INTRODUCTION

The National Living Wage, announced in the 2015 Autumn Statement and effective from 1 April 2016, effectively takes control of the Minimum Wage out of the hands of the Low Pay Commission and gives it to the government. Whereas the LPC had a mandate to balance both pay and employment concerns, free from political pressure, the issue is now politicised. There are worries that abandoning this framework will threaten employment: the Office for Budget Responsibility projected last year that 60,000 fewer jobs will be created under this regime than the previous status quo. This paper reviews the empirical evidence on the direct and indirect impacts of increases to the Minimum Wage.

THE NATIONAL LIVING WAGE IN CONTEXT

1. The National Living Wage must be viewed as an increase to the rate of the National Minimum Wage; functionally it is indistinguishable from a higher NMW rate for over-25s. The large evidence base on the economic impact of the Minimum Wage is therefore relevant to any assessment of the National Living Wage.

The difference is political. The Minimum Wage was, between its introduction in 1997 and 2016, set by the Low Pay Commission, staffed by industry figures and experts, all unelected. It set increases based on economic considerations—balancing out the expected benefit to low-end wages and the risk to jobs—and frequently raised the wage floor as little as 4p, when they believed that's what conditions demanded. Now, under the National Living Wage framework, the LPC is relegated to sketching out the path of increases, with little say over whether the overall trajectory is a good or bad idea. The issue has become a political football, like monetary policy before Bank of England independence.

TABLE 1: THE NATIONAL LIVING WAGE, NATIONAL MINI-MUM WAGE AND THE UK LIVING WAGE OCTOBER 2016

Name	NATIONAL MINIMU AND NATIONAL LIVI	UK LIVING WAGE AND LONDON LIVING WAGE	
Rates	16-17 Year old, 18-20 year old, 21-24 Year old and Apprentice Rates	National Living Wage (25+)	18+
Basis	Based on affordability: rates negotiated to help as many low paid workers as possible without damaging their employment prospects'	Partly based on affordaility: rate agreed to meet ambition of 60% of median earnings by 2020, 'subject to sustained economic growth'.	Based on need: calculation made according to the cost of living, averaged for household type
Legal Status	Legally binding, enforced by HMRC		Voluntary, not enforced
Level	£4.00, £5.55, £6.95, and £3.40, (October 2016 to March 2017)	£7.20 (to March 2017)	Uk rate: £8.45; London rate: £9.75
Set by	Government, on advice from the Low Pay Comission		Resolution foundation

Low Pay Commission. National Minimum Wage: Low Pay Commission Report 2016. Vol. 9272. The Stationery Office, 2016

2. One of the difficulties in economics is isolating the effects of particular actions in a very complex world. When the price of labour jumps and employment doesn't necessarily fall, this doesn't mean that employers don't take wages into account, it might mean that there are countervailing factors: employers can pass some costs on; employers can reduce other benefits; or employers are going to reduce hiring to take account.

To get around this, economists try to aggregate large numbers of data points. Using lots of different data points helps us to cancel out 'noise' and focus in on the effects we really care about. It is critical that any assessment of the impact of the NLW takes this into account—it must not simply look back at a handful of minimum wage increases in the UK.

Our central prediction is not that employers will respond to minimum wage hikes by cutting back on employment immediately. We expect, with the Office for Budget Responsibility, that employers will respond to a higher path of expected minimum wages by planning to economise on labour. They may curtail production, they may increase capital intensity, or they may switch to employing less but higher quality labour. Employment will be sticky—firms will not be able to cut employment in the short-run. This means they will employ an inefficient amount of labour while they adjust to the new arrangements, and this accounts for much of the noted share price drops seen by affected firms in the immediate aftermath of the announcement.¹

¹ Horton, J. J. (2017). Price floors and preferences: Evidence from a minimum wage experiment.

3. It also needs to be pointed out that the prevailing level of the Minimum Wage matters too, not just the size of the hike. In 1998 the NMW was introduced at £3.60 per hour, or £5.71 in today's prices; the new National Living Wage will be £7.20 per hour. A comparably small increase may still raise the level to a high enough point that it does cause serious problems in terms of job losses. Very few papers attempt to account for this "nonlinearity"—the fact that the relationship between wage floors and disemployment may not be steady, but may increase as the Minimum Wage rises. A rare example of research that factored in this possibility looked at recent American minimum wage hikes and found "higher minimum wages may dramatically increase unemployment rates among young high school-educated workers."²

TABLE 2: UPDATED PATHS FOR THE NLW, UK 2015-16

LPC ESTIMATES USING:							
ASHE	2014		2015				
OBR hourly earnings forecast	July 2015		Nov 2015				
	Implied NLW	Implied Median	Implied Bite	Implied NLW	Implied median	Implied bite	
	£	£	%	£	£	%	
2016	7.20	13.13	54.8	7.20	13.06	55.1	
2017	7.67	13.68	56.1	7.63	13.56	56.3	
2018	8.19	14.26	57.4	8.11	14.10	57.5	
2020	8.74	14.89	58.7	8.62	14.66	58.8	
2020	9.35	15.59	60.0	9.16	15.27	60.0	

² Gorry, A., & Jackson, J. J. (2017). A Note on the Nonlinear Effect of Minimum Wage Increases. Contemporary Economic Policy, 35(1), 53-61.

LPC ESTIMATES USING:								
ASHE	2015							
OBR hourly earnings forecast	March 2016							
	Implied NLW	Implied median	Implied bite					
	£	£	%					
2016	7.20	12.98	55.5					
2017	7.60	13.43	56.6					
2018	8.05	13.95	57.7					
2020	8.51	14.44	58.9					
2020	9.02	15.03	60.0					

Source: LPC estimates using ASHE, April 2014-15, standard weights, UK; and OBR forecasts for hourly earnings (OBR 2015b, 2015c and 2016 b).

According to the LPC's current estimates, the NLW will rise to £7.60 during 2017, £8.05 during 2018, £8.51 during 2019, hitting £9.02, or 60% of the median wage, in 2020.

The global labour market is different now to 1998. Advances in information technology have made the outsourcing of clerical tasks to other countries much easier than in the past, and the rate of automation is also rising. As labour increases in price, certain sorts of capital become relatively attractive—for example in the form of self-service checkouts and more automated fast food preparation machines.

THE THEORY

4. The basic theoretical case in favour of the Minimum Wage is that it corrects for market inefficiencies and substitutes for worker bargaining power. In a competitive marketplace, wages should be driven upwards for workers as firms compete to employ them. This is true for unskilled workers as much as it is for highly-skilled workers—though the supply is much greater, as long as we can think of productive things for those workers to do, they are valuable at a certain price. However, markets can be inefficient, and those inefficiencies may lead to short-run wage shortfalls for workers, which the Minimum Wage may correct.

Specifically, economists propose that the market for low-skilled work might be monopsonistic or oligopsonistic: there are few buyers, or even a single buyer, competing for their labour. Just as monopolies can drive prices for their goods above the level that would prevail in a competitive market, monopsonies can drive the price of labour below the level that would prevail under competition. In this way, a higher minimum wage would simply redistribute rents from buyers of labour to sellers. But this seems falsified by the obvious facts of real-world labour markets.

Much more than for high-skilled workers, low-skilled workers' abilities are directly transferrable between hundreds of jobs and hundreds of employers. Amazon, G4S, Tesco, and the NHS all demand little experience or specific talents from their entry-level employees.

Alternatively, workers may also want to cartelise to demand higher wages for work—to negotiate, as a group, for higher wages than they would otherwise get. In a large labour market (such as the market for unskilled workers) this is usually only possible with laws that support that kind of cartelization, such as laws that require workers be members of a labour union, since otherwise workers will 'cheat' and undercut others. In the absence of these laws, the Minimum Wage may keep wages high by effectively banning workers from undercutting wages below a certain level. In this case, hikes may be passed through to prices. If consumption of those goods is price elastic, firms will shift away from producing them, and hiring those who produce them.

The case against the Minimum Wage is that it creates a price floor that prices some workers out of the market. A worker may only be able to produce £5 per hour worth of work to any employer. In the presence of a £6 per hour minimum wage, no employer will be able to profitably hire this worker—employed at £6 per hour they will be losing £1 per hour on net. There may be a redistributive effect: of ten workers previously employed at a below-NMW, one may be laid off and their work assigned to the nine others now employed at a higher rate.

Some economists believe that this forces employers to improve workers' productivity—a concept known as 'efficiency wages'. As a general claim, this seems improbable, since it implies that employers had been aware of ways to boost worker productivity (and thus their own profitability) beforehand but had chosen not to use them. In other words, it requires us to believe that firms are systematically not profit-seeking.

Prof Alex Tabarrok of George Mason University has pointed out that the 'efficiency wage' theory was actually devised as a way of explaining long-term unemployment:

Instead of being desirable, the efficiency wage is a problem because lower wages would reduce unemployment and be better for the economy as a whole. Firms routinely track turnover and productivity and they are well aware that higher wages are a possible means to reduce turnover and increase productivity although, as it turns out, not necessarily the most effective means. Indeed, the whole field of workforce science deals with retention, turnover and job satisfaction and the relationship of these to productivity and it does so with more nuance than do most economists. Thus, it's simply not plausible that large numbers of firms on the existing margin can increase wages, profits and productivity.³

³ Tabarrok, Alex. "The false prophets of efficiency wages", Marginal Revolution (accessed 29 July 2016), http://marginalrevolution.com/marginalrevolution/2015/04/the-false-prophets-of-efficiency-wages.html

The question as to which of these effects dominates is an empirical one. But it is still worth remembering that the extra money must come from somewhere: assuming firms operate efficiently, if wage bills rise overall then company profits will fall or consumer prices will rise to offset them. The empirical question is thus about both the direct impact of minimum wage rises on workers and the indirect impact of rises on the wider economy. See below for a discussion of these effects.

EMPIRICS

5. Card and Krueger's (1993) work on the employment effects of minimum wage rises on New Jersey fast food workers is rightfully seen by most economists as resurrecting the Minimum Wage debate, introducing new, fairly robust empirical research. That their research showed no significant disemployment effect was remarkable, and the study is still cited today by proponents of a higher minimum wage. However this study's methodology has faced serious criticism, especially since the data — collected by telephoning fast food restaurants — contradicts much more reliable data from official payroll records, which actually did show a significant disemployment effect.⁴

The bulk of the empirical evidence suggests that there is indeed an employment tradeoff when we raise the Minimum Wage. In 2006 Neumark and Wascher reviewed over one hundred existing studies of the employment impact of the Minimum Wage around the world. Of these, two-thirds showed a relatively consistent indication that minimum wage increases cause increases in unemployment. Of the thirty-three strongest studies, 85 per cent showed disemployment effects.

Another meta-analysis by Doucouliagos and Stanley in 2009 plotted 1,424 results from minimum wage studies and points toward a small disemployment effect. The authors believed it possible that papers finding no effect were not making it to publication. However, many of the most prominent and prestigious economists in the field advance the no-effect conclusion (e.g. David Card and Arindrajit Dube), and papers finding this outcome are often fêted. Thus, it seems too early to conclude that there is publication bias in the new minimum wage literature.

Much of the revisionist literature that shows minimum wage increases not creating disemployment rests on very particular decisions about methodology and time period. Neumark, Salas and Wascher (2013) argue that much of the revisionist literature fails to account for important differences between areas under consideration and that, if those differences were factored in, would show a disemployment effect.⁷ Other studies only produce their result within a narrow time-frame, and over a longer period the same data does produce a disemployment effect.

⁴ Employment Policies Institute, The crippling flaws in the New Jersey fast food study, 2nd edition, Apr

⁵ Neumark, David, and William Wascher. Minimum wages and employment: A review of evidence from the new minimum wage research. No. w12663. National Bureau of Economic Research, 2006.

⁶ Doucouliagos, Hristos, and Tom D. Stanley. "Publication selection bias in minimum wage research? A metaregression analysis." British Journal of Industrial Relations 47, no. 2 (2009): 406-428.

⁷ Neumark, David, J. M. Ian Salas, and William Wascher. "Revisiting the Minimum Wage-Employment

- 6. Most workers are paid well above the Minimum Wage. Only around 5% of the UK workforce are currently paid it, though this proportion is set to grow as the NLW rises quickly in the years to 2020.8 The median annual wage in the UK, for example, is around double what you'd earn annually if you worked on the Minimum Wage full time. Typically, those on the Minimum Wage are either: lacking language skills; a recent immigrant; young and early in their career; or otherwise low-skilled (e.g. had been unable to achieve good GCSEs or A-levels). Since the Minimum Wage only "bites" for a small fraction of unrepresentative workers, results looking at overall employment may not be the right metric to consider. And indeed, we typically (including in Neumark and Wascher) find much more pronounced and significant effects for these disadvantaged groups.9 What's more, evidence suggests that those who do lose their jobs often fail to make up the difference with the existing social programmes. These groups are also most at risk of engaging in criminal behaviour, and minimum wage hikes are shown to increase this risk. 11 12
- 7. However, immediate disemployment is not the only risk created by binding price floors on labour. Though a worker may cost more in wages than they produce in outputs, thus suggesting the firm in question would not hire them, the immediate cost of firing them on morale and the strength of your organisation overall, may make this a more costly option than retaining them temporarily.

Thus, researchers recently have begun to focus on the effects of minimum wages on the dynamics of low-wage employment, especially Meer and West.¹³ This literature argues that studies with a relatively short horizon cannot capture the full effects of the Minimum Wage on low-skilled employment, and thus the small negative effects they find are underestimates of the true cost.¹⁴ Studies like those from Clemens and Wither find worrying patterns: high minimum wages cut the bottom few rungs off the employment ladder, and hamper low-skilled workers throughout their lives.¹⁵

Debate: Throwing Out the Baby with the Bathwater?", IZA Discussion Paper Series (January 2013).

- 8 Corlett, Adam, and Laura Gardiner. "Low Pay Britain 2015." Resolution Foundation, October (2015).
- **9** Clemens, Jeffrey. The Minimum Wage and the Great Recession: Evidence from the Current Population Survey. No. w21830. National Bureau of Economic Research, 2015.
- **10** Clemens, Jeffrey. "Redistribution through minimum wage regulation: An analysis of program linkages and budgetary spillovers." In Tax Policy and the Economy, Volume 30. University of Chicago Press, 2015.
- 11 Adams, Scott, McKinley L. Blackburn, and Chad D. Cotti. "Minimum wages and alcohol-related traffic fatalities among teens." Review of Economics and Statistics 94, no. 3 (2012): 828-840. see also Sabia, Joseph J., M. Melinda Pitts, and Laura M. Argys. "Do Minimum Wages Really Increase Youth Drinking and Drunk Driving?." (2014). & for smoking rates Larimore, Elizabeth, and William Horrace. "The Effect of Minimum Wage Increases on Adolescent Smoking Rates." (2013). Harvard
- **12** Beauchamp, Andrew, and Stacey Chan. "The Minimum Wage and Crime." The BE Journal of Economic Analysis & Policy 14, no. 3 (2014): 1213-1235.
- **13** Meer, Jonathan, and Jeremy West. "Effects of the minimum wage on employment dynamics." Journal of Human Resources (2015).
- **14** Neumark, David, and Olena Nizalova. "Minimum wage effects in the longer run." Journal of Human resources 42, no. 2 (2007): 435-452.
- **15** Clemens, Jeffrey, and Michael Wither. The minimum wage and the Great Recession: Evidence of effects on the employment and income trajectories of low-skilled workers. No. w20724. National Bureau of Economic Research, 2014.

There are other adjustment mechanisms. Workers often receive some of their wages in the form of non-monetary benefits, for example leeway on breaks, free uniforms, travel expenses, food, and so on.¹⁶ A Pret a Manger sandwich, for example, might be worth £3 to an employee and £1 to the firm. A minimum wage may make workers worse off by driving firms to pay their wages entirely or almost entirely in money. The academic literature is unclear on how much this effect actually operates.¹⁷

8. Some evidence suggests that the bulk of the research is wrong, and minimum wages do not have disemployment effects. There is also some evidence that minimum wages affect related areas: e.g. a 2017 paper found that minimum wage hikes led to lower use of payday lenders and more use of traditional banks. If these models are true, should we be sanguine (or even highly positive) about the overall benefits of the NLW?

One body of research suggests we should retain scepticism even then. Not all minimum wage earners are poor: many are in households with others earning more. Not all poor households are minimum wage earners: many, for example, are claiming benefits or doing fewer hours but earning above minimum wage. Given this, many, and perhaps most, poor households stand to lose from a minimum wage that is passed onto consumers, and does not result in job losses. According to MacCurdy, minimum wage hikes—if they come from price hikes—are like sales taxes, except they are more regressive, since poor households disproportionately consume goods produced with minimum wage labour. Overall poor households lose, with full pass-through into higher prices.

THE ROLE OF THE LPC

9. At the moment, the Low Pay Commission has very little say over the National Living Wage. It can raise the level more quickly but it must reach its target level by 2020, and once the level reaches 60% of the median wage it will have very little power at all to keep the level down to avoid unemployment.

¹⁶ Lee, Dwight R. "The minimum wage can harm workers by reducing unemployment." Journal of Labor Research 25, no. 4 (2004): 657-666.

¹⁷ See e.g. Simon, Kosali llayperuma, and Robert Kaestner. "Do minimum wages affect non-wage job attributes? Evidence on fringe benefits." Industrial & Labor Relations Review 58, no. 1 (2004): 52-70. & Bhorat, Haroon, Ravi Kanbur, and Benjamin Stanwix. "Estimating the Impact of Minimum Wages on Employment, Wages, and Non-wage Benefits: The Case of Agriculture in South Africa." American Journal of Agricultural Economics 96, no. 5 (2014): 1402-1419. & Schmitt, John. "Why does the minimum wage have no discernible effect on employment?." Center for Economic and Policy Research 22

¹⁸ Basker, Emek, and Muhammad Taimur Khan. "Does the Minimum Wage Bite into Fast-Food Prices?." Journal of Labor Research 37, no. 2 (2016): 129-148.

¹⁹ Dettling, L. J., & Hsu, J. W. (2017). Minimum Wages and Consumer Credit: Impacts on Access to Credit and Traditional and High-Cost Borrowing.

²⁰ Although see less firm conclusion from e.g. Lemos, Sara. "A Survey of the Effects of the Minimum Wage on Prices." Journal of Economic Surveys 22, no. 1 (2008): 187-212. Harvard & Leung, Justin. "Minimum Wage and Inequality: Evidence from Cost Pass-Through." Available at SSRN (2016).

²¹ MaCurdy, Thomas. "How effective is the minimum wage at supporting the poor?." Journal of Political Economy 123, no. 2 (2015): 497-545.

Politicians cannot be expected to assess all the evidence in a neutral, balanced way—apart from the time constraints they face, they have strong political incentives to raise the rate even if the evidence is against them, if the costs of their actions will be less visible than the benefits (as seems likely in this case).

This is one of the strongest arguments for giving the Low Pay Commission, or a similar body, a role in setting the level of the NLW, and indeed is what makes the NLW of particular concern. The Low Pay Commission's mandate was to raise the NMW without seriously threatening employment and they appear to have satisfied that. The NLW is set essentially arbitrarily and, since it is substantially higher than a rate recommended by the Low Pay Commission, it seems likely that they judge the level to be a threat to employment.

The advantage of a technocratic body like the LPC setting the rate is that it is insulated from party politics, just as making the Bank of England independent took important decisions about monetary policy out of the realm of partisan policymaking, and we give NICE control over which drugs and treatments the NHS should prioritise. Democratically elected politicians still determine these bodies' mandates, but they are not tempted to fiddle with specific elements of policy to win votess. Visible benefits and invisible costs are balanced better.

CONCLUSION

Rather than the National Living Wage, to boost workers' wages and living standards it would be more effective to focus on reforms where there is less risk of unintended consequences. Reducing the cost of living would be one way of doing this — especially by liberalising planning laws to reduce housing costs, and by relaxing regulations around child care, to bring them in line with cheaper, but still safe, European systems. If we want to boost the incomes of low-paid workers, increasing tax credits or introducing a Negative Income Tax would allow us to do so directly, with the money raised through the tax system, instead of doing this redistribution off-balance sheet.

The majority of the empirical economic literature suggests that rises to minimum wages risk reducing employment or employment growth and harming many of the workers the policy is designed to help. Politicians cannot be expected to set the optimal minimum wage level given the political incentives they face. The best approach would be to abandon the National Living Wage and ensure that a body like the Low Pay Commission, with a mandate to boost workers' wages with- out risking unemployment, is given full powers over the Minimum Wage.