

Economic Discussion Paper

# **A Hard Day's Work**

## *The Minimum Wage Debate Continues*

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## History & Background

Minimum wage theory and its influence on the labour market is a socioeconomic topic that continues to be hotly debated within economic and political circles. The minimum wage refers to the price floor for labour, dictated by governing administrations<sup>1</sup> as the lowest wage that firms may pay workers. The exact effects of this economic instrument remain unclear, and the sizeable research and empirical data completed in this field has created more questions than answers. Essentially; are greater unemployment levels the opportunity cost of ensuring a fairer wage?

Central to this issue, and the very reason for the existence of the minimum wage, is the assumption that economists as policy advisors use theories to help change the world for the better.<sup>2</sup> Price controls, (either 'ceilings' or 'floors')<sup>3</sup> will be enacted when policymakers believe that the market price for a good or service is unfair to buyers or sellers. In this case, the supposition that there is a threshold price for labour, below which no person should be expected to work for that wage rate. As we shall see, these policies can however, create inequities of their own.

Perhaps one of the most elegant models in economics is the free market, and its natural adjustment to a market clearing equilibrium. The minimum wage challenges this, and suggests that not everyone will be pleased with the outcome of the free market process.

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<sup>1</sup> First instance 1909 (UK) ; 1912 (US)

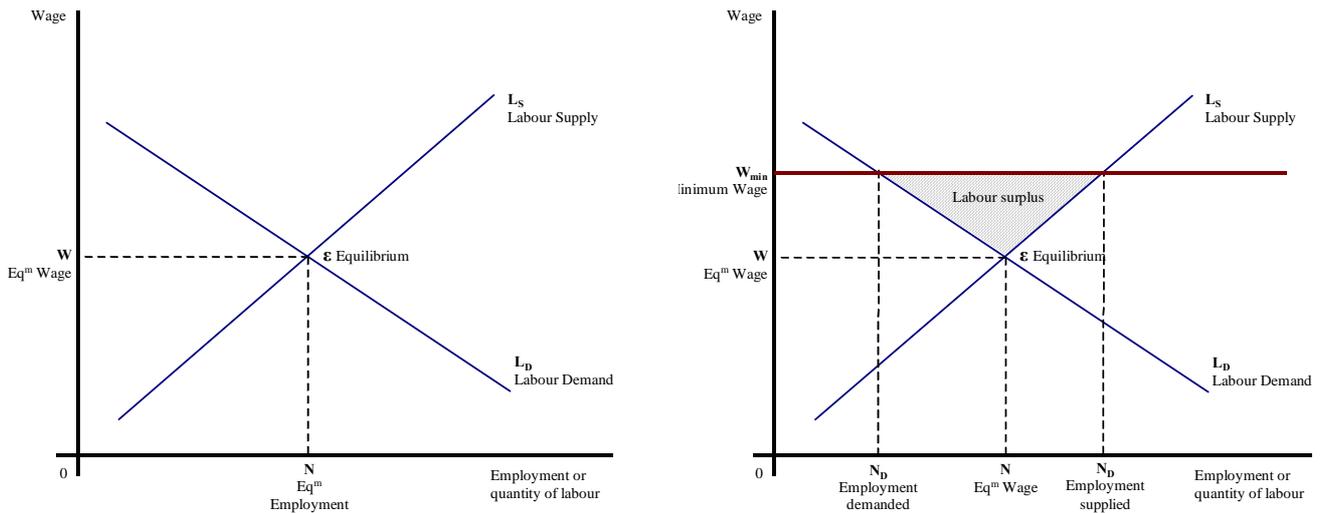
<sup>2</sup> Gregory Mankiw, *Principles of Economics* 2004 Thomson-Southwestern

<sup>3</sup> First suggested by William Johnson 1897

### What is the effect?

*“Increases in minimum wages price workers out of jobs”*

Basic supply and demand analysis shows us that if the minimum wage law has any effect at all, it must raise the unemployment rate<sup>4</sup>, indeed 90% of professional economists agree with the prediction<sup>5</sup>. In the absence of control, wages are determined, like all prices by supply and



demand.<sup>6</sup> As the graphs<sup>7</sup> above illustrate, a minimum wage rate higher than the equilibrium wage creates a discrepancy between the employment demanded by firms and that supplied by the labour force. The neoclassical model, where each employee is paid on the basis of his or her marginal product, confirms that this will ultimately lead to unemployment, created directly as a result of the imposition of a minimum wage on the market.

The greatest impact on the employed population is that to teenagers, and young adults.<sup>8</sup> Higher wage, more skilled, and in general older people are not affected by any changes or introduction of, a minimum wage, as they are well above this wage rate. For these workers, the minimum wage is not binding. A “typical [US] study finds that a 10% increase in the

<sup>4</sup> Frank and Bernanke, *Principles of Economics* 2001 McGraw-Hill

<sup>5</sup> Study quoted from Card and Krueger *Myth and Measurement: The economics of the minimum wage* 1995 Princeton University Press - Such high levels of agreement are unusual between economists!

<sup>6</sup> Sapsford and Zafiris quoting Hicks (1932) *The economics of the labour market* Macmillan Press

<sup>7</sup> Graphs author's own

<sup>8</sup> Henderson, *A Wage Threshold is Introduced* 1967 Doddington Press

minimum wage depresses teenage employment by between 1-3%”<sup>9</sup>, and that “a minimum wage set at £4.15p/h would cost at least 950,000 jobs”<sup>10</sup>, this is significant considering also that the enforcement of the minimum wage law is not always perfect. As a result, it has been argued that the minimum wage reduces opportunities for teenagers, often willing to accept lower rates of pay in return for on-the-job-training (apprenticeships, internships), and at worst, encourages teenagers to drop out of school and take up (now more attractive) jobs.

### **Understanding the Empirical Evidence**

It is certainly clear that recent work in this field has shifted the focus of the debate. Abstract theoretical reasoning has given way to systematic empirical study, and key to new ground covered has been the work of Card and Krueger, namely a recent book entitled ‘Myth and Measurement: The New Economics of the Minimum Wage’<sup>11</sup>.

This has certainly thrown new light on to the topic, and opposition to this work has included the assertions that the results “just can’t be right”<sup>12</sup>. Previously, much of the conclusions drawn from empirical evidence stated that it was “striking to observe that the labour force effects of minimum wages are predominantly negative”<sup>13</sup>.

In summary, Card and Krueger’s recent study attempts to re-evaluate much of the previously accepted findings, and in this they reach two conclusions; (i) Extending the data to the 1980’s shows smaller, though still negative elasticities of the labour supply and (ii) there may be an element of ‘publication bias’ that shaped the previous consensus estimates. Essentially, the evidence showing that the increases in the minimum wage having no effect, or a *positive*

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<sup>9</sup> Gregory Mankiw, *Principles of Economics* 2004 Thomson-Southwestern

<sup>10</sup> Ian Lang *The Independent*, 13 September 1995

<sup>11</sup> [See bibliography for details]

<sup>12</sup> Welch, 1995 *Industrial and Labour Relations Review* (45) 842-9

<sup>13</sup> Mincer, Unemployment Effects of Minimum Wages *The Journal of Political Economy* 84 (4:2) August 1976 S87-S104

effect<sup>14</sup> on employment is at least as compelling as the evidence presenting it as having an adverse effect.

This new evidence, or at least renewed thinking poses serious questions as to the validity of previously accepted models as the basis of the economics of labour. New research questions what has been previously thought and the textbook approach, and has “shifted from ‘how negative are the effects?’ to ‘is there an employment effect?’ to ‘what potential is there for a positive effect?’ ”<sup>15</sup>

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<sup>14</sup> Card and Krueger 1994,1995 Study findings (of 410 fast-food restaurants in NJ and PA,USA) are consistent with results for the fast food industry and revealed that the relative employment of workers most heavily affected by the minimum wage increase seem to have *risen* rather than have fallen.

<sup>15</sup> Machin and Manning *The Economic Journal* 106 (436) May 1996 667-676

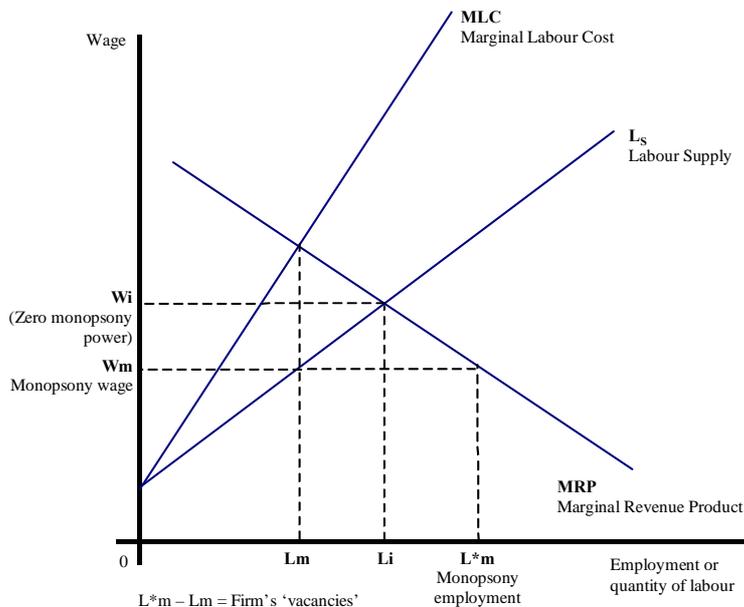
## Alternative Explanations

### Monopsony<sup>16</sup> in the labour market

“Can increases in the minimum wage increase employment levels?”

Monopsony literally refers to a market with a single buyer<sup>17</sup> and more technically refers to the upward-sloping labour supply curve, where for the monopsonist to attract more labour it must offer a higher wage rate.

Monopsony theories provide an interesting contribution to the to the minimum wage debate, as they have important (though often ambiguous) implications for the effects of minimum wages<sup>18</sup>.



Monopsonistic models, which are inherently more complicated respond differently to a minimum wage from competitive markets<sup>19</sup>; and although monopsonism is usually regarded as an exclusive access to a completely isolated labour market, such cases are rare.

<sup>16</sup> First used by Joan Robinson and B.L. Hallward (1969, p. 215)

<sup>17</sup> Although economists have generally focused so far on the implausibility of the single buyer assumption.

<sup>18</sup> Boal, Ransom *Journal of Economic Literature* 35 (1) March 1997 86-112

<sup>19</sup> George Stigler *The Economics of Minimum Wage Legislation* American Economic Review June 1946 36 358-65 ; Archibald, *The Factor Gap and the Level of Wages* Economic Record November 1954 30 (59) 187-99

Collectively however, firms such as those in the fast-food industry<sup>20</sup> may share many of the characteristics of monopsonistic models. A more modern version of monopsony as proposed by Machin and Manning<sup>21</sup> suggests that we should approach the effect as “market frictions which make the supply of labour to the individual firm at least somewhat inelastic”.

Although the studies of Card and Krueger controversially suggest increases in the minimum wage may have no effect, and possibly even a positive effect, this theory is perfectly compatible with Monopsony (countering *exploitation* in the model by increasing employment). The collusive, Cournot, and classic differentiation models all predict a positive effect, provided that the minimum wage is still below the Marginal Revenue Product, MRP<sup>22</sup>.

The work of Boal and Ransom concludes that under the more sophisticated model of monopsony, the true effect will remain an empirical question, but conversely that even with further empirical evidence, this will provide little help with the understanding the monopsony model.

### **The Political Theory**

#### *“Winners and losers”*

A possible explanation to why the minimum wage has been popular, and still exists today is that democratic governments will respond to the needs of the majority voters. If minimum wages create unemployment, as shown in Section I, then why are they so unpopular?<sup>23</sup> With this law, there appear to be two classes of workers created, those who are lucky enough to find jobs at the minimum wage rate level, and those who are shut out as the minimum wage exceeds the natural equilibrium wage.

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<sup>20</sup> Extensive studies made by Card and Krueger (1994,1995) relating especially to the high proportion of teenage employees in the business, and hence those affected by the minimum wage.

<sup>21</sup> Machin, Manning The effects of minimum wages on wage dispersion and employment: Evidence from the UK wage councils *Industrial and Labour Relations Review* 1994 vol 47(2) 319-329

<sup>22</sup> Boal, Ransom *Journal of Economic Literature* 35 (1) March 1997 86-112

<sup>23</sup> Frank & Bernanke, *Principles of Economics* 2001 McGraw-Hill

Those workers under employment at the minimum wage, will earn more than they would have otherwise, and thus if put to a vote, those who benefit from the legislation may well outweigh those who have become unemployed.

### **Policy Implications**

Advocates of the minimum wage suggest that it is a method for raising income for the poor, and as such should not be discarded. Unemployment may be an adverse effect, but overall, a higher minimum wage ensures that the poorest people in society are better off.

It appears to be that whilst the minimum wage has good intentions for the labour market, it can be an extremely blunt tool for its purpose. It is as such, a 'poorly targeted policy'; "fewer than a third of minimum wage earners are in families with incomes below the poverty line"<sup>24</sup> Many are from middleclass homes working at part time jobs for extra spending money. A better policy might involve the use of an 'Earned income tax credit' system, currently used in the US. This is a government programme which increases the income of low wage workers directly, by supplementation. Direct benefits of the minimum wage are however empirically evident in an apparent 'ripple effect' in which an increase in the minimum wage observes a general increase in the pay rates for workers in the bottom 10% of the wage distribution<sup>25</sup>.

This is not to say, however that we should treat labour as any other commodity, "The need for a special theory of wages arises [...] because it has certain peculiar properties, which make it impossible to apply to labour without some further consideration"<sup>26</sup>, however, as Machin and Manning have found, although the minimum wage is a far from perfect, it does have the potential to redress the income inequalities for working households affected by low pay.

Robert Reich (US Secretary of State for Labour) has stated that; "minimum wages can be raised with no negative employment consequences"<sup>27</sup>.

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<sup>24</sup> Adepo N, *Minimum Wage Statistics* 1989 Randall

<sup>25</sup> Card and Krueger *Myth and Measurement: The economics of the minimum wage* 1995 Princeton UP

<sup>26</sup> Sapsford and Zafiris quoting Crossley (1973) *The economics of the labour market* Macmillan Press

<sup>27</sup> Machin and Manning *The Economic Journal* 106 (436) May 1996 667-676

## Conclusions

If as stated from the outset, the cause behind the minimum wage effect is to improve the welfare of those in the lowest socio-economic bracket of society by means of a wealth redistribution mechanism, then we might be better employing more direct approaches and use other methods of combating poverty. However, using the minimum wage in as a policy instrument in the meantime may not be as cumbersome as was previously thought; as Machin and Manning have found, “[overall] the employment effects are rather minimal”<sup>28</sup>, and indeed for the UK at least, have the “potential to improve the lives for many British workers, most of whom are women”<sup>29</sup>. (Since labour elasticity is higher for women than it is for men, any beneficial employment effects will be more likely to apply to women)<sup>30</sup>.

Beyond this, the question as to whether there might be a positive effect linked to monopsony has been discussed, although some important qualifications are necessary. As Machin and Manning continued to find, this appears not to be a blanket rule; the potential for desirable effects may differ considerably for different groups of workers and different sectors in the economy.

We can conclude that when employers have some monopsony of power, a minimum wage slightly above the free market equilibrium will increase employment levels, but a minimum wage substantially above the free market equilibrium is likely to reduce employment. The employment effect of a minimum wage is therefore an empirical question.

Recent published research is taking us beyond the traditional neoclassical model previously taken as given. We can almost now assume the textbook model to be obsolete, or at the very least, simply not a complete picture. Further research will be required if we are to unravel the true meaning of the effects of minimum wage on employment of low-wage workers.

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<sup>28, 29</sup> Machin, Manning *The Economic Journal* 106 (436) May 1996 667-676

<sup>30</sup> Machin, Manning The effects of minimum wages on wage dispersion and employment: Evidence from the UK wage councils *Industrial and Labour Relations Review* 1994 vol 47(2) 319-329

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