The boldest labour market policy in a generation?

The impact of the new National Living Wage on jobs and living standards

Teachers’ Conference
Richard Dickens
20th June 2016
1. Introduction
Minimum Wages have never been so popular

• In UK 66% favour of substantial increase in minimum wage and US 66% are in favour of a minimum of $10
• Over 100 countries worldwide, including 22 EU countries, now have a nationally set minimum wage
• New German National Minimum Wage at €8.50
• UK NMW introduced in 1999 and now NLW with target of 60% median (£9 an hour)
• Various US States and Cities implementing higher minima of $15 – San Jose, LA, San Francisco
Extent of Low Pay Across OECD countries

Selected OECD countries: proportion of full-time employees earning below 2/3 full-time median weekly pay, 2012-2013

- US: 25%
- South Korea: 25%
- Ireland: 23%
- Canada: 21%
- UK: 21%
- Slovakia: 20%
- Czech Republic: 20%
- Denmark: 19%
- Germany: 18%
- Hungary: 17%
- Austria: 16%
- Australia: 16%
- Spain: 15%
- Japan: 14%
- Mexico: 14%
- New Zealand: 14%
- Greece: 12%
- Italy: 10%
- Finland: 9%
- Portugal: 9%
- Belgium: 6%
Outline of lecture

• Low pay in UK context
• Economic theory on minimum wages?
• Evidence from the National Minimum Wage
• The New National Living Wage
• The risks going forwards
2. Low Pay in the UK
Britain’s Pay Inequality Problem

Chart 2. Ratios between key points of the earnings distribution – top to middle (90:50), middle to bottom (50:10), middle to very bottom (50:5)

The National Minimum Wage

- Introduced in April 1999
  - £3.60 an hour
  - Low rates for younger workers
    - 16-17, 18-21 year olds
- Designed to tackle the worst extremes of low pay
- Introduced alongside other changes designed to “make work pay”
  - Tax credits
  - Job search programmes
The Low Pay Commission

• Set up in 1997 to define the National Minimum Wage and recommend its introductory level
• Independent of Government
• Social Partnership based

• 9 Commissioners
• Balance - 3 independents, 3 with employer experience and 3 with union experience
• All Commissioners have equal vote
• To date, always unanimously agreed recommendations
The Role of the Low Pay Commission

• No specific aim/objective under the NMW Act 1998, but given specific remit by Government each year

• HOWEVER, the LPC itself set out its objective in the 2012 Report: “Our aim in making our recommendations each year is to help as many low-paid workers as possible without any significant adverse impact on employment or the economy.”

<table>
<thead>
<tr>
<th>Group</th>
<th>Rate - October 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>£6.70</td>
</tr>
<tr>
<td>18-20s</td>
<td>£5.30</td>
</tr>
<tr>
<td>16-17 year olds</td>
<td>£3.87</td>
</tr>
<tr>
<td>Apprentices</td>
<td>£3.30</td>
</tr>
</tbody>
</table>
Impact on employment?

• When the NMW was introduced the two most major concerns were that it would lead to:
  
  • Job loss
  • Wage inflation (feeding into price inflation)

• “...coming up with a minimum wage that will not seriously harm the economy, and destroy jobs, will require the wisdom of Solomon – or extraordinary luck.”

  The Economist (5 June 1997)
3. Economic Theory of Minimum Wages
Labour Demand Under Competitive Model

Maximise Profits $\pi = Y(L) - wL$

First Order condition

$$\frac{d\pi}{dL} = \frac{dY}{dL} - w = 0$$

• *Implies* $\frac{dY}{dL} = w$
• Marginal Product = wage
Equilibrium in a Competitive Model – firms are price/wage takers
Minimum Wage always leads to unemployment – competitive model
Is Labour Supply to the firm perfectly elastic?
Monopsony Model

- Firms have some degree of control over the wage
  - Face upward sloping supply curve rather than flat one as in competitive model
- Simple monopsony based on single employer in town
- Dynamic models of monopsony allow for multiple employers
- If firms cut wages by a small amount in competitive model all workers would instantly leave.
- In practice, unlikely all will leave instantly.
  - uncertainty about other wages on offer
  - costs associated with moving job
Labour Demand Under Monopsony

Profit Maximisation:

\[ \pi = Y(L) - w(L)L \]

Note now \( w(L) \)

FOC:

\[ \frac{d\pi}{dL} = \frac{dY}{dL} - w(L) - \frac{dw}{dL}L = 0 \]

Marginal Product Labour = Marginal Cost

\[ \frac{dY}{dL} = w(L) + \frac{dw}{dL}L \]

MC two parts:

\( w(L) \) – wage paid to new worker

\( \frac{dw}{dL}L \) – wage must be paid to existing workers
Employment Under Monopsony

Firms set L where MR=MC

Wage

MRPL

MC

W*

Marginal Cost

Supply

Employment

L*
Demand under monopsony

• Firm is making a positive profit on marginal worker
• No incentive to increase L further as
  • Have to raise wage to attract extra worker
  • Have to pay higher wage to all existing workers
• Can show Marginal Cost is mark up on wage
  • Where mark-up is elasticity of labour supply to firm
• Minimum wages can force firms to pay more without necessarily reducing employment
Minimum Wage Under Monopsony

[Graph showing supply, demand, and minimum wage]

- Supply
- Marginal Cost
- Wage
- Marginal Revenue Product of Labor (MRPL)

At equilibrium, the wage $W^*$ is set by the intersection of the MRPL and Marginal Cost curves. The minimum wage $W_{\text{min}}$ is shown below $W^*$, illustrating the impact of a minimum wage under monopsony conditions.

$L^*$ represents the employment level under these conditions.
MC is now black line
Monopsony Model

• Firms have some degree of control over the wage
  - Face upward sloping supply curve rather than flat one in competitive model

• Mass of firms will pay at minimum wage

• Impact on employment is now ambiguous
  - Contrast to competitive model

• For moderate minimum wage may see employment increases

• But if minimum too high will see employment fall

• So becomes an *Empirical Question*
4. The UK National Minimum Wage
A significant proportion of workers earned less than £3.60 an hour before the NMW was introduced.

The NMW was at £6.31 (1 October 2013). Less than 1% earn below the NMW.

The Eradication of extreme low pay
Little adverse impact on labour market

- **Raised the pay** of some 5% of employees
  - modest “spillovers” onto wages above the minimum but no Wage-Price spiral as feared

- **Little evidence of any adverse impact on employment** of individuals or on employment levels in the lowest-paid areas
  - Some evidence of falling job retention rates among part-time female workers
  - A small reduction in hours worked

- **Small increase in prices to consumers**
- **Squeeze on profits**
- **Pay structures** adjusted and simplified.
Generally seen as a success

“Evidence is mounting that moderate minimum wages can do more good than harm.”

“Bastions of orthodoxy, such as the OECD, a rich-country think tank, and the International Monetary Fund now assert that a moderate minimum wage does not do much harm and may do some good. Their definition of moderate is 30-40% of the median wage. Britain's experience suggests it might even be a bit higher. The success of the Low Pay Commission points to the importance of technocrats rather than politicians setting wage floors.”

The Economist (24 November 2012)
The “Bite” (value of NMW to average earnings) is at its highest ever.

![Graph showing the impact of minimum wage on median earnings.]

- **Largest uprating:**
  - April 1999: 46.2%
  - April 2000: 45.7%
  - April 2001: 44.4%
  - April 2002: 44.8%

- **Start of the 2008-09 recession:**
  - April 2009: 51.2%

The graph illustrates the increasing trend in the “Bite” from April 1999 to April 2014, with notable increases in 2009 corresponding to the start of the 2008-09 recession.
But non-extreme low pay has remained
And average real wage growth has declined.
The UK performs poorly on world stage

### Figure 8: International comparisons of the proportion of employees in low pay, latest data

**Selected OECD countries**: proportion of full-time employees earning below 2/3 full-time median weekly pay, 2012-2013

<table>
<thead>
<tr>
<th>Country</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>25%</td>
</tr>
<tr>
<td>South Korea</td>
<td>25%</td>
</tr>
<tr>
<td>Ireland</td>
<td>23%</td>
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<tr>
<td>Canada</td>
<td>21%</td>
</tr>
<tr>
<td>UK</td>
<td>21%</td>
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<tr>
<td>Slovakia</td>
<td>20%</td>
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<tr>
<td>Czech Republic</td>
<td>20%</td>
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<tr>
<td>Denmark</td>
<td>19%</td>
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<tr>
<td>Germany</td>
<td>18%</td>
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<tr>
<td>Hungary</td>
<td>17%</td>
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<tr>
<td>Austria</td>
<td>16%</td>
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<tr>
<td>Australia</td>
<td>16%</td>
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<tr>
<td>Spain</td>
<td>15%</td>
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<tr>
<td>Japan</td>
<td>14%</td>
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<tr>
<td>Mexico</td>
<td>14%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>14%</td>
</tr>
<tr>
<td>Greece</td>
<td>12%</td>
</tr>
<tr>
<td>Italy</td>
<td>10%</td>
</tr>
<tr>
<td>Finland</td>
<td>9%</td>
</tr>
<tr>
<td>Portugal</td>
<td>9%</td>
</tr>
<tr>
<td>Belgium</td>
<td>6%</td>
</tr>
</tbody>
</table>

**Selected European countries**: proportion of employees earning below 2/3 median hourly pay, 2010

<table>
<thead>
<tr>
<th>Country</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macedonia</td>
<td>29%</td>
</tr>
<tr>
<td>Latvia</td>
<td>28%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>27%</td>
</tr>
<tr>
<td>Romania</td>
<td>26%</td>
</tr>
<tr>
<td>Poland</td>
<td>26%</td>
</tr>
<tr>
<td>Estonia</td>
<td>24%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>23%</td>
</tr>
<tr>
<td>Germany</td>
<td>22%</td>
</tr>
<tr>
<td>UK</td>
<td>22%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>22%</td>
</tr>
<tr>
<td>Ireland</td>
<td>21%</td>
</tr>
<tr>
<td>Hungary</td>
<td>20%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>20%</td>
</tr>
<tr>
<td>Malta</td>
<td>19%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>18%</td>
</tr>
<tr>
<td>Croatia</td>
<td>18%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>17%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>17%</td>
</tr>
<tr>
<td>EU-27</td>
<td>17%</td>
</tr>
<tr>
<td>Portugal</td>
<td>16%</td>
</tr>
<tr>
<td>Austria</td>
<td>15%</td>
</tr>
<tr>
<td>Spain</td>
<td>15%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>14%</td>
</tr>
<tr>
<td>Italy</td>
<td>13%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>13%</td>
</tr>
<tr>
<td>Iceland</td>
<td>8%</td>
</tr>
<tr>
<td>Denmark</td>
<td>8%</td>
</tr>
<tr>
<td>Norway</td>
<td>7%</td>
</tr>
<tr>
<td>Belgium</td>
<td>6%</td>
</tr>
<tr>
<td>France</td>
<td>6%</td>
</tr>
<tr>
<td>Finland</td>
<td>6%</td>
</tr>
<tr>
<td>Sweden</td>
<td>5%</td>
</tr>
<tr>
<td>Turkey</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Notes**: OECD data refers to 2013 for countries for which data is available, 2012 otherwise. European data excludes those in firms with fewer than 10 employees.

**Sources**: RF analysis of OECD statistics and Eurostat, Structure of Earnings Survey
5. The New UK National Living Wage
The New National Living Wage

• In the July 2015 budget Chancellor George Osbourne announced a National Living Wage
  • Initially set at 50 pence above the current NMW
  • Applies to workers aged 25 years and over
• Implemented in April 2016 at £7.20 an hour
• Target of 60% of median hourly pay by 2020
  • Government estimates this will be over £9.00 an hour
• Not to be confused with the “The Living Wage”
  • Based on achieving a standard of living through full time work
• NLW really just age related minimum wage
A major change to the economy

- 3.8m jobs will be paid at one of the minimum wage rates
- Significant shift of minimum wage coverage from 5% to 15%
  - Additional £4bn in pay
- An unprecedented pace: a 60% bite for 25+s is an increase of more than 8pp from 2014 (further in six years than the previous thirteen).
- Accepted risk of job loss
  - Office for Budget Responsibility (OBR) estimate 60-100,000 job loss from the NLW
NMW and NLW coverage

Source: ASHE, 1999-2014 and LPC estimates to 2020 using wage forecasts based on ASHE 2014. Please note there are methodological discontinuities in 2004, 2006 and 2011 but they do not materially affect the picture shown.
### Industrial Sectors

<table>
<thead>
<tr>
<th>2020</th>
<th>Bite (25+)</th>
<th>Share (all age) paid at/below applicable NMW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning</td>
<td>100</td>
<td>55</td>
</tr>
<tr>
<td>Hospitality</td>
<td>100</td>
<td>44</td>
</tr>
<tr>
<td>Retail</td>
<td>100</td>
<td>39</td>
</tr>
<tr>
<td>Childcare</td>
<td>98</td>
<td>40</td>
</tr>
<tr>
<td>Hairdressing</td>
<td>98</td>
<td>42</td>
</tr>
<tr>
<td>Food Processing</td>
<td>98</td>
<td>41</td>
</tr>
<tr>
<td>Social Care</td>
<td>92</td>
<td>32</td>
</tr>
<tr>
<td>Storage</td>
<td>88</td>
<td>28</td>
</tr>
<tr>
<td>Textiles</td>
<td>87</td>
<td>34</td>
</tr>
<tr>
<td>Leisure</td>
<td>86</td>
<td>24</td>
</tr>
<tr>
<td>Agriculture</td>
<td>86</td>
<td>26</td>
</tr>
<tr>
<td>Office Work</td>
<td>85</td>
<td>22</td>
</tr>
<tr>
<td>Non-food Processing</td>
<td>83</td>
<td>24</td>
</tr>
<tr>
<td>Transport</td>
<td>82</td>
<td>27</td>
</tr>
<tr>
<td>Non low-paying sectors</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

- Many sectors where large proportions on the NLW: risks to progression?

- Most pressure in sectors with high labour costs as a share of turnover
“Bite” by Firm size

- SMEs: employ 35% of adult workforce but 52% of NMW workers.
<table>
<thead>
<tr>
<th>Region</th>
<th>2014 Adult Rate</th>
<th>2016 NLW</th>
<th>2020 NLW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Ireland</td>
<td>60</td>
<td>65</td>
<td>69</td>
</tr>
<tr>
<td>Wales</td>
<td>58</td>
<td>62</td>
<td>67</td>
</tr>
<tr>
<td>Yorks &amp; Humber</td>
<td>57</td>
<td>62</td>
<td>67</td>
</tr>
<tr>
<td>East Midlands</td>
<td>57</td>
<td>62</td>
<td>67</td>
</tr>
<tr>
<td>North East</td>
<td>56</td>
<td>61</td>
<td>65</td>
</tr>
<tr>
<td>West Midlands</td>
<td>56</td>
<td>61</td>
<td>65</td>
</tr>
<tr>
<td>South West</td>
<td>56</td>
<td>60</td>
<td>65</td>
</tr>
<tr>
<td>North West</td>
<td>56</td>
<td>60</td>
<td>64</td>
</tr>
<tr>
<td>Eastern</td>
<td>53</td>
<td>58</td>
<td>62</td>
</tr>
<tr>
<td>Scotland</td>
<td>52</td>
<td>57</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>56</td>
<td>60</td>
</tr>
<tr>
<td>South East</td>
<td>48</td>
<td>52</td>
<td>56</td>
</tr>
<tr>
<td>London</td>
<td>38</td>
<td>43</td>
<td>44</td>
</tr>
</tbody>
</table>
Impact on broader measures low pay?

Figure 1: Proportion of employees below selected low pay thresholds, 1968-2020

- Below 2/3 median
- Below LW
- Below 1/2 median
- On NMW/NLW

Notes: Gil. Hourly earnings excluding overtime. See Annex 1 for methodological details, including how different datasets are combined.
Modest improvement in International ranking
Who gains from £4bn extra pay?

Figure 2. Estimated distributional impact of gains from the new NLW announced in the July 2015 Budget, 2019–20
6. What are the risks?
How is the minimum wage paid for?

• Job loss or reduced hours of work?
  • Mixed evidence from around the world but likely small effects
• Reductions in other employee benefits?
  • Premia etc withdrawn
• Productivity offsets?
  • Some evidence of increasing productivity
• Profits?
  • Evidence of reductions in profits
• Consumers through price increases?
  • Small impacts on prices as firms pass on costs
• Much of this evidence is based on relatively low minimum wages
  – 5% of workforce not 15%! 
How do firms say they will respond?

Figure 4: Employers’ response to the National Living Wage (by firm size) (%)

- Improve efficiency/raise productivity: Total 30%, 2-249 employees 25%, 250+ employees 32%
- Take lower profits/absorb costs: Total 22%, 2-249 employees 22%, 250+ employees 26%
- Reduce the amount of overtime/bonuses: Total 14%, 2-249 employees 16%, 250+ employees 18%
- Raise prices: Total 10%, 2-249 employees 15%, 250+ employees 24%
- Reduce number of employees through redundancies and/or recruiting fewer workers: Total 10%, 2-249 employees 15%, 250+ employees 17%
- Reduce hours worked by staff: Total 9%, 2-249 employees 7%, 250+ employees 13%
- Reduce the rate of basic pay growth for the rest of the workforce: Total 6%, 2-249 employees 9%, 250+ employees 10%
- Hire more workers aged 24 and under (excl. apprentices): Total 8%, 2-249 employees 8%, 250+ employees 8%
- Recruit more apprentices: Total 8%, 2-249 employees 7%, 250+ employees 8%
- Cancel/scale down plans for investing in/expanding the business: Total 7%, 2-249 employees 5%, 250+ employees 10%

Base: All employers that report that the NLW will affect them (n=561), private sector (n=420), public sector (n=109), voluntary sector (n=32)
The Stock Market didn’t like it

Returns On Budget Day and 24 Hours After The NLW Announcement

Index = 0 at Market Open on Budget Day

NLW Announcement at 13-35

Time of Day

8-00 Open

13-35

16-30/8-00 Close/Open

13-34

NMW Firms

Non-NMW Firms
Research in progress

- Evidence from US increases show wages rise but little in the way of employment effects
  - Evidence of price increases in San Jose (firms pass on whole cost)
- Low Pay Commission Research programme
  - Surveys of selection of firms
  - Analysis of pay agreements and offsetting changes at work
  - Analysis of employment rates by regions
  - Firm level survey in the residential care home sector (High impact sector)
- If there are impacts on employment unlikely to show for some time as work towards 60% median target
- Option to press the red button and halt increases!
Conclusions

• National Minimum Wage has been effective at eradicating extreme low pay
  • Set by LPC independent of government to build consensus
  • Little disenable impacts on jobs or hours

• New Living Wage is a bold experiment
  • Sharp changes in minimum wage designed to reduce broader low pay
  • Significant increase on proportion of workers covered by minimum wage

• Takes minimum wage setting out of hands of LPC
  • Politically motivated move
  • Not something an evidence based commission would do

• Has to be a risk of job loss
  • Government tolerance of 60,000-100,000 loss

• Keenly await evidence
7. Further Reading
Some further Reading

• The Low Pay Commission Report (2016)

• The Earnings Outlook, Resolution Foundation (2016)
  • http://www.resolutionfoundation.org/publications/the-rf-earnings-outlook-q4-2015/

• Weighing up the Wage Floor, Resolution Foundation (2015)
8. Additional Slides
International comparisons of coverage

Figure A3.3: International Comparisons of Minimum Wage Coverage, 2010
What about changes to tax credits?
Three Monopsony Regimes

![Diagram showing a graph with Wage on the y-axis and Employment on the x-axis. The graph includes Marginal Revenue Product of Labor (MRPL) lines and Marginal Cost. The diagram illustrates three monopsony regimes with different MRPL lines intersecting with the Marginal Cost line at different points, indicating different wages and employment levels.]
Three Regimes

• $\text{MRPL}_1$ – Unconstrained regime
  • Firms pay above $W_{\text{min}}$ on Supply Curve

• $\text{MRPL}_2$ – Supply constrained regime
  • Firms pay $W_{\text{min}}$ but Employment determined by Supply Curve

• $\text{MRPL}_3$ – Demand constrained regime
  • Firms pay $W_{\text{min}}$ but Employment determined point where $\text{MRPL} = W_{\text{min}}$