LSE Public Policy Review

Wage Controversies: Real Wage Stagnation, Inequality and Labour Market Institutions

RESEARCH

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LSE Press

ABSTRACT

Weak real wage growth, low wage work and higher wage inequality than the past are features of contemporary labour markets the world over. Longstanding wage controversies in economics are of relevance to them. This paper studies what has happened to wages in the British labour market over the past sixty years, connecting the observed trends to some of these wage controversies. The focus is on the role of labour market institutions for wage inequality, real wage stagnation and shifting wage norms. Given that UK real wages have stagnated for the longest duration of the past two centuries, and inequality remains high, the paper concludes with discussion of where inclusive real wage growth can come from to boost workers' living standards as it did in the past.

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KEYWORDS:
Wage controversies; Real wages; Labour market institutions; Employer and worker power

JEL classifications: J31; J38; J42; J51

TO CITE THIS ARTICLE:
Machin, S. Wage Controversies: Real Wage Stagnation, Inequality and Labour Market Institutions. *LSE Public Policy Review*. 2024; 3(2): 2, pp. 1–17. DOI: https://doi.org/10.31389/lseppr.103

LSE Public Policy Review
DOI: 10.31389/lseppr.103

1. INTRODUCTION

Weak real wage growth, low wage work and a more unequal wage distribution have become staple features of contemporary labour markets the world over. Some longstanding wage controversies in economics are of high relevance to them. The British labour market has been no exception, and over the past sixty years for which consistently defined wage data exist, has been characterised both by long periods of rising real wages that more recently have ceased as real wages have stagnated, and by rising inequality as wage gaps between higher and lower paid individuals have moved to permanently higher levels than the 1960s and 1970s. At the same time, the role of labour market institutions in affecting wages has dramatically shifted, and the nature of work has changed.

Wage controversies feature as first order economic questions in economics from a long way back. There are many, too many to mention and do justice to, but some examples will suffice to make the point on their relevance for today's labour market. Adam Smith wrote about wage differentials arising from the division of labour and the way in which work is organised [1]. He introduced the theory of compensating wage differentials where jobs with less desirable characteristics are compensated with higher wages compared to popular, more desirable jobs. And that wage differentials will emerge from specialization of the labour force into distinct types of work.

There has been widespread application of marginal productivity theory to wage determination in competitive models of labour markets (see the initial neoclassical exposition in Clark [2]). Here, profit maximising employers pay workers according to what they produce as the firm pays a wage commensurate with the additional output they can generate. Deviations from the competitive model have also featured prominently. In imperfect competition models, either firms or workers (or both) have power to influence wages, and so outcomes deviate from the wage equalling marginal productivity condition [3]. The sources of market power can arise from product market power of firms or trade unions, where firms or unions function as monopolies, enabling wages to be paid above marginal products (e.g. from union bargaining power or from rent sharing between employers and workers). Or where firms have market power over workers because there are limited employment options for workers, from monopsony or buyer power of firms in sparse labour markets (see Hicks' [4], 'rate of exploitation' where employer power enables payment of wages below marginal products). A critical aspect shaping wage differentials has been the role played by labour market institutions, like unions, minimum wages and factors that confer bargaining power on firms or workers.

All of these wage controversies speak to and have relevance for contemporary labour markets. However, their importance for wages and wage inequality very clearly has shifted through time. Along with them, so has the role of labour market institutions. In this paper, the plan is to focus upon this, and to study their relevance in the context of the low growth and stagnation of real wages that has characterised the UK labour market for the past two decades, together with the higher levels of wage inequality that now characterise the labour market. And with an end goal of discussing scenarios about where real wage growth that could act to boost workers' living standards can come from.

The paper is structured as follows. Section 2 shows the evolution of real wages and wage inequality in the labour market over the past sixty years. Section 3 discusses these trends in light of wage controversy questions about the role of labour market institutions in affecting wages and their distribution. It assesses their relevance to what has happened in the labour market over time, and how the economy has reached the now persistent stagnation of real wages characterising the past fifteen years. The argument is then made that this need not have to be a new wage norm for the economy that deviates from what had characterised the half century prior to the onset of stagnation. Rather a discussion is offered about where real wage growth, also aiming to be inclusive as equally distributed across workers, could come from both in terms of policy options and improving productivity. Section 4 concludes.

2. TRENDS IN REAL WAGES AND WAGE INEQUALITY

This section of the paper focusses on describing trends in real wages and wage inequality over the past sixty years in Britain. There have been dramatic shifts, with quite different evolutions taking place over this time.

DOI: 10.31389/lseppr.103

REAL WAGES

Figure 1 shows annual real weekly earnings from 1963 to 2023. The bigger part of these sixty years saw real wages growing. But in the latter part, the last fifteen years broadly since the global financial crisis that hit in 2007/8, real wages stopped growing and stagnated. One way of thinking about this is the wage norm that prevailed before, in the sense of a norm that economic agents become used to and expect to operate, where real wages grew as nominal wages went up faster than prices, ceased to function in the labour market.[1] Over what has now become an extended period – the longest in history since consistent wage records exist – the norm appears to have shifted to one of no real wage growth in the labour market.

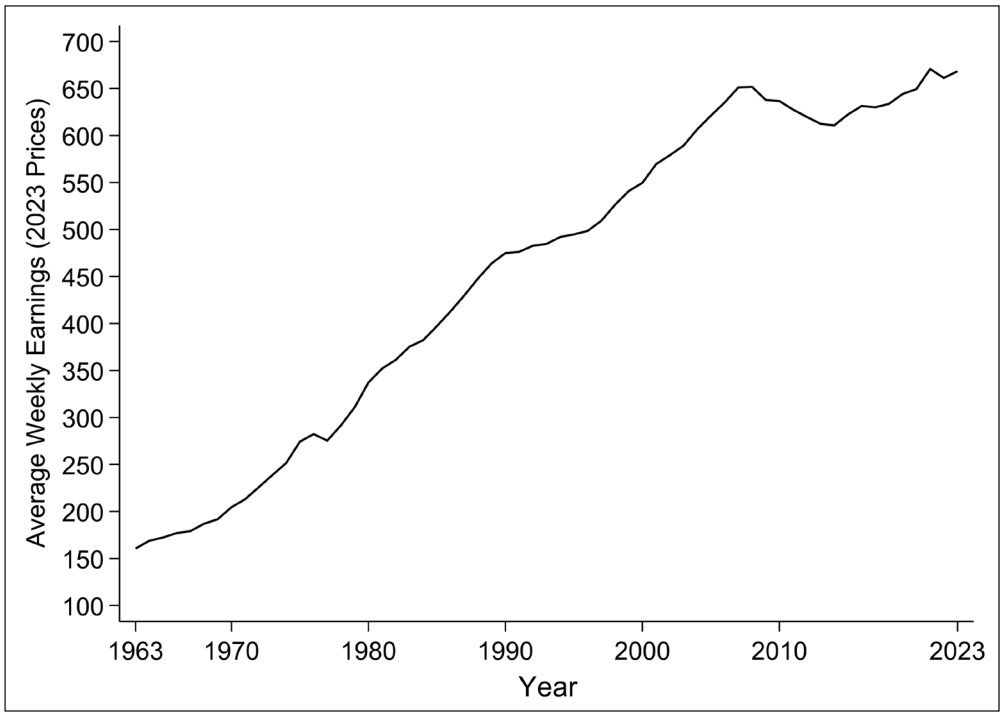

Figure 1 Average Real Wages, Great Britain, 1963–2023.

Notes: Real average weekly earnings for the whole economy, total pay, Great Britain seasonally adjusted, expressed in 2023 prices (CPIH deflator) from ONS.

The Figure shows in 2023, the average weekly wage of £668 was 4.2 times higher than the 1963 wage expressed in current prices of £161. This corresponds to an annual growth rate over the entire period of 3.1 percent. Expressed this way, the labour market appears as delivering real wage growth to workers over time, so that wages grow faster than prices, leading to improved living standards for workers. The growth rate, however, was not smooth or uniform across years as the flattening out of the wage line in the latter years shows.

Figure 2 recasts the levels numbers in Figure 1 into annual real wage growth from 1964 to 2023. The top of the chart highlights the uneven pattern of growth in decade by decade numbers, and the line shows the progressive movement over time to lower and lower levels of real wage growth. In the 1960s, 1970s, 1980s, real wage growth was healthy at 3.0, 5.5 and 4.4 percent a year. The 1990s sees this slow down to 1.6 percent, and to a similar 1.7 percent in the 2000s. But after that, the 2010s and early 2020s show stagnation as real wages display no growth.

Thus, the scope for earnings to deliver improvements in living standards for British workers has deteriorated over time. In the past fifteen years or so, it has reached a zenith point, where real wage growth has stalled for the longest period for which comparable records exist, dating back to Victorian times in the late nineteenth century.[2]

It took a long time for the relevant agencies to clock this. Bank of England and Office for Budget Responsibility forecasts proved woeful from the earlier years when real wages started

1 In this sense a wage growth norm along the lines of the arguments in Mitchell [5] who considers shifting norms in wage determination in the US, building on the concepts introduced by Perry [6] where wage expectations and targets change alter in periods of differing economic outlooks. Thus forming reference points around which economic agents behave for periods of time.

2 The Trades Union Congress dates it back even further, referring to the "worst pay squeeze since the Napoleonic wars (1798–1822)" [7].

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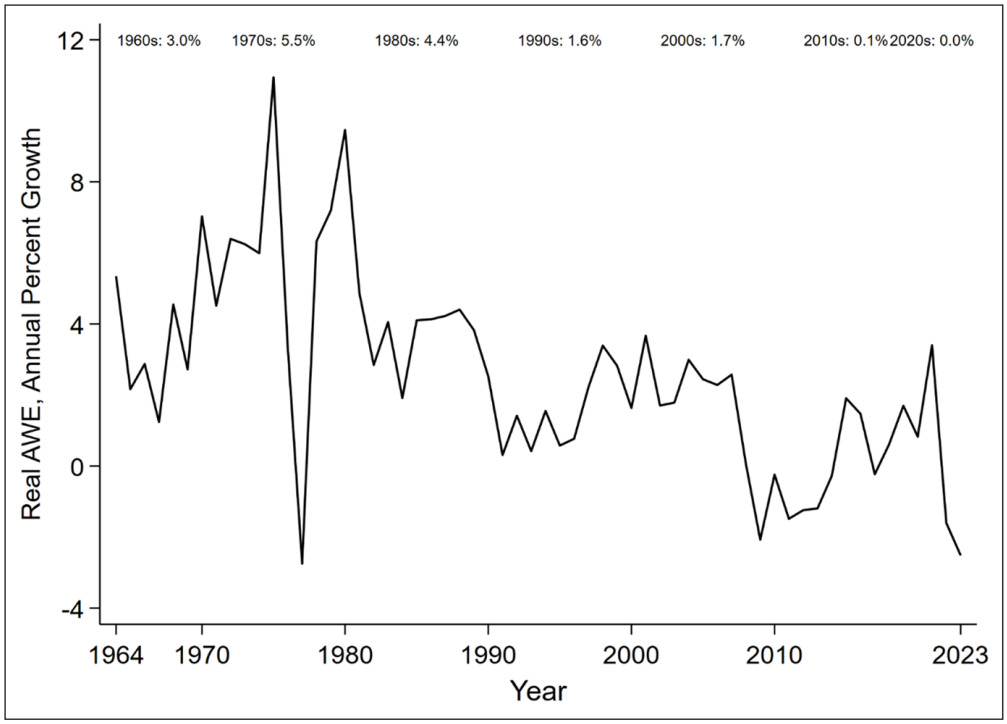


Figure 2 Real Wage Growth, Great Britain, 1964–2023.

Notes: Annual growth rates, calculated from average real weekly earnings series shown in Figure 1.

to stagnate – throughout the 2010s both kept on producing forecasts of positive real wage growth, none of which were realised. Evidently the models used to produce the forecasts were not up to date with the relevant labour market developments.

Breaking real wage growth down into its two constituent parts – nominal wage growth (average weekly earnings, AWE) and growth in prices (consumer price inflation, CPIH) is useful for understanding what has been happening, and this also produces clear differences over time. Figure 3 shows that in the past money wage growth consistently outstripped growth in prices. This was true in low and high inflation periods. And so, living standards rose. But more recently, this has not occurred. Money wage growth has not grown any faster than inflation, both in the relatively low inflation years in the 2010s, and also in the higher inflation cost of living crisis years after Covid.

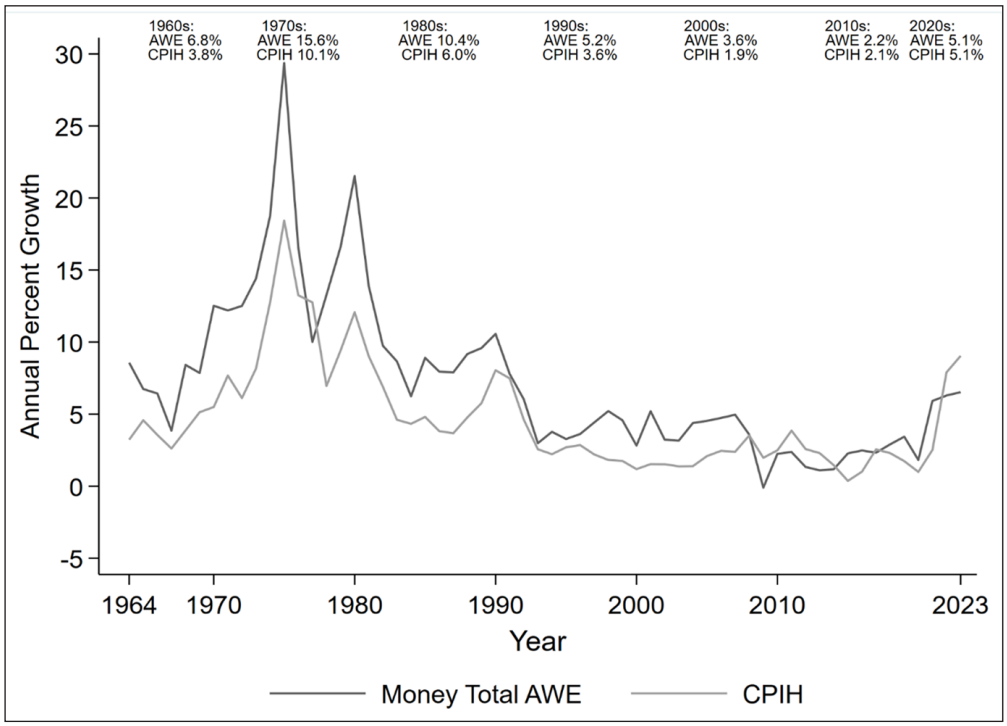


Figure 3 Money Wages and CPIH Growth, 1964 to 2023.

Notes: Average weekly earnings for the whole economy (AWE), total pay, Great Britain seasonally adjusted. CPIH deflator from ONS.

DOI: 10.31389/lseppr.103

WAGE INEQUALITY

What about the distribution of wages around the average? This distribution has become more unequal in the recent past, as those workers higher up the distribution have done better in terms of labour market rewards than those lower down. Put differently, wage growth has been different at different points in the distribution and varied over time around the averages shown in Figures 1 to 3. A by now enormous literature has studied the question of rising labour market inequality, in many contexts and settings (to get a flavour of this work, and some of its progression through time, see the review pieces by Katz and Autor [8], or Acemoglu and Autor [9]).

Figure 4 shows patterns of real wage growth at three percentile points of the wage distribution from 1980 to 2019, the start year being a year from which consistent microdata can be defined so as to look at wages at the individual level across the whole economy, and the end year stopping in 2019 because of comparability and reliability of such data in the Covid pandemic period and after. The three lines on the chart shows real wages indexed to 1 in 1980 between 1980 and 2019, respectively for the 90th percentile worker (located 10 percent from the top of the distribution), the 50th percentile, median, worker (located exactly in the middle of the distribution) and the 10th percentile worker (located 10 percent from the bottom of the distribution). The top of the chart shows inequality measures in 1980, 1990, 2000, 2010 and 2019, featuring the overall inequality metric – the 90-10 ratio – and upper and lower tail inequality measures – respectively the 90-50 and 50-10 ratios. Figure 5 more fully draws out the decade by decade differences, visualising quite different evolutions in each.

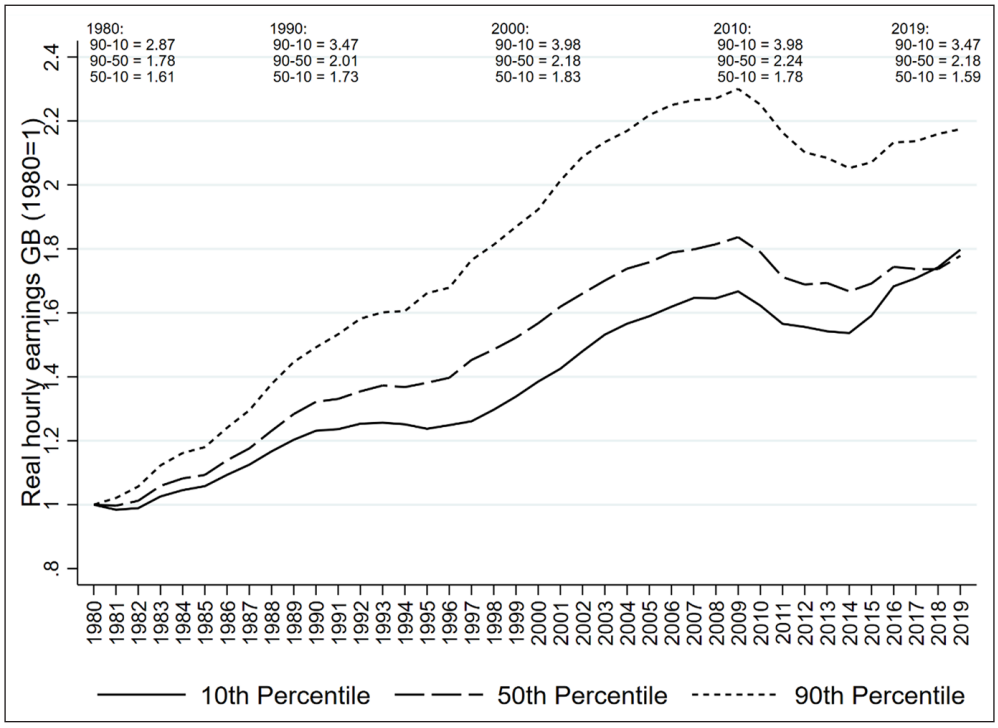


Figure 4 Wage Inequality, 1980 to 2019.

Notes: Real hourly earnings from New Earnings Survey/ Annual Survey of Hours and Earnings, as used in Giupponi and Machin [22].

Looking at Figures 4 and 5 together is instructive for better understanding what has happened to wage inequality in the forty year period between 1980 and 2019. Consider first overall inequality. In 2019 the 90th percentile worker earned 3.47 times as much as the 10th percentile worker, which is higher compared to the start year level in 1980 of 2.87. But this forty year change masks a different evolution over time, with the 90-10 rising very rapidly in the 1980s, going from the 1980 2.87 level up to 3.47 in 1990, going up again to 3.98 by 2000, remaining at this much higher level to 2010, and then falling from there in the 2010s, pulling back to 3.47 by 2019.

The upper and lower tail changes are very different. Both rose in the 1980s which was the decade where wage inequality rose at all points of the distribution which fanned out to become wider overall, and in the top and bottom halves. In that decade real wages grew faster at the 90th percentile compared to the 50th percentile which in turn grew faster than the 10th

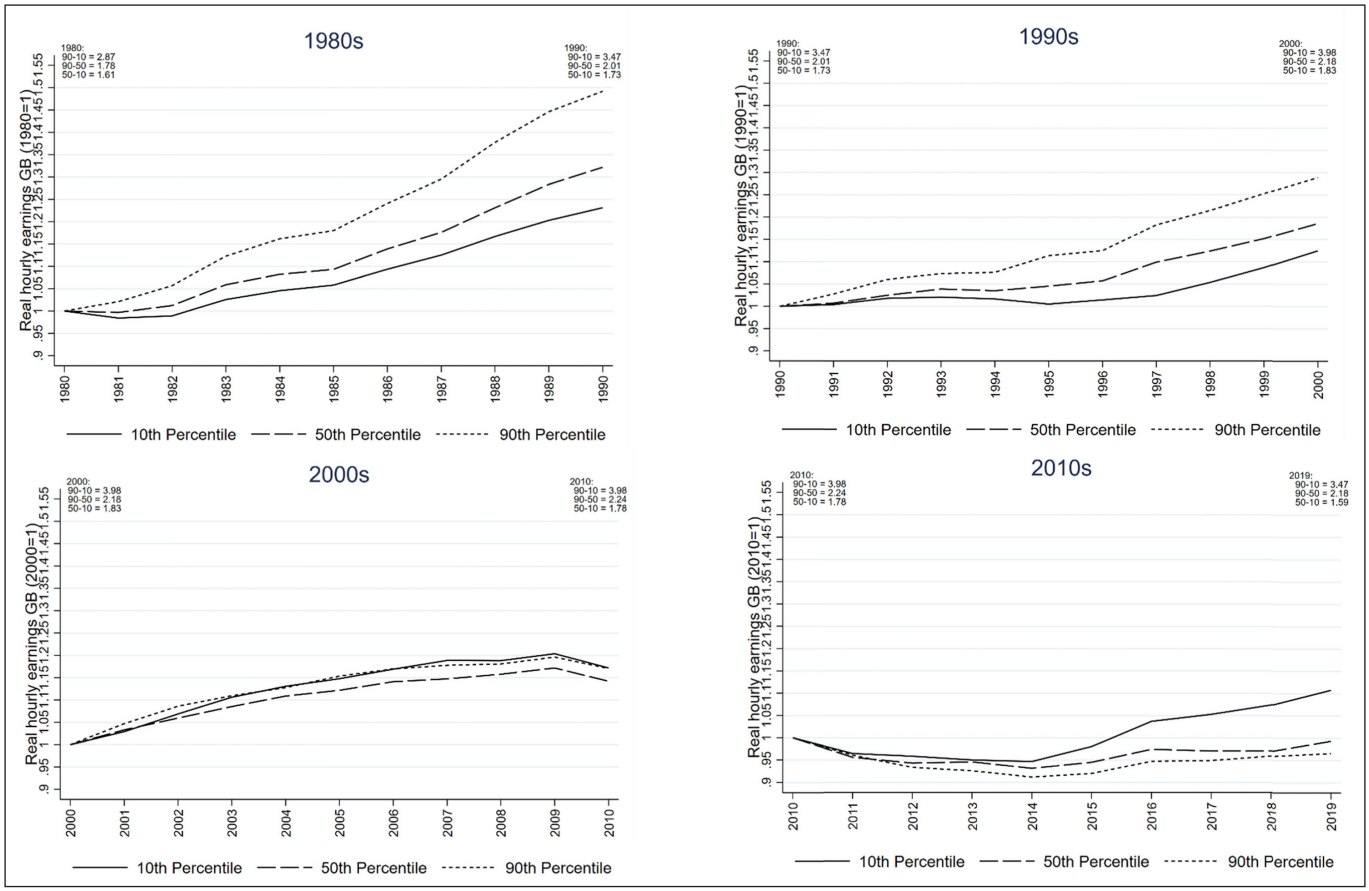


Figure 5 Wage Inequality by Decade, 1980 to 2019.

Notes: As for Figure 4.

percentile. This translated into a rise in the 90-50 ratio from 1.78 to 2.01, and the 50–10 from 1.61 to 1.73.

The 1990s saw a continuation of these trends, but with a slower increase, as the 90–50 moved up to 2.18 and the 50-10 rose to 1.83 by 1999. After this though the patterns diverge. Upper tail inequality continues to rise, moving up to 2.24 by 2010 and pulling back a little to 2.18 by 2019. Lower tail inequality shifts are dramatic, as the 50-10 drops to 1.78 by 2010, before returning back to 1.59 by 2019, a little bit lower than its 1980 level. Thus, the entire 1980–1999 increase in lower tail inequality was fully reversed by 2019.

These are revealing patterns, and much more nuanced than often discussed. It is true, as is often stated in a blanket way, that wage inequality is higher now than it was in the past. But the evolution within the distribution is complicated and uneven. And it connects closely to the patterns of real wage growth that have occurred over time.

Moreover, the labour market now is different to what it was forty years ago. One key aspect of this is the role played by and impact of labour market institutions. This in turn is strongly linked to the relative power that employers and workers have in wage setting. Worker/employer power and labour market institutions have featured in some of the wage controversies featured in the earlier discussion, and the next section of the paper evaluates the wage shifts described here in light of these.

3. WAGE CONTROVERSIES

The evolving connected patterns of real wage growth and wage inequality are discussed in this section in light of wage controversies in economics which are highly pertinent. Three are considered, on labour market institutions – specifically two on minimum wages and unions – and one related to these on the changing balance of power between employers and workers in the labour market. Each is shown to have relevance to what has been going on in terms of wage evolutions through time. Then, in light of these, the section ends with a discussion of where real wage growth, and *ergo* improvements in living standards, might come from in the coming years.

DOI: 10.31389/lseppr.103

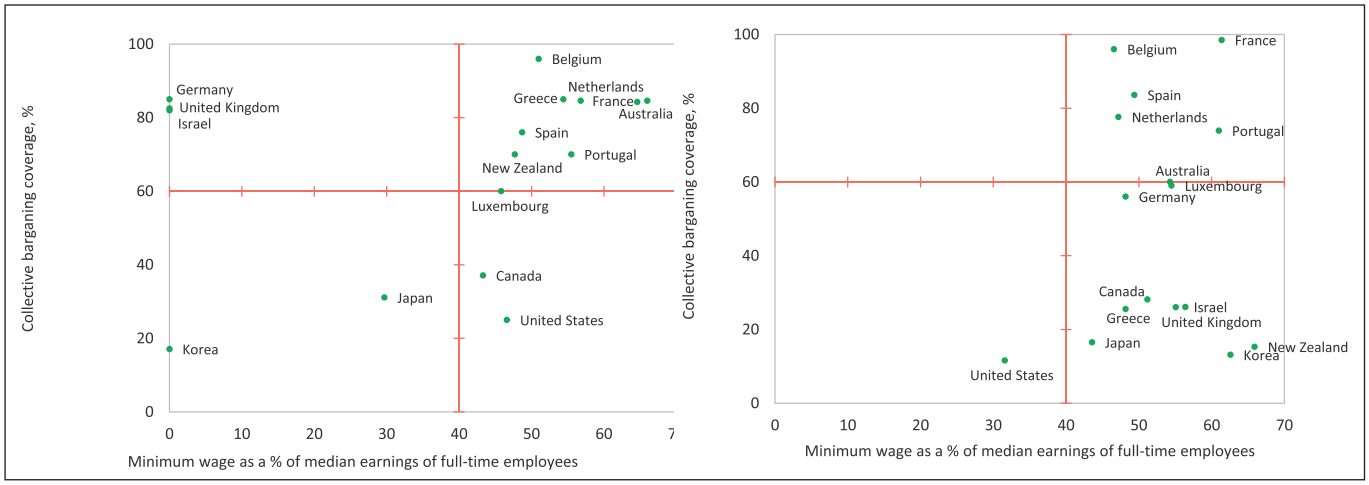
LABOUR MARKET INSTITUTIONS

In many countries, and especially markedly in Britain, the role played by labour market institutions has shifted over time. Figure 6 uses OECD data to show this between 1980 and 2019. It shows two charts, one for each year, which plots cross-country unionisation rates measured as the extent of collective bargaining against the bite of minimum wages defined as the ratio of minimum to median wages. In 1980 Britain was a relatively high union, low minimum wage country, appearing in the north-west quadrant of the chart, with only Germany and Israel to keep it company there.[3] Most European countries then featured in the north-east high union, high minimum wage quadrant. The United Sates features in the south-east quadrant, as a low union, low minimum wage country.

By 2019, things had changed a lot. Britain had by then moved into the south-east quadrant that had by then been vacated by the US. The National Minimum Wage, that was introduced to the labour market in April 1999, and which had been uprated at a fast growth rate after then, placed Britain as a high minimum wage country. At the same time, the huge fissuring of unionisation rates that took place from 1980, placed it in the low union category. Note in passing, that the US – the country on whom most of the research on the impact of labour market institutions on wages and wage inequality has been undertaken – is an international outlier, in that it is the only low union, low minimum wage country by 2019 located in the south west quadrant by itself among the sixteen countries in the Figure.

Figure 6 Labour Market Institutions, 1980 to 2019.

Notes: The figure shows percent collective bargaining coverage and the minimum wage as a percentage of median earnings of full-time employees across OECD countries in 1980 and 2019. Countries that did not have a national minimum wage in place in 1980 are reported in panel A as having a minimum as a percentage of the median equal to zero (Germany, Israel, Korea and the UK). Source: OECD.



Thus, in the time period where real wage growth and inequality altered significantly, so too did the institutions profile of the British labour market. Controversies exist over the connection between these. This is the question that is next considered, first for minimum wages, then for unions, and thirdly for the balance of power between employers and workers in the workplace.

MINIMUM WAGES

The economic effects of minimum wages have been a controversial area over the years, with much of that being pinned to the questions of whether minimum wage floors negatively impact on employment or not.[4] Much of this work thinks, and sets up research designs to empirically evaluate the question, in a two stage process. The first stage studies whether, and to what extent, minimum wage raises boost the wages of low wage workers. Conditional on this being

3 Both the UK and Germany are classified as non-minimum wage countries. To be a little more precise, they had no mandated national minimum wage in 1980 – there were Wages Councils which set industry specific minima for a small number of industries (about 10 percent of employment) then [10] and Germany did have collective bargaining minima also by industry back then. Both countries introduced a mandated national minimum wage between 1980 and 2019, the UK in 2019 and Germany in 2015, producing the cross-time shift seen in the Figure.

4 This, by now, is an immense literature. It is hard to do justice to it in terms of citing relevant research. Examples of comprehensive literature reviews over the years prior to their publication date are Brown, Gilroy and Kohen [11], Brown [12], Card and Krueger [13] and Neumark and Wascher [14]. In terms of the very recent expansion of research in this area, the forthcoming *Handbook of Labor Economics*_will feature a Chapter on the economics of minimum wages by Dube and Lindner [15].

DOI: 10.31389/lseppr.103

the case, the second stage studies whether this wage boost impacts labour demand. The first stage is of relevance for what is discussed here, namely what minimum wages do to wages and their distribution.[5]

The UK introduced a National Minimum Wage in April 1999. Its evolution from then until 2019 is shown in Figure 7, which also shows the institutional structure of having several minimum pay rates (that vary by age and, more lately, apprentice status). The Figure makes it clear that the minimum wage rose rapidly over time. One relevant feature of the Figure is the new minimum wages that were added over time. At the time of its inception in 1999, there were just two rates, delineated by age for workers age 22+ and a development rate for younger workers aged 18–21. Over time a rate for 16–17 year olds and for apprentices also came in. But the most important structural change was the (at the time) unexpected introduction of the national living wage (NLW) in April 2016, a substantively higher minimum for workers aged 25+ that resulted from George Osborne's hastily announced post-election win July 2015 budget (see Bell and Machin for more details, including reasons why the NLW was introduced and evaluating its effects in stock market event study [21]).

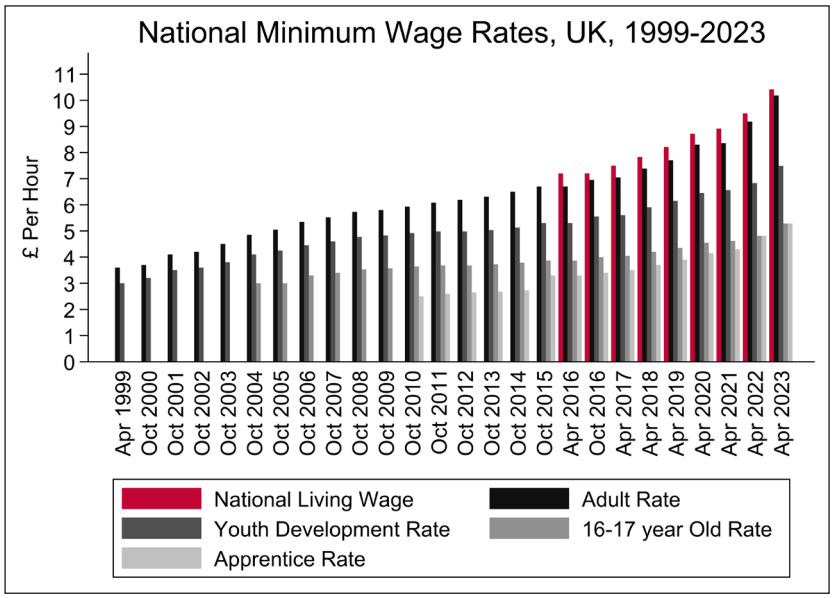


Figure 7 UK Minimum Wages.

Notes: From Low Pay Commission.

How does this relate to the patterns of real wage growth and inequality shown earlier? The answer is that it strongly relates, and that the minimum wage has strongly impacted wage inequality in the labour market. Figure 8 visualises this for the 1999 to 2019 time window when national minimum wages have operated in the labour market. The chart shows real wage growth at the 10th, 50th and 90th percentiles now in hourly wages the appropriate metric for considering minimum wages, and at the minimum wage itself. The level of the minimum wage, introduced at £3.60 per hour in April 1999, and which rapidly climbed to £8.21 by 2019 is shown at the top of the chart, along with the same three inequality ratios considered earlier (the 90-10, 90-50 and 50-10 ratios).

Figure 8 shows that real wage growth at the minimum wage was faster between 1999 and 2019 than at the three quantiles of the wage distribution also shown (again the 10th, 50th and 90th percentiles). In fact, of the four lines shown, the minimum wage one grows most (by almost 50 percent since 2019), the 10th percentile also grows (by about 20 percent) and the 50th and 90th grow by only a tiny amount. In the period of real wage stagnation since the years at the end of the 2000–2010 decade, in the wake of the global financial crisis, only the minimum and 10th percentile show growth of any note.

Figure 9 homes in on lower tail inequality, in the bottom half of the distribution, in more detail now showing growth at the 10th, 20th, 30th, 40th and 50th percentiles, together with the growth in the real value of the minimum wage. There is not much evidence of spillovers up the

5 For papers studying the impact of minimum wages on the wage distribution, see Dinardo, Fortin and Lemieux [16] Dickens, Machin and Manning [17], Lee [18] Dickens and Manning [19] and Autor, Manning and Smith [20].

DOI: 10.31389/lseppr.103

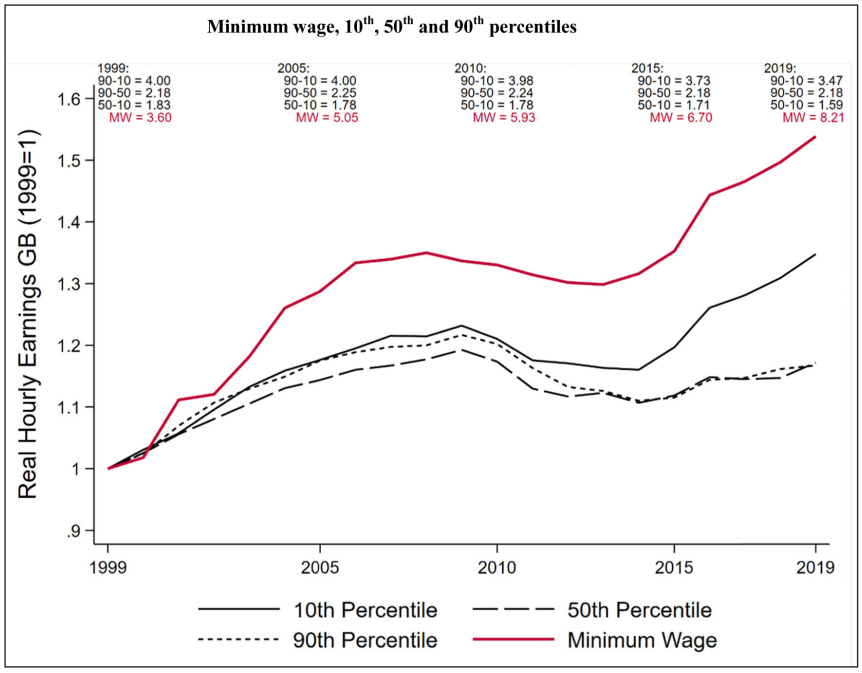


Figure 8 Real Wage Growth, Inequality and the Minimum Wage.

Notes: As for Figure 4.

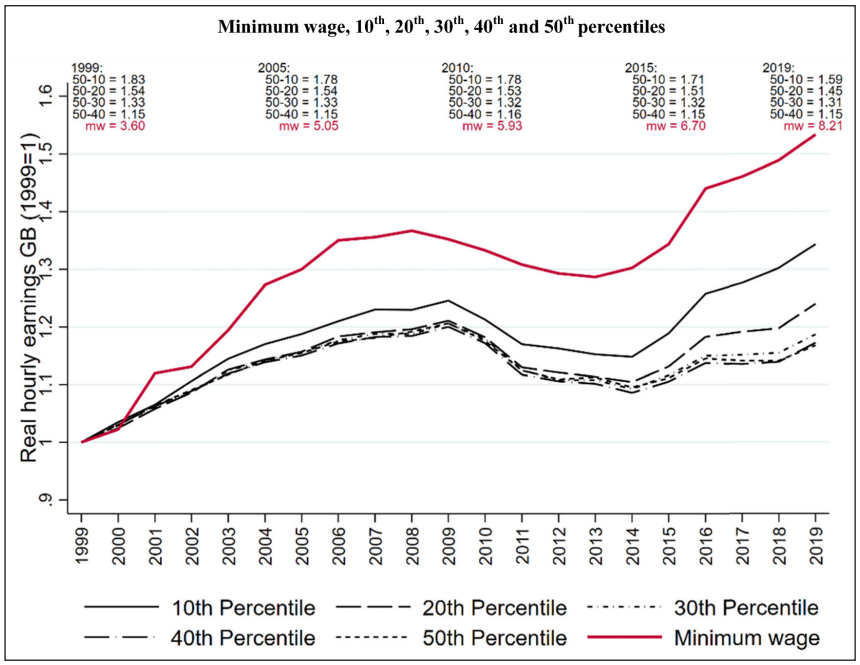


Figure 9 Real Wage Growth, Inequality and the Minimum Wage – Lower Tail.

Notes: As for Figure 4.

distribution. There is suggestion of a bit of a knock on, but certainly by no more than to the 20th percentile, and nothing higher up the bottom half of the distribution.

There are two pertinent conclusions that follow. First of all, the reason why between 1999 and 2019 the 50-10 ratio pulled back all of the rise from 1980 to 1999, is the minimum wage. Giupponi and Machin present more formal counterfactual empirical exercises (specifically Dinardo, Fortin and Lemieux [16] style decompositions which evaluate what happened in reality relative to a counterfactual with no minimum wage introduction) showing the importance of minimum wage policy in compressing the bottom of the wage distribution and reducing wage inequality [22]. Second, the means by which this occurred is by raising lower percentiles of the wage distribution, up to the 10th percentile and possibly a little higher, but not being impacted from wage spillovers higher up the distribution. In fact, there is no knock on to the wages of non-minimum wage workers anywhere near as high up the distribution as the 50th percentile. Rather, such spillovers are in general rather limited in the case of the UK minimum wage. Studying Figure 5 closely, there may be a tiny tick up after the NLW introduction in 2016, but even this is small. One consequence is that there is little to no evidence that the UK minimum wage has any impact at all on average wage inflation.

DOI: 10.31389/lseppr.103

TRADE UNIONS

Like minimum wages, much has been written on the economic effects of trade unions over the years. Britain again offers an interesting testing ground, as union decline has been rapid and much faster than in most nations since 1980. In that year, 52 percent of the workforce were members of a union. By 2019, this had fallen, a long way, to 23 percent. Union coverage (having pay set by collective bargaining) shows similarly a sharp fall, dropping to 26 percent by 2019 (from over 60 percent in 1980). The picture in the private sector is even more dramatic, and unions are now hardly represented there at all. By 2019, only 15 percent of private sector workers were members of a union.

The timings and evolution of the precipitously falling unionisation rate very much mirror the rise in wage inequality and the stagnation of real wages seen in the British labour market. A strong negative time-series correlation between the 90-10 log weekly wage gap and union density has been found for the UK, revealing a strong macro association between rising inequality and falling unionisation. Also, cross-region patterns of real wage stagnation correlate positively with union decline [23]. Similar empirical associations – though not causal – have been documented both over time, and between and within countries. But did union decline contribute to rising inequality? A simple variance decomposition exercise says yes, but only to an extent.

US work pioneered by Freeman [24, 25] and DiNardo, Fortin and Lemieux [16] which was further developed by Card [26] to deal with differential selection by workers with different characteristics into union jobs, presents decompositions of how much of rising wage inequality can be attributed to union decline.[6] The idea is to compare what happened to the wage inequality reducing impact of unions through time as union decline occurred. In doing so, it is possible to evaluate the percent contribution of union decline to higher wage inequality over time.

The existing studies look at data sources ending at the latest in the mid-1990s and tend to conclude that a reasonably sizeable part of the rise in male wage inequality up to then can be attributed to union decline – of the order of 25 percent for the US, which is dampened somewhat when the Card [26] selection approach is adopted, and about 20 percent of rising UK male wage inequality. For women in the same period, there is no discernible effect.

Revisiting this in the UK over a longer period, from 1983 to 2019 (the period when consistent microdata can be studied), enables a more up to date quantification of the effect of trade union decline on wage inequality.[7] It is important to distinguish these estimates by gender, owing to a traditionally lower representation of women in unions. Table 1 therefore reports separate estimates for men in Panel A and women in Panel B, showing the different elements of the variance decomposition that assesses how unions impact the variance of wages both

Table 1 Unions and Wage Inequality, 1983–2019.

	MEN			WOMEN		
	1983	**2019**	**CHANGE**	**1983**	**2019**	**CHANGE**
Union membership, *U*	0.428	0.156	–0.271	0.340	0.130	–0.210
Variance of log wages, *V(w)*	0.228	0.374	0.146	0.169	0.353	0.183
Union sector variance, $V(w^u)$	0.138	0.273	0.135	0.118	0.289	0.171
Non-union sector variance, $V(w^n)$	0.290	0.391	0.101	0.185	0.362	0.177
Union/non-union log wage gap, $\overline{w^u} - \overline{w^n}$	0.115	0.056	–0.059	0.175	–0.010	–0.185
Basic decomposition, V(w) – $V(w^n)$	–0.062	–0.017	0.045	–0.016	–0.009	0.007
	27%	5%	31%	9%	3%	4%
+ Quintile variations	–0.056	–0.018	0.038	–0.013	–0.011	0.002
	25%	5%	26%	8%	3%	1%
+ Quintile variations, composition adjusted	–0.044	–0.019	0.025	–0.012	–0.010	0.002
	17%	5%	17%	7%	3%	1%

6 UK work using such decompositions includes Gosling and Machin [27], Machin [28] and Bell and Pitt [29].

7 See also a longer time window exercise for Canada and the US in Card, Lemieux and Riddell [30].

DOI: 10.31389/lseppr.103

at a point in time and in terms of changes. The key variables shown in the top part of the Table are the union membership rate, U, the variance of log wages, $V(w)$, the within union and non-union sector variances, $V(w^u)$ and $V(w^n)$, and the average union log wage gap ($\overline{w^u} - \overline{w^n}$). A standard variance decomposition here, at a point in time, defines the overall variance as follows, $V(w) = U.V(w^u) + (1-U).V(w^n) + U.(1-U).(\overline{w^u} - \overline{w^n})^2$, where the first two terms reflect the within-sector (union and non-union variances) and the third term the between-sector wage differences.

The lower part of Table 1 uses these to report three estimates of the effect of unions on inequality, and how it has changed over time. The first is the 'naïve' union decomposition of Freeman (1980, 1982), which defines the point in time union effect on the variance as $V(w) - V(w^n)$.[8] The other two follow Card [26] further allowing for quintile variations to deal with differential selection into union jobs, where quintiles are allocated for all workers from predicted non-union weekly earnings equations. The variance decompositions are then adjusted for this in the second set of estimates, and in the third they are additionally standardised for workforce composition.[9]

The Table shows that, for both cross-sections 1983 and 2019, unions are associated with lower wage inequality. For men in the basic decomposition, the variance is 0.062 lower in 1983 and 0.017 lower in 2019, showing a reduction of –0.045 over time. To quantify the change over time, among men the variance of log weekly earnings increased by 0.146 over time, rising from 0.228 in 1983 to 0.374 in 2019, and thus the decline in unionism is found to account for approximately a third of this increase in the basic composition ([–0.045 / 0.146] × 100). These attenuate a little with selection in 1983, and remain much the same for 2019, so that reduces the union impact on rising wage inequality to about one fifth for men. For women, there is essentially no effect, with union decline accounting for only 4 percent of the increase in female earnings inequality in the simple decomposition and for zero once selection is accounted for.

Thus, the variance reducing impact of unions declines over time for men and women, so that union decline and higher wage inequality are connected, though only for men and with no real effect for women. Thus, declining union density, combined with a weakening of the earnings compression effect of unions on the male wage structure, is a factor in accounting for rising earnings inequality over the past 40 years. This is one which varies across gender groups (not surprisingly given the history of who was more likely to be in a union in the past). But again, the role of labour institutions, this time unions, matters for rising inequality.

SHIFTS IN WORKER AND EMPLOYER POWER

The shifting role of labour market institutions – both demise in terms of unions, and increased regulation at the bottom end of the labour market via minimum wages – have gone hand-in-hand with big shifts in the relative bargaining power over wages between workers and their employers. There are several ways in the literature to evaluate the impact on wages of such shifts in the balance of power in wage setting. Four are considered here:

Decoupling of wage and productivity growth

One way to demonstrate that worker power has declined through time comes from the big contemporary literature on the decline in the labour share and the closely related work on the decoupling of wage growth from productivity growth. [31] These are not new factors to be looking at in terms of changes in bargaining power. Central to these empirical trends is the exposition around the division of national income apportioned by relative bargaining power in Kalecki [32] and in the discussions of monopoly capitalism in Braverman [33] and Cowling [34], including their insights on managerial strategies on workplace control with its implications for wage determination.

8 Formally, by rearranging terms from the V(w) decomposition, this takes the intuitive structure of reflecting the within and between sector differences of union/non-union variance gap and the average union wage differential since $V(w) - V(w^n) = U.[V(w^u) - V(w^n)] + U.(1-U).(\overline{w^u} - \overline{w^n})^2$.

9 The composition adjustment controls for age, education and ethnicity in year and gender specific log(wage) equations.

DOI: 10.31389/lseppr.103

Rent sharing

A sizable literature on the extent to which firms share rents with workers and, more recently, on how much and why firms matter for wage setting [35] informs wage controversy discussions about imperfect competition in the labour market. A sizable research literature over the years [3] has shown the existence of rent sharing, where more profitable and productive firms pay workers more (a share of the pie).

But what about changes over time? There is UK evidence of falling rent-sharing over time. Bell, Bukowski and Machin estimate rent sharing elasticities for the top 300 UK firms from 1983 to 2016 [36]. Figure 10 reproduces a chart from that study, showing evidence of rent sharing in two sub-periods, 1983–1999 and 2000–2016. But the magnitude falls sharply, providing evidence of a fall in the extent of rent sharing (of value added and of profits) over time. Thus, a falling share of rents going into workers' wages also contributes to the slowdown in real wage growth.

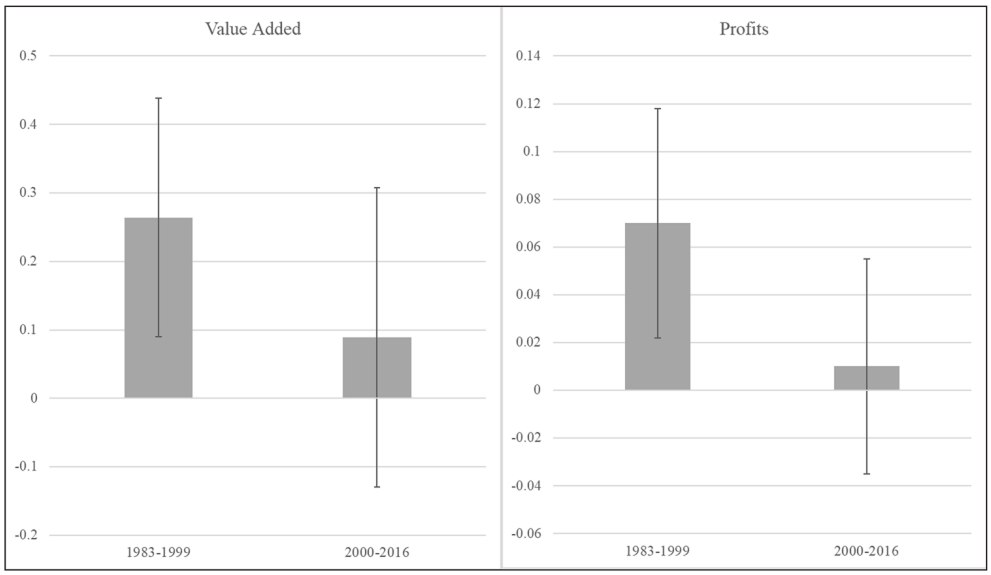


Figure 10 Declines in Rent Sharing, 1983 to 2016.

Notes: From Bell, Bukowski and Machin [36]. Based on firm-level data covering the top 300 UK firms from 1983 to 2016. The left chart shows rent sharing estimates based on value added per worker, the right chart based on profits per worker. The bars show estimates of rent-sharing elasticities, with associated 90% confidence intervals.

Management pay setting

Related to 1) and 2), two relevant key features of wage determination in British firms has been the move to more decentralised wage bargaining where unions still bargain with firms and, where they do not (now the considerable majority), in management unilaterally setting wages. Evidence for the Economy 2030 Inquiry has emphasised both [37]. As unions have declined, employers and managers have assumed a dominant position in determining workers' pay and working conditions. In the private sector, unilateral wage setting by managers has become near universal: among private-sector establishments with 10 or more employees, 87 per cent used this type of wage setting in 2011. And in the public sector, where collective bargaining still has a role, the pay review bodies who set pay have also reduced the impact of unions in pay agreements [38].

Monopsony

As noted above, another classic wage controversy area considers employer power, working through monopsony, in wage setting. This is a literature that has become much more favourably looked upon in the recent past [39, 40], with this aspect occurring probably in light of both the reduced role of labour market institutions and of wage stagnation. An array of empirical evidence now exists on the monopsony wage markdown (see Marinescu [41] for an up to date review). Some of the work estimates Hicks' rate of exploitation, as the wage markdown from monopsony power resulting from workers' lack of mobility. Some looks at the extent of imperfect competition in labour markets – in analogous way to monopoly power in product markets – by constructing measures of labour market concentration.

As a good example of the latter, one recent set of estimates based on UK data, Abel, Tenreyro and Thwaites estimate a wage markdown of around 20 percent from monopsony power by relating wages to local labour market concentration [42]. Interestingly, they find this interacts with union decline, an argument that also reaches back to past wage controversies from economists and industrial relations scholars which emphasised how unions act as a

DOI: 10.31389/lseppr.103

countervailing force against monopsony power [4, 43]. Robinson goes further, reinforcing the position that unions can offset monopsony power, but also linking to wage stagnation when she says: 'The main defense against the tendency to stagnation comes from pressure by trade unions to raise money-wage rates' [44: 94]. These discussions in wage controversies link closely to the contemporary narrative of changing power inequalities in recent decades and dovetail well with the arguments that connect union decline, and along with it the erosion of the ability to combat monopsony power, to rising wage inequality and real wage stagnation.

WHERE COULD INCLUSIVE REAL WAGE GROWTH COME FROM?

In terms of scope for wage growth to positively impact workers' living standards, we are now in a quite different position to 40 years ago. Indeed, as the period of real wage stagnation has extended longer and longer, it looks increasingly like there has been a shift in wage norms such that the days of wages boosting living standards have gone away. Indeed, it really is not so far away from reality to characterise the pre-global financial crisis years dating back to at least as far as the 1960s as having a labour market with a long run real wage growth norm, and today's labour market as one with no growth.

So, is the current situation of wages not growing faster than prices a new norm that has broken the long run normal of the previous half century? And, if so, does it need to be? First of all, and classic in terms of economic theories about where wage growth arises, especially the marginal productivity theories, it is also the case that since the global financial crisis productivity has flatlined. Between 1980 and 2007 aggregate real GDP per worker recorded annual growth of 2.2 percent, falling to 0.5 percent per year from 2008 to 2022.

This is a first order issue in thinking about where real wage growth can come from. If it is possible to dig a way out of the productivity hole, then presumably that should generate wage growth. More detail on a range of possibilities that could stimulate productivity is in Van Reenen and Yang [45]. Recent high profile discussions about the need for a new economic strategy for the UK – the Economy 2030 Inquiry [46] – also discuss ways to get productivity up with an aim to get Britain growing again to combat economic stagnation. Second, and importantly, it is not the whole story. The discussion of the changing role of labour market institutions also shows that altering the power shift between workers and firms could yield wage growth. This is backed up by looking at the position relative to other countries, many of whom have not seen such shifts, or if they have by nowhere near as much as the UK. Thus the UK's relative position has slipped significantly with the past fifteen years of wage stagnation.

To more clearly show this, Table 2 reports growth in real annual wages for 21 OECD countries between 1991 and 2022. Over the full thirty years, UK real wage growth is on average 1.5 percent a year, and this ranks a respecTable 8th out of the 21. But when split into 1991–2000, 2000–2007 and 2008–2022, the UK falls from respectively 5th and 6th in the first two sub-periods and drops right down the growth rankings in the last, post global financial crisis period 2008–2022. Over these years, with real wage stagnation (a paltry 0.2 percent growth a year) means the ranking position falls to 16th.

Finally, government policy is not removed from these discussions about whether real wage growth can return. A phrase often heard in recent discussions is a resignment that there are few policy levers for government to affect wages and their growth. The only concession offered seems to be on minimum wages. But, as shown above, that has been one of the only successes in the labour market during the era of real wage stagnation.

It is also broadly not the case. Take the case of the EU referendum that resulted in Brexit. This was a clear policy decision to have a vote, and one which because of the outcome to leave the EU adversely affected wages. This is shown in Figure 11, taken from Costa, Dhingra and Machin's study of what happened to wages following the June 2016 vote to leave [47]. Their study leverages the large exchange rate depreciation that occurred with the referendum outcome to show this reduced wages by more for workers employed in places where a cost shock resulted from inputs becoming more expensive. This is shown in the left-hand chart of Figure which shows an event study chart comparing the three years after the referendum where real wages grow much slower for workers in above median depreciation industries. This also translates into a drop in aggregate real wages, which is shown clearly in the right-hand chart and is quantified in the Costa, Dhingra and Machin paper [47].

DOI: 10.31389/lseppr.103

	1991–2022	1991–2000	2000–2007	2008–2022
UK	1.5	2.4	2.1	0.2
UK rank	8th	5th	6th	16th
OECD average	1.1	1.4	0.8	0.7
Australia	1.3	1.6	1.5	0.7
Austria	0.7	1.0	1.0	0.2
Belgium	0.7	1.7	0.4	0.2
Canada	1.3	1.1	1.5	1.0
Denmark	1.1	1.1	1.8	0.6
Finland	1.0	1.1	1.7	0.4
France	1.1	1.1	1.1	0.8
Germany	1.0	1.5	0.3	0.9
Iceland	2.3	2.6	1.2	2.0
Ireland	2.4	2.9	3.4	0.6
Italy	0.0	0.0	0.4	–0.3
Japan	0.1	0.3	0.0	0.0
Korea	3.0	3.1	2.6	1.8
Luxembourg	1.3	1.8	0.9	1.0
Netherlands	0.2	0.2	0.7	0.0
New Zealand	1.7	1.2	2.4	1.2
Norway	2.5	2.2	3.3	1.1
Spain	0.1	0.5	0.3	–0.2
Sweden	2.2	2.8	2.3	0.9
Switzerland	0.9	0.9	1.3	0.6
USA	1.6	1.9	1.0	1.2

Table 2 Real Wage Growth (Annualised Percent) for 21 OECD Countries, 1991–2022.

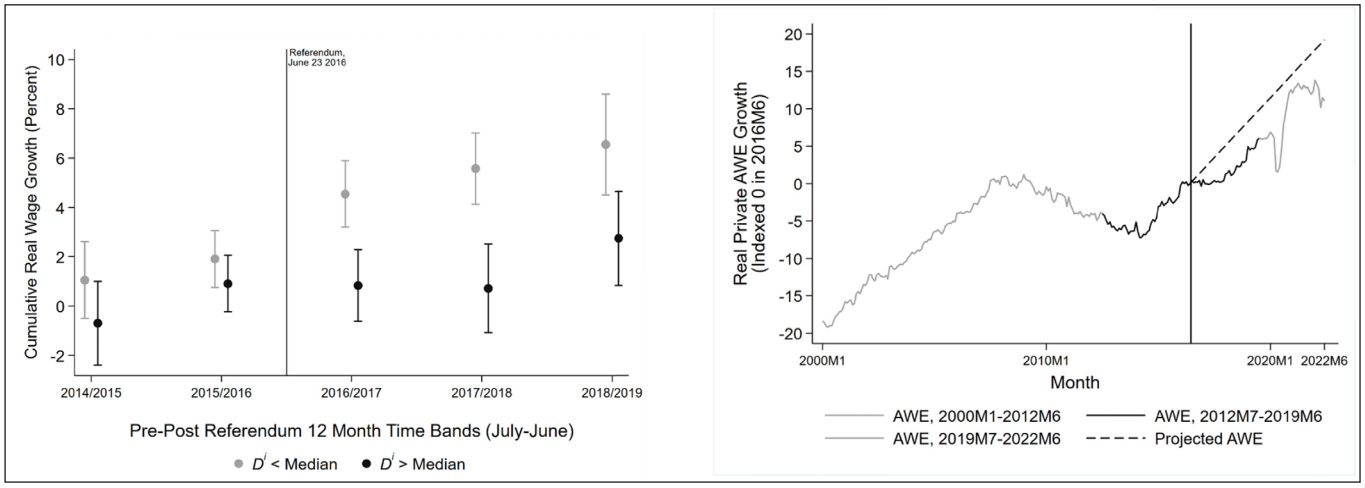


Figure 11 Real Wage Growth Before and After the June 2016 EU Referendum.

Notes: From Costa, Dhingra and Machin [47]. The left chart shows event study difference-in-differences estimates of real wage growth for 2-digit industries experiencing above and below median exchange rate depreciations due to the Brexit vote for 2 pre-referendum years (running July-June each year) and 3 post-referendum years relative to 2012/13 and 2013/14. Coefficient estimates and 95% confidence intervals shown. The right chart annual growth rate of private sector real annual weekly earnings (AWE, deflated by CPIH) from monthly ONS data running from January 2001 (2001M1) through June 2022 (2022M6). The vertical solid line denotes the Brexit referendum month June 2016 and the dotted project earnings growth comes from forecasting post-referendum real wage growth from the pre-referendum data.

This is only one example. Other selected examples of adverse wage shifts due to government policy in the recent past include: public sector wage freezes; austerity related cuts more

generally; local authority funding of care homes. All have adversely impacted real wage growth, over and above connections of wages to productivity. They also suggest that policy interventions not designed to suppress wage growth that were targeted in the opposite way, including those that could restore bargaining power to workers, could generate real wage growth. It is just not necessary to take the rather defeatist line that the wage norm of no real wage growth, seen for too long now, needs to stay.

4. CONCLUSIONS

This paper studies what has happened to wages in the British labour market over the past sixty years, connecting the observed trends to some longstanding wage controversies. A focus is placed on the role of labour market institutions for wage inequality, real wage stagnation and shifting wage norms. Given that UK real wages have stagnated for the longest duration of the past two centuries, and inequality remains high, the paper concludes with some discussions of where inclusive real wage growth can come from to boost workers' living standards as in the past.

ACKNOWLEDGEMENTS

I would like to thank participants in the British Academy Keynes lecture delivered in November 2022 and in the Beveridge 2.0: Labour Markets and Social Protection Symposium at LSE in May 2023 for comments and discussion. Part of the research contained in. and further developed, in this paper comes from the 2022 Deaton review Chapter with Giulia Giupponi.

FUNDING INFORMATION

The author acknowledges the Economic and Social Research Council for funding support through the LSE Centre for Economic Performance.

COMPETING INTERESTS

The author has no competing interests to declare.

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TO CITE THIS ARTICLE:
Machin, S. Wage Controversies: Real Wage Stagnation, Inequality and Labour Market Institutions. *LSE Public Policy Review*. 2024; 3(2): 2, pp. 1–17. DOI: https://doi.org/10.31389/lseppr.103

Submitted: 15 January 2024
Accepted: 18 January 2024
Published: 01 March 2024

LSE Public Policy Review is a peer-reviewed open access journal published by LSE Press.