a necessary condition.

		Bargaining level	
		Plant-level (Level = 1)	Multi-employer (Level = 2-5)
Mandatory extensions	Yes (Ext = 1-3)	<u>89</u>	689
	No (Ext = 0)	226	131

## Appendix B: Robustness test, Model 4

### Ordinal probit regression with country-fixed effects

Union density	0.026 ***
Left-party government	0.003 *
Current account balance	-0.019
Main bargaining level	0.608 ***
National minimum wage	-0.753 *
Unemployment rate	-0.119 ***
Service sector employment	0.011
Government expenditure	0.048 ***
Effective number of parties	-0.034 **
Pattern bargaining	1.310 ***
Country effects	Fixed
Pseudo R <sup>2</sup>	0.716
Observations	1135

*Significance codes:  $p < 0.05$ \*,  $p < 0.01$ \*\*,  $p < 0.001$ \*\*\**

## Appendix C: Brant test

### Regression results, pooled model.

	Estimate	T-value
Union density	-0.02	-6.0
Left-party government	0.002	1.1
Current account balance	-0.06	-3.9
Main bargaining level	1.25	15.7
National minimum wage	-0.39	-2.1
Unemployment rate	-0.003	-0.2
Service sector employment	-0.02	-2.6
Government expenditure	0.05	5.5
Effective number of parties	0.11	3.2
Pattern bargaining	-1.55	-8.1
Country effects	Pooled	
Observations	1135	

*Significance codes:  $p < 0.05$ \*,  $p < 0.01$ \*\* ,  $p < 0.001$ \*\*\**

*Modelled using the “polr” function from the MASS R-package.*

### Brant test results

	X2	Probability
<u>Omnibus</u>	640.11	0
Union density	72.04	0
Left-party government	19.44	0
Current account balance	152.09	0
Main bargaining level	7.94	0.02
National minimum wage	29.82	0
Unemployment rate	46.98	0
Service sector employment	9.51	0.01
Government expenditure	4.32	0.12
Effective number of parties	16.37	0
Pattern bargaining	49.49	0

## Appendix D: Case study source material

### **Interviews I have conducted for this thesis**

Informant 1: Former union leader in the construction sector.

Informant 2: Former civil servant in the department of labour.

### **Interviews conducted by Erlien and Picot (2023, unpublished)**

Informant 3: NHO executive and negotiator.

Informant 4: Former member of Tariff Board.

Informant 5: Parliamentary representative in labour committee, Labour Party.

Informant 6: Political advisor for LO and the Labour Party.

Informant 7: Former civil servant in the department of labour.

Informant 8: Parliamentary representative in labour committee, Conservative Party.

Informant 9: Former NHO executive and chief negotiator.

Informant 10: Civil servant in the department of labour.

### **Tariff Board documents**

Decision documents from the Tariff Board are important sources for the case study. The documents are publicly available, and were accessed from the Tariffnemnda (2004-2023) web page. The analysis is based on all the 84 decision documents that are available as of May 2023. Most of the documents pertain only to one sector. Some apply to multiple extended agreements, for example the decision to update the wage levels in line with interim settlements (mellomoppgjør).