

# Profit Sharing, Employee Share Ownership and Gainsharing: What can they Achieve?

By Noel Cahill

Research Series No. 4 May 2000

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#### **ABBREVIATIONS**

APSS Approved Profit Sharing Scheme

EPOC Employee Participation in Organisational

Change

ESOP Employee Share Ownership Plan
ESOT Employee Share Ownership Trust

EU European Union

GAO General Accounting Office

IBEC Irish Business and Employers Confederation

ICTU Irish Congress of Trade Unions
IPSA Irish Profit Sharing Association

NCPP National Centre for Partnership and Participation

OECD Organisation for Economic Co-operation and

Development

PEPPER Promotion of Employee Participation in Profits

and Enterprise Results

PPF Programme for Prosperity and Fairness
PSRF Profit Sharing Research Foundation

PSRF Profit Sharing Research Foundation
SAYE Save As You Farn

SAYE Save As You Earn
SIPTU Services Industrial Professional Te

SIPTU Services Industrial Professional Technical Union

SME Small and Medium-sized Enterprise

#### **OVERVIEW**

In the new national agreement, the *Programme for Prosperity and Fairness* (PPF), the social partners express their interest in encouraging the more widespread adoption of profit sharing, employee share ownership and gainsharing. This paper provides a review of the potential of these forms of employee participation. It was prepared as a background paper to the recently published NESC Report, *Opportunities, Challenges and Capacities for Choice*, Report No. 105.

The extent of financial participation in Ireland is described in Section 2. Although the incidence of such financial participation is fairly low, many companies have recently introduced or are considering the introduction of financial participation. Previous efforts to promote profit sharing and related schemes in Ireland during the 1980s were not very successful but the current buoyancy of profits provides a favourable environment for the more widespread adoption of financial participation.

An overview of what can be learned from the international experience of financial participation is provided in subsequent sections. There is some evidence that financial participation may contribute to an increase in productivity, particularly in conjunction with other forms of employee involvement. The theory of profit sharing suggests that it can contribute to stabilising employment. While the evidence is inconclusive, some studies have found support for the idea that profit sharing is associated with more stable employment.

Public policy towards financial participation is discussed in Section 7. Tax incentives may help to support the adoption of financial participation but such incentives should be subject to regular review to ensure that social benefits are realised in proportion to the costs involved. There is a more cost effective role for public policy in supporting research and the provision of information in this area. In particular, there is a need for more research on the Irish experience

of financial participation, including its contribution to change at enterprise level. The promotion of financial participation should be integrated with wider efforts to develop enterprise partnership.

# Profit Sharing, Employee Share Ownership and Gainsharing:

#### What Can They Achieve?

#### 1. INTRODUCTION

There are a number of ways in which employees can participate financially in the performance of the enterprise in which they work. The European Commission uses the acronym PEPPER (Promotion of Employee Participation in Profits and Enterprise Results) as a general term to describe different forms of financial participation by employees. Profit sharing involves employees receiving a proportion of their income that is related to profits. If this income is cash, the terminology 'profit related pay' is sometimes used. Sharebased profit sharing involves allocating shares to employees on the basis of profits. The term profit sharing is generally used for situations in which all or at least a majority of employees are involved in the scheme. An important issue is whether the variable component of earnings represents (on average) additional income or substitutes for basic wages. The 'share economy' theory of profit sharing (see Section 3) is built on the idea of the profit component being a substitute for basic wages. However, some writers regard profit sharing as necessarily involving an additional payment if it is to constitute genuine sharing.

Employee share ownership refers to arrangements that provide for broadly-based ownership of shares by employees in their own firm. This can take different forms. It may "consist of reserving a proportion of company shares, for all or a group of employees, which are offered at privileged terms and are limited to a worker's period of employment. Alternatively, employees are offered options to buy their enterprise's shares after a determined length of time at preferential terms" (Uvalic, 1991:10). It may also involve employee share ownership plans (ESOPs) where shares are held for employees in a trust. Employee share ownership clearly overlaps with the idea of share-based profit sharing. However, the two ideas

can be distinguished, at least in principle. If the distribution of shares is on the basis of profits, this is best described as profit sharing. On the other hand, if the distribution of shares is not related to profits, this should be referred to as employee share ownership.

Gainsharing is a group incentive scheme in which employees receive a bonus related to the performance of the group. This may be based on cost savings or productivity improvements or some other measure. Conceptually, it differs from profit sharing since profits, particularly in the short run, may vary independently of employee performance. For example, a group of employees may achieve cost savings through better working methods, but the company's profits may simultaneously decline because of adverse currency movements or a recession in the company's main market. Conversely, of course, company profits may improve substantially for some fortuitous reason other than greater employee commitment.

The remainder of this paper is structured as follows. The extent of profit sharing, employee share ownership and gainsharing in Ireland is outlined in Section 2. The potential of profit sharing to stabilise employment is discussed in Section 3, while its effect on productivity is considered in Section 4. Subsequent sections discuss employee share ownership (Section 5) and gainsharing (Section 6). Public policy towards financial participation is addressed in Section 7.

## 2. PROFIT SHARING, EMPLOYEE SHARE OWNERSHIP AND GAINSHARING IN IRELAND<sup>1</sup>

There are a number of sources of information on the incidence of alternative forms of compensation in Ireland. The most comprehensive of these is the *Irish Management Practice in the Changing Marketplace* survey conducted at the Graduate School of Business at University College Dublin (UCD). This survey, which was carried out between mid-1996 and mid-1997, was of a statistically representative sample of the population of Irish

1 This Section draws on Chapter 6 of NESC (1999).

workplaces. It estimated that 11 per cent of workplaces had profit sharing and 11 per cent had employee share ownership. This implies a maximum of 22 per cent of establishments with either profit sharing or employee share ownership. Some establishments would have had both profit sharing and employee share ownership so the total percentage with either of these forms of compensation would be below 22 per cent. The survey did not collect information on gainsharing.

More recent information on various forms of financial participation is available from an IBEC survey. This survey covered IBEC members with more than 50 employees and was carried out in 1999. Responses were received from 400 enterprises. Of the firms who responded, the survey found that 58 per cent had some form of financial participation. These enterprises covered 150,000 employees. In over 80 per cent of such cases, the financial participation scheme was open to all employees. Financial participation in this survey related to profit sharing, different types of employee share ownership, gainsharing and a miscellaneous other category.

There is clearly a large difference in the incidence of financial participation as reported by the IBEC and UCD surveys. The UCD survey did not include gainsharing and took place at an earlier date but these factors would not be able to explain the extent of the difference. The major difference was the different populations covered by the surveys. The UCD survey was a sample of the total population of Irish workplaces while the IBEC survey was of IBEC members with more than 50 employees, as noted above. These two surveys would imply that profit sharing is more common among larger employers. This has the implication that the share of employees that benefit from financial participation will be larger than the number of enterprises that offer financial participation since the larger enterprises account for a disproportionate share of employment.

The SIPTU Research Department has monitored the introduction of financial participation agreements under *Partnership 2000*. It has

estimated that 80 agreements (covering gainsharing, profit sharing, share option or share purchase schemes) have been introduced among the approximately 3,000 private sector employers covered by SIPTU. These results, however, are not directly comparable to those mentioned above since they refer specifically to agreements reached under *Partnership 2000*.

The Office of the Revenue Commissioners publishes figures on Approved Profit Sharing Schemes (APSS) that qualify for tax relief. These schemes offer tax relief for share-based profit sharing. The number of employees that received shares from an APSS in the year to April 1999 was 48,590 (see Table 1). It is estimated that 179,675 employees have received shares at least once through an APSS up to 1999. This represents around 12 per cent of total non-agricultural employment in 1999. In the year ending April 2000, 48 new schemes were approved.

Comparative data on profit sharing and employee share ownership across the EU are available from the Employee Participation in Organisational Change (EPOC) study. The study is based on a survey of a representative sample of workplaces in ten EU countries in 1996.<sup>2</sup> The study found a fairly low use of financial participation in most EU countries (see Table 2). The level of profit sharing (8 per cent of enterprises) and employee share ownership (4 per cent of enterprises)<sup>3</sup> in Ireland as measured by the EPOC survey was below the corresponding EU averages (23 per cent for profit sharing and 9 per cent for employee share ownership). The study found that the highest level of financial participation existed in France and the UK.

- 2 More recent information will be available in a forthcoming report from the European Foundation for the Improvement of Living and Working Conditions based on an analysis of 1999 data from the Cranet project (Cranfield Network on European Human Resource Management).
- 3 The figure of profit sharing of 8 per cent of enterprises in Ireland consists of 7 per cent of enterprises with only profit sharing and 1 per cent of enterprises with both profit sharing and employee share ownership as shown in Table 2. Likewise the 4 per cent for employee share ownership is based on 3 per cent of enterprises with only employee share ownership and 1 per cent with both employee share ownership and profit sharing. All of the figures in this paragraph are computed on this basis.

Approved Profit Sharing Schemes TABLE 1

| Year ended    | No. of extra schemes | a schemes  | No. of employees | Estimated value of     | Average  | Estimated cost |
|---------------|----------------------|------------|------------------|------------------------|----------|----------------|
| 5th April     |                      |            | participating    | shares<br>appropriated | value of | of tax relief  |
|               | Approved             | Cumulative |                  | £m                     | f        | t.t.           |
| 1983          |                      | *          |                  |                        |          |                |
| 1984          | 2                    | 2          | 7.478            | 96                     | 378      |                |
| 1985          | 9                    | 8          | 6.424            | 25                     | 380      | ****           |
| 1986          | 7                    | 15         | 5,465            | 5.3                    | 07.0     | 2.3            |
| 1987          | 13                   | 28         | 16,522           | 25                     | 454      | 3.2            |
| 1988          | 18                   | 46         | 19,206           | 11.9                   | 620      | 2.1            |
| 1989          | 18                   | 64         | 22,855           | 14.8                   | 648      | 6.1            |
| 1990          | 23                   | 87         | 12,175           | 10.4                   | 854      | 4.1            |
| 1991          | 23                   | 110        | 23,955           | 15.2                   | 635      | 5.9            |
| 1992          | 11                   | 121        | 22,352           | 16.1                   | 720      | 62             |
| 1993          | 6                    | 130        | 20,421           | 14.8                   | 725      | 5.3            |
| 1994          | 4                    | 134        | 21,638           | 14.5                   | 029      | 5.4            |
| 1995          | ∞                    | 142        | 30,453           | 22.3                   | 732      | 8.0            |
| 9661          | 27                   | 169        | 32,691           | 35.4                   | 1.083    | 12.7           |
| 1997          | 37                   | 206        | 41,062           | 43.1                   | 1.050    | 15.5           |
| 1998          | 32                   | 238        | 35,397           | 37.0                   | 1.045    | 13.0           |
| 1999          | 54                   | 292        | 48,590           | 54.4                   | 1.120    | 181            |
| 2000          | 48                   | 340*       | na               | na                     | na       | na             |
| Total to 1999 |                      |            | 366,684**        | 307.8                  | 839      | 113.1          |

Source: Office of the Revenue Commissioners (Direct Tax Statistics Office).

There are 310 schemes currently in existence.

This count is of employees who have participated more than once. The Office of the Revenue Commissioners estimates that a total of 179,675 have participated at least once in an Approved Profit Sharing Scheme up to 1999.

The level of profit sharing was particularly high in France with 57 per cent of workplaces providing profit sharing. This is a reflection of the fact that profit sharing is compulsory for firms with more than 50 employees in France. In the UK, 40 per cent of workplaces provided profit sharing and 23 per cent provided employee share ownership. The next highest use of financial participation was in Sweden where 21 per cent of enterprises provided either profit sharing or employee share ownership and the Netherlands where 17 per cent offered at least one of these options.

Percentage of Workplaces with Profit Sharing and Employee Share Ownership in the EU in 1996

| Country     | Profit Sharing<br>Only | Employee Share<br>Ownership Only | Both | None |
|-------------|------------------------|----------------------------------|------|------|
| Denmark     | 9                      | 5                                | 1    | 85   |
| France      | 51                     | 1                                | 6    | 42   |
| Germany     | 12                     | 3                                | 1    | 84   |
| Ireland     | 7                      | 3                                | 1    | 89   |
| Italy       | 4                      | 2                                | 1    | 93   |
| Netherlands | 13                     | 3.                               | 1    | 83   |
| Portugal    | 7                      | 2                                | 0    | 91   |
| Spain       | 6                      | 8                                | 2    | 84   |
| Sweden      | 19                     | 1                                | 1    | 79   |
| UK          | 28                     | 11                               | 12   | 49   |
| Total       | 19                     | 5                                | 4    | 72   |

**Source:** Poutsma, E. and F. Huijgen (1999), *Financial Participation in Europe*, Report for the European Foundation for the Improvement of Living and Working Conditions, Dublin: European Foundation.

In relation to Ireland, these data differ from the data from national sources quoted above. The most comparable of the national sources quoted above is the UCD survey. Both the EPOC and UCD surveys were undertaken at around the same time (1996 or 1997) and both were based on representative samples. However, there are differences between the EPOC and UCD surveys. While the EPOC survey was generally a survey of workplaces, in the case of Ireland it was a survey of enterprises (which may cover more than one workplace). The UCD survey was based on workplaces. A second

difference is that the UCD survey referred to employees in general while the EPOC survey focused specifically on the largest occupational group. A third difference is that the UCD survey excluded construction which was included in the EPOC survey.

The current level of financial participation in Ireland is probably higher than that indicated by EPOC. It is clear from the Office of the Revenue Commissioners data that financial participation in Ireland is increasing. However, given the gap that existed in 1996 between Ireland and the EU average in the use of financial participation, the level of financial participation in Ireland is probably still somewhat below the EU average.

## 3. PROFIT SHARING AND EMPLOYMENT STABILISATION

#### 3.1 The Stabilisation Theory of Profit Sharing

An American economist, Martin Weitzman, has been the leading proponent of the idea that the widespread adoption of profit sharing has significant macroeconomic benefits. It is Weitzman's contention that the introduction of profit sharing creates incentives that move the economy to full employment. Under profit sharing, a company divides its wage payment into a base wage plus a percentage of profits. According to the share economy theory developed by Weitzman (1984), this reduces the short-run marginal cost of labour to employers and provides employers with a cushion to absorb unexpected shocks, without reducing employment. If profit sharing is to function as envisaged by Weitzman, profit sharing is associated with higher productivity, it will be possible for profit sharing to add to employees' total remuneration without increasing labour costs.

One criticism made of profit sharing is that it reduces the incentive for investment. The reason is that if firms have to share a percentage of the profits with their employees, there will be less incentive to undertake the new investment required to generate new profits. There is, however, an important offsetting influence: if profit sharing is able to stabilise the level of demand, this will have a positive effect on investment.

Another criticism made of profit sharing is that by making an employee's pay more variable, this involves a transfer of risk from the shareholders to the employees. This is undesirable for employees; in particular, employees have less opportunity to diversify risk than shareholders who can hold a balanced financial portfolio. However, a key potential advantage of profit sharing is that the stability of employment is enhanced and hence the risk of a decline in employment is reduced. Thus, if profit sharing involves an increased risk of pay variability, one would expect an offsetting reduced risk in terms of employment variability.

## 3.2 Empirical Evidence on the Stabilisation Effects of Profit Sharing

There has been extensive research on the impact of profit sharing on employment behaviour. This research has focused on two key questions:

- (i) whether profit sharing contributes to greater employment stability among the firms that adopt it; and
- (ii) whether profit sharing bonuses are included as part of the short-run marginal cost of labour when making employment decisions (Kruse, 1998).

Comprehensive surveys of research on these issues have been undertaken by Kruse (1998) and OECD (1995). In relation to the first question, about half of the 11 studies included in the review by Kruse found evidence that profit sharing was associated with greater employment stability, while the remaining studies found either partial support or no support for this proposition. The OECD survey found that for the US, most of the studies offered some support for the proposition that profit sharing helps to reduce the variability of employment, although clear-cut statistical tests were lacking. However, the OECD study also pointed out that the evidence for Europe was more mixed. For example, one UK study, Bradley and Estrin (1992), compared one profit sharing retail firm

to its four major competitors and found that, other things being equal, the profit sharing firm was characterised by less variability in employment. However, another UK study (Wadhwani and Wall, 1990) found that the impact of profit sharing on employment stability was statistically *insignificant*.

On the second proposition, that firms include the profit sharing bonus as part of the short-run marginal cost of labour, the evidence is also mixed. The results of ten studies on this issue are reviewed by Kruse (1998). The results of six of these were generally favourable to the profit sharing theory while the results of the remaining studies were either unfavourable or mixed. In the OECD (1995) review, three of the four studies that addressed this issue found some evidence to support the proposition.

Hence, there is some evidence that profit sharing helps to stabilise employment, but to date it is inconclusive.

#### 4. INCENTIVE EFFECTS OF PROFIT SHARING

#### 4.1 Introduction

Profit sharing enables employees to benefit from the success of the enterprise in which they are employed. This is expected to improve employees' incentives and hence contribute to higher productivity. Several potential beneficial effects have been identified in the literature:

Higher motivation and commitment, lower absenteeism and labour turnover, greater identification of workers with the interests of their firm, greater investment in firm specific human capital, reduced intra-firm conflict and labour management tension, and improvements in work organisation (Uvalic, 1991: 12).

In addition, profit sharing may complement and reinforce the benefits of other forms of employee participation.

One of the criticisms of profit sharing, that also applies to other types of group incentives, is that such incentives are an inefficient way of motivating individuals. This is sometimes referred to as the 1/N or free-rider problem. Assume there are N employees in an enterprise. Any extra effort by an individual employee that results in higher profits for employees will only result in a 1/Nth share of profits for the individual employee. As the number of employees becomes large the payoff for the individual employee becomes negligible. In these circumstances, employees may not be motivated to put forward any additional effort, but may seek to free-ride on the contribution of other employees.

This free-rider argument has been criticised. Fitzroy and Kraft (1986: 115) point out that: "the fundamental flaw in the free-rider argument against group incentives is that interaction in the group is neglected." With a group incentive scheme, a worker's income is directly influenced by the productivity of colleagues. This creates an incentive for co-operation in order to maximise the productivity of the group as a whole. The trend towards more flexible production methods has increased the importance of co-operative work organisation.

#### 4.2 Profit Sharing and Performance

Several studies have used formal quantitative techniques to examine the relationship between profit sharing and corporate performance. A comprehensive survey of 26 econometric studies on the relationship between profit sharing and productivity (or in some cases, profitability) is provided by Kruse (1993). Six of the studies were of worker co-operatives. The studies used a range of different techniques. However, there was a remarkable consistency in the findings: almost all the profit sharing coefficients were positive (indicating a positive relationship between profit sharing and productivity) and in the majority of cases, the relationship was statistically significant.

A positive association between profit sharing and productivity is not necessarily proof of a causal relationship. There are four types of selection bias that need to be considered before inferring causality (Kruse, 1993). First, companies with high productivity may be more likely to adopt profit sharing. This can be addressed using data from

before and after the introduction of profit sharing. Second, an improvement in productivity following the introduction of profit sharing may simply reflect a pre-existing upward trend. This can be addressed if one has time series data on performance before and after the introduction of profit sharing. A third potential bias may arise from the introduction of other changes that coincide with the introduction of profit sharing. A fourth selection bias, somewhat different in nature from the other three, is that profit sharing may have a real effect on productivity for firms that adopt it, but this effect may not occur in other firms; that is, some firms may be better-suited to profit sharing than others.

Kruse (1993) sought to address these potential sources of bias by using comprehensive panel data and a range of statistical techniques. He estimated that the adoption of profit sharing in public companies was associated with an average increase in productivity of 3.5 to 5.0 per cent and this increase was sustained. However, there was not an automatic relationship between profit sharing and productivity. Between one-quarter and one-third of the firms who adopted profit sharing had no increase in productivity beyond that predicted by other company characteristics.

Another comprehensive survey reviewed studies of profit sharing from France, Germany, Italy, the United Kingdom and the United States. This survey concluded that:

Overall, despite the limitations of many of the studies, the consistency of the findings is remarkable. Profit sharing is associated with higher productivity levels in every case, regardless of methods, model specification and data used (OECD, 1995: 160).

Thus, the OECD survey confirms the conclusion reached by Kruse (1993) that there is a strong positive association between profit sharing and productivity.

#### 4.3 Role of Participation

Several analysts have emphasised the importance of other organisational factors for the success of profit sharing. For example,

Bell and Hanson (1987) found that the profitability of profit sharing firms in the UK was higher than other firms. However, they did not infer from this that profit sharing by itself leads to improved profitability:

Rather, we believe that profit sharing is normally a consequence of the participative style set by the top management in a company and that it is this management style, with profit sharing as one of the keys to generating commitment to the firm's success, that produces a handsome return for shareholders, managers and employees alike (Bell and Hanson, 1987: 68).

The complementarity between profit sharing and employee participation is also emphasised by two US researchers:

One can imagine profit sharing without participation and vice versa, but in fact, the two are likely to go together in successful participatory systems. In the short run, participation may be its own reward for many employees. In the long run, however, sustained effective participation requires that employees be rewarded for the extra effort which such participation entails, and that they receive a share of any increased productivity or profits... Just as participation can lead to demands for profit sharing, profit sharing can lead to demands for participation. Where there is profit sharing, workers' incomes depend on the decisions of the firms, and workers want to have a say in these decisions (Levine and Tyson, 1990: 209).

In a similar vein, the Profit Sharing Research Foundation (PSRF), a non-profit US foundation which disseminates information on profit sharing, advocates the adoption of 'empowered profit sharing'. This is a combination of profit sharing and employee empowerment. The PSRF argues that:

Individually [profit sharing and employee empowerment] each has demonstrated its ability to enhance worker-satisfaction, productivity and profitability. But profit sharing alone does not necessarily encourage personal involvement, and empowerment may not offer adequate long-term financial or developmental incentives. Together, as

empowered profit sharing, they're a catalyst for changing the structure of the American workplace to make US businesses more competitive in today's evolving global economy (PSRF, 1993: 5).

This PSRF publication describes the effective operation of empowered profit sharing in three major US corporations: Motorola, Hardware Wholesalers, Inc. and Whirlpool Corporation.

The research by Kruse (1993), referred to above, used econometric techniques to try to determine the interaction between profit sharing and other personnel policies (such as job-enrichment, employee involvement and employment security). Perhaps surprisingly, he did not find much evidence that such policies interact with profit sharing. The exception to this was employee involvement, where there was weak evidence of positive interaction between profit sharing and employee involvement.

More recent research on the relationship between profitability and profit sharing found formal evidence of interaction between employee involvement and profit sharing (Kim, 1998). The relationship between profit sharing and profitability is less wellestablished than the relationship between profit sharing and productivity. Even if profit sharing increases productivity, this will not necessarily imply higher profitability, since profit sharing may result in higher labour costs because of the costs of the profit sharing bonuses. Kim (1998) found a positive association between profit sharing and profitability, using a single equation model. However, because of the interdependence between these two variables (more profitable companies are more inclined to offer profit sharing), it is more appropriate to use a simultaneous equation framework. With this method, Kim found that profit sharing on its own no longer had an effect on profitability. However, he found evidence of a significant relationship between profit sharing combined with employee involvement and profitability.

There is evidence that the causality between profit sharing and corporate performance works both ways. This raises the possibility

of profit sharing being part of a virtuous circle of superior economic performance:

Our examination of the economic performance of the suggests that a favourable performance in the company often provides the basis for the adoption of schemes rather than the other way around. However, the introduction of schemes probably enables companies to continue with (and even enhance) a positive performance because there are then no potentially negative consequences of a company making substantial profits and not being prepared to ensure that some part of the increased surplus returns to the workforce. The complex interactions between profit sharing and share ownership schemes and the economic and financial performance of companies should be stressed. There is almost certainly a positive and mutually reinforced relationship (Poole and Jenkins, 1990: 39).

#### 4.4 Conclusion

There is considerable evidence that profit sharing has a positive effect on economic performance. At the same time, an individual company introducing profit sharing will not automatically experience improved performance. Research has not clearly established the circumstances in which profit sharing increases productivity, but there are indications that employee participation enhances the effectiveness of profit sharing.

#### 5. EMPLOYEE SHARE OWNERSHIP

#### 5.1 Introduction

Like profit sharing, employee ownership may contribute to improved attitudes and higher productivity. In practice, incentive schemes may incorporate both profit sharing and share ownership. Employee share ownership is another form of group incentive so the theoretical arguments discussed above in relation to the incentive effects of profit sharing also apply to share ownership. However, the formal theory of employment stability and profit sharing as developed by Weitzman does not apply to employee share ownership.

#### 5.2 Employee Attitudes and Behaviour

A comprehensive review of 26 studies of the impact of employee share ownership on employee attitudes and behaviour is provided by Kruse and Blasi (1997). A majority of these studies relate to the US, but there are also studies from the UK, Canada, New Zealand and Australia. Nine studies of the impact of employee share ownership on employee satisfaction are reviewed by Kruse and Blasi. In four of the studies, there was evidence of greater satisfaction or greater willingness to take the same job again among employee owners, but in several of the studies there was no relationship between satisfaction and ownership. An interesting finding is that in several of the studies there was evidence of a higher level of satisfaction only for those employee owners who perceived greater influence or participation.

The survey evidence in relation to organisational commitment and identity is stronger. Most of the studies found that employee ownership had a positive effect on organisational commitment. The research findings reviewed by Kruse and Blasi on the effects of ownership on motivation are either neutral or positive. In two of the six studies, an improvement in motivation was conditional on participation.

Five studies on the impact of employee ownership on behaviour measures (such as employee turnover, absenteeism, injuries) are also reviewed by Kruse and Blasi. As with the studies on attitudes, the research did not find an automatic impact of employee ownership on behaviour, but some studies found evidence that a combination of ownership and participation had a positive effect.

#### 5.3 Employee Share Ownership and Performance

#### 5.3.1 US Evidence

Employee Share Ownership Plans (ESOPs) emerged in the US in the 1950s (Pendleton *et al.* 1995). There are about 6.5 million employees participating in ESOPs in the US, which is equivalent to 6.4 per cent of the private sector workforce (Kruse and Blasi, 1998). The impact of ESOPs in the US on corporate performance has been

extensively researched. The findings of 11 studies on the performance of US ESOPs are reviewed by Kruse and Blasi (1997). These studies include cross-sectional comparisons of ESOP and non-ESOP companies, before and after comparisons and comparisons of post-adoption growth. The studies generally find evidence of a positive association between the ESOP membership and performance as measured in terms of productivity or profitability, although for the most part the results were not statistically significant. However, Kruse and Blasi undertook a 'meta-analysis' of the results; this is a technique for examining the statistical significance of the combined results from several studies on a particular issue. The findings of the meta-analysis provided support for a statistically significant relationship between ESOP membership and performance, even if for the most part the individual studies did not find a significant relationship.

A number of studies have formally examined the role of employee participation in US ESOP companies. The first study that sought to systematically measure the impact of employee participation in ESOP companies on corporate performance was Quarrey and Rosen (1997).4 This study examined the performance of 45 ESOP companies before and after the introduction of the ESOP. In each case, performance was measured relative to competitors by comparing the performance of each ESOP company to five or more companies of similar size in the same industry. The performance measures used were sales and employment growth. The study found that the introduction of an ESOP was associated with an improvement in sales and employment performance. The annual average rate of growth of employment relative to competitors increased by 3.8 percentage points, while there was a corresponding improvement in sales of 3.5 percentage points following the introduction of the ESOP. The authors then used regression analysis to try to identify what company characteristics were associated with improved performance in the ESOP companies. A wide range of

<sup>4</sup> This study was originally published in the *Harvard Business Review*, September/October 1987, but the references to this study in the text are based on a revised version of the study published in 1997.

variables were examined, but the most consistent and statistically significant effect was for employee participation. Two measures were used to quantify employee participation: (i) managers' perception of worker influence; and (ii) the number of participating groups (quality circles, etc.).

The authors then divided the sample of the ESOP companies into those with low, medium and high degrees of employee participation. It was found that most of the improvement in performance following the adoption of an ESOP was due to firms with either a medium or high level of participation. This study suggests that a combination of employee ownership and participation may lead to faster corporate growth.

Two studies by Gorm Winther of Aalborg University (Denmark) together with American researchers examined the effects of ownership and participation in New York and Washington states, using a similar research methodology to Quarrey and Rosen (1997). Winther and Marens (1997) compared sales and employment growth in ESOP companies, relative to competitors before and after the introduction of an ESOP. As with the Quarrey and Rosen study, Winther and Marens (1997) divided companies into those characterised by high and low employee participation. In the New York study, employee participation was measured on the basis of managers' perception of employee influence while in the Washington study participation was measured on the basis of communication and participation techniques used. In both cases, employee-owned companies with a high level of participation outperformed their competitors. However, the less participative employee-owned companies generally had a poorer performance relative to comparable conventional firms. In the case of the Washington study, these results were statistically significant.

The strong relative performance of the employee-owned participative companies raises the possibility that participation rather than ownership is the key variable. The Washington study went one step further and compared the performance of employee-owned firms to comparable firms that were not employee-owned

but were characterised by high levels of participation. They found that the performance of the high participation employee-owned firms was significantly better even than the high participation non-employee-owned firms. However, the low participation employee-owned firms were outperformed by high participation non-employee-owned firms. Winther and Marens (1997: 417) concluded that: "if there are any incentives at all related to employee ownership as practised in sample firms of New York and Washington, it is probably mainly related to participatory decision-making".

A third study that formally examined the role of participation in ESOP companies was undertaken by the US General Accounting Office (GAO). The performance measures used were profitability and productivity. As with the other two studies mentioned above, the GAO compared the performance of ESOP companies to competitors before and after the establishment of an ESOP. The GAO study, however, did not find evidence that the introduction of an ESOP led to an improvement in productivity or profitability.

The GAO study also examined the effects of a range of variables that may be associated with improved performance in ESOP companies. Of the variables examined, the only one that showed a statistically significant relationship to performance in ESOP companies was the level of participation. The study found that the higher the level of employee participation in corporate decision-making, the higher the rate of change in productivity between the pre-ESOP and post-ESOP period. However, the study pointed out that this relationship was associational, not causal: "it is not clear whether ESOP firms that give their employees a higher level of participation perform well, or whether such firms that are performing well will call upon their employees to participate more in decision-making" (GAO, 1987: 31).

To summarise, the US evidence provides somewhat weak evidence that employee ownership may improve corporate performance, but stronger evidence that a combination of employee ownership and employee participation may contribute to improved performance.

#### 5.3.2 European Evidence

The performance of employee-owned firms in Scandinavian countries was examined by Mygind (1987) in a study for the Nordic Council of Government Secretaries. Mygind found that his sample of 93 employee-owned firms had higher comparative labour and capital productivity than the industry averages (Mygind, 1987)<sup>5</sup>. However, a study of employee ownership in Sweden by Lee (1988)<sup>6</sup> did not find evidence of a significant relationship between total factor productivity and employee ownership.

The relationship between employee share ownership and profitability was examined by Fitzroy and Kraft (1987), using a sample of German metal working firms. To address the problem of simultaneity, they employed simultaneous equation methodology. They found that the ratio of employee share capital ownership to total capital was highly significant.

A UK study by Richardson and Nejad (1986) examined the share prices of firms in the multiple stores sector of the stock market. They found that there was a clear and statistically significant relationship between share price movements and the use of share ownership schemes including share-based profit sharing schemes. These results were consistent with the proposition that financial participation had led to a significant improvement in financial performance.

Since 1992, an index of the share prices of UK quoted companies with a significant level of employee share ownership has been maintained by a private investment company, Capital Strategies. The companies included in the index have more than 10 per cent of their share capital held by or for the benefit of employees, excluding directors. From 1992 to 1999, this index has grown by almost 700 per cent, which is more than double the average increase in the stock market. Technology shares are over-represented in the employee share ownership index so this is a key factor in its strong

- 5 Quoted in Winther and Marens (1997).
- 6 Quoted in Conte and Svejnar (1990).

growth. The company that compiles the index does not claim a simple causal relationship but it says that based on their experience, "employee-owned companies tend to feature progressive approaches to management and communication most often associated with best practice and top performing companies". These include a more open culture and greater employee involvement in the company. "As a result, many companies report incremental improvements in productivity and efficiency and reduced wastage and absenteeism, which can add up to material improvements to the bottom line" (Capital Strategies, 2000).

The impact of employee share ownership and profit sharing on profitability was examined in a recent study covering Germany, France, Britain and Sweden (Festing et al., 1999). This study found a positive and statistically significant relationship between profitability for both employee share ownership and profit sharing. Profit sharing was also associated with lower staff turnover and absenteeism. While employee share ownership was associated with lower absenteeism, it was associated with higher staff turnover.

A study by Brown, Fakhfakh and Sessions (1999), using French data, found that both employee share ownership and profit sharing were associated with significantly lower rates of absenteeism. Employee share ownership was associated with a reduction in absenteeism of 14 per cent, while profit sharing was associated with a reduction of approximately 7 per cent.

#### 5.3.3 Japanese Evidence

Although less well known than its US counterpart, a form of ESOP also exists in Japan. Japanese ESOPs are separate from the more widely known Japanese bonus system. There are no tax incentives for ESOPs in Japan. Employees typically purchase their own shares, with the company subsidising the purchase. Shares are held in trust for employees with limited withdrawal rights; typically it takes 20 years for an employee to be eligible to withdraw some shares. This feature is likely to discourage employee turnover and promote investment in firm-specific human capital. Executives are normally ineligible to participate in ESOPs.

Jones and Kato (1995) estimated the relationship between both ESOPs and bonuses and productivity for a Japanese firm. They estimated that there was a statistically significant relationship between the introduction of an ESOP and productivity. This effect did not appear immediately, but they estimated that three to four years after the introduction of an ESOP, productivity was four to five percentage points higher. They also estimated that the level of employee bonuses had a significant although more modest effect on productivity. The evidence of Jones and Kato on the effects of ESOPs is stronger than has typically been found in US studies.

#### 5.4 Conclusion

The evidence on the relationship between employee share ownership and performance is weaker than is the case for profit sharing. The relationship between employee share ownership and corporate performance has been most comprehensively researched in the US. Most of the US studies find a positive relationship between employee share ownership and productivity/profitability, although for the most part the relationship is not statistically significant. Many studies find evidence that employee share ownership improves employee attitudes and behaviour. There has been only limited research on the circumstances in which employee share ownership has positive effects, but it seems to be most effective when it is combined with other forms of employee involvement.

#### 6. GAINSHARING

Although the term gainsharing is sometimes used to refer to group incentives generally, the term is also used in a more specific sense in relation to arrangements whereby gains arising from cost savings or productivity improvements are shared with workers. Formal gainsharing plans have been used in the US since the 1930s.

A policy guide to gainsharing produced by the US Bureau of National Affairs identifies three major components of any gainsharing plan:

a management philosophy emphasising employee participation, potential and ingenuity;

- a structured involvement system for gathering and implementing employee suggestions towards productivity improvement; and
- a formula to share the benefits of productivity-generated savings between employees and their employer (as quoted in the *European Industrial Relations Review*, Issue 269, June, 1996).

There are three standard gainsharing plans: Scanlon, Rucker and Improshare (Improved Productivity Sharing Plans). The Scanlon plan was the first formal gainsharing plan to be devised. This plan provides bonuses based on the ratio of pay costs to the value of gross output. In the Rucker plan, the focus is on value-added rather than gross output; this provides an incentive for the efficient use of all inputs. The Improshare plan is based on the number of labour hours required to produce a given level of output; a bonus is provided when the number of labour hours required falls below what would be required under "normal conditions" (Strauss, 1990: 23-24). New plans are typically based on one or more of these standard approaches, adapted to the particular needs of an organisation.

Improshare is the most recently developed of the three formal gainsharing plans. In an analysis of the approximately 100 companies in the US that had introduced Improshare plans by 1982, Fein (1983)<sup>7</sup> found that the median increase in labour productivity was 21 per cent. In a subsequent Improshare study, Kaufman (1992) analysed 112 responses to a 1988 questionnaire that was sent to all known users of Improshare at that time. He estimated that Improshare led to a cumulative productivity gain of 17.5 per cent by the third year, following the introduction of the plan.

In a meta-analysis of 33 individual case studies of gainsharing in the US, Bullock and Tubbs (1990)<sup>8</sup> found improved outcomes for

<sup>7</sup> Quoted in Kaufman (1992).

<sup>8</sup> Quoted in Kruse and Blasí (1998).

employees and firms in 67 to 91 per cent of the cases, depending on the outcome measure used. Collins (1998) provides a recent summary of the evidence on the impact of gainsharing plans. He summarises the results of 21 case studies of Scanlon-type gainsharing that have been published since 1979. These studies typically show that companies have had considerable success with gainsharing plans although Collins notes that not all gainsharing plans are successful. He quotes a gainsharing consultant as follows:

Most experts in the field of gainsharing would probably say that the success rate is not over 65 per cent. (This percentage does not include firms with marginal plans, which is a common practice.) No one really knows the failure rate, since most of the plans have been installed by consultants who are frequently unwilling to share their client's experience with others (Ross as quoted by Collins, 1998: 20).

Research has examined the circumstances in which gainsharing plans are successful:

The studies tend to find greater success associated with high employee involvement in design and operation, shorter payout periods, productivity-based awards, controllable targets, use of outside consultants, favourable employee views and managerial commitment when the programme was implemented and perceptions of procedural and distributive justice (Kruse and Blasi, 1998: 44-45).

The significant role of power relationships in gainsharing is emphasised by Collins (1998). A gainsharing plan involves an interest group exchange: management expects to obtain information from workers about the production process and also to improve productivity while workers expect to achieve more involvement in decision making and to receive bonuses. Collins undertook extensive field research on Scanlon plans in six enterprises. He found that the success of Scanlon gainsharing plans depended critically on the effective management of the power games associated with gainsharing.

A paper by Arthur and Jelf (1999) found that the introduction of Scanlon-type gainsharing was followed by a substantial reduction in both grievance rates (i.e. formal written complaints made by employees) and absenteeism rates. This is an indication that gainsharing is not only a financial incentive but also has the potential to improve relations between workers and managers.

A limitation of the research on gainsharing is that there has been no analysis using large scale data sets of the performance of companies with gainsharing plans in comparison to similar companies without plans (Kruse and Blasi, 1998). Nonetheless, there is considerable case study evidence that gainsharing can contribute to improved performance, particularly when it includes employee involvement.

## 7. FINANCIAL PARTICIPATION AND PUBLIC POLICY

This section begins with a brief outline of the policy approach to promoting financial participation in the EU and Ireland. It then considers the most appropriate role of public policy in the light of the research findings discussed in previous sections.

#### 7.1 The EU Approach to Financial Participation<sup>9</sup>

All EU countries (excluding Spain and Italy) have some form of incentives to encourage financial participation schemes. The most comprehensive range of incentives exists in France and the UK. Among European countries, France is unique in having compulsory profit sharing. This applies to all firms with 50 or more employees. The compulsory profit sharing is in the form of deferred profit sharing. The benefits received by employees through deferred profit sharing also receive favourable tax treatment. In addition, France has tax incentives for voluntary cash-based profit sharing, employee share ownership and company savings plans. Legislation in 1994 further enhanced the existing range of incentives. This legislation also created a new council, the Superior Council of Participation, that oversees and co-ordinates both financial participation and employee participation in management. Not surprisingly, France

9 This section draws on European Commission (1997).

has the highest level of financial participation among European countries. As noted above, the EPOC data show that 57 per cent of workplaces in France have profit sharing.

The UK also has a long tradition of financial participation by employees. There is a share-based profit sharing scheme (Approved Profit Sharing Scheme), similar in structure to an equivalent Irish scheme. There are also tax incentives for two share option schemes. The first of these provides incentives for employees to purchase share options and must be available to all employees. The second scheme provides incentives for the granting of options to employees and the company has discretion as to which employees benefit. There are also tax incentives for Employee Share Ownership Plans (ESOPs). In 1987, incentives for cash-based profit sharing were introduced. However, this scheme became very expensive to the UK Treasury and was widely used as a way of converting ordinary bonuses into tax-free lump sums. As a result, the scheme was abolished in 1996.

A report on PEPPER schemes by the European Commission (1997) identified Ireland, the Netherlands and Finland as countries in which government support for these schemes appeared to be increasing. In addition, the report pointed out that in Germany, Spain and Italy, the governments have appealed to the social partners to promote these schemes in the context of wage negotiations.

Thus a number of EU countries are interested in promoting financial participation. In 1992, the European Council recommended that Member States should encourage the development of financial participation through mechanisms such as ensuring adequate legal structures, consideration of the use of fiscal incentives and facilitating the supply of adequate information. The aforementioned European Commission (1997) report made a number of proposals to further the development of financial participation. These included the development of national institutions to develop awareness of the possibilities of financial participation; integration of financial participation schemes into programmes on employee involvement;

avoidance of irresponsible risks for employees in the case of the issue of shares to employees in companies with financial difficulties; the promotion of the exchange of information about different rules and procedures of financial participation across Member States; and the promotion of clear and understandable models and plans for the introduction of financial participation.

### 7.2 Tax Incentives to Promote Financial Participation in Ireland

Tax incentives to encourage employee financial participation have been long established in Ireland but have been made considerably more generous in recent years. The tax incentives to promote Approved Profit Sharing Schemes (APSS) were first introduced in the 1982 Finance Act. Before then any form of profit sharing in Ireland was rare, confined mainly to senior management level (D'Art, 1992). Under an APSS, an employee may be given shares in his/her employing company worth up to £10,000 per annum without being liable for any income tax. The terms of profit sharing schemes were made more favourable in the 1997 Finance Act and the scheme was extended to part-time employees. In the 1999 Finance Act the £10,000 annual limit was increased to £30,000 on a once-off basis where certain conditions are satisfied. In particular, the shares must have been held in an Employee Share Ownership Trust (ESOT) for a minimum period of ten years.

The 1997 Finance Act introduced incentives to encourage the formation of ESOPs. The basic idea of an ESOP is that a trust acquires shares in the employing company for the benefit of employees. ESOPs are being introduced mainly in commercial state enterprises that are in the process of being privatised.

New incentives to encourage employee share ownership were introduced in the 1999 Finance Act in the form of a Save As You Earn (SAYE) share option scheme. Under this scheme, employees agree to save for a fixed time period and are given the option to buy shares in their company at a predetermined price that may be at a discount of up to 25 per cent of the market value at the time. At the end of the savings period employees have a choice. They can take

their accumulated savings and a tax-free bonus. Alternatively, they can avail of the option to purchase shares at the initial predetermined price. The profitability of realising the share option depends on what happens to the share price over the period of the savings contract. This gives employees an incentive to work towards increasing their company's profitability. The profits made on the exercise of the share option are free of income tax but subject to capital gains tax on disposal. In normal circumstances, exercising a share option would create a liability for income tax. By its nature, a SAYE scheme is voluntary so not all employees will necessarily participate. To date (April 2000) 28 SAYE schemes have been approved by the Office of the Revenue Commissioners and there are 30 applications on hand awaiting a decision.

Tax relief is also provided for employees who purchase shares in their employer's company. An employee may claim full tax relief on such shares up to a lifetime maximum of £5,000. This was increased from £3,000 in the 1996 Finance Act. The shares must be retained by the employee for a minimum of three years. Employees may also claim tax relief on the interest on loans taken out to purchase shares in or make a loan to their employer's company. This relief is only available in relation to non-quoted companies.

In the *Programme for Prosperity and Fairness* (PPF), the Government and the social partners acknowledge the role of employee financial participation in developing and deepening partnership and in increasing performance and competitiveness. The Programme includes a commitment to establishing a consultative committee involving ICTU, IBEC and appropriate Government Departments and agencies to prepare proposals for consideration in the context of Budget 2001.

## 7.3 The Role of Policy

One of the potential benefits of profit sharing is its ability to contribute to stabilising the economy at a high level of employment. The share economy theory of profit sharing developed by Weitzman (1984) provides a rigorous economic basis for the idea that profit sharing can contribute to the achievement and maintenance of full

employment. If profit sharing can contribute significantly to stabilising the economy, this would provide a basis for providing tax relief for profit sharing. This is because there are significant external benefits associated with a more stable economy, beyond the direct benefits to the companies and employees that are using profit sharing. The empirical evidence on this issue, as reviewed above, is inconclusive, although some studies have found evidence that profit sharing is associated with more stable employment.

The share economy theory applies only to profit sharing<sup>10</sup> rather than employee share ownership or gainsharing. Nonetheless, employee share ownership and gainsharing are also mechanisms that enable employees to share in both the benefits of the success of their organisations as well as the risks and hence may contribute to stabilising the economy. A recent US study found that employment in a group of publicly quoted companies with substantial employee ownership was more stable than a comparable control group over a 12-year period (Blair, Kruse and Blasi, 1999).

The other potential benefit from profit sharing and related forms of pay is higher productivity. However, the fact that profit sharing may contribute to higher productivity does not in itself provide a basis for policy intervention, such as tax relief. The reason is that the benefits of higher productivity (as distinct from stability) will normally be private benefits to the companies and employees concerned so it is not obvious as to why tax incentives should be provided. However, employers and employees may not be aware of the benefits so there may be a case for incentives to encourage diffusion and experimentation with profit sharing.

The evidence reviewed above suggests that the productivity benefits associated with profit sharing and other group incentives are stronger when such incentives are combined with other forms of

<sup>10</sup> In this context Approved Profit Sharing Schemes (APSS) that are eligible for tax relief in Ireland should be considered as employee share ownership schemes rather than profit sharing. An APSS may comprise a once-off allocation of shares, so does not necessarily imply an ongoing relationship between pay and profits.

employee involvement. Likewise, the research on new work practices has produced substantial evidence that the beneficial effects of new work practices are stronger when these practices are used both in combination with each other and with support from other human resource practices, such as training and appropriate compensation policies (OECD, 1999: 182 and NESC, 1999: 303). This would suggest that from the productivity perspective, the focus should be on promoting profit sharing as part of other workplace changes rather than in isolation.

This would imply that tax relief should only be provided where profit sharing and related forms of pay are integrated with other workplace policies. However, this would not be a practical option. Given the wide range of enterprises and work practices that exist, it would be too complex to draft tax legislation that could address all the issues that arise in relation to new work practices.

There is a role for public policy in relation to information and research for both alternative forms of remuneration and new work practices. While the Irish Profit Sharing Association plays a significant role in providing information on profit sharing, there has been very little research conducted in Ireland on the effects of employee financial participation and in what circumstances it is successful. Supporting research and the provision of information is a cost effective way in which public policy can facilitate the adoption of financial participation.

In the PPF, IBEC and ICTU have agreed to work together to produce guidelines to support, facilitate and encourage employee financial involvement in the context of deepening enterprise partnership and improving performance. The PPF also reaffirms the role of the National Centre for Partnership and Performance (NCPP) in the development of partnership. The NCPP will achieve this through activities including: deliberation, consensus-building, dissemination, monitoring, research, analysis, training and facilitation. In view of the research evidence on the interdependence of various practices in this area, it is appropriate to include compensation policies such as profit sharing in these activities.

### 8. CONCLUSIONS

Although the incidence of financial participation in Ireland is fairly low, many companies have recently introduced or are considering the introduction of financial participation. The current buoyancy of profits provides a favourable environment for the more widespread adoption of financial participation.

There is evidence that financial participation contributes to an increase in productivity, particularly in conjunction with other forms of employee involvement. There is also potential for profit sharing in particular to help stabilise the economy by enabling employees and companies to share benefits and risks in a more flexible way. At a time of economic boom and with Ireland locked into a fixed exchange rate, a move to profit-related pay in Ireland could also lessen the risks associated with an economic slowdown in the future.

Tax incentives may encourage employee financial involvement, but such incentives should be carefully monitored and evaluated, as in general, tax expenditures tend to make tax reform more difficult. Public policy can also play a useful role by supporting research and dissemination of information in this area. There is a need for more research on the Irish experience of financial participation. This research should address not only the effects of financial participation, but also the circumstances in which it makes a difference. Such research should not be limited to large enterprises and the high-tech sector but should cover the actual and potential use of financial participation in small and medium-sized enterprises (SMEs) across the economy. The promotion of financial participation should be integrated with wider efforts to develop enterprise partnership.

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