Final Report

of the

Inter-Departmental Group on

Implementation of a

National Minimum Wage

Contents

CHAPTER 1

Background

The National Minimum Wage Commission

1.1   The Government's *Action Programme for the New Millennium* outlined its main objectives and included, as a key priority, a commitment to:

> "*The introduction of a national minimum hourly wage, following early consultation with the social partners.*"

1.2   The National Minimum Wage (NMW) Commission was appointed by the Government on 18 July 1997 to follow up on this commitment. The terms of reference of the Commission were as follows:

- *to advise on the best way to implement the commitment having regard to the level and extent of low pay in the economy;*

- *to examine the range of possible mechanisms for determining and implementing minimum wages and in combination with it to describe and assess the existing minimum wage-fixing machinery and its potential for addressing low pay in the economy at large;*

- *to examine measures which will address any adverse impact on employment and competitiveness and in particular as regards small and medium enterprises;*

- *to consult with the social partners before the finalisation of its report; and to report to Government by the end of 1997.*

1.3   The NMW Commission submitted a progress report to the Tánaiste on 16 December 1997 indicating that, due to the time taken to conduct the necessary research, analyse the findings and consider the volume of evidence received, a longer timespan was required by the Commission in order to fulfil its terms of reference. The Commission's report was submitted to the Tánaiste at the end of March 1998, and was published on 5 April 1998. The report contained a summary of a study, undertaken for the Commission by Brian Nolan of the ESRI, into the extent of low pay in the economy and of the employees affected and related aspects. (The full study was included in the Commission's report and was published as a separate document on 8 April 1998.) The report examined a number of issues including the social implications of a national minimum wage, existing sectoral minimum wage systems in Ireland, and the determination, implementation and enforcement of a national minimum wage.

The Commission's recommendations

1.4   The Commission's main conclusions and recommendations were as follows:

- *The introduction of a national minimum wage and the rate at which it was set must be sensitive to its employment effects;*

- *The impact of the national minimum wage should not lead to a widening in the dispersion of earnings in the economy and claims for wage increases on foot of the introduction of the national minimum wage should not be entertained;*

- *Any recommendations adopted on implementing a national minimum wage should take account of the implications of any such measures in the wider context of tax and benefits;*

- *The recommended structure and level of the minimum wage should take account of the needs of the most sensitive sectors to remain competitive;*

- *A Minimum Wage Commission be established on a statutory basis;*

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- *The Minimum Wage Commission should review the rate taking into account the trend in prices, overall economic conditions, employment and competitiveness;*

- *The initial rate for the national minimum wage should be set at around two thirds of median earnings (£4.40 per hour in 1998 terms) and should take into account employment, overall economic conditions and competitiveness;*

- *It was estimated that 23% of employees currently earned less than this amount;*

- *In terms of cost, it was estimated that a minimum wage of £4.40 would cost just under 4% (£813 million in 1997) of the total national wage bill;*

- *There should be a separate rate for under 18s set at 70% of the full rate;*

- *A separate training rate for job entrants, apprentices and trainees on the basis of a sliding scale;*

- *That a target date of 1 April 2000 should be set to implement the commitment on the national minimum wage;*

- *Conscious of the possibility of a change in economic circumstances arising from Economic and Monetary Union and, in line with the arrangements in P2000 dealing with pay, that the NMW rate should similarly be subject to review under the partnership process;*

- *Legislation to introduce a national minimum wage should take account of pay and other forms of remuneration;*

- *The staffing of the existing Labour Inspectorate be increased to enforce the minimum wage through routine inspections and spot checks; or*

- *Introduce a new Minimum Wage Inspectorate;*

- *Other enforcement measures such as declarations of compliance with NMW incorporated into annual tax returns and also as a requirement under the Terms of Employment (Information) Act;*

- *Complaints procedures which should be cost free and easy for the employee.*

The Inter-Departmental Group

1.5   At its meeting on 31 March 1998, the Government considered the Commission's report and approved the establishment of an Inter-Departmental Group representative of the Departments of the Taoiseach, Finance, Enterprise, Trade and Employment, Social, Community and Family Affairs, Health and Children, Tourism, Sport and Recreation, and Education and Science to assist in formulating proposals and a plan of action and with a view to coming back to Government as early as possible.

1.6   The Inter-Departmental Group's remit, as set out in the Government decision of 31 March 1998, was to assist in formulating proposals and a plan of action. The Group was of the view that its main task was to undertake a technical assessment of the consequential implications and effects resulting from the implementation of the Commission's recommendations and to identify solutions to any problems which may arise. It did not consider that its function was to repeat the enquiries and investigations undertaken by the Commission. It considered that it should suggest alternatives to the Commission's proposals only where major concerns — economic and social — were identified arising from their implementation. In this context, the effects of implementation on current Government economic, social and educational policies — issues outside the remit of the Commission — were also assessed. A further important function of the Group was to fill any gaps in the Commission's consideration of the detailed arrangements to apply to the implementation of the national minimum wage.

Interim Report

1.7   The Group submitted an Interim Report to Government on its progress, and the Interim Report was published in November, 1998. The Group invited submissions from a broad range of interested parties on its Interim Report. Officials of the Department of Enterprise, Trade and Employment held

consultations with the Social Partners and other interested groups, and reported back to the Group on the outcome of those consultations. The Group would like to thank those organisations that responded to the Interim Report. Appendix A contains a list of organisations whose submissions, both oral and written, contributed to the process of finalising the recommendations contained in this report.

Assessing the impact

1.8 After initial consideration of a broad range of issues, it was apparent to the Group that the general nature of much of the information contained in the Commission's report precluded any detailed analysis of the impact on the economy, and specifically on the sectors most likely to be affected, of the introduction of a national minimum wage at the rate recommended by the Commission.

1.9 Accordingly, to assist the Group to remedy these information deficits, it was decided to engage consultants to undertake a comprehensive study of the impact of the recommended national minimum wage on those sectors most affected. The Impact Study was carried out by a team lead by the ESRI, who also undertook the initial study for the Commission. The ESRI Impact Study was designed to further develop the analysis and data in the Commission's study, with particular regard to those sectors most likely to be affected, and — given the existence now of the specific parameters, in the form of the Commission's recommendations — in respect of the rate and implementation date. It was also designed to allow the Group assess the recommendation of the Commission that the rate set should take into account competitiveness, employment and overall economic conditions, as well as providing a detailed analysis of the extent of the dynamic economic effects. Arrangements for the engagement of the consultants, in accordance with Government contracting procedures, were completed at the end of July. The ESRI Impact Study was submitted to the Group in April 1999, and a progress report was given in December 1998.

1.10 A summary of the ESRI Impact Study is given in Chapter 2 and the complete ESRI Impact Study is contained in Appendix B.

Role of the social partners

1.11 The Group is pleased that the social partners contributed fully to the consultations for establishing and implementing a national minimum wage. The Group considers that the social partners should continue to be involved in the preparations for its introduction, including the development of a public information campaign. The social partners will continue to have a significant role in subsequent reviews of the national minimum wage rate, and the ongoing monitoring of the implementation of the legislation.

Developments in the UK

1.12 In the UK, the Low Pay Commission was established in July 1997 to recommend the initial level at which a national minimum wage is introduced. Its report was published on 18 June 1998 and recommended a rate of Stg£3.70 an hour in June 2000, with an initial rate of Stg£3.60 an hour in April 1999. It recommended that those aged 16 and 17 and those on apprenticeships be exempt from the national minimum wage and that a development (reduced) rate be available for 18-20 year olds and for workers starting a new job with a new employer and receiving accredited training. It was estimated that the UK minimum wage rate would impact on about 9% of employees and increase the national wage bill by a little over 0.5%.

1.13 The UK Government implemented its national minimum wage on 1st April, 1999. The standard minimum rate is currently Stg£3.60 an hour for workers aged 22 years and over. The minimum rate is Stg£3.00 an hour for workers aged 18 to 21 years. There is an accredited training rate of a minimum of Stg£3.20 for workers aged 22 years and over who are starting a new job with a new employer and doing accredited training. This rate can be paid only for the first six months of the new job, after which the worker must get at least Stg£3.60 an hour. The UK government has announced that the full rate will be increased to Stg£3.70 in June 2000 and the rate for those aged 18 to 21 will be increased to Stg£3.20 on the same date.

CHAPTER 2

The Impact of the Minimum Wage in Ireland

A Summary of the ESRI Study

Purpose of the Study

2.1 The Inter-Departmental Group on the Implementation of the National Minimum Wage commissioned the ESRI to study the likely impact of the national minimum wage on employment, competitiveness and inflation in various sectors and on the economy as a whole.

Minimum Wage Studied

2.2 The Inter-Departmental Group assumed for the purpose of its Interim Report that the nominal rate of £4.40 (70% if under 18) mentioned by the Minimum Wage Commission would apply when the minimum wage was introduced. The ESRI followed that assumption, and assumed for the purpose of the exercise that the minimum wage was to be introduced in April 2000. Alternative specifications were also examined to test the sensitivity of the results.

Numbers Directly Affected by the Minimum Wage

2.3 The distribution of earnings in the ESRI's 1997 Living in Ireland Survey was projected forward to April 2000 in order to estimate the numbers directly affected by the minimum wage. This suggested that 13.5% of all employees would be under £4.40 (or £3.08 if under 18) in 2000, the central estimate of the numbers likely to be below the specified minimum wage.

2.4 This figure was much lower than the 23% below £4.50 in Nolan's (1998) study for the Minimum Wage Commission mostly because that referred to 1997 whereas the minimum wage is not to be introduced until 2000. Varying the projected increases in median and lower earnings between 1997 and 2000 still produced a figure in the range 13-15%. To put these figures in context, a minimum wage set at £4 per hour in 2000 (£2.80 for under-18s) would affect 11% of all employees, while one set at £5 per hour (£3.50 for under-18s), would affect 21% of employees.

2.5 The profile of the employees falling below the specified minimum wage was very similar to that presented in Nolan's (1998) study. More than half those below the minimum wage were women, about one-third were working less than 30 hours per week, and over 40% were aged under 25. Clerical and service workers were heavily over-represented among those below the minimum.

Immediate Impact on the Wage Bill

2.6 The overall increase in gross earnings associated with the specified minimum wage was estimated to be 1.6% of total gross earnings. Once again wage growth between 1997 and 2000 was the main reason why this is so much lower than Nolan's (1998) estimate of 4% for the increase in gross earnings associated with a £4.50 minimum wage operating in 1997.

2.7   The likely scale of increases in wages above the minimum as a reaction to the narrowing of differen-tials — "spill-over" — was very difficult to assess. Assuming that only those located within 50% of the minimum itself were affected, and that they obtained additional increases tapering from 5% down, spill-over would bring the total wage bill increase up from 1.6% to 2%. As a point of comparison, average annual wage increases in the period up to 2000 under Partnership 2000 were just under 3%.

2.8   Alternative levels for the minimum wage itself produced a wider range of estimates of the wage bill effect, from as little as 1% (for a minimum wage of £4 with no spill-over) up to over 3% (for a minimum wage of £5 with some spill-over).

2.9   The total wage bill effect was estimated at almost 10% in personal services, and close to 5% in retailing and in professional services. Sub-sectors facing wage bill effects well above average included textile and apparel manufacturing, sale and repair of motor vehicles and sale of automotive fuel, retail trade other than motor vehicles, hotels, restaurants and bars, other personal services and household domestic employees.

Impact on Work Incentives

2.10   SWITCH, the ESRI tax-benefit model, was used to simulate the impact of the national minimum wage on family disposable income and work incentives. Disposable income rose by about 70% of the overall increase in gross earnings. Most of the difference is due to increasing income tax and PRSI, but there were also significant reductions in social welfare receipts.

2.11   Most families gaining from the minimum wage in terms of disposable income were in the middle of the income distribution, although gains were also found among higher and lower income families. This reflected the fact that many of the low paid employees who stood to gain from the minimum wage already had disposable incomes above those of welfare recipients and others at the bottom of the family income distribution.

2.12   Simulating the impact of the minimum wage on replacement rates suggested that it would lead to a significant improvement in financial work incentives facing those who were unemployed or classified as in "home duties", while also improving the reward to employment for those who were currently employees. The proportion of the unemployed facing replacement rates of over 50% fell in the simulation from 41% to 23%.

Labour Supply Responses

2.13   Micro-data from the 1994 Living in Ireland Survey provided the basis for estimating the responsive-ness of individuals to the wage rate, while controlling for other demographic and economic factors that may affect their labour supply behaviour. The participation decision was modelled for men with low education levels, men with higher education levels, married women and single women. For each of these groups participation was inelastic, a 1% increase in the wage rate leading to a less than 1% increase in the participation rate, with married women having the highest elasticity.

2.14   These results were then used to predict changes in participation rates in response to the minimum wage. The largest response to the introduction of the minimum wage will be amongst women, with increases in the participation rate of 3 percentage points. The estimated effect on men's participation rate was 1.5% points, and the overall participation rate was estimated to increase by more than 2 percent-age points.

Macroeconomics Effects of the Minimum Wage

2.15 The ESRI's HERMES macroeconomic model was used to estimate the overall impact of the minimum wage on employment, unemployment and competitiveness.

Summary of Immediate and Long-Run Impact of Minimum Wage on the Labour Market

	Employ-ment	Unemploy-ment	Labour Force	Annual Net Migration Flows	Inflation	*Average Non-Agric. Wage**
Summary of Immediate Impact of Minimum Wage on the Labour Market						
Demand Effect:	−14,854	+10,567	−4,287	0	+0.22%	*
Tourism	−447	+298	−149	0		*
Real Wage Effects	+117	−77	+40	0	+0.04%	+0.21%
Supply Effects	−247	+3,338	+3,091	0		*
Total	−15,431	+14,126	−1,305	0	+0.26%	+1.93%
Summary of Long-Run Impact of Minimum Wage on the Labour Market						
Demand Effect:	−6,177	+4,550	−1,627	0	+0.96%	*
Tourism	−1,437	+302	−1,135	+200		*
Real Wage Effects	−5,809	+1,554	−4,255	+650	+0.49%	+1.13%
Supply Effects	−52	+2,456	+2,404	0		*
Total	−13,475	+8,861	−4,614	+850	+1.45%°	+2.85%

*Increase of 1.72% for a minimum wage of £4.40 with spillover.

**The projected increases in the overall wage bill, referred to elsewhere in the report, of 1.6% (with no spill-over) and 2% (with spill-over) are based on the Living in Ireland Survey, 1997.

Impact on Prices and Competitiveness

2.16 The direct effect of the minimum wage in raising wages feeds into higher prices in the services sector and a long-run increase in consumer prices of under 1%. This higher inflation will, in turn, lead to higher wage demands as workers seek to restore the after tax real wage. This real wage effect will lead to a further pass-through into prices of 0.5%. The cumulative long-run impact on average wages is 2.85%, while that on consumer prices is 1.4% — of the same order of magnitude as current annual rate of price inflation. This implies an increase in the real wage of approximately 1.4% which represents a significant deterioration in competitiveness, with knock-on consequences for employment and unemployment.

Impact on Employment

2.17 The central simulation results suggested a fall in employment of 13,500 in the long-run. To put it in context, the most recent medium-term forecasts of employment growth with the ESRI's macromodel, in the absence of the minimum wage, include a growth in employment of 18.9% between 2000 and 2010. The introduction of the minimum wage is expected to reduce the growth in employment over the period 2000-2010 from 18.9% to 18%. (The projected fall in employment lies within the range 9,500 to 17,400 when different assumptions on spill-over are used).

2.18 This decline was driven in equal measure by two separate effects:

- a decline in the demand for low-wage labour due to the direct impact of the introduction of the minimum wage. Almost this entire decline occurred in industrial sectors;

- a decline in the demand for higher-wage labour due to the indirect impact of the minimum wage on inflation, increasing wage demands and reducing competitiveness. The cumulative long-run impact on average wages was 2.85% and on consumer prices was 1.4%. This implied an increase in the real wage of approximately 1.4%, which represented a significant deterioration in competitiveness. This decline impacted on the demand for labour in both industrial and services sectors.

Overall approximately 84% of the projected total fall in employment occurs in the industrial sectors, including building and construction.

Impact on Unemployment

2.19 Unemployment was projected to increase by 8,860 in the long-run. Net migration flows increased by 850 per annum in the long-run. The increase in unemployment will mainly impact on persons with low skills, while the increase in migration will be concentrated among the more highly skilled.

2.20 These estimates did not take into account the potential positive impact of a minimum wage on effort and productivity levels and turnover of employees, or monopsony in parts of the low-wage labour market. For these reasons, such macromodel simulations may overstate the likely impact of the minimum wage on jobs.

Learning from UK Research and Experience

2.21 The Irish minimum wage will be higher in nominal terms than the minimum just introduced in the UK at stg£3.60, and the UK youth rate will apply to all those aged under 22 rather than 18. In relative terms, the Irish minimum was likely to represent about 56% of median earnings for those aged 18 or over, while the UK minimum wage for those aged 22 or more was 47% of their median hourly wage. The UK Low Pay Commission estimated that only about 9% of employees aged 18 or over would be affected by the minimum wage there. This meant that there was greater potential for disemployment effects in the Irish case. The treatment of youth workers in particular received a great deal of attention in the UK and may merit further consideration in the Irish case.

Results from a Survey of Firms

2.22 A specially designed survey of firms was carried out as part of this study in late 1998/early 1999. It obtained information from 1,062 Irish private sector firms, with a response rate of 46% — in line with expectations from a general sample of firms. The results have been re-weighted to ensure that the sample for analysis represents the population of firms in terms of sector and size.

2.23 About three-quarters of employers in the survey are aware of the proposed minimum wage. However, many of these do not know its detailed specification in terms of the main rate, the existence of sub-minimum rates, and when it is to be introduced. About 11% of employers say they have taken steps to prepare for the minimum wage, and even in the sectors most affected this figure was no higher than one-quarter.

2.24 Employers were asked about likely responses in a number of areas of business activity to the introduction of a minimum hourly wage. Substantial numbers said that cutting back on profit margins and improved staff morale were likely. Relatively small numbers said that substitution of labour with capital was likely, while about 20 per cent felt that productivity increases were likely. About one-third of firms felt that the minimum wage would be likely to reduce staff turnover, and about one-quarter said that they would retrain/upgrade work of current staff. Seventeen per cent indicated that the introduction of the minimum wage could result in their going out of business — though the possibility of strategic response must be noted there. About 56 per cent of firms indicated that staff/unions would probably insist on restoration of pay differentials as a result of the minimum wage.

2.25 Approximately 21% of all employees in the firms surveyed were currently being paid less than £4.50 an hour, consistent with the results for the private sector from the 1997 household survey. The sectors most affected by the minimum wage were also consistent in the two sources.

2.26 The fact that the survey of firms had been carried out was very important for future monitoring and evaluation of the impact of the minimum wage. Being able to survey the same sample of firms after the minimum wage was introduced greatly enhances prospects of a reliable evaluation of its actual effects after the event.

CHAPTER 3

Issues Concerning the Rate and Implementation

The rate

Interim Report

3.1   The National Minimum Wage Commission recommended that *"the initial rate for the national minimum wage should be set at around two-thirds of median earnings and should take into account employment, overall economic conditions and competitiveness"*. It stated that *"in today's terms, two thirds of median earnings would represent £4.40 per hour"*.

3.2   Although the Commission recommended the broad level at which the initial minimum wage rate should be set, it did not recommend precisely what this rate should be and clearly envisaged that some discretion would exist in this respect. This was evident, in particular, from its recommendation that in setting the actual rate, account should be taken of employment, overall economic conditions and competitiveness. In effect, a range of figures could be regarded as consistent with the Commission's recommendation. On foot of a number of statements by the Tánaiste that the rate would be £4.40 per hour in post Partnership 2000 terms (which would clearly be encompassed by the range referred to), the Group assumed, for the purposes of its interim report, that this rate would apply.

Views of the social partners

3.3   A number of submissions received by the Group focused on the rate for a national minimum wage. As an example of the range of views received, SIPTU argued that £4.80 per hour should be the statutory national minimum wage rate from April 2000. Opposing this view IBEC submitted that at the very least, the statutory national minimum wage rate should not exceed £4.40 per hour, as a rate above this level would lead to a loss of competitiveness, increase unemployment and poverty. The Chambers of Commerce of Ireland opposed a rate above £4.40 per hour. The Irish Clothing Manufacturers Federation suggested that the rate should be £4.00 per hour in sectors that operated a piece rate system.

Views of the Group

3.4   In its Interim Report, the ESRI Impact Study and this final report, the working assumption was that the national minimum wage rate would be £4.40 per hour in April 2000. The ESRI Impact Study suggested that 13.5% of all employees would be under £4.40 per hour in 2000, and the increase in wage costs could lead to:

- a potential decrease in employment of 15,400 in the immediate period (first year) and 13,500 in the long run;

- an increase in unemployment of almost 14,100 in the immediate period (first year) and almost 9,000 in the long-run;

- an increase of 2% (including potential spill-over) in the national wage bill in 2000.

The Group did not consider that the final determination of a national minimum wage rate came within its remit. However, it noted that increasing a national minimum wage rate beyond £4.40 per hour would significantly affect the impact of a national minimum wage, and would in the Group's view be difficult

to justify on economic grounds. A national minimum wage rate of £5 would affect over 21% of employees, would decrease employment by over 22,000, and increase the national wage bill by 3%. Ultimately, the determination of the national minimum wage rate is a matter for political decision.

The implementation date

3.5 The Commission recommended as follows:

> "To allow for an adequate lead-in time and to permit employers to make any necessary adjustments the National Minimum Wage should not be introduced before the end of P2000. However, given that P2000 has different expiry dates depending on the sector, the Commission recommends that a target date of 1 April 2000 should be set to implement the commitment on the national minimum wage."

Views of the social partners

3.6 ICTU wished to see the legislation introduced as early as possible, but no later than 1 April, 2000. IBEC considered that the legislation should not be introduced earlier than the year 2000. IBEC submitted that enterprises should only be covered by the minimum wage legislation after they have completed the final phase of Partnership 2000. The Irish Hotels Federation supported the phased implementation of a national minimum wage after the expiry of Partnership 2000. SIPTU pointed out that the National Minimum Wage Commission was explicit that the statutory rate should apply nationally from April 2000. SIPTU opposed any staggering of implementation dates for the national minimum wage. The National Women's Council of Ireland was of the view that the implementation date should not go beyond April 2000, and rejected a phased introduction.

Recommendation

3.7 Phasing in of a national minimum wage in different sectors of the economy on different dates would be complex, and could lead to considerable confusion amongst employers and employees as to who was covered and not covered by the legislation on various dates. While it would be possible to introduce the national minimum wage on a phased basis, the Group considers that the benefits of certainty and clarity — important factors in introducing the national minimum wage system effectively and efficiently — outweigh any benefits of phasing in on different dates for different sectors of the economy. With Partnership 2000 completed on 31 March 2000 for most private sector employees (except those in the construction industry where it ends on 30 June 2000), and for the public sector on 30 September 2000, the additional cost of implementation on a single date — 1 April 2000 — is not significant bearing in mind that most employees affected are in the private sector category where Partnership 2000 will already have been completed. The Group therefore recommends that the national minimum wage be introduced on a single date on 1 April, 2000.

3.8 It is clear that the national minimum wage will be a factor in any negotiations on a successor to Partnership 2000. The ESRI Impact Study indicates that the introduction of a national minimum wage of £4.40 in April 2000 would increase overall gross earnings by 1.6% a year (without making any allowance for the danger of spill-over). This cost will have to be borne in the period to which any successor agreement to Partnership 2000 relates. The significance of an increase in earnings of this magnitude is demonstrated by the fact that the average annual increase under Partnership 2000 amounted to just under 3%. It will be essential to ensure that the pay provisions of any successor agreement take full account of the impact of the national minimum wage. Otherwise, the dynamic effects of the national minimum wage identified by the ESRI (with higher wage costs leading to an increase in inflation and this, in turn, leading to further pressures on wage costs) could have a serious impact on national competitiveness.

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The problem of repercussive claims

Interim Report

3.9   The Commission expressed concern that the introduction of the minimum wage could stimulate claims from employees, whose pay was above the minimum rate, so as to restore differentials with employees who benefited from the minimum wage. As the Commission pointed out, concession of such consequential claims would diminish the impact of the minimum wage, as it would restore the relative disadvantage of the low paid. In addition, such claims could greatly increase the cost of the minimum wage thereby leading to a rise in inflation and seriously threatening both competitiveness and employment. To address this problem, ICTU indicated to the Commission that they would be prepared to agree a joint statement with IBEC and the Government that any claims on foot of the introduction of the minimum wage would not be entertained or recognised by the Labour Court.

3.10   It is vital to ensure that claims for the restoration of relative pay differentials, following the introduction of a national minimum wage are not entertained. The Group welcomed the ICTU suggestion that a joint statement be agreed with IBEC and the Government, and recognised that appropriate mechanisms to ensure compliance with that statement might need to be considered.

Views of the social partners

3.11   IBEC acknowledged ICTU's commitment to the National Minimum Wage Commission on repercussive claims and considered that there should be a provision in the legislation on this issue. IBEC also wished to see individual unions enter agreements with the Government to underpin the ICTU commitment. The Irish Hotels Federation supported the case for ensuring the Labour Court did not endorse relativity claims arising from the introduction of the national minimum wage. ICTU said it was prepared to approach this issue constructively.

3.12   In its submission on the Group's interim report, the Irish Retail Newsagents Association suggested that pressure for the restoration of pay differentials, at least in part, would be exerted by other employees not directly affected by the introduction of a national minimum wage. It questioned the practical effect of the proposed ICTU/IBEC/Government agreement on repercussive claims and the role of the Labour Court.

3.13   ISME expressed concern that employees, whose pay differential with junior staff members would be diminished by the national minimum wage, would pursue repercussive claims. The Chambers of Commerce of Ireland was concerned that the introduction of a national minimum wage should not lead to a *"pay spiral."*

Recommendation

3.14   The ESRI Impact Study highlights the negative impact that spill-over (possible increases in wages above the minimum, as a reaction to the narrowing of differentials brought about by the minimum wage) could have on the economy, and which would obviously have a greater impact in particularly vulnerable sectors of the economy. The ESRI estimated that, based on a technical assumption that only those located within 50% of the minimum itself were affected and that they obtained additional increases tapering from 5% down to 1% of gross earnings, spill-over could bring the total national wage bill increase from the specified minimum wage up from 1.6% to 2% in 2000. The Group considers it is essential to eliminate, or at least minimise, the possibility of spill-over claims both before and after the introduction of the national minimum wage legislation. The willingness of the social partners to provide leadership in this area is essential to preventing widespread and costly repercussive claims, which would undermine both the effectiveness of the national minimum wage legislation and damage the competitiveness of the economy. The Group endorses the Commission's recommendation that an agreement between ICTU, IBEC and the Government be concluded prior to the introduction of the national minimum wage to the effect

that the Labour Court would not recognise or accept any claims arising from the introduction of the national minimum wage. The Group recommends that this agreement be incorporated into any successor agreement to Partnership 2000, to ensure that every union which adopts the new agreement would also undertake not to pursue repercussive claims.

3.15 The Group considers that the agreement between the social partners on this issue should be reflected in legislation. It recommends the inclusion of a provision to the effect that the Labour Court and the Labour Relations Commission would not support or otherwise endorse any claims referred to them for an improvement in pay which were based on restoring pay differentials, which previously existed between claimants and other employees who have secured an improvement in pay arising from the introduction of the national minimum wage. Consideration should also be given to providing that the parties involved would be bound by the decision of the Court on such claims.

Interaction with the tax/benefits system

3.16 Noting that the effectiveness of a minimum wage in raising incomes of low paid workers would depend on its interaction with the tax/benefit system, including in-work benefits, the Commission recommended that *"any recommendations adopted on implementing a national wage should take account of the implications of any such measures in the wider context of tax and benefits"*. The Group accepts that an important linkage exists between incomes, tax and benefits policies and regards the introduction of the minimum wage as an significant factor influencing the on-going development of an over-arching policy of increasing work incentives and on raising the living standards of the low paid. The significant increase in income which the minimum wage will represent for many low paid workers will contribute to the objectives pursued by recent tax reductions and in-work benefits.

3.17 The ESRI Impact Study examined the impact of the minimum wage on the balance between in-work income and income when out-of-work. The Study concludes that there will be a significant improvement in financial work incentives facing those who are unemployed or classified as engaged in "home duties", while also improving the financial reward for employees in employment. The Group welcomes this outcome of a national minimum wage.

3.18 The Group concluded that any further detailed consideration of the appropriate policy response in this broader context to the introduction of a national minimum wage was not within its remit but should be examined by the Tax Strategy Group.

The impact on the Exchequer pay and pensions bill

3.19 The Group is satisfied that very few employees in the public service are currently paid less than £4.40 an hour. Accordingly, it appears that, with the possible exception of the health sector, the direct cost implications of the minimum wage for the Exchequer, outside the health sector, as an employer would not be significant (about £2m a year). However, the minimum wage will have significant cost implications for the health services particularly the home help service, should a home help fall within the definition of being an employee for the purposes of the national minimum wage legislation, which would inevitably have implications for service delivery. The Group noted that if the minimum wage applies to home helps, this would increase the cost of the service by 60%, in excess of £10m a year.

3.20 While the direct effect of the introduction of a national minimum wage is significantly less in the public service than in the private sector it should be stressed that the containment of repercussive claims is also as important in the public service, as in the private sector.

CHAPTER 4

Issues Concerning Scope and Definitions

Definition of employee

4.1   While the Commission did not specifically address the issue, it seems clear that it envisaged that the minimum wage legislation would apply only to employees, that is persons who work under contracts of service or apprenticeship. This is the general position in employment rights legislation and a standard definition is contained in recent statutes. For example, the Organisation of Working Time Act, 1997 excludes only the Gardai, the Defence Forces and, by regulation made under the Act, Prison Officers in certain circumstances. It seems that the Commission intended that the minimum wage should, generally speaking, apply to public servants.

Views of the social partners

4.2   Both ICTU and IBEC agreed that the definition to be used in the national minimum wage legislation should be consistent with that contained in existing employment rights legislation. ICTU submitted that all public servants should be included in the definition.

Recommendation

4.3   The Group recommends that the definition of employee to be used in the national minimum wage legislation should be consistent with the definition contained in recent employment rights legislation, and should be sufficiently comprehensive to include persons who are supplied by an employment agency to a third party. The definition should encompass public servants.

4.4   The result of this approach would be that persons who work under contracts for services, who are, in effect, self-employed, would be outside of the scope of the minimum wage legislation. There has been some controversy in recent years concerning the retention of workers under contracts for services in areas where employees with contracts of service have previously undertaken the work. Concern has been expressed that some employers may be using this practice as a device to deprive their workers of the protections of labour law (it can, of course, also be beneficial to the workers concerned in terms of their tax treatment). The Group recognised that the introduction of the minimum wage could provide employers with a further incentive to engage in this practice but it was felt that no special provision could be incorporated in the implementing legislation to address this problem and it would have to be dealt with by means of the existing legal principles and procedures. It is clear from the case law on the issue that employers cannot determine the nature of the employment relationship simply by wording the contract in a particular way, for example, by heading it "contract for services" or by providing in it that the worker shall not be an employee. The nature of the contract is a matter of law and will be determined by a court or other adjudication body by objective tests relating to the characteristics of the relationship.

Part-time employees

4.5   In the past, part-time employees have often been treated less favourably than equivalent full-time staff. More recently, the trend has been to reduce or eliminate these differences of treatment. This trend has been driven, in large measure, by developments in equality law, particularly at EU level, as the European Court of Justice has held in a number of cases that discrimination against part-time workers, except where it is objectively justifiable and the means employed is proportionate to the need, contravenes the provisions of the Equal Treatment Directive.

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4.6   Domestically, the Worker Protection (Regular Part-time Employees) Act, 1991 extended the protection of a wide range of labour legislation to part-time workers, defined as employees who work a minimum of 8 hours per week and have worked for a minimum of 13 weeks. The recently adopted Part-time Workers Directive, which Ireland is obliged to implement by mid-2000, incorporates the principle that the conditions of employment of part-time workers should be pro-rata to those of equivalent full-time staff.

Views of the social partners

4.7   ICTU and IBEC were in agreement that no time threshold should apply to part-time workers in order for them to benefit from the national minimum wage.

Recommendation

4.8   The Group recommends that no hours or weeks threshold should apply to employees (both part-time and full-time) in order for them to benefit from the national minimum wage legislation.

Excluded categories

Interim Report

4.9   An exception is provided in certain labour legislation (e.g., the Organisation of Working Time Act) for family workers and such an exception would appear appropriate in the case of the minimum wage. The status of certain other groups (e.g., sharefishermen) is somewhat unclear and it may be necessary to provide for specific exemptions for the avoidance of doubt.

Views of the Social Partners

4.10   ICTU agreed that family members should be excluded from the legislation but that domestic workers (including au pairs in formal employment), and non-statutory apprentices should be included in the legislation. IBEC was of the view that family members, domestic workers (including au pairs and baby-sitters), and students doing temporary work experience/vacation employment should be excluded. The National Women's Council of Ireland opposed the exclusion of home helps from the legislation.

Recommendation

4.11   The Group recommends that the legislation should not apply to the employees listed below:

    (i)   the spouse of the employer;

    (ii)   the father, mother, grandfather, grandmother, step-father, step-mother, son, daughter, grandson, grand-daughter, step-son, step-daughter, brother, sister, half-brother, half-sister.

Their remuneration will continue to be determined in accordance with existing payment arrangements between themselves and their employers.

4.12   Statutory apprentices should also be excluded. This issue is dealt with in paras 5.9 and 5.28. In addition sharefishermen should be excluded from the legislation as they are not classified as employees and are paid on the basis of a share in the value of the catch on a voyage. This is a standard exemption in employment rights legislation. The Group noted that members of the Defence Forces do not have defined working hours and are not covered by the provisions of the Organisation of Working Time Act, 1997. They should, therefore, be excluded from the scope of the national minimum wage legislation. As the other groups excluded from the Organisation of Working Time Act — the Gardai and prison officers — do have defined working hours, the question of excluding them from the scope of the national minimum wage legislation does not arise.

4.13   Domestic workers are excluded from the scope of minimum wage provision in some other countries but there did not appear to the Group to be any clear rationale for this exclusion. The Group considers that domestic employees should therefore be included within the legislation.

Definition of working time

4.14   The national minimum wage is to be expressed as an hourly rate of pay. However, many contracts of employment do not provide for an hourly rate of pay but rather a weekly, monthly or annual rate. In order to determine an employee's hourly rate of pay it is necessary to divide the rate of pay by the number of working hours. The normal or standard working hours of an employee are communicated to the employee at the commencement of employment. Such information may be obtained by reference to a number of sources as outlined in para 4.15.

4.15   Information on the number of hours to be worked by an employee may be obtained from non-statutory and statutory sources. It is possible that the hours of work of an employee are not stated in written form, and may have been given verbally to the employee by the employer. The working hours of an employee may be obtained by reference to their contract of employment, or a collective agreement which covers their employment. Alternatively statutory minimum working hours are specified in Employ-ment Regulations Orders or Registered Employment Agreements for workers covered by them. An employee (other than an employee who is normally expected to work for the employer for less than 8 hours per week) is entitled to a written statement of their terms of employment including the terms or conditions relating to hours of work, including overtime, under Section 3 of the Terms of Employment (Information) Act, 1994. The Organisation of Working Time Act, 1997 introduced new safeguards for employees in relation to maximum working time and, in certain circumstances, the provision of infor-mation on working time.

4.16   The hours actually worked by many employees are already controlled and are normally recorded or supervised by their employers. However the hours actually worked by an employee may differ signifi-cantly to the normal or standard hours of the employee. This would be primarily due to overtime hours. A definition of working time is therefore necessary for this purpose. As stated in the Interim Report, the definition of working time in the Organisation of Working Time Act, 1997 is not entirely satisfactory for the minimum wage legislation as it excludes paid rest breaks. For those employees whose hours of work are not controlled by their employers, paras 4.21 to 4.28 applies.

Views of the Social Partners

4.17   ICTU and IBEC were of the view that, as a matter of principle, calculation of national minimum wage pay should be on the basis of time at work or 'contracted hours'. Absences from work, e.g. on sick leave, annual leave etc., should not count as working time for national minimum wage purposes. These absences would be subject to existing statutory rights. Consideration would have to be given to address the situation of employees on annualised hours/seasonal hours.

Recommendation

4.18   As the national minimum wage is to be expressed as an hourly rate of pay, working time is there-fore critical. The Group recommends that the definition of working time to be used for the purpose of a national minimum wage should be based on that used in the Organisation of Working Time Act, 1997 — 'working time means any time that the employee is (a) at his or her place of work or at his or her employer's disposal and (b) carrying on or performing the activities or duties of his or her work'. However, that definition excludes all paid rest breaks, which was appropriate in that particular context as the Act was designed to safeguard the health and safety of workers when they were actually working. For the purposes of a national minimum wage such a narrow definition would not appear entirely appropriate as it could, in effect, turn paid rest breaks into unpaid rest breaks. Therefore the definition contained in the Organisation of Working Time Act should be appropriately amended to ensure that working time would

be broadly defined to ensure that working time would, on the one hand include paid rest breaks, but, on the other hand, exclude lunch breaks in, for instance, certain public service employments where working hours are expressed in terms which include lunch breaks. This would mean extending the definition contained in the Organisation of Working Time Act to perhaps including any time that the employee is at his or her place of work and is paid as if he or she is carrying on or performing the activities or duties of his or her work.

4.19   On this basis, periods when the employee is absent from work (e.g. for sickness, public holidays, annual leave, maternity leave, lay-off, suspension or engaged in industrial action) would not count as working time in respect of which the employee would be entitled to the national minimum wage. An employee would, of course, be entitled to payment for some of these absences under other legislation or collective agreements, e.g. legislation governing maternity and holiday pay, or occupational sick pay schemes and disciplinary procedures. Other detailed technical issues in respect of the definition of working time, which is outlined in para 4.18, will require further consideration when the necessary legislation is being drafted.

4.20   The Group recommends that the working time of an employee in any pay reference period should be determined by reference to any of the sources mentioned in 4.15 or the actual hours of working time undertaken by the employee, whichever is greater. The reason for this is that an employee may do overtime hours in the pay reference period which may not be stated in the contract of employment or elsewhere. Should the employee actually work less hours than the hours of work specified in, for example, the contract of employment, the employee should be entitled to have their working time hours determined by reference to their contract of employment for the pay reference period. The actual working time hours could be less because the employee is employed on an annualised hours basis or on seasonal work.

Employees whose working hours are not controlled by their employers

4.21   For the majority of employees their actual hours spent working are normally recorded by the employer or controlled in some other manner e.g. supervisors record that workers are present when they are required to be present. Certain employees are however not controlled by management in this way.

4.22   The fact that the minimum wage is to be expressed in hourly terms does present problems in relation to the treatment of employees whose working hours are not controlled by their employers or whose pay is determined entirely by reference to output or results, for example, homeworkers paid piece rates or field staff paid solely or largely on commission.

4.23   Article 4 of Convention No. 177 of the International Labour Organisation concerns the treatment of homeworkers in relation to other wage earners. It requires as far as possible "equality of treatment between homeworkers and other wage earners taking into account the special characteristics of homework and where appropriate, conditions applicable to the same or a similar type of work carried out in an enterprise". Equality of treatment is to apply to certain defined areas, including remuneration. Ireland has registered its ratification of this Convention in April 1999.

Views of the social partners

4.24   IBEC was of the view that the national minimum wage legislation should apply to contracts of employment which provide for a specified rate of pay per hour or a rate of pay for a specified number of hours. IBEC said it was difficult to see how employee outworkers/homeworkers, whose working time was outside the control of management, could be subject to an hourly rate. Its position was that they should be excluded from the national minimum wage legislation.

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4.25 ICTU was of the view that employees with no set hours of work were one of the vulnerable groups, which the national minimum wage legislation was intended to protect. Its position was that employee outworkers/homeworkers must be included in the scope of the national minimum wage legislation.

Recommendation

4.26 The Group recommends that employees whose working time is not controlled by their employers be included within the scope of the national minimum wage legislation, subject to appropriate safeguards for the employers of such employees.

4.27 As working time will be critical to the national minimum wage legislation, it is considered reasonable to oblige these categories of employees to keep a record of their working time and to submit this record to their employer in good time in order to benefit from the provisions of the legislation.

4.28 This requirement is not intended to apply to employees whose working time is controlled by their employers, although an element of working time may arise which is not controlled by the employer e.g. business travel time.

The pay reference period

4.29 The pay of many employees varies over time as the payment of certain components coming within the definition outlined below, such as productivity bonuses or commission, may not coincide with the payment of the basic rate. To allow flexibility in the operation of such payment schemes it will be necessary to define a reference period over which pay may be averaged to assess compliance with the minimum wage legislation. In order to prevent excessive deferral of determining if an employer has paid the minimum wage rate, a maximum period must be placed on reference periods.

4.30 An employee who leaves an employment during a pay reference period and whose hourly earnings in respect of the part of the pay reference period worked fall below the minimum rate, would be entitled to a lump sum payment sufficient to bring the hourly average up to the minimum rate.

Views of the social partners

4.31 ICTU and IBEC were in agreement that the appropriate pay reference period should be a maximum four-week period.

Recommendation

4.32 The Group recommends that the maximum period of a pay reference period should be one calendar month. Employers should be free to select a pay reference period of one week, two weeks, three weeks or four weeks whether or not that period falls within one calendar month or not, as employers are in the best position to judge which pay reference period would suit their pay patterns. Appropriate safeguards would have to be put in place to inform employees of the pay reference period their employer has selected. The selection of a pay reference period is not required or intended to alter an employee's existing pay period

4.33 In order to calculate an employee's hourly rate of pay in any pay reference period the Group recommends the following approach. Firstly all reckonable gross pay for national minimum wage purposes, that is paid to the employee in connection with their employment in the specific pay reference period which is being examined, is added with all reckonable gross pay that is paid to the employee in the next pay reference period in connection with her/his employment in the previous pay reference period (this is necessary to capture pay for working time at the end of the specific pay reference period) and with any advance of reckonable pay paid by the employer to the employee in a previous pay reference period in connection with her/his employment in the specific pay reference period.

4.34 This monetary total is divided by the number of hours and minutes of working time of the employee, during the specific pay reference period to get the employee's average hourly rate of pay. Where this average hourly rate of pay is less than the employee's entitlement to the national minimum wage for that specific pay reference period, the employer must make up the difference for each hour or part thereof of working time in the specific reference period.

4.35 In effect reckonable pay earned in a specific pay reference period and paid in the specific pay reference period or no later than the next following pay reference period should be allowable for national minimum wage purposes.

Reckonable pay components for the National Minimum Wage

National Minimum Wage Commission

4.36 The National Minimum Wage Commission recommended the following in relation to the definition of what elements of pay should count towards national minimum wage pay:

> *"Legislation to introduce a national minimum wage should take account of pay and other forms of remuneration on the lines of the practices in Joint Labour Committees ...."*

Interim Report

4.37 The Group considered that the concept of a national minimum wage should be based on a single comprehensive definition of pay. It seems that the Commission wished to ensure that the pay arrangements operating in particular sectors would not have to be changed merely to comply with a particular statutory definition of pay.

4.38 Having considered the variety of elements which can be comprised in a remuneration package and having particular regard to the provisions of the Payment of Wages Act, 1991, the Group in its Interim Report was of the view that pay should be defined as comprising all payments made by the employer to the employee in cash or that have a clearly defined monetary value with certain exceptions. The exceptions considered by the Group were (a) premium payments paid to compensate the employee for work undertaken in excess of normal hours (i.e., overtime premia) or during unsocial hours (e.g., shift premia) and (b) payments made to recoup the employee for expenses incurred in the course of his or her work.

Views of the social partners

4.39 IBEC and ICTU were of the view that all regular payments regarded as comprising the rate for the job, including the basic rate, shift and overtime allowances, and commission, should be included in the definition of pay. IBEC accepted that an argument could be made to exclude overtime payments but did not see any reason for the definition to exclude premia for unsociable hours, shift work etc. IBEC submitted these payments could be clearly defined and were appropriately included as regular remuneration. In respect of benefits-in-kind, it was agreed that these should only be included where there were formal arrangements for their inclusion in the regular overall pay package. IBEC supported the inclusion of employer pension contributions to a pension scheme for employees. The Irish Clothing Manufacturers Federation expressed concern as to how incentive-based earnings could be maintained in a national minimum wage environment. The Irish Hotels Federation considered that premium payments or payments paid to compensate employees for work undertaken during unsociable hours should be included in the definition of pay. It also supported the inclusion of employer pension contributions for an employee pension scheme.

Recommendation

4.40 The Group recommends that all gross payments which can be regarded as making up the rate for the job should be taken into account as part of national minimum wage pay, including the basic rate, bonus payments, commission, piece and incentive rates, and allowances for special duties.

4.41 In relation to premia payments the Group noted that the UK Low Pay Commission recommended the following approach for its legislation;

> "We believe it would be unfair to allow employers to satisfy their obligation to pay the National Minimum Wage by including premium pay for abnormal working. Hence we recommend that premium payments for overtime and shifts should be excluded from the definition of earnings for the National Minimum Wage. When calculating compliance, only standard pay for overtime and shifts should be counted."

4.42 The UK Department of Trade and Industry stated the following in relation to overtime and shift premia in its guide to the UK's national minimum wage legislation;

> "A worker might be paid at a higher premium rate for working at a particular time or for particular duties; for example, for working overtime, or shifts or on Bank Holidays. If so, the premium element of the payment does not count towards national minimum wage pay. To calculate the premium element, the employer must subtract the lowest basic rate that is paid to the worker from the worker's actual rate of pay. The remaining premium does not count towards national minimum wage pay. For some workers higher than normal rates apply for working at night or at weekends. The "premium" in such cases is the difference between the higher rate and the standard rate for the same job during normal working hours. To calculate the premium element, the employer must subtract the standard rate from the higher rate. The remaining premium does not count towards national minimum wage pay."

4.43 In an Irish context it is the opinion of the Group such an approach would not reflect the realities of remuneration packages offered by employers. In general an employee judges the remuneration package offered by an employer based on earnings for normal or standard working hours. Shift work has become common place, and is usually performed by employees during their normal or standard working hours. It was submitted by employer representatives to the Group that these premium payments were in a different category to overtime premium, and were earned in the normal course of, usually, rostered duties. The Group was mindful of adopting a consistent approach to reckonable pay components for the national minimum wage. It accepted that shift premium, unsocial hours premium and Saturday and Sunday premium were in a different category to overtime premium.

4.44 The Group recommends the following approach in relation to premia payments. Any premium paid to an employee in relation to her/his normal or standard working hours should count toward national minimum wage pay. Therefore shift premium, unsocial hours premium, Saturday premium, Sunday premium, and any payment in excess of basic pay for working on a public holiday should be included for minimum wage pay, if earned and paid in relation to the employee's normal or standard working hours. Any premium earned and paid to an employee for working hours in excess of normal working or standard hours should be excluded from minimum wage pay. This would exclude overtime premium from the national minimum wage pay but the basic pay for overtime, excluding the premium element, would count for national minimum wage pay. An employee should not have to depend on overtime premium payments to earn the national minimum wage.

4.45 The Group recommends that benefits-in-kind should be excluded from the definition due to the practical difficulties which would arise in valuing many such benefits and the inconsistency, having regard to the Payment of Wages Act, of allowing such benefits to count as pay for purposes of the minimum wage. However, the Group recommends that an exception should be made to this general approach in relation to board and lodging provided by the employer to an employee. The Employment Regulation Orders for the Hotels (excluding Cork, Dublin and Dun Laoghaire) and Catering (except Dublin and Dun Laoghaire) Joint Labour Committees provide for a monetary deduction to be made from the he statutory minimum pay of an employee if provided with board and lodging. It appears reasonable to the Group to continue this practice in relation to the national minimum wage. The Group, therefore, recommends than when the Minister prescribes the national minimum hourly rate of pay, a monetary daily value should also be specified for board and lodging or board only, which amount an employer can

include for national minimum wage purposes if an employee is provided with board and lodging or board only. The initial monetary value for board and lodging or board only should be set by consultations with relevant interested parties. In the view of the Group this monetary value would not be market value, and would be similar to the amount permitted in the Employment Regulation Orders referred to above.

4.46 A number of submissions from employer representative groups raised the issue of including in the definition of pay all employer pension contributions. The Group did not consider that this proposal had merit as it did not meet the broad definition of pay for national minimum pay purposes, outlined in para 4.40 — *'all gross payments which can be regarded as making up the rate for the job'*. The Group noted that in contributory pension schemes there are, by definition, contributions from both employers and employees, with the employee's contribution being deducted from his or her gross pay and, thus, counting for the purposes of the national minimum wage. In order to achieve equity between employees in different employments with different pension schemes, the question arises whether in relation to a non-contributory scheme the element of the contribution paid by the employer, which corresponds to an employee's contribution in a contributory scheme, should count for the purposes of the minimum wage. A non-contributory pension is essentially a benefit in kind, and as an employee's contribution to a contributory pension is deducted from his or her gross pay, it is appropriate that the corresponding value to an employee of a non-contributory pension should, in principle, be included in the overall definition of pay for national minimum pay purposes. The Group recognises there may be difficulties in this regard and, in this context, it noted that the UK Low Pay Commission concluded that *'the value of individual employer contributions cannot be calculated easily in each pay reference period and the attribution of pension contributions to individual employees would also be difficult to monitor'*. The Group concluded that the valuation of the benefit to an employee of the employers' contribution to a non-contributory pension scheme, which corresponds to an employee's contribution in a contributory scheme, needs further consideration to establish current practices in this area, particularly in the private sector.

4.47 The Group recommends that tips and gratuities paid directly to employees by customers in pubs, hotels or restaurants should not count in calculating pay for the national minimum wage. Where tips are paid into a central fund or a service charge is levied and the proceeds of the fund or charge are subsequently distributed to the staff by the employer through the payroll, the amount paid to the employee should be taken into account for minimum wage pay.

4.48 The Group recommends that all expenses paid to an employee by an employer in connection with her/his employment should be excluded from national minimum wage pay.

CHAPTER 5

Variations on a Single National Minimum Wage Rate

Background

Interim Report

5.1   In its Interim Report the Group outlined the conclusions of the National Minimum Wage Commission that

— there should be no regional or sectoral variations and no special treatment for small and medium enterprises;

— the rate for employees under 18 years of age should be 70% of the full rate;

— reduced rates should apply to job entrants, apprentices and trainees on a sliding scale of 75%, 80% and 90% in the first, second and third years respectively.

5.2   The Group noted that the manner in which these categories were dealt with was central to minimising any adverse consequences of the national minimum wage. It accepted that in respect of sectoral variations the Commission's recommendation was consistent with the general rationale of the commitment to introduce a national minimum wage. Acceptance in principle of sectoral variations could lead to a multiplicity of rates with all the uncertainty and confusion which such a development would entail and a single rate was clearly the best option for the purposes of equity, clarity and ease of enforcement. However, the Group noted that the Commission did not assess the sectoral impact of the recommended rate on employment and competitiveness although it was clear from the material which they considered that this impact would vary considerably from sector to sector. The Group was of the view that it would be premature to rule out special treatment for some sectors entirely, in the absence of a reliable basis for assessing the sectoral impact on employment and competitiveness. Further consideration may have to be given to special treatment for some sectors, whether in terms of the rate to apply or the manner of implementation, if, for example, the alternative appears to be immediate and serious employment losses in those sectors. Accordingly, the Group considered that a final decision on this issue should be deferred pending the completion of the study of sectoral impact commissioned by the Group.

5.3   The Group noted that several national pay agreements included inability to pay clauses for firms in difficulty and there would appear to be as strong a case for varying a minimum rate as for deferring a pay increase so as to protect employment in such circumstances. It noted that no inability to pay provision existed in relation to minimum wages under the ERO system but the situation was less likely to arise given that the rates were set with the circumstances of particular sectors in mind and many of those rates were low compared to the recommended national minimum wage. The Group considered that if provision were to be made for firms in difficulty, it would be necessary to incorporate certain safeguards:

— care would need to be taken to avoid inappropriate intervention in the normal process of competition;

— measures should be taken to avoid abuse and to ensure that variations were only permitted when they were genuinely in the interests of the employees concerned.

5.4   The Group noted that variations in the rate in other circumstances might be warranted and might be identified in the course of more extensive consultations, for example, that special arrangements should be made for people with disabilities which severely impair their capacity to work.

The under-18 rate

5.5   The Group considered that this recommendation by the Commission raised important issues for national education and employment policies and thus required particularly careful consideration. A further expansion of participation was a key element of education policy with a view to ensuring that entrants to the labour market had a high level of skills and employability. Any development that retarded or reversed that progress would clearly have serious implications for economic and social development in the longer term. In regard to this possible effect, the Group recognised that, whatever success attended efforts to increase participation levels, a certain number of young people would continue to leave school before completing the senior secondary cycle and would enter the labour market as young as 16 years of age. Particular importance was attached to getting these young people into some form of employment which, even if it was low paid, could act as a stepping-stone to better things.

5.6   The Group found it extremely difficult to assess the extent to which these effects were likely to be produced by the under-18 rate recommended by the Commission (70% of the full rate or £3.08 if the full rate was £4.40). However, evidence considered by the Commission suggested that the recommended rate would be significantly higher than the rates currently paid to employees in this age category. Accordingly, a significant risk of adverse effects would appear to attach to this particular recommendation and the question arose as to whether the cost to the target group in the longer term might not outweigh any short-term benefits. In the UK under-18s were to be exempted completely from the minimum wage. This approach is open to criticism on the grounds that the young workers concerned formed a particularly vulnerable group. However, less radical alternatives to the recommended approach were available such as implementing a lower rate initially and monitoring the effects with a view to increasing the rate to the recommended level if experience indicates that such a rate is sustainable without significant adverse effects. The Group's view was that a cautious approach should be adopted in this area so as to minimise any risk of undermining the objectives of education and employment policy. The Group will consider the issue again when it has examined the results of the impact study.

Apprentices, trainees and job entrants

5.7   The Group noted that in recommending a reduced rate for apprentices, trainees and job entrants, on a sliding scale of 75%, 80% and 90% of the full rate in the first, second and third years respectively, the Commission seemed to be recognising two things:

— the value of experience to employers;

— and the cost of training to employers and its value to employees.

The Group accepted that both were valid grounds for paying a reduced rate. However, it was considered that the proposal to employ a single payment regime to cover both job entrants and trainees resulted in certain anomalies and confusion. However, the Group considered that further analysis was required to give greater clarity to the recommended payment regime and the rationale underpinning it.

5.8   The Group were satisfied that a reduced rate was warranted in the case of job entrants altogether apart from any training requirement as, in comparing new entrants to experienced staff, factors other that skill acquisition were important to employers. It was considered that the case for a reduced rate was particularly strong where the employee was entering employment for the first time or returning after a lengthy period of unemployment. The Group considered that a recommendation on this issue should be deferred pending detailed consultations with the social partners.

5.9 In relation to the above, the Group reached the following conclusions:

— The recommendation that there be a reduced rate for new entrants was endorsed, particularly in the case of entrants to the labour market. The application of the reduced rate to persons when they change jobs raises more complex questions and should be subject to detailed consultations with the social partners.

— The treatment of trainees should be treated separately. Consideration should be given to confining the trainee rates to persons undergoing training leading to certification. If the application of the rates were so confined, the level of the rates would require reconsideration as the cost of the training to employers and its value to employees would both be greater than in the regime envisaged by the Commission.

— Apprentices serving statutory apprenticeships should be exempted in recognition of the unique nature of such apprenticeship and the fact that a long-established practice for determining rates, which adequately protected apprentices, already existed.

Views of the social partners

5.10 The Irish Small and Medium Enterprises Association (ISME) submitted that a rate for under 18s of 70% of the full rate might lead to individuals leaving the educational system early without the benefit of specific skills that would be of benefit to their future working life, leading to severe skill shortages and a high risk of long-term unemployment. It noted that in the UK under 18s were completely exempt from the national minimum wage. ISME agreed with the recommendation by the Commission that a reduced rate be applicable to apprentices, trainees and job entrants but considered that the suggested reduced rates were above the actual performance contribution on those entering a company's workforce.

5.11 The Irish Clothing Manufacturers Federation welcomed the recommended exclusion of apprentices and reduced rates for trainees and job entrants and stated that the trainee's rates should apply only to those undertaking certified training. It suggested that the level of the training rate should recognise the value of work experience particularly in smaller firms.

5.12 The Irish Retail Newsagents Association concluded that the implementation of the Commission's recommendation would lead to greater use of under 18s and trainees but that part-time workers entitled to the full rate would be used less and that there would be no guaranteed employment for trainees at the end of the training period.

5.13 The Combat Poverty Agency stated that a balance had to be struck between ensuring that young people were not exploited and that they were not encouraged to leave school early, without qualifications. It considered that the key consideration should be the need to tackle educational disadvantage as a way of addressing long-term structural poverty, although it recognised that some young people would always leave school to take up jobs.

5.14 The Chambers of Commerce of Ireland believed that the introduction of a national minimum wage, even with a sub-minimum rate of 70% for under 18s, would seriously hamper the Government's stated policy of achieving a 90% completion rate in second level education.

5.15 The National Youth Council of Ireland noted that the sub-minima rates for trainees and job entrants for a three year period was excessive as the type of positions likely to be involved would not merit a three year training period or need such a period to adapt to work disciplines. It considered that, to avoid possible abuse, a provision should be included in the legislation to provide that a person could only receive these rates for one three year period. It also considered that to benefit from a training sub-minimum, the training should be accredited.

5.16 FAS noted that the Group's Interim Report had reached no firm conclusion as to whether the training rate should last for three years or, as suggested by FAS, for one year. It also noted that specific provision would have to be made, in addition to that proposed for the general minimum wage, for enforcement/inspection in relation to the application of training rates.

5.17 The Irish Hotels Federation considered that the most sensible approach would be that followed by the UK where those under 18 were excluded from the national minimum wage and a reduced rate applied to those between 18 and 21. It was concerned that the proposed Irish rates for under 18s and job entrants were too high and did not reflect the costs associated with bringing such employees to the level of being fully qualified and productive.

5.18 IBEC stated in its written submission that under 18s should be excluded form the national minimum wage. While it strongly supported the view that young people should not leave the education system prematurely, it recognised that a small number of people would leave school early. Because the national minimum wage would result in a fall in demand for such workers and reduce the likelihood of employment, the exclusion of under 18s from the national minimum wage would be appropriate. IBEC considered that the proposed narrow scope of the training rate should be extended to include all forms of training and work experience. It believed that there was a strong case for excluding students on general temporary work experience/vacation employment from the provisions of the national minimum wage on the grounds that the experience is generally of much more benefit to students than to firms and the likelihood was that firms would not provide work experience programmes for students if a national minimum wage was imposed. IBEC welcomed the proposed exclusion of apprentices as their pay was already determined by well-established practice and it also welcomed the provision of a job entrants sub-minimum rate.

5.19 During the consultation process the following views emerged:

Under-18s

ICTU considered that under-18s should be within the ambit of the national minimum wage; that a reduced rate of 70% would be difficult to accept and any proposal for an even lower rate was completely unacceptable.

IBEC accepted the 70% reduced rate for under-18s, on the basis that an integrated approach was adopted in respect of other categories qualifying for reduced rates.

Apprentices

Both ICTU and IBEC agreed that statutory apprentices be excluded from the scope of the national minimum wage.

Job entrants new to the labour market

ICTU questioned the need for a reduced rate for school/college leavers as the under 18 rate would apply to most of this category of new entrants to the labour market. It considers that any adults returning to the labour market should get the full rate. ICTU's view on a reduced rate for the long-term unemployed was that it should only apply if it was necessary to encourage employment opportunities and when the person had no relevant experience to the job.

IBEC agreed that the under 18 rate would cover school/college leavers that are new to the labour market. IBEC considered that a reduced rate for the long-term unemployed may be unnecessary due to labour market conditions but it was concerned that tax and social welfare policy should encourage persons to take up employment. IBEC considered that the issue of persons who have

been out of the labour market for a long period, but who are not registered as unemployed, should be examined in the context of a reduced rate.

Training

ICTU believed that structured training in employments, likely to be affected by the national minimum wage rate, would be unlikely to last three years. ICTU preferred that it be limited to no longer than 18 months, and the three payment rates to apply during that period.

IBEC agreed that any training provided would be unlikely to last three years. It preferred a limit of two years.

ICTU and IBEC considered that the relevant State Training Agencies should draw up training criteria and certification procedures.

Firms in difficulty

IBEC agreed with the Inter-Departmental Group view that provision must be made for firms in temporary financial difficulty, as provided for in the all the national wage agreements. Under the Programme for Competitiveness and Work in particular, this provision was used frequently, usually by agreement between both sides. The overriding principle was to protect employment. This was particularly so in respect of those likely to be affected by the national minimum wage.

ICTU was opposed to this exemption. ICTU was of the view that firms, who sought temporary derogation from the national minimum wage, on the grounds that they could not afford such a basic wage rate, were unlikely to prosper in any case and market forces should be allowed to prevail. In addition, such derogations would give the recipients an unfair competitive advantage, leading to a possible knock-on effect on competitors. The situation being addressed by national minimum wage was low wages and the principle being recognised was that employment at any cost was no longer acceptable.

ESRI Survey

5.20   The survey of firms undertaken by the ESRI showed that while the majority of the workforce was aged 19 or over the risk of being low paid was significantly higher for younger workers. Over 80% of those workers aged 18 or less currently received an hourly wage rate of £4.50 or less. This compared to 11% of workers aged 26 or more. While younger workers were most at risk of being low paid they accounted for less than 20% of all those who were low paid, due to the small number of such workers in the workplace. Of those employees aged between 19 and 25, 47% of them were paid less than £4.50 an hour while 34% of those aged 26 or older were paid less than £4.50 an hour. There were more very young workers, and they comprised a larger proportion of the low paid, than in the household survey based results.

Recommendations

Regional variations

5.21   The Group noted that the National Minimum Wage Commission specifically considered and rejected a proposal that the national minimum wage be implemented in the form of regional variations. Nevertheless, given the results of the ESRI Study, it was considered appropriate to examine the issue of regional variations. For many of the same reasons as in the case of sectoral variations (see paras 5.22 — 5.24 below), it was not considered an appropriate option to address the potential adverse impact on employment, identified by the ESRI, of the introduction of a national minimum wage. In addition, a regional variation would enhance competitive disparities by permitting firms in one area to have lower

labour costs than competitor firms in a different area. A regional minimum wage of say £4.00, compared with a national minimum wage of £4.40, is unlikely to have the benefit of actually attracting firms to locate in areas where the rate is lower, as a decision by a firm to locate in a particular area was determined by a range of factors, of which labour costs would only be one, and was unlikely to be a major determinant of a firm's location decision, and would be more likely to encourage migration from lower wage areas to higher wage areas. Finally, it was considered that the concept of a *national* minimum wage would be undermined by, in effect, having variable rates based on geographical location.

Sectoral variations

5.22 The Group noted that the Commission also specifically considered and rejected a proposal that the national minimum wage be implemented in the form of sectoral variations. While it is not in the Group's remit as such to re-examine the Commission's recommendation, it was a function of the Group to assess the consequential implications and effects resulting from the implementation of the Commission's recommendations. The ESRI Study outlines the immediate serious effect a national minimum wage of £4.40 would have both on employment and labour costs in certain sectors. The household survey shows that the percentage of employees below the specified minimum wage is as high as 44% in personal services and 28% in retailing. The total wage bill effect, including some spill-over, is estimated at almost 10% in personal services, and close to 5% in retailing and in professional services. Sub-sectors facing wage bill effects well above average include textile and apparel manufacturing sectors, sale and repair of motor vehicles and sale of automotive fuel, retail trade other than motor vehicles, hotels restaurants and bars, other personal services and household domestic employees. The survey of firms shows very much the same sectors and sub-sectors having a high proportion of employees paid less than £4.50 per hour.

5.23 One way of addressing this variable sectoral impact would be to phase in the full rate in particularly vulnerable sectors, either by delaying the implementation date or introducing an initial reduced rate. The Group's recommendation in respect of the former is detailed in para 3.7. In relation to the possibility of having sectoral rates, the Group noted that the national minimum wage, as implied in the title, was in effect a national employment right. Any derogation from such a right could only be considered in the most extreme circumstances. In any competitive market sector, there will always be underperforming firms in addition to those firms who are either moderately or very successful. It is the essence of a competitive market that firms enter and exit and that market forces prevail. Any attempt to cushion all firms in a particular sector would result, in effect, in a subsidy for all such firms irrespective of their profitability and would be counter to the thrust of Government, and indeed EU, policy in regard to State aids. The by-product of a subsidy culture is that firms' incentive to innovate and become more efficient to meet the demands of the market is blunted, resulting in long term negative impact on the sector's viability. In addition, the definition of such sectors and the firms in them inevitably lead to anomalies and inequities resulting in significant regulatory costs. Firms in related sectors or producing substitute goods may claim such sectoral aids' to be anti-competitive. Taking into account that firms have had nearly two years foreknowledge of the introduction of a national minimum wage and an indication of the likely rate, thè benefit of giving a derogation for any limited period was not compelling. As the ESRI Study noted, firms behaviour in a situation of an anticipated shock is likely to be to begin adjusting to the shock in advance so that the immediate impact is much less than it otherwise would be. Bearing all this mind, and while recognising the serious impact on certain sectors, the majority of the Group recommends that no sectoral variations be permitted to the national minimum wage. They considered that the more targetted measures outlined below, particularly in respect of job entrants, trainees and firms in difficulty, were more appropriate to deal with the potential adverse employment impacts identified in the ESRI Study.

5.24 The Department of Finance representatives on the Group did not wish to rule out some transitional differentiation on a sectoral or regional basis in the application of a national minimum wage. Such transitional differentiation, say phased over a three year period, was seen by the Finance representatives as being a means of ameliorating the adverse front-loaded macroeconomic impacts of a rate of £4.40

from April 2000. The impacts of most concern in this regard are a loss of employment of over 15,000, an increase in unemployment of over 14,000 and an addition to the national pay bill of 2% in the year 2000. The Finance representatives were of the view that further consideration needed to be given to this issue.

Firms in difficulty

5.25   Many of the same issues arise in the context of firms in difficulty as arose in the context of sectoral variations — the principle of allowing a derogation from, in effect, an employment right, the distorting competitive effect in a particular sector, the disincentive effect in relation to innovation and efficiency with a firm likely to devote efforts on obtaining and maintaining the 'subsidy' rather than on more constructive action. Nevertheless, given the significant impact on employment and labour costs outlined in the ESRI Study, particularly in respect of certain sectors, the Group considers that there is some merit in having an 'inability to pay' provision in the context of the national minimum wage. The concept has been enshrined in national pay agreements over the past decade. The Group therefore recommends that provision be made for an 'inability to pay' clause in the context of the national minimum wage. However, it recognises that the effect of the derogation from the national minimum wage would often not be the critical determinant in a firm's viability. In these circumstances the mechanism for obtaining the benefit of the 'inability to pay' derogation should include that it would only pertain to situations in which there was a collective agreement between the employer and the majority of employees, and must be registered with the Labour Court with supporting documentary evidence. The system of registration will ensure the agreement was valid, representative and in accordance with the provisions of the national minimum wage legislation. Any derogation would only be valid for a maximum period of twelve months.

Under 18s

5.26   The issues surrounding the treatment of under 18s were outlined in the Group's Interim Report (paras 5.5 and 5.6 above). Having considered the submissions made in this respect, the Group is of the view that, having regard to the fact that there will always be a certain group of young people entering full time employment before the age of 18, that this group is amongst the most vulnerable in society, there is need to cater for them in the context of a national minimum wage. Nevertheless, it is also clear that the introduction of a national minimum wage has two possible effects on this group — a possible increase in the supply of such workers attracted by the minimum wage rate to leave education earlier than they would otherwise have done and a possible reduction in demand for such workers by raising their price to beyond a level which employers were prepared to pay. Assuming a national minimum wage of £4.40 in April 2000, a reduced rate of 70% would result in a rate of £3.08 for such workers. Considering the projected movement in earnings in the period to April 2000, it is considered that, a reduced rate of 70% (equivalent to £3.08) of the national minimum wage rate should apply to under 18s. It is considered that this rate, £3.08, would achieve the required balance between ensuring that people are not attracted out of the education system prematurely before completion of the secondary cycle and ensuring that such workers who do enter the labour market are not exploited.

18-20 age group

5.27   In its Study, the ESRI suggested that the option of a reduced rate for young workers aged 18-20 should be reconsidered. It said that this would assist vulnerable sectors such as retailing and hotels/restaurants and would reduce the overall wage bill impact of the national minimum wage and ameliorate any impact on educational participation for that age group. Although the Group saw merit in the ESRI's proposal, it noted that such an approach would be contrary to the overall thrust of the recently enacted Employment Equality Act, 1998 — a problem which the ESRI had also identified. In all the circumstances, and having regard to the measures outlined in relation to job entrants and trainees, the Group concluded that it should not recommend the adoption of a reduced rate for employees aged 18-20.

Apprentices

5.28   The Group reiterates its earlier recommendation in regard to statutory apprentices that they be excluded from the scope of the national minimum wage, for the reasons outlined in para 5.9.

Job entrants

5.29   The issues surrounding the treatment of job entrants are outlined in the Group's Interim Report and again at paragraphs 5.7 to 5.9 above. Having considered the submissions made in this respect, and the findings of the ESRI Impact Study, the Group concluded that it should not recommend any departure from the principle of a reduced rate for job entrants as recommended by the Minimum Wage Commission. In reaching this conclusion, the Group took account of the views expressed in submissions made on this issue, the potential adverse impact on employment identified in the ESRI Study, and the potential impact on competitiveness bearing in mind the more restricted impact of the recently introduced UK minimum wage provisions, not only in respect of the rate but more particularly the availability of reduced rates. For these reasons, the Group was particularly conscious of the need for a prudent approach to the issue in the context of the *initial* introduction of the national minimum wage.

5.30   As indicated in its Interim Report, the Group were satisfied that the case for a reduced rate is particularly strong where the employee is entering employment for the first time. It takes some time for a person entering the work force for the first time to learn the general disciplines of work and to build a relationship of mutual trust with an employer. All other things being equal, an experienced employee is more valued by an employer than a new entrant. Although the National Minimum Wage Commission recommended a three-year training rate for job entrants, the Group decided to recommend that the duration of the reduced rate for job entrants should be limited to a maximum of two years. In reaching this conclusion, the Group had regard to, on the one hand, the views expressed by the social partners and, on the other hand, the ESRI's conclusion that the reduced rates for apprentices, trainees and job entrants were justified.

5.31   The considerations outlined above in relation to job entrants also apply when a person is re-entering employment after a period of unemployment, but to a somewhat lesser extent. Accordingly, the Group considers that a case can be made for confining the reduced rate to a shorter period in such cases. The Group recommends that the reduced rate in these cases should be limited to one year and should only apply when a person has not been in employment at any time in the previous three years. The Group considered that the proposal for the application of a reduced rate for persons returning to employment who have not been in employment at any time in the previous three years is realistic in the context of the potential for offset on foot of other existing measures designed to assist those returning to employment, for example, the Back to Work Allowance and the Job Assist Scheme.

5.32   The Group did not consider that the reduced rate for job entrants/re-entrants should apply ab initio whenever a person changes jobs. If the change of jobs occurs within the reduced rate period, only the unexpired portion of the period should apply. If the change of job occurs after the conclusion of the reduced rate period, the full rate should apply, except where the job entails training leading to certification (see paragraph 5.35). This would cover situations where a person changes career after the reduced rate period and moves to a job which requires genuine, formal and valuable training.

5.33   Having regard to the foregoing, the Group recommends that the following arrangements should apply:
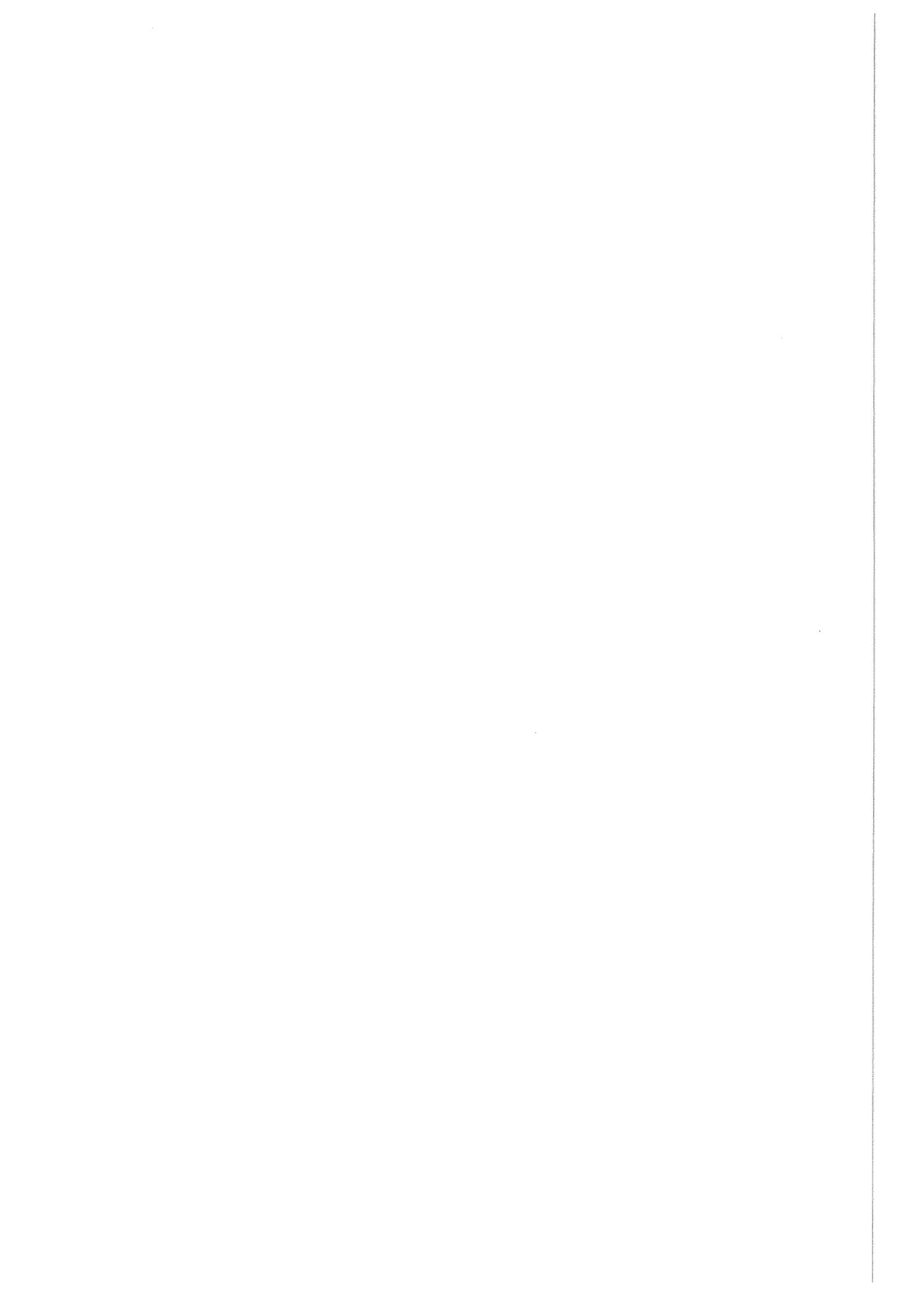
- a reduced rate of 80% and 90% of the full rate in the first and second years, respectively, should apply to all those entering the labour market for the first time;

- employment under 18 years of age should not reckon for the purposes of this reduced rate;

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- a reduced rate of 80% for one year should apply also to persons returning to employment who have not been in employment at any time in the previous three years; and

- the reduced rate should not apply ab initio to a person who changes jobs within the reduced rate period — only the unexpired portion of the period should apply in such cases.

5.34 The Group considers that these recommendations, coupled with its recommendations in relation to under-18s and trainees, comprise a reasonable and coherent overall package of measures, particularly in the context of the uncertainty associated with the initial introduction of a national minimum wage. However, the Group recommends that the need for a reduced rate for job entrants should be reviewed in a number of years in the light of experience with the operation of the national minimum wage. In this context, it recommends that the firm survey undertaken by the ESRI, as part of its Study, continue to be carried out at regular intervals in order to allow the effect of the introduction of the national minimum wage to be monitored.

Training Rate

5.35 Having regard to the views of the social partners and FAS and its earlier views contained in its Interim report, the Group is of the view that the reduced training rates should only apply in respect of persons undergoing training leading to certification. Allowing a situation where an employer could effectively determine the extent and nature of training could lead to the possibility of widespread abuse of such a provision. The extent of training required varies from job to job varying from a number of hours to a number of weeks. The type of employment attracting a national minimum wage would, in general, not be consistent with one requiring any lengthier period of training. The period required to bring an employee up to full or near-full productivity is usually significantly less than six months. In addition, an administrative structure necessary to inspect and monitor such a broad scope of eligible training would require significant additional resources and add to the existing regulatory burden on employers. Therefore the Group recommends that the reduced training rates should only apply in respect of persons undergoing training leading to certification. The reduced rates to apply on a sliding scale of 75%, 80% and 90% in the first, second and third years respectively, or proportionately if the period of training is less than three years.

CHAPTER 6

Issues Concerning Enforcement and Institutions

Enforcement of the National Minimum Wage

Interim Report

6.1 Under this heading the Commission recommended that:

- *the staffing of the existing Labour Inspectorate to be increased or a new Minimum Wage Inspectorate be established to enforce the minimum wage through routine inspections and spot checks;*

- *declarations of compliance to be required with annual tax returns and under the Terms of Employment (Information) Act;*

- *information campaigns to be held as a regular feature of enforcement;*

- *a complaints procedure to be provided which should be cost free and easy for the employee;*

- *measures to be taken to tackle the black economy;*

- *a Minimum Wage Commission to be established to review the rate at one-two year intervals;*

- *existing Joint Labour Committees to be retained to continue to set rates and conditions of employment for the sectors which they cover.*

The nature of enforcement

6.2 The Commission also identified three key factors to the successful enforcement of minimum wage legislation:

- Informing the workforce of new rights and obligations;

- Effective policing of the legislation;

- Cheap and simple procedures for recovery of arrears and enforcement of rights.

6.3 The Group agrees with this comprehensive approach to enforcement and, indeed, points out that the current arrangements for enforcing labour law in the Department of Enterprise, Trade and Employment exhibit all of these features.

Current practice in enforcing labour law

6.4 A variety of approaches to enforcement have been adopted in individual labour law statutes over the years. Earlier legislation from the 1930s and 1940s (Conditions of Employment Acts, Shops Acts) and some of the more modern acts (1973 Holidays Act) relied for enforcement on criminal sanctions with power given to the Minister to appoint inspectors to investigate complaints and initiate prosecutions. (Complainants would, of course, have the usual civil remedies available to them in the law courts but no special provision was made in this regard.) Broadly the same legal framework was employed for the enforcement of Employment Regulation Orders (EROs) and Registered Employment Agreements (REAs) made under the Industrial relations Act, 1946. However, a more proactive approach was taken in the administration of the enforcement regime in employment covered by EROs and REAs, with routine inspections carried out as widely as possible.

6.5   In contrast, most employment legislation of the modern era relies for enforcement primarily on civil remedies by means of special procedures created to provide speedy and inexpensive redress. Generally, complaints are made to a Rights Commissioner with an appeal to the Employment Appeals Tribunal (EAT) but there are some variations on this approach. The Unfair Dismissals Act allows a complainant to submit a complaint directly to the EAT as an alternative to an initial hearing by a Rights Commissioner with an appeal to the EAT. Initial hearings under equality legislation are by an Equality Officer with an appeal to the Labour Court and the Organisation of Working Time Act, 1997 provides for appeals from recommendations of a Rights Commissioner also to be made to the Labour Court. In some cases breaches of the legislation were also criminal offences (e.g., Protection of Young Persons Act, Payment of Wages Act, Organisation of Working Time Act) in which case provision was made for the appointment of authorised officers with full inspection powers. In general, a reactive approach has been taken to inspection with authorised officers only undertaking inspections in response to complaints. The exception to this general rule is the Protection of Young Persons Act where some routine inspection has been undertaken. Other legislation (e.g., Minimum Notice, Unfair Dismissals and Terms of Employment legislation) provides for civil remedies only.

6.6   Accordingly, a variety of approaches have been taken to enforcement of employment law reflecting both differences in the laws to be enforced and the development of the institutional framework over time. The process has been somewhat ad hoc but certain factors influencing it can be detected:

— the complexity of the legislation to be enforced; the more complex the legislation and the greater the expertise required to detect and correct non-compliance, the greater is the case for proactive inspection. For this reason, for example, routine inspection forms an important element in the enforcement of occupational health and safety law.

— the situation of the employees to be protected; civil remedies are less likely to be effective where employees are not organised and/or isolated. Inspection with a view to prosecuting non-compliant employers is necessary in such cases, at least in response to complaints.

— the likelihood of collusion between employers and employees in breaches of the law: this can arise in some cases, for example, in regard to breaches of restrictions on young persons working or working time limits. Some capacity for inspection, both of a proactive nature and in response to third party complaints, is necessary to deal with this.

6.7   In regard to the appeal forum, the EAT would normally be appropriate where issues of legal right are being determined. However, the Labour Court may be more appropriate in certain circumstances. For example, under the Organisation of Working Time Act, rights may be varied by collective agreement. The Labour Court was chosen as the appropriate body to monitor such arrangements because they involved an industrial relations process and all such agreements must be submitted to and approved by the Court. In such circumstances, it was considered that the Labour Court should also adjudicate on disputes under the Act.

Strategy for enforcing a minimum wage

6.8   In recommending that the minimum wage be enforced through routine inspections, the Commission appears to have adopted the model of enforcement of the EROs by the Labour Inspectorate. Such an inspection regime, applied to the entire workforce, would be extremely resource-intensive. The Group did not consider such an approach appropriate as the circumstances pertaining to the enforcement of a national minimum wage differ appreciably from those in which the EROs are enforced. Firstly, EROs are complex instruments with a wide variety of pay rates and a range of provisions relating to other conditions of employment. The minimum wage regime would be based on a single rate with a few variations on age and experience grounds. There is far less prospect of ignorance of legal entitlements on the part of either employers or employees. Secondly, whereas the employees covered by EROs are

largely unorganised and/or isolated (it was for this reason that the JLCs were established in the first place), most employees are not vulnerable in this way.

6.9 In such circumstances, reliance should be placed primarily on the provision of an inexpensive and speedy civil remedy activated by complaints. It was felt that most compliance issues could be satisfactorily dealt with by way of adjudication by Rights Commissioners of complaints made by employees with an appeal to the Employment Appeals Tribunal. However, there would undoubtedly be a minority of employees who, because of their work situation and lack of representation, would be reluctant to pursue a complaint through such a mechanism. Accordingly, the Group considered that there would be some residual requirement for inspection targeted on particularly vulnerable employees. To deal with this situation, the legislation should include provision for breaches of the minimum wage requirements to be a criminal offence and for the appointment of authorised officers to undertake this targeted inspection regime.

Existing Labour Inspectorate or a new Minimum Wage Inspectorate?

6.10 The Commission left open the question as to whether the inspection function should be assigned to the existing Labour Inspectorate or to a new inspectorate dedicated to the task of enforcing the minimum wage. Some merit was seen to attach to the latter option in that the creation of a dedicated body would emphasise the commitment to implement and enforce the minimum wage which could be important, particularly in the early years of the minimum wage regime in building a culture of compliance. However, the Group preferred the other option, assigning the inspection function to the existing Labour Inspectorate, on the grounds that it (i) would make maximum use of available experience and expertise; (ii) be more efficient in allowing a single inspection to cover a range of employment law issues, and (iii) minimise the burden on employers.

6.11 The Commission stressed that the staff of the Labour Inspectorate would need to be increased if it were to take on inspections under the minimum wage legislation. While the approach to enforcement recommended above would not be as resource intensive as a comprehensive regime of routine inspections apparently envisaged by the Commission, a significant increase in staffing will be required to enable the inspectorate to discharge its functions adequately when the minimum wage legislation is added to the wide range of labour law currently enforced. This was the view of the majority of the Group who also considered that this requirement should be examined by the Department of Enterprise, Trade and Employment and the Department of Finance with a view to having the necessary resources approved and in place when the legislation takes effect. The Department of Finance accepted the need for the necessary resources to be put in place but drew attention to the responsibility of the Department of Enterprise, Trade and Employment to ensure that this was achieved within the parameters of Government expenditure and staffing policies and to the fact that within the Administrative Budget Framework, the Department of Enterprise, Trade and Employment has considerable flexibility to decide its own staffing priorities and to allocate resources accordingly.

Views of the Social Partners

6.12 ICTU strongly expressed the view that the existing inspectorate was not effective in regard to its responsibilities, and enforcement of the national minimum wage could not be dependent solely on the labour inspectorate. Effective compliance mechanisms were required. ICTU considered that unions should have a right to make a complaint about a breach of the national minimum wage to the inspectorate.

6.13 ICTU wanted the national minimum wage rate to be declared in the statement of terms and conditions of employment required under the Terms of Employment (Information) Act, 1994. ICTU's view was that the national minimum wage was an employment rights issue and such matters were within the jurisdiction of the Employment Appeals Tribunal.

6.14 IBEC considered that a complaint concerning the payment of the national minimum wage could be referred to a Rights Commissioner whose decision should be appealable, preferably to the Labour Court. IBEC regarded a new requirement to declare the national minimum wage rate on the statement of terms and conditions of employment under the Terms of Employment (Information) Act, 1994 or on payslips as excessive and unwarranted.

6.15 The Irish Hotels Federation preferred the inclusion of statements in annual tax returns as to compliance with the national minimum wage in preference to a "cumbersome" inspectorate. The Irish Retail Newsagents Association considered such a requirement in relation to tax returns to be unnecessary.

Recommendation

6.16 The Group does not recommend the creation of a new inspectorate to police the minimum wage, however the organisational arrangements within which the current inspectorate operates should be reviewed and resourced appropriately in the context of the proposed expansion of their role. The Group does not recommend the establishment of a tri-partite body in relation to enforcement of labour law arising from the introduction of the national minimum wage legislation.

6.17. The Group recommends the following approach to enforcement of the national minimum wage legislation. An employee should have a right to request from their employer a written statement of their average hourly rate of pay during any particular pay reference period, subject to a limit time on how far back this right should extend. The Group was of the view that a time limit of 12 months would be satisfactory. The employer would be obliged to reply to the employee's request within a time limit setting out in writing the following details:

(i) The pay composition and the earnings of the employee for national minimum wage purposes paid to the employee in relation to the pay reference period(s) requested;

(ii) The working time of the employee for national minimum wage purposes in relation to the pay reference period(s) requested;

(iii) The average hourly rate of pay of the employee for national minimum wage purposes paid to the employee in relation to the pay reference period(s) requested;

(iv) The relevant national minimum wage of the employee in relation to the pay reference period(s) requested;

Disputes relating to entitlement to the National Minimum Wage

6.18 The Group recommends that a dispute between an employee and an employer, relating to the employee's entitlement should be referred by either party to the dispute in the first instance to a rights commissioner and the decision of the rights commissioner may be appealed by either party to the Employment Appeals Tribunal. An employee should not be entitled to refer a dispute to a rights com-missioner, if the employee has not sought the written statement of their earnings from their employer.

6.19 The rights commissioner or the Employment Appeals Tribunal should have power to award of arrears of remuneration and compensation in favour of the employee to be paid by the employer. Com-pensation should not exceed 104 weeks' remuneration in respect of the employee's employment.

6.20 The Group preferred that the Employment Appeals Tribunal be the appellate body as the national minimum wage was essentially an employment rights issue.

6.21 The Group also recommends that if an employee so chooses, they may refer a complaint to an inspector appointed under the legislation. The Group considers that if a dispute is being investigated by

a rights commissioner, the same alleged underpayment of the national minimum wage should not be investigated by an inspector. Therefore the choice of enforcement mechanism should be a decision for an aggrieved employee, and the enforcement mechanisms should be mutually exclusive options.

6.22　Inspectors should of course have powers of routine inspection for the national minimum wage legislation, and should not be solely reliant on complaints from employees to undertake inspections. It should be a criminal offence to refuse to pay the national minimum wage and appropriate penalties should be provided in the legislation to deter underpayment of the national minimum wage.

6.23　In view of the enforcement regime outlined above the Group does not recommend that declarations of compliance be required with annual taxation returns or under the Terms of Employment (Information) Act, 1994. It is unnecessary to impose this requirement on employers, as the vast majority of employers would be complying with the legislation.

Publicity and Information campaign

6.24　The ESRI Impact Study details the following results from its firm survey in relation to employers preparedness for the national minimum wage. The firm survey indicates that about three-quarters of employers are aware of the proposed minimum wage. However, many of these do not know its detailed specification in terms of the main rate, the existence of sub-minimum rates, and when it is to be introduced. About 11% of employers say they have taken steps to prepare for the minimum wage, and even in the sectors most affected this figure was no higher than one-quarter. The Group recommends that a high profile public information campaign be undertaken by the Department of Enterprise, Trade and Employment prior to the introduction of the national minimum wage legislation. The social partners should be consulted in relation to the development of the campaign which should commence in January 2000. The Group was of the view that such a campaign would involve the following elements:

- press, radio and poster campaign;

- one week t.v. advertising prior to 1 April, 2000;

- circulation of detailed information leaflets for employers and employees;

- in consultation with the Revenue Commissioners, the circulation of an information leaflet on the national minimum wage to be included with documentation sent by the Revenue Commissioners to tax payers.

A Minimum Wage Commission

6.25　The Commission recommended the establishment of a Minimum Wage Commission with representatives from unions, employers, government and independent members. This body would be charged with reviewing the rate at one-two year intervals taking account of the trend in prices, overall economic conditions, employment and competitiveness and with making recommendations to the Minister for Enterprise, Trade and Employment.

Views of the social partners

6.26　IBEC consider that the establishment of a new Commission with responsibility to review the national minimum wage rate would be institutional overkill. IBEC considered that the national minimum wage rate could be reviewed in the context of national agreements. In the event that national agreements ceased, the national minimum wage rate could be reviewed by the Social Partners. The Labour Court would be the alternative mechanism in the event that the Social Partners failed to agree the rate. An agreed set of principles could be given to the Labour Court for guidance reviewing the rate, which would include consultation with the Social Partners.

6.27 ICTU agreed that a statutory National Minimum Wage Commission would be unnecessary. The Labour Court would be the appropriate body to review the national minimum wage rate whether or not national agreements continue. The national minimum wage rate should be reviewed on an annual basis, subject to certain prescribed principles, including consultation with interested parties. National minimum wage review would be based on movements in earnings in preceding period. The Labour Court could be asked to establish a national "JLC type" committee to advise the Court on the national minimum wage rate.

6.28 Both ICTU and IBEC consider that the review mechanism should not reside within the political process.

6.29 The Irish Clothing Manufacturers Federation did not agree with the establishment of a permanent Minimum Wage Commission. The Scheme Workers Alliance wanted to see the national minimum wage reviewed annually at or above the rate of inflation. The Alliance wanted to be represented on any Commission or body set up to review the rate. The National Youth Council of Ireland supported the establishment of a Minimum Wage Commission to review the rate. It considered that the national minimum wage rate should be linked to increases in the cost of living, changes in employment and overall economic conditions. The Combat Poverty Agency considered that the national minimum wage should be subject to regular review and uprating.

Recommendation

6.30 The Group considers that the establishment of a permanent institution for the sole function of reviewing the minimum wage rate is unnecessary. Once the initial rate has been introduced, future revisions of the rate should be integrated into the process and cycle of national programmes, i.e. they should be based on whatever arrangements in relation to the minimum wage are agreed in any future programmes. Accordingly, the Group recommends that the minimum wage legislation should provide a general power for the Minister to review and revise the rate, by order, from time to time having regard to an agreement in relation to the national minimum wage in any subsequent national agreement However, the continuation of national programmes cannot be guaranteed and there should also be provision, as a fallback measure, for the Minister to request the Labour Court to review the rate and recommend appropriate revisions thereto. The Court is eminently suitable for such a role given its tripartite composition and the expertise which it has accumulated over the years. The Group does not consider it would be either necessary or appropriate to incorporate the detailed arrangements governing reviews in legislation. However, criteria which may be used by the Court could include:

(i) the movement in earnings of employees;

(ii) the movement of inflation (Consumer Price Index);

(iii) the level of employment and unemployment;

(iv) exchange rate variability with particular reference to movements in Sterling;

(v) the impact of any recommended increase on competitiveness.

The Labour Court should consult with such parties, as it deems appropriate, including representatives of employers and employees in the private and public sectors. Ultimately, revisions of the minimum wage rate must remain a matter for Government The general power for the Minister to review and revise the rate, by order, from time to time, recommended above would suffice for this purpose.

6.31 In considering the question of reviewing the rate, the Group noted the Commission's criticism of the lack of comprehensive hourly earnings data. Clearly this deficiency will have to be remedied if future reviews are to be properly informed. The Group noted that the Department of Enterprise, Trade and Employment has initiated discussions with the Central Statistics Office on this issue.

Existing Joint Labour Committees

6.32   In regard to the existing Joint Labour Committees, the Commission recommended as follows:

> "*The Commission is not recommending changes to the JLC system and suggests that they continue to set rates and conditions of employment for the sectors covered by the Committees. However, the Commission considers that a radical assessment of the role and function of the JLC system will have to take place in the light of the Commission's recommendation to introduce a national minimum wage. Clearly the wage setting function will be overtaken in instances where the JLC rate is less than the floor of the national minimum rate.*"

6.33   The Group noted that the Department of Enterprise, Trade and Employment had, in line with the commitment in Partnership 2000, asked the Labour Relations Commission to undertake a review of the operation and effectiveness of the Joint Labour Committee's. At time of completing the final report, the Group was informed that the review of the Joint Labour Committee system has not been completed.

Views of the Social Partners

6.34   ICTU saw no conflict between the existence of a national minimum wage and the continuation of Joint Labour Committees, as the Joint Labour Committees had functions to discharge in addition to dealing with minimum pay. Joint Labour Committee's dealt with the particular concerns of specific sectors and their interaction with national minimum wage would only overlap in respect of minimum pay rates. A structure was needed to continue looking at sectoral issues, including wage rates above national minimum wage, and the Joint Labour Committees were the appropriate bodies for this. The Partnership 2000 review of Joint Labour Committees was essential to any decision-making on this subject and the Group should not make recommendations on the future of Joint Labour Committees without having the benefit of the review being undertaken. ICTU accepted that the current range of Joint Labour Committees reflected historic structure of economy and was open to revisiting this issue to reflect current realities.

6.35   IBEC's view was that the functions of Joint Labour Committees should be reduced significantly, if not abolished altogether, with the introduction of national minimum wage. Major functions of Joint Labour Committees were wage setting and this would be virtually redundant in a national minimum wage environment. Joint Labour Committees might be useful mechanism at sectoral level to deal with 'firms in difficulty' issue. Dynamic wage effect arising from a national minimum wage would be of concern at Joint Labour Committee level.

6.36   The Irish Retail Newsagents Association expressed concern that the Joint Labour Committees would continue to have a wage setting function following the introduction of a national minimum wage. The Association considered that there would be pressure within the Joint Labour Committee for the retail sector to restore pay differentials.

6.37   ISME wanted the Joint Labour Committee system to be retained subject to a change in its decision making procedure. The Irish Clothing Manufacturers Federation did not favour the retention of the Joint Labour Committee system in a national minimum wage environment. The Irish Hotels Federation saw no need for the continuance of the Joint Labour Committee system after the national minimum wage is introduced. The Irish Farmers Association favoured the retention of the Joint Labour Committee structure.

Recommendation

6.38   Clearly, the Joint Labour Committee system needs to be radically reviewed in the light of the introduction of a national minimum wage. The Group did not consider, however, that it was in a position to make definitive recommendations on this issue in advance of the completion of the review currently

being undertaken by the Labour Relations Commission on foot of a commitment under Partnership 2000.

6.39   On the basis that the review mentioned above was not completed before this report was finalised, the Group recommends that the national minimum wage legislation should proceed on the basis that the Joint Labour Committee system is in existence and any changes arising from the review will have to be dealt with separately.

CHAPTER 7

Summary of Recommendations

The rate

7.1 In its Interim Report, the ESRI Impact Study and this final report, the working assumption was that the national minimum wage rate would be £4.40 per hour in April 2000. The Group did not consider that the final determination of a national minimum wage rate came within its remit. Ultimately, the determination of the national minimum wage rate is a matter for political decision.

Implementation date

7.2 Phasing in of a national minimum wage in different sectors of the economy on different dates would be complex, and could lead to considerable confusion amongst employers and employees as to who was covered and not covered by the legislation on various dates. While it would be possible to introduce the national minimum wage on a phased basis, the Group considers that the benefits of certainty and clarity — important factors in introducing the national minimum wage system effectively and efficiently — outweigh any benefits of phasing in on different dates for different sectors of the economy. With Partnership 2000 completed on 31 March 2000 for most private sector employees (except those in the construction industry where it ends on 30 June 2000), and for the public sector on 30 September 2000, the additional cost of implementation on a single date — 1 April 2000 — is not significant bearing in mind that most employees affected are in the private sector category where Partnership 2000 will already have been completed. The Group therefore recommends that the national minimum wage be introduced on a single date on 1 April, 2000.

Repercussive claims

7.3 The ESRI Impact Study highlights the negative impact that spill-over (possible increases in wages above the minimum, as a reaction to the narrowing of differentials brought about by the minimum wage) could have on the economy, and which would obviously have a greater impact in particularly vulnerable sectors of the economy. The ESRI estimated that, based on a technical assumption that only those located within 50% of the minimum itself were affected and that they obtained additional increases tapering from 5% down to 1% of gross earnings, spill-over could bring the total national wage bill increase from the specified minimum wage up from 1.6% to 2% in 2000. The Group considers it is essential to eliminate, or at least minimise, the possibility of spill-over claims claims both before and after the introduction of the national minimum wage legislation. The willingness of the social partners to provide leadership in this area is essential to preventing widespread and costly repercussive claims, which would undermine both the effectiveness of the national minimum wage legislation and damage the competitiveness of the economy. The Group endorses the Commission's recommendation that an agreement between ICTU, IBEC and the Government be concluded prior to the introduction of the national minimum wage to the effect that the Labour Court would not recognise or accept any claims arising from the introduction of the national minimum wage. The Group recommends that this agreement be incorporated into any successor agreement to Partnership 2000, to ensure that every union which adopts the new agreement would also undertake not to pursue repercussive claims.

7.4 The Group considers that the agreement between the social partners on this issue should be reflected in legislation. It recommends the inclusion of a provision to the effect that the Labour Court and the Labour Relations Commission would not support or otherwise endorse any claims referred to them for an improvement in pay which were based on restoring pay differentials, which previously existed

between claimants and other employees who have secured an improvement in pay arising from the introduction of the national minimum wage. Consideration should also be given to providing that the parties involved would be bound by the decision of the Court on such claims.

Definition of Employee

7.5　The Group recommends that the definition of employee to be used in the national minimum wage legislation should be consistent with the definition contained in recent employment rights legislation, and should be sufficiently comprehensive to include persons who are supplied by an employment agency to a third party. The definition should encompass public servants. The result of this approach would be that persons who work under contracts for services, who are, in effect, self-employed, would be outside of the scope of the minimum wage legislation.

Part-time employees

7.6　The Group recommends that no hours or weeks threshold should apply to employees (both part-time and full-time) in order for them to benefit from the national minimum wage legislation.

Exclusions

7.7　The Group recommends that the legislation should not apply to the employees listed below:

(i) the spouse of the employer;

(ii) the father, mother, grandfather, grandmother, step-father, step-mother, son, daughter, grandson, grand-daughter, step-son, step-daughter, brother, sister, half-brother, half-sister.

Their remuneration will continue to be determined in accordance with existing payment arrangements between themselves and their employers.

7.8　Statutory apprentices should also be excluded. In addition sharefishermen should be excluded from the legislation as they are not classified as employees and are paid on the basis of a share in the value of the catch on a voyage. This is a standard exemption in employment rights legislation. The Group noted that members of the Defence Forces do not have defined working hours and are not covered by the provisions of the Organisation of Working Time Act, 1997. They should, therefore, be excluded from the scope of the national minimum wage legislation.

7.9　Domestic workers are excluded from the scope of minimum wage provision in some other countries but there did not appear to the Group to be any clear rationale for this exclusion. The Group considers that domestic employees should therefore be included within the legislation.

Definition of Working Time

7.10　As the national minimum wage is to be expressed as an hourly rate of pay, working time is therefore critical. The Group recommends that the definition of working time to be used for the purpose of a national minimum wage should be based on that used in the Organisation of Working Time Act, 1997 — *'working time means any time that the employee is (a) at his or her place of work or at his or her employer's disposal and (b) carrying on or performing the activities or duties of his or her work'*. However, that definition excludes all paid rest breaks, which was appropriate in that particular context as the Act was designed to safeguard the health and safety of workers when they were actually working. For the purposes of a national minimum wage such a narrow definition would not appear entirely appropriate as it could, in effect, turn paid rest breaks into unpaid rest breaks. Therefore the definition contained in the Organisation of Working Time Act should be appropriately amended to ensure that working time would be broadly defined to ensure that working time would, on the one hand include paid rest breaks, but, on the other hand, exclude lunch breaks in, for instance, certain public service employments where working

hours are expressed in terms which include lunch breaks. This would mean extending the definition contained in the Organisation of Working Time Act to perhaps including any time that the employee is at his or her place of work and is paid as if he or she is carrying on or performing the activities or duties of his or her work.

7.11 On this basis, periods when the employee is absent from work (e.g. for sickness, public holidays, annual leave, maternity leave, lay-off, suspension or engaged in industrial action) would not count as working time in respect of which the employee would be entitled to the national minimum wage. An employee would, of course, be entitled to payment for some of these absences under other legislation or collective agreements, e.g. legislation governing maternity and holiday pay, or occupational sick pay schemes and disciplinary procedures.

7.12 The Group recommends that the working time of an employee in any pay reference period should be determined by reference to any of the sources mentioned in para 4.15 or the actual hours of working time undertaken by the employee, whichever is greater. The reason for this is that an employee may do overtime hours in the pay reference period which may not be stated in the contract of employment or elsewhere. Should the employee actually work less hours than the hours of work specified in, for example, the contract of employment, the employee should be entitled to have their working time hours determined by reference to their contract of employment for the pay reference period. The actual working time hours could be less because the employee is employed on an annualised hours basis or on seasonal work.

7.13 The Group recommends that employees whose working time is not controlled by their employers be included within the scope of the national minimum wage legislation, subject to appropriate safeguards for the employers of such employees.

7.14 As working time will be critical to the national minimum wage legislation, it is considered reasonable to oblige these categories of employees to keep a record of their working time and to submit this record to their employer in good time in order to benefit from the provisions of the legislation.

Pay reference period

7.15 The Group recommends that the maximum period of a pay reference period should be one calendar month. Employers should be free to select a pay reference period of one week, two weeks, three weeks or four weeks whether or not that period falls within one calendar month or not, as employers are in the best position to judge which pay reference period would suit their pay patterns. Appropriate safeguards would have to be put in place to inform employees of the pay reference period their employer has selected. The selection of a pay reference period is not required or intended to alter an employee's existing pay period.

Reckonable pay

7.16 The Group recommends that all gross payments which can be regarded as making up the rate for the job should be taken into account as part of national minimum wage pay, including the basic rate, bonus payments, commission, piece and incentive rates, and allowances for special duties.

7.17 The Group recommends the following approach in relation to premia payments. Any premium paid to an employee in relation to her/his normal or standard working hours should count toward national minimum wage pay. Therefore shift premium, unsocial hours premium, Saturday premium, Sunday premium, and any payment in excess of basic pay for working on a public holiday should be included for minimum wage pay, if earned and paid in relation to the employee's normal or standard working hours. Any premium earned and paid to an employee for working hours in excess of normal working or standard hours should be excluded from minimum wage pay. This would exclude overtime premium from the national minimum wage pay but the basic pay for overtime, excluding the premium element, would count

for national minimum wage pay. An employee should not have to depend on overtime premium payments to earn the national minimum wage.

7.18   The Group recommends that benefits-in-kind should be excluded from the definition due to the practical difficulties which would arise in valuing many such benefits and the inconsistency, having regard to the Payment of Wages Act, of allowing such benefits to count as pay for purposes of the minimum wage. However, the Group recommends that an exception should be made to this general approach in relation to board and lodging provided by the employer to an employee. The Employment Regulation Orders for the Hotels (excluding Cork, Dublin and Dun Laoghaire) and Catering (except Dublin and Dun Laoghaire) Joint Labour Committees provide for a monetary deduction to be made from the he statutory minimum pay of an employee if provided with board and lodging. It appears reasonable to the Group to continue this practice in relation to the national minimum wage. The Group, therefore, recommends than when the Minister prescribes the national minimum hourly rate of pay, a monetary daily value should also be specified for board and lodging or board only, which amount an employer can include for national minimum wage purposes if an employee is provided with board and lodging or board only. The initial monetary value for board and lodging or board only should be set by consultations with relevant interested parties. In the view of the Group this monetary value would not be market value, and would be similar to the amount permitted in the Employment Regulation Orders referred to above.

7.19   A number of submissions from employer representative groups raised the issue of including in the definition of pay all employer pension contributions. The Group did not consider that this proposal had merit as it did not meet the broad definition of pay for national minimum pay purposes — 'all gross payments which can be regarded as making up the rate for the job'. The Group noted that in contributory pension schemes there are, by definition, contributions from both employers and employees, with the employee's contribution being deducted from his or her gross pay and, thus, counting for the purposes of the national minimum wage. In order to achieve equity between employees in different employments with different pension schemes, the question arises whether in relation to a non-contributory scheme the element of the contribution paid by the employer, which corresponds to an employee's contribution in a contributory scheme, should count for the purposes of the minimum wage. A non-contributory pension is essentially a benefit in kind, and as an employee's contribution to a contributory pension is deducted from his or her gross pay, it is appropriate that the corresponding value to an employee of a non-contributory pension should, in principle, be included in the overall definition of pay for national minimum pay purposes. The Group recognises there may be difficulties in this regard and, in this context, it noted that the UK Low Pay Commission concluded that 'the value of individual employer contributions cannot be calculated easily in each pay reference period and the attribution of pension contributions to individual employees would also be difficult to monitor'. The Group concluded that the valuation of the benefit to an employee of the employers' contribution to a non-contributory pension scheme, which corresponds to an employee's contribution in a contributory scheme, needs further consideration to establish current practices in this area, particularly in the private sector.

7.20   The Group recommends that tips and gratuities paid directly to employees by customers in pubs, hotels or restaurants should not count in calculating pay for the national minimum wage. Where tips are paid into a central fund or a service charge is levied and the proceeds of the fund or charge are subsequently distributed to the staff by the employer through the payroll, the amount paid to the employee should be taken into account for minimum wage pay.

7.21   The Group recommends that all expenses paid to an employee by an employer in connection with her/his employment should be excluded from national minimum wage pay.

Regional variations

7.22   The Group noted that the National Minimum Wage Commission specifically considered and rejected a proposal that the national minimum wage be implemented in the form of regional variations.

Nevertheless, given the results of the ESRI Study, it was considered appropriate to examine the issue of regional variations. For many of the same reasons as in the case of sectoral variations, it was not considered an appropriate option to address the potential adverse impact on employment, identified by the ESRI, of the introduction of a national minimum wage. In addition, a regional variation would enhance competitive disparities by permitting firms in one area to have lower labour costs than competitor firms in a different area. A regional minimum wage of say £4.00, compared with a national minimum wage of £4.40, is unlikely to have the benefit of actually attracting firms to locate in areas where the rate is lower, as a decision by a firm to locate in a particular area is determined by a range of factors, of which labour costs would only be one and is unlikely to be a major determinant of a firm's location decision, and would be more likely to encourage migration from lower wage areas to higher wage areas. Finally, it was considered that the concept of a *national* minimum wage would be undermined by, in effect, having variable rates based on geographical location.

Sectoral variations

7.23   The Group noted that the Commission also specifically considered and rejected a proposal that the national minimum wage be implemented in the form of sectoral variations. While it is not in the Group's remit as such to re-examine the Commission's recommendation, it was a function of the Group to assess the consequential implications and effects resulting from the implementation of the Commission's recommendations. The ESRI Study outlines the immediate serious effect a national minimum wage of £4.40 would have both on employment and labour costs in certain sectors. The household survey shows that the percentage of employees below the specified minimum wage is as high as 44% in personal services and 28% in retailing. The total wage bill effect, including some spill-over, is estimated at almost 10% in personal services, and close to 5% in retailing and in professional services. Sub-sectors facing wage bill effects well above average include textile and apparel manufacturing sectors, sale and repair of motor vehicles and sale of automotive fuel, retail trade other than motor vehicles, hotels restaurants and bars, other personal services and household domestic employees. The survey of firms shows very much the same sectors and sub-sectors having a high proportion of employees paid less than £4.50 per hour.

7.24   One way of addressing this variable sectoral impact would be to phase in the full rate in particularly vulnerable sectors, either by delaying the implementation date or introducing an initial reduced rate. The Group rejected the former approach. In relation to the possibility of having sectoral rates, the Group noted that the national minimum wage, as implied in the title, was in effect a national employment right. Any derogation from such a right could only be considered in the most extreme circumstances. In any competitive market sector, there will always be underperforming firms in addition to those firms who are either moderately or very successful. It is the essence of a competitive market that firms enter and exit and that market forces prevail. Any attempt to cushion all firms in a particular sector would result, in effect, in a subsidy for all such firms irrespective of their profitability and would be counter to the thrust of Government, and indeed EU, policy in regard to State aids. In addition, the definition of such sectors and the firms in them inevitably lead to anomalies and inequities resulting in significant regulatory costs. Firms in related sectors or producing substitute goods may claim such sectoral aids' to be anti-competitive. As the ESRI Study noted, firms behaviour in a situation of an anticipated shock is likely to be to begin adjusting to the shock in advance so that the immediate impact is much less than it otherwise would be. Bearing all this mind, and while recognising the serious impact on certain sectors, the majority of the Group recommends that no sectoral variations be permitted to the national minimum wage. They considered that the more targetted measures, particularly in respect of job entrants, trainees and firms in difficulty, were more appropriate to deal with the potential adverse employment impacts identified in the ESRI Study.

7.25   The Department of Finance representatives on the Group did not wish to rule out some transitional differentiation on a sectoral or regional basis in the application of a national minimum wage. Such transitional differentiation, say phased over a three year period, was seen by the Finance representatives as being a means of ameliorating the adverse front-loaded macroeconomic impacts of a rate of £4.40

from April 2000. The impacts of most concern in this regard are a loss of employment of over 15,000, an increase in unemployment of over 14,000 and an addition to the national pay bill of 2% in the year 2000. The Finance representatives were of the view that further consideration needed to be given to this issue.

Firms in difficulty

7.26   Many of the same issues arise in the context of firms in difficulty as arose in the context of sectoral variations — the principle of allowing a derogation from, in effect, an employment right, the distorting competitive effect in a particular sector, the disincentive effect in relation to innovation and efficiency with a firm likely to devote efforts on obtaining and maintaining the 'subsidy' rather than on more constructive action. Nevertheless, given the significant impact on employment and labour costs outlined in the ESRI Study, particularly in respect of certain sectors, the Group considers that there is some merit in having an 'inability to pay' provision in the context of the national minimum wage. The concept has been enshrined in national pay agreements over the past decade. The Group therefore recommends that provision be made for an 'inability to pay' clause in the context of the national minimum wage. However, it recognises that the effect of the derogation from the national minimum wage would often not be the critical determinant in a firm's viability. In these circumstances the mechanism for obtaining the benefit of the 'inability to pay' derogation should include that it would only pertain to situations in which there was a collective agreement between the employer and the majority of employees, and must be registered with the Labour Court with supporting documentary evidence. The system of registration would ensure the agreement was valid, representative and in accordance with the provisions of the national minimum wage legislation. Any derogation would only be valid for a maximum period of twelve months.

Under 18s

7.27   Having considered the submissions made in this respect, the Group is of the view that, having regard to the fact that there will always be a certain group of young people entering full time employment before the age of 18, that this group is amongst the most vulnerable in society, there is need to cater for them in the context of a national minimum wage. Nevertheless, it is also clear that the introduction of a national minimum wage has two possible effects on this group — a possible increase in the supply of such workers attracted by the minimum wage rate to leave education earlier than they would otherwise have done and a possible reduction in demand for such workers by raising their price to beyond a level which employers were prepared to pay. Assuming a national minimum wage of £4.40 in April 2000, a reduced rate of 70% would result in a rate of £3.08 for such workers. Considering the projected movement in earnings in the period to April 2000, it is considered that, a reduced rate of 70% (equivalent to £3.08) of the national minimum wage rate should apply to under 18s. It is considered that this rate, £3.08, would achieve the required balance between ensuring that people are not attracted out of the education system prematurely before completion of the secondary cycle and ensuring that such workers who do enter the labour market are not exploited.

18-20 age group

7.28   In its Study, the ESRI suggested that the option of a reduced rate for young workers aged 18-20 should be reconsidered. It said that this would assist vulnerable sectors such as retailing and hotels/restaurants and would reduce the overall wage bill impact of the national minimum wage and ameliorate any impact on educational participation for that age group. Although the Group saw merit in the ESRI's proposal, it noted that such an approach would be contrary to the overall thrust of the recently enacted Employment Equality Act, 1998 — a problem which the ESRI had also identified. In all the circumstances, and having regard to the measures outlined in relation to job entrants and trainees, the Group concluded that it should not recommend the adoption of a reduced rate for employees aged 18-20.

Apprentices

7.29   The Group reiterates its earlier recommendation in regard to statutory apprentices that they be excluded from the scope of the national minimum wage, for the reasons outlined in para 5.9.

Job entrants

7.30   Having considered the submissions made in this respect, and the findings of the ESRI Impact Study, the Group concluded that it should not recommend any departure from the principle of a reduced rate for job entrants as recommended by the Minimum Wage Commission. In reaching this conclusion, the Group took account of the views expressed in submissions made on this issue, the potential adverse impact on employment identified in the ESRI Study, and the potential impact on competitiveness bearing in mind the more restricted impact of the recently introduced UK minimum wage provisions, not only in respect of the rate but more particularly the availability of reduced rates. For these reasons, the Group was particularly conscious of the need for a prudent approach to the issue in the context of the *initial* introduction of the national minimum wage.

7.31   As indicated in its Interim Report, the Group were satisfied that the case for a reduced rate is particularly strong where the employee is entering employment for the first time. It takes some time for a person entering the work force for the first time to learn the general disciplines of work and to build a relationship of mutual trust with an employer. All other things being equal, an experienced employee is more valued by an employer than a new entrant. Although the National Minimum Wage Commission recommended a three-year training rate for job entrants, the Group decided to recommend that the duration of the reduced rate for job entrants should be limited to a maximum of two years. In reaching this conclusion, the Group had regard to, on the one hand, the views expressed by the social partners and, on the other hand, the ESRI's conclusion that the reduced rates for apprentices, trainees and job entrants were justified.

7.32   The considerations outlined above in relation to job entrants also apply when a person is re-entering employment after a period of unemployment, but to a somewhat lesser extent. Accordingly, the Group considers that a case can be made for confining the reduced rate to a shorter period in such cases. The Group recommends that the reduced rate in these cases should be limited to one year and should only apply when a person has not been in employment at any time in the previous three years. The Group considered that the proposal for the application of a reduced rate for persons returning to employment who have not been in employment at any time in the previous three years is realistic in the context of the potential for offset on foot of other existing measures designed to assist those returning to employment, for example, the Back to Work Allowance and the Job Assist Scheme.

7.33   The Group did not consider that the reduced rate for job entrants/re-entrants should apply ab initio whenever a person changes jobs. If the change of jobs occurs within the reduced rate period, only the unexpired portion of the period should apply. If the change of job occurs after the conclusion of the reduced rate period, the full rate should apply, except where the job entails training leading to certification. This would cover situations where a person changes career after the reduced rate period and moves to a job which requires genuine, formal and valuable training.

7.34   Having regard to the foregoing, the Group recommends that the following arrangements should apply:

- a reduced rate of 80% and 90% of the full rate in the first and second years, respectively, should apply to all those entering the labour market for the first time;

- employment under 18 years of age should not reckon for the purposes of this reduced rate;

- a reduced rate of 80% for one year should apply also to persons returning to employment who have not been in employment at any time in the previous three years; and

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- the reduced rate should not apply ab initio to a person who changes jobs within the reduced rate period — only the unexpired portion of the period should apply in such cases.

7.35   The Group considers that these recommendations, coupled with its recommendations in relation to under-18s and trainees, comprise a reasonable and coherent overall package of measures, particularly in the context of the uncertainty associated with the initial introduction of a national minimum wage. However, the Group recommends that the need for a reduced rate for job entrants should be reviewed in a number of years in the light of experience with the operation of the national minimum wage. In this context, it recommends that the firm survey undertaken by the ESRI, as part of its Study, continue to be carried out at regular intervals in order to allow the effect of the introduction of the national minimum wage to be monitored.

Training Rate

7.36   Having regard to the views of the social partners and FAS and its earlier views contained in its Interim report, the Group is of the view that the reduced training rates should only apply in respect of persons undergoing training leading to certification. Allowing a situation where an employer could effectively determine the extent and nature of training could lead to the possibility of widespread abuse of such a provision. The extent of training required varies from job to job varying from a number of hours to a number of weeks. The type of employment attracting a national minimum wage would, in general, not be consistent with one requiring any lengthier period of training. The period required to bring an employee up to full or near-full productivity is usually significantly less than six months. In addition, an administrative structure necessary to inspect and monitor such a broad scope of eligible training would require significant additional resources and add to the existing regulatory burden on employers. Therefore the Group recommends that the reduced training rates should only apply in respect of persons undergoing training leading to certification. The reduced rates to apply on a sliding scale of 75%, 80% and 90% in the first, second and third years respectively, or proportionately if the period of training is less than three years.

Enforcement

7.37   The Group does not recommend the creation of a new inspectorate to police the minimum wage, however the organisational arrangements within which the current inspectorate operates should be reviewed and resourced appropriately in the context of the proposed expansion of their role. The Group does not recommend the establishment of a tri-partite body in relation to enforcement of labour law arising from the introduction of the national minimum wage legislation.

7.38   The Group recommends the following approach to enforcement of the national minimum wage legislation. An employee should have a right to request from her/his employer a written statement of her/his average hourly rate of pay during any particular pay reference period, subject to a limit time on how far back this right should extend. The Group was of the view that a time limit of 12 months would be satisfactory. The employer would be obliged to reply to the employee's request within a time limit setting out in writing the following details:

(i) The pay composition and the earnings of the employee for national minimum wage purposes paid to the employee in relation to the pay reference period(s) requested;

(ii) The working time of the employee for national minimum wage purposes in relation to the pay reference period(s) requested;

(iii) The average hourly rate of pay of the employee for national minimum wage purposes paid to the employee in relation to the pay reference period(s) requested;

(iv) The relevant national minimum wage of the employee in relation to the pay reference period(s) requested.

Disputes relating to entitlement to the National Minimum Wage

7.39   The Group recommends that a dispute between an employee and an employer, relating to the employee's entitlement should be referred by either party to the dispute in the first instance to a rights commissioner and the decision of the rights commissioner may be appealed by either party to the Employment Appeals Tribunal. An employee should not be entitled to refer a dispute to a rights commissioner, if the employee has not sought the written statement of her/his earnings from her/his employer.

7.40   The rights commissioner or the Employment Appeals Tribunal should have power to award of arrears of remuneration and compensation in favour of the employee to be paid by the employer. Compensation should not exceed 104 weeks' remuneration in respect of the employee's employment.

7.41   The Group preferred that the Employment Appeals Tribunal be the appellate body as the national minimum wage is an employment rights issue.

7.42   The Group also recommends that if an employee so chooses, s/he may refer a complaint to an inspector appointed under the legislation. The Group considers that if a dispute is being investigated by a rights commissioner, the same alleged underpayment of the national minimum wage should not be investigated by an inspector. Therefore the choice of enforcement mechanism should be a decision for an aggrieved employee, and the enforcement mechanisms should be mutually exclusive options.

7.43   Inspectors should of course have powers of routine inspection for the national minimum wage legislation, and should not be solely reliant on complaints from employees to undertake inspections. It should be a criminal offence to refuse to pay the national minimum wage and appropriate penalties should be provided in the legislation to deter underpayment of the national minimum wage.

National Minimum Wage Commission

7.44.   The Group considers that the establishment of a permanent institution for the sole function of reviewing the minimum wage rate is unnecessary. Once the initial rate has been introduced, future revisions of the rate should be integrated into the process and cycle of national programmes, i.e. they should be based on whatever arrangements in relation to the minimum wage are agreed in any future programmes. Accordingly, the Group recommends that the minimum wage legislation should provide a general power for the Minister to review and revise the rate, by order, from time to time having regard to an agreement in relation to the national minimum wage in any subsequent national agreement However, the continuation of national programmes cannot be guaranteed and there should also be provision, as a fallback measure, for the Minister to request the Labour Court to review the rate and recommend appropriate revisions thereto. The Court is eminently suitable for such a role given its tripartite composition and the expertise which it has accumulated over the years. The Group does not consider it would be either necessary or appropriate to incorporate the detailed arrangements governing reviews in legislation. However, criteria which may be used by the Court could include:

   (i) the movement in earnings of employees;

   (ii) the movement of inflation (Consumer Price Index);

   (iii) the level of employment and unemployment;

   (iv) exchange rate variability with particular reference to movements in Sterling;

   (v) the impact of any recommended increase on competitiveness.

The Labour Court should consult with such parties, as it deems appropriate, including representatives of employers and employees in the private and public sectors. Ultimately, revisions of the minimum wage rate must remain a matter for Government The general power for the Minister to review and revise the rate, by order, from time to time, recommended above would suffice for this purpose.

7.45   In considering the question of reviewing the rate, the Group noted the Commission's criticism of the lack of comprehensive hourly earnings data. Clearly this deficiency will have to be remedied if future reviews are to be properly informed. The Group noted that the Department of Enterprise, Trade and Employment has initiated discussions with the Central Statistics Office on this issue.

Joint Labour Committees

7.46   Clearly, the Joint Labour Committee system needs to be radically reviewed in the light of the introduction of a national minimum wage. The Group did not consider, however, that it was in a position to make definitive recommendations on this issue in advance of the completion of the review currently being undertaken by the Labour Relations Commission on foot of a commitment under Partnership 2000.

7.47   On the basis that the review mentioned above was not completed before this report was finalised, the Group recommends that the national minimum wage legislation should proceed on the basis that the Joint Labour Committee system is in existence and any changes arising from the review will have to be dealt with separately.

Publicity and information campaign

7.48   The ESRI Impact Study details the following results from its firm survey in relation to employers preparedness for the national minimum wage. The firm survey indicates that about three-quarters of employers are aware of the proposed minimum wage. However, many of these do not know its detailed specification in terms of the main rate, the existence of sub-minimum rates, and when it is to be introduced. About 11% of employers say they have taken steps to prepare for the minimum wage, and even in the sectors most affected this figure was no higher than one-quarter. The Group recommends that a high profile public information campaign be undertaken by the Department of Enterprise, Trade and Employment prior to the introduction of the national minimum wage legislation. The social partners should be consulted in relation to the development of the campaign which should commence in January 2000. The Group was of the view that such a campaign would involve the following elements:

- press, radio and poster campaign;

- one week t.v. advertising prior to 1 April, 2000;

- circulation of detailed information leaflets for employers and employees;

- in consultation with the Revenue Commissioners, the circulation of an information leaflet on the national minimum wage to be included with documentation sent by the Revenue Commissioners to tax payers.

Inter-Departmental Group on Implementation of a National Minimum Wage

May 1999

APPENDIX A

List of Organisations who made Submissions

The following organisations presented oral and written submissions to the Inter-Departmental Group:

1. Irish Congress of Trade Unions.
2. Irish Business and Employers Confederation.
3. Irish Retail Newsagents Association.
4. Dr. Kevin J. Denny, Lecturer in Economics, University College, Dublin.
5. Services Industrial Professional Technical Union.
6. Irish Small and Medium Enterprises Association.
7. Scheme Workers Alliance.
8. Irish Clothing Manufacturers Federation.
9. National Competitiveness Council.
10. Irish Hotels Federation.
11. National Youth Council of Ireland.
12. National Women's Council of Ireland.
13. Combat Poverty Agency.
14. Foras Aiseanna Saothair.
15. Chambers of Commerce of Ireland.
16. Voluntary and Community Pillar.
17. Irish Farmers Association.
18. Small Firms Association.
19. Forfas.

APPENDIX B

The Impact of the Minimum Wage in Ireland

Report for the Inter-Departmental Group on the Implementation of a National Minimum Wage

Brian Nolan*, Gerry Boyle**, Tim Callan*, Aedin Doris**,
Ide Kearney*, John FitzGerald*, Stephen Machin***,
Donal O'Neill**, John Walsh*, James Williams*,
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March, 1999

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Report for the Inter-Departmental Group on the Implementation of a National Minimum Wage

Executive Summary

The Purpose of the Study

The Inter-Departmental Group on the Implementation of the National Minimum Wage commissioned us to study the likely impact of the national minimum wage on employment, competitiveness and inflation in various sectors and on the economy as a whole.

The Minimum Wage Studied

The Inter-Departmental Group assumed for the purpose of its Interim Report that the nominal rate of £4.40 (70% if under 18) mentioned by the Minimum Wage Commission would apply when the minimum wage was introduced. We follow that assumption, and assume for the purpose of the exercise that the minimum wage is introduced in April 2000. Alternative specifications are also examined to test the sensitivity of the results.

Estimating the Numbers Directly Affected by the Minimum Wage

The distribution of earnings in the ESRI's 1997 Living in Ireland Survey is projected forward to April 2000 in order to estimate the numbers directly affected by the minimum wage. This suggests that 13.5% of all employees would be under £4.40 (or £3.08 if under 18) in 2000, our central estimate of the numbers likely to be below the specified minimum wage.

This figure is much lower than the 23% below £4.50 in Nolan's (1998) study for the Minimum Wage Commission mostly because that referred to 1997 whereas the minimum wage is not to be introduced until 2000. Varying the projected increases in median and lower earnings between 1997 and 2000 still produces a figure in the range 13-15%. To put these figures in context, a minimum wage set at £4 per hour in 2000 (£2.80 for under-18s) would affect 11% of all employees, while one set at £5 per hour (£3.50 for under-18s), would affect 21% of employees.

The profile of the employees falling below the specified minimum wage is very similar to that presented in Nolan's (1998) study. More than half those below the minimum wage are women, about one-third are working less than 30 hours per week, and over 40% are aged under 25. Clerical and service workers are heavily over-represented among those below the minimum.

The Immediate Impact on the Wage Bill

The overall increase in gross earnings associated with the specified minimum wage is estimated to be 1.6% of total gross earnings. Once again wage growth between 1997 and 2000 is the main reason why this is so much lower than Nolan's (1998) estimate of 4% for the increase in earnings associated with a £4.50 minimum wage operating in 1997.

The likely scale of increases in wages above the minimum as a reaction to the narrowing of differentials — "spill-over" — is very difficult to assess. Assuming that only those located within 50% of the minimum itself are affected, and that they obtain additional increases tapering from 5% down, spill-over would bring the total wage bill increase up from 1.6% to 2%. As a point of comparison, average annual wage increases in the period up to 2000 under Programme 2000 are about 2 1/2-3%.

Alternative levels for the minimum wage itself produce a wider range of estimates of the wage bill

effect, from as little as 1% (for a minimum wage of £4 with no spill-over) up to over 3% (for a minimum wage of £5 with some spill-over).

The total wage bill effect is estimated at almost 10% in personal services, and close to 5% in retailing and in professional services. Sub-sectors facing wage bill effects well above average include textile and apparel manufacturing, sale and repair of motor vehicles and sale of automotive fuel, retail trade other than motor vehicles, hotels restaurants and bars, other personal services and household domestic employees.

The Impact on Work Incentives

SWITCH, the ESRI tax-benefit model, is used to simulate the impact of the national minimum wage on family disposable income and work incentives. Disposable income rises by about 70% of the overall increase in gross earnings. Most of the difference is due to increasing income tax and PRSI, but there were also significant reductions in social welfare receipts.

Most families gaining from the minimum wage in terms of disposable income are in the middle of the income distribution, although gains are also found among higher and lower income families. This reflects the fact that many of the low paid employees who stand to gain from the minimum wage already have disposable incomes above those of welfare recipients and others at the bottom of the family income distribution.

Simulating the impact of the minimum wage on replacement rates suggests that it will lead to a significant improvement in financial work incentives facing those who are unemployed or classified as in "home duties", while also improving the reward to employment for those who are currently employees. The proportion of the unemployed facing replacement rates of over 50% falls in the simulation from 41% to 23%.

Labour Supply Responses

Micro-data from the 1994 Living in Ireland Survey provides the basis for estimating the responsiveness of individuals to the wage rate, while controlling for other demographic and economic factors that may affect their labour supply behaviour. The participation decision is modeled for men with low education levels, men with higher education levels, married women and single women. For each of these groups participation is inelastic, a 1% increase in the wage rate leading to a less than 1% increase in the participation rate, with married women having the highest elasticity.

These results are then used to predict changes in participation rates in response to the minimum wage. The largest response to the introduction of the minimum wage will be amongst women, with increases in the participation rate of 3 percentage points. The estimated effect on men's participation rate is 1.5% points, and the overall participation rate is estimated to increase by more than 2 percentage points.

The Macroeconomic Effects of the Minimum Wage

The ESRI's HERMES macroeconomic model is used to estimate the overall impact of the minimum wage on employment, unemployment and competitiveness. The central simulation results suggest a fall in employment of 13,500, equivalent to 0.9% of total forecast employment in 2000. To put it in context, the most recent medium-term forecasts of employment growth with the ESRI's macromodel, in the absence of the minimum wage, include a growth in employment of 18.9% between 2000 and 2010. The introduction of the minimum wage is expected to reduce the growth in employment over the period 2000-2010 from 18.9% to 18%. (The projected fall in employment lies within the range 9,500 to 17,400 when different assumptions on spillover are used).

This decline is driven in equal measure by two separate effects:

(a) a decline in the demand for low-wage labour due to the direct impact of the introduction of the minimum wage. Almost all of this decline occurs in industrial sectors.

(b) a decline in the demand for higher-wage labour due to the indirect impact of the minimum wage on inflation, increasing wage demands and reducing competitiveness. The cumulative long-run

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impact on average wages is 2.85% and on consumer prices is 1.4%. This implies an increase in the real wage of approximately 1.4% which represents a significant deterioration in competitiveness. This decline impacts on the demand for labour in both industrial and services sectors.

Overall approximately 84% of the projected total fall in employment occurs in the industrial sectors, including building and construction.

Unemployment is projected to increase by 8,860, equivalent to a 0.5 percentage point increase in the forecast unemployment rate in 2000. Net migration flows increase by 850 per annum in the long run. The increase in unemployment will mainly impact on persons with low skills, while the increase in migration will be concentrated among the more highly skilled.

These estimates do not take into account the potential positive impact of a minimum wage on effort and productivity levels and turnover of employees, or monopsony in parts of the low-wage labour market. For these reasons, such macromodel simulations may overstate the likely impact of the minimum wage on jobs.

Learning from UK Research and Experience

The Irish minimum wage will be higher in nominal terms than the minimum just introduced in the UK at stg£3.60, and the UK youth rate will apply to all those aged under 22 rather than 18. In relative terms, the Irish minimum is likely to represent about 56% of median earnings for those aged 18 or over, while the UK minimum wage for those aged 22 or more is 47% of their median hourly wage. The UK Low Pay Commission estimates that only about 9% of employees aged 18 or over will be affected by the minimum wage there. This means that there is greater potential for disemployment effects in the Irish case. The treatment of youth workers in particular received a great deal of attention in the UK and may merit further consideration in the Irish case.

Results from a Survey of Firms

A specially-designed survey of firms was carried out as part of this study in late 1998/early 1999. It obtained information from 1,062 Irish private sector firms, with a response rate of 46% — in line with expectations from a general sample of firms. The results have been reweighted to ensure that the sample for analysis represents the population of firms in terms of sector and size.

About three-quarters of employers in the survey are aware of the proposed minimum wage. However, many of these do not know its detailed specification in terms of the main rate, the existence of sub-minimum rates, and when it is to be introduced. About 11% of employers say they have taken steps to prepare for the minimum wage, and even in the sectors most affected this figure was no higher than one-quarter.

Employers were asked about likely responses in a number of areas of business activity to the introduction of a minimum hourly wage. Substantial numbers said that cutting back on profit margins and improved staff morale were likely. Relatively small numbers said that substitution of labour with capital was likely, while about 20 per cent felt that productivity increases were likely. About one-third of firms felt that the minimum wage would be likely to reduce staff turnover, and about one-quarter said that they would retrain/upgrade work of current staff. Seventeen per cent indicated that the introduction of the minimum wage could result in their going out of business — though the possibility of strategic response must be noted there. About 56 per cent of firms indicated that staff/unions would probably insist on restoration of pay differentials as a result of the minimum wage.

Approximately 21% of all employees in the firms surveyed were currently being paid less than £4.50 an hour, consistent with the results for the private sector from the 1997 household survey. The sectors most affected by the minimum wage are also consistent in the two sources.

The fact that the survey of firms has been carried out is very important for future monitoring and evaluation of the impact of the minimum wage. Being able to survey the same sample of firms after the minimum wage is introduced greatly enhances prospects of a reliable evaluation of its actual effects after the event.

CHAPTER 1

Introduction

Brian Nolan

The Government's Action Programme for the New Millennium included a commitment to the intro-duction of a national minimum wage in Ireland. The National Minimum Wage Commission was appointed by the Government to advise on the best way to implement this commitment and to examine a number of specific aspects, and submitted its Report in March 1998. The Government then established an Inter-Departmental Group to assist in formulating proposals and a plan of action in this regard. The Inter-Departmental Group commissioned a study of the likely impact of the implementation of the recommended national minimum wage on employment, competitiveness and inflation in various sectors and on the economy as a whole, to be carried out by a team of researchers from the Economic and Social Research Institute, the National University of Ireland, Maynooth, and University College London/London School of Economics. An interim report on the study was submitted to the Inter-Depart-mental Group in December 1998, and this is the final report.

Assessing the impact of a minimum wage has proved to be a highly complex and contentious issue internationally, and in approaching this question in the Irish context there are additional constraints in terms of limited availability of relevant data. A two-part strategy has been adopted in the study. The first is to exploit the data that are available and to draw on the international evidence, especially that for the UK. The second is to obtain new data from firms, in order to probe the likely responses of those most substantially affected by a minimum wage. Results from this firm survey can in addition serve in the future as an indispensable benchmark against which to evaluate the impact of the minimum wage after it has been introduced. The overall aim of the study is to assist, to the fullest extent possible, formulation of the best strategy for the implementation of the minimum wage, and to lay the foundations for monitoring the effects of the minimum wage upon implementation.

The study involves a number of distinct elements, which build on one another to form a coherent and comprehensive whole. The Inter-Departmental Group, and this study, take as point of departure the specification of the minimum wage recommended by the National Minimum Wage Commission. The first priority is to estimate how many employees will actually be affected by this minimum wage, and how far below that minimum their earnings lie. Chapter 2 uses results on the earnings of employees in the 1994 and 1997 Living in Ireland Surveys, large-scale household surveys carried out by the ESRI, to analyse this crucial question. Without allowing for any behavioural responses by individuals or firms at this stage, this allows estimates to be made of the overall immediate impact of the minimum wage on the wage bill of employers, and how this varies by sector.

Even abstracting from possible effects on the numbers employed, the impact of the minimum wage on gross earnings will not capture the full picture as far as distributional and incentive effects are concerned. For some individuals, the net impact on family income and on work incentives could be modified signifi-cantly by the tax and welfare consequences of increased gross wages. This will be particularly pronounced where in-work benefits are currently being rceived, and for married women who have transferred tax allowances or credits and/or the benefit of their standard rate tax band to their husbands. To examine these issues, Chapter 3 simulates the effect of the proposed minimum wage within the ESRI tax-benefit model, SWITCH. The results show the overall distributive impact of the minimum wage (before behavioural responses) and characterise the nature of gains across families, as well as the effects on the pattern of replacement rates.

The next element of the study estimates the labour supply responses of individuals to the changes in incentives produced by the minimum wage. This analysis is based on micro-data on individuals and their families from the 1994 Living in Ireland Survey. The results, presented in Chapter 4, show the likely

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impact of the introduction of the minimum wage on the supply side of the labour market, and how this varies across different types of individual and family.

The next element in the project, presented in Chapter 5, uses the HERMES macroeconomic model, developed at the ESRI and extensively used for medium-term analysis, to analyse the macro-economic effects of the minimum wage in Ireland, including those on employment, competiveness and inflation. This involves an examination of the likely impact of the estimated change in wages derived in Chapter 2 on labour demand in different sectors of the economy. The possible effects on the supply of labour examined in Chapter 4 will also be integrated into the macroeconomic model-based analysis. This uses the sectoral labour demand responses within the model to estimate both the short- and the long-run impact of the introduction of the minimum wage.

It is important to place the proposed Irish minimum wage in its comparative perspective, and the imminent introduction of a national minimum wage in the UK also forms a key part of the background for Ireland. There has been a considerable range of research on the impact of the minimum wage in the UK, employing the wider range of data available there. Chapter 6 draw out the implications of these UK studies for the likely effects of the national minimum wage in Ireland.

Taken together, these elements form as comprehensive an examination of the questions posed as currently available data allow, and greatly enhance knowledge about the likely impact of the minimum wage. However, the way firms respond to the minimum wage is crucial, and may vary significantly across sectors of the economy. Gathering additional information at the level of the firm to inform the assessment of the likely effects of the minimum wage, through a specially-designed survey of almost 1,000 firms, was therefore a core element in the study. Chapter 7 describes the results of this survey, carried out by the ESRI's Survey Unit in late 1998-early 1999. The survey sought both quantitative information about the numbers and types of employee to be affected, and subjective responses about employers' level of know-ledge about the minimum wage and likely reactions to it. The information obtained in the survey has the further very important benefit of establishing a baseline: the same firms can be revisited in the future in order to evaluate the actual impact of the national minimum wage after it has been introduced.

Finally, Chapter 8 brings together the conclusions of the various elements of the study on the likely impact of the national minimum wage on employment, competitiveness and inflation, and brings out some implications for the way in which the minimum wage is implemented.

The Numbers Affected by the Minimum Wage

Brian Nolan and Brian McCormick

2.1 Introduction

The Inter-Departmental Group, and this study, take as point of departure the specification of the minimum wage recommended by the National Minimum Wage Commission. The Minimum Wage Commission recommended *inter alia* that

> "The initial rate for the national minimum wage should be set at around two thirds of median earnings and should take into account employment, overall economic conditions and competitiveness" noting that "in today's terms, two thirds of median earnings would represent £4.40 per hour" (p. 59-60).

A separate rate for employees under 18 years of age, set at 70% of the full rate, was also recommended. "In today's terms" for the Commission was in 1998 prices. On foot of a number of statements by the Tanaiste that the rate would be £4.40 in post-Programme 2000 terms, the Inter-Departmental Group assumed for the purpose of its Interim Report that this nominal rate would apply when the minimum wage was introduced. We make the same assumption here.

The first element of this study uses household survey data to estimate the "firstround" impact of the recommended minimum wage — without any behavioural responses by individuals or firms — in terms of the numbers of employees affected, their characteristics, and the impact on the wage bill by sector. These estimates then represent a central input into subsequent elements of the study.

We first review in Section 2.2 Nolan's (1998) estimates of numbers affected by alternative minima, prepared for the Minimum Wage Commission using the results of the 1994 Living in Ireland Survey. We then present in Section 2.3 new estimates, focusing on the minimum of £4.40 and drawing on the results of the 1997 Living in Ireland Survey. The characteristics of those affected by the minimum wage are examined in Section 2.4. In Section 2.5 we turn to the overall immediate impact of the minimum wage on the wage bill of employers. Section 2.6 deals with how the numbers affected and the immediate wage bill impact vary by sector. Section 2.7 brings together the key findings.

2.2 Estimates of Numbers Affected Based on the 1994 Living in Ireland Survey

The National Minimum Wage Commission commissioned a study by Nolan (1998) to provide a picture of the extent of low pay in the Irish economy and of the employees affected, as an input to its work. This study used the 1994 Living in Ireland household survey, carried out by the ESRI, to assess the numbers who would be affected by different levels and configurations of a national minimum wage. It examined the characteristics of the individuals, occupations and industrial sectors below various low pay benchmarks. The report also looked at the relationship between low pay and household poverty, and the immediate impact of various minima on the wage bill of different sectors. Since this was an important input into the Minimum Wage Commission's deliberations, it is worth briefly reviewing the main findings.

The 1994 Living in Ireland Survey was the first wave of the Irish element of the European Community Household Panel being carried out for Eurostat by the ESRI. The sample contained information on over 3,000 individual employees who responded to questions about their earnings and hours of work, occupation, labour market experience, education, and a wide range of other individual and job characteristics. (A comprehensive description of the survey is in Callan *et al*, 1996). Median gross hourly earnings for all employees in the 1994 survey were £6. About 11% of the sample were below half the median (£3 per

hour), 23% were below twothirds of the median (£4), and 30% were below two-thirds of the median for fulltime adult men (£4.57), all benchmarks quite commonly used in studies of low pay elsewhere.

Part-time employees were seen to face a substantially higher risk of being low paid than fulltime workers, but accounted for at most only about onequarter of all those in low pay. Employees aged under 25 faced a much higher risk of being low paid than those aged 25 or over, and women aged 25 or over faced a substantially higher risk of being low paid than men of the same age. The risk of being lowpaid was closely related to the individual's level of educational attainment but that pattern varied considerably with age. The risk also varied a good deal across occupational groups, with the highest risk faced by agricultural workers, those in commerce, insurance and finance, and service workers. Two-thirds of all low paid workers fell into three occupational groups: "producers, makers and repairers", commerce, insurance and finance workers, and service workers. Categorising employees by industry, the risk of being low paid was highest for those working in agriculture, forestry and fishing, in personal services, and in retailing.

The numbers who would be affected by alternative configurations for an hourly minimum wage in 1997 were estimated in Nolan (1998) by projecting forward from the 1994 survey data (and abstracting entirely from any behavioural responses). It was estimated (on the basis of CSO data for average industrial earnings, earnings in building and construction, in the public service etc.) that average earnings rose by about 10% between 1994 and 1997, and for the purpose of the analysis an unchanged earnings distribution from 1994 was assumed. This suggested that median earnings would have risen from £6 per hour to about £6.60, and twothirds of median earnings would have risen from £4 per hour in 1994 to about £4.40 in 1997.

This is the source the £4.40 figure quoted as twothirds of the median by the Minimum Wage Commission. (It was one of a number of different benchmarks examined in Nolan's study, but since it was subsequently selected by the Commission as the appropriate level for the minimum wage it now appears the most relevant). As we have seen, in the 1994 survey about 23% of all employees earned less than twothirds of the median, and with an unchanged distribution assumed the implication was that the same percentage earned below £4.40 by 1997. About 25% were estimated to be below the slightly higher figure of £4.50 per hour, and in that case the impact of adopting lower minima of £3.50 for those aged under 18 and £4 for those aged 18-under 21 was also analysed. This was seen not to significantly reduce the numbers affected, though it did reduce the average increase in earnings involved in bringing everyone up to the minimum.

The sensitivity of these estimates of the situation in 1997 to alternative assumptions about what happened between 1994 and 1997 was considered. They were adjudged not to be particularly sensitive to alternative estimates of the increase in average hourly earnings between 1994 and 1997. They were seen to be more sensitive to the possibility that low earnings rose more rapidly than average over the period, but the broad pattern of the results was still regarded as reasonably robust.

2.3 Estimates of Numbers Affected by the Minimum Wage Based on the 1997 Living in Ireland Survey

In the present study, the first priority is to use household survey data to estimate the numbers affected by the minimum wage of £4.40 specified by the Minimum Wage Commission subsequent to the Nolan (1998) study. Projecting forward from the 1994 Living in Ireland Survey to 1997 on the same basis as Nolan (1998), a minimum of £4.40 for those aged 18 and over and 70% of that level (£3.08) for those aged under 18 would then have affected 23% of all employees. This is the same as the 23% estimated in Nolan (1998) to be affected by a minimum of £4.40 in 1997 without age differentiation. The age differentiation makes no difference because less than 1% of all employees in the sample are aged under 18, and virtually all of these below even the reduced rate.

An alternative source for the production of such an estimate for 1997 is now available. The 1994 Living in Ireland Survey was the first wave of a longitudinal or panel survey, the Irish element of the European Community Household Survey sponsored by Eurostat. Subsequent waves, also carried out by the ESRI, involved revisiting the respondents to the 1994 survey and gathering the same range of information. Results from the 1997 round of the survey have now been processed in order to make it possible to

analyse the distribution of earnings for this study. About 2,700 employees are in 1997 sample households, and for these information on earnings and hours of work was sought in the same manner as in 1994. This means it has been possible to analyse here the numbers under the specified minimum wage in that sample, and how far below that level they fall.

Only a brief description of the 1997 survey will be given here. The aim of the longitudinal survey is to follow as many as possible of the individuals interviewed in 1994 in subsequent waves (even if they move to a different household). There has been substantial attrition between Waves 1 and 4: of the original 14,585 sample individuals, only 63 per cent (9208) were still in completed Wave 4 households, with another 805 individuals having joined the sample at some point in the intervening years. (Individuals join the sample if they now live in a household with an original sample member). The main reason for household non-response was refusal (ranging from 9 per cent of the eligible sample in Wave 2 to 6 per cent in Wave 4), while difficulties in obtaining forwarding addresses for those who moved also contributed. In-depth checks have been carried out for biases that could be introduced if attrition was related to characteristics of households or individuals. These do not suggest that households with specific characteristics are being selectively lost from the sample. As in 1994, sample reweighting compensates for any biases in the distribution of characteristics in the sample compared to the overall population, but now also incorporating weights to control for attrition from previous waves.

Analysis of the usual gross hourly earnings of employees in the 1997 sample can then be carried out in exactly the same way as 1994. We find that 22% of employees in the 1997 sample are below £4.40 gross earnings per hour if aged 18 or over, or below £3.08 if aged under 18. This is very close indeed to the estimate of 23% produced by projecting forward from the 1994 survey. This reflects first of all the fact that median earnings in 1997, at £6.70, were close to the level projected forward from 1994. The projection also assumed that the distribution of earnings remained unchanged between 1994 and 1997. In fact, earnings towards the very bottom of the distribution grew more rapidly than the median — the median rose by 13%, whereas the bottom decile cutoff rose by 17%. However, the cutoff for the second decile from the bottom rose only slightly more than the median, so the faster growth at the very bottom reduced shortfalls below £4.40 but had little impact on the numbers below that cut-off.

These results relate to the numbers below £4.40 in 1997. The intention is however not to introduce the minimum wage before the year 2000, and statements from government sources indicate that the rate of £4.40 would apply at that point. To see how much difference this would make to the numbers affected, we can adopt a procedure similar to that employed in Nolan (1998) in projecting from 1994 to 1997, but now projecting from 1997 to 2000. For this purpose we assume that the minimum wage is introduced in April 2000. The 1997 Living in Ireland Survey was carried out from August to December of the year, the middle of the survey period being October. We thus have to project forward earnings $2\frac{1}{2}$ years from that date.

Information is available at present from CSO series on average earnings in industry, building and construction, banking insurance and finance, and the public sector up to late 1998, and show increases over the year from October 1997 ranging from 4% to 8% across these sectors. The latest ESRI Quarterly Economic Commentary estimates the average increase in nonagricultural earnings in 1998 to have been just over 6%, and forecasts the slightly lower figure of 5.5% for 1999. On this basis our core assumption in what follows is that median earnings increase by about 15% between October 1997 and April 2000. We also assume in our core estimates that earnings at the very bottom again rise by about 4% more than the median, as they did between 1994 and 1997. We assess the sensitivity of the estimates of numbers affected by the minimum wage to varying these assumptions.

Given these assumptions about changes between the 1997 survey and the introduction of the minimum wage, analysis of the 1997 Living in Ireland survey suggests that 13.5% of all employees would be under £4.40 (or £3.08 if under 18) in 2000. This provides our central estimate of the numbers likely to be below the specified minimum wage at that date.

To test the sensitivity of this estimate to varying the assumed rate of increase in median earnings between 1997 and 2000, we also derived the corresponding numbers if the median increased by 14% and by 16%. If the median increased by 14% rather than 16%, the percentage falling below the minimum wage in April 2000 would be 13.1%. If the median rose by 16% over the period, that figure would be 14.2%. Sensitivity to the assumed faster growth in low earnings was also examined. If lower earnings

instead increased by the same as the median, the percentage below the minimum wage in 2000 would be about 1 percentage point higher. So while varying the projected increases in median and lower earnings does affect the precise estimate, it still produces a figure in the range 1315%. The reason this is so much lower than the 23% figure presented by Nolan (1998) as below £4.50 in 1997 is simply because the minimum wage is not to be introduced until 2000.

To put these results in context, it is worth looking in conclusion at the numbers who would be affected by a higher or lower level of the minimum wage, on the basis of the same assumptions about 1997-2000. A minimum wage set at £4 per hour in 2000 (with 70% of that figure applying to those aged under 18) would affect 11% of all employees. On the other hand a higher minimum, set at for example £5 per hour (£3.50 for under-18s), would affect 21% of employees.

2.4 Characteristics of Those Affected by the Minimum Wage

An indepth analysis of the composition of the employees falling below various hourly earnings thresholds in 1994 was presented in Nolan's (1998) study for the National Minimum Wage Commission. Repeating this analysis using the 1997 survey and the specified minimum of £4.40 (£3.08 if under 18) in 2000, the results are very similar to the profile of those presented in Nolan (1998) as under the "medium" threshold. Thus about 55% those estimated to be below the minimum wage from the 1997 survey are women. Since women make up a minority of all employees, this means of course that they face a significantly higher risk of being low paid: 17% of women employees compared with 11% of men in the 1997 survey were below the minimum. Parttime employees are also overrepresented among those below the minimum. Those working less than 30 hours per week make up onefifth of all employees but about onethird of those below the hourly minimum wage.

In terms of age, Table 2.1 shows the percentage below the minimum wage in various age categories and the composition of those below the minimum. More than half those aged under 21 are below the minimum. (Only a very small proportion of employees in the sample are aged under 18, the age cutoff below which the lower rate for the minimum wage recommended by the Commission applies). The percentage below the minimum wage is still relatively high for the 21-24 age group, but then falls sharply. There is then little systematic variation across the other age groups, with about 10% falling below the threshold. About onequarter of those below the minimum are aged under 21. As in Nolan (1998), it is in the older age ranges that the gap between men and women in terms of risk of being below the minimum is seen. Men aged 25 or over account for only about 20% of those below the minimum wage, although they constitute almost half of all employees, because only 6% of them are below the minimum wage. Women aged 25 or over account for about 35% of all employees, and about the same proportion of the low paid, because about 13% of them are below the minimum wage.

Table 2.1: *Percentage Affected by Minimum Wage by Age, Estimated from 1997 Living in Ireland Survey*

Age Category	% below Minimum Wage	% of all those below Minimum Wage	% of all employees
under 21	52.5	21.1	5.5
21 under 25	24.0	22.0	12.4
25 under 35	9.8	23.3	32.4
35 under 45	10.3	18.6	24.5
45 under 55	7.7	11.5	20.3
55 and over	9.1	3.4	5.0
All	13.5	100.0	100.0

The profile of those below the minimum wage in terms of marital status and education is again as shown in Nolan's (1998) analysis of the 1994 Living in Ireland Survey. It is worth however reiterating the relationship between occupation and the minimum wage. As in Nolan (1998) we distinguish the nine broad occupational groupings used by the CSO in the Labour Force Survey. Table 2.2 shows that the numbers below the minimum wage are highest for agricultural workers, those in commerce, insurance

and finance, and service workers. Labourers and unskilled workers have a much lower but still above average probability of being below the minimum. "Producers, makers and repairers" face about the average risk of being low paid, while clerical workers and to a lesser extent transport and communications workers have a below average risk. Professional and technical workers and "others" (which includes administrative, executive and managerial workers) face a risk well below the average. About half of all those below the minimum wage are either commerce insurance and finance workers, or service workers — two categories holding less than onequarter of all employees.

Table 2.2: *Numbers Affected by the Minimum Wage by Occupation, Estimated from 1997 Living in Ireland Survey*

	% below Minimum Wage	% of all those below Minimum Wage	% of all employees
Agricultural workers	56.0	8.9	2.1
Producers, makers and repairers	12.6	8.9	20.6
Labourers and unskilled workers	23.8	5.5	3.2
Transport and communications workers	9.2	5.1	7.5
Clerical workers	6.6	7.3	14.9
Commerce, insurance and finance workers	28.2	21.5	10.3
Service workers	29.1	28.1	13.1
Professional and technical workers	2.6	4.0	20.7
Others	1.0	0.6	7.6
All	13.5	100.0	100.0

2.5 Projecting the Wage Bill Impact

As well as the numbers affected, the immediate impact of the minimum wage on the wage bill is a crucial concern. We focus in this section on the overall immediate impact on wage costs, dealing with sectoral variation in the next section. As a crude proxy for the wage bill impact, Nolan (1998) took the overall increase in gross earnings associated with a particular minimum wage assuming numbers employed etc. unchanged as a percentage of total gross earnings in the sample. Total gross earnings does not constitute the full wage bill of employers, because it does not include employers' social insurance or superannuation contributions and the full impact on the wage bill of a minimum wage could in some cases also include these contributions. However, this proxy should capture the broad scale of the overall impact on wage costs. As with numbers affected, we are once again concerned at this stage with the immediate impact, before any behavioural responses.

In Nolan (1998), it was estimated that the increase in earnings associated with a flat £4.50 minimum wage operating in 1997 would have represented about 4% of total gross earnings. It was also seen that age differentiation would reduce these figures somewhat: if £4.50 applied to those aged 21 or over, £4 to those aged 1820, and £3.50 to those under 18, the estimated figure was about 3.6% of total gross earnings. Once again, the sensitivity of these 1994-1997 projections to alternative assumptions was considered, and it was noted that they were sensitive to the possibility that low earnings rose more rapidly than average over the period.

This is brought out when we use the 1997 Living in Ireland survey results to reassess the wage bill effects of the minimum wage. If the minimum of £4.40 for those aged 18 or more, £3.08 for those under 18, had been applied in 1997, the wage bill impact estimated from the 1997 survey is just over 3%. While the numbers affected by the minimum wage in 1997 are slightly lower than projected forward from 1994, as we saw they are not on average as far below that minimum as projected assuming an unchanged distribution.

The minimum wage at £4.40 (£3.08) is to be introduced in 2000, not 1997, and we have already seen how much difference that makes to the numbers affected. This turns out to be even more important for the estimated wage bill effect. We use the assumptions about median and lower earnings growth between the 1997 survey and April 2000 outlined in Section 2.3 for our central estimate. The overall increase in gross earnings associated with a minimum wage introduced at £4.40 (£3.08 if under 18) in April 2000 is then estimated to be 1.6% of total gross earnings in the sample.

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Once again it is important to assess the sensitivity of this estimate to the assumptions made. If lower earnings are assumed to grow at the same rate as the median up to April 2000, rather than more rapidly, the wage bill impact rises to 1.8%. With the core assumptions about 1997-2000 but a minimum wage set at £4 (with 70% for under18s) in 2000, the wage bill effect would be 1.1%. With a minimum set at £5 per hour the wage bill impact would be 2.7%.

So far, the only impact of the minimum wage we have taken into account is in bringing the wages of those below the minimum up to the minimum. It is also necessary to consider possible increases in wages above the minimum, as a reaction to the narrowing of differentials brought about by the minimum wage — what is commonly called "spill-over". It is extremely difficult to assess the likely response of wages above the minimum to the introduction of the national minimum wage. Research on experience elsewhere is of limited assistance. Evidence from countries with minimum wages suggests that they do result in substantial compression of pay differentials — differentials are not automatically reasserted. This is true for example for the USA (Card and Krueger 1995, DiNardo et al 1997), and for sectors covered by Wages Councils when these operated in the UK (Dickens et al 1997).

The UK Minimum Wage Commission examined this issue in some detail, including seeking the views of employers (since even without pressure from employees employers may seek to restore differentials to reward responsibility, skills, experience etc.). This indicated that pressure to retain differential payments would be limited to staff working closely with those affected by the minimum wage. Overall, the Commission concluded that

> "if the National Minimum Wage is introduced at a sensible level, the pressure to restore pay differentials following its introduction will be limited and localised. We cannot be precise, but our best estimate is that the effects would generally peter out in the bottom half of the earnings distribution" (p. 102).

The scale of the spill-over effect to be expected in the Irish context depends not only on where the minimum wage is set, and on the positions adopted by employer organisations and unions, but on the reactions of employees and employers. Likely employer reactions were probed in the firm survey to be discussed in Chapter 7, but again this provides only a qualitative indication of likely responses. The approach we adopt here is thus to formulate alternative spill-over scenarios and draw out the implications for the overall impact of the minimum wage on the wage bill. This will permit examination of the sensitivity of the results of subsequent elements of the study to alternative scenarios, compared with an assumption of little or no spill-over.

We do this by looking at the distribution in the 1997 survey of those affected by the minimum wage, and the scale of the increase in hourly earnings which the minimum wage implies for them. We see from Table 2.3 that about onefifth of those to be affected are located within 10% of the minimum wage. For them, hourly gross earnings will increase by about 5% on average if they are brought up to the minimum. About the same number are located between 10% and 20% of the minimum, and they will see an average increase of about 18%. The remainder are spread over even lower earnings ranges implying larger increases.

Table 2.3: *Impact of Minimum Wage on Those Below It*

Hourly gross earnings	% of those affected	Increase from NMW (from middle of range)	Increase from NMW (from middle of range)
>50% below minimum	11.5	2+	100+
>40% < 50% below	8.2	1.7	80
>30 < 40% below	14.4	1.3	54
>20 < 30% below	15.2	1.0	34
>10% < 20% below	24.7	0.6	18
Up to 10% below	26.0	0.2	5
All those below	100		

The other relevant information is the density of the earnings distribution above the minimum. Table 2.4 shows the percentage of those not affected, and the percentage of all employees, in selected earnings bands above the minimum wage. We see that 7% of the employees above the minimum wage (6% of all employees) would be above the minimum but within 10% of the £4.40 hourly rate (£3.08 if under 18) in 2000. A further 8 % of all employees are within 10–30%, and 9% are within 30–50%. With approximately 1.1 million employees in the population, about 265,000 are likely to be above but within 50% of the minimum wage. Over 70% of those above the minimum wage, 62% of all employees, are more than 50% above the minimum.

Table 2.4: *Distribution of Those Above the Minimum Wage*

Hourly gross earnings	% of those not affected by minimum wage	% of all employees
>10% above Minimum Wage	7.4	6.4
>10% < 20% above	4.9	4.2
>20% < 30% above	5.0	4.3
>30% < 40% above	6.1	5.3
>40% < 50% above	4.6	4.0
>50% above	72.0	62.3

The first assumption we make in terms of scenarios is that only those within 50% of the minimum are affected by spill-over. We then produce an estimate of the possible overall impact of spill-over on the wage bill by assuming that those up to 10% above the minimum wage seek to restore differentials with those within 10% below it, and obtain extra increases of 5% on average in their hourly earnings. This then filters with declining intensity up the earnings distribution, so that those between 10% and 20% obtain a 4% increase, those between 20% and 30% a 3% increase, those between 30% and 40% a 2% increase, and those between 40% and 50% a 1% increase. If this was the extent of spill-over associated with the minimum wage of £4.40 (£3.08 if under 18) in 2000, then the overall impact of that minimum wage would be to increase the wage bill by 2%, rather than 1.6% with no spill-over. We will refer to this scenario as "£4.40 with some spill-over", and in what follows we will treat this as our central estimate of the overall impact of the minimum wage on the wage bill.

It will be useful however to look at some alternative estimates. It could be that those above the minimum responded not only to the increases for those just below it, but to the larger increases registered by those between 10% and 20% below the minimum, for example. One could then envisage those within 10% above the minimum seeking increases of 10% rather than 5% on average, those between 10% and 20% seeking increases of 8%, and so on. This would produce spill-over amounting to 0.8% rather than 0.4% of the wage bill, and an overall wage bill impact of the minimum wage of 2.4%. We will refer to this as the "£4.40 with extra spill-over" scenario.

Different levels of the minimum wage, combined with the more modest spill-over effect, would produce further alternative estimates of the overall wage bill effect. If the minimum wage was set at £4, the overall wage bill effect with some spill-over is then estimated at 1.4% (the "£4 with some spill-over" scenario). A £5 minimum wage with the same spill-over pattern (the "£5 with some spill-over" scenario) would have the immediate effect of increasing the wage bill by 3.2%.

Table 2.5 summarises the wage bill effects from the alternative scenarios we have discussed for the year 2000. Our central estimate for a minimum wage of £4.40 (£3.08 if under 18) in 2000 is a wage bill increase of 2%, estimated from the 1997 survey on the basis of a 15% increase in median earnings to April 2000 and faster growth in lower earnings, and incorporating some spill-over. This figure is more

sensitive to varying the assumption about the extent of spill-over than that about growth in median or lower earnings. Using a higher or lower level for the minimum wage itself produces a considerably wider range of estimates, from as little as 1% (for a minimum wage of £4 with no spill-over) up to over 3% (for a minimum wage of £5 with some spill-over).

Table 2.5: *Alternative Estimates of the Overall Wage Bill Effect of the Minimum Wage in 2000*

Basis for Estimate	Wage Bill Impact (% of total gross earnings)
£4.40 (£3.08) Minimum Wage, Faster Growth in low than median earnings 1997-2000, No Spill-over	1.6
£4.40 (£3.08) Minimum Wage, Same Growth in low as median earnings 1997-2000, No Spill-over	1.8
£4.40 (£3.08) Minimum Wage, Faster Growth in low than median earnings 1997-2000, Some spill-over	2.0
£4.40 (£3.08) Minimum Wage, Faster Growth in low than median earnings 1997-2000, Extra Spill-over	2.4
£4.00 (£2.8) Minimum Wage, Faster Growth in low than median earnings 1997-2000, No spill-over	1.1
£5.00 (£3.5) Minimum Wage, Faster Growth in low than median earnings 1997-2000, Some spill-over	3.2

2.6 Sectoral Variation in Numbers Affected and Wage Bill Impact

The minimum wage could have a very different impact in different sectors of the economy, depending on the pattern of employment and the distribution of the low paid across sectors. Both in Ireland and elsewhere low pay tends to be concentrated in specific sectors, and most recently Nolan (1998) showed the extent of such concentration for Ireland using the 1994 Living in Ireland Survey. Starting from the broad industrial categorisation used by the CSO in the Labour Force Survey with eight categories, Nolan (1998) further distinguished within three of these groupings subdivisions which are particularly important in the low pay context, arriving at a 13category industrial classification. Low paid employees were seen to be heavily concentrated in other production industries, retailing, and personal services. The risk of being low paid was seen to be highest for those working in agriculture, forestry and fishing, personal services, and retailing, and was also relatively high in professional services. Low pay was least prevalent in insurance, finance and business services, teaching, and public administration and defence.

Nolan (1998) also analysed the varying scale of the wage bill impact of alternative minimum wages across industrial sectors. Agriculture, forestry and fishing was seen to be most affected, but the impact for personal services and retailing was also substantial. For example, it was estimated that a flat £4.50 in 1997 would produce firstround earnings increases equivalent to 24% of total gross earnings in personal services and 16% in retailing. By contrast, even the highest minima had little impact in insurance and finance, teaching or public administration.

We now look at the numbers affected by the minimum wage of £4.40 (£3.08) in 2000 in these different sectors, and then at the estimated wage bill effect, based on projecting forward from the 1997 Living in Ireland Survey as already described. Table 2.6 shows the estimated percentage of employees falling below that minimum in each sector. Once again there is great variation, from 58% in agriculture, forestry and fishing, 44% in personal services and 28% in retailing down to virtually noone in public administration and defense. Agriculture must be regarded as a rather special case, because gross earnings often represent only a proportion of total remuneration because of other benefits provided. These are taken into account in current JLC regulations for that sector and will be in the minimum wage, so the apparent very high numbers affected here substantially overstate the effect in that sector, and will not be taken in what follows as a reliable indication of the likely impact.

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Table 2.6: *Numbers Affected by Minimum Wage in 2000 by Broad Industrial Sector, Estimated from 1997 Living in Ireland Survey*

	% in sector below £4.40 (£3.08) in 2000
Agriculture, forestry and fishing	58.3
Building and construction	14.3
Other production industries	10.1
Wholesale	12.4
Retail	27.8
Insurance, finance etc.	1.0
Transport, etc.	4.0
Professional services	10.1
Teaching	6.8
Health	11.1
Public administration and defense	1.1
Personal services	43.5
Others	17.0
All	13.6

Table 2.7 then presents the estimated immediate wage bill impact of the minimum wage in 2000 for the different sectors, from our projection of £4.40 (£3.08) with no spill-over and then our central projection with some spill-over. The impact of the minimum wage with no spill-over will vary across sectors not only because of the different proportion of the workforce affected, but also because of differences in the extent to which those affected fall below the minimum. The results show that the increase in earnings associated with the minimum wage would represent close to 4% of the wage bill in retailing and professional services sectors, and over 8% in personal services. In production industries, on the other hand, it would be about 1% of the wage bill.

Table 2.7: *The Immediate Wage Bill Impact of the Minimum Wage in 2000 by Broad Industrial Sector, Estimated from 1997 Living in Ireland Survey*

	Wage Bill Impact of MW of £4.40 (£3.08) in 2000	Wage Bill Impact With Some Spill-over
Agriculture, forestry and fishing	25.1	25.7
Building and construction	1.4	2.1
Other production industries	1.1	1.7
Wholesale	2.0	2.3
Retail	3.7	4.9
Insurance, finance etc.	0.1	0.2
Transport, etc.	0.4	0.7
Professional services	3.7	4.6
Teaching	0.7	0.8
Health	0.9	1.1
Public administration and defense	0.1	0.2
Personal services	8.4	9.7
Others	1.8	2.3
All	1.6	2.0

We then see the impact of including some spill-over. Spillover has more impact in some sectors than others, depending on the density of the earnings distribution in the region above the minimum wage. Including spill-over on the basis described brings the overall wage bill impact up to almost 5% in retailing, not much lower in professional services, and almost 10% in personal services. If spill-over was more pronounced (i.e. the "extra spill-over" scenario described above), then that would bring the wage bill impact in retailing to 6%, in professional services to 5.5%, and in personal services to 11%.

We can also consider the wage bill impact at sectoral level for alternative levels of the minimum wage in 2000, with some spill-over. Table 2.8 shows that a minimum wage of £4 for 18 years and over, with some spill-over, would still increase the wage bill in the personal services sector by 7%. A minimum of £5, however, would have an immediate effect of increasing the wage bill in that sector by 15%, in retailing by almost 9%, and in professional services by almost 7%.

Table 2.8: *The Immediate Wage Bill Impact of Alternative Minimum Wages in 2000 by Broad Industrial Sector, Estimated from 1997 Living in Ireland Survey*

	Wage Bill Impact of MW of £4 (£2.8) in 2000, with some spill-over	Wage Bill Impact of MW of £5 (£3.5) in 2000, with some spill-over
Agriculture, forestry and fishing	21.8	33.6
Building and construction	1.4	3.7
Other production industries	1.1	2.8
Wholesale	1.6	3.4
Retail	3.1	8.7
Insurance, finance etc.	0.1	0.4
Transport, etc.	0.5	1.4
Professional services	3.5	6.6
Teaching	0.7	1.2
Health	0.7	1.9
Public administration and defense	0.1	0.5
Personal services	6.9	15.4
Others	1.4	3.7
All	1.4	3.2

The extent to which one can go below this 13sector sectoral disaggregation is severely limited by the size of the sample being analysed. It is valuable however to investigate whether sample numbers do allow estimates to be produced for some specific subsectors, even if a comprehensive picture at the more disaggregated level cannot be provided. Our final analysis therefore shows in Table 2.9 the estimated wage bill effect for specific NACE subsectors where the sample does contain at least 30 cases and the wage bill impact is above average. We see that the minimum wage of £4.40 (£3.08) in 2000 with some spill-over would increase the wage bill in certain of these subsectors by 510%, and in household services by 20%. Given the sample size these can be taken only as broad indicators of the likely scale of the impact at this level of disaggregation.

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Table 2.9: *The Immediate Wage Bill Impact of the Minimum Wage in 2000 for Specific Detailed Industrial Sectors, Estimated from 1997 Living in Ireland Survey*

NACE 2 digit sector	% of employees below MW of £4.40 (£3.08) in 2000	Wage Bill Impact of MW of £5 (£3.5) in 2000, with some spill-over
Manufacture of food products and beverages	10	2.4
Manufacture of wood and cork. Except furniture	33	5.3
Manufacture of fabricated metal products except machinery and equipment	27	4.6
Manufacture of furniture, other manufacturing	33	8.6
Sale, maintenance and repair of motor vehicles, fuel	20	9.2
Retail trade	28	4.9
Hotels and restaurants	44	8.0
Recreational, cultural and sporting activities	30	5.2
Other service activities	34	11.3
Private households with employed persons	58	20

2.7 Conclusions

This chapter began by setting out the specification of the minimum wage to be studied. The InterDepartmental Group assumed for the purpose of its Interim Report that the nominal rate of £4.40 (70% if under 18) mentioned by the Minimum Wage Commission would apply when the minimum wage was introduced. That assumption is followed in this study, and it is assumed for the purpose of the exercise that the minimum wage is introduced in April 2000. This chapter has used household survey data to estimate the "first-round" impact of that minimum wage — without any behavioural responses by individuals or firms — in terms of the numbers of employees affected, their characteristics, and the impact on the wage bill by sector.

Survey data on employees is now available from the 1997 Living in Ireland Survey carried out by the ESRI. The distribution of earnings in that sample has been projected forward to April 2000 in order to estimate the numbers affected by a minimum wage introduced at that point. The projection incorporated a 15% growth in median earnings over the period, and faster growth in earnings for those towards the bottom continuing the pattern seen between 1994 and 1997. Given these assumptions, projection from the 1997 Living in Ireland survey suggests that 13.5% of all employees would be under £4.40 (or £3.08 if under 18) in 2000. This provides our central estimate of the numbers likely to be below the specified minimum wage at that date. This is much lower than the 23% figure presented by Nolan (1998) as below £4.50 in 1997 mostly because the minimum wage is not to be introduced until 2000.

Varying the projected increases in median and lower earnings between 1997 and 2000 affected the precise estimate of numbers affected, but still produced a figure in the range 13-15%. To put these figures in context, it was seen that a minimum wage set at £4 per hour in 2000 (£2.80 for under-18s) would affect 11% of all employees, while one set at £5 per hour (£3.50 for under-18s), would affect 21% of employees.

The profile of the employees falling below the specified minimum wage in the 1997 survey was seen to be very similar to that presented in Nolan's (1998) study for the National Minimum Wage Commission. More than half those below the minimum wage are women, about one-third are working less than 30 hours per week, and over 40% are aged under 25. Clerical and service workers are heavily overrepresented among those below the minimum.

The overall immediate impact of the minimum wage on wage costs was proxied by the overall increase in gross earnings as a percentage of total gross earnings in the sample. The overall increase in gross earnings associated with the specified minimum wage was estimated to be 1.6% of total gross earnings. Once again wage growth between 1997 and 2000 is the main reason why this is so much lower than Nolan's (1998) estimate of 4% for the increase in earnings associated with a £4.50 minimum wage operating in 1997.

It is extremely difficult to assess the likely scale of spill-over, increases in wages above the minimum as a reaction to the narrowing of differentials, and research on experience elsewhere is of limited assistance. Assuming that only those located within 50% of the minimum itself are affected, and that they obtain additional increases tapering from 5% down to 1% of gross earnings, spill-over would bring the total wage bill increase from the specified minimum wage up from 1.6% to 2%. This is used as central estimate of the overall immediate wage-bill impact of the specified minimum wage. It is more sensitive to varying the assumption about the extent of spill-over than the growth in median or lower earnings from 1997 to 2000.

Using a higher or lower level for the minimum wage itself would produce a considerably wider range of estimates of the wage bill effect, from as little as 1% (for a minimum wage of £4 with no spill-over) up to over 3% (for a minimum wage of £5 with some spill-over).

Sectoral differences in the numbers affected by the minimum wage of £4.40 (£3.08) in 2000 and in the estimated wage bill effect were examined in some detail. Using a 13-sector categorisation, the percentage of employees below the minimum wage was as high as 44% in personal services and 28% in retailing, going down to virtually noone in public administration and defense. The wage bill effect is influenced by not only the numbers below the minimum wage, but also by how far below it they fall. Spill-over is further influenced by how many employees in the sector are located above but still close to the minimum. The total wage bill effect, including some spill-over, was estimated at almost 10% in personal services, and close to 5% in retailing and in professional services. More pronounced spill-over could increase those effects by up to 1 percentage point, while raising the base level for the minimum wage of £5 in 2000 would bring the wage bill impact in personal services to 15%. A more detailed disaggregation, while constrained by the numbers in the sample, allowed certain subsectors facing wage bill effects well above average to be identified.

It is worth noting in conclusion that research for the UK Low Pay Commission suggested that estimates of the extent of low pay from household surveys may be subject to an upward bias, because of a tendency for some respondents to overestimate (paid) hours of work. In Chapter 7 below we present results from a specially-designed survey of Irish firms which provides an alternative estimate of the numbers to be affected by the minimum wage. It turns out that these are close to the estimates discussed in this chapter, lending support to the broad orders of magnitude presented.

Microsimulation Analysis of the Impact of the Minimum Wage on Work Incentives

Tim Callan and John Walsh

3.1 Introduction

The analysis to date has focused on what might be termed the "gross" impact of the national minimum wage on the wage bill, and the characteristics of the employees affected. These issues can be examined directly using survey evidence. But for some individuals, the net impact on family income and on work incentives could be modified significantly by the tax and welfare consequences of increased wages. For example, some of those on low wages already benefit from income support under the Family Income Supplement scheme. Increased gross wages will have limited impact on disposable income for this group, as there will be consequent reductions in the amount of FIS paid, and, for many of this group, increases in tax payments as well. For married women affected by the national minimum wage, the net impact on family income will also depend on the extent to which they have transferred tax allowances or credits, and/or the benefit of their standard rate tax band to their husbands. The family circumstances of those benefiting from a national minimum wage will also play a major role in determining the overall "first-round" distributive impact of the proposal.

In order to examine these issues, it is necessary to simulate the effect of the proposed National Minimum Wage within a tax-benefit model, which can then be used to explore the overall distributive impact and characterise the nature of gains across families. We can also use this framework to explore the impact of the proposal on the incentives to take up employment facing the unemployed and some of those not currently seeking paid employment. The measure most commonly used here is the replacement rate — which takes into account the balance between family disposable income when inwork and income when unemployed or not employed. A National Minimum Wage would, in the first instance, raise potential inwork incomes, thereby making employment more attractive. The micro-simulation analysis can document the extent to which this may occur, and labour supply analysis can help to give a broad indication of the possible order of magnitude of labour supply responses to such changes in work incentives.

In order to analyse these issues, the first task was to extend SWITCH, the ESRI taxbenefit model, to allow it to simulate a National Minimum Wage along the lines described in the Interim Report of the Inter-Departmental Group. This required a significant element of additional programming and testing of the results before the main analysis could be undertaken. Those with hourly wages below the national minimum wage would see their wage increased, and on the assumption that the number of hours worked remained unchanged, we can then trace through the effects on disposable income, and on replacement rates facing the unemployed and those out of the labour force. The analysis also takes account of the reduced rate applying to employees aged under 18, and a reduced rate for apprentices.

3.2 Estimates of the First-round Impact of the proposed National Minimum Wage on Disposable Income

In the previous chapter we saw that about 14% of employees were likely to be affected by the proposed national minimum wage in the year 2000. In this chapter we consider a simulation affecting a similar proportion of employees in the 1999/2000 tax year. Table 3.1 shows that the total rise in the aggregate wage bill comes to something over £350m. The rise in disposable income is about 70% of this figure: most of the difference is accounted for by a rise in income tax and PRSI, but there are also significant

reductions in social welfare expenditure. These arise in part from reductions in Family Income Supplement,[1] but also from wider reductions in expenditure arising from various meanstested elements of the system. For example, a rise in earnings above £60 per week could trigger a reduction in payments for a qualifying adult and for dependant children; and a rise in earnings could directly raise the means assessed against a claimant or the spouse of a claimant. Provisions for tapering of QAA, not currently included in the simulation routines, may mean that the extent of the reduction in social welfare expenditure is somewhat less than shown here.

Table 3.1: *Aggregate Impact of Proposed National Minimum Wage on Gross and Disposable Incomes*

Change in:	£m per annum
Gross wage bill	355
Income tax	77
Employee PRSI	16
Social welfare	–17
Disposable income	246

Table 3.2 shows how gains are distributed across family units (groupings of individuals or couples, together with dependent children) at different income levels. The family units are ranked according to income per adult equivalent, using an equivalence scale of 1 for the first adult, 0.66 for other adults, and 0.33 for children; and then divided into 10 approximately equal groups or "deciles". It can be seen that most of those who gain are in the middle of the income distribution, although gains are also found among higher and lower income families.[2] The average gain is somewhat more for those in lower deciles, reflecting the lower wages currently earned by this group, but the aggregate gain is also concentrated on families in the middle of the income distribution. About half the aggregate gain would accrue to the 5th and 6th deciles, and a further quarter to the 3rd and 4th deciles. On average, the gain for those affected is of the order of £30 per week.

Table 3.2: *Distribution of Gains from a National Minimum Wage*

Decile of Disposable Income per Adult Equivalent (Equivalence scale 1, 0.66, 0.33)	Number of gainers ('000s of families)	Average Gain for those affected (£ per week)	% of Aggregate Gain
Bottom	7	£56	8
2nd	6	£46	6
3rd	11	£53	12
4th	12	£44	11
5th	48	£32	32
6th	46	£21	20
7th	12	£20	5
8th	8	£18	3
9th	5	£9	1
Top	6	£17	2
All	162	£30	100

The concentration of gainers in the middle of the income distribution reflects the fact that many of the low paid employees who stand to gain from the national minimum wage proposal already have disposable incomes above those of welfare recipients and others in the bottom 40% of the family income distribution. Most of this group are depend mainly on nonemployee sources of income — mainly social welfare recipients, but also including some selfemployed, farmers, students and retired persons (some with incomes from occupational pensions). A single person with a fulltime job paying £3.75 per hour would have a disposable income of around £125 — significantly above social welfare rates for a single person — and could gain about £20 from the proposed National Minimum Wage.

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[1] The low rate of takeup of this inwork benefit is taken into account in the analysis.

[2] Gains for those in the highest deciles occur because one partner has a high income while the other has a wage below the proposed minimum.

Table 3.3: *Family Profile of Gainers from National Minimum Wage*

Group	% of Gainers (Group Gainers as % of All Gainers)	% of Group Who Gain (Group Gainers as % of All in Group)
Single Employees	67	18
Employed Lone Parents	4	28
Single Earner Couples	5	3
Dual Earner Couples	23	14
All	100	8

Table 3.3 gives an alternative perspective on the distribution of gains, focusing on the family situation of employees who stand to benefit from a national minimum wage. It shows that about twothirds of the gainers are single employees, and a further quarter of the gainers are in two-earner couples. This confirms the profile of gross gains set out in the previous chapter which showed that young single people were likely to be the main gainers, with second earners also quite likely to gain. Only 3% of the earners in single-earner couples are likely to be affected by the change. A high proportion of lone parents could also gain from the change, but as this is still a small group in the overall population they do not bulk large in the population of gainers.

3.3 Impact of the Proposed National Minimum Wage on Replacement Rates

We now turn to the impact of the proposed national minimum wage on the financial incentive to work facing different groups in the population. We focus on three key population groups: those who are unemployed, those who are not in the paid labour market because they classify themselves as engaged in "home duties", and those who are currently in employment. For some individuals within each of these groups, the implementation of a national minimum wage can make employment more financially rewarding. The way in which this is usually measured is to consider the impact on the balance between inwork income and income when out-of-work.

The definitions and methods used to implement this concept are set out more fully in Callan et al. (1997). Here we summarise the main points of relevance to the current analysis. We define the replacement rate for each individual in these populations as follows:

Family disposable income when out of work *divided by* Family disposable income when in work.

Thus, for example, for an unemployed person out-of-work income could include entitlements to unemployment benefit or assistance, and the net earnings of a spouse. Inwork income would include own earnings, and the impact of those earnings on the net earnings of a spouse. We also take account of entitlements to Family Income Supplement, but do so in a way which allows for the fact that takeup of this inwork benefit is estimated to be rather low. All the calculations are based on cash incomes in and out of work: no account is taken in these measures of incometested inkind benefits such as medical card entitlements. (A further project for the Department of Enterprise, Trade and Employment will explore how wider measures of replacement rates might take account of the value of medical card entitlements).

In estimating the outofwork income for those currently in employment, we use the longterm rate of unemployment assistance is a benchmark, with appropriate meanstesting using information available in the survey dataset. In estimating the inwork incomes of those who are currently not in employment,[3] we start from the predicted wage based on age and educational qualifications, as described in Callan et al. (1997). While these wages can be regarded as the "best estimates" for each individual case, we know that actual wages display more variability than these predictions. We take account of this random variation[4] in order to ensure that the proportion of persons with low wages, who would be affected by a minimum

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[3] As replacement rates are designed to compare an "inwork" with an "out-of-work" scenario, we exclude from the analysis those persons who are participating in the increasing number of programmes which combine elements of paid work and unemployment compensation (such as those on systematic short-time).

[4] This is done by adding to the predicted (logarithmic) wage a positive or negative error term drawn from a normal distribution, with a variance as estimated in the appropriate wage equation.

wage, is adequately represented. Using this approach, we find that about 30% of those who are unemployed and in receipt of UA or UB, and a similar proportion of those reporting themselves as engaged in home duties, would find that a minimum wage of £4.40 in 2000 would be higher than they could otherwise command. This compares with about half that proportion of those currently in employment. This difference reflects the fact that those currently out of the labour market have characteristics associated with lower wages (lower educational qualifications, and greater time spent out of the paid labour market or in unemployment).

Table 3.4: *Estimated Replacement Rates for Unemployed Persons in Receipt of UA or UB, 1999/2000*

Replacement rate category	Baseline	With NMW
<30%	19	20
30-40%	22	22
40-50%	19	36
50-60%	14	6
60-70%	9	6
70-80%	7	5
80-90%	5	4
90-100%	4	1
Over 100%	2	1
All	100	100

Table 3.4 shows the distribution of replacement rates for unemployed people in receipt of UA or UB under a baseline 1999/2000 scenario, and an alternative scenario with a national minimum wage with a value of £4.40 per hour in 2000. The increase in inwork incomes associated with the national minimum wage leads to a fall in replacement rates for those persons who, on the basis of their age and educational qualifications, would not be able to command such a wage in the current labour market. This leads to a fall in replacement rates for about 30% of the unemployed. The shift is particularly marked for those whose replacement rates in the baseline scenario were between 50 and 70%, with many of these replacement rates falling to below 50% under a national minimum wage. For those with higher replacement rates, there are also sizeable effects (the proportion facing replacement rates of over 70% falls from 18 per cent to 11 per cent). These changes in the distribution of replacement rates are more substantial than those found in many analyses of tax and welfare policy options. A key difference is, of course, the fact that a minimum wage raises labour costs and may therefore reduce the demand for labour, as discussed elsewhere in this report. But the present analysis suggests that some increase in labour supply may be expected as a result of the changed work incentives brought about by a minimum wage. The extent of the increase in aggregate labour supply depends on the degree to which unemployed individuals respond to such changed incentives, in making decisions about job offers or the intensity of their job search activity. The analysis in the next chapter helps to give some indication of the overall impact on aggregate labour supply, using survey information on job search to approximate the ILO definition of unemployment.

Table 3.5: *Estimated Impact of National Minimum Wage on Replacement Rates for Persons in Home Duties, 1999/2000*

Replacement rate category	Baseline	With NMW
<30%	4	4
30-40%	7	9
40-50%	13	15
50-60%	14	17
60-70%	18	20
70-80%	19	17
80-90%	16	15
90-100%	5	2
Over 100%	3	1
All	100	100

Our estimates suggest that the proposed National Minimum Wage could lead to significant improvements in the financial incentive to work facing women who are at present classified as in "home duties". Again, about 30% of the group could be see an improvement in their financial incentive to work under the proposed national minimum wage. Projections suggest that about 43 per cent of women in home duties would face replacement rates of more than 70% in 1999/2000. This figure could fall by about 7 percentage points under the provisions of the proposed national minimum wage. This would make it more likely that some of these women would seek paid employment, as the net reward from taking up employment would rise. The extent of their responsiveness to such economic incentives, and the contribution of this response to overall labour supply, are examined in the next chapter.

The final group examined here is those who are currently in employment. Some policy changes aimed at improving incentives to work for those currently not in employment can adversely affect the financial incentive to work facing employees. The National Minimum Wage is not a proposal of this type. While it may adversely affect labour demand, its impact effect is to improve the incentive to work facing those currently in employment. Table 3.6 simply documents this improvement, confirming that the proposed NMW would help to improve the reward to employment for those currently in employment as well as for groups not in employment.

Table 3.6:   *Estimated Impact of National Minimum Wage on Replacement Rates facing Employees, 1999/2000*

Replacement rate category	Baseline	With NMW
<30%	28	29
30-40%	20	21
40-50%	15	17
50-60%	14	13
60-70%	10	9
70-80%	6	5
80-90%	4	4
90-100%	3	2
Over 100%	1	1
All	100	100

3.4   Conclusions

For some individuals, the net impact of the minimum wage on family income and on work incentives could be modified significantly by the tax and welfare consequences of increased wages. In order to analyse these issues SWITCH, the ESRI taxbenefit model, was extended to allow it to simulate a National Minimum Wage.

Simulating the specified minimum wage then showed the rise in disposable income to be about 70% of the overall increase in gross earnings. Most of the difference was due to increasing income tax and PRSI, but there were also significant reductions in social welfare expenditure not only from reductions in Family Income Supplement but also from wider reductions in various meanstested elements of the system.

Most families gaining from the minimum wage in terms of disposable income are in the middle of the income distribution, although gains are also found among higher and lower income families. About half the aggregate gain would accrue to the 5th and 6th deciles, and a further quarter to the 3rd and 4th deciles from the bottom. On average, the gain for those affected is of the order of £30 per week. This reflects the fact that many of the low paid employees who stand to gain from the national minimum wage proposal already have disposable incomes above those of welfare recipients and others at the bottom of the family income distribution.

The impact of the minimum wage on the balance between inwork income and income when outofwork was also analysed. In making this comparison, the longterm rate of unemployment assistance was used as the potential out-of-work income for those currently in employment. In estimating the in-work incomes

of those who are currently not in employment, we used the predicted wage based on age and educational qualifications taking random variation into account.

Simulating the impact of the minimum wage on replacement rates then suggested that it would lead to a significant improvement in financial work incentives facing those who are unemployed or classified as in "home duties", while also improving the reward to employment for those who are currently employees. The proportion of the unemployed facing replacement rates of over 70% was estimated to fall from 18% to 11%, with the percentage facing replacement rates of 50-70% falling from 23% to 12%. The next chapter investigates the size and nature of the aggregate labour supply response to which these changed incentives might lead, using methods again based on detailed micro-level data.

CHAPTER 4

Labour Supply Responses

Tim Callan and Aedin Doris

4.1 Introduction

This part of the study entails a simulation of the likely labour supply responses of individuals to the changes in incentives introduced by the minimum wage. The first stage is to use microdata from the 1994 Living in Ireland Survey to estimate the responsiveness of individuals to the wage rate, while controlling for other demographic and economic factors that may affect their labour supply behaviour. The second stage is to use the results to predict changes in participation rates in response to the minimum wage.

The focus of this element of the study is on the participation rate of individuals, rather than on hours of work, as results obtained previously for Ireland and elsewhere strongly suggest that the largest effect of an increase in the wage rate is likely to be on the participation decision. Moreover, it is the interaction of increased participation with reduced demand for labour that will drive any increase in unemployment. Participation entails either employment or seeking paid work; whether those seeking work will obtain a job will be addressed in the elements of the study that investigate the effect of the introduction of a minimum wage on labour demand.

The primary task in simulating responses to the introduction of the minimum wage is the econometric estimation of the effect of the wage rate on participation. Once elasticities of participation with respect to the wage rate are estimated, the new wage rates that will prevail after the introduction of the minimum wage are used with the estimated elasticities to predict changes in participation rates. Further useful information, such as the breakdown of the simulated participation rates by gender, marital status and education level, and the sensitivity of the participation rate to the rate at which the minimum wage is set can then be obtained.

4.2 MicroAnalysis of Labour Supply Responses

In this section, the approach taken to the estimation of the participation decision is discussed and the modelling strategy used explained. The first issue to be addressed is the selection of the sample. The total size of the Living in Ireland Survey sample is 10,418 individuals. However, many of these individuals are not used in the present analysis of labour supply. Firstly, the sample used excludes those aged under 22 years of age, in order to avoid the difficulty of characterizing young people in fulltime education as either nonparticipants or participants in the labour market. For those aged 22 or over, it is likely that if they are still in fulltime education, they have left education for a period, and then returned, and are therefore more readily interpreted as having made a choice not to participate in the labour market. The sample also excludes farmers and selfemployed and their spouses, as well as relatives assisting, because of the difficulty of obtaining accurate income data for these groups, as well as those who are disabled or unemployed due to illness, women aged over 60 and men aged over 65 and those employed in agriculture. Employees in agriculture are excluded because of the large number working very long hours for very low wages; in many cases, it seemed likely that they were also receiving food and board, a fact not reflected in the wage data. These exclusions leave a total sample of 5092 individuals. When individuals whose answers to key questions in the survey are missing are further excluded, the sample size drops finally to 4664.

A second question that arises is whether it is appropriate to partition the data into subsamples in order

to improve the explanatory power of the models, at the expense of some precision in the estimates because of reduced sample size. After some preliminary econometric work, the decision was taken to estimate the determinants of the participation decision separately for men, married women and single women. The rationale for separating men from women in modelling participation is that the traditional differences in the roles of men and women in society have led to very different participation rates between the two groups and the variables that determine their participation appear to differ substantially.

The motivation for separating women on the basis of marital status is less clear. It may be the presence of children rather than marital status that alters fundamentally the parameters of a woman's labour supply decision, and some women who are not married have children, whilst some married women have not had children. For this reason, we experimented with the criterion for separating the sample. However, the resulting models were less successful in predicting the actual participation rate than the ones separating married from single women,[5] so it appears that women's behaviour differs more along the lines of marital status than according to their having children. This may be because of the heterogeneity of the group of women who are not married but who have children, including as it does young women who have never married and older women who were married but are not now married because of marital separations or death. Accounting for this heterogeneity by further separating the sample into smaller groups is not feasible because of the small sample sizes involved.

A further possibility of separating the sample according to education levels was also investigated. The greatest effect on participation of the minimum wage will be at the bottom of the wage distribution, where replacement rates are highest, and the incentive to participate lowest. A model of participation that does not allow for adequate flexibility at the bottom of the distribution, imposing the same behavioural parameters across all individuals, may not then capture the true extent of the response to the minimum wage's introduction. For the wage rate, this type of flexibility can be allowed for by using a quadratic specification for the variable, but the fact that other parameters are constrained to be equal across individuals with different earnings capabilities may hamper the success of this approach. The separation of the sample is justified if the results imply statistically significantly different responses to the wage rate — our variable of interest here — between the groups. This was not found to be the case for either married or single women, and so one model was estimated for each of these subsets. But the estimated wage effect for men without secondlevel qualifications was found to be significantly higher than the wage effect for men with higher levels of education, although within the latter group, no further separation of the sample was justified.

Thus, the participation decision is modelled for four separate groups: men with low education levels, men with higher education levels, married women and single women. These results are reported in Tables 4.1 to 4.3 below.

A final important issue to be addressed is the definition of the wage rate. The detailed taxbenefit model calculations of Chapter 3 show that the proposed minimum wage would significantly improve the financial incentive to work facing those not participating at present. That chapter also shows that the change in net income brought about by a minimum wage will tend to be somewhat less than the increase in gross wages, as improved gross earnings may be offset to some extent by increased tax and PRSI liabilities, and/or reduced welfare payments. Ideally the estimation and simulation of labour supply responses would take this into account, and focus on changes in net income as the key measure of financial incentives. But this would require a detailed structural model of the labour supply decision: the construction of such a model is a major research project in its own right, and was not feasible in the time frame for this study.

An indication of the broad order of magnitude of the labour supply response can be obtained with a simpler approach, which estimates the responsiveness of labour supply to changes in gross wages, and simulates the impact of the change in gross wages associated with the national minimum wage proposal. This approach takes into account factors influencing the tax and welfare situation such as marital status,

[5]Note that 'married' included women living with their partners, whilst 'single' includes women who are separated, divorced or widowed, as well as women who were never married.

number of children, and, for married women, the level of husband's earnings and whether or not he is unemployed. In simulating the impact of a national minimum wage, the change in financial incentives for those affected is simply represented by the ratio of the minimum wage to the gross wage the individual could command in the absence of a minimum. We know from the analysis in the previous chapter that this may overstate somewhat the improvement in the financial incentive to work, as family disposable income may see offsets to the rise in gross wages through tax, PRSI and/or reductions in welfare payments. This might suggest that the analysis would tend to overstate the labour supply impact of the proposed national minimum wage; but it must be borne in mind that estimated responsiveness might also be higher if the estimation, as well as the simulation, could be undertaken in a way which took full account of the impact of taxes and benefits on disposable income. On balance, therefore, the approach taken in this chapter can be taken as providing a broad guide to the likely magnitude of the labour supply impact.

In each participation model, the dependent variable is defined to equal one if the individual is working, or not working but actively seeking work, and zero otherwise. 'Actively seeking work' means that the individual is both available to take up work within two weeks and has taken steps within the previous four weeks to find work.[6] Full-time students are recorded as actively seeking work only if the work sought is of more than thirty hours per week, so they appear to be planning to leave education.

4.3 Estimation Results

In Tables 4.1 to 4.3, the effect of the 'predicted log hourly wage' on the probability of participation is reported in each case. The predicted gross wages are obtained from the regressions reported in the Appendix to this chapter. The prediction of wages is necessary for those who are not working and do not, therefore, report a wage rate in the survey.

In each case, the inclusion of the square of the predicted log wage was tested, in order to allow for the possibility of backward bending labour supply behaviour, but only for single women was its inclusion not rejected by the data. Other differences in specification between the four groups also arise, for example in the specification of the age, labour market experience and children variables, as well as in whether urban or Dublin residence is more important, and in the inclusion of the status and income of a spouse, where applicable.[7]

Along with the estimated coefficients, the tables below report the marginal effects of the variables, the effect of a one unit increase in a variable on the probability of participation. These effects are useful in interpreting the results, as the Probit model is nonlinear, and the meaning of the coefficients unclear.

Table 4.1 shows that for all men, the probability of participation is increasing in the wage rate, although the effect of wages is very much larger for men in the low education category. For both groups, the probability of participation decreases with age, although with differing patterns. For men with higher levels of education, each year of age up to 55 reduces the probability of participation by 0.2%, whereas after 55, the probability of participation is reduced by almost 3% per year, a result that reflects early retirement options. For less educated men, the effect is reversed in that it is for younger men that the effect is larger, but on closer examination these effects are not statistically significantly different from each other, so the effect of age for these men is to reduce the probability of participation by about 2.5% per year.

For men in both groups, the probability of participation is reduced by having three or more children, although these effects are not significant for less educated men. The negative effect of children on the probability of participation appears to arise because of the effect on the replacement ratio of allowances for dependent children. This interpretation is favoured against one suggesting that men choose to look after their children in the home because a distinction between pre-school and school-aged children does not appear to be important.

[6]This definition accords with the one employed by the ILO in defining 'actively seeking work'.
[7]The specifications were tested using Likelihood Ratio tests, or the Akaike Information Criterion in the case of nonnested specifications.

Table 4.1 *Probit Models of Men's Participation*

Dependent Variable: Working or Actively Seeking Work	'Low Education' Model		'High Education' Model	
Variable	Coefficient (T-Statistic)	Marginal Effect	Coefficient (T-Statistic)	Marginal Effect
Predicted log hourly wage	5.0539 *(8.84)*	1.394	0.9505 *(3.72)*	0.089
Age spline: Age up to 55	0.1016 *(-7.21)*	*-0.028*	*-0.0263 (-2.85)*	-0.002
Age over 55	-0.0630 *(-2.23)*	-0.017	-0.2862 *(-9.02)*	-0.027
3 or 4 children under 18	-0.1252 *(-0.66)*	-0.036	-0.4413 *(-2.50)*	-0.053
5 or more children under 18	-0.4283 *(-1.50)*	-0.136	-0.5546 *(-1.58)*	-0.080
Years of unemployment	0.0216 *(1.59)*	0.006	-0.1246 *(-6.02)*	-0.012
Lives in Dublin	-0.1293 *(0.97)*	-0.036	-0.1465 *(-1.27)*	-0.014
Married	-0.6480 *(-3.34)*	-0.148	0.4873 *(2.91)*	0.051
Constant	-2.1119 *(-4.28)*		0.8823 *(2.49)*	
Number of Observations:	684		1,620	
Pseudo R²	0.29		0.30	
Log Likelihood:	-281.01		-333.02	

Notes: 'Low Education' includes those with no second level qualifications. 'High Education' includes those with second or third level qualifications. Omitted category for number of children under 18 years is less than three children, a category which includes no children.

Years of unemployment is included to capture the labour market history of a man, with a negative effect expected since years of unemployment may indicate poor labour market characteristics. A small, though significant negative effect is indeed found for more educated men, but the effect for men with low levels of education is positive, albeit statistically insignificant. For both groups, living in Dublin reduces the probability of participation, although not significantly. Marriage increases the probability of participation for more educated men, possibly because it reflects stability to some extent, whilst for less educated men, the effect is negative, again probably because of the effect of a dependent spouse on the replacement ratio.

Table 4.2: *Probit Model of Married Women's Participation*

Variable	Coefficient	t-Statistic	Marginal Effect
Predicted log hourly wage	1.1070	6.69	0.425
Husband's net income (except means-tested benefits)	-0.0009	-2.95	-0.000
Husband unemployed	-0.3617	-2.99	-0.133
Age	-0.0195	-2.69	-0.007
Number of Children Aged 0-4	-0.4854	-7.09	-0.186
Number of Children Aged 5-12	-0.1725	-4.29	-0.066
Number of Children Aged 13-18	0.1840	4.04	0.071
Years Engaged in Household Duties	-0.0598	-7.90	-0.023
Urban Dweller	0.2188	2.83	0.083
Constant	-0.0087	-0.03	

Number of Observations: 1,589
Log Likelihood: -757.41   Pseudo R²=0.296

Table 4.2 shows that the probability of participation of married women also increases in the wage rate, with a marginal effect that is lower than for 'low education' men, but much larger than for more educated men. Other variables which increase the probability of participation are living in an urban area, and the number of children aged 1318. The latter result is interesting, as it suggests that once children are in second level education, the income effect of the cost of rearing them outweighs the more usual negative

effect of children, whereby the cost of childcare as well as preferences reduce the probability of participation. This is because the cost of childcare is lower for children with longer school hours; participation on a part-time basis may also be more feasible when children are away from home for longer each day. The marginal effect of the number of preschool children is large, each preschool child reducing the probability of participation by 19 percentage points.

Each year of age reduces the probability of participation by almost a point. The effect of the husband's net income, either from employment, property income or nonmeanstested benefits, is negative and significant, but very small. The husband being unemployed, however, reduces the probability of participation by 13 points, a very large effect. This probably reflects the importance of unobservable characteristics that are shared by husbands and wives, although it may, to some extent, also capture the effect of the means testing of benefits on the incentives of the wives of the unemployed, a point on which there is a growing literature.[8] The number of years engaged in household duties has a negative effect over and above the negative effect of non-participation on the wage rate, reflecting unobserved tastes for labour market work.

Table 4.3: *Probit Model of Participation of Single Women*

Variable	Coefficient	t-Statistic	Marginal Effect
Predicted log hourly wage	4.2621	3.50	1.140
(Predicted log hourly wage)^2	−0.9210	−2.29	−0.246
Age	−0.0306	−3.62	−0.008
Number of Children Aged 0-4	−1.2668	−7.02	−0.339
Number of Children Aged 5-12	−0.3800	−3.36	−0.102
Years Engaged in Household Duties	−0.0523	−5.23	−0.014
Constant	−1.8719	−2.00	

Number of Observations: 771
Log Likelihood: −244.23

Pseudo R^2=0.451

For single women, as mentioned above, Table 4.3 shows that backward bending labour supply behaviour is supported by the data, making a direct comparison with wage results in previous tables difficult. However, it is interesting to note that the negative income effect begins to outweigh the positive substitution effect within the sample range, at an hourly wage of £10.11; inspection of the data reveals that 43 single women of the 771 included in the estimation sample have an hourly wage higher than this. Again, the probability of participation falls by about one percentage point per year of age.

Interestingly, the other variables included in the final specification indicate the importance of children to single women. The negative effects of children here are even larger than for married women, indicating that where women are bringing up children alone, the difficulties of working are greater than for women who are married. The result may also reflect the fact that the One Parent Family Payment is means-tested, so that those with more children have more to lose from participation. As with married women, the effect of having spent time out of the labour force because of household duties reduces the probability of participation. It is worth noting that many of these women have children or have had children: about 24% of them (half of whom were never married) have children under the age of 18, and there are many women aged over 50 who have had children in the past that are now grown up.

Table 4.4: *Estimated Elasticities of Participation with respect to the Wage Rate*

All	Men	Women		
		Single	Married	All
0.46	0.42	0.36	0.70	0.54

Finally, Table 4.4 reports the elasticities of participation with respect to the wage rate for men, single women and married women, i.e. the effect on the participation rate, in percentage terms, of a 1% increase

[8]See Giannelli and Micklewright (1995), Doris (1998).

in the wage rate. These elasticities are calculated by simulating the effect of a 1% increase in wages, rather than at the sample mean. The table shows that for all groups, participation is inelastic, a 1% increase in the wage rate leading to a less than 1% increase in the participation rate. For men and married women, the estimated elasticities can be compared with the results reported in Callan and Farrell (1991), where Irish data for 1987 were used. The results in Table 4.4 indicate a lower elasticity of participation than previously estimated for married women, Callan and Farrell's estimate being 2.73, compared to 0.70 above. To some extent, this is due to the inclusion of the variable for the years of household duties in the specification in Table 2, but not in Callan and Farrell's specification; when this variable is excluded, the elasticity of participation is higher for married women, at 1.21. But the difference is mostly due to the fact that the participation rate of married women rose markedly between 1987 and 1994, so that the base on which the elasticity figure is calculated has risen; the decrease in responsiveness implies that there is less scope for future expansion of the female labour force.

The result for men, although not directly comparable, is higher that the 0.23 estimated by Callan and Farrell. This is due to the extra flexibility allowed for in the specification used here, where the possibility that men with low education levels — and hence wage rates — have a higher responsiveness to incentives than other men is allowed for because of the focus of the present study.

4.4 Results of Simulations of Minimum Wage Effects

Having discussed the estimation results for the participation decision, the result of simulating the impact of the minimum wage may be presented. The simulation uses a minimum wage of £3.25 for 1994 which would affect a similar proportion of employees to the proposed £4.40 in 2000; simulations on the basis of rates that are slightly lower and slightly higher than this are also reported.

In undertaking the simulation we start from wage rates predicted for each person on the basis of the wage equations reported in the Appendix to this chapter, and used in the estimation results. These wages can be regarded as the best central estimates for individuals who are not in employment, and they are used in the estimation procedures as they provide consistent estimates of the parameters of interest. But we know that actual wages display more variability than the predicted wages, which variability, if not taken into account, would lead the proportion of individuals affected by a minimum wage to be underrepresented. And so, we adjust the predicted wages in the minimum wage simulation to take account of this variability, in order to ensure than the proportion of individuals with low wages who would be affected by a minimum wage is adequately represented.

The procedure for doing this entails randomly generating error terms from a distribution with a mean of zero and a standard deviation equal to the standard error of the residuals from the wage equation, and adding these errors to the predicted wages. The intuition behind this procedure can be explained as follows. The difference between the predicted wage and the actual wage for those who are working is due to several factors, including unmeasured or unmeasurable influences on individual productivity, and an element of luck. Those who would be affected by a minimum wage include a disproportionate number of individuals whose actual wage would be caused partly by 'bad luck', or unmeasured negative influences on productivity. Our procedure ensures that this is adequately taken into account in our simulation analysis.

The results in Table 4.5 show, as might be expected given the elasticities reported in Table 4.4, that the largest response to the introduction of the minimum wage will be amongst women, with increases in the participation rate of 3 percentage points. The effect on men's participation rate is lower, at 1.5% points. The effect on overall participation will be to raise it by more than 2 percentage points.

The breakdowns by education level indicate that the participation rate will increase most for those with low levels of education, and particularly for those with no education beyond primary school. Thus, for men with no second level qualifications, participation will rise by 4 points, and for similarly educated women by a little more. The minimum wage is also predicted to affect other educational categories, albeit to a lesser extent. Men with Group or Junior Certificate level education will increase their participation by almost a point; the effect for women in this category will be to increase participation by over 3 points, and for women with Leaving Certificate qualifications by over 2 points. Men with education to Leaving Certificate, and all individuals with third level qualifications are likely to be little affected.

The last two columns of Table 4.5 show the changes in participation rates resulting from minimum wages equivalent to the range £4.05-£4.75 in the year 2000. The patterns are similar to those discussed above; varying the rate will change the increase in participation most for individuals with lower rates of education, and for women more than men. Overall, introducing the lower rate would cause the minimum wage to increase labour supply by about one and a half points, compared to an almost 3 point increase caused by the higher rate.

Table 4.5: *Impact of Minimum Wage on Sample Participation Probabilities by Gender, Marital Status and Education Level*

Group	N	Education	Actual Participation	Predicted Increase in Participation	Predicted Increases in Participation with Alternative Minimum Wages	
					£3.00	£3.50
Men	684	1	.7368	.041	.028	.056
	614	2	.8974	.009	.007	.011
	563	3	.8988	.003	.003	.005
	443	4	.9526	.002	.002	.003
	2,304	All	.8607	.015	.011	.021
Single Women	161	1	.3416	.108	.084	.131
	129	2	.6357	.048	.037	.060
	316	3	.8797	.037	.029	.046
	165	4	.9273	.012	.010	.014
	771	All	.7367	.048	.037	.059
Married Women	558	1	.2384	.028	.020	.038
	385	2	.3818	.026	.019	.035
	464	3	.5108	.012	.008	.017
	182	4	.7363	0	0	0
	1589	All	.4097	.020	.014	.027
All Women	719	1	.2615	.046	.034	.058
	514	2	.4455	.032	.024	.041
	780	3	.6603	.022	.016	.028
	347	4	.8271	.006	.005	.008
	2360	All	.5165	.030	.022	.038
All	1403	1	.4932	.044	.031	.058
	1128	2	.6914	.019	.014	.025
	1343	3	.7602	.014	.011	.019
	790	4	.8975	.004	.003	.005
	4664	All	.6865	.022	.016	.029

Notes: The 'predicted increase in participation' refers to the predicted effect of the introduction of a minimum wage of £3.25, which is the 1994 equivalent of £4.40 in 2000. Alternative rates are used in the other columns. Education level 1 is 'no second level qualifications'; 2 is Group/Intermediate/Junior Cert.; 3 is Leaving Cert./PostLeaving Cert.; 4 is diploma/primary degree/postgraduate degree.

Table 4.6 sheds some light on the labour market states that those classified as non-participants are in, to give some idea about who the new participants might be.

Table 4.6: *Reported Labour Force Status of Individuals Defined as 'Non-Participants' in the Analysis*

Labour Force Status (%)	Men	Women	All
Seeking First Job	6.2	0.6	1.9
Unemployed	43.8	2.6	12.3
Retired	36.3	0.5	8.9
On Home Duties	2.3	93.7	72.1
In Full-Time Education	11.4	2.7	4.8

The table shows that the potential new participants differ markedly according to gender. Nonparticipating women are overwhelmingly engaged in home duties at the time of the survey, whereas nonparticipating men are typically classified as unemployed in terms of Principal Economic Status, but not "actively seeking work" on a definition approximating the ILO classification, or retired before the age of compulsory retirement.

This raises the question as to what proportion of the new participants in the labour market would, if they moved from nonparticipation into unemployment, entail an increase in social welfare expenditure for the exchequer. Of those classified as nonparticipants in the sample, 37% are receiving either meanstested or nonmeanstested benefits at the moment, and a further 34% have spouses who are either in receipt of benefits, or earn enough income to disqualify their partners from receiving Unemployment Assistance if unemployed. Thus, about 70% of current nonparticipants would, if they began to participate but failed to find a job, be unlikely to generate substantial additional expenditure by the Exchequer on social welfare expenditure. Of course, this does not necessarily imply that exactly 30% of new participants would be new claimants if unemployed; this would depend on the composition of the group of new participants. Furthermore, the precise impact on social welfare expenditure would also be influenced by broader labour market dynamics, as new participants competed for jobs with those currently in the labour market. Nonetheless, it is of interest that a relatively small fraction of the stock of nonparticipants would, if they became unemployed, be likely to generate substantial additional claims on the Exchequer.

4.5 Conclusions

This chapter has simulated the likely labour supply responses of individuals to the changes in incentives associated with the introduction of the minimum wage. Microdata from the 1994 Living in Ireland Survey was first used to estimate the responsiveness of individuals to the wage rate, while controlling for other demographic and economic factors that may affect their labour supply behaviour. The participation decision was modelled for four separate groups: men with low education levels, men with higher education levels, married women and single women. For each of these groups participation is inelastic, a 1% increase in the wage rate leading to a less than 1% increase in the participation rate. Married women had the highest elasticity.

The second stage of the analysis was to use these results to predict changes in participation rates in response to the minimum wage. This simulation started from wage rates predicted for each person on the basis of the wage equations, adjusted to take random variability taken into account. The results showed that the largest response to the introduction of the minimum wage will be amongst women, with increases in the participation rate of 3 percentage points. The estimated effect on men's participation rate was lower, at 1.5% points. The effect on overall participation was to increase it by more than 2 percentage points. The participation rate was seen to increase most for those with low levels of education, and particularly for those with no education beyond primary school. Men with education to Leaving Certificate, and all individuals with third level qualifications were little affected.

In terms of their current labour force status, it was seen that the potential new participants differ markedly according to gender. Women not currently participating were overwhelmingly engaged in home duties at the time of the survey, whereas nonparticipating men were typically classified as unemployed in terms of Principal Economic Status, but not "actively seeking work" on a definition approximating the ILO classification, or retired before the age of compulsory retirement. A relatively small fraction of the stock of nonparticipants would, if they became unemployed participants, be likely to generate substantial additional claims on the Exchequer.

Appendix to Chapter 4: Wage Regressions

Table A4.1: *OLS Wage Regression for Men and Single Women*

Variable	Coefficient	t-Statistic
Education: Group Cert.	0.1681	4.48
Inter./Junior Cert.	0.2697	8.07
Leaving/PostLeaving Cert.	0.4437	12.70
Diploma	0.5935	12.61
Primary Degree	0.9607	18.27
Higher Degree	1.0845	18.16
Years of work experience	0.0306	3.85
(Years of work experience)^2/100	−0.0181	−1.47
Years not in work	−0.0201	−2.59
(Years not in work)^2/100	0.0952	4.08
Age	0.0393	2.94
(Age)^2	−0.0006	−3.78
Apprentice	−0.3051	−2.07
Female	−0.0740	−2.86
Married Male	0.1778	6.71
Constant	0.3057	1.39

Dependent Variable: log hourly wage
Number of Observations: 2048 R^2=0.504

Note: Omitted education category is 'no qualifications'.

Table A4.2: *OLS*[9] Wage Regression for Married Women

Variable	Coefficient	t-Statistic
Education: Group/Inter./Junior Cert.	0.1399	2.55
Leaving/PostLeaving Cert.	0.3362	6.43
Diploma	0.5640	7.10
Primary/Higher Degree	1.1122	17.73
Years of work experience	0.0344	4.58
(Years of work experience)^2/100	−0.0372	−1.84
Years not in work	−0.0269	−4.74
(Years not in work)^2/100	0.0751	3.55
Constant	1.1004	13.25

Dependent Variables: Log Hourly Wage and In Work
Number of Observations: 1604 R^2=0.563

Note: Omitted education category is 'no qualifications'.

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[9]A Heckman Selection-Bias Corrected model was initially used, but the correlation between the participation and wage equations was found to be statistically insignificant, so the uncorrected OLS model was chosen instead.

CHAPTER 5

The Macroeconomic Effects of the Minimum Wage

Gerry Boyle, John FitzGerald, Ide Kearney and Diarmaid Smyth

5.1 Introduction

In this chapter we explore the macroeconomic effects of the introduction of the minimum wage using the HERMES macroeconomic model, developed at the ESRI and extensively used for mediumterm analysis. Our approach concentrates on the likely impact on employment, unemployment and competitiveness in the longrun. The results suggest the likely impact in the long run will be a reduction in employment of under one per cent, an increase in the unemployment rate of 0.5 percentage points and an increase in consumer prices of almost one and a half per cent. The longrun impact on GNP and the public finances is negligible.

Section 5.2 describes the methodology we adopt to model the impact of the minimum wage. We separate our analysis into direct and indirect effects. We firstly trace through the direct effects of a wage floor on the demand and supply of labour. These effects lead to a fall in employment and an increase in unemployment. Secondly we explore the indirect effects of the minimum wage. Higher unemployment and higher wages will increase prices. Higher inflation will, in turn, lead to an increase in general wage demands, a deterioration in the economy's competitiveness, and a further fall in employment and output.

Most of this Chapter is devoted to the estimation of the direct effects of the minimum wage on the demand for labour. Firstly, in Section 5.3, we examine the impact of the minimum wage on each of six key industrial and services sectors in turn. Difference in the mechanisms driving employment and output in the industrial and services sectors are fundamental to the differential impact the minimum wage has on these sectors. In the tradable sectors (industry) firms are pricetakers on world markets so the direct effect of a rise in labour costs is to reduce employment and competitiveness. In the nontradable sectors (services), firms are pricesetters on the domestic market so a rise in wages is passed on as higher prices and there is a negligible longrun, *direct* effect on employment.

Following on from this, in Section 5.4 we estimate the aggregate direct effect of the minimum wage on the demand for labour. Our central scenario suggests a fall in total employment of 6,200, an increase in unemployment of 4,500, and an increase in consumer prices of approximately one percentage point. All of this fall in employment occurs in the traded and building sectors. A separate simulation suggests that the direct effect on the tourism sector could lead to a significant reduction in employment, particularly services sector employment.

However this is only part of the story. The increase in prices and deterioration in competitiveness has knockon effects in reducing real disposable incomes in the economy, as described in Section 5.5. This feeds through into increased general wage demands, further reducing competitiveness and employment. Our central scenario suggests a further fall in employment of 5,800, mainly in industrial sectors, an increase in unemployment of 1,300 and an overall increase in consumer prices of 1.5%. In addition, net emigration flows increase.

Finally in Section 5.6 we look at the labour supply effects of the minimum wage. The analysis in Chapter 4 suggested that the introduction of the minimum wage will affect labour force participation. We estimate that this will lead to a longrun increase in the labour force of 2,400. Many or all of these labour market entrants may obtain employment. However, because demand and real wage effects have reduced employment prospects, they can only do so by displacing existing workers. Hence the net impact of this labour supply effect is an increase in unemployment.

Overall our results suggest that the longrun impact of a £4.40 minimum wage, assuming some spillover, will be to reduce employment by 13,500. This corresponds to a reduction of 0.9% in forecast employment, relative to a baseline projection of an 18.9% increase in employment between 2000 and

2010. Sensitivity analysis on the extent of spill-over suggests this employment impact should fall within the range of 9,500 to 17,400 jobs, far below the estimate reported in Barry Bet al.B (1998) of between 56,000 and 72,000 jobs. Both unemployment and net emigration increase and consumer prices rise by almost 1.5 percentage points.

5.2 Methodology for Modelling the Impact of the Minimum Wage

The standard economic model of the impact of the minimum wage on employment is shown in Figure 5.1. Initially the labour market is in equilibrium with a wage level W* and employment E*.

Figure 5.1: *Impact of the Minimum Wage on Employment*
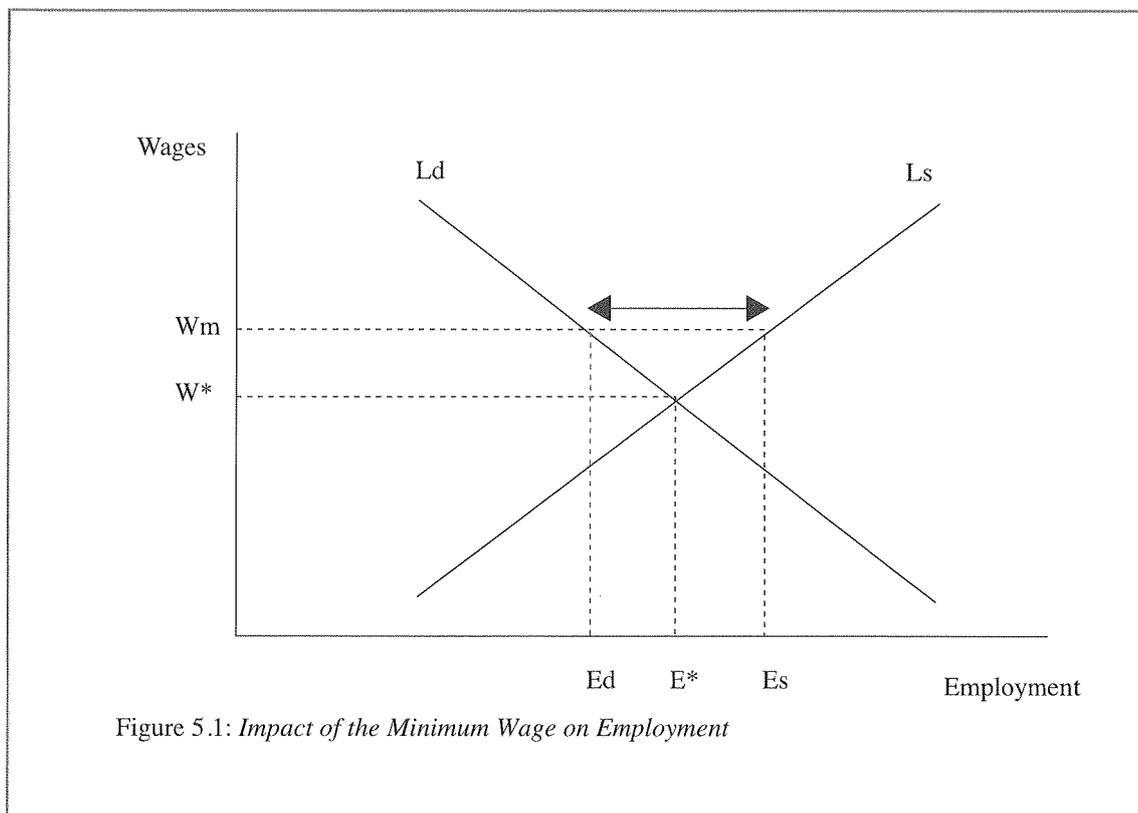
Now the government introduces a minimum wage W_m, which is set higher than the market clearing wage W*. This has two direct effects:

1. *Labour Demand Effect*: The demand for labour falls from E* to EdS0012T. At higher wages firms will substitute away from labour towards relatively cheaper factors of production, and some workers will lose their jobs. Employment falls and unemployment rises by the amount E*-Ed.

2. *Labour Supply Effect*: The supply of labour increases from E* to EsS0012T. Additional persons are attracted into the labour market by the higher wage. Some of these additional persons may displace existing workers, who in turn lose their jobs. The net effect of this increase in labour supply is to increase unemployment by E*-Es.

These direct labour demand and supply effects arise in the case where the minimum wage raises the average wage level, W_m>W*. In addition there are indirect effects operating through the output market:

3. *Real Wage Effects*: An increase in the average wage level feeds into an increase in prices in the nontraded sector, which will cause a reduction in the *real wage* for those earning above W_m. This will increase general wage demands through the wage bargaining process leading to an increase in the real wage in the traded sector. The consequent loss of cost competitiveness in the traded sector will further reduce employment and increase unemployment.

In this chapter we use the ESRI-HERMES macroeconomic model to estimate the impact of the minimum wage operating through each of these three channels in turn. We then combine these results to assess

the overall impact of the minimum wage on the macroeconomy. We discuss the estimation of each of these effects in more detail below.

Labour Demand Effects

The responsiveness of labour demand to the introduction of the minimum wage will determine the slope of the labour demand schedule in Figure 5.1 and the impact of the minimum wage on employment. This responsiveness is measured by the elasticity of demand for labour, a measure which combines both substitution and scale effects:

- *Substitution effects* look at the impact on employment of a change in the wage level if the total output level remains unchanged. An increase in wages makes labour relatively more expensive than other inputs of production (capital, intermediate inputs) and this encourages substitution away from labour toward relatively cheaper inputs in the production process. The higher the substitution effect, the bigger the reduction in employment for a given wage increase and a given level of output. In the shortrun, when the capital stock is fixed, the possibilities for substitution are limited so that the substitution effect is relatively low. In the longrun, when all factors of production can be readjusted to their optimum level in the face of changed relative factor prices, the substitution effect is higher.

- The *scale effect* looks at the impact of the decline in output (scale of production) on employment. Higher wages will increase the marginal cost of production. This raises prices and reduces output. This reduction in output will in turn reduce the demand for all factors of production, including labour. Hence the strength of the scale effect depends on both the elasticity of demand for output and the importance of labour as a factor of production. The greater the responsiveness of output to a change in prices (the more elastic the demand for output) the higher will be the fall in output and hence, employment. The fall in employment will also be higher in sectors where labour's share of total costs is high. This is because a high labour share means that labour is a relatively important factor in production so that any increase in wages will have a significant impact on marginal costs.

In the industrial sectors of the ESRI-HERMES model substitution effects are relatively low in traditional industry, and relatively high in the hightech, food and building industries. Scale effects are high in industry, the socalled "traded sector", because firms compete on world markets. Firms are pricetakers and face highly elastic demand for their products. This effectively means there is no possibility for firms to pass on higher costs to the consumer in the form of higher prices. Instead an increase in marginal costs will cause a deterioration in competitiveness, and a consequent scaling back in production (Bradley, Fitz Gerald and Kearney, 1993).

Combining both substitution and scale effects, we find that in the long run the elasticity of demand for labours[10] in industrial sectors is significant, ranging from a relatively low elasticity of –0.5 in the traditional sector to a very high elasticity of –2.2 in the food processing sector.

The behaviour of the services sector is very different. Substitution effects are somewhat higher than in industry, however scale effects are much lower. In services, most firms are trading only on the domestic market, the socalled "non-traded sector", so the demand for services' output is inelastic. There is scope for firms to pass on cost increases to the consumer in the form of higher output prices (Bradley, Fitz Gerald and Kearney, 1991). This price effect serves to offset the negative impact of higher wages on employment.

- The *price effect* measures the elasticity of prices with respect to wages. In the services sector prices are modelled as a markup on costs. Extensive empirical testing has suggested that there is full passthrough of wage increases to output prices in Irish services sectors in the long run. This implies an elasticity of prices with respect to wages of one.

With full passthrough of wages to prices the longrun effect of a wage increase on employment is very small. Hence the effective longrun elasticity of labour demand in the distribution and professional and

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[10]The percentage change in the demand for labour due to a one per cent increase in wage levels.

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financial services sectors in the ESRI-HERMES model is close to zero (see Table A.5.1 in the appendix to this Chapter).

In this Chapter we firstly examine these demand effects for individual sectors and then for the economy as a whole. In Section 5.3 we examine the impact of the minimum wage on six individual sectors in turn using the ESRI-HERMES macroeconomic model. These are the traditional, high tech and food processing industrial sectors, the building and construction sector, and the distribution and professional and financial services sectors[11]. Then, in Section 5.4 we examine the aggregate impact of the increase in sectoral wage levels and the average wage level on total employment, unemployment and competitiveness.

In simulating the impact of the minimum wage on the demand for labour in the ESRI-HERMES model we make the following technical assumptions:

1. We impose zero migration since the propensity to migrate is low among workers with low pay. In the model the impact of the minimum wage is simulated as a shock to the average wage level. However the aim of these simulations is to gauge the impact on the lowpaid segment of the labour market. As, by definition, lowpaid workers are those affected by the minimum wage and are also those workers least likely to migrate (Fahey, Fitz Gerald and Maitre, 1998), this assumption is necessary to estimate the full impact of the minimum wage on unemployment.

2. We make the technical assumption that wages cannot adjust downwards as a result of rising unemployment.

3. We impose solvency in the public finances. This means that within the model government borrowing is held unchanged in the medium term and income tax rates are varied to provide any additional revenue required or to repay any surplus which arises.

Labour Supply Effects

The introduction of a minimum wage will attract additional persons into the labour market. In Chapter 4 it is estimated that the potential increase in labour force participation for a minimum wage of £4.40 in 2000 is 2.2 percentage points, equivalent to approximately 24,000 persons. The increase is particularly high among men and women with low levels of education while it is very low for those with third-level qualifications.

We expect this potential increase in labour force participation to translate into a much smaller increase in labour supply (E^* to E_s). This is because total labour demand has fallen, from E^* to EdS0012T, and wages cannot adjust downwards, so that on average these persons can only obtain employment by displacing existing workers, who in turn will become unemployed. The net effect of this displacement will be to increase unemployment.

Those potential labour market entrants who are unsuccessful in obtaining employment are not included in our estimated labour supply effect. Instead we limit our estimate of the increase in labour supply to the likely degree of displacement. In other words we exclude the possibility that people will move directly from nonparticipation into unemployment. There are both substantive and technical reasons for this:

1. There is no reason to expect a direct movement from nonparticipation into unemployment. Put simply, if these potential labour market entrants are not currently classified as unemployed, it is unclear why they would reclassify themselves as unemployed following the introduction of a minimum wage. This is all the more likely since we are dealing with groups that have low attachment to the labour force (72% of nonparticipants are classified as on home duties).

2. To avoid double counting of unemployment. Over 14%[12] of those classified as nonparticipants under the ILO classification used in Chapter 4, are already classified as unemployed in the ESRI-HERMES model which uses the PES (Principal Economic Status) definition of unemployment.

[11]The ESRI-HERMES model divides the economy into eleven sectors, three industrial sectors (traditional, high tech and food), the building and construction sector, three market services sectors (distribution, transport and communication, and professional and financial services), two nonmarket services sectors (public administration and health and education), the agricultural sector and the utilities sector. Only the first seven of these have underlying behavioural demand for labour functions specified in the model. Employment in nonmarket services is determined by a policy rule, employment in agriculture is modelled as a declining trend, and employment in the utilities sector is treated as exogenous.
[12]Unemployed (12.3%) and seeking first job (1.9%).

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3. To avoid overstating the implications for the exchequer. An increase in unemployment in the ESRI-HERMES model will increase exchequer costs. However, as discussed in Chapter 4, over 70% of nonparticipants would not be eligible for social welfare benefits were they to move into unemployment.

In simulating the impact of the increased labour force participation in the ESRI-HERMES model in Section 5.5, we make the following technical assumptions:

1. We impose zero migration since those whose labour force participation is affected by the minimum wage have a low propensity to migrate (Fahey et al, 1998).

2. We make the technical assumption that wages cannot adjust downwards in the face of an increase in the labour force.

3. We impose solvency in the public finances. This means that within the model government borrowing is held unchanged in the medium term and income tax rates are varied to provide any additional revenue required or to repay any surplus which arises.

Real Wage Effect

The demand and supply effects described above are *direct* effects that refer to the relationship between employment and the nominal wage. However, *indirect* effects due to the introduction of the minimum wage also arise through a variety of channels.

1. The rise in the wage level (W^*-W_m) will feed through into increased prices in the nontraded sector. This higher inflation will increase tax revenues and reduce real disposable income.

2. The increase in unemployment, with solvency imposed, will lead to an increase in the exchequer costs of social welfare payments.

3. With the solvency rule imposed, the net effect on the average income tax rate of higher inflation and higher unemployment is ambiguous, and will depend on the relative strength of the two offsetting effects.

4. Higher inflation will, through the wage bargaining process, push up nominal wage demands as workers earning above the minimum wage seek to restore their after-tax consumption real wage. This will increase the real wage in the traded sector, particularly for highly-paid skilled workers. In this wage bargaining framework, any increase in income tax rates will also feed through into nominal wage demands.

5. The loss of competitiveness in the traded sector will further reduce employment and raise unemployment.

6. The general loss of competitiveness and deterioration in employment prospects will reduce GNP, increase unemployment and increase net emigration flows of skilled labour.

7. The deterioration in labour market prospects will discourage labour force participation.

In simulating the impact of the indirect effect of a decline in competitiveness in the ESRI-HERMES model in Section 5.6, we make the following technical assumptions:

1. We allow migration to vary since a general increase in wages will impact throughout the labour market. In particular the increase in the real wage of skilled workers in the traded sector will increase migration since more highly educated workers are more likely to migrate than become unemployed (Fahey, Fitz Gerald and Maitre, 1998).

2. We make the technical assumption that wages cannot adjust downwards.

3. We impose solvency in the public finances. This means that within the model government borrowing is held unchanged in the medium term and income tax rates are varied to provide any additional revenue required or to distribute any additional surplus which might arise.

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Overall Impact of Minimum Wage on Employment and Unemployment

In Section 5.7 we combine estimated demand, supply and real wage effects to arrive at an aggregate estimate of the overall impact of the minimum wage on employment and unemployment. Because our results are sensitive to underlying assumptions (for example assumptions relating to spill-over and displacement), this estimate is subject to a wide margin of variation. We therefore look at the sensitivity of our results to changes in these underlying assumptions. Our results suggest that the longrun impact of the introduction of a minimum wage will be to reduce employment by approximately 13,500 (0.9% of forecast total employment in 2000[13]). Sensitivity analysis, indicated lower and upper bounds on this estimate ranging from 9,500 to 17,400 jobs (0.6% and 1.2% of total employment respectively).

The analytical framework we use is based on the neoclassical, competitive model of the labour market. However this simplifies the full behavioural impact of the introduction of the minimum wage which can have offsetting positive effects on employment through a variety of channels (see Chapter 4 of the Report of the National Minimum Wage Commission for a full discussion):

- The incentive effects of a minimum wage may raise productivity and effort levels for existing workers.

- New entrants, attracted into the labour market because of the higher wage rate, may have higher productivity levels than the workers they displace.

- Firms paying higher wages have a higher recruiting rate and a lower quit rate, reducing the cost of turnover to the firm.

While we do not take account of these effects in our analysis, it is important to remember that they would all serve to modify our estimates reported below.

5.3   Sector-Specific Labour Demand Effects

In this section we present the results of simulating the impact of the introduction of the minimum wage on each of six individual sectors in turn[14]. In each case our central scenario is based on a minimum wage of £4.40 in 2000 with some spill-over. We perform sensitivity analysis around this central scenario, assuming no spill-over and "extra" spill-over. In addition we perform sensitivity analysis assuming a minimum wage of £4.00 and £5.00, both with and without spill-over. Chapter 2 explains in detail the calculation of the no spill-over, with spill-over and extra spill-over scenarios we use in each case. The results are shown in the appendix to this Chapter.

Before looking at the individual sector results, we firstly describe briefly the economic behaviour underlying the industrial and services sectors in the ESRI-HERMES model. In the tradable sector (traditional, high-tech and food processing sectors) the immediate effect of a rise in labour costs on employment is relatively low, particularly in traditional industries. This is because, with a fixed capital stock, there are relatively limited possibilities to substitute labour with other factors of production in the production process. Higher labour costs will also increase marginal costs of production. Hence, the immediate impact of the minimum wage will be a small reduction in employment and a rise in unit costs of production.

In the long-run, when the capital stock and output levels can vary, the rise in labour costs will encourage further substitution away from labour in producing a given volume of output. In addition, higher unit costs of production will reduce competitiveness, since firms in the industrial sector can not pass on the labour costs as higher prices in the face of international competition. This deterioration in competitiveness will lead to a reduction in output, further reducing the demand for labour. Hence the long run impact of higher labour costs is a further fall in employment and a deterioration in cost competitiveness.

The converse of this is true in the nontraded sector (distribution and professional and financial services sectors) where the immediate effect of a rise in labour costs on employment is higher than the longrun effect. The immediate response to higher wages is similar to the traded sector a limited substitution away

[13]We use forecast employment in 2000 from the *Quarterly Economic Commentary*, ESRI, March 1999.
[14]These are six of the seven sectors in the ESRI-HERMES model which model the demand for labour. We omit the transport and communications sector because employment in that sector is partly driven by nonmarket considerations and the sector is dominated by a limited number of large governmentowned organisations.

from labour, a reduction in total employment and an increase in costs. However in the long-run in the non-traded sector firms set prices as a markup on costs. Empirical evidence suggests that there is full pass-through of wages to prices in the long run. As prices adjust upwards, profit margins are reestablished and the demand for labour recovers so that the long-run impact on employment is negligible.

In the building and construction sector there are very high substitution possibilities between labour and capital in production so that the immediate effect of a rise in labour costs is a very sharp decline in employment — an implied elasticity of −1.7 (Table A.5.1). In the longrun prices in this sector are set as a markup on unit costs of production, with less than full passthrough of wages into prices. As prices adjust upwards, the effective elasticity of labour demand falls, however because there is less than full passthrough the long-run elasticity is still very high at −1.3.

For each sector the tables show the immediate (within the first year) and longrun (after full adjustment of capital stock and output) impact on employment levels and unit costs (for industrial sectors) or prices (for services sectors) of the introduction of the minimum wage. In each case the simulation is treated as an unanticipated shock to the average wage level in that sector. However firms are already aware of the introduction of the minimum wage, so they can plan accordingly. This means that output and the capital stock are likely to adjust more rapidly to their long-run level than our simulations suggest. Thus our estimates of the immediate impact on employment is overestimated in the services and building sectors and underestimated in the traded sectors.

For ease of presentation we use the following notation to refer to the sensitivity analysis: *MW £4.40, Sp.,* refers to the central scenario of a minimum wage of £4.40 with some spill-over, *MW £4.00, Sp.,* refers to the scenario of a minimum wage of £4.00 with some spill-over, *MW £5.00, Sp.,* refers to a minimum wage of £5.00 with spill-over, *MW £4.40, NSp.,* refers to a minimum wage of £4.40 with no spill-over, *MW £4.00, NSp.,* refers to a minimum wage of £4.00 with no spill-over, *MW £5.00, NSp.,* refers to a minimum wage of £5.00 with no spill-over, and finally *MW £4.40, ExSp.,* refers to a minimum wage of £4.40 with extra spill-over.

Traditional Sectors[15]

Table 5.1 shows the results of estimating the impact of the minimum wage on the traditional sector. Our central scenario, based on *MW £4.40, Sp.,* increases the average wage bill in the traditional sector by 1.81%. Varying the extent of spill-over, the range of estimates is from 1.18% (*MW £4.40, NSp.*) to 2.45% (*MW, £4.40, ExSp.*). If alternative levels for the minimum wage itself are also considered, the estimates range from a low of 0.59% (*MW £4.00, NSp.*) to a high of 3.38% (*MW £5.00, Sp.*).

Table 5.1: *Impact of Introduction of Minimum Wage in Traditional Sector*

Simulation:	No Spillover			With Spillover			Extra Spillover
Minimum Wage Level:	£4.40	£4.00	£5.00	£4.40	£4.00	£5.00	£4.40
Employment:							
Immediate	+4	+2	+8	+6	+4	+10	+8
Long-Run	−812	−407	−1,877	−1,243	−764	−2,312	−1,680
Unit Cost of Production							
Immediate	+0.37%	+0.19%	+0.86%	+0.57%	+0.35%	+1.06%	+0.77%
Long-Run	+0.35%	+0.18%	+0.82%	+0.54%	+0.33%	+1.01%	+0.73%

These simulations are based on an estimated impact of the minimum wage on the sectoral wage bill as follows:

No Spillover: 1.18% (£4.40), 0.59% (£4.00), 2.74% (£5.00)

With Spillover: 1.81% (£4.40), 1.11% (£4.00), 3.38% (£5.00)

Extra Spillover: 2.45% (£4.40)

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[15]The traditional sector includes mining and quarrying, drink and tobacco, clothing, footwear and leather, paper and printing, timber and wooden furniture, nonmetallic mineral products, and miscellaneous other manufacturing sectors.

In the short-run these industries uses fixed input ratios in production, so there is no change in employment. Because firms are unable to adjust employment levels there is a significant immediate passthrough of the wage increase into higher unit costs of production, which increase by 0.57% in the central scenario.

This increase in unit costs of production has a significant long-run impact on the sector. The loss of competitiveness causes a reduction in output in the sector and the longrun impact on employment is an estimated loss of 1,240 jobs. Sensitivity analysis on the likely impact of spill-over for a £4.40 minimum wage highlights the sensitivity of this estimate to the assumptions on spill-over with a lower bound of –810 (*MW£4.40, NSp.*) and an upper bound of –1,680 (*MW £4.40, NSp.*).

As reported in Table A.5.1, these estimates for the traditional sector imply a long run elasticity of demand for labour of –0.47 in the traditional sector. This is roughly half the estimate reported in Bradley, Fitz Gerald and Kearney (1993) of –1.0, which was computed for 1987 and has been used recently in assessing the impact of the minimum wage in Barry *et al.* (1998). To understand this fall in the elasticity we must first recall that the elasticity of demand for labour is composed of both a substitution effect and a scale effect. In the traditional sector, as mentioned earlier, the substitution effect is very low. Hence, the halving of the elasticity of labour demand between 1987 and 1996 is effectively due to a reduction in the scale effect. This scale effect has fallen for two reasons:

1. In the 1980s there was a substantial shake-out of many indigenous firms in the traditional sector. Between 1980 and 1987 total employment in the sector fell by approximately 30,000. Since then employment in the sector has stabilised. The closures in the 1980s were concentrated in low-wage firms that were highly sensitive to changes in Ireland's relative competitiveness, most notably in the clothing, footwear and textiles sectors. This shake-out of the least competitive firms meant that, by definition, the average profitability and competitiveness of the remaining firms increased. Hence the elasticity of demand for output declined between 1987 and 1996.

2. The share of labour in value added in the traditional sector fell thirteen percentage points between 1987 and 1996, the corollary being a rise in profitability in the sector, so that, at the margin, the impact of an increase in wages on marginal costs in the sector is declining.

High-Tech Sector

The high tech sector as delineated here includes chemicals and metals/engineering sectors, with much of the employment being in the latter. Table 5.2 shows the results of estimating the impact of the minimum wage on this sector. Our central scenario, based on *MW £4.40, Sp.*, increases the average wage bill in the hightech sector by 1.23%, Alternative spill-over assumptions produce estimates ranging from 0.74% (*MW £4.40, NSp.*) to 1.71% (*MW, £4.40, ExSp.*). Varying the level of the minimum wage produces a wide range from a low of 0.48% (*MW £4.00, NSp.*) to a high of 2.27% (*MW £5.00, Sp.*).

Table 5.2: *Impact of Introduction of Minimum Wage in High-Tech Sector*

Simulation:	No Spillover			With Spillover			Extra Spillover
Minimum Wage Level:	£4.40	£4.00	£5.00	£4.40	£4.00	£5.00	£4.40
Employment:							
Immediate	–678	–441	–1,448	–1,123	–751	–2,057	–1,556
Long-Run	–1,152	–748	–2,460	–1,908	–1,276	–3,497	–2,644
Unit Cost of Production							
Immediate	–0.06%	–0.04%	–0.12%	–0.10%	–0.06%	–0.18%	–0.13%
Long-Run	–0.05%	–0.03%	–0.12%	–0.09%	–0.06%	–0.17%	–0.13%

These simulations are based on an estimated impact of the minimum wage on the sectoral wage bill as follows:

No Spillover: 0.74% (£4.40), 0.48% (£4.00), 1.59% (£5.00)

With Spillover: 1.23% (£4.40), 0.82% (£4.00), 2.27% (£5.00)

Extra Spillover: 1.71% (£4.40)

Within one year the impact on employment in the high technology sector of the increase in the average wage bill is significant. Our central scenario indicates that the immediate impact of the minimum wage on employment is a fall of 1,120, an implied elasticity of –0.72. Furthermore this fall in employment is sufficient to ensure that there is no passthrough of the wage increase into higher unit costs of production. Labour's share of value added in this sector is much lower than in the traditional sector, averaging approximately 20% in the 1990s (compared with 40% in the traditional sector), so that wages form a very minor part of total costs. Because of this, it is relatively easy for firms in the sector to adjust employment levels to maintain marginal costs.

Because of this rapid adjustment to changes in factor prices there is no longrun impact of the increase in wages on the cost competitiveness of the sector and hence no significant scale effect. However there is some further adjustment of employment levels in the long-run, through the substitution effect, as the capital stock adjusts. Our central scenario suggests a long run loss of 1,910 jobs. Sensitivity analysis on the likely impact of spill-over for a £4.40 minimum wage highlights the sensitivity of this estimate to the assumptions on spill-over with a lower bound of –1,150 (*MW£4.40, NSp.*) and an upper bound of –2,640 (*MW £4.40, ExSp.*).

These estimates for the high tech sector imply a long run elasticity of the demand for labour of –1.23 (Table A.5.1). This estimate reflects the pure substitution effect only since there has been no change in unit costs or output, i.e. no scale effect. This is more than double the longrun substitution effect reported in Bradley, Fitz Gerald and Kearney (1993) of –0.55, which was computed for 1987.

Food Processing Sector
Table 5.3 shows the results of estimating the impact of the minimum wage on the food processing sector. Our central scenario, based on *MW £4.40, Sp.*, increases the average wage bill in the food sector by 2.24%, Varying the extent of spill-over produces estimates ranging from 1.37% (*MW £4.40, NSp.*) to 3.11% (*MW, £4.40, ExSp.*). Varying the level of the minimum wage, the range is from a low of 0.89% (*MW £4.00, NSp.*) to a high of 3.31% (*MW £5.00, Sp.*).

Table 5.3: *Impact of Introduction of Minimum Wage in Food Sector*

Simulation:	No Spillover			With Spillover			Extra Spillover
Minimum Wage Level:	£4.40	£4.00	£5.00	£4.40	£4.00	£5.00	£4.40
Employment:							
Immediate	–179	–116	–312	–290	–190	–426	–401
Long-Run	–861	–561	–1,505	–1,401	–917	–2,057	–1,935
Unit Cost of Production							
Immediate	–0.03%	–0.02%	–0.05%	–0.05%	–0.03%	–0.08%	–0.07%
Long-Run	–0.02%	–0.01%	–0.03%	–0.03%	–0.02%	–0.05%	–0.04%

These simulations are based on an estimated impact of the minimum wage on the sectoral wage bill as follows:

No Spillover: 1.37% (£4.40), 0.89% (£4.00), 2.41% (£5.00)

With Spillover: 2.24% (£4.40), 1.46% (£4.00), 3.31% (£5.00)

Extra Spillover: 3.11% (£4.40)

The immediate impact on employment of the increase in the average wage bill is relatively small. Our central scenario indicates that the immediate impact of the minimum wage on employment is a fall of 290, an implied elasticity of –0.46. As in the high-tech sector, this fall in employment is sufficient to ensure that there is no passthrough of the wage increase into higher unit costs of production. Labour's share of value added in this sector is also low, averaging approximately 25% in the 1990s so that wages form a very minor part of total costs.

Since unit costs of production do not increase there is no scale effect from the increase in wages.

However there is significant further substitution away from labour in the longrun, as the capital stock adjusts. Our central scenario suggests a long run loss of 1,400 jobs. Sensitivity analysis on the likely impact of spill-over for a £4.40 minimum wage highlights the sensitivity of this estimate to the assumptions on spill-over with a lower bound of –860 (*MW£4.40, NSp.*) and an upper bound of –1,940 (*MW £4.40, ExSp.*).

Employment in the food sector is very sensitive to increases in wage rates. The long-run elasticity of demand for labour in this sector is very high at –2.23. Furthermore the impact of the introduction of the minimum wage on average wages in this sector is higher than in the traditional, high tech or building and construction sector (*MW £4.40, Sp.*).

Building & Construction Sector

Table 5.5 shows the results of estimating the impact of the minimum wage on the building and construction sector. Our central scenario, based on *MW £4.40, Sp.*, increases the average wage bill in the building sector by 2.10%. Varying spill-over, the bounds are from 1.36% (*MW £4.40, NSp.*) and 2.85% (*MW, £4.40, ExSp.*). Varying the level of the minimum wage, the range is from a low of 0.83% (*MW £4.00, NSp.*) to a high of 3.72% (*MW £5.00, Sp.*).

Within one year the impact on employment in the building sector of the increase in the average wage bill is very high. Our central scenario indicates that the immediate impact of the minimum wage on employment is a fall of –3,240, an implied elasticity of –1.70. Within this sector it is very easy to substitute labour for capital (machinery). In addition to the fall in employment the unit cost of production in the sector rises by 0.5%.

Table 5.5: *Impact of Introduction of Minimum Wage in Building & Construction Sector*

Simulation:	No Spillover			With Spillover			Extra Spillover
Minimum Wage Level:	£4.40	£4.00	£5.00	£4.40	£4.00	£5.00	£4.40
Employment:							
Immediate	–2,111	–1,293	–3,863	–3,242	–2,126	–5,675	–4,375
Long-Run	–1,604	–983	–2,937	–2,464	–1,616	–4,315	–3,326
Unit Cost of Production							
Immediate	+0.33%	+0.20%	+0.59%	+0.50%	+0.33%	+0.87%	+0.67%
Long-Run	+0.38%	+0.23%	+0.69%	+0.58%	+0.38%	+1.01%	+0.78%

These simulations are based on an estimated impact of the minimum wage on the sectoral wage bill as follows:

No Spillover: 1.36% (£4.40), 0.83% (£4.00), 2.51% (£5.00)

With Spillover: 2.10% (£4.40), 1.37% (£4.00), 3.72% (£5.00)

Extra Spillover: 2.85% (£4.40)

In the long-run the increase in unit costs is passed through to an increase in output prices in the sector. This restores profitability and mitigates the initial fall in the demand for labour. However because there is less than full pass-through of wages to prices in this sector, the increase prices is not sufficient to prevent a significant long-run fall in employment. Our central scenario suggests a long run loss of 2,460 jobs. This is very high, implying a long run elasticity of demand of –1.3. The reason why the elasticity is so high in the long-run, in a sector that is largely non-traded, is because of the high substitution possibilities.

The increase in unit costs in the sector feeds into a general increase in the cost of capital throughout the economy, further reducing investment in the economy.

Sensitivity analysis on the likely impact of spill-over for a £4.40 minimum wage highlights the sensitivity of this estimate to the assumptions on spill-over with a lower bound of –1,600 (*MW£4.40, NSp.*) and an upper bound of –3,330 (*MW £4.40, ExSp.*).

Distribution Sector

Table 5.6 shows the results of estimating the impact of the minimum wage on the distribution sector. Our central scenario, based on *MW £4.40, Sp.*, increases the average wage bill in the distribution sector by 3.48%. Varying spill-over produces estimates ranging from a low of 2.77% (*MW £4.40, NSp.*) and a high of 4.19% (*MW, £4.40, ExSp.*). Varying the minimum wage produces a range from a low of 1.73% (*MW £4.00, NSp.*) to a high of 5.87% (*MW £5.00, Sp.*)

Table 5.6: *Impact of Introduction of Minimum Wage in Distribution Sector*

Simulation:	No Spillover			With Spillover			Extra Spillover
Minimum Wage Level:	£4.40	£4.00	£5.00	£4.40	£4.00	£5.00	£4.40
Employment:							
Immediate	–4,131	–2,601	–7,457	–5,161	–3,413	–8,548	–6,180
Long-Run	555	348	1,012	696	458	1,164	836
Consumer Prices							
Immediate	+0.08%	+0.05%	+0.15%	+0.10%	+0.07%	+0.17%	+0.12%
Long-Run	+0.46%	+0.29%	+0.84%	+0.58%	+0.38%	+0.97%	+0.70%

These simulations are based on an estimated impact of the minimum wage on the sectoral wage bill as follows:

No Spillover: 2.77% (£4.40), 1.73% (£4.00), 5.09% (£5.00)

With Spillover: 3.48% (£4.40), 2.28% (£4.00), 5.87% (£5.00)

Extra Spillover: 4.19% (£4.40)

The impact of the minimum wage on the wage bill in the distribution sector is far higher than in any of the industrial sectors discussed above. The distribution sector, as defined in the ESRI-HERMES model, includes both the retail and wholesale sectors. The impact of the minimum wage on the average wage bill is significantly higher in the retail sector (4.93%), where almost 28% of employees are estimated to earn below £4.40 (see Tables 2.6 and 2.7 in Chapter 2), than in the wholesale sector (2.25%).

Within one year the impact on employment in the distribution sector of the increase in the average wage bill is dramatic. Our central scenario indicates that the immediate impact of the minimum wage on employment is a fall of –5,160, an implied elasticity of –0.58. At the same time, consumer prices increase by 0.10%. We would urge caution here as these estimates probably significantly overstate the employment effect and understate the price effect. Because firms in this sector, and in the economy in general, can anticipate the wage increase — the introduction of the minimum wage was preannounced — it is likely that prices will adjust upwards much more rapidly and the fall in employment will be much lower in consequence.[16]

In the long-run our central scenario suggests that consumer prices will increase by 0.58% because of full pass-through of wages into prices in the distribution sector. This restores profit margins in the sector so that in the long run there is no employment effect of the minimum wage. Sensitivity analysis on the likely impact of spill-over for a £4.40 minimum wage highlights the sensitivity of this estimate to the assumptions on spill-over with a lower bound of a 0.46% increase in consumer prices (*MW£4.40, NSp.*) and an upper bound of 0.7% (*MW £4.40, ExSp.*). These results suggest little change in employment in the sector in the long-run[17].

Professional & Financial Services Sector

Table 5.7 shows the results of estimating the impact of the minimum wage on the professional and financial services sector. Our central scenario, based on *MW £4.40, Sp.*, increases the average wage bill

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[16]Evidence from the UK would bear this out. In the hospitality sector, which is the sector with the highest incidence of low pay in the UK, the distribution of earnings for 1998 suggests that firms have already adjusted wages upwards to the proposed UK minimum wage prior to the April 1999 implementation date (Metcalf, 1999).

[17]Indeed there is a very slight increase in employment in the long run. However this simulation is only partial in nature, when wage rates in all other sectors also increase this counterintuitive result disappears.

in the professional and financial services sector by 2.58%. Varying spill-over produces bounds from 2.15% (*MW £4.40, NSp.*) up to a high of 3.02% (*MW, £4.40, ExSp.*). Varying the minimum wage produces a range from a low of 1.45% (*MW £4.00, NSp.*) to a high of 4.12% (*MW £5.00, Sp.*).

Table 5.7: *Impact of Introduction of Minimum Wage in Professional & Financial Services Sector*

Simulation:	No Spillover			With Spillover			Extra Spillover
Minimum Wage Level:	£4.40	£4.00	£5.00	£4.40	£4.00	£5.00	£4.40
Employment:							
Immediate	−5,823	−3,950	−9,634	−6,963	−4,782	−10,979	−8,121
Long-Run	−375	−254	−622	−448	−307	−710	−524
Prof & Fin Services Price Deflator							
Immediate	+0.72%	+0.49%	+1.20%	+0.86%	+0.59%	+1.37%	+1.01%
Long-Run	+2.14%	+1.44%	+3.58%	+2.57%	+1.75%	+4.10%	+3.01%

These simulations are based on an estimated impact of the minimum wage on the sectoral wage bill as follows:

No Spillover: 2.15% (£4.40), 1.45% (£4.00), 3.60% (£5.00)

With Spillover: 2.58% (£4.40), 1.76% (£4.00), 4.12% (£5.00)

Extra Spillover: 3.02% (£4.40)

The professional, financial and personal services sector covers a wide variety of services, some of which are significant lowwage sectors, and some of which are unaffected by the minimum wage. Most notable is the personal services sector, where the average wage bill increases by 9.67% in our central scenario. Almost 44% of total employees are estimated to earn less than £4.40 in this personal services sector (see Table 2.6 in Chapter 2). The average wage bill in professional services increases by a more modest 4.61%, which is still significantly above the average for the sector. By contrast, the wage increase in the financial sector is only 0.22%, and this sector accounts for a large share of total employment.

Within one year the impact on employment in the professional and financial sector of the increase in the average wage bill is even more dramatic than in the distribution sector. Our central scenario indicates that the immediate impact of the minimum wage on employment is a fall of −6,960, an implied elasticity of −0.69. At the same time, output prices in the sector increase by 0.86%. Again we would caution that these estimates significantly overstate the shortterm employment effect and understate the price effect because this simulation treats the wage increase as an unanticipated shock.

In the long-run our central scenario suggests that output prices in the sector will increase by 2.57%, exactly matching the increase in the wage bill. This reflects full passthrough of wages into prices. As in the distribution sector, this passthrough restores profit margins in the sector so that in the long run there is no employment effect of the minimum wage. Sensitivity analysis on the likely impact of spill-over for a £4.40 minimum wage highlights the sensitivity of this estimate to the assumptions on spill-over with a lower bound of a 2.14% increase in output prices (*MW£4.40, NSp.*) and an upper bound of 3.01% (*MW £4.40, ExSp.*).

These estimates only reflect the direct effects of the minimum wage on the professional and financial services sector. The indirect effects are explored in Section 5.5 below.

The UK Labour Market

Box 5.1 examines the demand for Irish labour relative to UK labour for eight Irish industrial sectors. The results indicate a high value for the longrun elasticity of demand for Irish labour relative to UK labour, −0.62. This highlights the importance of relative IrishUK wages in influencing the demand for labour in many Irish industrial sectors.

The two sectors with the highest estimated elasticity, namely timber and wooden furniture and clothing leather and footwear, are both sectors which were identified in the ESRI (1996) report on the effects of EMU as vulnerable to currency exposure vis-à-vis sterling. Furthermore, the sectors with the highest

estimated impact on employment, namely food, drink and tobacco and other manufacturing, were also identified in the EMU report as sectors exposed to sterling[18]. Were sterling to devalue, which many commentators now agree is likely, it would clearly have a significant impact on the cost competitiveness of these sectors.

The introduction of a minimum wage in the UK in mid-1999 will also affect Irish-UK relative wage rates. For instance, the clothing and footwear sector has been identified as a low-paying UK sector where the minimum wage will significantly increase the wage bill (Low Pay Commission 1998). This is a sector where the elasticity of Irish for UK labour is relatively high. Most of the other UK sectors affected are in services, namely hospitality, security and cleaning (see Chapter 6 for a more detailed discussion).

The results presented in Box 5.1 identify one key channel through which employment in Irish industry is reduced because of the introduction in the minimum wage. The substitution of UK workers for Irish workers accounts for a substantial proportion of the overall elasticity of demand for Irish labour.

Box 5.1: The Demand for Irish Labour Relative to UK Labour

To further explore the sensitivity of employment in industry to the minimum wage we performed a separate sector-specific analysis on eight Irish industrial sectors over the period 1970-1995. This study estimated the long-run elasticity of demand between Irish and UK labour, assuming the Irish labour market is a regional labour market within the wider UK labour market. In addition to Irish and UK wage rates, the specification included a smoothed measure of the IR£/sterling exchange rate, the capital stock and volume output.

Higher Irish wages increase the cost of Irish labour relative to UK labour, reduce the demand for Irish labour and encourage a substitution of UK labour for Irish labour. This can occur in any of three ways:

(a) Firms with plants in both the UK and Ireland will scale back or cease production in Ireland and increase production in the UK.

(b) Irish based firms will relocate production to the UK.

(c) Irish based firms will lose market share to their UK competitor.

The results of this analysis are shown in Table 5.8. The table shows the estimated elasticity of demand together with the increase in the wage bill for each sector (MW£4.40, Sp.). The overall elasticity of demand in the short run is –0.21. This implies a reduction in employment of 530 jobs. The long run elasticity is much higher at –0.62, equivalent to a fall in employment of 1,580.

Table 5.8: Impact of Introduction of Minimum Wage in Manufacturing Sectors: Substitution Effect Within Shared UK-Irish Labour Market

Sector	Share in UK-Irish Wage Bill in 1995	Estimated Elasticity of Demand		% Increase in Wage Bill*	Impact on Employment	
		Immediate	Long-Run		Immediate	Long-Run
Chemicals	0.030	–0.47	–0.47	0.03	–3	–3
Metals and Engineering	0.033	**	**	1.66	**	**
Food, Drink and Tobacco	0.064	0.00	–0.37	2.23	–2	–376
Clothing, Leather and Footwear	0.042	–0.58	–0.85	1.89	–223	–330
Timber and Wooden Furniture	0.020	–0.47	–1.14	5.14	–108	–264
Paper and Printing	0.028	–0.30	–0.40	0.50	–24	–32
Non-metallic Mineral Products	0.053	–0.17	–0.15	0.25	–4	–4
Other Manufacturing	0.057	–0.17	–0.57	5.02	–170	–567
Total (excl. Metals & Engin.)		–0.21	–0.62	1.89	–534	–1,576

*Introduction of a minimum wage of £4.40 with spillover.

**We were unable to estimate a stable long run demand for UK-Irish labour for the Metals and Engineering sector.

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[18]Table 7.3, p. 201, ESRI (1996).

The biggest employment losses occur in traditional, low-wage industries, all of which are included in the ESRI-HERMES traditional and food sectors. Specifically these are the food, drink and tobacco sector, the clothing and footwear sector, the timber and wooden furniture sector and other manufacturing. These include the furniture industry, where the introduction of the minimum wage (*£4.40, Sp.*) will increase the average wage bill by a massive 8.28%.

The ESRI-HERMES high-tech sector includes both the chemicals sector and the metals and engineering sector. The chemicals industry is a high-wage sector and is unaffected by the introduction of the minimum wage. By contrast in the metals and engineering sector there is an increase in the average wage bill of 1.66%. This sector accounts for over 80% of total employment in the high tech sector. It covers a wide range of activities, some of which include significant low-wage employment and are thereby affected by the minimum wage.[19] Clearly it is within this sector that our estimated loss of high tech employment, consequent on the introduction of the minimum wage, occurs.

We were unable to estimate a stable long-run demand for Irish-UK labour equation for the Metals and Engineering sector, arguably because it covers such a diverse range of firms, many of which would have no integration with the UK labour market. Therefore the estimated Irish-UK substitution effect only relates to the traditional and food sectors. These estimated job losses of 1,580, reported in Table 5.8, account for almost 60% of the total fall in employment of 2,640 estimated for these sectors (Table 5.1 and Table 5.3)[20].

Summary of Sector-Specific Effects

Our central scenarios indicate that the biggest impact on employment from the introduction of the minimum wage is in the building and construction sector (–2,460), followed by the high technology sector (–1,910), the food processing sector (–1,400), and finally the traditional sector (–1,240).

A separate study on the substitutability between Irish and UK labour in the individual industrial sectors suggested that almost 60% of the fall in employment in the traditional and food sectors in Ireland is accounted for by the fall in wage competitiveness vis-à-vis the UK. This highlights one of the key channels through which the introduction of the minimum wage can reduce the demand for labour in Ireland. Furthermore, it highlights the vulnerability of these sectors to a fall in sterling within EMU. This is particularly relevant at present when most commentators agree that sterling is currently overvalued.

In addition to these negative employment effects, our results suggest that the traditional sector would suffer a loss of competitiveness on world markets (increase in unit costs of 0.54%). Furthermore an increase in unit costs in the building sector (0.58%) will feed into a rise in the cost of capital in all sectors.

There is no long-run effect on services sectors employment. This is because these sectors pass on the higher labour costs in the form of higher prices. In the distribution sector we estimate that the introduction of the minimum wage adds 0.58% to consumer prices, while in the professional and financial services sector it adds 2.57% to output prices.

5.4 Aggregate Labour Demand Effects

In this section we present the results of simulating an increase in the average wage rates of all sectors of the economy simultaneously. This simulation gives us an estimate of the aggregate demand effect due to the introduction of the minimum wage. These results are presented in Table 5.9. We then compare these results to a scenario where all sectors are shocked with the same average increase in wages, presented in Table 5.10. In both of these simulations net migration is assumed to remain unchanged and we impose solvency on the public finances.

In addition to estimating this aggregate labour demand effect, we also include a separate simulation that looks at a shock to the tourism sector, specifically a fall in the demand for tourism. In the tourism sector output prices are significantly affected by the minimum wage (the hotel and catering sector is a part of the broad professional and financial services sector examined in Section 5.3 above). However in

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[19]The sectors included in the Metal and Engineering industry, with the increase in the average wage bill in parentheses, are, Basic Metals (0.4%), Metal Products (4.61%), Machinery & equipment (1.67%), Office Equipment (0.46%), Electrical and Optical Equipment (0.34%), Communication Equipment (1.14%), Instrument Engineering (0.0%), Motor Vehicles (1.16%), Other Transport (0.96%).
[20]Our estimates for the substitution of Irish workers for UK workers do not cover the mining & quarrying sector which is included in the ESRI-HERMES traditional sector. This omission is due to lack of comparable UK data. The estimated increase in the wage bill in the central scenario for this sector is 1.48%, which is not insignificant. However it accounts for a very small proportion of employment, 5,200 in 1996, so its omission will not affect the general results presented here.

the ESRI-HERMES model the volume of tourism exports is not specified as a function of relative prices. Therefore the aggregate demand effect of an increase in wage rates will not feed through to the tourism sector. For this reason, we simulate a separate exogenous shock to the volume of tourism output and look at the impact of this on employment, unemployment and migration.

Aggregate Demand Effect for All Sectors

The immediate impact on employment in our central scenario (*MW £4.40, Sp.*), increasing all sectoral wage bills simultaneously, is a fall of almost 15,000, equivalent to an implied elasticity of demand for labour of −0.57. As discussed in the previous section, we consider that this estimate overstates the likely immediate impact of the minimum wage on employment. This is because the introduction of the minimum wage has been pre-announced and firms can be expected to have already begun to factor it into costs and prices. In the long run, the fall in employment is equivalent to almost 6,200 jobs, with an increase in unemployment of 4,550.

All of this fall in employment occurs in the traded sectors and the building sector[21]. The impact of the minimum wage in services sectors is to raise consumer prices by almost a full percentage point, due to pass-through of higher costs into prices. (The indirect effects of this increase in inflation are considered in the next section.) The impact on non-market services employment and on employment in the utilities sector is unchanged by assumption.

The impact of the introduction of the minimum wage is sensitive to the underlying structure of the economy. To see this, contrast the results from the central scenario to the scenario where the increase in the wage bill is uniform across sectors (Table 5.10). In the latter case the long-run fall in employment is higher and the increase in consumer prices is lower. This is because imposing a uniform increase in the wage bill across all sectors exaggerates the actual rise in the traded sectors' wage bill, where higher wages lead to a fall in employment, and understates the actual rise in the services sectors' wage bill, where higher wages are passed through to prices.

Furthermore, differentiating wage increases by sector highlights the fact that the minimum wage impacts disproportionately across different sectors as we change the underlying assumptions on spillover. The implied elasticity of demand for labour increases with spillover, from a low of −0.17 (*MW £4.40, NSp.*) to a high of −0.28 (*MW £4.40, ExSp.*) (Table A.5.1). As spillover from the minimum wage increases, the traded and building sectors are disproportionately affected. Conversely the implied elasticity of prices with respect to wages falls, from 0.59 (*MW £4.40, NSp.*) to 0.54 (*MW £4.40, ExSp.*). The services sector is disproportionately affected as spillover falls.

The long-run impact on GDP is negative, a fall of 0.2% in the central scenario, while the impact on GNP is negligible. The gap between GDP and GNP is largely accounted for by profit repatriations by foreign-owned companies in Ireland. The fall in GDP reflects the fact that the direct effect of the minimum wage is a fall in profitability of the traded sector.

The impact on the public finances is small. The direct effect on the public sector wage bill is limited since the increase in the average wage bill in public administration and health and education, at 0.23% and 0.94% respectively, is relatively low. Furthermore, these simulations were run assuming solvency. This holds the EBR unchanged as a percentage of GNP by allowing tax rates to vary. In the long-run, the average income tax rate rises by 0.08 percentage points. This suggests that the exchequer costs of the rise in unemployment marginally outweigh the rise in tax revenues due to higher consumer prices.

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[21]Note that the total fall in employment of 6,180 is somewhat lower than the sum of the individual sector estimates in Section 5.3 (7,016). This is because in the aggregate simulation, the relative increase in the cost of labour in any individual sector is marginally offset by the general increase in the wage level in the economy as a whole. This is particularly relevant in the building sector, which is largely non-traded.

Table 5.9: *"Demand-Side" Impact of Introduction of Minimum Wage: Impact Differentiated By Sector*

Simulation:	No Spillover			With Spillover			Extra Spillover
Minimum Wage Level:	£4.40	£4.00	£5.00	£4.40	£4.00	£5.00	£4.40
Total Employment							
Immediate	−11,579	−7,566	−20,207	−14,854	−9,976	−24,365	−18,118
Long-Run	−3,397	−1,984	−7,034	−6,177	−3,980	−11,330	−8,947
Unemployment							
Immediate	+8,239	+5,386	+14,369	+10,567	+7,100	+17,320	+12,886
Long-Run	+2,491	+1,452	+5,168	+4,550	+2,931	+8,350	+7,000
Consumer Prices							
Immediate	+0.17%	+0.11%	+0.30%	+0.22%	+0.15%	+0.35%	+0.26%
Long-Run	+0.77%	+0.51%	+1.35%	+0.96%	+0.65%	+1.58%	+1.15%
GDP							
Immediate	+0.07%	+0.05%	+0.12%	+0.07%	+0.05%	+0.12%	+0.08%
Long-Run	−0.11%	−0.06%	−0.23%	−0.19%	−0.12%	−0.34%	−0.26%
GNP							
Immediate	+0.16%	+0.10%	+0.29%	+0.20%	+0.14%	+0.34%	+0.24%
Long-Run	+0.03%	+0.03%	+0.03%	−0.02%	+0.00%	−0.07%	−0.07%
EBR							
Immediate	−0.13%	−0.09%	−0.22%	−0.16%	−0.11%	−0.27%	−0.20%
Long-Run	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.01%	+0.00%
Debt-GNP Ratio							
Immediate	−0.18%	−0.11%	−0.33%	−0.23%	−0.16%	−0.39%	−0.29%
Long-Run	−0.27%	−0.18%	−0.46%	−0.31%	−0.21%	−0.50%	−0.36%

These simulations are based on an estimated impact of the minimum wage on the wage bill as follows:

No Spillover   £4.40   Traditional (1.18%), High-Tech (0.74%), Food (1.37%), Utilities (0.13%), Bld&Const (1.36%), Distrib. (2.77%), Prof&Fin (2.15%), Trans&Comm (0.43%), Public Admin (0.09%), Health&Educ (0.80%), Economy-Wide[22] (1.31%)

  £4.00   Traditional (0.59%), High-Tech (0.48%), Food (0.89%), Utilities (0.09%), Bld&Const (0.83%), Distrib. (1.73%), Prof&Fin (1.45%), Trans&Comm (0.32%), Public Admin (0.06%), Health&Educ (0.56%), Economy-Wide (0.86%)

  £5.00   Traditional (2.74%), High-Tech (1.59%), Food (2.41%), Utilities (0.39%), Bld&Const (2.51%), Distrib. (5.09%), Prof&Fin (3.60%), Trans&Comm (0.67%), Public Admin (0.20%), Health&Educ (1.30%), Economy-Wide (2.31%)

With Spillover   £4.40   Traditional (1.81%), High-Tech (1.23%), Food (2.24%), Utilities (0.30%), Bld&Const (2.10%), Distrib. (3.48%), Prof&Fin (2.58%), Trans&Comm (0.74%), Public Admin (0.23%), Health&Educ (0.94%), Economy-Wide (1.72%)

  £4.00   Traditional (1.11%), High-Tech (0.82%), Food (1.46%), Utilities (0.24%), Bld&Const (1.37%), Distrib. (2.28%), Prof&Fin (1.76%), Trans&Comm (0.50%), Public Admin (0.14%), Health&Educ (0.68%), Economy-Wide (1.16%)

  £5.00   Traditional (3.38%), High-Tech (2.27%), Food (3.31%), Utilities (0.42%), Bld&Const (3.72%), Distrib. (5.87%), Prof&Fin (4.12%), Trans&Comm (1.38%), Public Admin (0.47%), Health&Educ (1.48%), Economy-Wide (2.85%)

Extra Spillover   £4.40   Traditional (2.45%), High-Tech (1.71%), Food (3.11%), Utilities (0.48%), Bld&Const (2.85%), Distrib. (4.19%), Prof&Fin (3.02%), Trans&Comm (1.06%), Public Admin (0.37%), Health&Educ (1.09%), Economy-Wide (2.13%)

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[22]"Economy-Wide" refers to the increase in the average wage bill for the economy as a whole. We exclude agriculture from this estimate.

Table 5.10: *"Demand-Side" Impact of Introduction of Minimum Wage: Impact Identical Across All Sectors*[23]

Simulation:	No Spillover			With Spillover			Extra Spillover
Minimum Wage Level:	£4.40	£4.00	£5.00	£4.40	£4.00	£5.00	£4.40
Total Employment							
Immediate	−7,008	−4,619	−12,253	−9,170	−6,214	−15,049	−11,316
Long-Run	−5,184	−3,410	−9,100	−6,794	−4,593	−11,201	−8,398
Unemployment							
Immediate	+4,989	+3,288	+8,719	+6,526	+4,423	+10,706	+8,052
Long-Run	+3,833	+2,522	+6,725	+5,022	+3,397	+8,275	+6,207
Consumer Prices							
Immediate	+0.14%	+0.09%	+0.24%	+0.18%	+0.12%	+0.30%	+0.22%
Long-Run	+0.51%	+0.33%	+0.89%	+0.66%	+0.45%	+1.10%	+0.82%
GDP							
Immediate	+0.09%	+0.06%	+0.16%	+0.12%	+0.08%	+0.19%	+0.14%
Long-Run	−0.13%	−0.09%	−0.23%	−0.17%	−0.12%	−0.28%	−0.21%
GNP							
Immediate	+0.20%	+0.13%	+0.35%	+0.26%	+0.18%	+0.44%	+0.32%
Long-Run	−0.05%	−0.03%	−0.08%	−0.06%	−0.04%	−0.10%	−0.08%
Exchequer Borrowing Requirement							
Immediate	−0.15%	−0.10%	−0.26%	−0.19%	−0.13%	−0.32%	−0.24%
Long-Run	+0.01%	+0.00%	+0.01%	+0.01%	+0.01%	+0.01%	+0.01%
Debt-GNP Ratio							
Immediate	−0.24%	−0.16%	−0.42%	−0.31%	−0.21%	−0.52%	−0.39%
Long-Run	−0.13%	−0.09%	−0.23%	−0.17%	−0.12%	−0.28%	−0.21%

These simulations are based on an estimated impact of the minimum wage on the wage bill as follows:

No Spillover   1.31% (£4.40), 0.86% (£4.00), 2.31% (£5.00)

With Spillover 1.72% (£4.40), 1.16% (£4.00), 2.85% (£5.00)

Extra Spillover 2.13% (£4.40)

Competitive Shock to Tourism Sector

Table 5.11: *"Demand-Side" Impact of Loss of Competitiveness in Tourism Sector*

	Immediate	Long-run
Total Employment	−447	−1,437
Unemployment	+298	+302
Cumulative Net Migration	0	+1,126

*This simulation is based on a one per cent fall in the volume of tourism exports.

Table 5.11 reports the results of simulating a loss of competitiveness in the tourism industry. Based on an assumed one percent fall in the volume of tourism exports, the impact on total employment in the long-run is very high with a loss of 1,440 jobs, 75% in services sectors, and an increase in unemployment of 300. There is an increase in annual net migration flows to a peak of +200 in the seventh year after the shock, after which it begins to decline. This is equivalent to a cumulative increase in net migration over the seven-year period of 1,130.

With solvency imposed, the rise in unemployment implies an increase in the average income tax rate of 0.04 percentage points in the long run.

[23]See previous footnote.

This scenario is included to take account of the exposure of the tourism sector to increases in wages and prices. These estimates are purely indicative, as there is no mechanism in the ESRI-HERMES model to directly estimate the impact of the minimum wage on the demand for tourism output.

5.5 Aggregate Real Wage Effects

So far we have only looked at the direct effects of the minimum wage on the demand for labour. However the indirect knock-on effects on the wider economy are equally important. In this section we simulate the impact on the economy of the increase in consumer prices which arises through the demand effect described in the previous section.

Table 5.12 shows the results of shocking the model with an immediate and long-run increase in consumer prices of 0.22% and 0.96% respectively. This corresponds to the increase in consumer prices arising from a minimum wage of £4.40 with spillover, our central scenario. The simulation included the time profile of the increase in consumer prices estimated in Section 5.4 above.

Table 5.12: *"Real Wage" Impact of Introduction of Minimum Wage*

	Immediate	Long-run
Total Employment*	+117	−5,809
Unemployment	−77	+1,554
Cumulative Net Migration	+0	+4,978
Average Wage**	+0.21%	+1.13%
Consumer Prices	+0.04%	+0.49%
GDP	+0.02%	−0.18%
GNP	+0.06%	+0.01%
Debt-GNP Ratio	−0.22%	−0.40%

These simulations are based on the estimated impact of the minimum wage on consumer prices for a minimum wage of £4.40 with spillover: *Immediate:* 0.22%, *Long-Run:* 0.96%.

*Sensitivity Analysis On Employment Estimate: £4.40, No Spillover, −3,055; £5.00, With Spillover, −9,535; £4.40 No Spillover, −4,669; £4.40 Extra Spillover, −6,959.

**This is the economy-wide non-agricultural wage.

We scale down the results of this simulation by one-fifth. This is based on a proximate estimate that 20% of the nominal wage bill refers to nominal wage rates at or just above the minimum wage, namely those workers who have already had a substantial real wage increase through the introduction of the minimum wage and related spillover. We assume that these workers will not benefit from a further nominal wage increase through the wage bargaining process.

In this simulation the increase in consumer prices reduces real disposable incomes, prompting an increase in wage demands through the wage bargaining process. This increases the real wage in the traded sector, particularly for more highly-paid skilled labour, and leads to a deterioration in cost competitiveness. Hence output and employment fall in the traded sector. As job prospects for skilled labour worsen, migration flows increase.

Higher nominal wages in the services sector increase costs, which leads to further increases in prices in the non-traded sector. In addition, the general reduction in domestic demand (higher unemployment and higher migration) reduces employment in the services sectors.

Our central scenario suggests total employment will fall by 5,810. Almost 80% of this fall is industrial sector employment (including building and construction). The impact on unemployment is much lower at 1,550, largely because of a significant increase in net emigration flows. Annual net emigration flows increase to a peak of +650 in the ninth year after the shock, after which they stabilise, equivalent to a cumulative increase in net emigration of 4,980.

The long-run impact on the average wage is an increase of 1.1%. Allowing for dynamic feedback effects of these higher wages into higher prices, this causes a further increase in consumer prices of 0.5%. GDP falls by 0.18% while GNP is unchanged. The decline in cost competitiveness in the traded sector squeezes profitability, as reflected in the decline in the gap between GDP and GNP.

With solvency imposed, the net effect on the average income tax rate is negative. In the long run, it falls by 0.11 percentage points. The increased exchequer costs of unemployment are more than offset by the increased revenues generated through higher prices.

Sensitivity analysis on the central scenario suggests that employment could fall by between 3,000 and 9,500 depending on the level of the minimum wage. Using the £4.40 minimum wage, the bounds tighten to 4,700 to 7,900 depending on the assumptions in relation to spillover.

5.6 Aggregate Labour Supply Effects

In this section we simulate the impact on the economy of the potential increase in labour force participation, estimated using micro-data in Chapter 4. We impose zero migration since the increased participation is concentrated in persons with low education who have a low propensity to migrate (Fahey, Fitz Gerald and Maitre, 1998).

Table 5.13:   *"Supply-Side" Impact of Introduction of Minimum Wage*

	Immediate	Long-run
Total Employment	−247	−52
Unemployment	3,338	2,456

These simulations are based on the estimated impact of the minimum wage on the participation rate as described in detail in Chapter 4:

> The overall participation rate for men is increased by 1.5 percentage points, the increase in the education specific rates are 4.1 (Primary), 0.9 (Junior Cert.), 0.3 (Leaving Cert.) and 0.2 (Third Level).
> The overall participation rate for women is increased by 3.0 percentage points, the increase in the education specific rates are 4.6 (Primary), 3.2 (Junior Cert.), 2.2 (Leaving Cert.) and 0.6 (Third Level).

This simulation increases the potential labour force by approximately 24,400. With wages fixed as exogenous this translates into an increase in unemployment of 23,700. We have scaled back these estimated results by a factor of ten as shown in Table 5.13. We impose this adjustment on the assumption that only one tenth of these potential new labour market entrants will succeed in finding employment, by displacing existing workers who move into unemployment. We consider that the remaining nine-tenths will remain in their current non-participant status as classified in Chapter 4 (see Section 4.2 above).

The net effect of this estimated displacement is to increase unemployment in the short-term by 3,340, and by 2,450 in the long-run. These estimates are tentative. We have no firm indicator of the likely degree of displacement. Hence our final estimates of the impact of the minimum wage may understate the actual impact on unemployment. Our central estimate of the impact on employment will remain unchanged.

5.7 Overall Impact of Minimum Wage on Employment and Unemployment

The simulations reported above indicate that the impact of the minimum wage on output is limited. In addition, our simulations assume that tax rates are adjusted to ensure the impact on the public finances is limited. The implied net change in the average income tax rate is an increase of 0.03 percentage points, a negligible effect. However our estimates suggest that the long-run impact on employment, unemployment and prices is likely to be important. Table 5.14 sets out the combined impact on employment, unemployment and net migration flows of the estimated demand effects, supply effects and real wage effects, both immediate and long run.

Our central scenario suggests a fall in employment of 13,500 jobs in the long run. In this context the long-run refers to the period necessary for full adjustment of output, the capital stock and price levels following a shock to the wage rate. This fall in employment is equivalent to 0.9% of total forecast employment in 2000. To put this figure in context we compare it with the most recent medium-term forecasts of employment growth in Fitz Gerald, Kearney, Morgenroth and Smyth (1999), where the central forecast, in the absence of the minimum wage, implies a growth in employment of 18.9% between

2000 and 2010. It we take 2010 as the long-run, which is a reasonable approximation, then this suggests that the introduction of the minimum wage will reduce the growth in employment over the period 2000-2010 from 18.9% to 18%.

The central scenario suggests an increase in unemployment of 8,860, equivalent to a 0.5 percentage point increase in the forecast unemployment rate in 2000. Roughly 84% of the total fall in employment occurs in the industrial sectors, including building and construction, equivalent to 11,250 jobs. The remaining 2,250 job losses occur in the services sectors. Overall net migration flows increase by 850 per annum in the long run.

Notably the demand effect and the real wage effect are broadly of equal importance in their impact on employment. The difference between these effects arises through their impact on unemployment and migration. The direct effect of the minimum wage on the demand for labour is to increase unemployment, with no impact on migration. This is because the direct effect only impacts on those workers who are paid below the minimum wage, typically relatively low skilled workers who have a low propensity to migrate.

By contrast the real wage effect has an impact on workers paid above the minimum wage, typically more highly skilled workers who have a much higher propensity to migrate. When employment falls for those workers they are more likely to migrate than become unemployed. Therefore the impact of the real wage effect on unemployment is much smaller than the impact on employment.

Table 5.14: Summary of Immediate and Long-Run Impact of Minimum Wage on the Labour Market

	Employ-ment	Unemploy-ment	Labour Force	Annual Net Migration Flows	Inflation	Average Non-Agric. Wage*
Summary of Immediate Impact of Minimum Wage on the Labour Market						
Demand Effect:	−14,854	+10,567	−4,287	0	+0.22%	*
Tourism	−447	+298	−149	0		*
Real Wage Effects	+117	−77	+40	0	+0.04%	+0.21%
Supply Effects	−247	+3,338	+3,091	0		*
Total	−15,431	+14,126	−1,305	0	+0.26%	+1.93%
Summary of Long-Run Impact of Minimum Wage on the Labour Market						
Demand Effect:	−6,177	+4,550	−1,627	0	+0.96%	*
Tourism	−1,437	+302	−1,135	+200		*
Real Wage Effects	−5,809	+1,554	−4,255	+650	+0.49%	+1.13%
Supply Effects	−52	+2,456	+2,404	0		*
Total	−13,475	+8,861	−4,614	+850	+1.45%°	+2.85%

*Increase of 1.72% for a minimum wage of £4.40 with spillover.

In addition to these demand and real wage effects, we include separate estimates of the likely impact of the minimum wage on tourism and labour supply. The impact on tourism reduces total employment, especially services sector employment, and increases net emigration. The impact on labour supply increases unemployment.

In our central scenario the increase in the average non-agricultural wage is 1.7%. We estimate that the direct effect of this wage increase is to increase consumer prices by 0.96%. We then simulate the impact of this increase in consumer prices on the real wage. Our central estimate suggests that an initial shock to the price level of 0.96% will lead to an increase in wages of 1.1% and an increase in prices of 0.5%. Cumulating these effects we get an overall increase in the average wage of 2.8% and in consumer prices of 1.4%. Hence the implied increase in the real wage of 1.4%, allowing for full adjustment of employment and prices, is less than the initial increase of 1.7%.

Sensitivity analysis suggests that our central estimate of the fall in employment lies within the range

9,500 to 17,400 assuming a minimum wage of £4.40 and differing assumptions on spillover. With changes in the level of the minimum wage these bounds widen to between 6,500 (minimum wage of £4.00 with no spillover) to 22,350 (minimum wage of £5.00 with spillover).

There are a number of reasons why our estimates might overstate the actual decline in employment:

1. This decline in employment refers to persons at work. The ESRI-HERMES model does not distinguish hours of work separately. However the incidence of the minimum wage falls disproportionately on part-time jobs. Hence the impact on full-time equivalent employment will be lower.

2. Our simulations take no account of the positive impact the introduction of the minimum wage will have on incentive effects, effort and productivity levels or employee turnover.

Box 5.2: Comparison with Previous Studies

The estimates from the ESRI-HERMES model simulations are far lower than those reported in Barry et al. (1998), where the possible impact of the minimum wage on employment was put at between 56,000 and 72,000 jobs. Their estimates suggest a fall in manufacturing employment of approximately 18,000 and a fall in services employment of between 38,000 and 54,000. Hence between two-thirds and three quarters of their estimated fall in employment is in services. By contrast our estimates indicate that well over 80% of the total fall in employment occurs in the manufacturing and building sectors.

There are a number of technical reasons why their numbers are higher.

1. Their estimate of the increase in the average wage bill is 4% for a minimum wage of £4.40 with no spillover, as compared to an average increase of 2% in our central scenario of a minimum wage of £4.40 with some spillover. Their figure is based on estimates in Nolan's (1998) study for the National Wage Commission of the impact of a minimum wage of £4.40 in 1997. As discussed in detail in Chapter 2, projecting forward from the 1997 Living in Ireland Survey suggests a much lower average increase in the wage bill (even with spillover) for a minimum introduced at £4.40 in 2000.

2. They use an estimated elasticity of demand for both manufacturing and services of –0.8, based on 1987 estimates of the traditional sector elasticity from Bradley et al. (1993). As discussed in detail in Section 5.3, the underlying manufacturing elasticities in the ESRI-HERMES model have changed substantially between 1987 and 1996, in line with changes in the structure of the manufacturing sector. In particular the elasticity of demand in the traditional sector has halved.

3. They impose an identical wage increase in both the manufacturing and services sectors even though the true wage increase in services is far higher than in manufacturing.

In addition to these technical differences, there are two substantive differences in modelling approach: a) estimates of the long-run demand for labour in the services sector, and b) treatment of real wage effects.

1. The Barry et al. paper has a much higher implied elasticity of labour with respect to wages for the services sector. In the ESRI-HERMES model there is full pass-through of wages into prices in the long-run — an elasticity of prices with respect to wages of one. Because of this, the effective long-run elasticity of demand for labour is zero. By contrast Barry et al. (1998), in their more conservative scenario, use an elasticity of demand for labour in services of –0.8 (combining substitution and scale effects) and a very low elasticity of prices with respect to wages of 0.3[24]. Hence their effective long-run elasticity of demand for labour is –0.56.

2. The Barry et al. paper does not take account of indirect real wage effects, which we estimate to be of almost equal importance to direct effects. Therefore the correct comparison with their numbers is our estimate of the direct effect of the minimum wage on employment, a fall of 6,200, all of which occurs in industrial sectors. This is almost ten times lower than their more conservative estimate.

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[24]This estimate is based on the assumption that prices in the services sector are set as a mark-up on both labour and capital costs, with a "guesstimate" elasticity of capital demand of 0.5. By contrast, empirical research in the ESRI-HERMES model has failed to detect a stable relationship between prices and the cost of capital in the services sector.

5.8 Conclusions

In this Chapter we use the ESRI-HERMES model to estimate the overall impact of the minimum wage on employment, unemployment and competitiveness. Our results suggest a significant, though limited fall in employment of 13,500, an increase in unemployment of 8,860, and an increase in net migration flows of 850 per annum. There is a deterioration in competitiveness with an estimated increase in the real wage in the long run of 1.4%. The combined impact on the public finances of higher unemployment and higher prices is a negligible long-run increase in the average income tax rate of 0.03 percentage points.

There are a number of key assumptions underlying the results presented here. These are based on the empirical research underpinning the ESRI-HERMES model:

1. Higher wages in the industrial, traded sector reduce employment and output.

2. Higher wages in the services, non-traded sector are passed through in full into higher prices.

3. High wage workers will migrate or take low-paid jobs rather than move into unemployment. Hence any fall in employment and rise in unemployment impacts disproportionately on low-wage workers.

4. Workers bargain on the after tax real wage so that higher inflation and/or higher tax rates will increase nominal wage demands.

Our estimated long-run fall in employment of 13,500 is equivalent to a reduction of 0.9% in forecast employment, relative to a baseline projection of an 18.9% increase in employment between 2000 and 2010. This decline in employment is driven in equal measure by two separate effects:

(a) a decline in the demand for low-wage labour due to the direct impact of the introduction of the minimum wage. Almost all of this decline occurs in industrial sectors.

(b) a decline in the demand for high-wage labour due to the indirect impact of the minimum wage on inflation in the services sector - real wage effect. Higher inflation increases wage demands in the high-wage skilled labour and reduces competitiveness. This decline impacts on the demand for labour in both industrial and services sectors.

Overall approximately 84% of the total fall in employment occurs in the industrial sectors, including building and construction, equivalent to 11,250 jobs. The remaining 2,250 job losses occur in the services sectors. A separate simulation indicated that the effect of the minimum wage on competitiveness in the tourism sector is likely to impact mainly on services sector employment.

Notably the direct effect and the real wage effect are broadly of equal importance in their impact on employment. The difference between these effects arises through their impact on unemployment and migration. The direct effect of the minimum wage on the demand for labour is to increase unemployment, with no impact on migration. This is because the direct effect only impacts on those workers who are paid below the minimum wage, typically relatively low skilled workers who have a low propensity to migrate.

By contrast the real wage effect has an impact on workers paid above the minimum wage, typically more highly skilled workers who have a much higher propensity to migrate. When the employment market tightens for those workers they are more likely to migrate than become unemployed. Therefore the impact of the real wage effect on unemployment is much smaller than the impact on employment. Furthermore, in periods of low labour demand, skilled labour will take unskilled jobs, raising qualifications of workers in all jobs, and increasing unemployment for low skilled labour. Hence, any increase in unemployment due to real wage effects is likely to be mainly among low skilled workers.

We estimate that labour supply effects will lead to a long-run increase in the labour force of 2,400. Many or all of these labour market entrants may obtain employment. However, because demand and real wage effects have reduced employment prospects, they can only do so by displacing existing workers. Hence the net impact of this labour supply effect is an increase in unemployment, again concentrated among the low skilled.

The direct effect of the minimum wage in our central scenario is to raise average non-agricultural wages by 1.7%. This feeds into higher prices in the services sector and a long-run increase in consumer prices of 0.96%. This higher inflation will, in turn, lead to higher wage demands as workers seek to restore the after tax consumption real wage. We estimate that this real wage effect will lead to an increase in average wages of 1.1% and a further pass-through into prices of 0.5%. Hence the cumulative impact on averages wages is 2.85% and on consumer prices is 1.4%. This implies an increase in the real wage of approximately 1.4%. Notably the long-run increase in the real wage is lower than the initial rise in nominal wages of 1.7%. Nonetheless it represents a significant deterioration in competitiveness, with knock-on consequences for employment, unemployment and migration as discussed above.

The impact on the public finances is negligible. In all simulations, higher or lower tax revenues were financed through adjusting income tax rates, so that the debt-GNP ratio remained unchanged. The direct effect of the minimum wage is to worsen the public finances, so that average income tax rates are adjusted upwards by 0.08 percentage points. By contrast the real wage effect improves the public finances so that the average income tax rate falls by 0.11 percentage points. The effect on competitiveness in the tourism sector and labour supply effects both worsen the public finances, raising the average income tax rate by 0.04 and 0.02 percentage points respectively. Combining these effects there is a net increase in average income tax rates of 0.03 percentage points.

In sum, our estimates suggest that the fall in employment will mainly impact on industrial employment, the increase in unemployment will mainly impact on persons with low skills and the increase in migration will be concentrated among the more highly skilled. The real wage increases, albeit by less than the initial increase in the nominal wage, with a consequent deterioration in competitiveness, while the impact on the public finances is negligible.

Table A5.1: *Implied Elasticities of the Model*

Implied Elasticity of Demand for Labour*

	No Spillover			With Spillover			Extra Spillover
	IR£4.40	IR£4.00	IR£5.00	IR£4.40	IR£4.00	IR£5.00	IR£4.40
Traditional Sector							
Short-Run Elasticity	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Long-Run Elasticity	−0.47	−0.47	−0.47	−0.47	−0.47	−0.47	−0.47
High-Tech Sector							
Short-Run Elasticity	−0.72	−0.72	−0.72	−0.72	−0.72	−0.71	−0.72
Long-Run Elasticity	−1.23	−1.23	−1.22	−1.22	−1.22	−1.21	−1.22
Food Sector							
Short-Run Elasticity	−0.46	−0.47	−0.46	−0.46	−0.46	−0.46	−0.46
Long-Run Elasticity	−2.24	−2.25	−2.23	−2.23	−2.24	−2.21	−2.22
Building & Construction Sector							
Short-Run Elasticity	−1.71	−1.72	−1.70	−1.70	−1.71	−1.68	−1.69
Long-Run Elasticity	−1.30	−1.31	−1.29	−1.30	−1.30	−1.28	−1.29
Distribution Sector							
Short-Run Elasticity	−0.59	−0.59	−0.58	−0.58	−0.59	−0.57	−0.58
Long-Run Elasticity	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Prof. & Financial Services							
Short-Run Elasticity	−0.69	−0.69	−0.68	−0.69	−0.69	−0.68	−0.69
Long-Run Elasticity	−0.04	−0.04	−0.04	−0.04	−0.04	−0.04	−0.04
Sectorally Differentiated Impact							
Short-Run Elasticity	−0.59	−0.58	−0.58	−0.57	−0.57	−0.57	−0.56
Long-Run Elasticity	−0.17	−0.15	−0.20	−0.24	−0.23	−0.26	−0.28
Aggregate Impact							
Short-Run Elasticity	−0.35	−0.36	−0.35	−0.35	−0.35	−0.35	−0.35
Long-Run Elasticity	−0.26	−0.26	−0.26	−0.26	−0.26	−0.26	−0.26

*Combining substitution, scale and price effects, see Section 5.2.

Implied Elasticity of Consumer Prices with Respect to Wages

	No Spillover			With Spillover			Extra Spillover
	IR£4.40	IR£4.00	IR£5.00	IR£4.40	IR£4.00	IR£5.00	IR£4.40
Sectorally Differentiated							
Short-Run Elasticity	0.13	0.13	0.13	0.13	0.13	0.12	0.12
Long-Run Elasticity	0.59	0.59	0.58	0.56	0.56	0.55	0.54
Aggregate Impact							
Short-Run Elasticity	0.11	0.11	0.11	0.11	0.11	0.10	0.11
Long-Run Elasticity	0.39	0.39	0.38	0.39	0.39	0.38	0.39

CHAPTER 6

Learning from UK Research and Experience

Stephen Machin

6.1 Introduction

Unlike Ireland, many other countries have had minimum wages in operation over a long period. Like Ireland, the UK has never had a national minimum wage, but one to be introduced in April 1999 at stg£3.60 per hour for those aged 22 or more, and a lower rate of stg£3.00 for those 21 and under. The system of minimum wages that operated before, the industry based Wages Council system[25], was set up at the start of the century and only covered workers in certain (typically low wage) sectors. The Wages Council system was abolished in 1993 by the then Conservative Government.

The UK experience can be used to inform the decision making process for introducing a minimum wage in Ireland in at least two ways:

(i) By looking at economic evidence on the impact of minimum wages on key economic variables (the distribution of wages, employment/unemployment) from the old Wages Council system;

(ii) Studying the debate surrounding the introduction of the UK minimum wage and the routes through which the National Minimum Wage (NMW) was finally chosen.

It is noteworthy that, in recent years, the UK and Ireland have been the only European countries with partial minimum wage systems. In all other countries there is either a statutory minimum wages, or minimum wages are set by extension of collective bargains. Table 6.1 summarises the systems of minimum wages in operation in Europe (and also in the United States). The Table also shows the ratio of the minimum to average wages, and the size of the 'spike' in the wage distribution at the minimum wage" (i.e. the fraction at or near the minimum) for those countries with a statutory minimum wage. Drawing on the experience of minimum wage floors, their operation and economic effects in other European countries and the United States may also be of some relevance for the Irish situation. Indeed, once the UK introduces its own national minimum wage in April 1999 it becomes clear that Ireland becomes the only European country without some form of national minimum wage legislation.

The key issues that arise, and which will now be discussed in turn, are the following:

(i) the impact on jobs and the distribution of wages and family income;

(ii) variations in the minimum wage;

(iii) macroeconomic outcomes and competitiveness.

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[25]In some respects the Wages Councils were similar to the Joint Labour Committees in Ireland, the main similarities being that they covered only some sectors of the economy (usually low wage service sectors) and that the minimum wages they set were the outcome of negotiations between worker and employer representatives.

Table 6.1: *Minimum Wage Systems in Europe and the US*

Country	Minimum/Average Wages	Proportion at or Near Minimum	Youth Minimum/Average Youth Wages
1. Government Set Statutory Minimum Wages			
France	.50 (1993)	.11	.80 (age 16) .90 (age 17) .30-.75 (training)
Luxembourg	.56 (1992)	.11	.70 (< age 21)
Netherlands	.55 (1993)	.03	.35 (age 16) up to .84 (age 22)
Portugal	.45 (1993)	.08	.75 (age < 18)
Spain	.32 (1994)	.07	.66 (age < 18)
US	.39 (1993)	.04	.85 (teenagers)

2. Minimum Wage Set as Part of National Collective Bargains: Belgium, Denmark, Greece.

3. Sectoral Minimum Wages Set as Part of Collective Agreements (Extended to Employers who are not Covered by the Original Agreements): Austria, Germany, Italy, Switzerland.

4. Minimum Wages Contained in Collective Agreements That Typically Cover the Entire Workforce: Finland, Norway, Sweden.

5. Partial Coverage Industry-Level Systems Which Sets Industry-Varying Minimum Wages for Certain Low Paying Industries: Ireland and (prior to abolition of Wages Councils in 1993) Britain.

Taken from Dolado et al. (1996) Table 1. All sources are recorded in detail there.

6.2   The Impact On Jobs And The Distribution Of Wages And Family Income

The critical question here is not the rather thorny, much debated issue about the impact of minimum wages on employment/unemployment, but what empirical research and economic theory tells us about the appropriate point in the wage distribution for setting a minimum wage. This dictates how 'tough' the minimum wage should be and how big is the resultant 'spike' — reflecting the clustering of workers at the minimum wage — in the wage distribution. The UK evidence may be useful here in informing the Irish discussion of introducing a National Minimum Wage.

The relevant evidence on jobs and distributional outcomes are now (briefly) discussed in turn[26].

Evidence on jobs

The UK work focussed on two aspects of links between the Wages Councils' minimum pay rates and employment. The first looked at data on Wages Council employment levels and minimum wages whilst they were in operation, whilst the second looked at what happened to employment relative to non-Wages Council industries before and after the abolition of the Councils in 1993.

Both pieces of evidence find little link between minimum wages and employment. There was clearly no evidence of a negative association between minimum wages and employment. If anything, results seemed to go in the opposite direction. Indeed, Machin and Manning (1994) and Dickens, Machin and Manning (1999) report small, positive coefficients on minimum wage variables in appropriately specified panel data econometric models based upon Wages Council data from the mid 1970s to early 1990s. Dickens and Manning (1995) reported no rise in employment in the Wages Council industries (relative to non-Wages Council industries) after the removal of the minimum wage machinery in 1993. This was

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[26]The discussion is kept short here, simply summarising the main thrust of the evidence, as this subject matter has been covered in many places before (in academic pieces like Machin and Manning, 1996; in the Appendix to the UK Low Pay Commission's, 1998, report, and in the report (particularly Chapter 4) of the Irish National Minimum Wage Commission, 1998).

despite sizeable relative wage falls (especially in new jobs) which suggested the abolition had some 'bite'. Finally, Dickens et al. (1995) carried out a time series study of the relationship between employment and minimum wages in the only sector still with a minimum wage after 1993, agriculture, again finding no evidence of job losses associated with minimum wage increases.

There is, of course, an older tradition of computing minimum wage effects on employment from economy-wide macroeconomic models. The method of calculating employment effects is usually straightforward: first, one calculates the sensitivity of wages to an increase in the minimum; second, one computes an elasticity of employment with respect to wages from the macro model; third, they are combined to work out the employment effect of the minimum wage. Because all these models, by assumption, have a negative labour demand elasticity then the employment effect is always negative: the only relevant question is how negative. Aside from a few estimates around the time of the 1992 General Election based on some ridiculous assumptions about both elasticities and predicting huge job losses from minimum wages[27], the estimates of job losses emerging from UK macro models have been rather moderate, mostly in the range of 100,000 to 200,000 jobs lost (see Fernie and Metcalf, 1996, NIESR 1998).

Evidence on the wage and income distribution

At the same time as finding no evidence on jobs in line with the conventional, textbook model of minimum wages[28], academic research reports that the Wages Council minimum rates of pay did seem to have an equalising impact on the individual wage and family income distribution. It is probably fair to say that the evidence on the former is more clearcut than the latter, as the potential for redistributive family income effects does depend on which population one chooses to consider.

Dickens, Machin and Manning (1999) report regressions showing positive and significant effects of changes in minimum wages on changes in decile points of the Wages Council-specific earnings distributions up to and including the 40th percentile.[29] Higher up the wage distribution (from the median upwards) effects were insignificant. This points to a clear wage inequality reducing effect of the Wages Council minimum pay rates.

On the overall family income distribution one sees a very strong redistributive pattern if one looks only at households with at least one person in work. There is less of a redistribution if one includes non-working households of working age, and even less if one includes pensioners. There has been some debate about this (see Dickens, 1998) but, unless one believes there are big incentive effects of minimum wages on labour supply (which seems unlikely at the levels of pay at which the minimum wage is likely to be pitched), the appropriate sample for considering minimum wage effects on the distribution of income would seem to be employed households. For this sample, Dickens (1998) calculates that 69 percent of workers affected by the UK National Minimum Wage are in the bottom four deciles of the household income distribution.[30]

What the evidence meant for the setting of the UK National Minimum Wage

The evidence referred to above (and other evidence) was widely utilised in the Low Pay Commission's (1998) report to the UK Government. Once the commitment was given to introduce a national minimum wage the evidence was utilised to justify a discussion of what was a pragmatic way of dictating the sensible choice of an initial minimum wage level.

In the wider scheme of things, the economic evidence seems to suggest that a minimum wage set at an appropriate level need not have harmful economic effects. One can clearly think of a situation where there is a range of minimum wages where, up to some critical level, the minimum wage need not have

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[27]Ian Lang spoke of job losses of 950,000; Michael Howard quoted the even more absurd number of 2,000,000 jobs.

[28]In the standard competitive model of the labour market that appears in labour economic textbooks states a minimum wage set above the market clearing wage simply prices workers out of jobs by forcing employers up their labour demand curve, thereby reducing employment and raising unemployment. The only relevant question here is 'how negative (positive) is the negative (positive) impact on employment (unemployment)?'.

[29]This is based on Wages Council panel data between 1976 and 1992. The coefficients on the change in the minimum wage for each of the decile point regressions (which controlled for common macroeconomic shocks) were: 10th percentile .193; 20th percentile .242; 30th percentile .217; 40th percentile .126. All had t-ratios above 2, whereas for the 50th through to the 90th percentile the coefficients were all statistically insignificant. See Table 2 of Dickens, Machin and Manning for more details.

[30]Extending this to individuals in working age households reduces the percentage to 55; and including pensioners lowers it further to 50 percent. Notice all still imply a redistribution, but it is much less marked for the fuller sample. Of course, these calculations do not allow any offsets (e.g. through benefit reductions or the like).

negative consequences. An example, in terms of the relationship between minimum wages and employment, is given in Figure 6.1. The Figure depicts a 'hump-shaped' inverse-U relationship between employment and minimum wages.[31] At lower levels of minimum wages, employment can actually rise, but once one reaches a critical point, employment has to fall. This also signals up the potential consequences of setting a too high minimum wage.

Figure 6.1: *The Effect of the Minimum Wage on Employment*
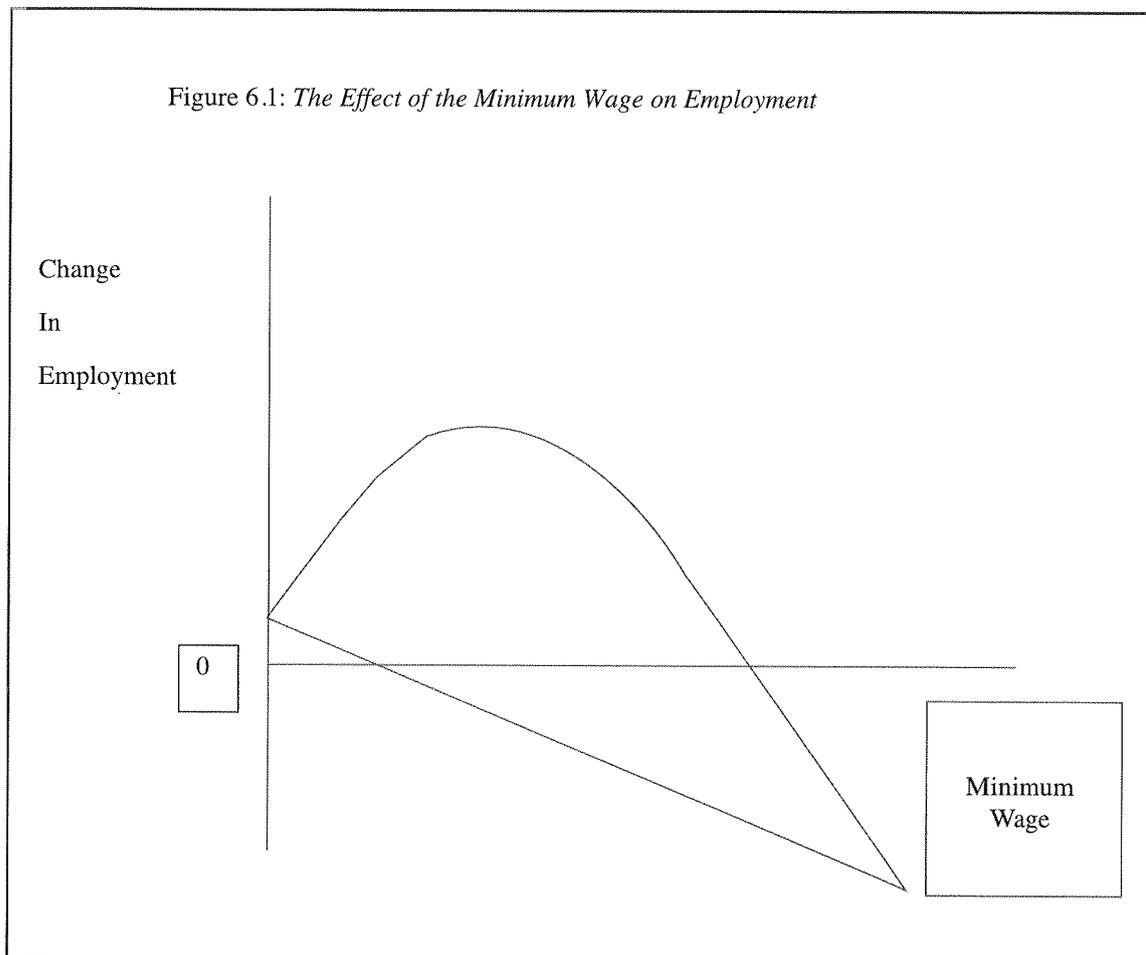
Whilst still controversial in academic circles[32], this framework was clearly adopted in the UK deliberations over setting the level of the minimum wage. It was effectively accepted by both employers' and employees' representatives (notably the Trades Union Congress) in their discussion and recommendations about the introduction of the national minimum wage. The framework also underpins some of the debate about differential rates for youngsters and the potential impact on inflation, which (as discussed below) became probably the two main discussion points about the likely impact of the National Minimum Wage in the UK.

Moreover, the setting of the 'adult' national minimum wage at £3.60 per hour clearly took this into account, and maybe resulted in the exercise of too much caution in setting the national minimum wage so low. This view was clearly espoused in some circles (particularly, though also predictably, by the Trades Union Congress).

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[31]The theoretical rationale for the upward sloping relationship at lower levels of minimum wages is normally justified by appeal to some degree of monopsony power possessed by employers. In older discussions these normally centred around the monopsony power held by a single employer of labour in a given geographical location (the company town). More recent discussions emphasise upward sloping firm labour supply curves due to, for example, labour market frictions of various sorts.

[32]See, for example, the sometimes vitriolic exchange of views in *the Industrial and Labor Relations Review* symposium of July 1995 about Card and Krueger's (1995) controversial US evidence of no job loss associated with minimum wages.

What the UK evidence means for the Irish debate

The UK evidence, and the theoretical notion that minimum wages need not have a detrimental impact on economic outcomes at a suitably chosen level, can clearly be used to inform the debate on the likely impact of a minimum wage in Ireland. There is, however, an important difference in terms of any connection between the proposed UK and Irish National Minimum Wages and the wages set by the old systems of minimum wages that operated in both countries. In the UK if one uprated the old Wages Council rates (at the time of abolition in 1993) to 1998 they are very much in line with the proposed minimum wage. Metcalf (1999) calculates an uprated Wages Council minimum of £3.72, as compared to the £3.60 national minimum wage. Calculations in Ireland seem to show a much bigger relativity: for example, the range of Joint Labour Committee entry-level minimum wages in 1997 (given in Appendix 7 of the report of the National Minimum Wage Commission) was from IR£2.33 to IR£3.91, which lie well beneath the proposed national minimum wage.

Thus, one may wish to exercise some caution about the usage of the UK wages Council evidence for the Irish case. The proposed Irish national minimum wage is not only higher than the UK but it also corresponds to a higher percentile point in the earnings distribution. To draw a clear comparison, the UK minimum wage for adults (aged 22 or more) is 47% of the median hourly wage for people of that age (Source: Labour Force Survey, 1998); the minimum wage for 18-21 year olds is 74% of the 18-21 year old median wage. In Ireland, the IR£4.40 national minimum wage for those aged 18+is estimated (by Brian Nolan) to be 56% of median gross hourly earnings for that group; the sub-minimum wage of IR£3.08 for those aged under 18 may be as high as 90% of the median for them (though of course less than 1% of employees are that young).

6.3 Variations in The Minimum Wage

In the UK debate about introducing a National Minimum Wage there was a lot of discussion, motivated largely by economic concerns, about the question of variations in the minimum wage. Most of this concerned lower rates (and possible exemptions) for younger workers. There are other possible variations one can think of (e.g. (region or industry). Also important here is some discussion of what might be thought of as 'more difficult' groups, often with less labour market attachment, like homeworkers, casual workers (e.g. sleepers in care homes) and those in working in informal sectors.

In this Section I discuss issues to do with variations in the minimum wage, beginning with the basic idea about why one may want certain sorts of variations, then considering specific variations, and finishing with some discussion of more problematic cases.

The Principle

Different types of workers undoubtedly differ in their productivity and usefulness to employers. Were this to be used as a principle for minimum wage setting then the appropriate level of the minimum wage would then also vary with these characteristics. This is an argument for extensive variation in the minimum wage.[33] Against this is an argument based on administrative simplicity: the simpler is the system the more likely it is to be enforced and the less likely it is to be influenced by the lobbying of special interest groups.

Variations by Age

The only variation that will be used in the UK context is based upon age. The economic arguments here are very clear and straightforward. Young workers are at the beginning of their labour market careers and are paid less, so the proportion of young workers affected by a given minimum wage level is far higher than for adults. In the UK context this was particularly true among the under 18 year-olds. For example, a minimum wage set at £3.75 (October 1998 prices) would have resulted in 70 percent of 16-17 year-olds being affected as compared to 18 percent of 21-24 year-olds and 9 percent of 25-29 year-olds.

Clearly, a minimum wage set to have a moderate impact in the adult labour market is likely to have a much larger impact on the youth labour market, while a rate set to have a moderate impact in the youth

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[33]An interesting aside here is that this principle of variation was clearly used in the UK Wages Council system before 1986 (after which each sector had a single minimum wage) and still applies in the Irish Joint Labour Committees.

labour market will have virtually no impact on the adult labour market. It seems that there is a very strong case for having some variation in the minimum wage by age to allow an adult minimum to be set to have a reasonable impact on the working poor without jeopardising the jobs of young people.

This logic was adopted by the UK Low Pay Commission, who advocated a lower minimum wage of £3.20 for those aged 18-20, as compared to £3.60 rate for those aged 21 or more. This was actually the only major recommendation not accepted by the Government which took an even more cautious line than the LPC and stated that the minimum wage will be £3.00 for those aged 18-21 inclusive and the adult rate will apply for those aged 22 plus. The numbers affected and the impact on the wage bill are given in Table 6.2, which clearly reveals the concerns about age-specific variations.

Table 6.2: *The Coverage of the UK National Minimum Wage and Age Variations*

	Number Affected (000s)	Percent Affected	Increase in Wage Bill (%)	Average Increase For Those Affected (%)
All 18+	1,960	9	0.6	30
18-21	225	15	2.4	30
21+	1,815	8	0.6	30
Male full-timers	320	3	0.3	—
Female full-timers	240	25	3.0	—
Male part-timers	340	5	0.7	—
Female part-timers	1,150	21	2.7	—

Source: Taken from Metcalf (1999).

The other issue to do with age variation in the UK context is that age 16-17 workers are treated as exempt and they will not have a minimum wage. This seems a little strange, even given the large proportion of these workers who would be affected by the minimum wage (though the importance of this is clearly tempered by the employment rate amongst workers of this age is very low, and falling, in the UK[34]). Even for those very young workers in the labour market, it seems important that they can see that 'work pays' and that they are valued. Being exempt from the minimum wage may well make them become even more detached from the labour market.

Finally on age variations, it should be noted that most other countries have some variation in the minimum wage by age. In practice, the most notable exception is the United States, not because it does not have a youth rate, but because it has a very limited and little used youth sub-minimum. On balance it probably seems better to have a higher adult rate together with lower rates for young workers. If this is the only source of variation then it keeps the system relatively simple and straightforward to administer and enforce.

In the UK it seems likely that the separate rate for younger workers will be used. The Irish sub-minimum probably has more similarities with the under-utilised US sub-minimum. It covers only 16 and 17 year olds and is set at 70 percent of the rate for 18+ workers (IR£3.08). Whether this is sufficient age variation seems doubtful and the application of the adult rate to 18-21 year olds seems especially problematic.

Other Variations

The UK debate came, rather rapidly, to the conclusion that other variations are much less easy to justify from an economic perspective. For example, regional variations in wages and variation in the proportion of workers who would be affected by the national minimum wage is small compared to the variation by age described above.

A second possibility is variation based upon employer characteristics. Certain sectors and types of businesses (e.g. small businesses) are more likely to be affected by the minimum wage than others. However, to the extent that differences in pay are the result of differences in the characteristics of the workers that should be accounted for by the variation in minimum wage by age outlined above. To allow a lower minimum wage for certain types of employers is effectively to subsidise them out of the pockets

[34]According to Labour Force Survey data the employment rate of 16/17 year olds is only around ¼. This has fallen very markedly since the 1970s, mainly due to much higher staying on rates and (to a lesser extent) rising inactivity and unemployment.

of their workers. To subsidise these employers is not a good idea, but to do it out of the pay of the poorest workers in the economy is even worse. The case for variation on the basis of employer characteristics seems a weak one (at best).

More Difficult Cases

There are a number of more difficult cases to appraise. Some examples are as follows: the self-employed; workers on piece-rates (like homeworkers); tipped workers; workers on Government schemes; workers who are paid for being on call.

· The basic principle adopted by the UK comes from how one feels that the wage is appropriately defined. There are some thorny issues here, but Metcalf (1999) describes how the Low Pay Commission tried to adopt what he calls a 'hybrid definition' that is fair to both employers and employees. This amounts to the following:

Included Components of Pay	*Components of Pay That Do Not Count*
Bonuses, profit-related pay, merit pay and productivity payment	Overtime or shift premia and call out pay
Piece rates	Special allowances for working in dangerous conditions, standby and on-call allowances
Sales commission	London weighting and other location allowances
Tips and gratuities paid to the worker via the employer	Pension and life assurance contributions made by employers
Free accommodation (up to £20 per week)	Subsidised or free meals
	Staff discounts
	Cash tips paid direct to a worker from a customer

Overall the issue of variations in the minimum wage is rather a contentious one as there are big advantages for simplicity in the operation of a country-wide minimum wage system. This, after all, is one of the clear problems with the partial coverage systems that used to operate in both the UK and Ireland. Participants in the UK debate clearly thought that only age variations were large enough to warrant some degree of variation in the National Minimum Wage.

6.4 Macroeconomic Outcomes and Competitiveness

In the UK context discussions about the macroeconomic consequences of the national minimum wage have focused much less upon the jobs impact of a minimum wage and have concentrated on possible inflationary pressures. The lack of focus on the likely impact on aggregate employment has probably emerged because:

(a) the more microeconomic evidence (discussed above in Section 6.2) has questioned results from the older time series literature;

(b) the variability of results and the rather restrictive model specification) emerging from some macroeconometric models of the economy.

There have been two (related) strands to the discussions about inflationary pressures. The first is the impact on the total wage bill. And the second the responses of the Monetary Policy Committee (MPC) in terms of altering interest rates due to the potentially inflationary pressures of the national minimum wage.

The UK minimum wage is likely to directly affect around nine percent of employee, and on average they will find their wages increasing by 30 percent. The wage bill increase corresponding to this is an

increase by around 0.6 percent. The MPC appears to have already built in this fully anticipated wage bill increase into its interest rate setting process.

Calculations for Ireland show a much larger direct wage bill effect, of the order of 1.6 percent. This is because the minimum wage is higher up the wage distribution and partially because 18-21 year olds will receive the adult minimum. Clearly the scope for inflationary consequences is considerably higher in the Irish case as compared to the UK.

The somewhat thorny issue of potential spillover effects higher up the wage distribution emerges here. These wage bill calculations for both the UK and Ireland both assume zero spillovers. Evidence on the extent of spillovers (or knock-on effects) is sparse, but what does exist seems to imply it is probably not that much of a problem. There are several (related) aspects to this:

(i) In the UK employers generally seem happy with the level of the minimum wage;

(ii) In the UK trade unions have not had much to say about restoration of differentials';

(iii) Even if unions had said much unionization rates are still falling in the UK and are at low levels (union density is around 30 percent);

(iv) An ongoing survey of the population of private sector residential care homes in Britain (carried out by myself and Alan Manning at LSE) has asked employers about their views on the national minimum wage and hardly anyone has mentioned spillovers as being important;

(v) A survey of employers by the pay data company Incomes Data Services finds very little evidence of spillovers being important.

6.5 Summary

This chapter has summarised the relevance of the debate about introducing a national minimum wage in the UK for the Irish situation. There are some clear parallels between the subjects that received a lot of focus in the UK case and the ongoing discussion surrounding the introduction of a minimum wage in Ireland. What is also clear is that, at the time of writing, the Irish minimum wage seems likely to be higher than the UK NMW and will have a bigger impact on the overall wage bill and on the distribution of wages. Given this, and the framework outlined earlier in the chapter, there may well be more of a potential for job loss in Ireland than in the UK.

CHAPTER 7

New Firm-Level Data

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7.1 Introduction

The likely response of firms to the minimum wage is central to assessing its impact. Particularly with the impact of the minimum wage varying greatly across quite disaggregated or detailed sectors, information at the level of the firm would be very valuable at this point. Being able to survey the same sample of firms before and after the minimum wage is introduced also offers the best prospect of a reliable evaluation of its actual effects after the event. A substantial new survey of firms has therefore been designed and carried out as part of this study. Section 7.2 provides a description of the survey and its aims. Section 7.3 describes the results from questions relating to the attitudes of employers and their likely responses. Section 7.4 describes the results on the numbers likely to be affected by the minimum wage and the types of firm involved. Section 7.5 summarises the main conclusions.

7.2 Methodology

In this section we consider the methodology used in the survey and subsequent analysis of the data. First, we consider the structure and content of the questionnaire. We then discuss sample design and response rates. Thirdly, we consider the way in which the data were re-weighted. This includes a detailed breakdown, in terms of NACE composition, of the sectoral classification adopted throughout the report. Finally, we discuss the administration of the survey.

The Questionnaire

The questionnaire was designed to collect details on, *inter alia,* current employment size and structure of persons engaged on a full-time and part-time basis, employment structures by hourly pay rates as well as age and gender; the extent of vacancies, hirings, and departures from the enterprise in the 12 months preceding the survey; and direct and indirect questions to assess attitudes and perceptions among businesses to the introduction of minimum wage legislation, as well as views on its likely impact on employment and business activity.

The questionnaire contained a total of 9 sections as follows:

A. Background details and basic classificatory variables (Qs1 - 8b; 15; 16);

B. Indirect questions on perceptions of current labour costs as a constraint to business growth (Qs 9 - 14);

C. Employment structure of persons engaged on a *full-time* basis according to occupational grade; hourly basic pay rates; gender and age composition (Q.s 17A - 18B);

D. Employment structure of persons engaged on a *part-time* basis according to occupational grade; hourly basic pay rates; gender and age composition (Qs. 19A and 19I);

E. Experience over the 12 months preceding the survey of vacancies, hirings and departures of persons engaged in the pay range of £5.50p to £6.50 per hour. (Qs.20 to 22c);

F. Experience over the 12 months preceding the survey of vacancies , hirings and departures of persons engaged in the pay range of £4.50 or less per hour (Qs 23 to 25c);

G. Perceived likely impact on employment and business activity of the introduction of a wage floor (Q.26 to 29);

H. Knowledge among respondents of proposals to introduce minimum wage legislation (Qs30 to 37).

The questionnaire recorded details in respect of the entire business enterprise or firm in contrast to the establishment, outlet or branch. The effective sample was subsequently re-weighted to represent the totality of business *enterprises* in Ireland.

Sample Design and Response Rates

The principal objective of the survey was to provide a representative picture of size and structure of the workforce among private sector employers with particular emphasis on a breakdown of employment in terms of occupational grade and basic pay structures. A random stratified sample of businesses was selected from lists of firms which are maintained in the ESRI. Prior to sample selection these firms were stratified according to sector, size (number of employees) and region. A total of 8 sectors was used for stratification prior to sample selection as follows: building and construction; manufacturing of textiles and apparel; other manufacturing and production; retail; wholesale; banking/property/renting/business services; hotels/restaurants; bars; personal services; other services. Within each sector firms were also stratified according to a number of employees. Firms were stratified by region within each of these broader stratifications. A disproportionate systematic sample was then selected with a view to ensuring that each sector/size stratum would be reasonably represented terms of absolute number of cases in the final effective sample for analysis and reporting.

A total valid sample of 2,330 enterprises was selected.[35] The response outcomes are as outlined in Appendix Table A7.1 below. This shows that a total of 1,062 questionnaires were successfully completed and included in the analysis while a further 27 were returned too late for inclusion. This means our effective response rate was 46 per cent. This is in line with what one might expect for a general sample of the population of firms. A total of 394 firms refused to participate in fieldwork while a further 397 were unavailable for interview throughout that period. This represents 17 per cent in each category. One can effectively take the latter group (unavailable throughout fieldwork period) as a *de facto* refusal. The remaining 19 per cent for firms could either not be located or returned some "other" response outcome.

Re-weighting the Data

Prior to analysis, the 1,062 questionnaires from responding firms were statistically adjusted so as to ensure that the structure or composition of the effective sample was in line with the structure or composition of the population from which it was selected according to a number of important classificatory variables such as size, sector etc. The re-weighting of the data is necessary for two reasons.

First, there may be systematic and differential levels of non-response as between one group of firms and another within the sample. For example, small firms in a given sector may have an above average propensity to participate in surveys of this nature. If this were the case then they would be over-represented in the final sample for analysis and would consequently be contributing "too much" to the aggregate results. Accordingly, one should statistically adjust or re-weight the data to ensure that all subgroups of the population are appropriately represented in the sample, in line with their representation in the overall population.

Secondly, the sample was selected on a disproportionate stratified basis. This means that some size/sector strata were over-represented in the original sample so as to ensure adequate coverage in the final effective sample for analysis. For example, given the Departments concern with sectors such as the manufacturing of textiles and apparel or retail it was decided to over sample from them when selecting the target sample. This over-representation at sample selection was adjusted for in the re-weighting scheme.

In deriving the weights or adjustment factors two related but independent weighting systems were prepared. The first is based on the firm as the entity or unit of analysis. The second is based on the employee. In the latter weighting scheme each firm is interpreted as a group of employees rather than as an entity in its own right.

To derive both sets of weights one has to establish the structure of the population from which the effective sample has been selected. The structure used in this survey was based on size and sector. A

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[35]This excludes firms in the target sample which were identified as having been demolished or closed.

total of 9 sectors and two size categories was used for re-weighting purposes. The size categories were 0-99 and 100+employees for Manufacturing of Textiles and Apparel and Other Manufacturing and Production; and 0-9 and 10+employees for the service sectors and construction. This provides one with a total of 18 strata or size/sector cells in the re-weighting matrix (2 size categories * 9 sectors). Using a number of sources such as the Census of Industrial Production; the Annual Services Enquiries and the Labour Force Survey one can derive the overall structure of the population of relevant businesses in terms of both enterprises (firms) and also employees within the 16 size/sector strata use in re-weighting. This is outlined in Appendix Table A7.2 below.

The classification in that table was used to re-weight the data using a standard ratio weighting technique in which each of the 1,062 responding enterprises was assigned a weight corresponding to the ratio of the population total to the sample total in the relevant cell. In other words, the weight is given as:

$$W_i = P_i/S_i$$

where the $_i$'s refer to the size/sector cells in Table A7.2. P_i is the total number in the population of each cell and the S_i refers to the number in the corresponding cell in the sample which successfully completed the questionnaire and so were included in the analysis. The W_i's are the weights associated with each unit in the sample and it is this which ensures that the sample figures are adequately grossed to population totals.

The weights are derived using two bases viz. (i) the enterprise and (ii) the number of employees. The employee-based weight is used in deriving estimates of *employment* structures, vacancies and employment projections in subsequent sections of the report. The enterprise-based weight is applied in deriving population estimates of the characteristics of *firms* in other sections.

Although weighted, the grossed estimates presented are of course subject to standard statistical sampling variances. These variances will be especially pronounced in the analysis of sub-groups based on a small number of respondents.

As noted above, the survey was re-weighted to reflect the totality of business enterprises in Ireland, in contrast to the establishment, outlet or branch. All information recorded on the questionnaire related to the complete enterprise in all of its branches or outlets throughout the Republic of Ireland.

Survey Implementation

All questionnaires were completed on a personally administered basis which involved an interviewer paying a visit to each respondent and completing the instrument on site. Given the nature of the survey and the potential bias which could be introduced to the sample results by strategic responses personal administration of the survey was essential. In other words, it was important that information was recorded from the respondent in respect of occupational and pay structures as well as details on likely responses to the in introduction of pay floors before terminology such as minimum wage legislation was used directly (as in, for example Qs 30-37). Consequently, it was not possible to leave the survey with respondents for self-completion. In a very small number of the larger companies a specially prepared 4-page section containing Qs 17A to 19I on occupational structures was left with respondents for completion and subsequent collection by the interviewer. This special section was used only in circumstances where the enterprise was so large that it would have been unreasonable and impractical to expect the respondent to have collated details from personnel and other files in the course of the interview.

Survey forms were returned to the ESRI as they were completed for editing, checking and data entry. At each of these stages each questionnaire was carefully checked to ensure completeness and internal consistency of the data provided. By the this latter we are referring to consistency checks to ensure that for example, the figures on total numbers engaged on a full-time and part-time basis recorded at Q.7 reconciled at all stages with the detailed breakdowns of persons engaged at Qs 17A through 19I. Where inconsistencies were apparent these were resolved by phone follow-up with the respondent.

7.3 Knowledge of and Views on the Likely Impact of the Minimum Wage

In this section we examine firms' views on the likely impact of the introduction of a minimum wage as well as their overall knowledge of the proposals issued to date. First, we consider the firms' spontaneous

views on current labour costs as a barrier to business expansion especially in a relative context as compared to other problems facing businesses today. Secondly, we discuss firms' responses to an increase in their operating cost. Thirdly, we examine their possible reactions in a number of different areas of business operations to the introduction of a wage floor. Fourthly, we consider firms' knowledge of the proposals issued to date on the introduction of a minimum wage.

Labour Costs as a Perceived Barrier to Business Expansion

Before directly examining the likely potential impact of the introduction of the minimum wage an attempt was made to indirectly measure the importance respondents spontaneously assigned to labour costs and, particularly, to the importance of labour costs as possible constraint on business expansion. To get an indirect measure of the perceived importance of labour costs, respondents were asked to record whether or not their business had grown, remained constant or declined in the 12 months preceding the survey. Companies which had experienced an increase in business which was not matched by an increase in workforce were then asked why employee numbers did not grow in line with business volumes. This latter question was asked in an open-ended fashion in which the respondent could provide a fully spontaneous answer.

Table 7.1 details trends in business and employment growth in the 12 months preceding the survey. One can see, for example, that 54 per cent of firms stated that their volume of business had increased, while 37 per cent said that it had remained constant over that period. Further, one can see that 27 per cent of firms said that their workforce had increased in the same period while 66 per cent said it had remained the same.

Table 7.1:   *Firms classified by (a) changes in the volume of their business and (b) changes in their workforce over the 12 months preceding the survey.*

In last 12 months	Sector								Total
	Building and Con- struction	Manuf. Textiles & Apparrel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
	(Per Cent)								
(a) Volume of business									
Increased	54.8	48.6	60.7	52.1	48.4	66.9	47.8	50.0	54.2
Stayed the same	36.8	28.6	28.3	38.9	39.2	29.0	39.3	43.8	37.2
Decreased	8.3	22.8	11.0	9.0	12.4	4.0	12.9	6.1	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(b) Workforce									
Increased	40.1	21.0	36.9	23.7	27.1	30.3	26.0	21.8	27.4
Stayed the same	56.8	55.1	48.7	67.6	59.3	61.8	73.1	77.9	66.4
Decreased	3.1	23.9	14.4	8.6	13.6	7.9	0.9	0.3	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 7.2 presents a classification of firms according to changes in their volume of business by changes in the size of their workforce. From this one can see that, for example, 25 per cent of firms in aggregate had experienced a growth in both the volume of their business and also in the number of persons employed. A further 32 per cent of all firms said their volume of business had increased while the size of their workforce had remained constant and, finally, 2 per cent experienced a fall in both volume of business and size of workforce. This means that in 59 per cent of enterprises (i.e. those along the leading diagonal of the table) the volume of business moved in the same direction as the numbers employed.

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Table 7.2: *Firms classified according to changes in the volume of their business in the 12 months preceding the survey by changes in the size of their workforce*

Volume of Business	Size of Workforce			Total
	Larger	Stayed the same	Small	
Increased	24.7	27.9	1.9	54.4
Stayed the same	2.4	32.3	2.5	37.2
Decreased	0.4	6.2	1.8	8.4
Total	27.4	66.4	6.2	100.0

In 30 per cent of companies, however, the volume of business increased but the size of the workforce either remained constant or actually fell. This group of firms was asked to explain, in an open-ended question, whey they did not increase their workforce in view of the increase of business. The overall responses are shown in Table 7.3. We see that the most frequently cited reason for not expanding employment in line with business growth was existing spare capacity, or a general statement that there was no need to given current staffing levels or that productivity/efficiency etc. could be increased. This response was given by just over 71 per cent of respondents. The next most frequently recurring response was related to skill shortages or difficulties in recruiting staff — recorded by 8 per cent of respondents. Only 7.4 per cent of firms said that their business growth was not matched by an increase in the workforce due to some factors related to labour cost or not being able to afford to take on the additional staff.

The significance of these figures is the degree to which they suggest that, at least in respect of the year preceding the survey, labour costs *per se* were not seen as a limiting constraint by firms which did not experience employment growth in line with general business growth. The spontaneous responses, at least in respect of the period in question, indicate that issues related to spare capacity and increases in productivity were seen as by very substantial proportions of firms as of more significance than labour costs. It could be that some firms pursued productivity growth because labour costs were so high as to discourage expansion of the workforce, but this would not apply where there was spare capacity. In some of these firms spare capacity may also now be fully taken up, so labour costs could be perceived as more important in hindering future business growth.

Table 7.3: *Reasons given for the not expanding their workforce, firms which experienced an increase in the volume of work over the previous 12 months*

Reason for not expanding workforce	Per cent of Firms
Spare capacity/no need/increased productivity	71.3
Difficulties in recruitment	8.3
Could not afford to	7.4
Subcontracting	2.2
Seasonal Nature of Business	0.9
Other	10.0
Total	100.0

Firms' Ranking of Problems facing Business

To gain some more insight into firms' perceptions of the relative importance of basic labour costs, we asked them to rank seven possible difficulties facing companies in Ireland today in terms of their potential as a problem. The problems in question were: Poor Industrial Relations; Difficulties in Recruiting Staff;

Employer's PRSI; Basic Labour Costs; Unfair Competition; Corporation Taxes; Availability of Affordable Equity and Working Capital. Table 7.4 shows the ranks assigned to each of the potential problems. For each of these seven issues, the table shows the percentage of firms assigning to it a rank of 1, 2, 3 and so on. In addition, we present the cumulative percentage across the ranks from 1 to 7. Thus, for example, one can see that 1.8 per cent of firms assigned a rank of '1' to Poor Industrial Relations, a further 3.4 per cent a rank of '2', 3.3 per cent a rank of '3' and so on. These cumulative percentage figures for each item, therefore, simply provide cumulated percentages across each foregoing rank from 1 to 7. For example, a total of 8.6 per cent of firms assign to Poor Industrial Relations a rank of '1', '2' or '3'.

The figures in the table indicate that, of the seven items, Difficulties in Recruiting Staff is assigned a rank of '1' by the largest percentage of firms (just over 38 per cent) while 52 per cent assign a rank of 1 or 2 to this problem. One can see that three of the seven potential problems are consistently ranked as '1', '2' or '3' by 60-64 per cent of firms. These are Basic labour Costs/Wages (64 per cent); Recruiting Staff (60 per cent) and Employer's PRSI (59 per cent). In contrast, Poor Industrial Relations is clearly seen as not being a significant problem (at least in the relative context set by the question). Indeed one can see that just over half of firms (52 per cent) assign it a rank of '7'.

Very substantial proportions of firms thus mentioned basic labour costs as being of significance relative to the other 6 potential problems presented on the questionnaire. Almost two-thirds of firms assigned a rank of '3' or higher to this item. It must be noted that the frame of reference in making this comparison is the 7 items actually presented on the questionnaire. The inclusion or exclusion of particular items in the question could well have changed the relative rankings assigned by firms. Furthermore, the possibility of strategic response behaviour must also be kept in mind in interpreting these responses.

Table 7.4: *Ranking assigned to seven possible difficulties in terms of their importance as they face a company in business today*

Rank	Poor Industrial Relations		Recruiting Staff		Employer's PRSI		Basic Labour Costs/Wages		Unfair competition		Corporation Taxes		Affordable Equity and Working Capital	
	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %	%	Cum. %
	(Per cent of firms)													
1	1.8	1.8	38.3	38.3	15.5	15.5	17.6	17.6	16.3	16.3	12.9	12.9	9.9	9.9
2	3.4	5.3	13.3	51.7	23.1	38.6	26.1	43.7	10.0	26.3	19.7	32.7	14.0	23.9
3	3.3	8.6	8.8	60.5	20.8	59.3	20.6	64.3	10.3	36.6	20.5	53.2	17.4	41.3
4	5.2	13.8	9.4	69.8	17.2	76.6	17.9	82.2	13.1	49.7	18.9	72.1	13.7	55.1
5	9.7	23.5	8.1	77.9	13.2	89.8	10.4	92.6	17.6	67.2	14.4	86.6	20.2	75.3
6	24.2	47.7	14.4	92.3	7.8	97.6	5.1	97.7	16.8	84.0	9.9	96.4	14.9	90.2
7	52.3	100.0	7.7	100.0	2.4	100.0	2.3	100.0	16.0	100.0	3.6	100.0	9.8	100.0

Firms' Response to an Increase in Current Operating Costs
Respondents were asked to state how they thought they would, in general, respond to a 5 per cent increase in their operating costs. They were presented with 4 pre-coded outcome categories as follows: pass the increase in costs on in full to their customers; partially pass the increase in costs on to their customers and partially absorb it in their profits; absorb the increase in full in their profits; other response. The responses to the question are presented in Table 7.5.

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Table 7.5: *Firms classified according to their response to a 5 per cent increase in operating costs*

Response	Sector								Total
	Building and Construction	Manuf. Textiles & Apparrel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
	(Per Cent)								
Pass on in Full	43.2	23.6	26.4	38.6	23.6	31.9	21.7	33.4	33.0
Pass on in Part	41.7	51.1	44.4	33.6	50.5	44.0	64.7	39.5	43.4
Absorb in profits	15.1	19.3	22.5	23.2	18.6	21.7	13.1	19.7	19.8
Other	0.1	6.0	6.8	4.6	7.3	2.4	0.5	7.4	3.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Exactly one-third of firms said that they would pass the increase in costs on in full to the customer; a further 43 per cent said they would pass it on in part while 20 per cent say they would absorb it in full in the profits. In general, there is relatively little systematic variation as between one sector and another, except that in the Building/Construction sector only 15 per cent of firms said that they would absorb the increase completely in their profit. This may reflect the highly buoyant nature of the construction sector over recent years and the highly price insensitive or inelastic nature of the market in which they currently operate.

Perceived Impacts of the Introduction of an Hourly Minimum Wage of £4.50

To assess firms' views on the likely impact of the introduction of a minimum wage, respondents were asked to consider a situation in which the hourly wage of adult employees (i.e. those aged 18 years and over) who are currently being paid less than £4.50 per hour were to rise to a minimum basic hourly rate of £4.50.'(That figure was used because subsequent questions probe respondents' knowledge of the actual level at which the minimum is to be set.) Respondents in firms currently employing persons at £4.50 or less per hour were then presented with 11 statements relating to various potential impacts of the introduction of this £4.50 minimum hourly rate, and asked to state how likely each of these was in their business.

Table 7.6: *Firms classified according to whether or not they have any employees who are paid less than £4.50 per hour*

Employees paid less than £4.50 per hour?	Sector								Total
	Building and Construction	Manuf. Textiles & Apparrel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
	(Per Cent)								
Yes	22.5	61.3	40.2	51.4	32.2	19.4	79.7	27.8	42.4
No	77.5	38.7	59.8	48.6	67.8	80.6	20.3	72.2	57.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 7.6 shows that 42 per cent of firms said that they currently employed at least some staff at £4.50 or less per hour. There was quite substantial variation in this rate between sectors. Higher percentages of firms with workers at this pay level are in Hotels/Restaurants/Bars; Manufacture of Textile and Apparel; and Retail. A total of 80 per cent; 61 per cent and 51 per cent of firms respectively in each of these three sectors employ at least some staff at £4.50 per hour or less. This contrasts for example, with 19 per cent in Banking, Finance and Business services and 23 per cent in Building & Construction.

These 42 per cent of firms which had employees in this lowest pay grade were asked for their views on how likely or otherwise each of the 11 possible outcomes on business activities were as a result of introducing an hourly minimum wage of £4.50. Table 7.7 summarises the responses. In interpreting these figures, once again some element of strategic response may be involved. By this stage in the questionnaire it would have been relatively obvious to the respondent that the specific focus of the survey was on issues

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related to the introduction of a minimum wage, and this may have influenced the replies given by some respondents.

Cut Back on Profit Margins

A total of 60 per cent of firms felt that this would be likely, 30 per cent felt it would be unlikely. In general, there was little variation by sector in this response. We noted above in relation to the question on the firm's response to an increase in operation cost that the highest percentage of firms which said that they would pass it on to their customers was in the Construction sector. Similarly, in this question the highest percentage stating that they would be unlikely to cut back on profit margins was in Construction.

Improve Staff Morale:

Just under 62 per cent of firms indicated that they felt that the introduction of the minimum wage would improve staff morale, 20 per cent indicated that they felt it was unlikely to do so. Responses in the Retail; Hotel/Restaurant/Bar; and Personal & Other Service Sectors appear to be somewhat more optimistic than those in other sectors in terms of its effect on staff morale, with a substantially lower percentage of respondents in all three sectors indicating that they felt the increase in wage level would be unlikely to improve staff morale.

Substitution of Labour with capital:

Only 8 per cent of firms in aggregate felt that the substitution of labour with capital would result from the introduction of the minimum wage while just under 80 per cent felt that this was unlikely to be the outcome. As one might expect, a much higher percentage of firms in the two manufacturing sectors indicated that it was "likely" that substitution of labour with capital would be a result of minimum wage legislation.

Increase in Productivity:

A total of 22 per cent for firms felt that productivity increases were likely to arise from the introduction of the minimum hourly wage rate while 55 per cent felt this was "unlikely" to happen.

Result in the company Going Out of business:

One can see that 17 per cent of firms recorded that it was likely that the introduction of the minimum wage would result in them going out of business. The rate was particularly high in the Manufacture of Textile & Apparel and also Hotel/Restaurant/Bar (37 and 25 per cent respectively). In contrast, it was particularly low in Building & Construction (1.4 per cent).

Retrain/Upgrade Work of current Staff:

Just over one-quarter (27 per cent) of firms said that they would retrain or upgrade the work of current low-paid staff in response to the introduction of a minimum wage. Almost 50 per cent said it was unlikely that they would do so. The rate of this hypothesised retraining seems to be lowest in Banking, Finance & business Services (4 per cent) and Building & Construction (12 per cent).

Table 7.7:   *Firms which have employees currently being paid less than £4.50 per hour classified according to their perceived responses to the hourly wage of adult employees (18 years and over) being raised to a minimum of £4.50 per hour*

Effect of raising adult hourly wage to £4.50 per hour	Sector								Total
	Building and Construction	Manuf. Textiles & Apparrel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
	(Per Cent)								
Cut back Profit Margins									
Likely	47.8	78.7	58.1	61.5	61.5	61.2	58.7	60.5	59.7
Neither	1.7	4.6	8.9	7.2	7.8	1.3	16.4	13.9	9.8
Unlikely	50.5	16.7	33.0	31.3	30.7	37.5	24.9	25.6	30.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Effect of raising adult hourly wage to £4.50 per hour	Sector								Total
	Building and Con-struction	Manuf. Textiles & Apparrel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
(Per Cent)									
Improve Staff Morale									
Likely	50.2	41.7	54.7	66.8	52.1	62.5	56.9	71.9	61.8
Neither	12.5	25.0	19.7	13.7	13.0	2.6	26.4	26.1	17.9
Unlikely	37.3	33.3	25.6	19.5	35.0	34.9	16.7	2.1	20.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Substitution Labour with Capital									
Likely	1.0	21.4	25.3	4.8	8.8	2.0	8.5	15.1	7.7
Neither	1.7	13.6	9.5	13.5	5.1	7.9	17.6	14.6	13.1
Unlikely	97.2	65.0	65.2	81.7	86.0	90.1	73.9	70.3	79.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Increase Productivity									
Likely	23.0	25.1	23.0	18.5	11.9	26.3	25.2	25.2	22.0
Neither	4.2	28.4	13.8	22.9	13.4	25.7	29.0	26.1	23.3
Unlikely	72.8	46.4	63.2	58.6	74.7	48.0	45.7	48.7	54.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Result in going out of Business									
Likely	1.4	37.0	13.0	14.2	13.6	10.5	24.6	18.7	16.7
Neither	11.9	9.7	10.0	7.6	6.8	11.2	17.3	20.4	12.3
Unlikely	86.7	53.2	77.0	78.2	79.6	78.3	58.1	61.0	71.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Retrain/ Upgrade Staff									
Likely	12.3	36.6	32.6	32.5	28.6	3.9	29.3	27.6	27.4
Neither	13.7	18.1	20.0	21.0	14.0	26.3	27.9	29.5	23.5
Unlikely	74.0	45.4	47.4	46.5	57.4	69.7	42.8	42.9	49.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Increase Subcontracting									
Likely	3.1	30.8	15.4	5.7	6.6	1.5	2.1	8.1	5.1
Neither	1.4	7.6	11.8	7.8	9.5	20.1	17.5	14.9	12.3
Unlikely	95.4	61.6	72.8	86.6	83.9	78.4	80.4	77.0	82.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No Effect on Business									
Likely	69.7	34.3	32.6	41.1	32.3	42.8	36.7	33.8	40.1
Neither	1.4	9.7	14.7	15.9	16.7	8.5	32.8	28.9	20.5
Unlikely	28.9	56.0	52.7	43.0	51.0	48.7	30.5	37.3	39.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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Effect of raising adult hourly wage to £4.50 per hour	Sector								Total
	Building and Con-struction	Manuf. Textiles & Apparrel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
	(Per Cent)								
Reduce Non-Wage Labour Costs									
Likely	2.1	22.3	12.6	19.7	9.9	10.5	12.0	22.5	15.1
Neither	11.5	24.2	9.6	14.6	4.1	1.3	40.1	27.2	21.2
Unlikely	86.4	53.5	77.8	65.7	86.0	88.2	47.8	50.3	63.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Improve Industrial Relations									
Likely	26.1	29.0	33.9	38.5	38.3	65.0	30.5	56.0	38.9
Neither	24.1	30.0	19.9	14.6	11.9	11.4	36.1	21.8	22.1
Unlikely	49.8	41.0	46.3	46.9	49.9	23.6	33.4	22.1	39.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Reduce Staff Turnover									
Likely	25.1	36.1	24.8	26.8	24.7	38.2	24.1	41.4	28.2
Neither	12.9	34.7	23.0	23.4	19.3	26.3	40.4	23.2	27.8
Unlikely	62.0	29.2	52.2	49.8	55.9	35.5	35.5	35.4	44.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Increase in Subcontracting:

Perhaps somewhat surprisingly, the introduction of a minimum wage appears not to be associated by firms with an increase in subcontracting. In aggregate terms, only 5 per cent of businesses felt it was "likely" that it would result in subcontracting while 83 per cent in aggregate felt that it would be "unlikely" to do so. In relative terms, the two manufacturing sectors had the highest percentages of firms which indicated that it was "unlikely" to result in subcontracting.

No effect on Business:

Overall, firms seem to be fairly evenly divided on this statement. A total of 40 per cent said it was "likely" that the introduction a minimum wage would have no effect on business while a further 39 per cent felt that this statement was "unlikely". The Building & Construction sector seems to most strongly hold the view that a minimum wage would have no effect on business (70 per cent said that this was "likely" to be the case). Once again, this may, at least in part, reflect the current strength of business activity in that sector.

Improve Industrial Relations:

Exactly equal percentages (39 per cent) of firms, in aggregate, indicated that they felt a minimum wage would be "likely" to improve industrial relations or would be "unlikely" to do so. The Banking, Finance & Business Services sector as well as Personal & Other Services have a slightly more positive outlook than other sectors in this regard.

Reduce Staff Turnover:

A wage improvement for lowest paid workers could increase the chances of staff retention and conse-quently, reduce turnover. Overall, just over 28 per cent of businesses feel that the introduction of a

minimum wage would be "likely" to reduce staff turnover while 44 per cent felt that it would be "unlikely" to do so.

Restoration of Wage Differentials

One possible consequence of the introduction of a minimum wage is the insistence by staff and/or unions on a restoration of pay differentials, at least at the lower end of the pay scales — "spill-over". Table 7.8 outlines details on the extent to which they feel that this would, in fact, be the case. One can see that just over 56 per cent of firms consider that pressure for such a restoration would result from the introduction of an across-the-board minimum wage. This view is most widely held by firms in two sectors viz. the Manufacturing of Textiles & Apparel and Hotels/Restaurants/Bars.

Table 7.8: *All firms which currently have employees paid less than £4.50 classified by whether or not they feel that if the hourly rate of their lowest adult employee were raised to £4.50 per hour staff and/or unions in the company would insist on a restoration of pay differentials, at least at the lower end of the pay scale*

Insist on restoration of pay differentials	Sector								Total
	Building and Con-struction	Manuf. Textiles & Apparel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
	(Per Cent)								
Yes	49.6	72.5	59.0	50.8	44.4	33.1	78.0	51.9	56.2
No	51.4	27.5	41.0	49.2	55.6	66.9	22.0	48.1	43.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Knowledge of Proposals to Introduce a Minimum Wage

At the end of the questionnaire, respondents were asked direct questions on their knowledge of the minimum wage. Table 7.9 presents results to the direct question on whether or not the firm had heard of any proposals on a minimum wage. One can see that 72 per cent of firms answered in the affirmative. Although this rate is marginally lower in the Building & Construction and Hotel/Restaurant/Bar Sectors one can see that substantial majorities of no less than two-thirds of firms in all sectors indicated on the questionnaire that these had heard of the relevant proposals.

Table 7.9: *Firms classified according to whether or not they have heard about any proposals on a minimum wage*

Heard about minimum wage?	Sector								Total
	Building and Con-struction	Manuf. Textiles & Apparel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
	(Per Cent)								
Yes	65.7	81.0	79.1	70.4	79.9	78.7	67.3	70.4	71.9
No	34.3	19.0	20.9	29.6	20.1	21.3	32.7	29.6	28.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The 72 per cent of firms which who said that they had heard about the introduction of the minimum wage were asked to record how much per hour the proposed wage would be. The results are presented in Table 7.10. Two points should be noted in interpreting these figures. First, a number of preceding questions on the survey referred to the impact on business of the introduction of a minimum wage of

£4.50 per hour. This may have affected the percentage of firms citing £4.50 in answer to the question on the proposed *level* of the wage. Secondly, in answering questions of this nature one always finds that the distribution assumes the form of a fairly regular "step function", with rounded figures such as £3.50, £4.00, £4.50 etc. being quoted on a more frequent basis than intervening figures.

From Table 7.10 one can see that only 8 per cent of firms correctly cited £4.40 per hour while a further 31 per cent mentioned £4.50 per hour. A total of 26 per cent indicated on the questionnaire that they did not know the level. One can perhaps discount a proportion of those who mentioned £4.50, since their answer may have been conditioned by foregoing questions which mentioned that amount. The figures then suggest that only a relatively small percentage of those saying they had heard the minimum wage were able to say to within +/− 10p the level at which it would be introduced.

Table 7.10: *Firms which claimed to have heard about proposals on a minimum wage classified according to their views on how much per hour the proposed minimum wage is*

Hourly Rate	Per Cent of firms
0-£3.49	1.0
£3.50	2.5
£3.51-£3.99	1.6
£4.00	8.5
£4.01-£4.39	2.5
£4.40	7.7
£4.41-£4.49	0.1
£4.50	30.8
£4.51-£4.99	2.7
£5.00	15.5
£5.01 +	1.6
Don't Know Level	25.6
Total	100.0

Relevant respondents were further asked how much per hour is proposed for the sub-minimum wage for young persons and trainees. The results are shown in Table 7.11. From this one can see that 88 per cent of relevant respondents said that they either did not know or had never heard of the sub-minimum rate. Only 5 per cent of respondents who indicated that they had heard of the minimum wage proposals estimated that the sub-minimum rate would be in the fairly broad band of £3.00-£3.99.

Table 7.11: *Firms classified according to their view on the level of the sub-minimum wage for young persons and trainees*

Hourly Rate	Per Cent of firms
0-£2.99	3.8
£3.00-£3.99	5.0
£4.00	3.3
Don't Know	65.6
Never heard of it	22.3
Total	100.0

As an indication of knowledge regarding its introduction, firms who said they had heard about it were asked in which year it is planned to implement the proposals. Table 7.12 shows that over half did not know, while 26 per cent correctly mentioned the year 2,000, representing about 19 per cent of all firms in the sample.

Table 7.12: *Firms classified according to their view on when the proposed minmum wage will be introduced*

Year of Introduction	Per Cent of firms
1998	0.3
1999	18.5
2000	26.1
2001	0.6
2002	0.3
Don't Know	54.1
Total	100.0

Finally, these firms were asked whether or not their company had taken any steps so far to prepare for a situation where a minimum wage operates. Table 7.13 shows that 11 per cent of enterprises answered in the affirmative. This rate was markedly highest in Hotels/Restaurants/Bars and the two manufacturing sectors.

Table 7.13: *Firms classified according to whether or not taken steps to prepare for minimum wage*

Heard about Minimum Wage?	Sector								Total
	Building and Construction	Manuf. Textiles & Apparrel	Other Manuf. & Production	Retail	Wholesale	Banking, Finance & Business Services	Hotel/ Restaurant/ Bars	Personal & Other Services	
	(Per Cent)								
Yes	9.3	22.1	15.7	9.5	9.3	5.6	25.8	8.4	11.4
No	90.7	77.9	84.3	90.5	90.7	94.4	74.2	91.6	88.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

7.4 Workers Under £4.50

One of the primary purposes of the firm survey was to have an estimate of the overall numbers likely to be directly affected by the minimum wage, and of the sectors most affected, from an alternative source to the household survey described in Chapter 2. In this section we make use of the information provided by employers to look at the number of employees in the survey being paid £4.50 or less, and to characterize them and the establishments in which they are located. The key finding is that workers on an hourly wage of less than £4.50 constituted 21% of all private-sector employees in the firm survey.

This cannot be compared directly with the estimates presented in Chapter 2 for the numbers projected to be below the minimum wage, because the latter a) related to £4.40, b) used a lower cut-off for those aged under 18, c) projected forward to 2000, and d) included public-sector workers for whom the incidence of low pay is very low. The household survey can however be used to produce an estimate of the number of private sector employees under £4.50 at the date of the firm survey, in the manner described in Chapter 2 but projecting forward to end-1998 rather than 2000 and confining attention to the private sector. This household survey-based estimate turns out to be about 24%, indicating a high level of agreement between the two sources. The slightly higher estimate of low pay from the household survey could reflect some over-estimation by employees of hours worked, mentioned as a possibility in Chapter 2, but the difference could also arise from a variety of other factors including sampling error.

A more detailed breakdown of the incidence of low pay in the firm survey is given in Table 7.14, which classifies the low paid into three wage ranges: those earning £4.00-£4.50, £3.00-£3.99 and less than £3.00 an hour. The first column indicates that approximately 13% of private sector employees are being paid between £4.00 and £4.50 an hour, approximately 7% receive an hourly wage between £3.00 and £3.99, while only 1.5% of private sector employees receive an hourly wage of less than £3.00. The second

column shows the composition of low paid by wage category. We see that 60% of those earning less than £4.50 an hour have an hourly wage between £4.00 and £4.50. Almost one-third earn between £3.00 and £4.00 an hour, while only 7% of low paid workers earn less than £3.00 an hour.

Table 7.14: *Classification of low paid by pay range, Private sector employees*

Pay Range	% of the population	% of all those earning less than £4.50
£4.00-£4.50	12.6	60.0
£3.00-£3.99	6.9	32.8
Less than £3.00 an hour	1.5	7.2

Table 7.15 shows the risk and incidence of low pay by gender. We can see from this table that women face a greater risk of being paid less than £4.50 than men. The risk of being low paid is almost twice as high for women than men. The second column of the table also shows that women account for a disproportionately large percentage of the low-paid. While female employees account for approximately 40% of all private sector employees, they constitute 57% of those paid less than £4.50 an hour.

Table 7.15: *Classification of private sector employees by gender, Private Sector*

Gender	% of all employees	% falling below £4.50	% of all those below £4.50
Male	60.1	15.0	43.0
Female	39.9	30.4	57.0

Table 7.16 classifies workers into 3 age groups: those aged 18 or under, those aged between 18 and 25 and those age 26 or more. It shows that while the majority of the workforce are aged 19 or over the risk of being low paid is significantly higher for younger workers. Over 80% of those workers aged 18 or less currently receive an hourly wage rate of 4.50 or less. This compares to 11% of workers aged 26 or more. The final columns shows that while younger workers are most at risk of being low paid they account for less than 20% of all those who are low paid, due to the small number of such workers in the workplace. 47% of those paid less than £4.50 an hour are aged between 19 and 25 while 34% 26 or older. There are more very young workers, and they comprise a larger proportion of the low paid, than in the household survey based results reported in Chapter 2.[36]

Table 7.16: *Age Classification of Private Sector Employees*

Age Group	% of all employees	% falling below £4.50	% of all those below £4.50
Aged 18 or less	4.8	80.4	18.3
Aged 19-25	29.1	34.2	47.3
Aged 26 or more	66.1	11.0	34.4

Table 7.17 provides a breakdown of the sample by part-time versus full-time status where full time is defined as working 30 hours or more a week. Part-time workers face a much greater risk of low pay than those who work full-time. Almost 65% of part-time workers covered by the survey were working for less than 4.50 an hour, compared to only 13.7% of full-time workers. However, the greater risk of being low paid does not mean that part-time workers constitute the majority of low paid workers, since they account for less than 15% of the total population. The results in the final column show that the majority of those

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[36] The analysis in Chapter 2 looked at those aged under 18 and used a lower wage cut-off for them, whereas here the cut-off is 18 and under with no age differentiation in the wage. However, when we estimate from the household survey the numbers projected to be aged 18 and under falling below £4.50 in early 1999, we get a figure of about 12% compared to the 18% reported here from the firm survey.

currently being paid less than 4.50 an hour are full-time workers. The firm survey does however show part-time employees forming a higher proportion of the low paid than the household survey results.

Table 7.17: *Low pay by Part-time/Full-time status, Private Sector*

Employment Status	% of those in population of employees	% falling below £4.50	% of all those below £4.50
Part-time	14.6	64.4	45.0
Full-time	85.4	13.7	55.0

The survey of establishments not only provides information on those affected by the minimum wage but is also a valuable source of information concerning the characteristics of the occupations and establishments in which low paid workers are found. Table 7.18 provides a breakdown of the low paid by occupational status. The first column shows that the distribution of employees across the occupations chosen is relatively uniform, the largest being production operatives who account for 17% of all workers and the smallest being Science and Computer technicians which account for 4% of employees. However, much more significant differences emerge when we analyse the occupational classification of the low paid. The second column suggests that there are three occupations that are particularly vulnerable to low-pay. These are Sales jobs, Personal services and labourers. In each of these occupations at least one-third of workers are currently paid less than £4.50 an hour, with the figure being as high as two-thirds for those in the personal services. The first two of these occupations also account for 56% of all those who are low paid despite accounting for only 21% of the total population. The other category which contributes significantly to the low paid are production operatives who account for 17% of the low paid but they also account for 17% of total employees.

Table 7.18: *Occupational Classification of private sector employees*

Occupation	% of all employees	% falling below £4.50	% of all those below £4.50
Managers/Proprietors	15.7	4.5	3.3
Engineering/Science/Computer/ Other Professionals	6.2	0.6	0.1
Engineering/Science and Computer Technicians	3.8	1.1	0.2
Clerical/Secretarial	13.7	7.5	4.9
Skilled Maintenance/Skilled Production	10.1	14.6	7
Production Operatives	17.1	20.8	16.9
Transport and Communications	5.9	8.2	2.3
Sales	13.3	49.7	31.4
Personal Services	18.1	63.6	24.4
Labourers	6.1	32.5	9.4

Table 7.19 turns from an occupational breakdown of employees to a breakdown of low paid workers by industry. A detailed description of these sectors was given in Section 7.2 above. Several important features emerge from this analysis. There are three sectors within which workers face a relatively high probability of being low paid: 33% of all workers in the textiles and apparel industries are currently paid less than 4.50 an hour, almost 39% of employees in the retail sector receive less than £4.50 an hour and almost 50% of workers in the hotel, restaurant and bar sectors receive an hourly wage of less than £4.50. The final column of the table shows that it is the latter two of these sectors that account for the bulk of low paid workers. Between them these two sectors account for 57% of low paid workers. These results are consistent with the occupational breakdown provided in Table 7.19. Workers in the textile and apparel sector make up a relatively small proportion of those being paid less than £4.50 because they account for only 2% of the total number of employees.

Table 7.19: *Industry Breakdown of private-sector employees*

Sector	% of all employees	% falling below £4.50	% of all those below £4.50
Building and Construction	7.7	9.1	3.3
Manufacture of Textiles and Apparel	2.0	33.2	3.3
Other manufacturing and production	25.8	9.7	11.8
Retail	17.0	38.8	31.3
Wholesale	5.1	22.5	5.5
Prop/Rent/Business Services	16.4	10.7	8.3
Hotels/Restaurants/Bars	11.1	49.3	26
Personal and Other Services	14.9	14.9	10.5

Sample numbers limit the extent to which a more disaggregated sectoral breakdown can be made. However, as in the results from the household survey presented in Chapter 2, we can look at the NACE 2-digit categorisation and report some broad results for those sub-sectors containing at least 20 cases. The sub-sectors this identifies as having a relatively high proportion of their labour force falling below £4.50 per hour turn out to be for the most part those over-sampled in the survey and already obvious from Table 7.19 — notably textiles and apparel, retail trade, and hotels and restaurants. However the greater disaggregation shows some sub-sectors not separately distinguished in that table which do each appear to have a relatively high percentage below £4.50 per hour, namely textiles (NACE 17) and apparel (NACE 18), sale, maintenance and repair of motor vehicles and sale of automotive fuel (NACE 50) and other retailing (NACE 51), and other personal services (NACE 93). This is once again consistent with the sectoral pattern which emerged from the household survey data reported in Chapter 2.

Concern has been expressed that establishments affected by the introduction of a minimum wage are more likely to be smaller than those not affected, and on this basis some have argued for the minimum wage to be differentiated by firm size. Table 7.20 shows the distribution of establishment size for the entire sample, and then for those firms containing at least one minimum wage worker. The average establishment size in the sample was 16.5 workers. However, the percentiles of the distribution show that average firm size may not be the appropriate measure to use for this distribution. A more appropriate measure may be the median establishment size. The second row of the table shows that 50% of all establishments employ no more than 5 workers. When we compare this to the firms affected by the minimum wage we see that the corresponding figure is slightly larger at 6 workers. Thus smaller establishment are no more likely to contain a minimum wage worker than are bigger firms.

Table 7.20: *Distribution of Establishments with minimum wage workers by size*

Summary Measure	Distribution for the entire sample	Distribution for firms with at least one minimum wage worker
Average Establishment Size	16.5 workers	19.3 workers
50th percentile	5 workers	6 workers

Knowing whether or not an establishment contains a minimum wage worker or not is not sufficient to establish the vulnerability of that establishment to minimum wage legislation. Vulnerability to minimum wage legislation would also depend on things like the share of labour in total costs, as well as the ability to substitute labour for capital. While our data does not contain information on total costs there is some evidence of the ability to substitute low-paid labour for capital. In particular we asked firms whether it was likely, unlikely or neither that they would substitute some or all staff-currently being paid less than £4.50 per hour with machines in the event of their wages being increased to £4.50. Only approximately 8% of firms said it was likely that they would substitute machines for low paid workers. This is consistent

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with results reported elsewhere which suggest that the elasticity of substitution between low-skill labour and capital is low. However, there is some evidence that smaller firms may depend more on labour than larger firms. While 13% of firms with 5 or more workers indicated that they would substitute capital for low-paid workers only 1.5% of firms with less than 5 workers said they would engage in such a switch.

Finally, we examine whether or not firms which sell some or all of their produce abroad are more or less vulnerable to the minimum wage legislation. Firms in the traded sector may be more vulnerable to minimum wages in that they face foreign competition in the output market. Table 7.21 classifies firms employing a worker on an hourly wage of £4.50 or less by whether or not they export some or all of their produce. The results show that while 36% of all establishments who export will be affected by the minimum wage legislation, the proportion is significantly higher, at 50%, in the non-exporting sector. This is to be expected given the industrial breakdown presented above. There we identified establishments in the hotel and restaurant and retail sectors as being vulnerable to a minimum wage increase and these sectors in turn are less likely to be engaged in exporting.

Table 7.21:   *Classification of Minimum Wage establishments by trade status*

Trade Status	% of establishments with a minimum wage worker
Export Output	36
Do not export output	50

7.5   Conclusions

This chapter has provided a detailed description of the specially-designed survey of firms carried out for the purpose of this study in late 1998/early 1999. The survey was carried out on a personally-administered basis and obtained information from 1,062 Irish private sector firms, with a response rate of 46% — in line with expectations from a general sample of firms. The results have been reweighted to ensure that the sample for analysis represents the population of firms in terms of sector and size.

Before probing firms' knowledge of and views about the introduction of the minimum wage, some broader questions were asked. Firms which had experienced an increase in business volumes but which had not increased employment were asked why this was so. Spare capacity and related increases in productivity were mentioned by over 70 per cent, with only 7 per cent mentioning ability to pay for extra staff or to labour costs. However, when directly presented with 7 specific issues which might be seen as problems facing companies today and asked to rank them in terms of importance, a very substantial proportions of all the firms in the sample mentioned basic labour costs as being of significance relative to the other potential problems presented.

When asked about possible responses to a 5 per cent increase in operating cost (from any source, including labour costs), one-third of respondents said that they would pass it on in full to their customers, 43 per cent said they would pass it on in part to their customers and 20 per cent said they would absorb it in full in their profits. So over three-quarters of firms felt an increase in the cost base would be passed on to the consumer in full or in part.

We found that 42 per cent of firms indicated that they had employees who were being paid less than £4.50 per hour. They were asked to record the likelihood of their response in a number of areas of business activity to the introduction of a minimum hourly wage of £4.50 or less. In interpreting the answers to these questions one must be sensitive to the possibility of strategic response behaviour. About 60 per cent felt *cutting back on profit margins* was likely, while the same percentage said *improved staff morale* was likely. *Substitution of labour with capital* was considered likely by only 8 per cent of firms while 80 per cent said this was unlikely. About 20 per cent of firms felt that *productivity increases* were likely to arise as a result of the minimum wage. A surprising 17 per cent of companies indicated that the introduction of the minimum wage could *result in their going out of business*. This seems to be extremely high and in this case in particular the possibility of strategic response must be noted.

About one-quarter of firms said that they would *retrain/upgrade work of current staff*. Only 5 per cent of firms indicated that the level of *subcontracting* was likely to increase as a result of the introduction of the minimum wage. Approximately equal proportion of firms (40 per cent each) felt that the minimum

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wage would respectively be "likely" and "unlikely" to have *no effect on their business*, and the same was true of *improved industrial relations*. About one-third of firms felt that the minimum wage would be likely to *reduce staff turnover* while 44 per cent felt it would be unlikely to do so.

In terms of a restoration of pay differentials as a result of the minimum wage, 56 per cent of firms indicated that staff /unions would probably insist on such a move.

Finally, firms' knowledge of the minimum wage proposals was probed. When asked whether or not they had ever heard of any proposals on the minimum wage, 72 per cent of firms answered in the affirmative. However, when asked about the level at which it would be introduced only 8 per cent of those who said they had heard of it were able to quote the £4.40 rate, with a further 31 per cent mentioning £4.50. Only 26 per cent of those who indicated that they had heard of the proposal knew that it was to be introduced in the year 2000. When asked about the sub-minimum wage proposals wage for young persons and trainees, as many as 88 per cent of those who had heard of the minimum wage proposals indicated that they had either never heard of or did not know the level of this sub-minimum rate.

The results of the survey of firms were then used to characterize both the individuals and establishments likely to be affected by the introduction of the minimum wage at £4.40. We found that approximately 21% of all employees were currently being paid less than £4.50 an hour, with most of these workers earning more than £3.00 an hour. This was close to the corresponding estimate which was derived for the purpose of comparison from the 1997 household survey. It is not directly comparable to the percentage of employees estimated in Chapter 2 as likely to be affected by the minimum wage, because the firm survey used a slightly hgher cut-off, did not use a reduced rate for under-18s, applied to the private sector only, and applied to the level of earnings rather than next year.

Women, part-time workers and those aged under 18 faced the greatest risk of being low paid. However the majority of those currently receiving a hourly wage of less than £4.50 were full-time and over 18. Sales and personal service workers were the occupations both facing the greatest risk of low paid and accounting for the majority of low paid workers. Associated with these occupations are industries such as the retail sector and hotel and restaurants which will be most affected by the proposed introduction of the minimum wage. However, certain manufacturing sectors such as textiles and apparel were also seen to be disproportionately affected. Small firms did not appear more likely to be more a minimum wage worker than bigger ones.

As well as the information it currently yields, the fact that the survey of firms has been carried out is very important for future monitoring and evaluation of the impact of the minimum wage. Being able to survey the same sample of firms before and after the minimum wage is introduced greatly enhances prospects of a reliable evaluation of its actual effects after the event.

Appendix Tables to Chapter 7

Table A7.1: *Response outcomes from Survey on Employment Practices*

	Number	Per Cent
Successfully Completed	1,062	46%
Returned too late for analysis	27	1%
Not available throughout fieldwork period	397	17%
Refusal	394	17%
Could not locate	69	3%
Other	381	16%
Total	2,330	100%

Table A7.2: *Structure of population of enterprises as derived from CIP, various Annual Services Enquiries and the Labour Force Survey*

Size/Sector/Stratum		Number of Enterprises (000's)	Nos. Engaged (000's)	NACE Sectors Covered
Building and Construction:	0-99 emps	7.0	40.5	45
	100+emps	0.5	26.0	
Manuf. of Textiles & Apparel:	0-99 emps	0.3	7.9	17; 18
	100+emps	0.04	10.0	
Other Manuf & Production	0-99 emps	3.5	77.3	5; 10; 11; 12; 13; 14; 15; 16;
	100+emps	0.5	146.2	19-37; 40; 41
Retail:	0-9 emps	22.4	65.9	50; 52
	10+emps	2.4	81.9	
Wholesale:	0-9 emps	3.4	11.6	51
	10+emps	1.0	33.0	
Banking/Property/Renting/	0-9 emps	12.1	33.4	70; 71; 73; 74
Business Services:	10+emps	1.4	108.6	
Hotels/Bars/Restaurants	0-9 emps	9.9	31.4	55
	10+emps	1.8	65.0	
Personal Services:	0-9 emps	4.4	11.7	93
	10+emps	0.2	8.4	
Other Services:	0-9 emps	5.7	40.3	60; 61; 62; 63; 64; 91;
	10+emps	0.9	68.7	92; 95; 80; 85; 90
Total above			867.8	
Agriculture			134.0	
Non-Agric. Self Employment			93.8	
Public Admin/Defence/Education			226.0	
Total			1,322	

Conclusions and Implications

Brian Nolan

We now focus on the central conclusions of the various elements of the study and their implications for policy. Drawing on the analysis and results described in detail in Chapters 2-7, this chapter seeks to answer succinctly — if sometimes necessarily tentatively — key questions about the minimum wage and its likely impact.

In doing so, it is worth reiterating the specification of the minimum wage studied. The Inter-Departmental Group assumed for the purpose of its Interim Report that the nominal rate of £4.40 (£3.08 if under 18) mentioned by the Minimum Wage Commission would apply when the minimum wage is introduced. That assumption has been followed in this study, which has also assumed for the purpose of the exercise that the minimum wage is to be introduced in April 2000.

How Many Employees Will be Directly Affected by the Minimum Wage?

Data on employees from the 1997 Living in Ireland Survey has been projected forward to April 2000, with assumptions about growth in median and low earnings. This suggests that 13.5% of all employees will be under £4.40 (or £3.08 if under 18) in 2000, and thus directly affected by the minimum wage.

This is much lower than the 23% figure presented by Nolan (1998) as below £4.50 in 1997 mostly because the minimum wage is not to be introduced until 2000. Varying the projected increases in median and lower earnings between 1997 and 2000 affects the precise estimate of numbers affected, but still produces a figure in the range 13-15%.

Responses of employees in such surveys could overstate the extent of low pay, if for example paid hours of work tend to be overstated. However, the results from the survey of over 1,000 Irish firms carried out for this study suggested that any such bias in the estimate of numbers below the minimum wage would not exceed 1-2 percentage points.

Which Employees Will Be Most Affected by the Minimum Wage?

The profile of the employees falling below the specified minimum wage in the household survey and the survey of firms is familiar from previous studies. More than half those below the minimum wage are women, a third or more are working less than 30 hours per week, and 40% or more are aged under 25. Clerical and service workers are heavily over-represented among those below the minimum.

How Much Will the Minimum Wage Directly Increase Employers' Wage Bills?

On the same basis as the numbers affected, the immediate impact of the specified minimum wage on the wage bill is estimated to be an increase of 1.6% of total gross earnings. Once again wage growth between 1997 and 2000 is the main reason why this is so much lower than Nolan's (1998) estimate of 4% for the increase in earnings associated with a flat £4.50 minimum wage operating in 1997. As a point of comparison, average annual wage increases in the period up to 2000 under Programme 2000 are about 2 1/2-3%.

How Does the Irish Minimum Wage Compare With the UK?

At £4.40, the Irish minimum wage will be higher in nominal terms than the minimum about to be introduced in the UK at stg£3.60, and the UK youth rate will apply to all those aged under 22 rather than 18. In relative terms, the Irish minimum is likely to represent about 56% of median earnings for those aged 18 or over, while the UK minimum wage for those aged 22 or more is 47% of their median hourly wage. The UK Low Pay Commission estimates that only about 9% of employees aged 18 or over

will be affected by the minimum wage there. As far as impact on the wage bill is concerned, the UK Low Pay Commission estimated the direct wage bill impact of the minimum wage there at 0.6%.

What About Spill-over?

It is extremely difficult to assess the likely scale of spill-over, increases in wages above the minimum in reaction to the narrowing of differentials, and experience elsewhere is of limited assistance. Spill-over due to the minimum wage is not generally expected to be very pronounced in the UK, but as we have seen that minimum is a good deal lower in relative terms, affecting significantly fewer employees. More than half the respondents in our survey of firms felt that staff/unions would insist on a restoration of pay differentials, at least at the lower end.

Assuming that only those located within 50% of the minimum itself are affected, and that they obtain additional increases tapering from 5% down to 1% of gross earnings, spill-over would bring the total wage bill increase from the specified minimum wage up from 1.6% to 2%. This figure is used for illustrative purposes in the central projections of the macroeconomic impact of the minimum wage, and a higher figure is also used to test the sensitivity of the results.

Which Sectors Will be Most Affected?

The household survey shows that the percentage of employees below the specified minimum wage is as high as 44% in personal services and 28% in retailing. The total wage bill effect, including some spill-over, is estimated at almost 10% in personal services, and close to 5% in retailing and in professional services. Sub-sectors facing wage bill effects well above average include textile and apparel manufacturing sectors, sale and repair of motor vehicles and sale of automotive fuel, retail trade other than motor vehicles, hotels restaurants and bars, other personal services and household domestic employees. The survey of firms shows very much the same sectors and sub-sectors having a high proportion of employees paid less than £4.50 per hour.

What Will Be the Impact on Prices and Competitiveness?

The direct effect of the minimum wage in raising wages feeds into higher prices in the services sector and a long-run increase in consumer prices of under 1%. This higher inflation will, in turn, lead to higher wage demands as workers seek to restore the after tax real wage. This real wage effect will lead to a further pass-through into prices of 0.5%. The cumulative long-run impact on average wages is 2.85%, while that on consumer prices is 1.4% — of the same order of magnitude as current annual rate of price inflation. This implies an increase in the real wage of approximately 1.4% which represents a significant deterioration in competitiveness, with knock-on consequences for employment, unemployment and migration.

What Will Be the Impact on the Numbers Employed?

This is one of the most important questions about the minimum wage, and one of the hardest to answer. Using the ESRI's macroeconomic model, the overall predicted impact of the minimum wage is a fall in employment of 13,500, equivalent to just under 1% of total forecast employment in 2000. This fall in employment is equivalent to 0.9% of total forecast employment in 2000. To put it in context, the most recent medium-term forecasts of employment growth with the ESRI's macromodel, in the absence of the minimum wage, include a growth in employment of 18.9% between 2000 and 2010. The introduction of the minimum wage is expected to reduce this growth in employment to 18%. If wage spill-over is greater than assumed, the fall in employment will be greater. (The projected fall in employment lies within the range 9,500 to 17,400 when different assumptions on spillover are used).

This decline is driven in equal measure by two separate effects. The first is the direct impact of the minimum wage on the demand for low-wage labour. The second is the indirect impact of the minimum wage on inflation, leading to increased wage demands and reducing competitiveness. Key assumptions are that higher wages in the industrial, traded sector reduce employment and output, whereas in the services, non-traded sector they are passed through in full into higher prices. It is also asssumed that it is the after tax real wage which affects wage bargains.

These estimates are based on the conventional assumption that increasing wages necessarily reduces

employment. Macromodel-based analyses do not take account of the potential positive impact of a minimum wage on incentive effects, effort and productivity levels, and turnover of employees, or allow for monopsony in parts of the low-wage labour market. For these reasons, the UK Low Pay Commission for example concluded that such macromodel simulations generally overstate the likely impact of the minimum wage on jobs.[37] (Some employers in our firm survey did feel that improved morale, reduced turnover of staff and higher productivity, as well as reduced profit margins, could be responses associated with a minimum wage.)

That Commission went on to warn, however, that such simulations indicate the importance of adopting a "sensible" rate at which pressure for restoration of differentials is limited and upward pressure on the overall wage bill is small.[38] Given an Irish minimum wage operating further up the earnings distribution and with a significantly greater impact on the overall wage bill, these estimates of the scale of job losses may be regarded as an upper bound but cannot be discounted.

Where Will Jobs Be Lost?

In the macroeconomic model simulations almost all of the fall in employment due to the direct effect of the minimum wage is in industrial sectors, because it is assumed that increased labour costs in the services sector are passed on to consumers through higher prices. This is a key assumption, supported by the empirical evidence, except in tourism where a direct impact on numbers employed is expected. Falling wage competitiveness *vis-à-vis* the UK is an important factor in producing job losses in the traditional and food sectors, sectors which are also vulnerable to a fall in the value of sterling.

The indirect effect of the minimum wage through higher inflation reduces the demand for labour in both industrial and services sectors, but overall 84% of the total predicted fall in employment occurs in the industrial sectors (including building and construction). In terms of numbers of jobs, the impact on labour demand from the introduction of the minimum wage is greatest in the building and construction sector, followed by the high technology sector (defined here to include metals and engineering), the food processing sector, and finally the traditional sector.

How Much Would Alternative Levels for the Minimum Wage Change the Numbers Affected and the Wage Bill Impact?

A minimum wage set at £4 per hour in 2000 (£2.80 for under-18s) is estimated to affect 11% of all employees, while one set at £5 per hour (£3.50 for under-18s) would affect 21%. The wage bill impact would then range from as little as 1% (for a minimum wage of £4 with no spill-over) up to over 3% (for a minimum wage of £5 with some spill-over).

What Did Employers Say About Likely Responses?

Employers in the survey of firms were asked about likely responses to the introduction of a minimum hourly wage. Substantial numbers said that cutting back on profit margins and improved staff morale were likely. Relatively small numbers said that substitution of labour with capital was likely, while about 20 per cent felt that productivity increases were likely. About one-third of firms felt that the minimum wage would be likely to reduce staff turnover, and about one-quarter said that they would retrain/upgrade work of current staff. Seventeen per cent indicated that the introduction of the minimum wage could result in their going out of business — though the possibility of strategic response intended to influence policy must be noted there. About 56 per cent of firms indicated that staff/unions would probably insist on restoration of pay differentials as a result of the minimum wage.

How Much of the Minimum Wage Increases Will Be Clawed Back Through Higher Tax and Lower Social Welfare?

Simulating the specified minimum wage using SWITCH, the ESRI tax-benefit model, shows that disposable income rises by about 70% of the overall increase in gross earnings. Most of the difference is due to increasing income tax and PRSI, but there are also some significant reductions in social welfare expenditure, including Family Income Supplement.

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[37]Low Pay Commission (1998) p.117 para. 6.77.
[38]Ibid p. 117.

Which Families Will Gain from the Minimum Wage?

Simulation using SWITCH shows that although gains are found among higher and lower income families, most families gaining directly from the minimum wage are in the middle of the income distribution. Many of the low paid employees who stand to gain from the minimum wage already have disposable incomes above those of welfare recipients and others at the bottom of the family income distribution. The limited overlap between low pay and household poverty has been documented in previous studies, including Nolan (1998).

Will the Minimum Wage Improve Work Incentives?

Simulating the impact of the minimum wage on replacement rates shows that it would lead to a significant improvement in work incentives facing those who are currently unemployed or classified as in "home duties", while also improving the reward to employment for those who are currently employees. The proportion of the unemployed facing replacement rates of over 50% falls in the simulation from 41% to 23%.

What Will Be the Impact on Labour Force Participation?

The likely effect of the minimum wage on the overall labour force participation rate is estimated to be an increase of more than 2 percentage points. The largest response will be amongst women, whose participation rate may increase by 3 percentage points, and among those with low levels of education.

Will the Minimum Wage Increase Unemployment?

The macroeconomic model simulations suggest that the minimum wage will increase unemployment by almost 9,000, equivalent to a 0.5 percentage point increase in the forecast unemployment rate in 2000. Predicted unemployment does not increase by more because net migration flows are also expected to increase by 850 per annum in the long run, since when employment tightens skilled workers are more likely to migrate than become unemployed. Some of those coming in to the labour market in response to higher wages may displace existing low-skilled workers.

Should the Minimum Wage Have More Variation?

The case for varying the minimum wage by sector or firm size on a permanent basis is not a strong one: ways of assisting the most vulnerable on a temporary basis would be preferable. A strong case can however be made for greater variation by age than proposed by the Minimum Wage Commission. The reduced rate to be paid to those aged under 18 may still be high enough to act as a disincentive to staying on to complete second-level education, and merits reassessment in that light. A reduced rate for young workers aged 18-20, between the full rate and the rate for those aged under 18, also merits reconsideration. (The proposed reduced rates for apprentices, trainees and job entrants, while justified in their own terms, are not a substitute and face the problems in implementation discussed in the Interim Report of the Inter-Departmental Working Group 1998.) That would in itself assist vulnerable sectors such as retailing and hotels/restaurants. It would also reduce the overall wage bill impact of the minimum wage, and ameliorate any impact on educational participation for that age group.[39]

Are Employers Preparing for the Minimum Wage?

The firm survey indicates that about three-quarters of employers are aware of the proposed minimum wage. However, many of these do not know its detailed specification in terms of the main rate, the existence of sub-minimum rates, and when it is to be introduced. About 11% of employers say they have taken steps to prepare for the minimum wage, and even in the sectors most affected this figure was no higher than one-quarter.

How Can the Impact of the Minimum Wage Be Monitored?

The fact that the survey of firms has been carried out is very important for future monitoring and evaluation of the impact of the minimum wage. Being able to survey the same sample of firms after the minimum wage is introduced greatly enhances prospects of a reliable evaluation of its actual effects after the event.

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[39]It remains to be seen whether distinguishing between 18-20 year olds and those aged 21 or over in this way is problematic in terms of anti-discrimination legislation.

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