

DNB Working Paper

No. 576 / November 2017

Collective bargaining through the magnifying glass: A comparison between the Netherlands and Portugal

Alexander Hijzen, Pedro Martins and Jante Parlevliet



EUROSYSTEEM

Collective bargaining through the magnifying glass: A comparison between the Netherlands and Portugal

Alexander Hijzen, Pedro Martins and Jante Parlevliet *

* Views expressed are those of the authors and do not necessarily reflect official positions of De Nederlandsche Bank.

Working Paper No. 576

November 2017

De Nederlandsche Bank NV
P.O. Box 98
1000 AB AMSTERDAM
The Netherlands

Collective bargaining through the magnifying glass: A comparison between the Netherlands and Portugal^{*}

Alexander Hijzen^a, Pedro Martins^b and Jante Parlevliet^c

^a OECD and IZA

^b Queen Mary University of London, NovaSBE and IZA

^c De Nederlandsche Bank and University of Amsterdam

November 2017

Abstract

Since the global financial crisis, sector-level bargaining has come under renewed scrutiny. While in Southern Europe, the crisis raised concerns about the role of collective bargaining as an obstacle to labour market adjustment, in Northern Europe it was perceived more favourably and, according to some, may even have helped to weather the fallout of the crisis more easily. This paper seeks to contribute to a deeper understanding of sector-level bargaining systems and their role for labour market performance. We compare two countries with seemingly similar collective bargaining systems, the Netherlands and Portugal, and document a number of features that may affect labour market outcomes, including: i) the scope for flexibility at the firm or worker level within sector-level agreements; ii) the emphasis on representativeness as a criterion for extensions; iii) the effectiveness of coordination across bargaining units; and iv) pro-active government policies to enhance trust and cooperation between the social partners.

Keywords: industrial relations, social dialogue, employment.

JEL classifications: J5, P52.

* The idea of this paper emerged when the authors were visiting the International Monetary Fund (IMF). The authors are grateful to the IMF for its hospitality and would like to thank Niels Achterberg, Mark Baker, Helge Berger, Marko Bos, Bernd Brandl, Romain Duval, António Monteiro Fernandes, Andrea Garnero, Jakob de Haan, Joop Hartog, Hester Houwing, Ronald Janssen, Jannie Mooren, Mark Pearson, Bart van Riel, Cyrille Schwelnus, Jelle Visser and Ben Westmore for helpful comments and suggestions. Martins also thanks support from the European Union (grant VS/2016/0340). The views expressed in this paper are those of the authors and cannot be attributed to the IMF, the OECD or their member countries or to DNB. Also the authors are responsible for any remaining errors. Martins was Secretary of State of Employment in the Government of Portugal in 2011-2013 and was co-responsible for designing and implementing the 2012 labour market reform mentioned in the paper.

1. Introduction

Collective bargaining is an important feature of labour markets, especially in Continental Europe where collective agreements (CAs) typically cover more than three quarters of the workforce. Collective bargaining provides voice to workers, and in doing so, has the potential to enhance working conditions, increase productivity, reduce inequality and help minimise industrial conflict. At the same time, collective bargaining has sometimes been associated with wage drift or wage rigidity, with adverse consequences for employment. Downward nominal wage rigidity in particular can be an issue for countries without their own monetary policy that are confronted with an adverse demand shock in a low inflation environment. Collective bargaining also has come under pressure as a result the declining membership of both employer and employee organisations – partly driven by the expansion of the service sector, individualization, immigration, deregulation, globalisation, and, more recently, the emergence of new forms of work, such as through digital platforms (e.g. Uber).

Traditionally, the policy debate on collective bargaining has tended to concentrate on the *level of bargaining*. A widespread view was that systems with predominantly sector-level bargaining lead to excessive wage claims relative to productivity. As a result, these systems tend to be associated with weaker labour market performance than either centralised systems, which provide flexibility at the aggregate level by inducing unions and employer associations to internalise the effects of wage claims on economy-wide employment, or decentralised systems, which provide wage flexibility at the firm level (Calmfors and Driffill, 1988). However, experiences have diverged noticeably even among countries where sector-level bargaining is widespread. In part, this is likely to reflect the role of other policies and institutions. However, it is also plausible that the role of collective bargaining for good labour market performance not only depends on the degree of centralisation, but also on the specific rules and institutional practices that characterise each system. Indeed, several previous studies have attempted to shed light on one or more of these factors, including coordination (OECD, 2004; 2006).

This paper aims to increase our understanding of collective bargaining systems through an in-depth comparison of the collective bargaining systems in the Netherlands and Portugal.¹ This is interesting because i) on the face of it, the Dutch and Portuguese systems are fairly similar, ii) their labour market performance is rather different, and iii) the industrial relations systems differ markedly in their maturity

¹ Readers interested in a comparison of collective bargaining systems across all OECD countries are referred to OECD (2017).

and, consequently, the way operational practices have evolved over time, with potentially important implications for labour market resilience.

The collective bargaining systems in these two countries share many important features: i) sector-level bargaining is dominant; ii) collective bargaining coverage is very high, over 80%; iii) trade union density is rather low, representing around or less than 20% of the workforce, and declining; iv) administrative extensions of collective agreements - that extend their applicability beyond the membership of the social partners in the sector - are fairly important. Yet, despite these apparent similarities, the two systems appear to have differed importantly in their tradition of industrial relations and with it, their ability to adapt to new challenges. This is also reflected in many of the detailed differences in institutional rules and practices that characterise collective bargaining systems in the two countries.

In the Netherlands, after the Wassenaar agreement of 1982 ended a wage spiral and marked an era of consensual labour relations, the system has gradually adapted to emerging challenges such as monetary unification, globalization, and population ageing. It has done so in incremental steps, and without changing the fundamental features of the system. Portugal, on the other hand, emerged from a long-lasting conservative dictatorship a little more than 40 years ago. While the high-inflation environment of the 1970s and 1980s helped to achieve real wage adjustments when needed, the collective bargaining system in a low-inflation environment had not been put to a proper test until the global crisis of 2008. In the context of an adjustment program, Portugal implemented abrupt and often controversial labour market reforms, including in collective bargaining. Comparing the Portuguese and Dutch experiences allows us to speculate on the role of reforms induced by gradual, concerted social dialogue instead of crisis and external pressure.

In principle, these differences in industrial relations and operational practices could have potentially important implications for labour market performance. Indeed, the two countries differ markedly in their track record on this point. According to Eurostat, in 2007 the employment rate for those aged 15-64 was 76% in the Netherlands, against 68% in Portugal.² The unemployment rate in 2007 for those aged 15-64 was 3.2% in the Netherlands, against 8.5% in Portugal. In 2012, this was 5.9% and 16.3% respectively, and 5.0% against 9.2% in 2017. This paper does not attempt to identify the specific role these differences in industrial relations and operational practices, vis-à-vis other factors, in accounting for some observed differences in labour market performance, including since the global financial crisis.

² This differential is most pronounced among the younger cohorts, and those aged between 55-60 years.

Beyond differences in the functioning of their wage bargaining systems, there were many other important differences between the Netherlands and Portugal that likely accounted for much of the observed divergence in employment performance after the crisis. These related to the depth and nature of the shocks hitting both countries as well as the broader economic and institutional environment (e.g. the educational level of the workforce, firm profitability, employment protection legislation, active labour market programs, short-time work). In particular, given the different nature of the crisis, the need for wage adjustment in the Netherlands was much less pronounced than in Portugal, putting less pressure on the collective bargaining system in the Netherlands.

For our comparison, we focus on four elements of collective bargaining that received much discussion in the recent policy debate because of their potential implications for labour market performance: i) decentralisation, ii) administrative extensions, iii) the application of agreements after expiration or retrospectively (ultra- and retro-activity), and iv) coordination and cooperation between social partners.

Our analysis points to a number of specific features of sector-level collective bargaining systems that are likely to be important for labour market performance. First, the scope for flexibility at the worker and firm levels within sector-level agreements may be important. While the Dutch system has held on to sector-level bargaining, it has gradually increased the scope for flexibility at the firm or worker level within sector agreements. This is in contrast with the case of Portugal, where decentralisation has only been introduced recently, and so far does not appear to have significantly increased the scope for flexibility at the firm level. Second, concerns about the possible adverse employment effect of coverage extensions can be alleviated by subjecting them to representativeness criteria and providing a clear and transparent framework for exemptions from extensions. Third, the application of retro-activity and ultra-activity to non-signatory parties may reinforce the risk that collective agreements become an obstacle to downward wage adjustment in the context of deep recessions, particularly in periods of very low inflation. Fourth, effective coordination between bargaining units and high quality labour relations are crucial for high-performance collective bargaining systems. While enhancing the coordination of collective bargaining outcomes and the quality of labour relations is beyond the direct control of policy makers, the Dutch experience points to a number of helpful strategies based on a combination of ‘carrots’ (e.g. tax concessions, even greater involvement in training activities) and ‘sticks’ (including the possibility of restricting the extensions of collective agreements).

When contemplating the exact recipes that come out of this comparison, it is worth bearing in mind how the tradition of industrial relations and the process of change are intertwined. Perhaps, the most important element of the Dutch tradition is not found in its specific institutional rules and practices, but

in its ability to adapt to emerging challenges such as monetary unification, globalization, and population ageing.^{3,4} This stands in contrast with the Portuguese system which has traditionally been slower to adapt. The rigidity of the Portuguese system was exposed during the financial and sovereign debt crises, prompting the introduction of abrupt and often politically controversial labour market reforms, including in collective bargaining.⁵ As the economy recovers, the challenge for Portugal is to adopt a more long-term perspective, while at the same time promoting a constructive environment for social dialogue and reform that helps the Portuguese labour market with the specific challenges it faces. In that regard, elements that enhance the quality of labour relations gain particular importance. These should come over and above the other institutional features—mentioned above—needed to enhance the resilience of the labour market to possible future shocks in the Eurozone.

The remainder of this paper is structured as follows, focusing on different components of sectoral collective bargaining. Section 2 discusses decentralisation. Section 3 examines the role of extensions. Section 4 discusses the role of ultra and retro-activity. Section 5 discusses the role of coordination and trust between the social partners. Finally, Section 6 concludes.

2. Decentralisation

In many countries with national or sectoral bargaining, decentralisation has been “the name of the game in industrial relations” (Visser, 2013b). Decentralisation refers to the creation of more space for negotiations over working conditions at the level of the firm, establishment or workplace (Visser, 2016b), in contrast to the sectoral or national levels.⁶ Decentralisation is often seen as a way to improve

³ Visser et al. (2000) go even further by saying that the Dutch experience “shows that a rescue of the European social model is possible, even under the conditions of a more restrictive macro-economic policy environment, and increased pressure on firms to adapt to external market pressures.”

⁴ Of course, the ability of the Dutch system to adapt to emerging challenges in the past does not guarantee that it can also withstand future challenges. Declining membership rates of unions and employer associations and a growing importance of flexible work arrangements will test the ability of the Dutch system to adapt and, if needed, reinvent itself also in the future.

⁵ According to some, these reforms even constituted a “frontal assault” or “European attack” on collective bargaining (Marginson, 2014; Van Gyes & Schulten, 2015). See Van Ours et al. (2016) for a description of the Greek case.

⁶ Whether or not this increased space is used in practice and results in more differentiated working conditions across workers is a different and more complex question that we do not discuss here. For instance, the legal possibility of firm-level agreements itself can influence the content of sectoral agreements even in the absence of actual firm-level agreements.

labour market performance through enhanced adaptability and resilience of firms. For instance, Dustmann *et al.* (2014) have argued that decentralisation played a key role in the recent strong performance of the German labour market.

While sector-level bargaining remains predominant in both the Netherlands and Portugal, with sectoral agreements covering around three quarters of employees, both countries have sought to create more scope for bargaining at the firm level. In the Netherlands, these discussions started in the early 1980s – when bargaining parties at the national level ('central parties') played an important role in wage setting – and institutional reform happened incrementally. In Portugal, decentralisation became an agenda item much more recently as a result of the 2011 crisis and the subsequent adjustment program. Consequently, the changes have been more abrupt and also more prone to reversals.

In the Netherlands, an agreement in 1982 by the main union and employer representatives ("Wassenaar agreement") is widely seen as setting the stage for the decentralisation of collective bargaining over wages and working conditions. It effectively signalled the end of active interference by the government in wage setting via wage freezes, even if, in practice, it retained a certain degree of control through the threat of intervention (De Beer, 2013).⁷ The more hands-off approach by the government increased the responsibility of the social partners for outcomes at the sectoral level. In the bipartite agreement of 1993 ("Een Nieuwe Koers", "A New Course"), the central parties emphasised the need for customization and differentiation in wage setting. Moreover, it argued for a greater emphasis on decentralised or firm-level bargaining to achieve this.

In contrast to other countries where decentralisation effectively led to collective bargaining taking place simultaneously at the sector and firm levels (e.g. Germany), in the Netherlands the main route to decentralisation has been to increase the scope for customization *within* sectoral agreements by allowing for more flexibility at the worker level without requiring an additional layer of bargaining at the level of the firm (Visser, 2016b). One reason for this is that, in the Netherlands, union presence at the firm level is limited. The metal industry is somewhat of an exception (Visser, 2016a). Trade unions retain a relatively strong presence in this sector also at the local level, which makes two-tier bargaining a possibility in principle. However, instead of adopting a fully-fledged two-tier system, collective

⁷ This is discussed in more detail in Section 3.4.

agreements for the metal industry are characterised by default standards which apply only if a firm-level agreement fails to materialise after a certain period of time.⁸

Decentralisation within sectoral agreements has taken various forms (SER, 2006; van Lier & Zielschot, 2014; Volkerink *et al.*, 2014). First, there has been a gradual shift from standards in collective agreements that specify narrow bounds for pay and working conditions, towards minimum standards that provide more space for issues such as performance-related pay. Minimum standards nowadays characterise the majority of pay clauses in sector-level agreements (Visser, 2013a; Van Lier & Zielschot, 2014).⁹ The negotiation of higher standards is left to worker-level bargaining and in some cases to local unions or work councils (e.g. for working hours, see van Lier & Zielschot, 2014).¹⁰ Second, an increasing number of sectoral agreements include a range of working conditions from which employers and employees can choose, so-called “à la carte” provisions, that allow trading off pay and other working conditions. For instance, a part of gross salary can be used to finance additional leave or higher pension entitlements (Volkerink *et al.*, 2014). In the latter case, the total budget is still set by sector-level bargaining, but working conditions can be customised to workers’ preferences.

Importantly, decentralisation in the Netherlands has offered more flexibility to firms and workers without undermining sectoral bargaining or its coverage (De Beer, 2013). As such, the Dutch case provides an example of “organised decentralisation” (Traxler, 1995). As of 2014, 78% of employees were covered by a sectoral-level agreement, while the share of workers covered by a firm-level agreement was 8% (De Ridder and Euwals, 2016). The share of employees covered by any collective agreement has been rather stable over time at around 85%.¹¹

⁸ This is also common in Denmark, a country with very high trade union density (Visser, 2016b).

⁹ Based on a 2014 survey of 2014 agreements, Van Lier & Zielschot (2014) report that 52% of agreements are of a *minimum* nature, where deviations are only possible to the upside. In 28% of cases, deviations are possible in both directions. In 7% of CAs, deviations are not allowed (the remaining CAs do not stipulate whether deviations are allowed).

¹⁰ In the Netherlands, unlike in Germany, unions are only weakly affiliated to work councils (Visser, 2016b). For this reason, both trade unions and employers may be reluctant to delegate negotiating power to the work councils.

¹¹ In 2015 somewhat fewer agreements were signed. The number of agreements picked up again in 2016 (AWVN, 2016).

In Portugal, decentralisation of collective bargaining is a much more recent and abrupt phenomenon, and it has largely been imposed from the outside as part of the adjustment program rather than by the social partners themselves (as in other Southern European countries - see Marginson, 2014). This is also related to the political developments in the country, which has emerged from a long-lasting conservative dictatorship (that ruled out independent unions) a little more than 40 years ago. The union movement that was born following the 1974 revolution, in a highly politically charged context, has gradually become more moderate. This process involved many steps, including: the break-up of the then single union confederation into two (1978); the creation of a national forum for tripartite dialogue (CPCS, 1984); a first income policy agreement (1986) which sought to control inflation; the membership of CPCS by the largest union confederation (CGTP, 1987); an important labour reform towards reducing the very high level of employment protection and segmentation that existed at the time (1989, see Martins, 2009); the 2003 introduction of the labour code that also featured the possibility of termination of collective agreements; and a number of tripartite agreements signed since the early 1990s, on average every two years, even if excluding CGTP, in particular those of 1990 and 1992.

While there have always been a number of firm- or holding-level agreements in the private sector, these largely concerned single firms or groups of firms that had previously been part of the public sector and were subsequently privatised.¹² The historical absence of firm-level bargaining in Portugal reflects a number of factors. First, the strict application of the favourability principle reduces incentives for firm-level bargaining. This entails that, in case of diverging standards in different agreements covering the same workers, it is the most favourable conditions across all agreements that apply to employees. Its strict application is itself a consequence of the strong legalistic tradition in labour matters, also shaped by many years of high inflation, which excluded the possibility of deviating downwards from sectoral standards in firm-level agreements, unless there was a view that, overall, the new terms would be more favourable to (incumbent) workers.¹³ Second, strong competition between the two main unions,

¹² Before the global financial crisis, only around 50–75 of the 300,000 firms in Portugal concluded or renewed a firm- or holding-level collective agreement in any given year. The number of these agreements has remained largely unchanged over the financial and sovereign debt crises. One should also note that, on top of these formal agreements, there is an additional number of informal firm-level agreements, signed with worker councils of large firms. While not qualifying as *de jure* collective agreements, these correspond as *de facto* agreements between firms and workers' representatives, setting a large number of work conditions that are respected by both employers and employees.

¹³ The state traditionally exerts a strong role in the regulation of the labour market, similarly to the French model. This has limited the scope for self-regulation by the social partners (see Traxler, 2003; Molina, 2014;

combined with low levels of membership and lack of trust from employees towards potential union representatives, effectively reduced the scope for firms to engage in firm-level bargaining.¹⁴

In 2009, a first attempt towards decentralisation was made when work councils in firms with more than 500 employees were given the right to engage in formal collective bargaining, but only if authorised by unions. Moreover, the resulting firm-level agreements were given precedence over sectoral agreements, even if some standards were lower, although presumably only in the context of an overall improvement in working conditions. In subsequent years, the firm-size threshold for collective bargaining by work councils was lowered to 250 in 2011 and 150 in 2012. However, approval from sectoral unions remains a pre-requisite. Moreover, given the competition and lack of trust between work councils and unions, sectoral unions have not been keen to delegate bargaining to the former at the firm level. In practice, this has made it difficult for this new tool (collective bargaining conducted by work councils sanctioned by unions) to gain practical relevance.

It is not clear what the impact of these reforms on firm-level bargaining has been. Figures up to 2015 show that the number of firm-level agreements has been largely constant, suggesting that the recent regulatory changes did not have a major impact on the prevalence of firm-level bargaining. It also implies that in practice, the new framework has not so far provided much additional space for firms in terms of wage flexibility. In part, this may reflect the fact that such agreements have been largely imposed externally and hence benefited from limited acceptability among incumbent firm and worker representatives who, in any case, have a strong vested interest in sectoral bargaining. It may also reflect the continued need for approval by sectoral unions, which greatly reduces the scope for signing firm-level agreements with less favourable conditions.

Looking forward, Portugal faces different options to decentralise collective bargaining further. One possibility would be to place more emphasis on bargaining with work councils, e.g. by allowing them to conclude formal firm-level agreements also without the consent of sector unions. However, this

Aghion *et al.*, 2011). For instance, the labour code (the collection of all applicable labour law) includes 560 articles that regulate virtually all aspects of the labour relationship. Moreover, the minimum wage is relatively high compared to the median wage, in particular since 2006, reaching Kaitz ratios of around 60% (close to those of France and Slovenia, the highest in Europe).

¹⁴ At least in part this is a legacy from the 1928-1974 dictatorship which sought to compensate for the repression of independent trade unions and social dialogue through legal rules.

would potentially clash with the constitutional provisions that indicate that unions can conduct collective bargaining but do not offer the same rights to work councils. Furthermore, for this route to make bargaining attractive also for workers, work councils are needed that are both representative of the workforce and independent from the employer.¹⁵ On the other hand, Portugal could follow the Dutch route, which maintains sector-level agreements but with more flexibility for workers and firms due to the inclusion of e.g. à-la-carte provisions.

3. Extensions

In both the Netherlands and Portugal, collective bargaining coverage extends well beyond the membership of trade unions and employer associations. A first reason for this, which applies in the case of the Netherlands, is the presence of so-called *erga omnes* provisions. In the Netherlands, collective agreements automatically apply to all workers within firms that sign directly or are subject to the agreement through their membership of a signing employer association. In Portugal, as in some other countries such Germany and Norway, this is not the case. A second reason, which applies to both countries, is the frequent use of administrative (i.e. government-issued) extensions of collective agreements beyond the membership of employer associations to all firms and workers in a sector. In order to have an agreement extended, a request has to be made by one or both signatory parties to the Ministry of Labour. Extensions have been motivated by the desire of creating a level-playing field and, in doing so, limiting the scope for competition on the basis of poor working conditions while enhancing inclusiveness and reducing wage inequality.¹⁶

One potential concern about extensions, however, is that the signatory parties to the agreement may not be representative of the firms and workers in the sector. As a result, there is a risk that collective agreements may not be well suited to the needs of firms and workers to whom the agreement is imposed by means of an administrative extension. For example, to the extent that larger firms are more likely to be part of an employer association, but also tend to be more productive and willing to pay higher wages, this may result in collectively agreed wage floors that are too high for smaller non-organised firms and

¹⁵ A mild version of this route would be to replace the veto of sector unions by a criterion that agreements will need to be confirmed by a referendum among the workforce.

¹⁶ Extensions may further be used as an instrument to internalise any possible public good characteristics of collective agreements, such as sectoral training and mobility schemes that are funded by those subject to collective agreements (De Ridder and Euwals, 2016). They may also serve to disseminate what may be considered as best practices within in a sector in different worker-related areas, such as personnel management, training, health and safety, technology usage, insurance, retirement packages, or performance-related incentives.

therefore reduce employment—particularly of low-productivity firms and workers. It has been argued that non-representative employer associations may even have an incentive to use extensions as an anti-competitive device that seeks to reduce competition from low-wage firms (Haucap *et al.*, 2001; Magruder, 2012; Martins, 2014).

In order to alleviate such concerns, administrative extensions are often subject to representativeness criteria or a meaningful test of public interest.^{17,18} In the Netherlands, administrative extensions are subject to a super-majority check that requires 60% of workers in the sector to be employed by firms which are members of the signatory employer association(s). Additional scrutiny is exercised when the portion of workers is less than 60% but still exceeds 55%. Given that employer organisation in the Netherlands is rather high –85% according to Visser’s ICTWSS database – for many sectors this threshold is not prohibitive, although there are also examples of sectors where collective agreements cannot be extended anymore due to declining representativeness (such as in the shipping sector, see Mevissen *et al.*, 2015). The Dutch law also provides for a public-interest test. While political actors frequently call upon this clause to limit extensions to agreements that meet certain conditions (for some recent examples, see Tweede Kamer, 2016), in practice, the government has been reluctant to resort to this clause, fearing its political interference would disturb negotiations between bargaining partners. In a number of instances, the government has implicitly or explicitly referred to the threat of non-extension as a means to discipline the social partners, for instance, to promote wage moderation or to discourage the inclusion of social security provisions that it deemed excessively generous (see Section 5).

In Portugal, no representativeness criteria existed until the reform of 2012. Administrative extensions were quasi-automatic, making collective bargaining strongly dependent on government support (as in other Southern European countries, see Traxler, 2003 and Moline, 2014). A brief study of the number of workers potentially subject to the extension and their wage increases would be conducted by the Ministry of Labour, using the most recent ‘Quadros de Pessoal’ data, a matched employer-employee register. However, if these findings on workers and wage increases had any impact on the decision to extend, our understanding is that an extension was even more likely the higher the number of workers

¹⁷ Another route is to make membership of an employer organisation compulsory or strengthen incentives to join. Employer associations typically deliver several services to their members. This would effectively suggest a move towards the Scandinavian system of collective bargaining.

¹⁸ Germany recently abandoned its 50% representativeness criterion in favour of a test of public interest. The former was increasingly seen as an obstacle to extensions while a test of public interest provides more flexibility. This change was intended to promote the use of extensions.

affected and the higher their wage increases, not the opposite. After a temporary suspension of administrative extensions from June 2011 (a policy analysed in Hijzen and Martins, 2016), the criteria for extensions were reformed in 2012 by allowing extensions to be issued only if the employer organisation represented firms covering at least 50% of the workforce of the relevant sector. Since the density of employer association membership is rather low – 40% according to our estimates¹⁹ – this has led to concerns that the conditions for extensions were too strict. In July 2014, with effect from January 2015, these requirements were again revised by adding an extra, alternative clause stating that extensions could also be issued if at least 30% of the membership of employer associations (in terms of the total number of firms) consisted of small- and medium-sized enterprises (firms with less than 250 employees). Since this new representativeness clause is met for the large majority of employer associations, this new, alternative criterion effectively represented a return to the situation pre-2012, characterised by a virtually automatic extension of all agreements. More recently, in June 2017, representativeness criteria were fully abandoned, implying a both *de jure* and *de facto* return to the pre-2011 period.

While representativeness criteria help avoid too large systematic differences in the characteristics of firms and workers in the organised (affiliated) and unorganised (non-affiliated) sector, there remains a risk that standards in collective agreements are not in line with the needs of all firms, whether they are affiliated or not. To address this issue, exemptions to administrative extensions can be granted to firms and workers that feel the sectoral agreement does not suit their needs. Importantly, even if such exemptions are not widely used, their existence provides incentives to better adapt the contents of sectoral agreements to the needs of firms that are not affiliated to an employer association.

In the Netherlands, there are two different ways through which firms can get exempted from extensions. Since 2007, the main route is to get dispensation from the social partners who have concluded the agreement (until then, having a firm-level collective agreement was a sufficient condition for dispensation).²⁰ Since 2014, all sectoral agreements are required – in order to qualify for an

¹⁹ This was calculated by the authors based on the *Quadros de Pessoal* (2010) data set as the percentage of private sector workers in affiliated firms. In contrast, in Visser's ICTWSS database, employer density was estimated at 65% in 2008, while Traxler (2000) reports a figure of 34% for 1995. See also Box 2 on employer density numbers in Section 5.

²⁰ This happened after some cases where unions were not deemed independent of the employer (sometimes established on the same day as the signatory date of the agreement). In response, the rules for what constitutes

administrative extension – to include a transparent exemption framework stipulating objective dispensation criteria and the procedures for obtaining dispensation.²¹ The second possibility is to request dispensation from the Ministry. This is only possible if firms or subsectors can make a compelling case that firm-specific conditions justify dispensation and if they have concluded their own agreement with an independent union. Traditionally, most conflicts over extensions have arisen in low-cost sectors such as retail, work agencies and cleaning (Visser, 2005). Between 2007 and 2015, the Ministry granted dispensation in 58 cases in response to 191 requests and rejected 77 of them, mostly on material grounds and sometimes on procedural grounds (i.e. no firm-level collective agreement) (MinSZW, 2016).

In Portugal, firms or unions may formally oppose an extension and make a request for their non-application. However, such requests have been issued very rarely, and have typically concerned unions that had not subscribed to the agreement being extended in the first place (but subscribed to an alternative agreement with the same employer association). Individual firms have rarely opposed extensions for a number of possible reasons, including low expectations that a request for non-application would be accepted, concerns about the effects of an application in terms of their reputation with banks and other firms they do business with, and the costs involved in applying for an exception. Non-compliance with the extension may also be an approach adopted by some firms, given potentially low levels of enforcement by the labour inspectorate and imperfect knowledge of labour law and collective bargaining, particularly among smaller and younger firms.

Another argument for extensions is that they reduce the transaction costs of setting working conditions, which may be particularly important for small firms that lack the resources to engage in firm-level bargaining (Blanchard *et al.*, 2014). This argument alone does not provide a sufficient justification for having extensions that impose similar conditions to all firms in a sector, but rather provides an argument for letting individual firms adopt sectoral norms voluntarily, i.e. “opting in”. One example is the growing practice of “orientation” in Germany, where employers voluntarily follow pay policies in collective agreements in the sector without being involved in their negotiations (Addison *et al.*, 2012).

an independent union were strengthened and social partners were made the prime responsible for judging the need for dispensation (see Rojer & Van der Veldt, 2010; Stege, 2011).

²¹ In fact, also firm-level agreements can provide for a dispensation mechanism, as in the case of Rabobank (see Van Lier & Zielschot, 2014).

Compared with extensions, the main advantage of this approach is that it does not impose excessive pay conditions on low-productivity employers and that employers are not bound by the conditions in the collective agreement when economic circumstances change. This increased flexibility for firms comes at the cost of potentially lower labour standards for workers and higher inequality, especially if firms pick only some of the collectively agreed working conditions.²² Since extensions were quasi-automatic, orientation has not played a role in Portugal, at least until recently. In the Netherlands, some firms voluntarily follow collective agreements (“incorporatiebeding”). However, when making an explicit reference to a collective agreement in an employment contract, the agreement becomes legally binding and firms cannot just “opt out” as they please.

In the Netherlands, there has traditionally been broad support for extensions. According to surveys, most firms – also those bound to the collective agreements by extension – report being in favour of extensions (Van den Berg & Van Rij, 2007; Mevissen *et al.*, 2015). While two parties currently propose to abolish the administrative extension altogether²³, most of the others see the extension procedure as a legitimate way to avoid downwards competition on working conditions. Hartog *et al.* (2002) did not find a significant wage effect of extensions in the Netherlands, while De Ridder and Euwals (2016) find that wages are higher in sectors with extensions, but this effect was only present in the boom years 2006 and 2007 and not in the crisis years that followed. Given the absence of a wage premium in the crisis years, it is unlikely that extensions have resulted in large job losses as reported for e.g. Portugal (Martins, 2014). At the same time, there has recently been some discussion on whether the current extension and dispensation rules allow for enough customization or could harm outsiders (see Gautier, 2015; Grapperhaus, 2015; Hartog, 2015; AVV, 2015; Tweede Kamer, 2016). Furthermore, there are concerns that *non-wage* clauses in sectoral agreements that try to neutralise activating reforms by the government – such as most recently the duration of unemployment benefits – could harm employment when such sectoral agreements are extended to the entire sector (De Ridder & Euwals, 2017). Hence, suggestions have been made to allow for a stronger material appraisal of dispensation requests and the delegation of this responsibility away from social partners to an independent authority (Grapperhaus, 2015; Hartog, 2015; AVV, 2015).

²² Addison *et al.* (2012) show that orientation tends to be partial in the sense that it leads to lower wages than in firms that are directly covered but higher than in firms that do not orientate their pay practices to the collectively negotiated wage agreements.

²³ Exceptions are the VVD (People's Party for Freedom and Democracy), who is currently the largest, and the PVV, both of which propose to abolish administrative extensions.

In Portugal, both the role of extensions and the need for representativeness criteria remain contentious, with virtually all social partners advocating the former and rejecting the latter. One important reason why representativeness criteria are controversial is that employer associations have too few members in most cases to allow concluding sufficiently representative agreements, at least by the standards of representativeness of countries such as the Netherlands. As a result, the introduction of strict representativeness criteria in 2012 may have played a role in bringing sector-level bargaining to a standstill (although it is difficult to disentangle its effect from that of the economic crisis). While the 2015 reform considerably reduced the stringency of representativeness criteria, it also risks reintroducing the problems associated with non-representative extensions (see Box 1 for recent evidence on the employment effects of extensions in Portugal).²⁴

To solve this conundrum, one possibility may be to fix a timeline for gradually increasing the stringency of representativeness criteria. This should eventually eliminate non-representative extensions, while at the same time providing employer associations time to increase their membership levels, especially among smaller firms, which account for a large share of employment. Another option could be to follow the Dutch practice of a double criterion. For instance, in addition to the current threshold of 50%, there could be an additional range – e.g. between 30 and 50% - where the government would grant extensions only when certain additional conditions are met (such as efforts to improve the representativeness of bargaining parties)²⁵. Furthermore, for both types of extensions, the government could require the existence of a clear dispensation framework, as is required to qualify for extensions in the Netherlands.

Table 1. Extensions: conditions and exemptions

	Netherlands	Portugal – pre 2012; and from 2017	Portugal – between 2012 and 2017
Test of public interest	Yes - but rarely called upon explicitly	No, decision is entirely discretionary, not based on objective and verifiable criteria	No

²⁴ Recently, in June 2017, a further reform in Portugal eliminated completely the representativeness requirement. It also required extensions to be issued no later than seven weeks after the request by the subscribing partners.

²⁵ We thank Jelle Visser for this suggestion.

Representativeness criteria	Share of workforce in signatory firms should exceed 60% (or 55% with additional scrutiny and 50% in exceptional circumstances)	No	2012 - 2014: Share of workforce in signatory firms should exceed 50% of total employment in relevant sector. 2015 - 2017: share of workforce in signatory firms should exceed 50%; or at least 30% of employer association members (firms) should have no more than 250 employees (the latter criterion being met in almost all cases)
Exemptions	Application procedure to government or through dispensation rules in collective agreements	No	No

Box 1. No extension without representation? New evidence on the role of extensions in Portugal

This Box summarises the main insights from a recent study by Hijzen and Martins (2016) that analyses the causal impact of extensions on employment growth in Portugal. The study exploits a “natural” experiment that resulted from the immediate suspension of extensions by the government that took office in June 2011. More specifically, a regression discontinuity design is used that exploits the administrative delay in issuing extensions in combination with their suspension in June 2011. Importantly, this suspension resulted in a sharp decline in the probability that an extension was issued, several months prior to the change in government. This change of policy was unanticipated by social partners, making it a useful test case for policy evaluation.

The results provide the following insights for the debate on the role of collective bargaining in Portugal:

- Extensions had a tendency to reduce employment growth and, thereby, are likely to have amplified the unemployment response to the global financial crisis. The effects on employment growth are estimated to be large, which in part may reflect the specific macroeconomic context—need for aggregate wage adjustment against the backdrop of falling output and a balance-of-payments crisis—under which the natural experiment took place.
- The adverse effects of extensions on employment growth tend to be concentrated among the firms that are not affiliated with an employer association, i.e. those that are not directly involved in the bargaining process. This suggests that lack of representativeness of employer associations is a potentially important factor behind the adverse employment effects of extensions.

- Retro-activity (see also Section 4.2), in combination with the often substantial administrative time lags associated with extension decisions, implied that non-affiliated firms had to back pay wage increases over the whole period between the date the original agreement was signed and the date a decision on its extension was finally made. This significantly increased the cost of extensions for non-affiliated firms—many of which were SMEs facing solvency and liquidity issues, with adverse effects on employment.
- Extensions tend to boost wages of low-productivity workers and reduce wage inequality. Consequently, the adverse effects of extensions on employment growth should be weighed against their beneficial effects on low-wage workers and wage inequality.

4. The continuity of sector-level agreements: retro and ultra-activity

In order to ensure the continuity of rights and obligations in collective agreements, they may enter into force retro-actively, i.e. before their signature date, and/or remain effective ultra-actively, i.e. beyond the date of their expiration. These two instruments are not equivalent from the perspective of workers or firms. Retro-activity mainly matters for wages, since it typically imposes an obligation on firms to pay wage arrears, whereas ultra-activity seeks to preserve the continuity of not only wage floors but also other non-wage working conditions. Consequently, retro and ultra-activity are best seen as complements for ensuring the continuity of collective agreements. As most recent discussions have tended to focus on the pros and cons of ultra-activity we will start with this.

4.1 Ultra-activity

Ultra-activity entails that collective agreements remain effective after their date of expiration. In doing so, it provides a form of income security to workers in the medium term in a similar manner as the statutory minimum wage. This can also enhance labour peace and help foster a long-term perspective in collective bargaining. At the same time, ultra-activity tends to reduce incentives for collective bargaining and signing new agreements, particularly when wages may otherwise have to be renegotiated downward, such as for example during a recession. This is because it has a tendency to shift the focus of collective bargaining from the distribution of overall rents to that of *additional* rents, which are more limited and may indeed be negative in a recession. The pro-cyclical nature of economic rents creates pro-cyclical incentives for collective bargaining, and these are reinforced in the context of ultra-activity. While the pro-cyclical nature of collective bargaining in itself may not be an issue, weak incentives for renegotiation reduce such pro-cyclical nature in difficult economic conditions. This may

hamper labour market resilience since it reduces the likelihood of finding mutually beneficial solutions in periods where these are most needed.²⁶

Ultra-activity reduces the scope for nominal and real wage reductions once collective agreements have expired. While this is unlikely to be an important issue in normal times, it could become an obstacle to wage adjustment in recessions, particularly in a low-inflation environment. In normal economic times, there is little need for downward wage adjustment, while in recessionary periods with high inflation, such as those following the oil shocks in the 1970s or currency crises in emerging markets, downward real wage adjustments can be achieved simply through wage moderation without having to cut nominal wages. However, in a low- or even negative-growth and inflation environment such as the recent financial and sovereign debt crisis, ultra-activity can undermine labour market resilience in countries without independent macro-economic policies by increasing the degree of downward nominal wage rigidity—limiting the scope for real wage adjustment to restore external competitiveness and clear the labour market.²⁷

Both Portugal and the Netherlands have some form of ultra-activity, but its scope differs (Table 2a). In the Netherlands, ultra-activity only applies to organised firms and not to firms covered by an administrative extension. This means that after the expiration date of a collective agreement, non-organised firms are allowed to cut wages as long as wages do not fall below the statutory minimum wage, offering an incentive to bargaining parties to strike a new agreement. In Portugal, ultra-activity related to clauses that determine the renewal of agreements is limited to 18 months from 2009 and 12 months from 2014. However, in continuing employment relationships that started when the collective agreement was in force, employers cannot cut nominal wages or adjust downward most other working

²⁶ Employers might anticipate that they are unlikely to win major concessions in economic downturns, leading to greater smoothing over the business cycle and more wage moderation during economic booms. However, this may not be enough to cope with unexpectedly large adverse shocks such as the recent global financial and sovereign debt crises.

²⁷ When social partners have a shared understanding of the negative employment consequences, such risks can be alleviated with coordinated support for wage moderation. This underlines the importance of coordination and cooperation, which is discussed in Section 5 below.

conditions unless the worker agrees and, in some cases, the labour inspectorate is involved. Ultra-activity also applies to all covered firms, including those covered through extensions.

The application of ultra-activity to extensions can have important implications for the incentives of bargaining parties, especially when there is a need for downward nominal wage flexibility. Guimarães *et al.* (2015) show that in the aftermath of the crisis nominal (base) wage cuts have been virtually absent in Portugal, while downward nominal wage rigidity has become binding for the large majority of (continuing) worker-firm matches as reflected by the pervasiveness of nominal wage freezes. While in part this could reflect the role of binding wage floors, supported by ultra-activity, it may also reflect the need for union consent for cutting nominal wages in a context where employment protection is very strict. In any case, the lack of incentives to renegotiate wages downward, possibly reinforced by ultra-activity, may have contributed to the sharp drop in the number of new contracts --not in the number of contracts in force, however—during the crisis, alongside the collective bargaining reforms mentioned above.

In the Netherlands, both employers and trade unions saw the need for wage moderation in the aftermath of the crisis. More recently, renewing collective agreements has proven difficult in various service sectors, such as retail trade and hospitality (van der Valk, 2016). However, this largely has reflected the role of difficult economic conditions in these sectors and the weak position of traditional trade unions, rather than ultra-activity.

Table 2a. Ultra-activity

	Netherlands	Portugal – pre 2012	Portugal – since 2012
Scope	Ultra-activity of collective agreement, not for parties bound by extensions	Ultra-activity applies to both collective agreement and extensions.	Ultra-activity applies to both collective agreement and extensions.
Duration	Unlimited - unless stated otherwise in collective agreement	Time-limited unless stated otherwise in collective agreement: five years up to 2009 and 18 months since 2009	Time-limited unless stated otherwise in collective agreement: 12 months
Application	Workers who were employed by firm prior to expiration	Workers who were employed by firm prior to expiration	Workers who were employed by firm prior to expiration

4.2 Retro-activity

In both Portugal and the Netherlands, there is a possibility to activate collective agreements, entirely or in part, retrospectively so as to ensure continuity of rights and obligations. A difference between the two countries is that in the Netherlands this possibility only applies to the signatory parties of agreements and not to those bound by subsequent extension, whereas in Portugal, until the reform of 2012, retro-activity applied to both signatory parties and those bound by extensions. The rationale for retro-actively applying agreements and extensions is to ensure that a level playing field is fully preserved, consistent with the spirit of sector-level bargaining and the logic behind extensions.

The application of retro-activity to extensions has been a source of concern, however. The reason is that extensions are typically administered with some delay. This means that the degree of retro-activity tends to be more important for extensions than for the original agreements. For example, Hijzen and Martins (2016) report that in Portugal during the period 2010-2011, the typical delay with which extensions entered into force relative to the relevant collective agreement tended to be about 6 months. To the extent that collective agreements are publicly documented and there is little uncertainty as to whether or not they will eventually be extended, this should not pose any problems as long as firms have rational expectations and do not face any financial frictions. However, if many firms unexpectedly become liquidity-constrained as a result of a major unforeseen macroeconomic shock, the requirement to retro-actively pay wage increases over a considerable period of time could well lead such firms to lay off workers, with significant adverse implications for aggregate employment. Hijzen and Martins (2016) indeed find suggestive evidence that retro-activity contributed importantly to the adverse impact of extensions on employment growth during the crisis in Portugal (see Box 1).

As part of the labour market reform of 2012, retro-activity for extensions was abolished in Portugal (and has not been reinstated since). This means that retro-activity provisions under the Portuguese and Dutch systems are now very similar (Table 2b).

Table 2b. Retro-activity

	Netherlands	Portugal – pre 2012	Portugal – since 2012
Scope	Possible to activate (part of the) CA retrospectively, but not for extensions	Possible to have enter CA retrospectively, including for extensions	Possible to activate CA retrospectively, but not for extensions

5. Coordination and cooperation

Apart from the differences in rules governing the bargaining process discussed above, the Netherlands and Portugal differ in the degree to which the actions of bargaining units are synchronised ('coordination') and the quality of social dialogue between bargaining partners ('cooperation').

5.1 Coordination

Coordination among bargaining units can positively influence macroeconomic flexibility (Blanchard and Wolfers, 2000; OECD, 2006; Traxler and Brandl, 2012). Indeed many countries with some form of coordinated bargaining, such as Scandinavian countries, Germany, or Japan, have enjoyed comparatively high and stable employment over the years (IMF, 2016). Coordination can be state-imposed based on statutory controls such as indexation, state-sponsored through social pacts, can take the form of agreements between or within the central employer and worker organisations, or can be led by trend-setters (resulting in so-called trend or pattern bargaining) (Traxler *et al.*, 2001). The issue of coordination typically arises in countries predominantly characterised by sector-level bargaining but effective coordination can also be achieved in countries with decentralised bargaining systems.

The Netherlands has a long tradition of state-sponsored coordination under which non-binding central agreements between the main employer and union confederations, with or without involvement of the government, have been fairly common since the Wassenaar agreement in 1982. Such agreements can shape expectations and establish norms in relation to collective bargaining and macro-economic policy, without imposing any formal rigidity on the pay policies of firms (Visser, 2013b). This type of coordination requires inclusive and representative employer and union confederations. Since such agreements can be fragile in practice, it is important for them to be underpinned by institutional arrangements that provide a stable support for social dialogue at the national level.

In the Netherlands, to ensure the confederations have a mandate, both union and employer confederations typically have an annual discussion round with their members to set guidelines for wage increases and other bargaining priorities. Especially for trade unions, this internal coordination is quite strong, as sectoral unions for instance agree on a maximal wage demand and can even possibly team up with employers against dissident unions. To support bi- and tripartite agreements at the national level, institutional arrangements also play an important role. The Social and Economic Council (a tripartite council of social partners plus independent members) and the independent Bureau for Economic Policy Analysis (CPB) particularly matter, providing platforms for regular discussion between the social partners and developing a shared understanding of the key challenges (Den Butter and Mosch, 2003).

The Wassenaar agreement of 1982 remains the prime example of wage coordination to this day. It effectively broke the wage-price spiral that was paralyzing the economy at the time and heralded a prolonged period of price stability and strong economic growth. The agreement was reached between employer and employee organisations, but was also supported by the government e.g. with tax concessions that dampened the adverse effect of wage moderation on net incomes. Since then, there have been several other instances where social partners at the national level aimed to influence wage setting notably in the late 1990s and early 2000s, often with pressure from the government (including through a threat not to grant extensions). Central recommendations on wages in these years served as an important input for collective bargaining (Van Houten, 2008).

Coordination also plays an important role regarding other aspects of collective bargaining. An important example concerns the level of entry wages set in collective agreements. In the early nineties, the government grew increasingly worried about declining employment of lower-skilled workers, which coincided with an increasing gap between the statutory minimum wage and entry scales of collective agreements. In response to government pressure, including the threat not to grant extensions, central parties issued a recommendation to bring the minimum wage scales in collective agreements down to the level of the national minimum wage. This approach proved highly successful. Whereas in 1994, the difference between the minimum wage in CAs and the national minimum wage (NMW) was on average 12%, this came down to 2.2% in 2004 and 1.7% in 2014 (Rojer, 2002; Min SZW, 2005 and 2015). Currently, a similar approach is taken to allow for special entry scales to support the participation of (partially) handicapped persons (“Participatiewet”). Other examples include the facilitation of temporary and part-time work, the employability of older workers and the inclusion of exemption procedures in collective agreements (see Section 3). Such measures have likely contributed to the strong structural performance of disadvantaged groups in the Dutch labour market.

Active wage coordination across bargaining units has been traditionally limited in Portugal. Despite the absence of active coordination, the labour market remained relatively resilient until the mid-1990s, partly as inflation was also relatively high by European standards, allowing real wages to respond strongly to changes in unemployment without requiring any adjustment in nominal wages (Martins *et al.*, 2012). As in other high-inflation countries, the prospect of EMU membership also acted as catalyst for several pacts to bring wage inflation down during the 1990s (Fajertag & Pochet, 2000). As the entry into EMU removed this catalyst and inflation came down in the late 1990s, the ability of real wages to adjust dropped.

The main reason why active coordination did not materialise in Portugal, even during the post-2000 period, was that it proved difficult to reach agreements between all (currently four) employer confederations and the two main union confederations. As discussed above, even when compared to other new democracies, relations between bargaining parties in Portugal had been rather adversarial and parties often lacked a shared understanding of the economic problems at hand (Fajertag & Pochet, 2000; Natali & Pochet 2009). Despite the frequent occurrence of tripartite agreements, one of the two major union confederations (the largest one) rarely subscribed to them. The tripartite agreement of 2012 was notable in that it did bring together the main employer and the smaller union confederations and also included many measures towards greater labour cost flexibility. However, this may have been an exception reflecting the unique economic context at the time. The 2012 agreement played an important role in garnering support from the social partners for many of the reform measures agreed as part of Portugal's adjustment program.²⁸

In the absence of more effective coordination by social partners, the national minimum wage gains particular importance as a coordination device. It is relatively high by European standards in Portugal, following a push during the period 2007-2011, and is set by the government in consultation with the social partners in a discretionary manner. Under such circumstances, the minimum wage has the potential to act an instrument of wage indexation, by setting a benchmark for collectively negotiated wages, even if it would not be largely automatic as in the case of France, for example (Fougère *et al*, 2016). By contrast, in the Netherlands, the minimum wage has no strong coordinating role as it is

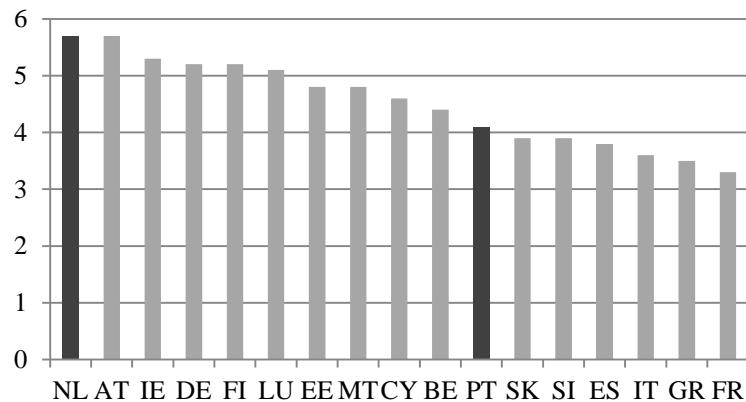
²⁸ This agreement went much further than most tripartite agreements, however, since it was about the adjustment of the economy to the global financial and Eurozone debt crises and also included areas such as public administration and taxation.

considerably below the median and is set through a fixed formula based on collectively negotiated wages. Consequently, the minimum wage also has a more limited impact on the bargaining process.

5.2 Cooperation

There are striking differences in the quality of labour relations and the degree of trust between social partners in the two countries. While the quality of labour relations in the Netherlands is typically considered very high, and even the highest among 18 countries in a survey of managers conducted by the World Economic Forum, it is rather low in Portugal, as in other Southern European Countries (see Chart 1). Similar insights are obtained when looking at the degree of trust in others or trust in institutions. This suggests that the quality of labour relations is likely to depend on broader societal and cultural factors and not just on the main actors in collective bargaining and its institutional architecture.²⁹

Chart 1 Cooperation in labour relations



Note: chart shows the average rating of executives of the labor-employer relations in their country, where 1 is "generally confrontational" and 7 is "generally cooperative".

Source: World Economic Forum, The Global Competitiveness Report 2012–2013, Table 7.01.

²⁹ Some scholars trace the emergence of trust between social partners in the Netherlands back to the culture of cooperation and trust that emerged in the late Middle Ages between the various provinces (Prak and Luiten van Zanden, 2013) and the joint fight of the Dutch against the water (Den Butter and Mosch, 2003).

While the formation of trust between social partners, and that of the wider public in social partners and their institutions, is a complex process, it seems plausible that certain features of collective bargaining systems can contribute to build trust (IMF, 2016):³⁰

- The inclusiveness of bargaining parties, and that of the collective bargaining system more generally, is likely to enhance trust. Bargaining parties are less likely to be inclusive when they are heavily fragmented and confederations are absent or have weak coverage. In the case of extensions, representativeness criteria can make the system fairer and thereby enhance trust—both directly, and indirectly by providing incentives for bargaining parties to reduce fragmentation and expand their coverage.
- The nature of procedures with respect to opt out and extension can also help, such as the use of objective criteria for processing requests, the availability of accurate and verifiable information for assessing them (see Box 2 in the context of representativeness criteria, for example), and the presence of an independent body in the case of extensions.
- Built-in incentives for regular renegotiation might enhance trust. Such incentives may take the form of time-limited agreements, or alternatively, restricting ultra-activity of agreements to certain non-wage working conditions. This strengthens incentives for the renewal of collective agreements, especially in difficult times. At the same time, rules that would impose collective bargaining may be counter-productive, if there is no shared willingness to reach agreements.
- Mechanisms that make social partners accountable for the effective implementation of collective agreements could foster trust by forcing them to take ownership and reducing the scope for opportunistic behavior. Straightforward ways to make the social partners more accountable include providing transparent, objective and accessible information on the key elements of collective agreements (e.g. a database with coded information of all collective agreements) and relying on independent labour inspectorates to monitor the effective implementation of agreements.

Importantly, the quality of labour relations is also likely to reflect the success of past experiences and, as such, to be path-dependent (Lorenz, 1999; Blanchard & Philippon, 2004; Visser, 2005; Aghion *et al.*, 2011). For example, employee-employer relations in the Netherlands were much more adversarial

³⁰ See Gould and Hijzen (2016) for a recent analysis of the determinants of trust and social capital with a specific focus on inequality.

at the time of the Wassenaar agreement (1982). According to Visser and Van der Meer (2011), it was only in the decade after Wassenaar that a consensus emerged between unions and employer organisations. Hence, the pact arguably served to demonstrate to bargaining parties that compromises could be mutually beneficial and provided a basis for future collaboration and the build-up of trusting relationships. In Portugal, the adversarial element is arguably still more present.

In turn, differences in the degree of trust and the quality of labour relations are likely to have important implications for the effectiveness of coordination and, ultimately, economic performance (Blanchard, Jaumotte, and Loungani 2014; Blanchard & Philippon, 2004). For example, the improvement in economic performance in the Netherlands following the Wassenaar agreement of 1982, often referred to as the “Dutch miracle”, has in part been attributed to the importance of trust between the social partners and the quality of labour relations (Visser & Hemerijck, 1998; Den Butter and Mosch, 2003). Among other things, trust enables social partners to engage in intertemporal efficiency-enhancing deals that are only feasible in a repeated game. For example, trust can contribute to risk sharing whereby firms insure workers against shocks hitting the firm, in return for lower overall wages. By contrast, the breakdown of collective bargaining at sectoral level during the recent economic crisis in Portugal has been linked in part to the lack of trust between trade unions, employer associations and the government (Addison, 2015). In Portugal, more trust between bargaining parties might have facilitated significantly the adjustment process during the 2011-13 recession. For instance, greater coordination in terms of faster and simultaneous adjustments in both prices and salaries could have restored external competitiveness more quickly at a lower cost to employment and living standards.³¹

³¹ For instance, Martins (2017) finds that one of the measures included in the labour market reform of 2012 (and in the tripartite agreement of the same year) – greater flexibility in the setting of overtime pay premiums – promoted greater employment resilience.

Box 2. Providing reliable and transparent information to assess representativeness criteria

Membership figures of both trade unions and employer associations can be sensitive as they may influence the relative power of bargaining parties and determine the application of certain government policies (e.g. existing rules on extensions, as discussed in Section 3) (Traxler, 2000). In the absence of official statistics, this may provide an incentives for social partners to inflate their membership figures.

For the Netherlands, the Statistical office produces estimates of trade union density, including by sector and by subgroup (gender, age). Employer organisation density figures are only registered by employer organisations themselves. Therefore, there are only raw estimates of the share of the workforce working for organised firms (the 85% mentioned above). Importantly, representativeness criteria do refer to an employer density threshold. As a result, when bargaining parties submit a request to the Ministry to extend a sectoral agreement, they have to produce their own estimates of the share of workers covered by organised firms. These figures have sometimes proved controversial. In the hotel and catering industry, for instance, membership figures of the main employer organisation were challenged by a smaller employer association in the late 1990s. In 1999, an investigation by a third party confirmed that the figures were not calculated correctly. As a result, the Ministry introduced new guidelines on data sources, calculation method and reference date to calculate representativeness figures. The rules were further strengthened in 2007 (Research voor beleid, 2009). In case of doubts, the extension request has to be accompanied by an audit.

Portugal is one the few countries with official statistics on membership rates (Addison *et al.*, 2016). This stems from its detailed data sources, in particular “Quadros de Pessoal” (Personnel Records), a compulsory survey of all firms, conducted annually (in October), for the purposes of monitoring compliance with labour law (and collective bargaining) provisions. “Quadros de Pessoal” requires each firm to indicate, for each worker, the salaries paid during the reference month, as well as hours worked and several other variables, including the applicable collective agreement (in its original form or via extension). Firms also have to indicate which employer association they are member of (if any) as well as the number of workers that are members of unions. More recently, “Quadros de Pessoal” has also enquired about new aspects of labour in each firm, including worker churning, use of service provision contracts, health and safety, strikes and training.

For the purposes of assessing representativeness of each collective bargaining agreement, the Ministry of Labour used the information above on employer association membership of firms in each sector. For the purpose of assessing representativeness, these data were only made available to researchers in 2011. On the basis of this, our estimate is that around 40% of workers are employed by a firm that is organised (see also Section 3 and footnote 19).

6. Concluding remarks

This paper seeks to increase our understanding of collective bargaining systems by comparing the Netherlands and Portugal. When considered from a distance, the collective bargaining models of these countries share many broad features, including their focus on the sectoral level and the widespread use of extensions. Yet the two systems also differ importantly along several more specific dimensions. In characterising in detail these differences, our analysis seeks to identify a number of more general insights for improving the outcomes of sector-level bargaining systems. In our view, these lessons are the following:

- *Introducing greater flexibility in collective bargaining systems through decentralisation can be achieved without undermining the inclusiveness of sectoral bargaining.* The Dutch experience, as well as that of some neighbouring countries, has shown that decentralisation is feasible without undermining sectoral bargaining. Decentralisation in Netherlands has taken place gradually over more than three decades and is still continuing. It has introduced more flexibility at the firm or worker level *within* sector-level agreements, by making them less prescriptive, through the inclusion of framework provisions or a menu of options rather than by adding an additional layer of collective bargaining at the firm level. By contrast, in Portugal decentralisation is a more recent phenomenon. Similar to many other European countries with sectoral bargaining systems, it has sought to promote bargaining at the firm level but with limited practical impact on either the scope for flexibility at the firm level or the integrity of sector-level bargaining. Looking forward, two broad routes for greater decentralisation might be of interest. One would involve allowing more customization within sector-level agreements whereby parties at the local level can trade-off various elements of the agreements. In the current legalistic culture this route is difficult, as many non-wage items in collective agreements are stipulated by law and can hence not be negotiated. The other route would be to further support firm-level bargaining. A critical question in such an endeavour is whether firms are allowed to form an agreement with a work council also without the consent of unions. For this route to make outcomes also attractive for workers, work councils would be needed that are both representative of the workforce and independent from the employer.
- *Coverage extensions can help promote inclusiveness, but need to be subjected to representativeness or public interest criteria.* Traditionally, the Netherlands has placed more emphasis on representativeness as a criterion for the extensions of collective agreements than Portugal. Over the years, the framework for exemptions from extensions has undergone gradual change – both material and procedural – and up to this day measures are being proposed to further strengthen its

transparency. Although representativeness criteria preclude extensions in some sectors, they are widely seen as a necessary tool to legitimise extensions to non-signatory parties. Representativeness criteria remain controversial in Portugal mainly because representativeness is typically low: it is difficult to specify criteria that are sufficiently strict to be meaningful, yet sufficiently easy to satisfy to allow an effective role for extensions. To solve this conundrum, one might set a time-line for gradually increasing the stringency of representativeness criteria. This would eventually ensure that non-representative extensions are eliminated, while also providing time to employer associations to increase their membership levels, especially amongst smaller firms. Another option might be to follow the Dutch practice of a double criterion. For instance, in addition to the current threshold of 50%, there could be an additional range – e.g. between 30 and 50% - where the government would grant extensions only when certain conditions are met (e.g. efforts to improve the representativeness of bargaining parties). Furthermore, for both types of extensions, the existence of a clear dispensation framework might help—as required to qualify for extensions in the Netherlands.

- *Retro-activity and ultra-activity help ensure the continuity of collectively agreed rights and obligations but are best limited to signatory parties.* In both the Netherlands and Portugal, retro-activity applies only to the signatory parties of agreements. In contrast, ultra-activity applies to signatories and non-signatories in Portugal, but only to signatory parties in the Netherlands. While there are good reasons for ensuring the continuity of agreements through retro and ultra-activity, this can become an obstacle to adjustment in severe recessions. Limiting retro- and ultra-activity to the signatory partners may reduce this potentially adverse impact, while also possibly enhancing incentives for collective bargaining.
- *Effective coordination between bargaining units and high-quality labour relations are crucial for the performance of collective bargaining systems.* In the Netherlands, labour relations tend to be consensual, marked by a comparatively high level of trust between social partners and a shared understanding of the main economic problems at hand. Collectively bargained wages tend to be effectively coordinated (both within and between employers and union confederations) and seem well aligned with macro-economic conditions. In Portugal, labour relations have been conflictual, with lower levels of trust between the social partners, and a weak coordination of collective bargaining outcomes. In contrast to the tradition of consensus building in the Netherlands, Portugal has a strong legalistic tradition (e.g. a very long and detailed Labour Code) which leaves limited scope for self-regulation by social partners at the sectoral level and may reduce their responsibility

and accountability for economic outcomes. Social partners have more frequently placed themselves in a role of opposition to government (and unions in opposition to employers, and vice versa) than in one of partnership, particularly in periods of recession. Of course, improving labour relations and cooperation is a difficult undertaking that is path dependent and for a large part beyond the direct control of policymakers. Yet, the Dutch experience suggests that the government can promote self-regulation, for example by offering both ‘carrots’ (e.g. fiscal subsidies, even greater involvement in training activities) and ‘sticks’. The latter may include the rules regarding collective agreement extensions, which can help make the content of collective agreements more inclusive.

Looking forward, both countries studied here – as well as most other countries where sectoral bargaining remains prevalent - face a number of common challenges related to the decline in union density and the emergence of new forms of work. Although union density in both countries is not relevant for the decision to grant extensions, its decline nonetheless threatens to undermine the legitimacy of collective agreements, especially in some sectors and among younger cohorts. In the Netherlands, the sharp increase in the number of independent workers – to over a million in 2015 – challenges the legitimacy of collective agreements as their interests can be at odds with those of employees. As a way to improve the representativeness of union demands, the Dutch Social and Economic Council (SER, 2013) advises also consulting non-members, including independent workers.³² Declining union density may also threaten the bargaining power of unions, thereby possibly undermining collective bargaining as well.³³

While detailed qualitative comparisons – such as those in this paper – can be useful in inspiring the directions of policy changes, concrete decisions on specific instruments should also be grounded in hard empirical research. In Portugal, accurate and reliable information is available to monitor working conditions, as well as trade union membership and (since 2010) employer association membership. These unique datasets, including a matched employer-employee panel, have been made available to researchers in different forms over the last two decades, facilitating the emergence of a large body of high-quality microeconometric research on different labour market issues. This research has been

³² This is also the approach taken by the new Dutch trade union ‘Alternative for Trade Union’ (‘Alternatief voor vakbond’, avv). In their so-called ‘support model’ of representation all stakeholders – whether members or not – can take part in (online) consultations on ongoing negotiations.

³³ In the Netherlands, the low union density is seen as one of the reasons that unions in certain non-tradable sectors have recently had to agree to less generous working conditions (van der Valk, 2015).

instrumental to create the foundations of evidence-based policy. The availability and use of similar datasets in the Netherlands and other countries could similarly lead to greater insight on the effects of different labour market institutions in various contexts, including particularly collective bargaining, leading to better policy making.

References

- Addison, J. (2015) "Collective Bargaining Systems and Macroeconomic and Microeconomic Flexibility: the Quest for Appropriate Institutional Forms in Advanced Economies", *IZA Discussion Paper No. 9587*
- Addison, J., P. Teixeira, K. Evers & L. Bellmann (2012) "Is the Erosion Thesis Overblown? Evidence from the Orientation of Uncovered Employers", *IZA Discussion Papers 6658*, Institute for the Study of Labor
- Addison, J., P. Portugal & H. Vilares (2016) "Unions and Collective Bargaining in the Wake of the Great Recession", *British Journal of Industrial Relations, forthcoming*.
- Aghion, P., Algan, Y. & Cahuc, P. (2011) "Civil society and the state: the interplay between cooperation and minimum wage regulation", *Journal of the European Economic Association*, Vol. 9, pp. 3–42
- Beer, P. de (2013) "30 jaar na Wassenaar: de Nederlandse arbeidsverhoudingen in perspectief", chapter 1 in Koninklijke Vereniging voor de Staathuishoudkunde (ed.) *Arbeidsverhoudingen onder druk*, Preditiezen 2013
- Berg, N. van den & C. van Rij (2007) *Ervaringen van werkgevers met de cao en avv*, Regioplan Beleidsonderzoek, Amsterdam, report commissioned by the Netherlands Ministry of Social Affairs and Employment
- Blanchard, O. & J. Wolfers (2000) "The role of shocks and institutions in the rise of European unemployment: the aggregate evidence", *The Economic Journal*, Vol. 110, No. 462, pp. 1–33
- Blanchard, O. & T. Philippon (2004) "The Quality of Labor Relations and Unemployment", *NBER Working Paper No. 10590*
- Blanchard, O. (2007) "Adjustment within the euro. The difficult case of Portugal", *Portuguese Economic Journal*
- Blanchard, O., F. Jaumotte & P. Loungani (2014) "Labor market policies and IMF advice in advanced economies during the Great Recession", *IZA Journal of Labor Policy*, Vol. 3, No. 2.

Butter, F. den & R. Mosch (2003) "The Dutch Miracle: Institutions, Networks and Trust", *Journal of Institutional and Theoretical Economics*, February 2003

Calmfors, L. & J. Driffill (1988) "Bargaining Structure, Corporatism and Macroeconomic Performance", *Economic Policy*, Vol. 3, No. 6, pp. 13-61.

De Ridder, M. & R. Euwals (2016) "What are the wage effects of extending collective labour agreements? Evidence from the Netherlands", *CPB Background document*, CPB Netherlands Bureau for Economic Policy Analysis, April 2016.

De Ridder, M. & R. Euwals (2017) "The economische effecten van het algemeen verbindend verklaren", *Economisch Statistische Berichten*, 29 September 2017

Dustmann, C., B. Fitzenberger, U. Schönberg & A. Spitz-Oener (2014) "From Sick Man of Europe to Economic Superstar: Germany's Resurgent Economy", *Journal of Economic Perspectives*, Vol. 28, No. 1, pp. 167-88.

Fajertag, G. & P. Pochet (2000) Social pacts in Europe - new dynamics, European Trade Union Institute, Brussels.

Fougère, D. E. Gautier & S. Roux (2016) "The Impact of the National Minimum Wage on Industry-Level Wage Bargaining in France", *CEPR Discussion Paper No. DP11234*.

Gautier, P. (2015) "Rapportage Effecten van Algemeen verbindendverklaring (Regioplan). Reactie", available at

<https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/publicaties/2016/01/28/reactie-hoogleraar-gautier/reactie-hoogleraar-gautier.pdf>

Gould, E. & A. Hijzen (2016) “Growing Apart, Losing Trust? The Impact of Inequality on Social Capital”, *IMF Working Paper No. 16/176*, Washington D.C.

Guimarães, P., F. Martins & P. Portugal (2015) “Upward nominal wage rigidity”, paper presented at DNB-IMF conference in Amsterdam, 29-30 October 2015

Grapperhaus, F. (2015) “Rapport Effecten van algemeen verbindendverklaring”, available at <https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/publicaties/2016/01/28/reactie-hoogleraar-grapperhaus/reactie-hoogleraar-grapperhaus.pdf>

Haucap, J., U. Pauly & C. Wey (2001) “Collective wage setting when wages are generally binding. An antitrust perspective”, *International Review of Law and Economics*, Vol. 21, pp. 287-307

Hartog, J., E. Leuven & C. Teulings (2002) “Wages and the bargaining regime in a corporatist setting: the Netherlands”, *European Journal of Political Economy*, Vol. 18, pp. 317-331

Hartog, J. (2015) “Reflecties op het rapport van REGIOPLAN”, available at <https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/publicaties/2016/01/28/reactie-hoogleraar-hartog/reactie-hoogleraar-hartog.pdf>

Hijzen, A. & P. Martins (2016) “No extension without representation? Evidence from a natural experiment in collective bargaining”, *International Monetary Fund WP 16/143*, Washington D.C.

Houten, G. van (2008) *Beleidsuitvoering in gelaagde stelsel. De doorwerking van aanbevelingen van de Stichting van de Arbeid in het CAO-overleg*, PhD thesis University of Utrecht

IMF (2016) “Time for a Supply-Side Boost? Macroeconomic Effects of Labor and Product Market Reforms in Advanced Economies”, chapter three of *World Economic Outlook*, April 2016

Lier, M. van & E. Zielschot (2014) “De cao: voor ieder wat wils? Deel 2 2014. Over maatwerk in arbeidsvooraarden met behulp van de cao”, AWVN (general employers’ association), Den Haag

Lorenz, E. (1999) “Trust, contract and economic cooperation”, *Cambridge Journal of Economics* Vol. 23, No. 3, pp. 301-315

Magruder, J. (2012) “High Unemployment yet Few Small Firms: The Role of Centralized Bargaining in South Africa”, *American Economic Journal: Applied Economics*, Vol., No. 3, pp. 138-166

- Marginson, P. (2014) "Coordinated bargaining in Europe: From incremental corrosion to frontal assault?", *European Journal of Industrial Relations*, Vol. 21, No. 2, pp. 97-114
- Martins, P. S. (2009) "Dismissals for Cause: The Difference That Just Eight Paragraphs Can Make", *Journal of Labor Economics*, Vol. 27, No. 2, pp. 257-279.
- Martins, P. S. (2014) "30,000 Minimum Wages: The Economic Effects of Collective Bargaining Extensions", *IZA Discussion paper No. 8540*, October 2014
- Martins, P. S. (2017) "Economic effects of overtime premium flexibility: Firm- and worker-level evidence from a law reform", *GLO Discussion Paper No. 102, July 2017*
- Martins, P. S., G. Solon & J. P. Thomas (2012) "Measuring What Employers Do about Entry Wages over the Business Cycle: A New Approach", *American Economic Journal: Macroeconomics*, Vol. 4, No. 4, pp. 36-55.
- Mevissen, J., M. de Weerd & J. Cremers (2015) *Achtergronden rapportage effecten van algemeen verbindendverklaring*, Regioplan Beleidsonderzoek, Amsterdam, report commissioned by the Netherlands Ministry of Social Affairs and Employment
- Min SZW (2016) "Bedenkingenrapportage 2015", Netherlands Ministry of Social Affairs and Employment, http://cao.minszw.nl/pdf/174/2016/174_2016_13_236899.pdf
- Molina, O. (2014) "Self-regulation and the state in industrial relations in Southern Europe: Back to the future?", *European Journal of Industrial Relations*, Vol. 20, No. 1, pp. 21-36
- Natali, D. & P. Pochet (2009) "The Evolution of Social Pacts in the EMU Era: What Type of Institutionalization?", *European Journal of Industrial Relations*, Vol. 15, No. 2, pp. 147-166
- OECD (2004) *OECD Employment Outlook*, Paris
- OECD (2006) *Boosting Jobs and Incomes. Policy lessons from the reassessing the OECD Jobs Strategy*, Paris
- Prak, M. & J. Luiten van Zanden (2013) *Nederland en het poldermodel. Sociaal-economische geschiedenis van Nederland, 1000-2000*
- Research voor Beleid (2009) "Kwaliteit representativiteitsgegevens bij AVV-verzoeken. Stand van Zaken 2008", report commissioned by the Netherlands Ministry of Social Affairs and Employment
- Royer, M. F. P. & C. M. T. van der Veldt (2010) "Dispensatie onder de loep", *Academie voor Arbeidsrecht*, October 2010

- SER (2006) "Welvaartsgroei door en voor iedereen. Thema Arbeidsverhoudingen",
Publicatienummer 8-II, Social and Economic Council of the Netherlands, 20 October 2006
- SER (2013) "Verbreding draagvlak cao-afspraken", Social and Economic Council of the Netherlands,
23 augustus 2013
- Stege, A. (2011) "Dispensatie op grond van het Toetsingskader AVV", *Tijdschrift Recht en Arbeid*,
2011, No. 1
- Traxler, F. (1995) "Farewell to Labour Market Associations? Organized versus disorganized
decentralisation as a map for industrial relations", in F Traxler & C.J. Crouch (eds.) *Organized
Industrial Relations in Europe. What future?*, pp. 3-19
- Traxler, F. (2000) "Employers and employer organisations in Europe: membership strength, density
and representativeness", *Industrial Relations Journal*, No. 4, pp. 308-316
- Traxler, F. (2003) 'Bargaining, State Regulation and the Trajectories of Industrial Relations',
European Journal of Industrial Relations, Vol. 9 No. 2, pp. 141-161
- Traxler, F., S. Blaschke & B. Kittel (2001) *National Labor Relations in Internationalized Markets: A
comparative study of institutions, change, and performance*, Oxford University Press
- Traxler, F. & B. Brandl (2012) "Collective Bargaining, Inter-Sectoral Heterogeneity and
Competitiveness: A Cross-National Comparison of Macroeconomic Performance", *British
Journal of Industrial Relations*, Vol. 50, No. 1, pp. 73-98
- Tweede Kamer (2016) report of debate on future of collective labor agreements, Parliament, meeting
year 2015-2016, number 51, 4 February 2016, available at www.overheid.nl
- Valk, P. van der (2016) "Cao onder druk? Onderzoek naar ontwikkelingen van collectieve
arbeidsverhoudingen in relatie tot de cao", De Burcht, Wetenschappelijk Bureau voor de
Vakbeweging, Amsterdam, January 2016
- Van Gyes, G. & T. Schulten (2015)(eds.) *Wage bargaining under the new European Economic
Governance*, European Trade Union Institute, Brussels
- Van Ours, J. & Bosch, G & Däubler, W. & Jimeno, J. & Koukiadis, I. & Martins, P. & Monteiro
Fernandes, A. & Veneziani, B (2016) 'Recommendations - Expert Group for the Review of
Greek Labour Market Institutions', Government of Greece and European Commission, Athens
- Visser, J. & A. Hemerijck (1998) 'Een Nederlands mirakel'. *Beleidsleren in de verzorgingsstaat*,
Amsterdam University Press [translated in 1999 as *A Dutch Miracle: Job Growth, Welfare
Reform and Corporatism in The Netherlands*]

- Visser, J. (2005) “Beneath the Surface of Stability: New and Old Modes of Governance in European Industrial Relations”, *European Journal of Industrial Relations*, Vol. 11, No. 3, pp. 287-306
- Visser, J. & M. van der Meer (2011) “The Netherlands: Social Pacts in a Concertation Economy”, in S. Avdagic, M. Rhodes & J. Visser (eds.) *Social Pacts in Europe. Emergence, Evolution and Institutionalization*, Oxford University Press
- Visser, J. (2013a) “De krimp van de collectieve arbeidsverhoudingen in Europa”, chapter 3 in Koninklijke Vereniging voor de Staathuishoudkunde (ed.) *Arbeidsverhoudingen onder druk*, Preadviezen 2013
- Visser, J. (2013b) “Wage Bargaining Institutions - from crisis to crisis”, *European Economy. Economic Papers* 488, April 2013, European Commission, Visser Brussels
- Visser, J. (2016a) “What happened to collective bargaining during the great recession?”, *IZA Journal of Labor Policy*, 2016-5:9
- Visser, J. (2016b), “Variation in Decentralisation – Articulation and Legal Structure”, mimeo
- Visser, J. (2016c), “The Extension of Collective Agreements in Four European Countries”, mimeo
- Volkerink, M., E. Berkhouw, P. Bisschop and J. van der Voort (2014) “Beweging in cao’s, een verkenning van ontwikkelingen in decentralisatie, differentiatie, duurzame inzetbaarheid en mobiliteit”, SEO Economisch Onderzoek, *SEO-rapport nr. 2014-56*

Previous DNB Working Papers in 2017

- No. 542 **Jasper de Jong, Marien Ferdinandusse and Josip Funda**, Public capital in the 21st century: As productive as ever?
- No. 543 **Martijn Boermans and Sweder van Wijnbergen**, Contingent convertible bonds: Who invests in European CoCos?
- No. 544 **Yakov Ben-Haim, Maria Demertzis and Jan Willem Van den End**, Fundamental uncertainty and unconventional monetary policy: an info-gap approach
- No. 545 **Thorsten Beck and Steven Poelhekke**, Follow the money: Does the financial sector intermediate natural resource windfalls?
- No. 546 **Lola Hernandez, Robbert-Jan 't Hoen and Juanita Raat**, Survey shortcuts? Evidence from a payment diary survey
- No. 547 **Gosse Alserda, Jaap Bikker and Fieke van der Lecq**, X-efficiency and economies of scale in pension fund administration and investment
- No. 548 **Ryan van Lamoen, Simona Mattheussens, and Martijn Dröes**, Quantitative easing and exuberance in government bond markets: Evidence from the ECB's expanded asset purchase program
- No. 549 **David-Jan Jansen and Matthias Neuenkirch**, News consumption, political preferences, and accurate views on inflation
- No. 550 **Maaike Diepstraten and Carin van der Cruijsen**, To stay or go? Consumer bank switching behaviour after government interventions
- No. 551 **Dimitris Christelis, Dimitris Georgarakos, Tullio Jappelli, Luigi Pistaferri and Maarten van Rooij**, Asymmetric consumption effects of transitory income shocks
- No. 552 **Dirk Gerritsen, Jacob Bikker and Mike Brandsen**, Bank switching and deposit rates: Evidence for crisis and non-crisis years
- No. 553 **Svetlana Borovkova, Evgeny Garmaev, Philip Lammers and Jordi Rustige**, SenSR: A sentiment-based systemic risk indicator
- No. 554 **Martijn Boermans and Rients Galema**, Pension funds' carbon footprint and investment trade-offs
- No. 555 **Dirk Broeders, Kristy Jansen and Bas Werker**, Pension fund's illiquid assets allocation under liquidity and capital constraints
- No. 556 **Dennis Bonam and Gavin Goy**, Home biased expectations and macroeconomic imbalances in a monetary union
- No. 557 **Ron Berndsen and Ronald Heijmans**, Risk indicators for financial market infrastructure: from high frequency transaction data to a traffic light signal
- No. 558 **Monique Timmermans, Ronald Heijmans and Hennie Daniels**, Cyclical patterns in risk indicators based on financial market infrastructure transaction data
- No. 559 **Dirk Bezemer, Anna Samarina and Lu Zhang**, The shift in bank credit allocation: new data and new findings
- No. 560 **Jacob Bikker and Tobias Vervliet**, Bank profitability and risk-taking under low interest rates
- No. 561 **Dirk Broeders, Arco van Oord and David Rijsbergen**, Does it pay to pay performance fees? Empirical evidence from Dutch pension funds
- No. 562 **Nikki Panjer, Leo de Haan and Jan Jacobs**, Is fiscal policy in the euro area Ricardian?
- No. 563 **Carin van der Cruijsen**, Payments data: do consumers want to keep them in a safe or turn them into gold?
- No. 564 **Gabriele Galati and Federica Teppa**, Heterogeneity in house price dynamics
- No. 565 **Dennis Bonam, Jakob de Haan and Beau Soederhuizen**, The effects of fiscal policy at the effective lower bound
- No. 566 **William Allen, Gabriele Galati, Richhild Moessner and William Nelson**, Central bank swap lines and CIP deviations
- No. 567 **Jan Willem van den End**, Applying complexity theory to interest rates: Evidence of critical transitions in the euro area
- No. 568 **Emiel van Bezooven and Jacob Bikker**, Financial structure and macroeconomic volatility: a panel data analysis
- No. 569 **Ian Koetsier and Jacob Bikker**, Herding behaviour of Dutch pension funds in sovereign bond investments

Previous DNB Working Papers in 2017 (continued)

- No. 570 **Kostas Mavromatis**, US monetary regimes and optimal monetary policy in the Euro Area
- No. 571 **Roy Verbaan, Wilko Bolt and Carin van der Cruijsen**, Using debit card payments data for nowcasting Dutch household consumption
- No. 572 **Gera Kiewiet, Iman van Lelyveld and Sweder van Wijnbergen**, Contingent convertibles: Can the market handle them?
- No. 573 **Jasper de Winter, Siem Jan Koopman, Irma Hindrayanto and Anjali Chouhan**, Modeling the business and financial cycle in a multivariate structural time series model
- No. 574 **Erik Roos Lindgreen, Milan van Schendel, Nicole Jonker, Jorieke Kloek, Lonneke de Graaff and Marc Davidson**, Evaluating the environmental impact of debit card payments
- No. 575 **Christiaan Pattipeilohy, Christina Bräuning, Jan Willem van den End and Renske Maas**, Assessing the effective stance of monetary policy: A factor-based approach



De Nederlandsche Bank N.V.
Postbus 98, 1000 AB Amsterdam
020 524 91 11
dnb.nl