

Wage Setting and Wage Flexibility in Ireland: Results from a Firm-level Survey

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Abstract

This paper presents results from a survey of Irish firms which was carried out in late 2006 and early 2007. The survey was undertaken as part of a Euro-system research network, the Wage Dynamics Network (WDN). The aim of the survey was to identify the sources and characteristics of wage and labour cost dynamics that are most significant for monetary policy. It was found that close to two-thirds of firms applied at least some aspects of the then national wage agreement, *Towards 2016*. When wage agreements were made, they appear to have been applied very extensively throughout Irish firms, with approximately 50 per cent of firms applying the agreement to their entire workforce.

Reflecting the considerably tighter labour market conditions during Celtic Tiger times, wage cuts and wage freezes were very infrequently used by firms over the past five years. However, this is not to say that Irish firms are in any way less flexible than their European counterparts. When we look at a more structural measure of flexibility, Irish firms are the least likely to rank regulations and collective bargaining arrangements as important reasons for avoiding wage cuts compared to the responses in other European countries. In all countries participating, firms had common concerns about effort; morale and risk of losing good employees that made them reluctant to reduce wages unless no alternatives were available.

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1. Introduction

Understanding the processes that determine wages is of considerable importance to central banks. The extent to which wages are indexed to inflation and the strength of the link between a firm's prices and wages, for example, have consequences for inflation persistence and may influence the probability of a negative wage-price spiral. Information on the regularity of wage changes and on the level of flexibility available to firms to reduce their labour costs is an indicator of how quickly an economy can adjust to negative shocks. For these reasons, this paper presents new facts on wage and price setting practices from a survey of Irish firms.

The results are derived from a survey of wage setting carried out in late 2006 and early 2007 by the Central Bank, as part of a co-ordinated research effort across the Euro system. The survey was motivated by a general lack of information on wage and price adjustment at the level of the firm, and, in particular, the lack of information that could be compared across countries on a consistent basis. The survey questionnaire was designed by NCB representatives, with the aid of external experts on labour markets and survey methodology. This paper presents the results of the Irish survey, and includes comparisons to results from other participating countries on a number of key issues. One advantage of the survey is that it adds to our understanding of the forces driving firm level responses to wage changes such as those agreed under the national wage agreements.

The structure of this paper is as follows; Section 2 provides some further background on the survey and on the layout of the questionnaire sent to the surveyed firms. Section 3 presents the results from questions on the extent of collective bargaining arrangements and how inflation is factored into wage negotiations. Section 4 presents evidence on the frequency of wage cuts and freezes, and reasons firms rarely use such methods even if cost reductions are sought. Section 5 covers more flexible elements of pay, such as bonuses, and how these can be used as alternatives to reducing wages. Section 6

briefly describes some of the other initial findings from the survey and Section 7 concludes.

2. Survey Design and Sample Characteristics

The survey was divided into four sections.

1. The first section collected general information on the firms involved in the survey, such as the main activity of the business, the number of employees, vacancies, and a comparison of current sales to those of the previous year.
2. The second section contained questions on the wage setting arrangements within the firm. Firms were asked about their participation in national wage agreements, timing of wage changes, response of wages to inflation and the contribution of bonuses to the total wage bill.
3. Section three concentrated on how easy or difficult it would be for the firm to reduce labour costs, if necessary. The first question in this section looked directly for evidence of firms having cut or frozen wages over the past five years. Firms were then asked to evaluate the relevance of a number of statements on why cutting wages is such a rare occurrence. This section also examined how likely firms were to use more flexible components of wages (bonuses for example) as alternative strategies to reduce labour costs without changing wages.
4. The final section of the questionnaire asked the firms about the frequency of changes in the price of their main product and about the strength of the link between price setting arrangements and wage setting.

The population for the survey was firms with 5 or more employees in private and commercial semi-state sectors outside of agriculture. The postal survey was carried out by the Economic and Social Research Institute (ESRI). After excluding all public sector organisations, the sample was selected at random, having

Table 1: Application of the National Wage Agreement — Towards 2016

Towards 2016 applied in full	35.6
Some aspects applied	26.0
Towards 2016 not applied	38.4
All firms	100.0

Table 2: Firm-level agreement vs. National Wage agreement

	Towards 2016 applied in full	Some aspects applied	Towards 2016 not applied	
Firms with a firm-level agreement	66.9	17.7	15.4	100.0 (18.1)
Firms with no firm-level agreement	28.2	28.0	43.8	100.0 (81.9)

stratified the list by numbers employed, sector and region. A total of 985 questionnaires were completed, representing a response rate of 23 per cent.

3. Wage Structures and Bargaining

This section of the paper addresses the issue of wage setting through the survey's questions on wage negotiations and firms' adherence to a national wage agreement. These will be compared with international evidence. In particular the section examines how wage rigidities arise when firms do not adjust wages in response to labour market conditions.

Although collective bargaining has a number of benefits, there are three channels through which it can lead to wage rigidity. First, collectively bargained wage agreements will generally work to clarify expected wage increases. Together with the use of inflation indexation procedures, such agreements may serve to prevent the possibility of a cut in real wages or may only allow a very temporary nominal wage freeze. Second, agreements frequently enforce employment protection rights that prevent firms from offering a lower wage to contract workers or new hires in place of incumbents.² Third, minimum wage levels may be stipulated as part of most agreements. These serve to present a *de facto* wage floor.

The recently-drafted partnership agreement for Ireland was set in the context of achieving

aggregate wage restraint in the face of pressures from inflation, an economic downturn and the threat of higher unemployment. Its predecessor, the *Towards 2016* agreement, prevailed during the survey. Over one-third of firms apply the agreement in full. Our survey results in Table 1 show that the practice of wage negotiation is well established within Irish firms: 62 per cent of firms surveyed apply at least some aspects of the current national wage agreement.

The existence of a firm-level bargaining arrangement with its workers is one firm characteristic that affects the likelihood of following the national wage agreement. According to Table 2, while almost one in five (18.1 per cent) firms have their own firm-level negotiation processes, the majority take the national wage clauses into account. Only 2.8 per cent of firms relied fully on their own internal formal wage negotiating process without taking any account of the national wage agreement. Of firms without their own specific wage negotiating process, over half of these applied at least some aspects of the national wage agreement (Table 2).

Our survey found that when wage agreements were made, they appear to have been applied very extensively throughout Irish firms. Half of firms with agreements apply them to their entire workforce while the average value for workforce coverage is 86 per cent. As the cross-country shares of collective bargaining coverage presented in Table 3 below shows, Ireland is situated in the middle of the table with equal shares of European countries having coverage

² Job protection clauses can create important hiring and firing costs impeding labour market clearing.

Table 3: Collective Bargaining Coverage

Country	Share of firms that applies a collective bargaining agreement	Share of employees covered by collective bargaining	Share of firms having firm-level bargaining agreement
Slovenia	1.00	N/A	0.257
Spain	1.00	0.968	0.169
Austria	0.911	0.946	0.233
Italy	0.928	0.922	0.429
Belgium	0.926	0.865	0.353
France	0.921	0.671	0.587
Portugal	0.901	0.900	0.901
Greece	0.870	0.909	0.208
Netherlands	0.703	0.676	0.301
Ireland	0.614	0.860	0.181
Czech R.	0.508	0.502	0.514
Hungary	0.351	0.415	0.322
Poland	0.221	0.193	0.214
Lithuania	0.225	0.156	0.237

Note: Weighted by size of country labour force. Countries ranked by collective agreement rate.

higher and lower than our coverage rate of 86 per cent of employees covered by a collective wage agreement. However, if we exclude the new member states from the comparison, Ireland has one of the lowest shares of collective bargaining by any of the measures used in Table 3. Only the Netherlands has a lower share of employees covered by collective bargaining. The share of firms with a collective bargaining agreement is over 90 per cent in 7 out of the 10 old member states in the survey, compared to 61 per cent in Ireland.

Where there is less than a 'blanket application' of the agreement, the skill group of technically-qualified workers and supervisory staff are the most likely group collectively to be the exception, as their average workforce application rate is lower than the overall average. In the tight labour market conditions prevailing up to the time of the survey, this group may have been the hardest to recruit and retain and this may be reflected in a wage premium over and above the wage increases collectively agreed.

In nominal terms, average Euro zone wage increases attributed to collective bargaining was just below 3 per cent in 2006 and increased slightly to exactly 3 per cent in 2007 while the figures for Ireland were 4 and 4.8 per cent respectively for those years. The countries with the highest nominal pay increases were those of the newest Member states, Bulgaria and Romania and the three Baltic Countries, Estonia, Latvia and Lithuania. Ireland's nominal pay increases were in line with those of selected EU15 countries including Spain,

Sweden and the UK. Most of the remaining EU15 countries had agreed rises below 3 per cent. In terms of real pay increases, the EU15 average real pay increase was 0.8 per cent in 2006 and in 2007 fell to 0.2 per cent. Ireland's collectively agreed wage increases, after adjusting for inflation, was 1 per cent for 2006 and 1.3 per cent for 2007.

3.1 Comparative analysis of Towards 2016 firms

This section details the characteristics of firms that applied at least some of the terms of the National Wage Agreement. First, Table 4 looks at some broad firm descriptives. Second, the labour force details of firms who took at least some terms of *Towards 2016* on board are compared with firms who did not apply any aspects of that agreement in Table 5. Third, we examine the trading and business performance situation of the two groups of firms (Table 6).

Table 4 investigates whether there are significant differences between firms adhering to at least some aspects of the national wage agreement and those who do not. Medium sized firms make up a higher proportion of firms applying the national wage agreement (11.4 per cent) than of those that do not (7.5 per cent). Small and micro firms are somewhat less likely to apply any of the terms of the agreement. More manufacturing and construction firms applied the agreement than not but this difference is not statistically significant. Services firms, on the other hand, made up 43 per cent of firms with an agreement but constituted well over half

Table 4: Characteristics of firms that apply at least some aspects of the National Wage agreement

	National Wage Agreement	NWA not applied
<i>Size category (employees):</i>		
Micro 5-9	43.4	44.8
Small 10-50	44.3	47.2
Medium 50-250	11.4	7.5
Large 250+	0.9	0.5
	100.0	100.0
<i>Sector:</i>		
Manufacturing	14.4	11.8
Construction	7.8	5.7
Distribution	34.6	27.4
Other services	43.2	55.1
	100.0	100.0
<i>Years Firm established:</i>		
Less than 2 years	3.9	3.8
2-10 years	21.4	19.7
10-20 years	24.1	40.6
20-50 years	40.2	31.9
50+ years	10.4	4.0
	100.0	100.0

(55 per cent) of firms that did not apply it. Firms who started operations less than 10 years ago make up the smallest share of those having a wage negotiation process, while established firms of 20 years or more have a statistically higher likelihood of having a wage negotiation process.

Labour force turnover was found to be slightly lower in firms which applied the National Wage agreement, while Table 5 also shows that the recorded vacancy rate is very significantly lower in NWA firms with 23 per cent of NWA firms reporting they had vacancies compared with 32 per cent of non NWA firms. High skill occupational groups are the most likely groups to not be subject to the National Wage

agreement. The most likely explanation for this is that these groups may be the hardest to recruit and retain and this may be reflected in a wage premium over the wage increases collectively agreed at the national level. Nonetheless, the task of retaining staff appears to be easier in firms with a wage agreement. It is much more likely that staff with 10 years tenure or more have benefited from the firm's application of the *Towards 2016* agreement. Firms which apply the national wage agreement have a significantly lower labour cost share than those who do not apply it for either of two reasons: they are have higher labour productivity (per employee employed) or the firm manages to contain its labour cost share through having known wage increases agreed in advance, for example.

Table 5: Labour force situation of NWA firms vs. non NWA firms

	NWA firms	Non NWA firms
<i>Labour turnover in past yr:</i>		
More staff	32.5	34.7
Less staff	18.8	16.8
No change in staff levels	48.7	48.5
	100.0	100.0
Has unfilled vacancies	22.8	32.1
<i>Occupational groups/Skill:</i>		
Low skill, blue collar	35.3	22.2
Low skill, white collar	21.1	22.0
High skill, blue collar	18.8	22.4
High skill, white collar	23.1	32.1
<i>Average Tenure Distribution:</i>		
Less than one year	17.3	17.9
Between 1 and 5 years	35.6	38.5
Between 6 and 10 years	21.1	20.5
More than 10 years	24.8	21.3
Labour share of total cost	40.9	44.3

Table 6: Trading and performance situation of firms

	NWA firms	Non NWA firms
Share of workforce close to min wage	29.3	22.2
<i>Sales/turnover position:</i>		
Lower than previous year	14.8	12.1
Higher than previous year	53.8	61.5
<i>Export orientation:</i>		
Share of domestic sales	91.5	85.1
Sales outside EU	1.1	5.8
<i>Competition</i>		
Strong/Severe	86.8	80.9
Weak/No competition	11.3	16.6

In Table 6 we tested to see if negotiated wages respond to cyclical business conditions reflected in performance-based indicators. Our results show that firm performance and ability-to-pay may not be the main driving force behind having agreed pay structures. Wage agreement firms are more likely to have a significant share of their workforce paid within 10 per cent of the minimum wage and be less export orientated than their non-NWA counterparts. This may also be picking up that services firms are less likely to apply the NWA. Sales performance was less impressive in NWA firms and these firms are most likely to be facing strong or severe competition in their trading environment. Traditionally firms with collective agreements tend to out-perform their non-wage agreement counterparts but our results show that the best-performing firms in our survey are most likely to not share these rewards with their labour force. On the other hand, we do not have an indicator of domestic versus foreign ownership to test whether this was a significant factor in this regard.

3.2 Wage changes and indexation policy

For the purposes of this research an indexation policy is identified where wage changes are automatically linked to inflation by a set of predefined rules. International experience

shows that employees will become more concerned about wages relative to other workers and relative to the cost of living in times when inflation puts pressure on nominal wages. At the same time, the existence of wage renegotiation costs makes lengthening the duration of contracts desirable and agreed indexation principles can overcome these costs.

The survey found that 71 per cent of Irish firms do not have a policy of automatically adapting base wage rates to inflation. Of those that do index wages to inflation with a formal rule (i.e. an automatic link), the actual past inflation rate is more likely to be used than any measure of expected future inflation. However, firms were considerably more likely to describe wage changes as taking account of changes in the general cost of living but not having a formal or automatic rule with respect to inflation. Given the relative stability of inflation in the euro area context, it is not surprising that our survey found a two-to-one split in favour of past inflation over expected inflation where a less-strict indexation policy is applied (i.e. not an automatic adjustment but inflation 'taken into account'). It demonstrates that the variability of inflation has not been a problem for wage setting in Ireland during the period of this study.

Table 7: Accounting for inflation in wage-setting and indexation policy

Irish firms who adapt wages to inflation	28.6%
<i>Of which:</i>	
Wage changes <u>automatically linked</u> to past inflation	19.3%
Wage changes <u>automatically linked</u> to expected inflation	8.0%
Past inflation <u>taken into account</u>	60.5%
Expected inflation <u>taken into account</u>	32.7%

Note: Some negotiated contracts use a mixture of past and expected inflation considerations explaining why the sum of the row percentages in Table 7 exceeds 100 per cent.

Table 8: Frequency of wage changes (for largest occupational group) due to inflation: difference

Column %	National Wage Agreement	Non-NWA
More than once a year	4.2	3.0
Once a year	54.2	59.6
Once every two years	7.8	8.1
Less frequently than 2 years	4.6	7.3
Never/Don't Know	29.3	22.0
	100.0	100.0

In recent national agreements, wage increases became payable regardless of whether the current economic environment was characterised by moderate or persistent inflation. A third of potential respondents in our survey were not sure whether the wage changes applied by their firm took inflation into account or not. Results in Table 8 show that of those who answered the question, NWA-firm responses were slightly more likely to have multiple inflation-driven wage increases in a year. The frequency of inflation wage changes was certainly less for non-NWA firms with the majority concentrated on a single annual wage change for inflation-purposes.

4. Wage Flexibility and Wage Cuts

This section examines the ability of firms to reduce base wages and the alternative methods firms can use to reduce labour costs without directly cutting base wages. Base wages were defined as wages and salaries including commission and piecework payments but excluding bonuses.

4.1 How common are wage cuts?

We asked firms if they had cut or frozen base wages over the previous five years, and, if they

had, what percentage of the workforce this applied to (Table 4). Given that this question covers a period of sustained economic growth, it is not particularly surprising that wage cuts are extremely rare, applying to slightly over 2 per cent of firms. These firms were mainly very small — firms with between 5 and 9 employees were the most likely to have cut wages with no medium sized firms (50 to 249 employees) reporting wage cuts and less than one per cent of larger firms (over 250 employees). Most of the firms that did cut wages were in manufacturing. No wage cuts occurred in the construction sector and very few were reported in trade and distribution. The services sector experienced wage cuts by 2.5 per cent of firms. With regard to the percentage of the firms workforce affected by wage cuts, this ranged from 5 per cent to 100 per cent.

Wage freezes were more common than cuts, but, at just over 7 per cent, still applied to a relatively small group of firms. Unlike wage cuts, wage freezes were not concentrated in any one sector or size group, although they were more common in manufacturing than in other firms. If a wage freeze was implemented, it was applied to the firms entire workforce in two-thirds of cases.

Table 9: Incidence of Wage Cuts and Freezes (Irish Survey results)

Percentage of Firms		Wage Cuts	Wage Freezes
Overall		2.1	7.1
Size category	Micro, 5-9	2.7	7.0
	Small, 10-49	0.9	6.1
	Medium, 50-249	0.0	10.2
	Large, 250+	0.7	7.3
Sector	Manufacturing	4.1	10.6
	Construction	0.0	5.2
	Trade/Distribution	1.0	5.8
	Other services	2.5	7.3

There is a positive relationship between wage cuts and firms reporting turnover lower than in the previous year, although this finding is not significant in a statistical sense if controls for firm size and sector are included. As so few firms report wage cuts, it is difficult to establish robust statistical relationships with other variables. More firms report having frozen wages at some point and this larger sample size allows for more reliable analysis of contributing factors. Controlling for sector and size effects, we find that firms experiencing lower turnover are 10 per cent more likely to have frozen wages than firms with the same or higher turnover. Firms describing turnover as “much lower” were 12 per cent more likely to freeze wages than those with turnover the same or higher than the previous period.

Ireland’s percentage of firms reporting wage cuts is amongst the lowest of the countries in the sample, and is well below the average value of 2.8 per cent (Table 10). The southern European countries of Italy, Spain and Portugal are the least likely to cut wages, and the highest value is just over 7 per cent for France. The variation across countries in the incidence of wage freezes is considerably larger than for wage cuts, ranging from 2.4 per cent in Spain to over 20 per cent in the Czech Republic, Estonia and the Netherlands. The average percentage of firms to have frozen wages across all the countries is 11.3 per cent. The incidences of wage cuts and freezes in Ireland are significantly lower than the European

average. This result is not that surprising given the tight labour market conditions prevailing during the period of this study. In contrast to the finding above, recent OECD cross-country analysis shows that Ireland scores highly in terms of the structural and institutional elements that contribute to labour market flexibility.

4.2 Firms’ reasons for avoiding cuts

The firms were asked: “There can be various reasons as to why base wages are not, or only very slightly cut, even if your firm needs to reduce labour costs. Please indicate their relevance in your company.” The following list of reasons was provided:

- Impeded by labour regulation/collective agreements.
- Negative impact on employees’ efforts, resulting in less output.
- Negative impact on employees’ morale.
- Negative impact on the firm’s reputation as an employer.
- Best employees would leave the firm.
- Increase costs of hiring and training new employees.
- Difficulties in attracting new workers.
- Workers dislike unpredictable reductions in income.
- Employees compare wages to similar workers in other firms.

Table 10: International Comparison of Wage Cuts and Freezes

Percentage of Firms	Wage Cuts	Wage Freezes
Ireland	2.1	7.1
Austria	2.1	13.3
Belgium	2.8	11.9
Czech Republic	6.7	26.6
Estonia	3.1	21.7
Spain	0.1	2.4
France	7.1	2.5
Hungary	2.6	5.9
Italy	0.7	3.9
Netherlands	1.4	23.2
Poland	4.4	10.0
Portugal	1.0	14.9
Slovenia	2.5	2.9
All country average	2.8	11.3

Table 11: International Comparison of Reasons for Avoiding Wage Cuts

	Regulations	Effort	Morale	Reputation	Best leave	Hiring costs	Recruitment	Implicit Contract	Comparisons
Ireland	22.9	79.8	76.1	61.0	79.1	56.1	64.6	78.8	75.7
Austria	77.0	89.8	87.3	64.4	84.6	77.2	47.8	41.8	67.5
Belgium	84.0	87.6	88.1	55.9	81.1	65.7	72.6	81.4	67.7
Czech R.	56.0	85.8	82.7	69.0	94.7	87.2	82.1	46.4	77.7
Estonia	53.6	89.9	89.6	83.5	94.2	91.0	87.1	53.6	80.1
Spain	91.2	72.0	NA	43.3	69.5	54.1	59.6	71.4	50.3
France	78.2	90.9	90.4	51.3	79.0	37.6	68.8	22.1	47.1
Hungary	43.1	80.3	81.7	55.9	71.0	47.8	45.7	79.6	74.1
Italy	87.8	85.2	NA	58.2	89.6	86.2	71.1	29.3	70.4
Netherlands	63.5	78.2	NA	64.1	76.6	61.7	78.6	77.5	69.3
Poland	34.1	71.5	91.6	60.6	89.2	67.1	76.1	71.6	53.9
Portugal	76.9	84.0	85.3	56.6	82.9	53.8	54.6	81.9	64.2
Slovenia	69.9	87.1	84.8	75.6	89.1	72.2	77.3	77.0	77.1
Average	64.5	83.2	85.8	61.5	83.1	66.0	68.2	62.5	67.3

Firms were asked to rank each one of these explanations on a four-point scale of relevance. Combining the relevant and very relevant categories in Table 11, labour regulations and collective agreements are regarded as the least relevant of the barriers, while concerns about reductions in employee effort and losing talent are the most relevant reasons.

There was some variation in these rankings by firm size, mainly in regard to the perceived relevance of collective bargaining and regulations. Over 45 per cent of the largest firms regarded regulations and bargaining arrangements as relevant compared to just 20 per cent of the smallest firms. In general, larger firms were more likely to regard all of the explanations for avoiding wage cuts as relevant or very relevant. This is consistent with the earlier result that small firms were more likely to find it possible to cut wages if necessary.

Comparing the responses of Irish firms to those in other European countries in Table 11, we found common concerns about effort, morale and risk of losing good employees. Irish firms are the least likely to rank regulations and collective bargaining arrangements as an important reasons for avoiding wage cuts. Exposure to future higher hiring costs or difficulties in recruitment are also less likely to be regarded as relevant by Irish firms compared to those in other countries. On the other hand, awareness of employees comparing their wages to others and an expectation on the part of the workers that wages should be kept smooth (allowing profits to vary instead) were ranked more highly by

Irish firms than the average across the other surveyed countries.

5. Bonuses and Other Sources of Flexible Pay

5.1 Wage bill composition

This section deals with the role of flexible pay and bonuses. Firms might use these measures as a means of achieving wage flexibility in the presence of rigid base wage structures.

The results show that almost half of all firms (48 per cent) did not pay any performance-related bonuses. Just over one-third of firms paid bonuses based on individual performance and one-quarter paid bonuses based on company performance. There is some overlap in these figures however, as 18 per cent of firms use both types of bonus payment. Where bonuses were paid, the average individual performance-related bonus in 2006 was 7.5 per cent of a firm's total wage bill, while company performance-related bonuses were just over 3 per cent of the total wage bill on average. The total average share of bonuses in the wage bill therefore comes to 10.8 per cent. This is very close to the average bonus share, of 10.5 per cent, that was paid by firms in the Euro area countries that participated in the survey. However, if we exclude Portugal, which has an extremely high share of bonuses (almost 50 per cent), the Euro area average drops to 8.2 per cent. In the top quarter of Irish firms with the largest share of bonuses in pay, flexible wage components were found to represent more than 43 per cent of the total firm's wage bill.

Table 12: Breakdown of the Energy Series

	Production workers	Technically-qualified/ Supervisory staff	Clerical staff	Highly-qualified employees & Management	All
Individual performance bonus	4.4	5.2	4.3	7.4	7.6
Company performance bonus	1.4	2.1	1.7	4.8	3.2

As expected, highly-qualified employees and management are most likely to receive a bonus element to their remuneration with production and clerical workers less likely to be rewarded for individual performance or receive a share in overall company performance. Likewise, highly qualified staff receive the highest level of bonuses, receiving 7 per cent of the total wage bill on average in individual performance bonuses and 5 per cent of the total wage bill in company-related performance bonuses when payable (Table 12 above).

Relating bonus rates to tenure — the time an employee has served at the firm — reveals that production workers are more likely to share in bonus schemes or profit sharing as time goes on. This may operate as a staff retention incentive, as firm-specific skills become more valuable. Company performance payments peak for new entrants when they are highly qualified and/or management and may reflect that flexible pay elements are an important incentive used to attract this skill type in the first instance. Firms that have a wage negotiation process tend to pay a lower percentage of their wage bill in bonuses.

5.2 Cost reduction strategies

Flexible wage components give firms additional methods of adjustment if they need to reduce costs when they cannot reduce base wages. We identify the following main strategies to cut labour costs (other than wages) and ask the firms if they have used them:

- Reduce or eliminate bonus payments.
- Reduce or eliminate non-pay benefits.

- Change shift assignments or additional payments for working shifts.
- Slow or freeze rate at which promotions are filled.
- Recruit new employees at lower wage level than those who left voluntarily.
- Encourage early retirement to replace high wage employees by entrants with lower wages.

The most commonly used strategy was to bring in new recruits at a more junior level than employees who had left the firm; this was used by over 27 per cent of firms. Reductions in bonuses were the next most commonly used strategy, reported by 13.3 per cent of all firms. If we restrict ourselves to look only at firms that currently pay bonuses, 21 per cent report reducing these bonuses in order to lower costs. This was followed by changes in shift patterns or premiums associated with shift-work. The choice of strategy varies with the composition of the workforce. Firms with a high percentage of production workers were the most likely to use changes in shifts, whereas firms with a high percentage of professionally qualified workers were the most likely to change bonuses. This is related to the contribution bonuses made to the total wage bill; firms in which bonuses are a larger fraction of total wages have more opportunity to use this option. For each of the strategies, the percentage of firms that had used them increased steadily with firm size. Larger firms tend to have more complex pay structures than smaller firms and this gives them a greater element of flexibility when it comes to using non-wage elements of compensation to reduce costs.

Table 13: Alternative Labour Cost Reductions

	All Firms	5-19 Emp.	20-49 Emp.	50-249 Emp.	250+ Emp.
Reduce bonuses	13.3	12.0	14.7	18.8	19.7
Reduce benefits	4.9	3.8	5.7	10.3	10.4
Change shifts	9.8	6.9	12.3	24.1	22.4
Slow promotions	4.7	3.4	5.5	11.5	11.3
Cheaper hires	27.5	22.7	35.4	42.8	45.6
Early retirement	3.9	2.4	5.3	9.6	17.5

Table 14: International Comparison of Labour Cost Reduction Strategies

	Reduce bonuses	Reduce benefits	Change shifts	Slow promotions	Cheaper hires	Early retirement
Ireland	13.3	4.9	9.8	4.7	27.5	3.9
Belgium	18.4	7.9	7.2	15.0	26.4	18.9
Czech R.	32.2	7.5	11.1	1.9	8.7	8.9
Estonia	40.2	20.5	21.1	6.2	16.2	2.6
France	14.7	6.1	0.0	15.4	39.0	30.3
Hungary	22.7	11.9	38.3	35.1	26.5	10.2
Italy	25.6	21.8	26.0	34.0	45.6	20.2
Poland	22.8	15.2	11.9	12.3	22.1	9.5
Portugal	13.7	8.4	10.7	14.0	16.2	0.0
Slovenia	13.5	12.8	9.2	18.9	15.8	8.9
Average	21.7	11.7	14.5	15.7	24.4	11.3

The pattern of strategies used by firms to reduce labour costs without cutting wages varies quite considerably across countries. Irish firms report lower than average usage of all but one of the strategies; replacing workers who leave the firm voluntarily with workers on a lower wage has been used by 27.5 per cent of Irish firms, some 3 per cent more than in other countries. Firms in other countries are almost twice as likely (on average) to reduce bonuses and benefits compared to Irish firms, and were three times more likely to use promotions and retirement to reduce costs.

6. Other Findings from the Survey

This paper has presented initial results from a survey on wage setting practices in Ireland. We have focused on responses to questions on the National Wage agreement, the incidence of wage cuts and freezes and the use of flexible elements of pay. This section briefly outlines some of the other topics that were included in the survey and preliminary findings that could be explored in future research.

One set of questions attempted to clarify what happens if firms did not cut wages, how might they react to a negative shock. We asked firms for their responses to two types of adverse event, the first scenario was an unanticipated slowdown in demand and the second was an increase in the cost of an intermediate input (such as an increase in oil prices). The main reaction of firms, regardless of the source of the shock, was to look for potential reductions in non-labour costs. Three-quarters of firms said that cost reductions would be of relevance in how they responded to a slowdown in

demand for their own product. However, this fell to 47 per cent if the shock was related to an increase in the cost of an intermediate input. In general, reducing output and/or lowering margins were more likely to be identified as sources of action following a demand slowdown compared to an input cost increase.

A further set of questions examined the relationship between price and wage dynamics for the individual firms. The purpose of this was to obtain some insight into the potential effect of wage dynamics on inflation persistence. Conversely it also allows for the effects of inflation persistence may have on wage dynamics to be analysed. To achieve this firms were divided into two groups based on their reported price setting behaviour. The first group of firms are those firms that typically change their output prices every quarter or more frequently and the second group contained firms having price changes that only occur less than once a year. Firms were then asked a further series of questions enabling them to indicate how much competition they faced in their particular market. Separating firms by these additional categories highlights how differences in the competitive market environment may affect individual firm behaviour.

The first conclusion drawn from the analysis described above is that firms experiencing more intense competition tend to have flexible prices. This is verified by the finding that firms whose price is flexible are also more likely to attach importance to competitors' prices in deciding to increase or decrease their output

price. Second, firms whose price is flexible are slightly less export-oriented. This latter factor is compatible with the finding that they may have sufficient market power in a domestic market setting to set their own output (and market) prices. Exporting firms tend to be price-takers in a world market environment. Third, the results show that firms whose price changes less frequently (the second group) are much more likely to have an *automatic* indexation link between wages and inflation. They are marginally more likely to have at least one annual change in wages for inflation reasons.

The final set of questions reported in this section looked for any link between marginal cost pressures arising from wage changes and its potential feed-through as output price effects. Perhaps unsurprisingly given the time period of this survey, no strong link between the marginal cost pressures of wage changes and its feed-through as output price effects were reported by either type of firm.

7. Conclusion

The results presented in this paper are based on a survey of Irish firms undertaken as part of the Wage Dynamics Network (WDN), which is a Euro-system research network. The work was motivated by a general lack of information on wage and price adjustment at firm level, and, in particular, the lack of information that could be compared across countries on a consistent basis. The aim of the survey was to identify the sources and characteristics of wage and labour cost dynamics that are most significant for monetary policy. It also attempts to further explain the relationship between wages, labour costs and prices, both at the firm and macro-economic level. The Central Bank carried out this coordinated survey of wage setting in Ireland in late 2006 and early 2007.

Obtaining a better understanding of the processes that determine wages is of considerable importance to policy makers and central banks. Wages account for a significant proportion of production costs for most goods and services. The linkages from wages to prices (through their effect on firm pricing decisions) and from prices to wages (through wage bargaining and indexation) are therefore

crucial components influencing inflation persistence and the probability of a negative wage-price spiral. Furthermore, the level of flexibility available to firms to reduce their labour costs is an indicator of how quickly an economy can adjust to negative shocks.

Looking at the results of the Irish survey it was found that close to two-thirds of firms applied at least some aspects of the national wage agreement, *Towards 2016*. When wage agreements were made, they appear to have been applied very extensively throughout Irish firms, with approximately 50 per cent of firms applying the agreement to their entire workforce. Where there is less than a 'blanket application' of the agreement, the skill group of technically-qualified workers and supervisory staff are the most likely group collectively to be the exception. The most likely explanation for this is that this group may have been the hardest to recruit and retain and this may be reflected in a wage premium over the wage rate collectively agreed.

Reflecting the tight labour market conditions during Celtic Tiger times, wage cuts and wage freezes were very infrequently used by firms over the past five years. This is not to say that Irish firms in any way less flexible than their European counterparts. Looking at a more structural measure of flexibility, Irish firms are the least likely to rank regulations and collective bargaining arrangements as an important reasons for avoiding wage cuts compared to the responses in other European countries. In all countries participating, firms had common concerns about effort, morale and risk of losing good employees that made them reluctant to reduce wages unless no alternative were available.

The results presented in this paper indicate that there are several areas where further research may provide useful additional information about both wage and price dynamics especially in changed economic times. These include the coexistence of price and wage rigidity placing considerable pressure on firm profit margins; job losses and turnover where total labour costs cannot be reduced without reducing the size of the labour force; and/or the scope for squeezing flexible elements of pay in firms' total costs.

