

# Employee Ownership Pros and Cons - A Review

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# **Employee ownership – pros and cons – a review**

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## **Abstract**

**Purpose** – The purpose of this paper is to give an updated overview of the research on employee ownership. What does the scientific literature reveal about advantages and disadvantages? What can be learned from different models used in Italy, France, Mondragon (Spain), UK and US with many employee-owned firms in contrast to Denmark.

**Design/methodology/approach** – A structured review of the literature on employee. The paper identifies different mechanisms leading to effects on productivity, job stability, distribution, investment etc., and reviews the empirical evidence. The main barriers and drivers are identified and different models for employee ownership in Italy, France, Mondragon (Spain), UK and US are reviewed to identify potential models for a country like Denmark with few employee-owned firms.

**Findings** – The article gives an overview over the theoretical predictions and the main empirical evidence of the effects of employee ownership. The pros are greater employee identification with the firm and increased productivity reinforced by increased participation. Employee-owned firms have more equal distribution of wages and more stable employment, and they have greater mutual control between employees and fewer middle managers. The motivation effects may be smaller for large firms and lack of capital may lead to lower levels of investments and capital per employee.

**Originality/value** – Comprehensive and updated literature review on the effects and successful formats of employee ownership to identify models for implementation in countries with few employee-owned firms.

**Keywords** Employee participation, Employee ownership, Institutional context for employee ownership, Italy, France, Mondragon, Spain, UK, USA, Productivity effects

**Paper type** Research paper

# 1. Introduction

This article grew out of a draft report that was done in 2020 as a background paper for the Danish Federation of Unions, which is the dominant federation in Denmark with more than 1.3 million members. At the time, they wanted to clarify their position in relation to the ongoing political debate about how to promote democratic firms in Denmark including employee owned companies. Our task at the time was to provide a brief review of the existing knowledge of employee-owned enterprises. We have since developed a detailed literature review addressing three questions: What are the pros and cons of this type of firms? Why are there so few? What are the barriers?

There are many theories with different predictions of the economic behavior and performance of employee-owned firms. The predictions vary with the assumptions behind it. In Denmark, there are very few employee-owned enterprises, but in countries such as the US, UK, Spain, France and Italy they are more widespread and a large number of studies have been carried out on their performance in terms of competitiveness, productivity, wages, employment, etc.

We will first define different types of employee ownership: There is great variation, both in *the depth* of employee ownership, from partial employee ownership with small minority positions to full employee ownership, and in the *breadth* of the group of employees who are co-owners. Next, we review the main theories about the effect of employee ownership on productivity and company performance. What is the effect of employee control? What does this mean for the company's short and long-run behavior when the employees define the goals of the company? Then we provide some answers as to why there are so few employee-owned firms, especially in some countries? Why are employee owned firms not widespread if they have productivity advantages? What are the barriers in terms of start-up/change of ownership, entry and exit of employee owners, capital inflows and risk concentration? In some countries, employee ownership is quite widespread, but there is a wide variation in the prevalence of different types in terms of size, capital intensity and industry, and there are differences in how barriers are removed in different countries.

We review the most important theoretical predictions and the actual observed effects of employee ownership. In the last 20-30 years, a large number of studies have been carried out. They have improved over time in their penetration rate, representativeness and reliability. We will therefore focus on newer scientific literature especially after the year 2000. The pioneering theoretical contributions go further back and some empirical contributions from before 2000 are discussed. Most empirical studies are based on data from France, Italy, Spain, UK and US. Also the empirical studies vary in relation to the assumptions behind it. The empirical studies are based on data from different countries and different periods. They also vary in terms of their basis of comparison and use different statistical methods. For the sake of clarity, we will not engage in a deeper discussion of the comparability and validity of these studies; but we have reviewed the literature according to strict criteria, and we refer almost exclusively to research-based literature, which is peer-reviewed and published in recognized scientific journals.

See the overview of the most important studies in Appendix 1.

## 2. Different types and degrees of employee ownership

Different types of employee ownership can be defined based on the three ownership rights: to control, to profits and to capital gains. This is illustrated in Figure 1. In the typical limited liability company, shareholders have a proportional share of all three ownership rights. The emphasis of this report is on *full* employee-owned firms, where the majority of employees own the majority of the company fairly equally; that is, both *deep* and *broad* employee ownership. There are two main types: *individual* employee ownership, where each employee can sell his/her shares upon withdrawal and realize a capital gain, and *collective* ownership, where the increase in equity remains in the company as indivisible reserves. The latter is the typical *worker cooperative model*. In both models, the table indicates that employees can exercise democratic control at the general meeting, including elections for a possible board of directors, and this right is quite evenly distributed – in the worker cooperative by one vote per employee.

**Figure 1. Types and degrees of employee ownership related to the three owner rights**

Type Right to	Control	Profits	Capital
Broad individual majority stake	+	+	+
Worker cooperatives (collective ownership)	+	+	Limited
ESOP with democratic majority ownership	(+)	+	+
Partial employee ownership, minority employee shares/ESOP	Limited	(+)	(+)
Partnership of small group of employees	(+)	(+)	(+)
Profit sharing	0	(+)	0
Employees in the company board	(+)	0	0
Employee funds (Economic Democracy model)	Centralized	Across Firms	Across businesses
Pension funds	Often unions		

Note to Figure 1: + employees have the rights. 0 employees do not have rights. (+) employees have partial rights or small group of employees have rights (Mygind, 2019).

The US Employee Stock Ownership Plan (*ESOP*) is included because it is the most widespread form of majority employee ownership of medium-sized enterprises in the UK and US. The company is owned by an *employee trust*. All full-time permanent employees have a share of the fund, and the yearly distribution to their individual accounts cannot exceed the pay gap between them. Many closely-held companies with ESOPs have majority employee ownership, but especially in large stock market US firms, the ESOP Trust has only a relatively small share. This type belongs to minority employee

ownership in the lower part of the table. Nearly all the larger Danish firms with employee shares have less than 5% owned by the employees (Mathieu, 2019).

We have included various types of partial employee ownership in the lower part of the table, because the gap to deep and broad employee ownership is often fluid. Different types of employee shares can result in a broad group of employees owning shares, but often the total is only a small part of the total share capital. It is therefore a matter of *broad* but not *deep* employee ownership. Conversely, there are deep but narrow employees in many partnerships, which are widespread in professions such as lawyers, architects, engineers and consultancies. They usually have 100% employee ownership, but relatively few senior partners are owners.

Broad profit sharing and employee representatives on the board are examples of employees having a minor part of one of the ownership rights. The Danish proposal for Economic Democracy was not fully employee-owned, because the ownership rights were concentrated in centralized funds that exercised the right of control and pooled financial rights across firms. Each employee had an account in the central ED-fund. The model was never implemented, but the current Danish pension fund system contains many overlapping elements in relation to the ED model.

In the following, we focus on the top three types in the table; but often the theoretical predictions and empirical studies include different forms of partial employee ownership, and there may be developments back and forth between partial and full employee ownership.

### **3. Effects of employee ownership - theory and empirical evidence**

What does employee ownership mean for productivity, competitiveness, employment, wages, etc.? There is a comprehensive literature on both the theory and the empirical evidence. The effects in relation to the employees are first reviewed – their motivation and productivity. The theory predicts positive motivational effects and thus increased productivity for both minority and majority ownership; however, the effects are expected to increase with deeper employee ownership and control. Figure 2 gives an overview of the theoretical predictions.

Next, we deal with the effect on the company's behavior. Here it is particularly important whether employees have majority control and thus the ability to define the company's goals. Do employee-controlled firms have a different behavior from those controlled by external owners? We look at both the more short-term adjustment of production, employment and wages, and the longer-term level of investment.

The start-up of employee-owned firms, their development, and possible closure/shift to other ownership are central to understanding the spread of this type of business. How is start-up and development financed? Do they arise particularly in certain industries with lower capital intensity? Do they arise especially in times of crisis as a defensive tool against unemployment? Does employee ownership terminate due to bankruptcy and closure, or because employees can realize a capital gain from the sale of a successful company?

In this context, we can identify significant barriers for employee-owned firms in relation to financing, risk concentration for employees, problems of entry and exit of employee owners, and the very organization of start-up/employee takeovers. In countries such as France, Italy, Spain, UK and US, these barriers are limited in different ways and this has led to a greater uptake of employee ownership compared with Denmark. We will therefore look at the international experience in relation to how specific rules of the game have facilitated employee ownership/worker cooperatives. Finally, we address some possible societal effects of a greater uptake of employee-owned enterprises in terms of productivity, employment and distribution of income and wealth.

### **3.1 Theory – Effect on productivity and economic performance**

The focus of human resource management is to motivate employees to achieve the company's objectives. Some management groups seek to give employees so-called "psychological ownership" to the company (Pierce *et al.*, 2001). The idea is that everyone is in the same boat - the employees should work for the same goals as the owners of the firms. There are indeed many situations where employees and owners have common interests in developing the company and ensuring competitiveness and employment. However, there are also contradictions e.g. in the distribution of the value added between wages and profits, and in matters relating to the choice of technology, the location of production, employment, etc. When the employees themselves are owners, these conflicting interests disappear. In the case of full employee ownership with the distribution of ownership proportional to the salary, it will not matter to the individual employee whether the value added is paid as salary or profit (Mygind, 1987). However, there may be conflicts about the distribution between different groups of employees and about how much pay now and how much to be saved/invested in the company, about choice of technology, etc. However, it is easier to create a sense of co-ownership when employees actually have ownership of the company. It remains a management task to define the interests of the whole enterprise across different employee groups.

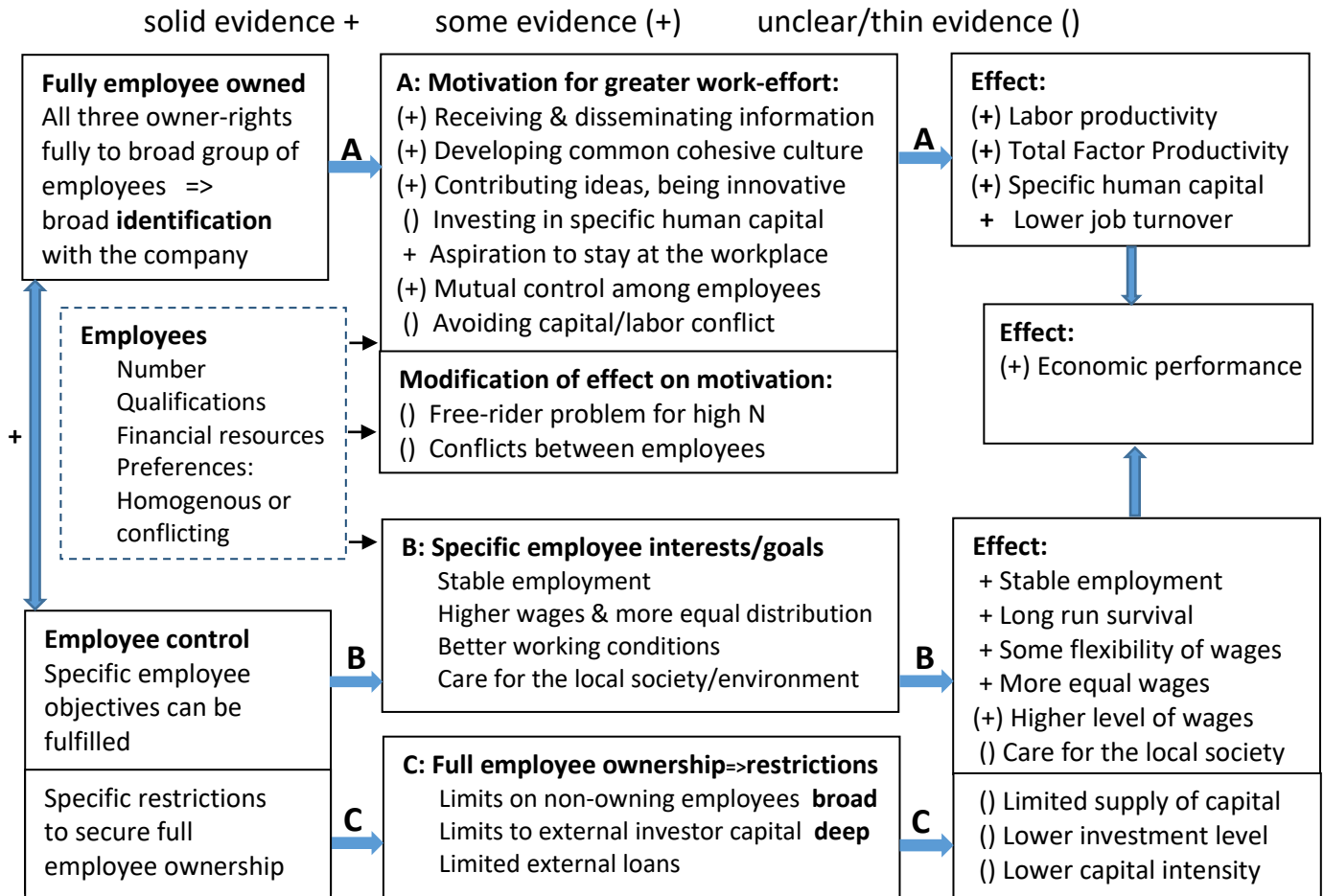
An important part of psychological ownership is the creation of a common identity in relation to the company. An employee can define his work identity primarily as belonging to a particular trade group, which through the union ensures the pay and working conditions or she can see her identity primarily in relation to the company. If conditions are considered unsatisfactory, some will seek employment in other firms. If the identification with the company is weak, it can be assumed that employees will be less motivated to make an extra effort, develop new ideas for products and production processes, and to improve their skills in relation to the specific needs of the company.

Figure 2 indicates three main channels for the impact of employee ownership's on performance:

- A. Employee ownership provides stronger *identification* with the company, and this provides a number of positive motivational effects and thus higher productivity.
- B. Full employee ownership gives employees control, and therefore employees' specific objectives will influence the company's behavior.

- C. To ensure broad and deep employee ownership, there are restrictions on the number of non-owning employees and on the share of external ownership.

**Figure 2. Theoretical predictions and empirical evidence for full employee ownership**



We first look at stronger identification affecting motivation and productivity, A-arrows. Secondly, we see that, particularly for empirical studies, there is no clear separation between A, B and C.

We first present the theoretical predictions and then the evidence, also illustrated in Figure 2.

### Higher identification leads to higher motivation and productivity - intermediate mechanisms

The theoretical literature predicts that employee owners have stronger identification with the company. This leads to greater effort and commitment shown in Figure 2 with the A-arrows - over the intermediary mechanisms in the A-box - continuing with the arrow to the box at the top right corner indicating the final effects on productivity. Employees are more motivated: to receive and disseminate information and to come up with innovative ideas for products and production processes. They become more likely to participate in training in specific skills related to the specific company and they generally gain greater attachment and desire to stay in the company.

The traditional employee role implies that a worker seeks the optimal job by moving to another company with pay and working conditions that better match the employee's preferences. In the employee-owned company, the employee may instead use his/her voice to change the working conditions to match these preferences. This means less change of jobs, lower job-turnover, which in turn strengthens the interest for both the employee and the company in internal training in company-specific skills. With full employee ownership, the contradiction between capital and labor disappears, and the employees develop a strong interest in building a common corporate culture. At the same time, their insider knowledge provides a good basis for developing a strong and constructive counterpart to each other and to the management. The individual employee, the group of employees and the company can make better use their potential to increase productivity of the individual, the team and the overall performance of the company.

### **Modifying mechanisms - the free-rider problem and collective decision-making**

Some theories predict that the incentive effect of profit sharing and employee ownership decrease with the number of employees, because the individual employee bears the entire cost of her own effort but only gets a small fraction of the resulting benefit. This "1/N- or free-rider problem" (Alchian and Demsetz 1972, Jensen and Meckling, 1979) may modify the motivational effect, see the bottom of the A-box in Figure 2. As shown in the empirical review below, the problem can be solved by mutual control between employees. The group of employees loses if some of them do not perform their best. In practice, this results in a lower number of middle managers in employee-owned firms because less managers are necessary for control tasks. The elimination of the conflict between capital and labor also leads to greater and more reliable flows of information between the different layers in the company (Conte and Svejnar, 1990).

Reservations have been raised regarding the time taken for decision-making and possible conflicts related to the involvement of employees in decisions (Jensen and Meckling, 1979). Hansmann (1990, 1996) argued that it is easy to unite different shareholders on a common goal of maximizing share returns, but it may be harder to unite different groups of employees around common objectives.

### **Motivational effect – difference between full and partial employee ownership**

The arguments for identification with the company and higher motivation may also apply to *partial* employee ownership as specified in Figure 3. Employee share schemes, where a broad group of employees own small stakes, may increase identification even without employee control. Another type of partial employee ownership is partnerships where a small group of employees has controlling ownership; but here only these "partners" combine the interests as both employees and owners.

**Figure 3. Overview of combinations of employee ownership with varying depth and breadth**  
Pros and cons in relation to *identification/motivation and various restrictions*



<b>Employee share of ownership</b> <b>Share of employee owners</b>	<b>Low:</b> <b>Minority - Not control</b>	<b>Deep:</b> <b>Majority - Control</b> <b>Restriction:</b> <b>limited external owner-capital</b>
<b>Narrow:</b> <b>Small group of employees are owners</b>	<b>Traditional ownership:</b> <b>small group of employees with minority ownership</b>  <b>Benefits:</b> Increased motivation for small group of employee owners  <b>Cons:</b> Partial identification for some, but no identification for large group of employees	<b>Partnership/majority ownership control by small group of employees/partners</b>  <b>Benefits:</b> Identification and motivation for small but often homogeneous group of employees/partners  <b>Cons:</b> No motivating effect for large group of employees
<b>Broad:</b> <b>All employees are owners</b>  <b>Restriction:</b> <b>No non-owning employees</b>	<b>Minority employee ownership for broad group of employees</b>  <b>Benefits:</b> Increased motivation of a broad group of employees  <b>Cons:</b> Identification tempered by limited ownership and lack of influence/control	<b>Full employee ownership with control</b>  <b>Benefits:</b> Identification and motivation for all employees  <b>Cons:</b> No external ownership capital => limitation on capital inflows No non-owning employees => less flexibility of labor inputs Possible contradictions between employee groups

However, it can be expected that the broader and deeper the employee ownership, the greater the employee motivation and identification with the company. This applies to all the three ownership rights. As shown in the empirical review, several studies indicate that the productivity effect is greatest when financial ownership rights are combined with actual control rights (Conte and Svejnar, 1990; Levine and Tyson, 1990; Ben-Ner and Jones, 1995). This can be explained by greater identification when employees are directly involved in the decision-making processes, and the company therefore gives particular weight to the employees' objectives of employment, safety, pay and other working conditions. This is illustrated with the B-arrow in Figure 2.

Figure 3 indicates some important differences between full and partial employee ownership. To ensure full employee ownership, there are restrictions on external ownership and the number of non-owning employees. If the majority is taken over by external capital, or if the number of non-owning employees increases, there is a change to *partial* employee ownership. Motivational effects can still be expected; but they would either cover only the minority group of partners, or have less

effect in case of minority employee ownership. However, partial employee ownership do not have restrictions on access to external capital and in relation to entry and exit of non-owning employees.

### **3.2 Empirical evidence – identification, motivation and productivity**

In the following overview, the emphasis is on different measures of productivity, but we will also address other indicators of company performance. First, we look at general studies and then at studies that look at the specific intermediate mechanisms listed at the top of the A-box in Figure 2. We focus on fully employee owned but many studies includes also partial employee ownership.

#### **Productivity and economic returns**

Kaarsemaaker, Pendleton and Poutsma (2010:328) summarize 70 studies on employee-owned firms' performance and various overviews: "Consensus for this literature can be formulated as follows: Employee ownership has positive effects on company performance (especially productivity), but these results are often quite small and/or not significant. Positive effects tend to be bigger and stronger for firms with majority employee ownership compared to minority employee share schemes". Perotin and Robinson (2003:31) conclude after a comprehensive review of studies of employee ownership and productivity: "One of the clearest conclusions of international empirical research into financial participation (full and partial employee ownership) is the solid evidence of a positive or neutral effect on productivity."

The exception to the general trend is a study by Faleye *et al.* (2006), which examines listed firms in US in 1995-2001. In this study, a company is characterized as employee-owned when employees through different types of employee ownership own at least 5% of the stock. They find a negative correlation between such partial employee ownership and productivity as well as market value (relative to firms without employee ownership). They explain this by "labor voice" displacing traditional shareholder interests. However, the governance elements are not specified and not included in the statistical analysis and much of the ownership included as "labor voice" are diversified holdings related to different types of employee ownership plans rarely giving votes to employees.

O'Boyle *et al.* (2016) are a more recent contribution to the literature and already one of the most cited. It is a meta-analysis of results from previous studies, which in this way are brought together across time and place into a single result. In addition to being easy to communicate it also seems to be very robust. Based on results from 102 empirical studies, they find that, on average, there is a positive and statistically significant correlation between the existence of employee ownership and a company's financial returns. It makes no difference whether a company is listed or private. They also find that this correlation has increased over time. The study finds no correlation between the depth of employee ownership – the share owned by the employees – and the financial return. In this respect, however, it should be noted that only 37 of the 102 studies have specified the ownership

share, and fewer observations make it more difficult to find statistically significant correlations. The breadth of co-ownership is not investigated.

Other studies find that there is correlation between financial returns and both breadth and depth. Blasi *et al.* (2016) find that there is a positive and significant correlation between the depth of employee ownership and the return on equity. Based on questionnaire data, Sengupta (2008) finds that labor productivity – self-determined by respondents – is higher when employee ownership is broader. Kramer (2010) combines depth and breadth by examining what happens to productivity (measured as turnover per employee) in firms with broad employee ownership when the depth changes. The study covers 331 U.S. majority ESOPs compared to a similar number of traditionally owned firms. He finds that ESOPs have higher labor productivity, and it increases with both the depth and breadth of ownership. It is debatable whether the majority ESOP is fully employee-owned because they do not normally pass the full control right on to the group of employees. Kramer (2010) shows that increased employee participation in control increases productivity.

Blasi *et al.* (2013) have data that allow them to do pre-post analyses of the financial performance of traditionally owned firms that introduce ESOPs. This type of analysis is good at clarifying causality because it makes it possible to examine the same company under two different forms of ownership instead of comparing different firms across ownership forms. The results are therefore not affected by the basis of comparison - they compare the company with itself. They consider that these new ESOP firms increase productivity more than comparable firms that maintain external ownership.

One of the most interesting contributions to recent empirical literature is Fakhfakh *et al.* (2012), which compare all French worker cooperatives over 20 employees with a group of traditionally owned French firms for the period 1987-2004. They conclude that worker cooperatives in different industries have the same or higher total factor productivity as the traditionally owned. This is indicated with “some evidence” in Figure 2.

In addition to the strong data, the study is interesting because of its counterfactual design, which examines how a company with a particular ownership form will perform if it sticks to its ownership, but uses production technology including the motivation effects of a company with a different ownership form. They show that employee-owned firms make no advance in efficiency by adopting conventional firms' manufacturing technology, but conventional firms can achieve efficiency gains by using the technology of employee-owned firms. The main difference lies in the positive motivation effects of increased employee involvement. Employment is slightly more stable in the cooperatives, but the difference is only marginally significant.

In summary, a broad specter of studies point to either, the same or higher productivity for employee owned enterprises. The few exceptions are concentrated around partial employee ownership in large companies. We indicate with “some evidence” for higher productivity in Figure 2.

### **Intermediate and modifying mechanisms**

As indicated in the A-box of Figure 2, the increased motivation of employees can lead to different types of employee behavior that increase productivity and these effects can be mutually reinforcing. However, there may also be modifying elements. In the following, we look at studies that address these intermediate factors. We start with the most discussed modifying element, the free-rider problem. Then we review studies that highlight the importance of involving employees in decisions.

### *The free-rider problem*

There is not consensus about the existence of the free-rider problem, which should be increasing with the number of employees. O'Boyle *et al.* (2016) find in their meta-analysis no correlation between the performance of employee ownership and the number of employees.

Kim and Ouimet (2014) analyze the impact of ESOPs in large U.S. publicly traded industrial firms, which they divide into the 25 % largest firms in terms of employees and the remaining group with a lower number of employees. These groups are divided again, according to whether their ESOP own less than 5% or more than 5% of the share capital. There will continue to be a typical minority ownership of the "large" ESOPs in listed firms, but the authors do not accurately state this. They find that small programs in firms with the lower number of employees imply the greatest productivity gains measured as total factor productivity (TFP). There are minor gains from large programs in firms with the relatively low number of employees, but no productivity effects for firms with more than 15,000 employees, where the free-rider problem is thought to be insurmountable. It could be argued that the negative results for employee ownership in the study of Faleye *et al.* (2006) could also be related to the large size of the listed firms with some employee ownership. The average for the firms with more than 5% employee ownership is 6940 employees. Kramer (2010) also finds the advantage of employee ownership is greatest in firms with relatively few employees, but he finds that productivity gains are increasing with deeper employee ownership.

The main argument against the free-rider problem is the increased mutual control between employees of employee-owned firms (Perotin and Robinson, 2003). This is demonstrated by the fact that the number of middle managers is usually lower in these firms because there is no need for a management-layer primarily with control tasks. (Bradley and Gelb, 1981; Fitzroy and Kraft, 1987; Pencavel and Craig, 1992; Fakhfakh *et al.*, 2012). This mutual control is documented in the large NBER and GSS studies of Freeman *et al.* (2010) and Blasi *et al.* (2010). They show that financial participation, and in particular employee ownership, results in each employee having greater identification with the company and a greater tendency to control the employee group's efforts.

There is some evidence for the free-rider problem in large partial employee owned firms, but several studies, especially for full employee ownership, indicate that the problem is resolved by mutual employee control, marked by "solid evidence" in Figure 2. For free riding, the evidence is "unclear".

### *Conflicts between employee groups*

We have not found empirical analyses of the effect of the theoretically predicted modification in relation to conflicts between different employee groups. To illustrate the issue, we can refer to Danish case studies that showed that some employee-owned firms spent relatively a lot of time on discussions and decision-making processes involving broad groups of employees; however, once the decision had been taken the implementation was considerably faster because the employees were already sufficiently informed (Ingerslev *et al.*, 1984). The daily newspaper, "Information", had full employee ownership during the period 1971-1990. There were often conflicts between two large groups of employees, typographers/printers and journalists (Westenholz and Mygind, 1982). This was at a time when major technological changes led to a sharp reduction in the typographer/printing group in all newspapers, and led to long labor disputes. However, unlike most other newspapers, there were no capital/labor conflict, no strikes on "Information", but much time was spent on discussions between the two groups. Like other newspapers, Information's economy was squeezed and many of the traditionally owned newspapers closed or changed owners. In the 1990s, Information's ownership changed to foundation ownership. We summarize the result with "thin evidence" in Figure 2 both concerning conflicts among employees and avoiding capital/labor conflict.

### *The importance of participation*

Participation can be implemented in many ways, from newsletters and staff meetings to representative systems such as employee-elected board members. Several studies find that the productivity effect is greatest when financial ownership rights are combined with actual control rights. Previous studies include Conte and Svejnar (1990), Levine and Tyson (1990), Ben-Ner and Jones (1995) and Doucouliagos (1995).

Whitfield *et al.* (2017), stresses the importance of supplementing employee ownership with other practices of inclusion and participation when the free-rider problem may be a threat. It is essential to see employee ownership as more than an attempt to transfer some of the financial risk to employees without involving them. Likewise, Kaarsemaker and Poutsma (2006) argue that firms with information sharing and employee participation perform better because such practices signal that employees deserve to be co-owners. "An employee cannot be a real owner if he or she has no say, if he or she does not share in the returns, if he or she has no information about the business" (Kaarsemaker and Poutsma 2006:679).

Other and more direct studies of participation confirm this result. We have mentioned participation in relation to the free-rider issue and highlighted involvement as an intermediate mechanism for co-worker monitoring. According to Fuller *et al.* (2006), there is a positive link between involvement and identification, which can lead to both more monitoring and more cohesion. Kim and Han (2019) show that the combination of broad employee ownership and employee participation creates cohesion that improves work productivity. Robinson and Wilson (2006) find, that independently of other factors, employee ownership has a positive and statistically significant correlation with productivity and that this link is strengthened by different forms of involvement and information sharing.

Lampel *et al.* (2014) examine the importance of employee ownership for the stability of financial returns over the recession following the financial crisis. Their results indicate that employee ownership is not sufficient to achieve greater resilience. Employee ownership must be combined with participation in order to achieve this result. Kruse *et al.* (2010c) and Blasi *et al.* (2010) show the positive correlation between employee ownership and the package of participation, identification and common identity based on the survey of 40,000 employees of 14 large U.S. firms with ESOPs or ESOP-like schemes. This underlines the intermediate mechanisms in relation to productivity and other performance targets.

Kalmi *et al.* (2005) use questionnaire data from employees in large listed firms with employee shares (very low degree of employee ownership) and profit sharing. They find a positive connection between employee ownership and the perceived performance, and it increases with breadth. This is similar to most other studies, but unlike many others, Kalmi *et al.* (2005) considers that neither direct nor indirect involvement increases performance. Their explanation is that the depth of ownership is too low to give a sense of ownership. Employee ownership is primarily perceived as an addition to the pay package. Therefore, synergies with other forms of inclusion are less important.

Whitfield *et al.* (2017) also uses qualitative performance estimates from surveys of business leaders, distinguishing between downward and upward communication, finding (somewhat surprising) that it is only inclusion based on downward information like staff meetings or newsletters, which, together with partial employee ownership, correlate positively with performance. Upward communication through quality circles or proposal collection has no synergies with partial employee ownership.

In summary, there is “solid evidence” for the importance of combining participation and ownership especially for fully employee owned, indicated by “+” beside the vertical arrow to the left in Figure 2.

#### *Common workplace culture and sharing Information*

Several studies emphasize the broader relationship from participation to the development of a common culture – a greater degree of cohesion – as an intermediate mechanism between employee ownership and increased productivity (Fuller *et al.*, 2006; Kim and Han, 2019; and Robinson and Wilson, 2006; Blasi *et al.*, 2010). Sengupta and Yoon (2018) show a link between less wage dispersion and higher productivity with cohesion as an intermediate mechanism. “Solid evidence”, Figure 2.

Robinson and Wilson (2006) highlight information sharing as an essential part of the mechanism for increased productivity. This is modified by Whitfield *et al.* (2017), who only find effects of information from the top down to the employees. Thus, “unclear evidence” on information sharing in Figure 2.

#### *Participation in training – investing in specific human capital*

Figure 2 illustrates how employee identification with the company lead to greater participation in including continuing training in specific skills associated with the specific company. This relates to the demand from employees. The supply-side is studied in Pendleton and Robinson (2011). They examine

the link between employee ownership and employee training based on two hypotheses: 1) There is a greater propensity of continuing training in employee-owned firms and 2) The probability increases with the depth of ownership. Employee ownership itself is insufficient to ensure further training, which only seems to become reality when there is a high degree of employee ownership. The authors argue that deep ownership means that employees stay longer in the company, which therefore benefits more from continuing training. Because we identify only one study the conclusion regarding training as intermediary mechanism is “thin evidence” in Figure 2.

#### *Identification and aspiration to stay in the workplace*

Sengupta *et al.* (2007) first show that there is a positive and statistically significant correlation between employee ownership and perceived productivity. Next, they find that firms with employee ownership have lower voluntary shifts to other employment outside the company, and this may explain the high productivity. They do not find increased employee identification with the company. However, these results are challenged by Whitfield *et al.* (2017), which uses data from the same workplace employment relations study, but covering some later years. Unlike Sengupta *et al.* (2007), they find that there is no significant correlation between partial employee ownership and employee turnover; but there is a correlation between employee ownership and intermediate mechanisms related to identification. The most robust study of the effect of employee ownership on the desire to stay in the workplace is the large US NBER/GSS study published in 2010. Based on a large and broad survey, they find that significantly more employee owners than non-owners respond that they want to stay in the workplace rather than changing job (Blasi *et al.*, 2010). Thus, Figure 2 indicates that there is “some evidence” for higher aspiration to stay in employee owned firms.

#### *More innovative ideas from the employees*

Another important result in Blasi *et al.* (2010) is that employees in employee owned firms are significantly more likely to respond that there is a strong tendency for employees to come up with innovative ideas. On similarly solid data, Harden *et al.* (2010) shows that employee ownership creates an innovative culture and significantly promotes "the willingness of employees to come up with innovative ideas for the company" (p. 238). Kruse *et al.* (2010b) note that employee ownership and other forms of financial participation are highest in some of the most innovative sectors in the United States, including computer service (Blasi *et al.* 2002). We conclude: “some evidence” for being innovative in Figure 2.

### **3.3 Theory - effects of employee control - changed goals and behaviors**

#### *Employee control - changed goals and behavior - short run*

Full employee ownership means that employees gain control, and they can therefore pursue specific objectives – indicated by the B-arrows in Figure 2. At the same time, full employee ownership

imposes restrictions on the number of non-owning employees and restrictions on external owner-capital – indicated by the C-arrows. This is the background for specific theories for full employee-owned business goals and behaviors in both the short and long term.

Since Ward (1958), criticism has focused on the adjustment behavior of the employee-owned firm. The starting point has been collective ownership, and it was assumed that the employee-owned company, instead of maximizing profits, would maximize the average income per employee (Domar, 1966; Vanek, 1970). Thus, contrary to the traditional firm, the employee-owned firm would respond to a demand increase with a falling supply. In the traditional company, pay is assumed to be constant, but for employee-ownership income per employee increases with output price, making an additional employee more expensive. The remaining employee owners will each obtain a higher remuneration by reducing production and employment. However, there are many objections to the realism of this model, and it has been modified to predict that employee-owned firms have a slower adjustment of supply and more stable employment, but more volatile remuneration than traditionally owned enterprises (Vanek, 1970; Bonin *et al.*, 1993). If the model allows temporary employees without ownership, the theory predicts that this labor is used as a buffer, just like in the investor-owned company (Dow, 2018).

If the starting point instead is the individually owned company and the objective is assumed to be maximization of the value of the employees' shares, the economic adjustment mechanism correspond to the traditionally owned company (Sertel, 1982; Mygind, 1987; Dow, 2018). For both collective and individual ownership, it can be assumed that employees follow more advanced objectives: Their particular preferences for, e.g. safe working conditions and stable employment will have higher priority than in conventional firms (see Figure 2). A longer tenure and longer time horizon can be expected, both because the company places more emphasis on stable employment and because the individual employee prefers staying rather than switching to another workplace. In this context, it can be expected that the links with the local community will prevail and the relocation of production to other countries will be lower. More equal distribution of ownership suggests a more equitable distribution of pay. The lowest paid may have relatively high wages and the highest paid relatively low pay compared to traditionally owned firms (Dow, 2018).

The change in behavior presupposes that employee control of the company results in a change in priority of the objectives and that all employees are owners. When employees only own minority positions and the dominant ownership lies with external capital or with a smaller group of partners, theory predicts traditional behavior in both the short and long run. This also applies if the company can hire non-owning employees making a buffer against market fluctuations.

#### *Employee control - changed goals and behavior - long run*

The *long-run* investments and adjustment of capital stock will for the individually owned enterprise be similar to the traditionally owned company. For the collectively owned company, the classic theory predicts underinvestment because employees cannot extract their share of the accumulated



values when they leave the company. The timeframe for investments will be relatively short if a dominant group of employees expects to leave the company before the investment has paid off (Furubotn and Pejovich, 1970). However, according to Bartlett and Uvalic (1986), the time horizon is an empirical question. They assume that the employees expect longer employment in the employee-owned company than the typical time horizon for investments in a traditionally owned company.

The traditional theory for collective employee ownership assumes that the current employees are reluctant to share the return of accumulated capital with new employees if the newcomers do not pay compensation to the existing group upon joining the company. This problem can be "solved" in two ways: For individual ownership, incoming employees pay the market price for their share upon entry, and existing employees are compensated for the accumulated values. For collective ownership, the prediction also changes if the employees do not follow a narrow individual maxim, but instead have collectively oriented goals around the company's long-term development. Therefore, a combination of collective ownership and collective objectives can avoid underinvestment in the employee-owned company (Mygind, 1992). As in Italy and France, there may be special savings requirements in the company that contribute to a higher level of investment (Perotin, 2016). Another possibility is used in the US ESOP, where credit is used by the employee Trust to continue to purchase shares by the Trust on behalf of the newer incoming employees while the departing employees are "bought out" of their shares when they depart. The capital that enters the firm when the ESOP Trust buys new shares for new employees creates new investment capital in the firm.

There may be a barrier to the financing of major investments in the employee-owned company. External ownership dilutes employee ownership, and additional loan capital may be limited if lenders are skeptical about employee objectives and their ability to repay the loan (Dow, 2003, 2018). Therefore, it can be difficult for employee-owned firms to operate in industries that require a high capital per employee. This also applies to the start-up of an employee-owned company, where external investors often require co-ownership and possible high return to cover the high initial risk.

### **3.4 Empirical evidence - employee control - changed targets and behaviors**

#### *More wage equality*

A characteristic objective of fully employee-owned enterprises is a smaller spread of wages. It is documented by Bartlett *et al.* (1992) for Italian cooperatives, Craig and Pencavel (1995) for the Plywood cooperatives in US, and Magne (2017) for worker cooperatives in France. Based on extensive data comparing the salaries of worker cooperatives with traditionally owned firms in Uruguay, Burdin (2016) finds that wage inequality is significantly lower and pay levels slightly higher in worker cooperatives. He also finds that the lowest earners, who have the greatest wage benefit, also have the lowest voluntary termination rate.

Sengupta and Yoon (2018) examine whether pay inequality between different employee groups affects the productivity of employee ownership as measured by sales per employee. They find that less inequality has a positive effect on productivity, and explain that high wage spreads are poorly suited to the egalitarian principles of employee ownership.

Arando *et al.* (2015) investigates the Mondragon cooperatives in Spain with various types of employee ownership. There are even firms affiliated without employee ownership. Based on econometric case studies, they find that employees in firms with more employee ownership have more egalitarian wage distribution. Mondragon cooperatives have a maximum wage spread of 1:6 between the lowest paid and highest paid, although there are a few exceptions. According to Dow (2003), this means that CEO salaries are 70 % of the level of comparable traditionally owned firms.

In summary, there is “solid evidence” that employee ownership leads to more equal wage distribution.

#### *More flexible pay and more stable employment*

In line with the theory, empirical evidence shows that, unlike externally owned firms, employee-owned enterprises have a clear tendency for wage levels to vary, while employment is relatively stable over the business cycle. Pencavel and Craig (1992, 1994) have, over a number of years, compared Plywood cooperatives with traditionally owned firms in the industry. Their results show a more flexible pay and more stable employment in cooperatives. Pencavel *et al.* (2006) shows for Italian worker cooperatives more flexible and lower wages, but more stable employment compared to traditionally owned firms. For Uruguay, Burdín and Dean (2009) also find more flexible pay and more stable employment. Worker cooperatives can have up to 20% non-owning employees. Burdín and Dean show that these non-owners also have higher job security than their counterparts in conventional firms. Their explanation is that daily interaction increases the reciprocity and solidarity between the two groups of employees.

Studies of widely held firms in US suggest that employee ownership leads to more stable employment. These studies also cover minority ownership, but show that the effect increases with employee ownership. Blair *et al.* (2000) surveyed US firms with broad employee ownership schemes and more than 17% employee ownership 1983-1995 and compare with similar traditionally owned firms in the same industry. They found higher employment stability with no worse performance for the share price. Park *et al.* (2004) found similar results for employment stability through the 2001 crisis and Blasi *et al.* (2013) found that unlisted ESOPs had greater employment stability in the period 1988-2001 than comparable traditionally owned firms.

One of the most recent and comprehensive studies for the United States is Kurtulus and Kruse (2018), which looks at developments for 1999-2011 including the two crises starting 2001 and 2008. They include all listed firms and analyze the impact of employee ownership schemes - including both depth and breadth. They find more employment stability in firms with employee ownership. The strongest effects are related to the average value of each employee's shares (depth) and the proportion of

owning employees (breadth). The ESOP model has a stronger stabilizing effect compared to narrower and more individually oriented types of employee ownership.

Kurtulus and Kruse argue that employees build long-term cooperative relationships, and increase employee effort and willingness to accept adjustments in times of crisis. It can increase productivity and reduce the need for redundancies. For a smaller group of the investigated firms, they show that these positive effects occur when a company changes ownership to deeper and broader employee ownership. This result supports the existence of a causal relationship from employee ownership to more emphasis on specific employee objectives.

In conclusion, there is “solid evidence” for both more flexible pay and more stable employment in employee owned firms.

### *Higher wage levels*

The stabilization of employment may mean that, in times of crisis, wage levels may be relatively low, but most studies show the same or higher wage levels for worker cooperatives. (Bartlett *et al.*, 1992; Burdin, 2016; Magne, 2017). The exception is Italian workers' cooperatives with lower pay levels for a period examined by Pencavel *et al.* (2006). Data for broad ESOP schemes in the US indicate that wage levels are higher or the same as for traditionally owned firms. There are a few examples where the introduction of the ESOP took place in the context of certain wage restraints (Blasi and Kruse, 1991). However, a study covering the period 1982-2001 for listed firms found that the salary, without ESOP contributions, increased for ESOPs with less than 5% ownership and was constant for ESOP's over 5% compared to similar traditionally owned firms (Kim and Ouimet, 2014). This tendency for ESOP contributions to be added on top of wages has also been confirmed by Kardas *et al.* (1998) and Scharf and Mackin (2000). The NBER study also indicates that employee shares are associated with higher wages (Kruse *et al.*, 2010; Kruse *et al.*, 2010b), while Blasi *et al.* (1996) shows the same level of pay in a study of publicly-traded stock market companies with low percentages of employee ownership. We conclude that for both fully and partial employee ownership there is “some evidence” for higher wage levels.

### *Level of investment and capital per employee*

The investment level of employee owned firms is an important theme in the theoretical literature. Do the special restrictions on the inputs of capital for full employee ownership mean a lower level of investment and lower capital per employee? There is no clear answer in the empirical studies.

Bartlett *et al.* (1992) and Jones (2007) found lower capital per employee in Italian worker cooperatives; but later Bartlett (1994) found higher capital intensity, while Pencavel *et al.* (2006) found no significant difference between capital per employee of cooperatives and traditionally owned enterprises in the same industries. In the US, Berman and Berman (1989) found lower capital intensity in Plywood cooperatives. Fakhfakh *et al.* (2012) found that the average capital intensity is the same for

employee ownership and traditional ownership in 5 of 8 industries. It is higher for traditional ownership in the two most capital-intensive industries: capital goods and transport, as well as for consumer services. They find no evidence of underinvestment in worker cooperatives, which adjust their capital intensity with the same frequency and to the same extent as conventional firms.

Are worker cooperatives especially found in low-capital-intensity-sectors? After a review of similar studies of worker cooperatives in France, Spain, UK and Uruguay, Pérotin (2016), concludes that they have roughly the same industry distribution as conventional firms. Thus, the sectoral distribution does not provide evidence that worker cooperatives exist in the least capital-intensive industries. She also concludes that they withhold a larger proportion of their profits than other firms, but points out that for France and to some extent for Italy and Spain, this is also linked to specific regulatory requirements, tax advantages and provisions for collective reserves. In France, worker cooperatives e.g. have to reinvest at least 25% of profits, though the average is 45% of profits.

Podivinsky and Stewart (2009) analyze the start-up of new employee-owned firms in the UK in different industries. They find relatively fewer start-ups of worker cooperatives in industries with high capital intensity and high risk (high variation in profits). In the 1980s there was a cluster effect of new cooperatives in footwear and clothing as well as in paper, printing and publishing.

It is difficult to make a final conclusion on capital intensity. We mark it “unclear” in Figure 2.

### *Survival*

A crucial test of a company's ownership, management and operation is its survival. Pérotin (2004) examines all start-up labor cooperatives in France between 1977 and 1993. She notes that start-up conditions determine the relationship between the company's age and the risk of closure, and therefore examines both firms born as employee owned and firms that were taken over by employees. For worker cooperatives, the risk of closure is increasing in the first three years, but in the fourth year the curve breaks and then the risk decreases. For non-employee-owned enterprises, there is a monotonous decrease in the risk of closure from the start. Initially, the risk of closure is highest among traditionally owned firms, but decreases in the early years of life, while it increases for employee-owned firms. The two types converge against the same long-term risk. The risk of closure is greater for start-ups than for those who are converters to employee ownership.

The higher stability of employment, especially in times of recession, is likely to be reflected in the long-term survival of employee-owned enterprises. Blair et al. (2000) follows 27 large listed ESOPs with depth of around 20-50% over the period 1984-1997 and finds a significantly higher survival rate compared to similar firms without ESOPs. Olsen (2013) reviews the literature and concludes that fully employee owned firms have higher long run survival. Their economic performance is the same or better than conventional firms and therefore their relative rarity is because of start-up problems.

Blasi *et al.* (2013) build a dataset based on the entire population of unlisted ESOPs in 1988 plus new ESOPs up to 1994 using US Federal data – a total of just over 1500 firms. Each of these is matched

with a twin company (size, industry, state in US) with traditional ownership. They investigate the risk of bankruptcy or closure in the following decade. They find that in 1988 employee-owned enterprises had only half the risk of bankruptcy or closure (acquisitions not included) over the period 1988-1999 compared to other undertakings. Burdin (2014) shows that worker cooperatives in Uruguay have a better survival rate than similar traditionally owned firms and that the difference is greater for service than for industry and transport. The difference may be due to lower capital requirements in the services sector.

There can be several reasons for the termination of employee ownership. As with traditionally owned firms, technological and market shifts combined with a lack of competitiveness can lead to closure. Sales to external owners can take place both in the event of economic crises, but also in the case that the employees of a successful company get a good offer for their shares.

In conclusion, we find quite “solid evidence” for high long run survival of employee owned firms.

In Figure 2, we also hypothesized that fully employee owned companies take more care for the local society and environment because the employees in control typically live quite close to their company. However, it is difficult to find empirical evidence focusing on this, but as explained in section 5 on the experience in different countries, especially the Mondragon cooperatives and clusters of worker cooperative in Italy and the Plywood cooperatives in US bear witness to the attachment and care for the local area. Still, we mark this evidence as “unclear, thin evidence”.

## **4. Why so few? - Barriers to employee ownership**

Given the productivity benefits and long run survival of employee owned firms, why are there relatively few of these firms? This can be explained by the following main barriers:

- *Organization problem* – if a special model is missing for organizing the employee ownership
- *Start-up problem* – difficult to organize a group of employees in the start-up stage
- The *entry/exit problem* of employee owners – difficult to ensure that the retiring employees give up and the new coming employees obtain ownership
- *Capital problem* – difficult to raise enough capital for start-up and later development
- *Risk problem* – employees are at risk of both losing their jobs and their owner-capital

There is some overlaps between these problems, especially between the first three and the last two.

### **4.1 The organization problem**

A common feature of countries with a high prevalence of employee-owned enterprises is that there is specific legislation defining the framework for this type of business. In countries with many worker cooperatives, such as France, Italy and Spain, there are rules on the right to control, one vote per

member and rules for open membership, often combined with a cap on the number of non-members and special restrictions on members' capital injections and their remuneration. In the UK and USA, different types of employee fund ownership, ESOPs, have been developed with the requirement of broad employee ownership. All employees have, in principle, an account in the employee fund and each year the fund is attributed part of the profits. The individual account depends on the annual contributions and thus the period of employment in the company. The control rights are exercised by the ESOP Trust in the US, which can grant democratic rights to employees. However, the right of control is often exercised by trustees appointed by the company without employee involvement. Still, according to Federal law, employees in ESOPs have the right to vote confidentially on all major corporate transactions (Blasi et al. 2014). The organization problem is linked to the problems of employee entry/exit and the start-up problem.

The importance of employee ownership models is underpinned by the existence of clusters of employee-owned firms. Early successful employee-owned firms serve as models for creating new ones. There are many examples of such clusters, geographically or in specific industries. The experience and knowledge of this particular and quite rare form of ownership, produce a positive self-reinforcing effect when local promoters, employees, banks, advisers etc. are inspired by positive examples (Dow, 2003, Perotin, 2006 and 2016, Podivinsky and Stewart (2009), Arando *et al.*, 2012).

## 4.2 The start-up problem

It is difficult to assemble a group of employee owners to start a new employee-owned company. The traditional start-up occurs by one or a few partners setting up a business and then gradually hiring employees without ownership. The question is whether the entrepreneurs are willing to share the value of the business idea with future employees, and whether future employees can and are willing to pay an "entrance fee" for co-ownership as compensation to the initiators (Dow, 2003, 2018). Often the risk is very high in the difficult start phase.

There are many examples of employee-owned firms emerging as *defensive* takeover of companies threatened with closure, with the primary purpose of preserving jobs. However, often acquisitions of successful companies by the employees occur in connection with change of ownership, especially when the owner of an owner-led company wants to retire. The question is whether employees as a group can and will inject sufficient capital to finance the takeover. ESOP legislation in the US provides tax incentives for ESOP Trusts to use leveraged buyouts to use loans to buyout retiring business owners with significant tax incentives. This is one reason why such conversions dominate the US ESOP compared to worker cooperatives in other countries and start-ups are less of a factor in the US data.

Can the entry rate of employee-owned firms match the traditional start-ups? Perotin (2006) examined both the entry and exit of French worker cooperatives. She found, in contrast to traditional firms, that the creation of worker cooperatives is countercyclical. They start especially during periods of high unemployment because employees have employment as a major driver. In addition, in Italy,

France and Spain there are special schemes where unemployed people can finance part of the initial capital for new cooperatives or takeovers with money set aside for unemployment benefits. As noted, the leveraged ESOP is such a scheme in the US for friendly takeovers from retiring business owners. At the same time, the closure of cooperatives follows traditional enterprises over the business cycle

Perotin (2016) refers aggregated data from the French workers' cooperative organization, CG Scop, showing that worker cooperatives have a relatively high birth rate 1979-1998 and at the same time the same exit rate as similar traditionally owned firms. For the period 1993-2009, worker cooperatives and traditionally owned had the same starting rate, while the exit rate could not be calculated. French worker cooperatives have been around for over 100 years. The balance between start and exit has shifted over time, but although they are much more widespread than in Denmark, they still represent less than one percent of private employment.

In Italy, France and Mondragon, the start-up problem is largely solved by the cooperative organizations helping to bring together business ideas and groups of employees for starting new enterprises. This is combined with consulting, exchange of experience, economic analysis, education and access to loans, in this way they overcome the important barriers for upstart and takeovers.

### **4.3 The problem of entry and exit of employee owners**

If there is no mechanism for the co-ownership of new recruits and the withdrawal of employees from ownership, the employee ownership may be gradually diluted as the employee group is replaced. This is not a big problem in collectively owned worker cooperatives because the individual employee's deposits and the corresponding withdrawal payment are typically quite limited. At the same time, there are rules that require membership of all permanent employees and there is a limit to the number of temporary staff. For individual employee ownership, the problem is 1) the valuation of the employee shares and 2) that employee ownership cannot be separated from the actual supply of labor. In the capital-owned company, ownership in the form of shares may be sold together or in smaller parts on the market. In the case of employee ownership, jobs and capital contributions are linked. The employee-owned company hires the new employee, and the value of the shares is determined by special rules, often involving an independent assessor.

Full employees can "degenerate" through the sale of all or part of the business to external owners, and by retiring employees continuing their ownership. Degeneration also happens if new employees do not become owners. For most worker cooperatives, there are strict rules for open membership and it is cheap for new employees to become members. Moreover, most of the equity is tied up in collective reserves. The individual employee cannot extract significant values when selling the company like with individual employee ownership. In US ESOPs, there is an easy mechanism for retiring employees to cash out their shares and this is working smoothly. In ESOPs in stock market companies, the employees can simply sell their shares on the public stock market. In closely-held ESOP firms that are not listed, US Federal law mandates that the company has to cash out the shares of the employee owners on a schedule. As a result of the use of the ESOP Trust,

the employee ownership is not thinned out, rather new stock is available to grant to newly entering employees. However, in US ESOPs, there are cases of sales of entire successful employee owned firms. The latest example is "New Belgium Brewing" (see <http://coloradosun.com/2019/12/18/new-belgium-sale-employee-ownership/>). Here, the employees decided to accept an offer from a foreign company. The American Plywood cooperatives also had individual ownership and there were examples of thinning of the employee ownership because new employees did not become members and because of takeovers by external owners (Craig and Pencavel, 1992). After many successful years another reason for the end of the Plywood-coops was, that the natural resources of timber were exhausted in the geographical cluster and the employees did not want to leave their local society.

As a counterweight against such a development, the institutional barriers including collective ownership and rules for open membership have been important for the low exit-rates of worker-coops in France, Italy and Uruguay (Perotin, 2006; Fakhfakh *et al.*, 2012; Burdin and Dean 2009).

#### **4.4 The capital problem**

The typical employee has relatively little free capital to invest in his or her company compared to the typical external investor. There can be large differences between employees, which can lead to a skewed distribution of co-ownership. External capital often requests ownership and/or high interest rates on loans. The credit-risk to an employee-owned company is often considered extra high because this form of ownership is unknown and/or is assumed to be particularly risky because employees are expected to pursue objectives other than profit maximization (Dow, 2003, 2018). The problem is particularly high for fixed investments, which do not have significant value in alternative uses and therefore cannot act as collateral for a loan. Therefore, it can be expected that employee-owned firms will arise mainly in industries with relatively low capital per employee and that employee owners choose low capital-intensive technological solutions. However, as shown above, there is little evidence for these predictions probably because countries with a high prevalence of employee ownership have created special financing opportunities by special banks or by allowing employee owned firms, as in the US ESOP case, access to loans with tax incentives. The ESOP ownership is based on access by the employee trust to credit rather than the use of employee savings to purchase shares.

#### **4.5 The risk problem**

When employees invest individual capital in their company, they are exposed to the risk of losing capital, which comes on top of the risk of losing employment and company-specific human capital (Meade, 1972). This risk can be modified if employee control means lower risk of firing employees (Dow, 2003). In collectively owned worker cooperatives, the possible loss of capital for the individual employee is often very limited. In individually employee-owned firms, in addition to the human capital, each employee may lose significant amounts. The capital problem combined with the concentration of risk is often regarded as a major barrier for employees (Vanek, 1971; Bowles and



Gintis, 1993b, 1994; Bonin *et al.*, 1993). If the problem is not resolved only wealthier employees become co-owners in partnerships or external investors take over dominant ownership positions.

Various solutions can reduce the risk problem. In most types of worker cooperatives, there is no or only limited individual ownership of the accumulated assets. In France, employees can own more shares and in Italy employees can lend to the company; but these employee deposits are capped and do not vary with the market value of the company. Most of the company's equity is collectively owned. In the Mondragon cooperatives, there is a combination of individual and collective ownership. After a long period in a successful cooperative, an employee can have a significant amount in her individual account. The same is true for employees of ESOPs in the US, however the significant stock that employees have in their individual accounts in the typical ESOP was not purchased by the employee, a key difference with some other types of employee ownership. In ESOPs, typically, employees are granted shares which they do not purchase with their wages or personal savings or retirement accounts. As noted, the classic ESOP involves an employee Trust borrowing funds to be company shares and then the loan is repaid by the company itself with tax incentives. The company not the employee offers its own assets as collateral for the loan.

Kruse *et al.* (2019) have recently addressed this issue based on US data from annual surveys of consumers' economic conditions 2004-2016. The analysis shows that 15% of families with at least one privately employed family member have employee-owned assets as part of their assets. 19% of these families have over 15% of the assets in employee ownership assets - a possible critical risk concentration. However, employee-owned firms have a lower risk of layoffs in times of crisis (Kurtulus and Kruse, 2017). Concentration of 10-15% of the wealth of a business is no problem if the rest of the family's fortune is well diversified (Markowitz *et al.*, 2010). Kruse *et al.* (2019) report that Markowitz – the father of portfolio theory and recipient of the 1990 Nobel Prize in Economics – sees the 10-15% of wealth as referring to employee-owned stock bought with worker savings and not referring to stock that was received as a gift, as in the typical ESOP. In majority ESOPs, the employees can own significant assets, but Kruse *et al.* (2019) report that most employees in ESOPs also have a second diversified retirement plan. Otherwise, the most widespread risk concentration of employee ownership is in connection with individual shares and pension schemes where employees actually purchase the shares with their savings. In US, this is the case for employee shares in so-called 401(k) schemes, financed almost entirely by employee savings. (Pozen and Liu, 2018) and in the UK in connection with the so-called Save-As-You-Earn schemes (Pendleton and Robinson, 2018). In these schemes, the employees pay for the shares themselves. This is different from the ESOP model, where contributions come from the company. There is no deduction from salary, and the individual employee's savings in the ESOP are in addition to other personal savings and pension schemes.

In the large NBER survey, involving 40,000 employees in 14 large firms in the United States, Blasi *et al.* (2010) found that 40% of employees responded that the value of their employee shares exceeded the critical 15% level. However, the analysis also showed that an additional dollar of employee ownership could be observed as 94 cents of additional total wealth for the average employee. Thus, employee shares are not substituting other assets (Bucheale *et al.*, 2010).

ESOP schemes are generally linked to the same or higher wage levels. This does not necessarily mean that employees get a bigger share of the pie in companies where ESOP ownership co-exists with non-employee private investors, because as mentioned, ESOP usually results in higher productivity and better financial results. The total cake becomes bigger and both external investors and employees get a share of it. The distribution depends on the negotiating positions, which can give a greater or lesser share to the employees. Neither the external owners nor employees are expected to lose because of the ESOP, as studies of ESOPs in listed companies indicate (Kim and Ouimet, 2014). In the longer term, the ownership of broader groups of employees mean that they receive a share of the return on capital and thus, all else being equal, a greater share of both income and wealth.

Employees are exposed to greater risk by co-ownership because they have more to lose. But that is the risk of losing the extras - not a risk of losing other accumulated assets or other diversified retirement plans. Indeed, some studies show that other diversified and thus less risky pension schemes are more common in firms with ESOPs than in other firms (Rodgers, 2010). Blasi *et al.* (2013) find that employees-owned firms are four times more likely to offer their employees a diversified retirement program. In Mondragon with significant individual employee savings in the cooperatives, the group has set up a special pension company to ensure diversified retirement savings for all the workers in the group.

## **5. Overview of employee ownership in selected countries**

After a brief description of the situation in Denmark, this section describes how the various barriers have been overcome or limited in countries where employee-owned firms are widespread. The purpose is to identify general trends for the development of employee ownership and show how different rules can promote specific types of employee ownership. Worker cooperatives are quite widespread in France, Italy and Spain and employee ownership through ESOP-type company funds has gained popularity in the UK and US. Still, full employee-owned ESOPs with full employee control constitute a small part of the ESOPs. See Appendix 2 for an overview.

### **5.1 Denmark**

There are many democratic firms in Denmark, but they are virtually all consumer- or supplier-owned (The Think Tank for Democratic Business, 2019). Democratic firms account for more than 5% of employment and more than 8% of turnover, but employee-owned firms make up only 54 of the 18,605 firms registered in the survey. Worker cooperatives never became widespread. Early in its history, the Social Democratic Party decided that their main strategy should be to improve the working class's conditions through trade unions and state intervention. The "third" leg, the worker cooperatives, got a minor role. The exceptions were some bakeries and dairies in major cities, the brewery "The Star" and individual construction firms. The number of worker cooperatives peaked in

the 1930s (Grelle 2012, Mygind 2021). However, these firms were not owned and managed by the employees themselves, but by the trade unions.

Since 1987, there have been a number of qualifying schemes for individual employee shares (Nørgaard *et al.*, 2019). About half of the large Danish listed firms have different types of employee shares, but this covers only 1.4% of the share capital and 6% of the employees (Mathieu 2018). In small businesses, employee ownership is less common, with the exception of professional partnerships owned by a small group of key employees. In the 1980s, researchers identified around 20 quite small employee owned firms in Denmark. The largest was the daily newspaper "Information" with collective ownership and direct democracy for the period 1971-1990 (Ingerslev *et al.*, 1984; Mygind, 1987). Currently, there is no Danish firms on list of European firms with more than 100 employees and majority employees (Mathieu (2019).

## 5.2 France

The cooperative sector in France dates back to the revolution of 1848 and the Paris commune in the 1870s. According to Bartlett and Uvalic (1986), there were about 1300 worker cooperatives in 1984 with around 40,000 employees. Fakhfakh *et al.* (2012) indicates for 2011 around 2000 with 46,500 people employed. This is less than 1% of all French firms with more than one employed. The latest inventory for 2018 shows 3311 worker cooperatives with 60,400 employees and 33,000 members (<https://www.les-scop.coop/sites/fr/les-chiffres-cles/>).

The first support organization was established in 1884. From 1937 it has the name SC Scop. The worker cooperatives are spread over a broad specter of industries and except for a slightly higher weight in construction, the industry distribution follows conventional firms.

There is quite strict regulation of cooperatives. This ensures a high level of collective ownership and hinders the transition to traditional ownership. At least 25% of the profits shall be allocated to collective reserves, though on average, 45% was allocated in the years up to 2011 and the accumulated collective reserves per employee were 27,900 Euro in 2006 (Fakhfakh *et al.*, 2012). The principle of one vote per member applies, but despite open membership, the average membership rate was only 55% of the workforce in 2018, and for the median cooperative it was 75%. However, excluding a trial period of 6-12 months, the membership rate was 80% in 2011 (Fakhfakh *et al.*, 2012).

The co-operative law makes it very difficult to convert worker cooperatives into traditional ownership. Each member must buy at least one share and a member may be required to buy shares for up to 10% of salary each year, often related to profit-sharing. The average accumulated share value per employee in 2006 was 6,400 Euro (private sector median monthly salary was 1,555 Euro). At least 25% of profits are shared between all employees, regardless of membership. This profit sharing averaged 4,500 Euro in cooperatives, compared with 2,300 Euros in traditional enterprises. Here, SCOPs and traditionally owned firms have the same tax advantages (Fakhfakh *et al.*, 2012).

The minimum size of a SCOP cooperative is 2-7 members depending on the particular company format. Therefore, there are few very small enterprises and the average number of employees per cooperative is greater than in traditionally owned enterprises, which includes a lot of micro enterprises. Worker cooperatives cover a relatively high proportion of medium-sized enterprises and the same proportion of enterprises over 500 employees (Fakhfakh *et al.*, 2012; Perotin, 2016). However, leaving aside the smallest firms, cooperatives tend to be slightly smaller than the traditionally owned.

Legislation in France provides a *defined model* for worker cooperatives, guaranteeing the principle of one vote per member of staff. SC Scop, the cooperative organization, advises on establishment and development. The *entry/exit* of co-owners is secured through open membership, which requires only a small deposit. Members can buy more shares, but without more votes. There are special financial institutions to limit the *capital problem* and there are regulatory requirements for a certain amount of savings for collective reserves. The *risk problem* is limited because the individual co-owner's shareholding for withdrawal is relatively small.

### 5.3 Italy

According to Dow (2018), Italy has the highest prevalence of fully employee-owned firms - worker cooperatives with one vote per employee. For 2015, Borzaga *et al.* (2019) lists 29,414 worker cooperatives with 486,241 employees. However, according to (Mathieu 2019) Italy is lower than France in prevalence measured by the number of full employee-owned firms with more than 100 employees.

The first labor cooperatives date back to the 1850s. A few years later an association, *Lega*, was formed to coordinate cooperation, lobbying, consultancy, audit, support for start-ups, financing, etc. *Lega* has roots in the labor movement associated with communist and socialist parties. In 1919, a Catholic-conservative wing broke out and formed *Confederazione*, and in 1952 a center-oriented group, *Associazione*, was organized (Bartlett and Uvalic, 1986). There has been a close interaction between different political parties and the cooperative movement in Italy. During the fascist rule, *Lega* was banned. Some control was taken over by the state and the number of worker cooperatives fell. After 1945, the number of worker cooperatives increased again. At the local level, there was close interaction with politicians, and often public works were carried out by cooperatives. After a series of corruption scandals and the general weakening of many of the traditional parties, in recent years there has been a greater distance between politicians and cooperative organizations.

Worker cooperatives remain strong in construction, transport and light industry (Pencavel *et al.*, 2006). However, since the 1990s, there has been a strong development of social cooperatives in the care sector, children's institutions, etc. (Eurisce, 2017b). In 1996, cooperatives had 4% of private sector employment. There are relatively few micro-enterprises defined as worker cooperatives, but otherwise the size distribution follows the traditionally owned (Pencavel *et al.*, 2006).

Italy has quite strict state regulation of worker cooperatives combined with various forms of support. The Constitution after World War II made the state responsible for the promotion of cooperatives (Dow, 2003:69). The 1947 Basewi Act established a number of cooperative principles: one vote per member; open membership, at least 50% of employees as members, (the average for Emilia-Romagna in the mid-1980s was 85% (Bartlett *et al.*, 1992); limited capital stake per member with limited return; a minimum of 20% of profits for collective reserves, maximum 20% as addition to wages. Upon dissolution, reserves must go to the public or for benevolent purposes. Profits for savings in collective reserves are tax-free, and there are some breaks on other taxes mostly for high-labor-intensive cooperatives (Pencavel *et al.* 2006). In recent years, there has been some softening of capital restrictions to ensure more capital for cooperatives: an increase in member deposits, the possibility of member loans to cooperatives with a tax advantage on interest income and tax-free profits for collective reserves. Employee take-overs are supported by legislation, amended in 2014.

The establishment of employee ownership is countercyclical in Italy. There was a close correlation between rising unemployment and employee takeovers for the period 1979-2014 (Borzaga *et al.*, 2017:45). Since 1985, the Marcora Act allowed job-threatened employees to use their compensation for layoffs for acquisitions and/or the start of new worker cooperatives. Employees must have the first takeover offer. There are special financing funds, Fincooper (1969) and CFI to support start-ups and employee takeovers. They have been expanded in recent years, most recently with additions to the Law in 2014 (Vieta *et al.*, 2017:55). *Legacoop*, *Confederazione* and *Associazione* are active in relation to employee takeovers and the start-up of worker cooperatives.

To sum up, the various cooperative organizations and various forms of State aid have helped to overcome the obstacles to the *start-up* and development of worker cooperatives in Italy. The low membership fee and open membership requirements and the limitation of the group of non-co-owners are dampening the problem of *entry/exit* of employee owners, and the co-operative organizations' coordination of the start-up of worker cooperatives and support for employee acquisitions has increased the possibility of starting employee-owned firms. At the same time, the requirements of the legislation and the rules of the cooperative organizations defined the format for employee ownership. Italian worker cooperatives typically operate in industries with relatively low capital inputs per employee and in recent years, special legislation has led to start-up of many social enterprises in the health and care sector. The *capital problem* is mitigated through different financing schemes and the *risk problem* is limited by the requirement of collective ownership, where the value of each employee's ownership is limited.

## 5.4 Mondragon - Spain

Five young engineering students established Ulgor, the first cooperative in Mondragon in 1956. Part of the company, Fagor, developed into Spain's largest white goods manufacturer. (Where nothing else is provided, the information is based on [www.mondragon-corporation.com](http://www.mondragon-corporation.com)). Other cooperatives were set up according to the same model, and during the group's development a range of important

support entities were established: a bank, Laboral Kutxa (earlier Caja Laboral Popular); an insurance/social security company, Lagun Aru; a science centre, Ikerlan; a company for the development of new cooperatives, Saiolan; technology centers; a university; and various support organizations for consulting, management development, auditing, etc. The Mondragon Group also developed a retail cooperative, Eroski, which combines consumer and some employee ownership. It is one of the largest retail chains in Spain.

The industrial cooperatives in Mondragon are fully owned by the employees with a mix of collective and individual ownership. After a trial period of 6-12 months, an employee can become a member by depositing an amount of 15,000 Euro (2015). Loans and/or repayment schemes are available. Each member has a vote at the general meeting. The individual account is attributed as part of the surplus each year or deducted a part of the deficit. Upon withdrawal, this savings are paid out to the individual employee. Part of the profits go to collective reserves in the company, a certain share to the entire Mondragon group, and 10 % goes to social purposes in the area. Each cooperative is independent, but there is a formalized cooperation in industry groups and in the whole Mondragon Group, led by a congress with representatives from all the cooperatives. This includes the bank and the pension fund. The group's pension scheme was started because its members were considered self-employed in Spanish law. In general, the Spanish cooperative legislation has not been a decisive support for the cooperatives. The overall support structure and the rules of the group and the cooperatives are structured and adapted in line with the development and needs within the Mondragon Group. Job stability, safety, the environment, and more equality are high priorities.

Mondragon had developed into the largest company group in the Basque Country with over 100 cooperatives, and rapidly increasing employment: 20,000 in 1988, 40,200 in 1998, 68,200 in 2003 and 93,800 in 2007. Then came the financial crisis. Both Fagor and Eroski had invested heavily in increased capacity in the years leading up to the crisis, and suffered a sharp setback in the subsequent years. In the global white goods industry there was a strong concentration. Fagor had sought to cope with the competition through international expansion with acquisitions of firms and competitors in France, Italy and Poland and the start-up of subsidiaries in China and Morocco (Errasti *et al.*, 2016). In 2006, the Fagor group employed 11,000 people - about half in the Basque Country. Over the following years, there was a sharp reduction in employment following the steep fall in demand. But the operation failed. At the final closure in 2013, there were 2,000 jobs left in the Basque Country and 3,500 abroad. Most employees in the Basque Country got jobs in other cooperatives.

In the industrial part of the Mondragon Group, there were 44,280 employed in 2007, of which 16,580 were in foreign subsidiaries. At the end of 2018, there were 38,722 employed in industry, of which 14,455 were abroad. The entire Mondragon Group employed 81,837 at the end of 2018, most in retail with 39,723.

In the Basque Country, the proportion of members to total company employee in 2018 was around 80%, but in the rest of Spain it was significantly lower and in the foreign subsidiaries, only a few managers had membership of the cooperatives. This shows a significant limitation of the Mondragon

cooperatives in relation to the internationalization process, which in some industries is essential for competitiveness.

According to Dunning (1981) a company establishing a foreign subsidiary must have special ownership advantages, i.e. technological and managerial strengths, which it can use abroad. There must also be some location advantages in the host country, which cannot be achieved through contracts with other firms, but only through direct ownership. The challenge for an employee-owned company is that giving full ownership rights to foreign employees, may mean that these employees gain control and take over the special ownership advantages that were the driving force behind the internationalization. Therefore, Fagor retained ownership on behalf of the parent company's employees, who tried to develop and secure their jobs by buying/starting these subsidiaries.

However, according to Errasti *et al.* (2016) it was not this dilemma, but the bad timing related to the financial crisis combined with the intensified international competition that was behind Fagor's crisis. In these years, many traditionally owned firms in the industry also closed down. The closure of Fagor is therefore not a proof that employee-owned firms are doing poorly in international competition.

In the years following the financial crisis, total employment in the Mondragon cooperatives fell to around 74,000 in 2014-16 before rising again. The report for 2018 shows 81,800 employees, of which 46% in industry, 50% in trade and 3% in the financial sector. Of this, around 44% is in the Basque Country, 40% in the rest of Spain and 16% abroad. The membership rate is around 75% in the Basque Country, but low in the rest of Spain, and there are virtually no members in the foreign subsidiaries.

The Mondragon group has a clearly defined model for a democratic worker cooperative with a certain individual ownership element. The cooperation between the cooperatives and their overall joint organizations plays a major role in the start-up of completely new firms and the transformation of externally owned firms into cooperatives. The entry/exit of members is defined in the overall model, but in connection with expansion to other parts of Spain and abroad, they have set up a large number of subsidiaries without employee ownership. The capital problem is solved by a combination of collective reserves and individual investments. In successful cooperatives, the individual employee can save significant values for payment upon retirement. This involves some risk, but at the same time there is an independent pension scheme that ensures a good pension.

## 5.5 UK

The cooperative idea dates back to Rochdale, UK, 1844 with the principles of open membership, one vote per member, etc.; but the number of worker cooperatives peaked in the 1890s (Jones, 1975). There was a new wave of small cooperatives from the mid-1970s to the mid-1980s, supported by the rules of the Industrial Common Ownership Movement, ICOM, and in 1984 there were 911 worker cooperatives with around 9,000 employees (Bartlett and Uvalic, 1986). In addition, the Government supported a number of defensive employee takeovers, the Benn co-operatives, including closure-threatened Scottish Daily News, KME and Meriden Motorcycles. Employment was maintained for some years, but leaving a negative perception of employee ownership when they finally closed down.

The largest employee-owned company in the UK is the John Lewis Partnership – one of the largest chains of department stores in the UK. The company was gradually taken over by an employee fund between 1929 and 1950. Each year, a significant part of the profits are distributed to employees, but they have no rights in relation to the company's own funds. John Lewis is owned by a foundation run by a board with a minority of employee representatives. Because of the lacking control it is debatable whether it is fully employee-owned, but many regard it as the world's largest employee-owned company. After strong growth over many years, the number of employees/partners peaked at 93,800 in January 2015. In June 2019, there were 81,500 employees/partners. The decline is due to subdued demand in recent years, partly related to Brexit and the transition to online commerce.

In the UK, support for employee ownership has been growing in recent years across the political spectrum. The Conservatives see it as popular capitalism, and the Labour Party and trade unions support the "right of ownership" of employees. This has led to a wide range of arrangements for partial employee ownership and opportunities to create broad ESOP-type employee ownership.

Although the Conservatives prefer profit-sharing without control to employees, some of Thatcher's privatizations in the 1980s was taken over by employees, and in the 1980s the Conservatives implemented a series of laws that, in addition to profit-sharing, also allowed the creation of ESOPs. In 2014, an EOT, Employee Ownership Trust, was implemented, largely following the John Lewis partnership model. If a departing owner sells a controlling stake to the employee fund, the 10 % capital gains tax is avoided. The fund can pay out an employee bonus each year that is tax-free up to £3,600. This is a broad employee scheme in which the fund is to "serve" all employees on an equal basis. Employees can have a decisive influence, so the model allows for full employee ownership. The EOT model is based on collective reserves; but it can be combined with individual employee shares, which have also been promoted in UK in recent years.

These measures have led to a steep increase of different forms of profit sharing and of different ESOP schemes. After 2014 EOT schemes have spread rapidly. Therefore, in the last 10 years, there has been a significant increase in the number of both fully and partially employee-owned firms in the UK, but there are no precise numbers available.

To sum up, there are very few worker cooperatives in the UK, but in recent years there has been a significant increase in different types of employee ownership including different ESOP and EOT types. There is both government and private advice for start-up and development. The *capital problem* has been solved only to a limited extent, so that employee ownership is developed especially in less capital-intensive firms, especially in the service sector. As in the United States, the *risk problem* is limited by the fact that ESOPs savings are complementary to other retirement savings or, as in the EOT, by the capital being tied up in collective reserves.

## 5.6 USA

The American history of employee ownership dates back to independence. Some of the signatories of the Declaration of Independence were proponents of profit-sharing. The first wave of worker



cooperatives arose during tradesmen's protests against the introduction of paid work in 1791. In the 1880s, the largest trade union had worker cooperatives as their main strategy rather than strikes (Blasi *et al.*, 2013). "Self-help" cooperatives were set up under the New Deal in the 1930s. During the Cold War, however, there was a reaction against "socialist" ideas and a decline in cooperatives. In the 1960s and 1970s, a new wave emerged, particularly in food retailing organized as a combination of consumer and worker cooperatives. According to Curl (2012), in 1979 there were about 1000 small cooperatives with 17,000 employee-members, but the number fell and, according to Palmer (2017), in 2015 there were only 323 worker cooperatives with about 6000 employees.

The first Plywood cooperative was established in 1921 and formed a model for the start of new worker cooperatives. Between 1949 and 1956, about 20 were created, gathered in a cluster in the northwestern United States. According to Berman (1967), the cooperative plywood production peaked around 1950 with a market share of 20-25%. In 1964, the cluster comprised 24 cooperatives with a market share of 14% and with 2-300 employees per cooperative. They followed the principle of one vote per member, but at the same time they had a high level of individual ownership. There were problems in maintaining employee ownership because many new employees did not become owners. From 1960 to 1992, most of the production moved to the southern United States, and there was a decline in production for both the cooperatives and the traditionally owned producers in the northwestern United States (Dow, 2003).

The bulk of employee ownership in the United States is found in ESOPs, Employee Stock Ownership Plans, which were initiated in connection with the pension legislation, ERISA, Employee Retirement Income Security Act, from 1974. This law provided the framework for ESOPs and at the same time conferred significant tax advantages. The ESOP model allows an employee fund to take ownership of the company in whole or in part. This can be done gradually through contributions from the company, or through a leveraged ESOP financed through a loan to the employee fund with collateral in the company. The company can deduct contributions/repayments/dividends to the ESOP from the taxable profit. Employees do not pay any contributions and they do not have to pay tax until the value of their shares is paid. The loan is paid back through contributions and/or dividends from the company.

Over time, the assets of the employee fund increase and are distributed to individual accounts of each employee. The annual distribution must not be more unequal than the distribution of wages and there is an absolute maximum for the highest earners. All permanent employees own a share of the ESOP Fund. When employees leave the company, they can extract the value of their share (Rosen, 2017). In the case of an employee takeover of at least 30 % of ownership in unlisted firms, capital gains taxation for the previous owner could be eliminated. For large listed firms, in the latter half of the 1980s and early 1990s there were special tax advantages for banks for loans to ESOP's takeovers of 5-20 % of the ownership capital (Blasi *et al.*, 2018).

According to Kruse *et al.* (2010), the United States is now leading in what they call "Shared Capitalism." 53.4 million, or 47% of private employees, are covered by at least one form of financial participation. 38% have profit sharing, 27% capital gain-sharing and 18% shareholding in their

company. These are mainly different types of partial employee ownership, and the ESOP model has been expanded with more individual forms of share ownership – 401(k) plans, often in the form of "KSOPs" combined with ESOPs especially in large firms with minority employees.

Based on the main umbrella organization: National Center for Employee Ownership (NCEO), in 2016 there were 6624 ESOPs with assets of \$1.4 billion covering 14 million employees. Most of this are minority holdings in very large firms, while 6000 SMEs with ESOPs had two million employees. According to Rosen (2017), about half of these have majority employee ownership, often 100%. Most ESOPs have a board of trustees that is not directly elected by the employees, but self-supplementing or chosen by the company. However, it is possible to create democratic rules where employees elect the ESOP board. In a survey of 319 ESOPs, NCEO found that in 15% of these, employees elected the board. Assuming this is representative, there are approximately 1000 fully employee-owned ESOPs in US.

It can be concluded that ESOPs are widespread in US and, although democratic ESOPs represent only a small proportion of them, it provides a significant number of fully employee-owned firms creating a "critical mass" of employee-ownership. The ESOP model has become a well-known "corporate form" and a realistic option for both existing owners and employees. A well-functioning consultant network has been built up. There are good financing opportunities, and with the leveraged ESOP model, *the capital problem* has been solved especially for small and medium-sized enterprises. *The risk problem* for the individual employee is limited because the contributions are not deducted from the individual employee's salary. The savings come on top of other savings. *The ESOP Fund being linked to all permanent employees resolves the entry/exit of employees.* *The start-up problem* is partially solved by the use of ESOP for takeovers with related favorable tax rules for both the previous owner and the employees.

## 6. Society level effects

Employee owned firms have some effects and economic behavior that differs from traditionally owned firms. Therefore, a greater uptake of employee-owned enterprises could have important societal effects. These effects depend on the spread of different types of employee ownership, and this in turn depends on the specific institutional framework in each country.

Examples of large-scale effects of full employee-owned enterprises can be found in particular for the Mondragon cooperatives in the Basque Country and for the large expansion of worker cooperatives in the Emilia Romagna region of northeastern Italy. In the Basque Country, Mondragon cooperatives account for 15% of industrial GDP and 5.4% of total GDP. They account for 16% of industrial employment and 6% of total private employment. At the same time, the Basque Country is the richest part of Spain and has a relatively equal distribution of income (Arresti *et al.*, 2016)

Greater uptake of employee-owned enterprises can lead to increased productivity, better competitiveness and more stable employment. At the same time, more widespread employee ownership can also help to reduce income and wealth inequality. These effects are observed in

different countries at different times. The actual effects depend on the framework conditions, which form a complex mix of the different aspects mentioned in this report.

## **6.1 Productivity and competitiveness**

There will be both full- and partial employee ownership, but the effects will typically be greatest with both deeper and broader employee ownership. It can be expected that firms will make greater use of the potential of their employees in relation to:

- Innovation – employees come up with ideas for improving products and production process
- Development of human capital linked to the individual company – more continuing training
- Mutual control makes the layer of controlling middle managers unnecessary
- Fewer conflicts related to capital-labor contradictions
- Greater flexibility from the side of employees when the company is under pressure

## **6.2 More stable employment**

The greater attachment of employees to the company lead to lower termination-rates from the side of the employees and lower job-turnover. At the same time, the objectives of the employees emphasize job-stability and care for the local community, which could imply lower termination-rates from the side of the company. Therefore, more stable employment can be expected both in the company, in the local community and in the society as a whole.

## **6.3 More equal income distribution**

The distribution of income can be expected to be affected in three ways:

1. Less wage dispersion between low and high earners - the bottom being raised and the ceiling lowered - the overall wage level is likely to increase, but may be lower during recessions
2. Lower unemployment will also provide a boost for the lowest earners who are paid wages instead of unemployment benefits
3. Employee owners will receive a share of the return on capital in conjunction with their share of the company wealth

## **6.4 More equal wealth distribution**

An uneven distribution of income typically results in an even more skewed distribution of wealth, because the richest save more and receive most of the return on capital. The employee takeover of ownership will have a major effect on the distribution of assets in the private sector.

The effect on wealth distribution is greatest when savings in the company are added on top of employees' other savings. This is the case with most ESOP models in the UK, US and in Mondragon. The effect is smaller in the worker cooperatives in France and Italy because most of the capital is collectively tied to the company and is not part of the assets of individual employees. Because of the broad employee ownership of the ESOP model, the broad group of employees increase their wealth. This is in contrast to many other employee share- and option schemes, which in particular benefit the highest-paid employees (Buchele *et al.* 2010).

## 7. Solutions - how to promote employee ownership

In Italy, France and Spain (in particular Mondragon) strong cooperative organizations have created a framework for promoting worker cooperatives. They have been part of the political process and have influenced legislation to promote worker cooperatives. A special regulatory framework, tax arrangements, financing opportunities, etc. have played an important role for the development of worker cooperatives. In the UK and US, worker cooperatives have been less important, but various forms of legislation on ESOPs have backed the development of employee ownership. In this way, the experience shows that greater dissemination of employee ownership requires legislative initiatives.

However, the international experience does not point to a specific model, which based on objective criteria, can be defined as the most effective facilitating employee ownership. Instead, we present three options that can promote different types of employee ownership: the traditional worker cooperative, the Mondragon model and the ESOP model – see Figure 4 below.

The *worker cooperative* model based on collective ownership, one vote per employee and open membership requirements are important in countries such as Italy and France. A *Mondragon type* worker cooperative is a variant with a larger element of individual ownership that can provide relatively large individual savings/shareholding in each cooperative.

The *start-up problem* is solved by defining a specific form of company and there are cooperative organizations, which provide assistance in organizing the difficult start-up process. This includes special "incubators for newborn" cooperatives. The *capital problem* is solved in the overall structure of special financial institutions; however, there continue to be restrictions on the start-up and development of worker cooperatives in highly capital-intensive industries. The substantial individual savings in the Mondragon model can reduce the capital problem, but at the same time, it exacerbates the *risk problem*. This problem can be reduced by securing that each employee's savings in the company are not replacing but complementing other pension schemes.

The *ESOP model* has a collective element because the company is owned by an employee Trust. At the same time, each employee's ESOP account is an individual element, which as in Mondragon model can provide a boost to the assets of ordinary employees. Therefore, these two models have the greatest effect on levelling out inequality in wealth distribution.

All three models can be promoted through public support for for-profit advisory companies and regional non-profit employee ownership centers, including special incubators for the start-up of new employee-owned firms. This may be linked to special financial institutions, with specific expertise and funds allocated for this purpose. Pension funds may be involved in financing. Tax benefits for employee takeovers may also play a role like in the UK and US.

**Figure 4. How can the barriers be removed - three possible models**

<b>Model Barriers</b>	<b>Worker cooperative</b>	<b>Mondragon Model</b>	<b>ESOP model</b>
<b>Upstart</b> Support organizations as advisors and incubators  Support for takeovers like tax benefit to both buyer and seller	Specific company format following  Cooperative principles: * One vote per employee * Open membership * Collective reserves	Variant of worker cooperative: * One vote per employee * Open membership * Combination of collective reserves, individual accounts adding profit share	- Ownership through employee Trust fund where all employees are members - Yearly profits distributed equally or like wages added to individual accounts through appreciation of the stock - Valuation annually and on withdrawal - Federally mandated employee control over major corporate transactions using a confidential employee vote - Control follows ownership or one vote per share
<b>Entry/withdrawal of employees</b>	- Open membership - Low deposit - cap on non-owners	- Entry fee with repayment scheme	- No entry fee, individual account built up during employment – no tax before withdrawal
<b>Capital problem</b>	- Share of profits for collective reserves - start-up loans	- Special financial institution	- Loans to a Trust fund with security in the company, paid back from annual company contributions
<b>Risk problem</b>	- Limited individual savings	- Supplement to other pension	- Supplement to other pension

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## Appendix 1. Overview over key empirical studies

Study	Period	Firms (observations)	Country	Breadth Depth	Results	Type of data	Matching	Method
<b>Effects on productivity</b>								
Blasi, Freeman, Mackinnon & Kruse (2016)	2001-2006	14 ESOP types 41.206 empl. 2002 GSS 1.145 2006 GSS 1.081 representative	USA	ESOP-types Broad with varying depth => index	Lower absence and lower rate of quitting from employees Increase with breadth and depth – (index)	Survey	None, only employee owned (EO)	Regression cross-section
Blasi, Freeman & Kruse (2016)	2005-2007	780 (1.312)	USA	Breadth ESOP Primarily depth	Higher financial returns with depth	Survey	With investor owned twin	Regression panel
Blasi, Kruse & Weltmann (2013)	1988-1999	343	USA	Breadth	Higher Productivity	Secondary	1:1 Size (labor) industry	Two sample t-test Pre/post
Fakhfakh, Pérotin & Gago (2012)	1987-2004	8.719 (32.987)	FR	Breadth and depth worker cooperatives	Higher productivity	Secondary	With investor owned	Regression panel
Faleye, Mehrotra & Morck (2006)	1995-2001	1888 listed companies <5% EO 226 ESOPs/EO >5% EO diff.types	USA	110 ESOP 77 other EO 41 combined	Lower Tobin's Q (valuation of shares)	Secondary	With investor owned twin	Regression cross-section
Freeman, Kruse & Blasi, kap 2 i KFB ed 2010	2001-2006	14 ESOP types 41.206 empl.. 2002 GSS 1.145 2006 GSS 1.081	USA	ESOP-types Broad with varying depth	More mutual control with Depth/Breadth-index	Survey	None, only EO	Regression cross-section
Kang & Kim (2019)	2008	1.741	21 Eu.	Depth	Higher return with increased trust	Secondary	None, only EO	Regression cross-section
Kalmi, Pendleton & Poutsma (2005)	2001	136	FI, GE, NL, UK	Breadth minority	No effect on self-declared economic performance	Survey	None, only EO	Regression cross-section
Kim & Han (2019)	2010; 2011	176	US	Breadth	+ labor-productivity when ownership combined with control	Survey	investor owned twin	Regression cross-section
Kim & Ouimet (2014)	1982-2001	410 Large listed (4.594)	USA	Breadth ESOP Depth	Only higher TFP in group with lower size More positive effect for lower depth	Secondary	1:3 match size, industry year	Regression panel Some pre/post

Study	Period	Firms (observations)	Country	Breadth Depth	Results	Type of data	Matching	Method
Kim & Patel (2017)	2006-2014	1.797 (12.648)	31 EU	Depth	Higher return when controlled for country and firm	Secondary	None, only EO	Variance-decomposition
Kramer (2010)	2008	662	USA	Broad and deep, most majority via ESOP	Higher productivity with higher depth and with broad employee ownership	Survey and secondary	1:1 size, industry location	Regression cross-section
Lampel, Bhalla & Pushkar (2014)	2005-2009	253	UK	Breadth and depth mostly majority	Increased stability in financial returns when combined with control	Survey and secondary	1: high number in sample	Two sample t-test
O'Boyle, Patel & Gonzalez-Mulé (2016)	up to 2013	102 studies (68 from USA) 56.984 firms	14	Mixed Seldom specified often dummy	Positive Financial return	Other studies	Mixed	Meta-analysis cross-sect. Pre/post 23 studies
Pendleton & Robinson (2011)	2004	1.248	UK	Breadth	Breadth correlates positively with continuing training	Survey	investor owned twin	Regression, cross-section
Robinson & Wilson (2006)	1988-1991	93	UK	Breadth	Higher labor productivity, when ownership combined with control	Survey and secondary	With investor owned twin	Regression panel
Sengupta (2008)	1998	2.191	UK	Breadth	Higher labor productivity, when broad employee ownership	Survey	With investor owned twin	Regression cross-section
Whitfield, Pendleton, Sengupta & Huxley 2017	2004; 2011	1.288 635 (2004) 653 (2011)	UK	Breadth	Higher labor productivity, when ownership combined with control	Survey	With investor owned twin	Regression cross-section
<b>Changed objectives and behavior – short run</b>								
Arando, Gago, Jones & Kato 2015	2006-2008	Case: Eroski retail 622 firms	SP	Fully owned Some EO None EO	More equal wages	Case; Survey and secondary	Three types	Regression, panel
Burdin & Dean (2009)	1996-2005	All firms 860.129 observations	Uruguay	Worker cooperatives	In EO also higher job security for non-owning employees	Secondary	With investor owned twin	Regression, panel
Kruse, Freeman & Blasi (2010) kap. 8	2001-2006	14 firms 323 work units	USA	Breadth Depth	Lower job turnover and larger effort, depending on control	Survey	None only EO	Regression, cross-section

Study	Period	Firms (observations)	Country	Breadth Depth	Results	Type of data	Matching	Method
Kurtulus & Kruse (2018)	1999-2011	All listed firms 85.896 observations	USA	Bread and deep	employment more stable in EO	Secondary	With investor owned twin	Regression, panel Pre/post on samples
Sengupta, Whitfield & McNabb (2007)	1998	2.191	UK	Breadth	Higher return lower voluntary job-turnover	Survey	With investor owned twin	Regression, cross-section
Sengupta & Yoon (2018)	2005-2013 odd years	533 (1.156)	Korea	EO-dummy Breadth and depth not known	Correlation between EO and productivity Less effect with more wage dispersion	Survey and secondary	With investor owned twin	Regression, panel
Whitfield, Pendleton, Sengupta & Huxley 2017	2004; 2011	1.288 635 (2004) 653 (2011)	UK	Breadth	Higher labor productivity, when ownership combined with control	Survey	With investor owned twin	Regression, cross-section
<b>Changed objectives and behavior – long run</b>								
Blasi, Kruse & Weltmann (2013)	1988-1999	1.176	USA	Breadth	Lower risk of closure for employee owned firms	Secondary	1:1 Size (labor) industry	Survival-models, panel
Buchele, Kruse, Rodgers & Scharf kap. 11 i KFB ed 2010		14 ESOP types 41.206 employ. 2002 GSS 1.145 2006 GSS 1.081 representative	USA	ESOP-types Broad with varying depth => index	Increased savings not through lower wages More ownership => higher wealth	Survey	None, only EO	Regression cross-section
Fakhfakh, Pérotin & Gago (2012)	1987-2004	8.719 (32.987)	FR	Worker cooperatives	No scarcity of capital no underinvestment unclear capital-intensity	Secondary	1: high number in sample	Regression, panel
Faleye, Mehrotra & Morck (2006)	1995-2001	Listed 1888 without EO 226 ESOPs/EO >5% ownership	USA	110 ESOP 77 other EO 41 mixed	Lower investment level	Secondary	With investor owned twin	Regression cross-section
Kruse et al. 2019	2016	3.568 families with some employee ownership	USA	Individual employee ownership	Employee ownership increases wealth Not substitute for pension-savings	Secondary		Regression cross-section
Pérotin (2004)	1977-1993	2.740 new up-starts	FR	Worker-cooperatives	risk of close down first years lower, then higher, in the long run the same	Secondary	1: high number in sample	Survival-curves, panel



## Appendix 2. Countries with a high number of employee owned firms

	France	Italy	Spain Mondragon	UK	USA
<b>Start</b>	Start 1848, 1871 Law from 1882	Start 1854 Law from 1886, Basewi-law 1947	Start 1956	600 small worker cooperatives	Worker cooperatives 2015: 6000 employ. collective ownership
<b>Expansion- periods</b>	1900-1914 1930-1947	1900-1914, 1930s some illegal From 1945 growth again, especially 1980-2007	1956-2007 Strong growth	John Lewis Partnership 90,000 employees	23 Plywood-coops start/takeover 1940-1964 ind. own Northwestern USA
<b>Frequency – latest numbers</b>	2013: 2600 worker cooperatives with 51,000 employees	2015: 29,000 worker cooperatives with 486,000 employees	2018: 81.837 employees (mondragon- corporation.com)	ESOPs from 1980'es high growth from 2010  From 2014 also EOTs Employee Ownership Trust	Democratic ESOPs 2015: 1000 with 300.000 employees Individual ownership with employee fund
<b>Especially widespread in:</b>	Manufacturing construction services	Construction Light manufacturing Shift in later years toward socialservice Northern Italy	Metal- manufacturing construction/service	Low capital/L coops in printing, publishing, shoes, textile clusters: ESOP/EOT broad specter	Coop clusters in Plywood, Taxi, IT  ESOPs broad specter
<b>Lowering Barriers:</b>					
<b>Definition in legislation</b>	Worker cooperatives One vote/person Collective ownership Min 1 share/member Max 10% of wages 25% profit share to all employees, certain Tax-advantages	Worker cooperatives One vote/person collective ownership Limit to dividends Tax advantages for collective savings From 2000 mostly social coops: care, kindergartens	own model adjusted to legislation  combination of collective/individual ownership one vote/member	Cooperative law ESOP-type can be formed through combination of different legislation 2014 EOT Employee Ownership Trust	Cooperative company Legal format in 12 states  Broad ESOP, but often minority ownership, often without employee-control
<b>Capital- problem</b>	Coop-bank from 1938	Lega: Fincooper 1970 Credit possibilities for members	Own bank, capital to cooperatives, Group structure, Spec. unit for social insurance / pensions some tax-advantage	Tax advantages for ESOP type increased over time	ESOP possibility for loans with collateral in the company (Leveraged ESOP)
<b>State support</b>	Tax advantages for profit sharing and retained surplus	Tax advantages, public contracts		EOT takeover => no capital gain tax	Tax advantages
<b>Risk-problem</b>	Limited with collective ownership	Limited with collective ownership	Individual accounts on top of separate pension system	ESOP as supplement EOT collective fund	ESOP often on top of other savings, while KSOP increases risk
<b>Entry/exit of employees</b>	Open membership Low fee entrance/exit	Open membership Low entrance/exit	Open membership In Basque coops Fee 15.000 E Euro,	EOT all employees can become members	Coops open member ESOP all employees can be members
<b>Upstart organization consulting</b>	Scop Confederation	supportorganizations 1893 Lega (socialist) 1919Confederazione catholic conservative 1945 Associazione	Group structure Incubator for new Start financing Entrepreneurship on collective level	Some private organizations developing	Coop. organization. NCEO and other Support ESOPs strong network of consultants, experts
<b>Takeovers/ upstart</b>	Often upstart but also takeovers	Often upstarts, but also takeovers	Startups/takeovers supported by group	Tax advantages for employee takeovers	Tax advantages for employee takeovers