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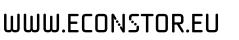
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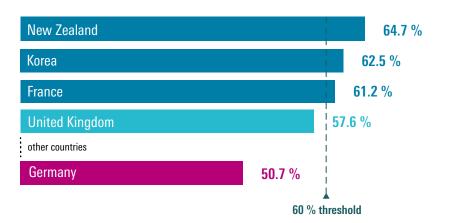
Towards a new Minimum Wage Policy in Germany and Europe

Malte Luebker and Thorsten Schulten

The past year has seen a much higher political profile for the issue of minimum wages, not only in Germany, which has seen fresh initiatives to tackle low pay, but also in those many other countries in Europe that have embarked on substantial and sustained increases in statutory minimum wages. One key benchmark in determining what should count as an adequate minimum wage is the threshold of 60% of the median wage, a ratio that has also

played a role in the European Commission's proposals for an EU-level policy on minimum wages. This year's WSI Minimum Wage Report highlights the feasibility of achieving minimum wages that meet this criterion, given the political will. And with an increase to €12 per hour planned for autumn 2022, Germany might now find itself promoted from laggard to minimum wage trailblazer.

Statutory minimum wages in relation to national wage levels Minimum wage as percentage of median wage (Kaitz Index), 2020



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1 INTRODUCTION

The issue of minimum wages is currently the focus of an almost unprecedented level of social and political interest, not only in Germany, where raising the hourly statutory minimum to €12 has become a core project for the newly-elected Federal Government, but in many other countries both in and outside of Europe. The European Commission's proposal for Directive on adequate minimum wages has played a major role in this. Should this culminate in a binding provision at European level, as seems likely (Section 2), many EU Member States would need to act. Rather than levelling the existing minimum wage rates across Europe (Section 3) or harmonising purchasing power across countries (Section 4), the Directive would establish a binding framework for national-level policies. One of the key criteria for this is the level of the minimum wage in relation to general national wage levels.

Comparative minimum wage research has proposed a dual threshold for determining whether minimum wages can be deemed adequate: either 60% of the national median wage or 50% of the average wage. Given that only few EU Member States have achieved this (Section 5), this year's WSI Minimum Wage Report looks at developments in New Zealand, Korea and the United Kingdom, all of which have succeeded in meeting this benchmark. Minimum wages in the EU have, nonetheless, seen strong growth in recent years, as documented in the WSI Minimum Wage Database¹ (Section 6). Finally, the German government's plan to raise the hourly minimum wage to €12 in 2022 will propel Germany from a long-time laggard to a trailblazer in the pursuit of decent minimum wages (Section 7).

¹ The WSI Minimum Wage Database can be accessed at <https://www.wsi.de/de/wsi-mindestlohndatenbank-international-15339.htm>. As well as an interactive map, the site offers a wealth of data in tables and graphics in German and English. Unless stated otherwise, all the statistics cited below are drawn from the database.

2 AN EU MINIMUM WAGE DIRECTIVE - FINALLY ON THE HOME STRAIGHT?

Debate over the prospects for a European-level provision on minimum wages has been underway for over three decades (Schulten, 2008). Given the great divergences in wage levels across Europe, rather than aiming to set a single minimum rate for the whole EU the focus has been on framing common criteria to guide policy at national level. Such a framework would also enact the rights to decent working conditions and fair wages already stipulated in numerous EU declarations, from the 1989 Community Charter of the Fundamental Social Rights of Workers, the Charter of Fundamental Rights of the European Union (2000) to, most recently, the European Pillar of Social Rights (2017) (Zimmer, 2019).

It was not until 2019, however, that the issue of adequate minimum wages emerged as a firm European-level political priority with the confirmation of a new European Commission under the presidency of Ursula von der Leyen. Following the publication of a consultation paper on 'possible action addressing the challenges related to fair minimum wages' in January 2020 (European Commission, 2020a: 1), and subsequent consultation with European-level trade union and employer organisations, in October 2020 the Commission released its proposal for a 'Directive on Adequate Minimum Wages in the European Union' (European Union, 2020b).

In its Explanatory Memorandum to the Directive, the European Commission noted that minimum wages were too low in most EU Member States 'to provide a decent living' (ibid.: 2). The Directive therefore aims to ensure that workers 'are protected by adequate minimum wages allowing for a decent living wherever they work' and to create 'a framework to improve the adequacy of minimum wages and to increase the access of workers to minimum wage protection' (ibid.: 2).

A fair minimum wage is understood as a level of pay that is not only sufficient for basic subsistence but also enough to enable workers to enjoy an acceptable degree of wider social participation. In determining whether a minimum wage meets this requirement, research and policy have adopted two main approaches (Schulten and Müller, 2017, 2019; Schröder, 2021). The first aims to define a minimum socially acceptable standard of living by reference to the sum ('basket') of goods and services deemed necessary for this; this is then used to identify a Living Wage, defined as the amount of money required to buy it (Anker, 2011). The goods and services that make up the basket, the different household types for which it is calculated, and what social provisions are included, will vary considerably depending on the cultural norms and expectations of different social systems. Although it is theoretically possible to construct a 'European Living Wage' based on a harmonised basket of

goods (Guzi, 2021), in practice this would be likely to collide with national-level understandings and calculations of such minima.

The second approach is based on the relationship between the earnings of low-wage workers and those of the wider workforce, as expressed in the Kaitz index (see also Section 5). A given minimum wage will be seen as adequate provided it does not fall below a defined percentage of the median or average wage. The European Commission's draft Directive on adequate minimum wages evidently leans towards this second approach. It calls on Member States to set clear criteria and to 'use indicative reference values to guide their assessment of adequacy of statutory minimum wages in relation to the general level of gross wages, such as those commonly used at international level' (European Commission, 2020b, Article 5, Para. 3). In the recitals to the draft law, the Commission expands on this and states that 'indicators commonly used at international level, such as 60% of the gross median wage and 50% of the gross average wage, can help guide the assessment of minimum wage adequacy in relation to the gross level of wages' (ibid.: 20).

The overarching aim of the Commission's proposal is to consolidate, strengthen and raise minimum wages in the European Union. In this respect, it marks a radical departure from the policy adopted during the financial and eurozone crisis of 2008, during which the European Commission pressed Member States to freeze or even reduce minimum wages (Schulten, 2021; Schulten and Müller, 2021). Given this background, the publication of the draft Directive has, unsurprisingly, generated considerable controversy along three overlapping fault lines (ibid: 13f). The first of these is the familiar conflict between capital and labour: while the vast majority of European trade unions support the Commission's initiative, the employer side has rejected it outright. The second fault line runs between national governments that currently represent the classic political camps: while economically liberal administrations, as in Austria and the Netherlands, and right-wing populist governments in Poland and Hungary have rejected the initiative, left-leaning administrations, such as Spain and Portugal, are amongst its strongest supporters. Finally, a third fault line runs between national minimum wage regimes. Countries that do not have a statutory minimum wage and regulate pay, including minimum wage levels, exclusively through collective bargaining have tended to view the proposal with some scepticism. This is especially true of Denmark and Sweden, where opposition to the Directive not only comes from their characteristically Nordic social democratic governments but also their trade unions, which view it as a threat to their established

model of minimum wage regulation based on collective bargaining. The exception is Finland: although the country does not have a statutory minimum wage, both its government and trade unions have supported the proposed Directive.

All three lines of conflict are mirrored in the differences that have emerged within the institutions of the European Union. In November 2021, the European Parliament adopted its own draft Directive on adequate and fair minimum wages that went beyond the European Commission's proposal in some respects (European Parliament, 2021; Müller and Schulten, 2021). For example, the European Parliament's decision to highlight the 'internationally recognised level of 60% of the gross median wage and 50% of the gross average wage', as expressed in the Kaitz index, gave a much higher profile to this indicator. And in contrast to the Commission's proposal, where these are only referenced in the recitals to the Directive, the European Parliament draft includes these in its enacting provisions. The Parliament's draft also stipulates that national governments should assess the adequacy of minimum wages by taking into consideration an appropriate basket of goods and services. The introduction of such a Living Wage perspective, to be ascertained in line with national standards, represents a response to the criticism that even where a minimum wage exceeds 60% of the median, this is not necessarily sufficient to provide for a decent standard of living, especially in countries in which large sections of the population are low paid and where the median wage is consequently also very low.

In contrast to the broad support for the Directive in the European Parliament, there was resistance from several national governments when it went before the European Council. This was reflected in the Council's concluding position, which proposed giving national governments greater scope for flexibility when transposing the Directive's requirements (Council of the European Union, 2021) and included a downgrading of the status of the criteria for assessing the adequacy of a minimum wage (60% of the median and 50% of the average wage) which were merely listed alongside other possible benchmarks.

'Trilogue' negotiations between the Council, the Commission and the Parliament to arrive at a compromise acceptable to both the Council and Parliament began in January 2022, with the eventual adoption of a Directive on adequate minimum wages seen as highly probable. The fact that the Presidency of the Council in the first half of 2022 is held by France, whose government is a strong supporter of the proposal and which holds presidential elections in spring 2022, suggests a strong political interest in bringing the negotiations to a swift conclusion. The new German coalition government has also welcomed the Directive (SPD et al., 2021: 69f). The key issue for European-level negotiations is how specific and binding any criteria of adequacy should be. Regardless of what the Directive ultimately stipulates, however, one indisputable outcome is that the Kaitz index is now seen within European policy circles, and beyond, as a key indicator of such adequacy, in turn setting a benchmark for minimum wage policies at national level (see also Schröder, 2021).

3 MINIMUM WAGES IN EUROS, 1 JANUARY 2022

Minimum wage levels have always varied greatly across the European Union. As of 1st January 2022, they ranged from €2.00 per hour in Bulgaria to €13.05 in Luxembourg (Figure 1). The highest minimum wages are in the Western European Member States. In addition to Luxembourg, this includes the Netherlands (€10.58), France (€10.57), Ireland (€10.50) and Belgium (€10.25). Germany (€9.82) does not appear until sixth place, but will move to a mid-table position from 1 July 2022 when the rate rises to €10.45.² Should the German minimum wage increase further to €12.00 from 1 October 2022, as planned by the new Federal Government (BMAS, 2022; see also Bispinck, 2022), Germany will have the second-highest hourly minimum wage rate in the European Union after Luxembourg.

In contrast to this leading group, mid-table minimum wages are spread widely across both eastern and southern Europe. The hourly rate in Slovenia (€6.21) is higher than in Spain (€6.06), for example, and the rate in Lithuania (€4.47) exceeds that in Portugal (€4.25). The Estonian minimum wage (€3.86) is also now higher than that in Greece (€3.83). Only the very foot of the table is occupied exclusively by central and eastern European countries, such as Hungary (€3.21), Romania (€3.10) and Latvia (€2.96).

The picture is similar for European countries outside the EU. The UK's National Living Wage for employees aged 23 and above, currently £8.91 (equivalent to €10.37), puts it in line with other Western European countries. This is set to rise to £9.50 (€11.05) from 1 April 2022. Minimum wages are much lower in the non-EU Balkan states of Serbia (€2.31), North Macedonia (€2.08) and Albania (€1.50), as well as, in eastern Europe, Ukraine (€1.21), Russia (€0.92) and Moldova (€0.83). In Russia, regional minimum wages exist alongside the national minimum wage and are typically considerably higher, especially in large urban centres such as Moscow (€1.42) and St. Petersburg (€1.43). For Turkey (€2.44), it should be noted that the figures in the WSI Minimum Wage Database have been converted from national currencies into euros at the average exchange rate for the preceding year. In contrast to using the exchange rate prevailing on a particular day, this has the advantage of smoothing out short-term fluctuations. For countries with higher inflation rates, this can inflate the current value of the minimum wage in euro terms, however. For example, based on the ECB reference exchange rate for early January 2022, the Turkish hourly minimum wage is just €1.70.³

Outside Europe, Australia (€12.91) and New Zealand (€11.96) stand out for their comparatively high minimum wages. In Canada (€9.67), minimum wages for most employees are set at province and territory level: the figure in the WSI Minimum Wage Database is a weighted average of these rates. Since late-2021, the federal government has made use of its powers to set a minimum wage and this currently stands at CA\$15.00 (€10.12), albeit applying to only a small number of employees in federally regulated industries and workplaces, such as banks, the postal service and air transport (ESDC Canada, 2019).⁴

In the United States, by contrast, there is a system of competing minimum wages. Congress establishes a federal minimum wage that applies to all employees nationally. The fact that this has not changed since being set at US\$7.25 in 2009 (\notin 6.13) has led to minimum wage rates set at state and municipal levels acquiring greater significance. In all, 30 states and the District of Columbia have established their own minimum wages, ranging from US\$8.42 (\notin 7.12) in Minnesota to US\$15.20 (\notin 12.85) in Washington DC.

Minimum wages are also set at province level in Japan, with the figure of \notin 7.16 in the WSI Minimum Wage Database an average of these. In contrast, in Korea (\notin 6.76) a national minimum wage is set by the Minimum Wage Commission. Minimum wages are much lower in the two Latin American emerging economies of Argentina (\notin 1.42) and Brazil (\notin 0.86). In the latter, state governments may establish higher rates and this power has been used in the more heavily industrialised areas of the south-east of the country.

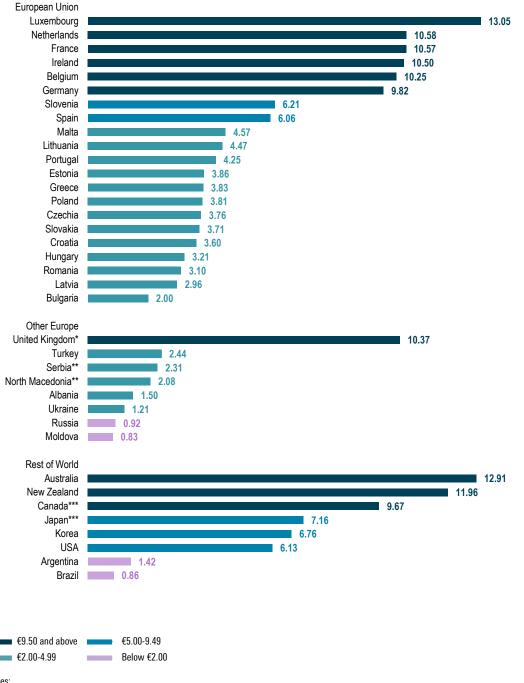
² The Dutch minimum wage is adjusted twice annually.

³ On 3 January 2022, the ECB stated a reference rate of 15.077 Lira per euro.

⁴ Employees in federally regulated industries and workplaces are paid the higher of either the federal rate or the province/territory rate. At some 67,000 the number of employees working on hourly wage rates below CS\$15.00 is small (ESDC Canada, 2019: 4).

Statutory minimum wages, as at 1 January 2022

in € per hour



Notes:

* National Living Wage for employees aged 23 and above (age limit reduced from 25 years in 2021)

** Estimated, as the minimum wage is specified as a net wage.

**** Weighted average of regional minimum wages; in some instances, adjustments take place during the course of the year

Source: WSI Minimum Wage Database 2022

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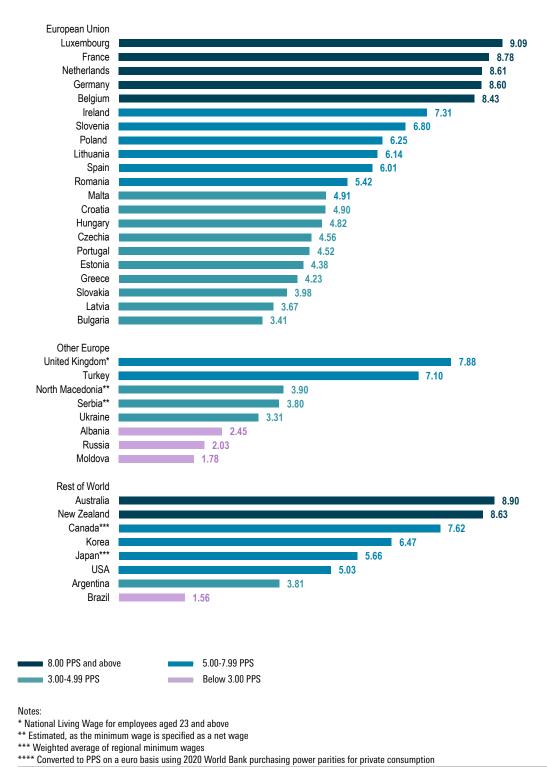
4 MINIMUM WAGES IN PURCHASING POWER TERMS, 1 JANUARY 2022

Converting minimum wages rates into euros at current exchange rates leaves out of account the substantial variations in price levels between countries. This also applies within the eurozone, with employees in Luxembourg needing to spend €1.50 for everyday good and services that cost just €0.67 in Lithuania, based on the average EU-27 price level of €1.00. These figures can be derived from the purchasing power parities calculated by Eurostat (2022) for 2020, although this source includes only a few non-EU countries. The World Bank also publishes calculations of purchasing power standards for virtually every country in the world. As a consequence, the WSI Minimum Wage Database uses the World Bank data when converting minimum wages into purchasing power standards, stating them in terms of euros (PPS).⁵

Adjusting for living costs narrows the range of nominal minimum wage rates, although substantial differences remain (Figure 2). Within the EU, Luxembourg remains the front runner (PPS 9.09), with Bulgaria (PPS 3.41) continuing to bring up the rear. Using PPSs does, however, lead to some rearrangement of the ranking. In particular, eastern European countries, such as Poland (PPS 6.25) and Lithuania (PPS 6.14), benefit from their comparatively low price levels, putting their minimum wages - calculated in PPS terms - in the middle of the table of EU minimum wages. A reverse effect can be seen for southern European countries such as Portugal (PPS 4.52) and Greece (PPS 4.23) where low minimum wages coincide with relatively high living costs, pushing these countries into the bottom third of the table after adjusting for relative price levels.

The low minimum wages in non-EU eastern European countries fare better when expressed in PPS terms. This applies, for example, for Serbia (PPS 3.80), Ukraine (PPS 3.31) and Russia (PPS 2.03). In two countries, Turkey and Argentina, the World Bank data for 2020 exclude the effects of subsequent very high rates of inflation, so that the PPS rates of PPS 7.10 for Turkey and PPS 3.81 for Argentina overestimate the current equivalent value of their minimum wages. Two anomalies in the figures cannot be explained by statistical effects, however: Japan (PPS 5.66) and the US (PPS 5.03). Conversions using market exchange rates reveal how extremely low their minimum wages are. Taking their high living costs into account only serves to accentuate the gulf between them and other industrialised countries.

⁵ The conversion from PPS in US dollar terms to PPS in euro terms is based on Eurostat's PPS conversion rate between the United States and the EU (US\$1.441 per €1).



Purchasing power of statutory minimum wages, as at 1 January 2022 In PPS**** (€ basis) per hour

Source: WSI Minimum Wage Database 2022

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5 THE KAITZ INDEX AS A BROAD MEASURE OF MINIMUM WAGE ADEQUACY

The EU-level minimum wage initiative has also drawn attention to a further comparative indicator: the relative level of minimum wages in relation to national pay levels, as expressed by the Kaitz index. This does have some limitations, however. Should the general level of wages fall - for example due to an economic crisis - the Kaitz index will rise even if the minimum wage is unchanged. Where such short-term fluctuations occur, it is therefore important to establish whether these are due to changes in the numerator (minimum wage) or the denominator (average or median wage). The general wage level is also an unsuitable benchmark where most employees live in absolute poverty. This is still the case in many less-developed countries, and in these circumstances the goods basket model is a more suitable indicator. With these provisos, the Kaitz index can still serve as a useful yardstick for situating minimum wages in relation to the broader wage distribution for countries in the European Union (Schulten and Lübker, 2020: 122)

Figure 3 illustrates the Kaitz index using data from the OECD, with the minimum wage in relation either to the median wage (Figure 3a) or the average wage (Figure 3b). The added line indicates the two customary international reference values: either 60% of the median or 50% of the average (cf. Figure 2). Currently, minimum wages reach this dual threshold in only a few EU Member States. Based on the median wage, the 60%-criterion is met only in Bulgaria (65.9%), Portugal (65.9%) and France (61.2%); Slovenia (58.8%) falls just short (Figure 3a). In terms of the average wage, the 50%-threshold is only currently – nearly – met in France (49.4%), Slovenia (49.2%) and Croatia (48.5%) (Figure 3b).

For many EU Member States, minimum wages still lag considerably behind the indicators cited by the European Commission (2020b: 20). For Western Europe, where the benchmark of 60% of the median wage has become the relevant standard, this applies, for example, to Belgium (44.1%), the Netherlands (46.7%) and Germany (50.7%) (Figure 3a). In Eastern Europe, in respect of which the additional criterion of 50% of the average wage has been introduced, there is a substantial gap between this threshold and the minimum wage in Hungary (34.8%), Latvia (35.5%) and Czechia (37.9%). Some 25 million employees in the EU would benefit were minimum wages raised to the level of these indicators (Lübker and Schulten, 2021: 134), in some cases necessitating very substantial increases (ibid.: 137).

The cases of three countries outside the European Union suggest that substantial and sustained increases in minimum wages to meet these criteria are feasible. Both New Zealand and Korea achieved both indicators in 2020 according to the OECD, with the United Kingdom only just falling short (Figure 3).⁶ Minimum wages in all three countries were much lower at the turn of the century, with the Kaitz indices in 2000 at 40.9% in the United Kingdom and 28.8% in Korea – below even the lowest ratios seen in the EU today (Figure 4).⁷ Although these countries embarked on the path towards higher minimum wages at different times, common to all three was the adoption of a strategic approach based on an explicit political decision.

In the United Kingdom, the National Living Wage was introduced in 2016 by the Conservative government under the then-Prime Minister David Cameron. The administration gave the Low Pay Commission (2021: 3) the remit to recommend increases that would raise the minimum wage to 60% of the median wage for employees aged 25 and over by 2020. This target was then increased to two-thirds of the median by 2024 (Low Pay Commission, 2020). In New Zealand, by contrast, the largest increases to the minimum wage were made by successive Labour administrations (1998-2008, and from 2017) but rises in real terms also continued in the intervening period (Maré and Hyslop, 2021: 2). In Korea, Moon Jae-in ran for the presidency on a promise to raise the hourly minimum wage to 10,000 Won by 2020 (equivalent to €7.39). Although this has not yet been achieved, the Korean Minimum Wage Commission decided to undertake substantial increases in the first two years of his presidency, totalling 29.1%.8

The neoclassical economic literature has long argued that minimum wage increases of this order would inevitably lead to serious job losses (see Neumark and Wascher, 1992). None of these anticipated negative effects have come about in any of the three countries, however. In the United Kingdom, a study by Cribb et al. (2021) covering the period 2016-2019 found no significant employment effects as a result of the National Living Wage. For New Zealand, Maré and Hyslop (2021) also found no clear evidence of employment losses.

⁶ According to calculation by the British Low Pay Commission (2021: 80) that differ slightly from this, the 60% threshold was reached in 2020.

⁷ Unless otherwise indicated, all figures for the Kaitz index are based on OECD calculations.

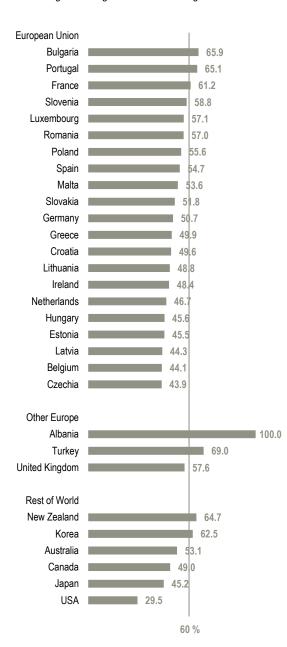
⁸ In contrast to its German counterpart, the Korean Minimum Pay Commission is composed of one third trade union representatives, one third employer representatives, and one thirds representatives of the public interest (Taimjun, 2011).

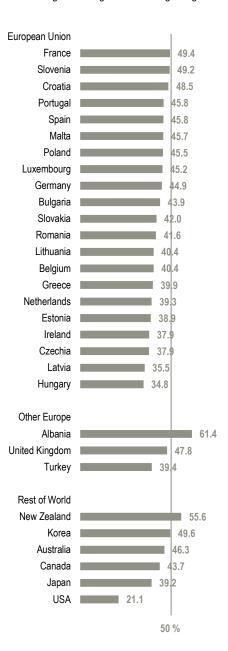
Baek and Park (2016) came to the same conclusion for Korea based on establishment data. These findings also fit with more recent minimum wage research that has taken account of the asymmetrical negotiating power of low-paid workers and the productivity effects of minimum wage increases (see Dube, 2019; Manning, 2021). For Germany too, based on a simulation analysis, Krebs and Dechsel-Grau (2021) found no significant employment effects would follow from implementing the proposed increase in the minimum wage to €12.00.

Figure 3

Relative value of the minimum wage (Kaitz index, 2020) In per cent

a) Minimum wage as %-tage of the median wage



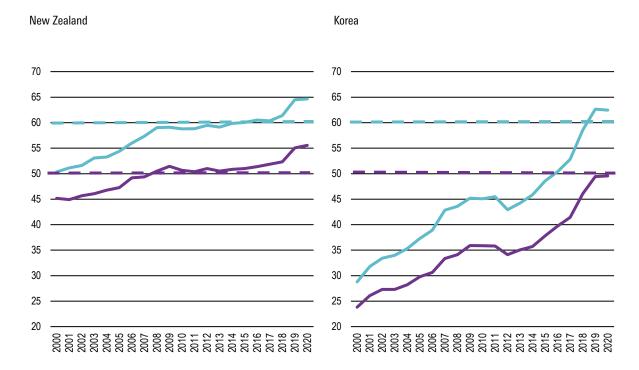


b) Minimum wage as %-tage of the average wage

Notes: the OECD calculates the Kaitz index on the basis of the median and average wage of full-time employees No data was available for the following countries: Argentina, Brazil, Moldova, North Macedonia, Moldova, Russian Federation, Serbia and Ukraine All values are rounded. Data for Bulgaria is for 2018; data for Croatia in Figure 3a is for 2019

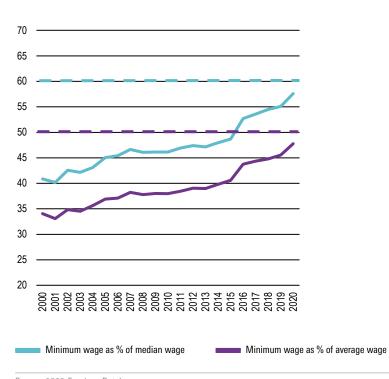
Source: OECD Earnings Database, supplemented by Eurostat and European Commission (2020b) for Bulgaria, Croatia and Albania

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Minimum wage developments in relation to the general wage level, 2000-2020

United Kingdom



Source: OECD Earnings Database

6 CURRENT DEVELOPMENTS: INFLATION DAMPENS REAL MINIMUM WAGE GROWTH

Minimum wages have tended to grow strongly in the European Union in recent years. The median rate of growth from 2017 to 2020 was 5-6% in nominal terms and 2.9-4.5% in real terms (Figure 5). And while the average rate of increase across the EU fell to 3.1% in 2021 under the impact of the COVID-19 pandemic (Lübker and Schulten, 2021; Aumayr-Pintar and Vacas-Soriano, 2021), there was a recovery to 4.0% in 2022. High inflation, driven primarily by strongly rising energy prices, has meant that the real increase was a mere 1.4%, however (Vacas-Soriano and Kostolny, 2022).

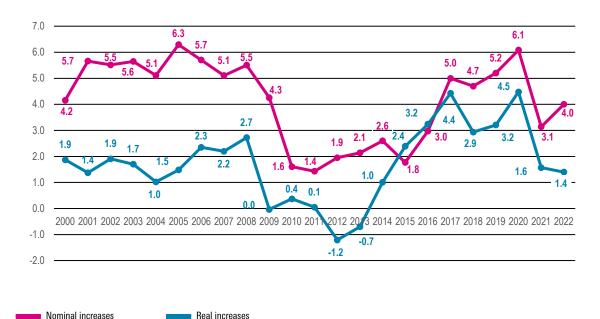
There are very significant differences between individual countries within this overall pattern. In Eastern Europe, in particular, minimum wages as of 1 January 2022 are substantial higher than a year earlier (Table 1). The field is led by Hungary where minimum wages rose by 24.2% overall, which includes a smaller increase from 1 February 2021 and a further rise from the start of 2022.⁹

There have also been double-digit increases in Lithuania (13.7%), Estonia¹⁰ and Romania (both with 10.9%), and Croatia (10.3%). After correcting for inflation, rates of increase in these countries range from 6.2% to 18%. These high rates of increase have, however, been applied to minimum wages that remain considerably below the Western European average (see Section 3). In Hungary and the Baltic states, minimum wages also remain low in relation to prevailing national wage levels (see Section 5).

In Germany (3.4%) and the other Western European countries, there were more moderate minimum wage increases running at between 2.4% (Netherlands) and 4.0% (Belgium) compared to the previous year's level. Given rising consumer prices, this led to widespread stagnation in real values, ranging from a small real decline in Luxembourg (-0.9%) to a small real increase in France (+1.0%). In Spain, the annual increase in the mini-

Figure 5





Note: the figures indicate the median of national rates of increase of Member States of the EU (as at 1 January 2021 – that is, excluding the United Kingdom). Real rates of increases are based on adjusting national rates by the Harmonised Index of Consumer Prices (HICP).

⁹ This yields a year-on-year rise of 19.5% compared with 1 February 2021 (see also Vacas-Soriano and Kostolny, 2022).

¹⁰ In Estonia, the minimum wage is expressed in both hourly and monthly terms. The increase noted here is for the hourly rate; in contrast, the monthly rate rose by 12.0% from €584 to €654 on 1 January 2022.

mum wage was not agreed until February 2022 but applied from 1 January. Combined with an interim increase made in September 2021, the year-on-year increase totals 5.3% in nominal terms. In Bulgaria, the next increase is not due, as usual, from the start of the year but from 1 April 2022 (+9.2%, not shown in Table 1). This is due to the formation of a new government that did not take office until

Table 1

Nominal and real changes in statutory minimum wages, 2022

Change as of 1 January 2022, relative to 1 January 2021 and 1 January 2015 (in per cent)

	Change since 1 January 2021		Change since 1 January 2015		Most recent change
	nominal	real	nominal	real	
European Union					
Hungary	24.2	18.0	90.4	59.8	01.01.2022
Lithuania	13.7	8.7	145.6	113.6	01.01.2022
Estonia	10.9	6.2	65.0	43.7	01.01.2022
Romania	10.9	6.5	161.5	127.9	01.01.2022
Croatia	10.3	7.4	54.7	46.6	01.01.2022
Poland	7.5	2.1	72.0	51.5	01.01.2022
Czechia	6.5	3.1	75.3	52.0	01.01.2022
Portugal	6.0	5.0	39.6	32.9	01.01.2022
Spain	5.3	2.2	54.2	44.9	01.01.2022
Slovenia	4.9	2.8	36.2	28.3	01.01.2022
Belgium	4.0	0.8	12.6	0.2	01.01.2022
Slovakia	3.6	0.8	70.2	53.1	01.01.2022
Germany	3.4	0.1	15.5	5.1	01.01.2022
France	3.1	1.0	10.0	2.1	01.01.2022
Ireland	2.9	0.6	21.4	17.2	01.01.2022
Luxembourg	2.5	-0.9	17.4	7.0	01.10.2021
Netherlands	2.4	-0.4	14.8	4.2	01.01.2022
Greece	2.0	1.4	13.1	12.3	01.01.2022
Malta	1.0	0.3	10.0	1.5	01.01.2022
Latvia	0.0	-3.1	39.0	23.7	01.01.2021
Bulgaria	0.0	-2.8	88.5	74.3	01.01.2021
Other Europe					
Turkey	39.9	17.0	292.9	69.4	01.01.2022
Serbia**	9.4	5.1	64.6	40.7	01.01.2022
Russian Federation	8.6	2.5	132.9	54.3	01.01.2022
Ukraine	8.3	-1.1	433.7	104.4	01.01.2022
Albania	6.7	4.7	45.5	29.1	01.01.2022
United Kingdom*	2.2	0.0	37.1	23.4	01.04.2021
North Macedonia**	1.7	-1.6	76.2	59.4	01.04.2021
Moldova	0.0	-2.9	77.9	23.4	01.05.2020
Rest of World					
Argentina	55.4	3.0	578.5	-23.6	01.10.2021
Brazil	10.2	2.3	53.4	4.6	01.01.2022
New Zealand	5.8	2.8	40.4	26.3	01.04.2021
Korea	5.0	2.8	64.2	51.3	01.01.2022
Canada***	3.6	0.4	35.6	20.1	01.01.2022
Japan***	3.1	3.3	19.2	16.4	01.01.2022
Australia	2.5	0.0	20.5	7.4	01.07.2021
USA	0.0	-4.1	0.0	-12.3	24.07.2009

* National Living Wage for employees aged 23 and above

** Estimated as the minimum wage I specified in net terms

*** Weighted average of regional minimum wages: in some instances, more than one adjustment each year.

Note: Real changes in minimum wages are nominal changes adjusted for national movements in consumer prices.

Source: WSI Minimum Wage Database 2022

mid-December 2021. Following a substantial rise in 2021, Latvia also did not raise its minimum wage rate at the start of 2022.

A comparison of current minimum wage rates with those in effect on 1 January 2015 allows a longer-term perspective on how minimum wages have developed in the recent past. One notable aspect is the sustained increases seen in eastern Europe. Over this period, minimum wages have risen by more than 40% in real terms in nine eastern European countries, and over 50% in seven (Table 1). There has also been a recent acceleration in rates of increase in southern Europe. While minimum wages in Spain and Portugal were the target of enormous political pressure from the Troika (European Commission, European Central Bank, International Monetary Fund) during the euro crisis, the second half of the 2010s has seen a profound shift away from austerity policies that was led by left-leaning national governments, with a radical change in their approach to minimum wages (Molina, 2021). In both countries, the upshot has been above-average minimum wage increases.

In Spain, the minimum wage has risen by 44.9% in real terms since 2015, increasing by 22.3% in 2019 alone (see Schulten and Lübker, 2019: 139). This has led to a substantial rise in the value of the minimum wage when compared with the median, lifting the Kaitz index from 37.1% in 2015 to 54.7% in 2022 (see Figure 3a). By the end of the current legislative period in 2023, the Spanish government aims at increasing the minimum wage to 60% of the average wage. Despite forecasts to the contrary, this fundamental and sustained revaluation of the minimum wage has, as yet, had only very minor labour market impacts (Barceló et al., 2021). The Portuguese government has also embarked on a policy of sustained increases to the minimum wage, raising it by 32.9% in real terms since 2015. At 65.1%, the Kaitz index in Portugal is the highest in Europe (Figure 3), although this is in part attributable to the very low general level of wages (Donn, 2021).

Germany has become seriously detached from the mainstream of minimum wage developments in Europe and now occupies the lower reaches of the rankings. Since its introduction in 2015 at a rate of €8.50, the German minimum wage has risen by only 15.5% over seven years to its current level of €9.82, a cumulative increase of only 5.1% in real terms, implying a real increase over that period of less than 1% each year. By contrast, 2022 promises to bring much more substantial increases, beginning with a rise to €10.45 from 1 July 2022 (+6.4%), as agreed by the Minimum Wage Commission, followed by a further rise to €12.00 from 1 October 2022 (+14.8%) (BMAS, 2022). Even allowing for inflation, these upcoming increases represent a structural shift in the value of the minimum wage that brings it close to the benchmark of 60% of the median wage (Weinkopf and Kalina, 2020). Despite

fears to the contrary, detailed modelling has shown that increases to the minimum wage have only minimal effects on inflation (Dullien et al., 2022).

Women, who constitute the majority of minimum-wage earners in nearly all EU Member States, are amongst the main beneficiaries of increases to minimum wages (Vacas-Sorianos, 2021). This is also the case in Germany, where women are twice as likely as men to work for wages below €12.00 per hour. Working on fixed-term contracts or parttime employment represents an additional risk of being low-waged (Lübker, 2021). The planned increases in the minimum wage will deliver substantial pay rises for employees in those low-wage sectors, such as retail and hospitality, in which women predominate (Dullien et al., 2022) and where collective bargaining coverage has fallen markedly since 2000 (Ellguth and Kohaut, 2021). By contrast, the planned increases in the minimum wage will have a much lower impact on employees in workplaces subject to a collective agreement, given their generally higher wage levels (Pusch, 2021). Higher minimum wages will, however, reduce outsider competition for firms outside the scope of collective bargaining agreements, indirectly helping to stabilise collective bargaining coverage (see also Bispinck et al., 2020; for a dissenting view refer to Bach and Schröder, 2021).

Outside the European Union, the most eye-catching increases have been in Turkey (nominal +39.9% compared with the previous year) and Argentina (+55.4%), both of which are attributable to high inflation. Caveats also apply to the inflation-adjusted growth rates, given the challenges in constructing reliable consumer price indices in both countries. For the United Kingdom (+2.2%), the overview above has already noted the very moderate increase from 1 April 2021 due to the economic uncertainties caused by the Covid-19 pandemic. A larger increase (+6.6%, not included in Table 1) is scheduled for 1 April 2022.

In the United States, a fresh initiative to raise the federal minimum wage failed in 2021. Under the proposed Raise the Wage Act, introduced by the independent Senator Bernie Sanders and a number of Congressional Democrats in January 2021, the Federal minimum wage was to have risen from its current hourly level of €7.25 to €15.00 in five annual steps, and would have subsequently been indexed to future average wage increases. According to the Congressional Budget Office (2021), some 17 million workers would have benefited directly; the number of people living in poverty would have consequently fallen by around 1 million. As with a previous initiative under President Barack Obama, the initiative failed again due to the resistance from Republican Senators. The Federal minimum wage has not been increased since June 2009 and since then has lost around a fifth of its purchasing power (not shown in Table 1). Since 2015 alone, the real fall in purchasing power has been 12.3% (Table 1).

7 PROSPECTS: FROM LAGGARD TO TRAILBLAZER -GERMANY'S PATH TO ADEQUATE MINIMUM WAGES

In most European countries – as with many countries elsewhere in the world – minimum wages rose more strongly at the start of 2022 than in the previous year when they were held back by the COV-ID-19 crisis (Vacas-Soriano and Kostolny, 2022). This recovery comes against a backdrop of rising inflation, which has an especially severe impact on the lower-paid. However, it is also continuation of the long-term trend of substantial and sustained increases in minimum wage rates initiated by many national governments aimed at bringing about a historic upward shift in their value.

This policy is driven by the recognition that, even for full-time employees, current minimum wages in many countries are not sufficient to provide for a culturally acceptable minimum standard of living. Calls for an adequate level of minimum wages have also drawn on the idea of a Living Wage that aims to allow recipients in full-time employment to participate fully and independently in social life. Experience in countries such as the United Kingdom, New Zealand, Korea, and Spain has demonstrated that such a change is possible where it is made a political priority. In none of these instances have there been any significant negative effects on the labour market.

In proposing the Directive on adequate minimum wages in the European Union, the European Commission has taken up a leadership role in this new approach to minimum wages in Europe. And by drawing on the indicators of '60% of the median wage' and '50% of the average wage', it has secured a place for these established international standards in future European policy discourse. Regardless of whether these indicators will ultimately have a mandatory status in the Directive, it will be impossible to ignore them as a benchmark for national-level minimum wage policies (Schulten and Müller, 2022).

In Germany too, the planned rise in the minimum wage to €12.00 from 1 October 2022 - a major structural shift in the value of the minimum - is wholly in line with the international trend. In its Explanatory Memorandum to the draft legislation¹¹ proposing the increase, the Federal Ministry of Labour and Social Affairs expressly referenced the European minimum wage initiative and the 'threshold value of 60% of the gross median wage that has been recognised by international minimum wage research on establishing an adequate minimum wage' (BMAS, 2022: 6) [authors' translation]. It would, therefore, be consistent not only for this legislation to raise the minimum wage as intended, but also to extend the list of criteria that the Commission is statutorily obliged to consider when recommending adjustments. Such a step would strengthen the mandate of the Minimum Wage Commission and expand its decision-making scope in the future. More specifically, the new criterion should be the threshold of 60% of the median wage, as now being considered at European level. This proposal was already made in a joint position paper prepared in early-2021 by Hubertus Heil and Olaf Scholz, then in charge of the Federal Ministries of Labour and Finance, respectively (BMAS/BMF, 2021). Translating this into actual legislation would also show that the current German government is committed to a long-term path for establishing and maintaining an adequate level of minimum wage - a step that would transform Germany from a laggard to trailblazer in the pursuit of decent minimum wages in Europe.

¹¹ Mindestlohnerhöhungsgesetz [Minimum Wage Uprating Act].

REFERENCES

Anker, R. (2011): Estimating a Living Wage: A Methodological Review, Geneva

Aumayr-Pintar, C./ Vacas-Soriano, C. (2021): Minimum Wages in 2021: Annual Review, Luxembourg, https://www.eurofound.europa.eu/ sites/default/files/ef_publication/ field_ef_document/ef21015en.pdf

Bach, H./ Schröder, C. (2021): Sprung auf 12 Euro Mindestlohn: Einschränkung der Tarifautonomie und gewagtes Wirtschaftsexperiment, in: Wirtschaftsdienst 101 (12), 936-939

Baek, J./ Park, W. (2016): Minimum Wage Introduction and Employment: Evidence from South Korea', Economics Letters, 139 (2016), 18-21

Barceló, C./ Izquierdo, M./ Lacuesta, A./ Puente, S./ Regil, A./ Villanueva, E. (2021): Los Efectos del Salario Minimo Interprofesional en el Empleo: Nueva Evidencia para Espana, Banco de Espana: Documentos Ocasionales No. 2113, Madrid

Bispinck, R. (2022): 12 Euro Mindestlohn: Wer profitiert, was bleibt zu tun? Gegenblende, 24.01.2022, https://gegenblende.dgb.de/artikel/++co++18ee41ba-7cf6-11ec-a8ca-001a4a160123

Bispinck, R./ Dribbusch, H./ Kestermann, C./ Lesch, H./ Lübker, M./ Schneider, H./ Schröder, C./ Schulten, T./ Vogel, S. (2020): Entwicklung des Tarifgeschehens vor und nach Einführung des gesetzlichen Mindestlohns, Studie im Auftrag des Bundesministeriums für Arbeit und Soziales (BMAS): BMAS Forschungsbericht Nr. 562, Berlin

BMAS (Bundesministerium für Arbeit und Soziales) (2022): Referentenentwurf eines Gesetzes zur Erhöhung des Schutzes durch den gesetzlichen Mindestlohn (Mindestlohnerhöhungsgesetz – Mi-LoEG), Berlin, January 2022, http://portal-sozialpolitik.de/uploads/ sopo/pdf/2022/2022-01-21_MiLoEG_ Referentenentwurf.pdf

BMAS / BMF (Bundesministerium der

Finanzen) (2021): Fairer Mindestlohn – Starke Sozialpartnerschaft. Eckpunkte zur Weiterentwicklung des Mindestlohns und Stärkung der Tarifbindung, 5. March 2021, https:// www.bmas.de/SharedDocs/Downloads/DE/Arbeitsrecht/fairer-mindestlohn.html **Congressional Budget Office (2021)**: The Budgetary Effects of the Raise the Wage Act of 2021, Washington, DC

Council of the European Union (2021): Proposal for a Directive of the European Parliament and of the Council on a framework for adequate minimum wages in the European Union – General Approach, Note from the Permanent Representatives Committee, Document no. 14366/21 https://data. consilium.europa.eu/doc/document/ ST-14366-2021-INIT/en/pdf

Cribb, J./ Giupponi, G./ Joyce, R./ Lindner, A./ Waters, T./ Wernham, T./ Xu, X. (2021): The Distributional and Employment Impacts of Nationwide Minimum Wage Changes, Institute for Fiscal Studies: IFS Working Paper No. W21/48, London

Donn, N. (2021): Portugal "transforming into country of minimum wages", Portugal Resident 09.11.2921, https://www.portugalresident.com/ portugal-transforming-into-country-of-minimum-wages/

Dube, A. (2019): Impacts of Minimum Wages: Review of the International Evidence, Report commissioned by the UK Government

Dullien, S./ Herzog-Stein, A./ Lübker, M./ Pusch, T./ Theobald, T. (2022): Mindestlohnerhöhung auf 12 Euro beeinflusst Inflation kaum. Makroökonomische Simulationsstudie mit dem Ni-GEM-Modell, Institut für Makroökonomie und Konjunkturforschung der Hans-Böckler-Stiftung: IMK Policy Brief Nr. 116, Düsseldorf

Ellguth, P./ Kohaut, S. (2021): Tarifbindung und betriebliche Interessenvertretung: Ergebnisse aus dem IAB-Betriebspanel 2020, in: WSI-Mitteilungen 74 (4), 306-314, https://www. wsi.de/de/wsi-mitteilungen-tarifbindung-betriebliche-interessenvertretung-iab-betriebspanel-2020-34506. htm

ESDC Canada (2019): Federal Minimum Wage. Issues Paper prepared by the Secretariat to the Expert Panel on Modern Federal Labour Standards, Ottawa

European Commission (2020a): First phase consultation of Social Partners under Article 154 TFEU on a possible action addressing the challenges related to fair minimum wages, C (2020) 83 final, Brussels, 14.01.2020 **European Commission (2020b)**: Proposal for a Directive of the European Parliament and of the Council on adequate minimum wages in the European Union, COM(2020) 682 final, Brussels, 28.10.2020

European Parliament (2021): Report on the proposal for a directive of the European Parliament and of the Council on the adequate minimum wages in the European Union, (COM(2020)0682), Plenary Sitting, A9-0325/2021, 18.11.21. https:// www.europarl.europa.eu/doceo/ document/A-9-2021-0325_DE.pdf

Eurostat (2022): Vergleichende Preisniveaus, Datencode: TEC00120, Luxembourg, https://ec.europa.eu/eurostat/ databrowser/view/tec00120/default/ table?lang=de

Guzi, M. (2021): Cost of Living, Living Wages, and Minimum Wages in EU-27 countries, Study for the Left in the European Parliament, Bratislava, https://left.eu/content/uploads/2021/07/Study-EN_020621.pdf

Krebs, T./ Drechsel-Grau, M. (2021): Mindestlohn von 12 Euro: Auswirkungen auf Beschäftigung, Wachstum und öffentliche Finanzen, Institut für Makroökonomie und Konjunkturforschung der Hans-Böckler-Stiftung: IMK Study Nr. 73, Düsseldorf

Low Pay Commission (2020): 'Low Pay Commission Welcomes New Remit from Government', press release, 11 March 2020

Low Pay Commission (2021): The National Minimum Wage in 2021. Uprating Report April 2021, London

Lübker, M. (2021): Wer profitiert von 12 Euro Mindestlohn? Einblicke aus der WSI-Lohnspiegel-Datenbank, WSI Policy Brief No. 59, Düsseldorf.

Lübker, M. and Schulten, T. (2021): WSI Minimum Wage Report 2021. Is Europe en route to adequate minimum wages?, WSI Report No. 63e, Düsseldorf

Manning, A. (2021): The Elusive Employment Effect of the Minimum Wage, in: Journal of Economic Perspectives 35 (1), 3–26

Maré, D. C./ Hyslop, D. (2021): Minimum Wages in New Zealand: Policy and practice in the 21st century, Institute of Labor Economics: IZA Discussion Paper No. 14302, Bonn Molina, 0. (2021): Minimum Wages in Southern Europe, in: Dingeldey, I./ Grimshaw, D./ Schulten, T. (Hrsg.): Minimum Wage Regimes. Statutory Regulation, Collective Bargaining and Adequate Levels, London, pp. 64-86

Müller, T./ Schulten, T. (2021): More Ambitious European Minimum-Wages Directive Demanded, Social Europe Column, 26.11.2021, https://socialeurope.eu/more-ambitious-european-minimum-wages-directive-demanded

Neumark, D./ Wascher, W. (1992): Employment Effects of Minimum and Subminimum Wages: Panel Data on State Minimum Wage Laws, in: ILR Review 46 (1), 55-81

Pusch, T. (2021): 12 Euro Mindestlohn: Deutliche Lohnsteigerungen vor allem bei nicht tarifgebundenen Beschäftigten, Wirtschafts- und Sozialwissenschaftliches Institut der Hans-Böckler-Stiftung: WSI Policy Brief No. 62, Düsseldorf

Schröder, C. (2021): Brauchen wir einen europäischen Mindestlohn? Eine Kritik am Richtlinienentwurf der EU-Kommission über angemessene Mindestlöhne', IW-Policy Paper Nr. 25/2021, Cologne.

Schulten, T. (2008): 'Towards a European Minimum Wage Policy? Fair Wages and Social Europe', European Journal of Industrial Relations, 14 (4), 421–439.

Schulten, T. (2021): 'Soziales Europa – geht da doch was? Der Richtlinienvorschlag über angemessene Mindestlöhne als Chance für eine arbeitspolitische Neuausrichtung der EU', in Aulenbacher, B., Deppe, F., Dörre, K., Ehlscheid, C. and Pickshaus, K. (eds), Mosaiklinke Zukunftspfade, Münster, pp. 399-406.

Schulten, T. and Lübker, M. (2019):

'WSI-Mindestlohnbericht 2019: Zeit für kräftige Lohnzuwächse und eine europäische Mindestlohnpolitik', WSI-Mitteilungen, 72 (2), 133-141, https://www.wsi.de/data/wsimit_2019_02_luebker.pdf

Schulten, T./ Lübker, M. (2020):

WSI-Mindestlohnbericht 2020: Europäische Mindestlohninitiative vor dem Durchbruch?, in: WSI-Mitteilungen 73 (2), 119–129, https://www.wsi. de/data/wsimit_2020_02_luebker.pdf

Schulten, T./ Müller, T. (2017): Living Wages – normative und ökonomische Gründe für einen angemessenen Mindestlohn, in: WSI-Mitteilungen 70 (7), 507–514, https://www.wsi.de/ data/wsimit_2017_07_schulten.pdf

Schulten, T./ Müller, T. (2019): What's in a Name? From Minimum Wages to Living Wages in Europe, in: Transfer – European Review of Labour and Research 25 (3), 267–284

Schulten, T./ Müller, T. (2021): A Paradigm Shift Towards Social Europe? The Proposed Directive on Adequate Minimum Wages in the European Union, in: Italian Labour Law E-Journal 14 (1), S. 1-19, https://illej.unibo.it/ article/view/13368/12951 Schulten, T./ Müller, T. (2022): Angemessene Mindestlöhne in Deutschland und Europa, in: Sozialismus 49 (1), 14-17

SPD, Bündnis 90/Die Grünen und FDP (2021): Mehr Fortschritt wagen. Bündnis für Freiheit, Gerechtigkeit und Nachhaltigkeit, Koalitionsvertrag, https:// www.tagesschau.de/koalitionsvertrag-147.pdf

Taimyun, J. (2011): The Minimum Wage System in Korea: An Introductory Guide, Seoul

Vacas-Soriano, C. (2021): Minimum Wage – Yet Another Gender Divide? Dublin, http://eurofound.link/ef21084

Vacas-Soriano, C./ Kostolny, J. (2022):

Minimum Wages in 2022: Bigger Hikes this Time Around, Dublin, https://www.eurofound.europa.eu/ publications/article/2022/minimumwages-in-2022-bigger-hikes-thistime-around

Weinkopf, C./ Kalina, T. (2020): Der gesetzliche Mindestlohn und Arbeitnehmerschutz, Studie im Auftrag des Bundesministeriums für Arbeit und Soziales: BMAS-Forschungsbericht Nr. 561, Berlin

Zimmer, R. (2019): Living Wages in International and European Law, in: Transfer – European Review of Labour and Research 25 (3), 285-299

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