

NERI Research inBrief

April 2015 (no21)

Employment Impacts and the New Minimum Wage Research

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ISSN 2009-5848

SUMMARY

The minimum wage was introduced in Ireland in 2000 and currently stands at €8.65 an hour. Legal national minimum wages now exist in most countries (including 21 European Union countries) and where national minimum wages do not exist there are invariably sectorally agreed minimum wages which operate as wage floors. There is a range of competing theories in the academic literature about the various impacts of the national minimum wage on outcomes such as total and sectoral employment, wages and prices, income equality and poverty. The most common criticism of the minimum wage is that it could increase poverty by increasing the number of people who are unemployed or by reducing hours for those in employment. While the available empirical evidence is ambiguous, inconclusive and often contradictory with regard to employment effects, the results of the most comprehensive meta-studies (studies of studies) strongly suggest that minimum wages exert no significant impact on an economy's overall level of employment.

KEY POINTS

- The minimum wage exists foremost to prevent exploitation, ensure minimum standards in terms of compensation and undermine a cut-throat race-to-the-bottom wage competition. Wage floors can help reduce the degree of income inequality in society by ensuring minimum equity between employer's profits and employee's wages.
- There is a range of competing theories in the academic literature about the various impacts of the national minimum wage on outcomes such as total and sectoral employment.
- The most comprehensive meta-studies on the minimum wage suggest that the employment effects of a change in the national minimum wage are likely to be small or non-existent.
- Why are employment effects so small? The 'cost shock' to employers is small relative to most firms' overall costs. Alternative channels of adjustment may include reductions in labour turnover; improvements in efficiency; wage compression and small price increases.

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Research for new economic policies

Introduction

The strongest attack on minimum wages is the prediction that they cost jobs. But is this argument empirically borne out at the firm level? If so, is it also correct at the economy-wide level? There are three main theoretical models purporting to explain the employment effects of minimum wages and other wage floors - the *competitive* model; the *dynamic monopsony* model and the *institutional* model.

Theories of employment impacts

Competitive models predict that binding wage floors will price some low-wage workers out of jobs and will therefore generate lower employment levels. Minimum wage laws are seen as price fixing – in this case a price floor on the supply of labour.

According to the iron law of demand, if the minimum price is set above the equilibrium wage then a surplus of labour will result i.e. there will be unemployment. Firms will buy less hours of labour at the fixed price. With an excess of labour supply over labour demand firms will employ the more productive workers. Unemployment will be concentrated on the lowest skilled (least productive) workers. The single-sector competitive model therefore predicts higher wages for some low skilled workers but a loss of employment for other low skilled workers. The main criticism of the model is that it is unrealistically simple. Multi-sector models are more ambiguous in their predictions.

Dynamic monopsony models describe a local economy with a single or dominant employer, or 'buyer of labour' – the monopsonist. Monopsony or oligopsony can occur if there are rigidities in employee mobility or collusion between employers. Under monopsonistic conditions, for example a company town or a town or area with a dominant employer, the consumer of labour (the employer) has market power and can use that power to keep wages below the equilibrium rate that might otherwise prevail under perfect competition.

The monopsonist is effectively in a position to pay workers below their marginal product and below the competitive level. The result is a market failure where labour sold (the level of employment) is less than the optimal allocation (full employment). Under this market structure enforcing a minimum wage higher than the market rate, but equal to or below the competitive rate, will raise the level of employment. Hence raising the minimum wages of the workforce can in theory increase employment. The main criticism of the model is that genuinely monopsonistic markets may be rare in the real world.

Institutional models make no clear theoretical predictions about changes in employment and instead describe multiple 'channels of adjustment' through which changes in minimum wages can work their way through the economy. Institutional models are multi-sector with no single well-defined downward sloping labour demand curve.

The economy and labour market are seen as complex systems with multiple elements; multiple interactions; multiple equilibria and, crucially, multiple channels of adjustment to wage and price changes. Channels of adjustment represent the ways that changes in wage floors impact upon the economy. As there are multiple potential non-employment channels of adjustment (see Table 1) actual employment effects are seen as ambiguous and an empirical matter.

Under certain conditions the institutional model even allows for the possibility of positive employment effects. By increasing the spending power of low wage workers, and therefore increasing aggregate demand in the economy, higher wage floors can act as a growth and jobs stimulus. The institutional models also posit that higher wage floors may boost productivity through efficiency wage effects.

Table 1: Understanding employment outcomes - Potential channels of adjustment

Channel of Adjustment	Description
Increased productivity	Efficiency wage effects – employee assigns a higher cost to job loss – higher performance standards – greater work intensity
Offsetting through higher aggregate demand	Increased spending power for low-income workers with higher marginal propensity to consume – which offsets losses to employment
Changes in composition of employment away from low wage sectors	Higher wages reduce subsidy to inefficiency – shifts economy-wide competitive advantage to more productive firms
Reduced churn	Reductions in employee turnover rates – lower recruitment and training costs
Higher prices	Firms respond to higher production costs by increasing their prices
Reductions in hours worked	Firms respond to higher costs by reducing hours
Reductions in non-wage benefits and training	Firms respond by lowering the value of non-wage benefits, such as health insurance and pension contributions
Alternative cost savings	For example cutting waste
Wage compression	Compensating by cutting wages of workers nearer the top
Reductions in firm profitability	Labour’s share of total income increases while capital’s share of total income declines

Sources: Hirsch et al. (2011); Schmitt (2013) and author’s elaboration

Empirical evidence

The UK’s Low Pay Commission has now commissioned around 140 research projects that have covered various aspects of the impact of the national minimum wage on the economy. The 2012 report stated that “*we conclude...the research, on balance, generally finds little or no significant adverse impact of the minimum wage on employment*”, while the 2013 report noted “*our overall conclusions...there remains little evidence of a significant adverse effect of the minimum wage on employment*”. The 2015 report also found little evidence of adverse effects on employment or the economy.

Prior to the 1990s the prevailing consensus was influenced by the findings of the Minimum Wage Study Commission (MWSC) in the US and Canada. The MWSC conducted a major four year study between 1977 and 1981 which determined that minimum wages reduced teen employment and had a small but negative employment impact on young adults. The direction of impact on adults was inconclusive and uncertain. Dis-employment effects were small and limited to teenagers and, to a lesser extent, young adults.

The ‘New Minimum Wage Research’ methodology started to become popular in the 1990s. The Card and Krueger (1994) study was the most famous of these attempts to simulate natural experiments. New Jersey had increased its minimum wage, while contiguous and similar Pennsylvania had not, and this policy difference provided the researchers with natural treatment and control groups. Card and Krueger computed estimates of the effects of the minimum wage increase and found that the effects of minimal wage laws were essentially non-existent – the rise in the minimum wage did not reduce employment in the fast food sector. The results of the study ran against the prevailing consensus and it was argued that the results were study specific and not generalizable.

A subsequent meta-study of 64 minimum wage studies published between 1972 and 2007 corroborated Card and Kreuger’s overall finding of an insignificant employment effect. Doucouliagos and Stanley (2009) graphed over 1,000 employment estimates weighted by statistical precision and found the most

precise estimates were heavily clustered at or near zero employment effects. Wolfson and Belman (2013) subsequently conducted a meta-study of 27 studies published since 2000. There were mixed results but overall the results corroborated the earlier findings of no statistically significant employment effect.

By using similar contiguous areas as treatment and control pairs (e.g. US counties across state borders) it becomes possible to control for temporal and spatial heterogeneities and, with enough pairs, to generalise findings. Contemporary studies by Dube et al. (2010), Allegreto et al. (2011), Hirsch, et al. (2011), and Addison et al. (2012) have all found no net employment effects from increasing the minimum wage. These newer studies have argued that earlier minimum wage research was flawed because it failed to control for the business cycle and regional differences in employment growth that were unrelated to the minimum wage. The newer studies find strong earnings effects and no employment effects from minimum wage increases once account was made for regional trends.

How can we explain these findings? Schmitt (2013) argues that the ‘cost shock’ to employers from a moderate increase in the minimum wage is small relative to most firms’ overall costs. He suggests that the most important ‘channels of adjustment’, or ways that increases in wage floors impact upon the economy, are: reductions in labour turnover; improvements in organisational efficiency; reductions in wages of higher earners; and small price increases.

Poverty and redistribution

It is clear that any employment impact will heavily influence the poverty impact. There are therefore, at least in theory, situations in which a higher minimum wage raises poverty, others where it reduces poverty, and yet others where poverty is unchanged. The outcome depends on various factors e.g. the ratio of the minimum wage to the poverty line and the elasticity of labour demand. The empirical literature is mixed

although minimum wages are generally found to reduce poverty.

Minimum wages can have positive distributional impacts. For example the OECD (1998) found that minimum wages can reduce poverty rates and income inequality among working families while Brown (1999) found that minimum wages compress the wage distribution. Di Nardo, Fortin and Lemieux (1996) found that the decline in the real value of the minimum wage explains a substantial portion of the increase in wage inequality in the US between 1979 and 1988, particularly for women, while Metcalf (2007) argues that the minimum wage raised the real and relative pay of low wage workers and narrowed the gender pay gap in the UK.

Conclusion

Minimum wages are not a particularly powerful anti-poverty measure but they are nevertheless an important bulwark protecting migrant and other vulnerable groups. On balance the weight of international empirical evidence suggests that the net employment effects of an increase in the national minimum wage are likely to be small or non-existent. On the other hand there are likely to be positive distributional effects and a boosting of wage equality between women and men.

References

This NERI *Research inBrief* summarises the NERI submission to the Low Pay Commission on the economy wide impacts of changes to the national minimum wage. The submission will be made available on the institute’s website and contains a full list of the references used in this *inBrief*.

McDonnell, T. (2015) *Employment and other impacts of changes to the national minimum wage*, NERI Submission to the Low Pay Commission. Dublin, NERI.

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