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What to expect from profit-sharing mechanisms?

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The distribution of income between labor and capital has come back in the public debate, with the recent decline in the share of labour in most OECD countries and the major role played by policies affecting primary income and fueling the dynamics of inequality. The return of inflation has also led to the adoption of emergency measures to protect purchasing power, including the introduction of wage bonuses.

In this context, the national inter-professional agreement on profit-sharing was signed. In particular, this agreement mandates companies with more than 11 employees to set up, under certain conditions, a profit-sharing scheme, while reiterating the principle that the scheme must not affect wages.

This Note presents the different existing profit-sharing schemes in France and offers an economic assessment of their impact. The first evidence is that these mechanisms still account for a small proportion of total value added and seem unlikely to have a structural impact on the distribution of value at aggregate level. In addition, redistribution via these mechanisms is heterogeneous between companies - since they are more present in the largest and most profitable ones - and between workers, to the benefit of top-wage earners.

The economic efficiency of profit-sharing mechanisms crucially depends on their substitution with wages. A high degree of substitution means that the mechanisms benefit workers less, since they lose in wage part of what they gain in profit-sharing. Additionally, strong substitution leads to a significant cost for public finance insofar as these mechanisms benefit from tax advantages relative to wage: the government incurs tax loss for every euro transferred via profit-sharing.

Our empirical analysis show that mandatory profit-sharing (*participation obligatoire*) is not a substitute for wages, does not reduce investment, nor improve company's productivity. However, most of the other profit-sharing mechanisms (*intéressement*, *primes de partage de la valeur* or *PPV*) seem to lead to significant substitution effects.

In this context, leeway given to companies in the interprofessional agreement to choose the type of mechanism to be put in place could lead to a non-negligible elasticity of substitution with wages. Our estimates suggest that the total cost per euro effectively transferred to workers via a profit-sharing mechanism to the public budget is between 21 to 38 cents.

In order to limit this substitution effect, as well as avoidance effect, profit-sharing mechanisms should be based on a single calculation formula, clearly linked to company profits, but whose parameters could be negotiated at branch or even company level.

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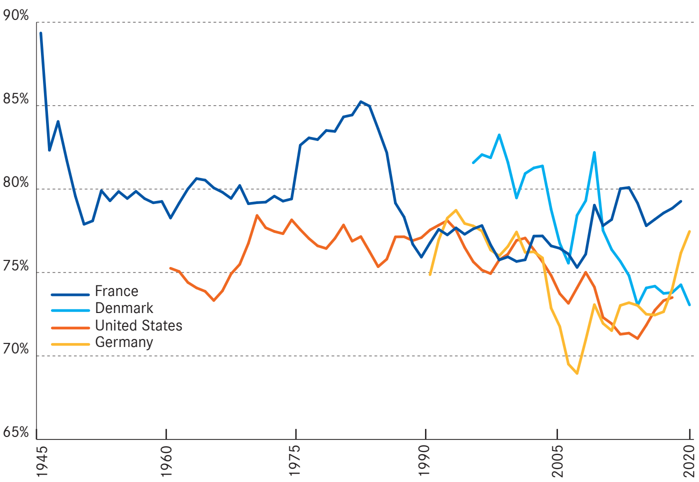
Why do we care about profit-sharing mechanisms?

Two main series of factors explain the return of income-sharing policies in the public.

Firstly, recent trends in the share of labour in value added, with a significant decline observed in most OECD countries over the last 25 years (Figure 1), are a reminder that, contrary to Kaldor's famous stylised facts,[1] the distribution of income between labour and capital is subject to major fluctuations over time.[2] This recent decline in the share of labour raises new questions.

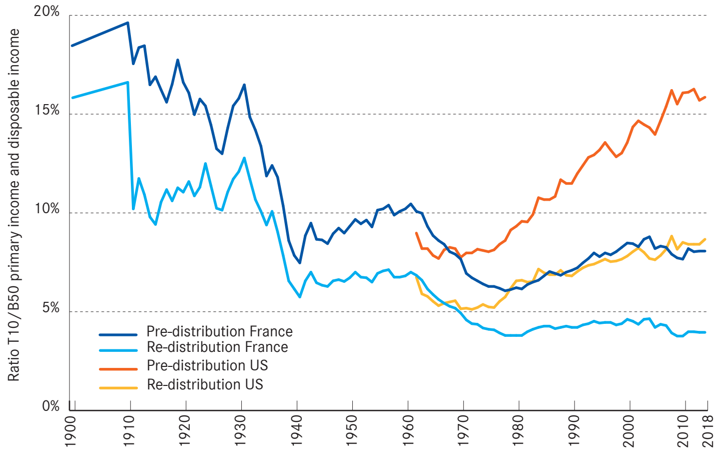
Figure 1: Share of labour in national income



Source: National Accounts, WID, authors' calculations.

First question is about the correct measurement of the labour share. The latter may be particularly sensitive to the definition of income to the self-employed, to the shifting boundary between capital and labour income for entrepreneurs,[3] or to changes in property rents.[4] In addition, the decline in the labour share is significantly more marked if we take into account the massive increase in international profit-shifting practices by companies.[5] Second question is about the determinants of the decline. While some point to the role of technological change and sectoral or intra-sectoral developments (with the emergence of superstar firms), others stress the issues of competition and their impact on the evolution of corporate profit margins.[6,7] Institutions also play a role in affecting the distribution of value (via taxation, minimum wage determination, rules for wage negotiation and employee representation in company decision).

Figure 2: Role of pre-distribution vs. re-distribution policies



Source: National Accounts, WID, authors' calculations.

The second set of factors relates to the renewed interest in pre-distribution policies and the impact they have on the dynamics of inequality. Research using distributed national accounts suggests that the sharp rise in inequality in Anglo-Saxon countries over the last 40 years, relative to countries like France, is almost entirely explained by the increase in primary income inequality before any redistribution (Figure 2).[8,9] Policies affecting primary incomes, i.e. the distribution of value added between factors and between individuals within factors, appear to be as important as, or even more important than, redistribution policies in explaining the dynamics of inequality.

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[1] Kaldor N. (1957): «A model of economic growth», *The Economic Journal*, 67(268), pp. 591-624.

[2] Karabarbounis L. & Neiman B. (2014): 'The global decline of the labor share', *The Quarterly Journal of Economics*, 129(1), pp. 61-103.

[3] Smith M., Yagan D., Zidar O., & Zwick E. (2022) : «The rise of pass-throughs and the decline of the labor share», *American Economic Review: Insights*, 4(3), p. 323-340.

[4] Cette G., Koehl L. and Philippon T. (2019): «Labor shares in some advanced economies», No. w26136, National Bureau of Eco-nomic Research.

[5] Guvenen F., Mataloni Jr R. J., Rassier D.G. and Ruhl K. J. (2022): «Offshore profit shifting and aggregate measurement: Balance of payments, foreign investment, productivity, and the labor share», *American Economic Review*, 112(6), pp. 1848-1884.

[6] Autor D., Dorn D., Katz L. F., Patterson C. and Van Reenen J. (2020): «The fall of the labor share and the rise of superstar firms», The Quarterly Journal of Economics, 135(2), pp. 645-709.

[7] Grossman G.M. and Oberfield E. (2022): «The elusive explanation for the declining labor share», *Annual Review of Economics*, 14, pp. 93-124.

[8] Bozio A., Garbinti B., Goupille-Lebret J., Guillot M. and Piketty T. (2022): «Predistribution vs. Redistribution: Evidence from France and the US», Working Paper.

[9] Blanchet T., Chancel L. and Gethin A. (2022): «Why is Europe more equal than the United States?», American Economic Journal: Applied Economics, 14(4), pp. 480-518.

Alongside these long-term macroeconomic trends, inflationary pressures, that started in the end of 2021 and were exacerbated by the outbreak of the war in Ukraine in February 2022, have brought the issue of income-sharing to the political forefront. This led to debates on the existence of a "greedflation" (i.e. increasing company profit margins during periods of inflation) or the taxation of oil giants superprofits; then to the introduction of emergency measures to protect purchasing power in August 2022, including the payment of salary bonuses.

In this context, a national interprofessional agreement was signed on 10 February 2023 with the main subject being profit-sharing at company level. It aims to generalise and simplify the various existing profit-sharing schemes. In particular, the agreement stipulates that companies with 11 or more employees must, under certain conditions, set up a profit-sharing scheme (*participation*, *intéressement* or *PPV*) from 1 January 2025, a date brought to 1 January 2024 following parliamentary discussions. The agreement reiterates that wage is the main element in the recognition of employees' work and skills, and that profit-sharing schemes are complementary and should not replace labour wage. It insists on the need for fair and serious negotiation on compensation and value of work policies, at both industry and company levels.

The aim of this Note is to present and discuss the mechanisms for distributing value added (VA) in France, which enable employees to receive a share of the company's profits or performance. It also aims to take part to the debate on the opportunity to introduce a VA-sharing mechanism in companies with less than 50 employees and to lay the foundations for a genuine value-sharing policy.

Profit-sharing mechanisms in France

There are four main ways of sharing added value within companies in France: *participation*, *intéressement*, *abondement* and *prime de partage de la valeur* (*PPV*, formerly known as *PEPA*, see Box 1). Although these schemes have similar objectives, their principles may differ. *Participation*, as its formula indicates, effectively operates as a tax on excess profits, i.e. profits in excess of a supposedly "normal" rate of return on the company's equity, that the law sets at 5%. Half of these excess profits must be reallocated within the company between capital and labour, in proportion to their respective shares of added value. This formula ensures that the distorting effects of profit-sharing on companies' employment or investment decisions are very limited or null.[10] Unlike *participation*, the formula for *intéressement*, *abondement* or PPV can be freely determined within companies.

These schemes also differ, in their objectives and operations, from other policies likely to affect the pre-distribution of income. Unlike education, competition or industrial policies, which aim to affect primary income directly by modifying market equilibrium, profit-sharing schemes are mainly voluntary and aim to affect the distribution of the value created within the company via social and fiscal incentives. Their main justification is based on the idea that a fairer sharing of value promotes employee motivation and productivity, along the lines of the efficiency wage theories.[11, 12] The use of tax incentives to promote such schemes relies however on the fact that companies do not internalise such productivity gains.

These measures clearly complement other policies affecting income-sharing. Policies regulating the place of workers in companies decisions (co-determination, role of trade unions, etc.) increase their negotiating power and can therefore have a direct impact on the use and generosity of schemes within the company. This is also the case with taxation, due to the advantageous social and fiscal treatment of these schemes. The redistribution of profits to workers via these schemes replaces the redistribution via corporate tax. Conversely, a change in the taxation of capital or labour income may affect the desirability of these tax-exempt schemes.

Economic weight and impact of profit-sharing schemes

In 2021, €6.9 billion was paid out in respect of *participation*, €8.2 billion in respect of *intéressement* and €2.4 billion in *abondement*. PPV accounted for €2 billion in gross payments. These amounts remain low in relation to total value added: around 1% of GDP in 2021. These amounts appear to be relatively stable over time and not very sensitive to fluctuations in the economic cycle, even though these schemes are firstly based on company performance (Figure 3). When we break down the evolution of value added, we see that the profit-sharing schemes are not only modest, but play virtually no role in absorbing shocks to value added at the aggregate level: it is capital income that absorbs most of the negative shocks, while the positive shocks are split more or less equally between increases in wages (excluding profit-sharing schemes) and increases in capital income.

Finding 1. Profit-sharing schemes remain modest in terms of total value added and seem unlikely to have a structural impact on the distribution of income between labour and capital at the aggregate level compared with other pre-distribution policies.

[10] Nimier-David E., Sraer D. and Thesmar D. (2023): «Les effets de la participation obligatoire, les enseignements de la réforme de 1990», CAE, Focus n° 100, July.

[11] Kraft K. (1991): «The incentive effects of dismissals, efficiency wages, piece-rates and profit-sharing», The Review of Economics and Statistics, pp. 451-459.

[12] Kruse D.L. (1992): «Profit sharing and productivity: Microeconomic evidence from the United States», The Economic Journal, 102(410), pp. 24-36.

Box 1: Profit-sharing mechanisms in France

Participation

Participation is an employee savings scheme that allows them to receive a share of the profits made by their company, in addition to their wage. It was made compulsory in 1967 by General de Gaulle, as part of a social compromise aimed at sharing the benefits of growth with workers. *Participation* is compulsory for companies with at least 50 employees and optional for those with less than 50 employees, which may nevertheless introduce it voluntarily.

The amount of profit-sharing is computed according to a statutory formula, which takes into account net profit B, shareholders' equity (i.e. capital less debt: k-d), payroll w and the company's value added (p.y):

Participation = [½(B - 5% (k-d)] x [w/(p.y)]

This formula may be modified by collective agreement, provided that the new calculation method is more favourable to employees.

Profit-sharing is distributed to employees in the form of an annual bonus, the amount of which may vary according to salary or be the same for every beneficiaries, but may not exceed €30,852 per employee for 2022.

The company can deduct the amount of profit-sharing from its profits subject to corporate tax and does not have to pay employer social security contributions if it employs less than 50 employees from 2019. Employees are exempt from income tax if they invest their bonus in a company savings plan (PEE) or a collective retirement savings plan (PERCO) for a minimum period of 5 years. However, they are still subject to social security contributions (CSG-CRDS). Worker's eligibility is subject to a maximum 3 month seniority in the firm, rule that may be waived or reduced by collective agreement. All employees present in the company at the time the bonus is paid are eligible for profit-sharing, regardless of their status, contract or working hours.

Intéressement

Intéressement is a voluntary scheme created in 1959 to involve employees in their company's performance. It takes the form of an annual bonus. There is considerable freedom in establishing the formula for calculating this bonus, which may be based on the company's results (financial or accounting indicators) and/or performance (qualitative or productivity targets). However, the formula must be explicit and negotiated with employee representatives.

Intéressement can be distributed evenly - all employees receive the same amount - or in proportion to employees' salary. However, there are ceilings: the individual bonus may not exceed €30,852 and the total amount of bonuses may not exceed 20% of total payroll paid by the company.

Intéressement is deductible from profits subject to corporate tax and is not subject to employer social security contributions for companies with less than 250 employees. For employees, it is exempt from income tax provided that the funds are frozen for 5 years in a PEE or PERCO. However, profit-sharing is subject to social security contributions (CSG-CRDS).

Abondement

Abondement is a voluntary scheme that allows companies to top up payments made by employees to their employee savings plans (PEE/PERCO). The company is free to define the terms and conditions of the top-up, depending on the amount, type or frequency of payments made by employees. However, it may not exceed three times the employee's contribution, nor may it exceed €3,519 per year per employee.

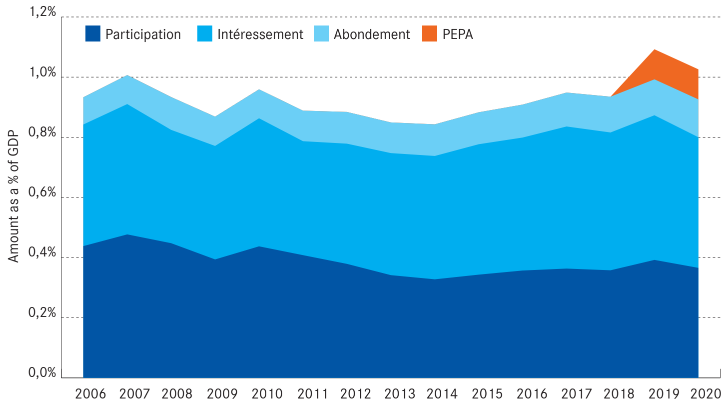
It has the same social and tax advantages that other schemes.

Prime de partage de la valeur (PPV)

This annual bonus can be paid by employers to their employees. Since July 2022, it has replaced the exceptional purchasing power bonus (PEPA) introduced in 2019. The amount is freely determined by the employer, up to a maximum of €3,000 per employee. This ceiling may be raised to €6,000 for companies with less than 50 employees or if the bonus is accompanied by an agreement on "*participation*". The employer may also adjust the amount of the bonus according to criteria of his choice, such as salary, working time or seniority.

It is deductible from profits subject to corporate tax and exempt from employer social security contributions. For employees earning less than three times the minimum wage, it is exempt from income tax and social security contributions (including CSG-CRDS). From 1 January 2024, the PPV will no longer be exempt from CSG-CRDS or income tax.

Figure 3. The weight of profit-sharing schemes in value added and their evolution (2006-2021)



Source: Dares and national accounts

Moreover, access to these schemes remains heterogeneous (Figure 4a), and this is the main difference compared with other forms of redistribution of value added such as profit taxation. The likelihood of a company making a payment depends very much on its size (due to legal obligations) and its profitability. The proportion of employees receiving profit-sharing is over 50% in companies with 1,000 or more employees, but only 3.6% in those with 10 to 49 employees. In addition, differences in the likelihood of a company paying out profit-sharing persist over time, regardless of size, due to the relative stability of the profit margin hierarchy and the usual duration of profit-sharing agreements over several years.[13]

The share of these schemes in total compensation also increases with wage level (Figure 4b). The weight in total compensation is around twice as high among the two top base wage deciles than for the four bottom deciles. This is largely due to a composition effect: large, profitable companies tend to have an employment structure that over-represents highly qualified employees. Employees at the top of the distribution therefore have greater access to profit-sharing schemes than those at the bottom of the income distribution, but 50% of this gradient disappears once company size is taken into account.

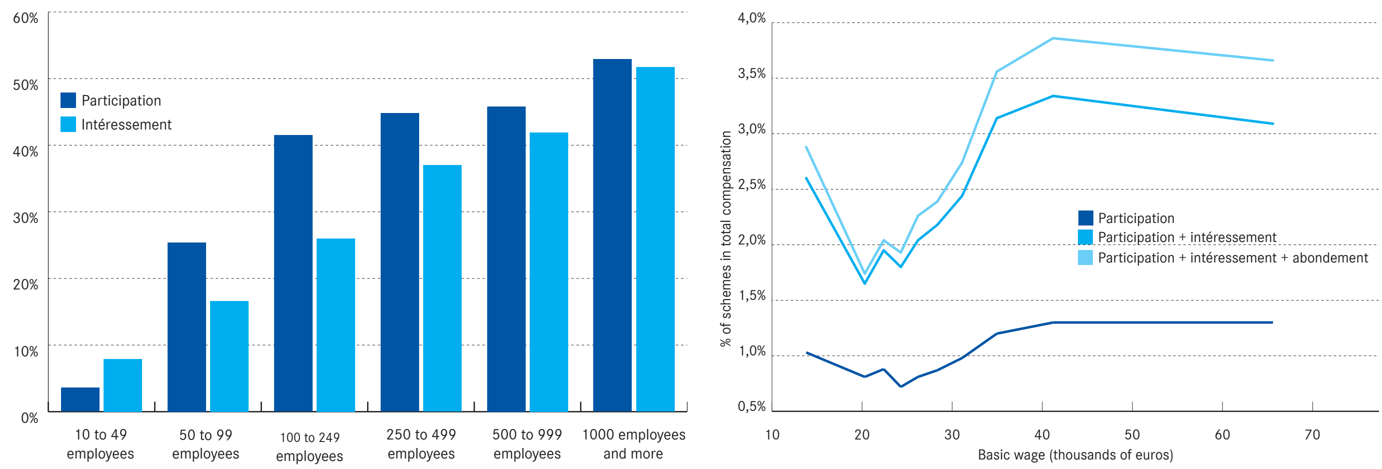
Finally companies that pay *participation* or *intéressement*, payments tend to be proportional to wages. *Abondement*, on the other hand, decreases with salary level.

Finding 2. Because they are more common in the largest and most profitable companies, the redistribution of VA via these schemes is heterogeneous between companies. They benefit more to employees at the top of the wage scale.

This finding is only partial, as the redistributive effect of profit-sharing depends also on its impact on wages. In the following section, we present an empirical evaluation of the impact of profit-sharing on wages, as well as on company productivity.

Figure 4: Heterogeneity of access to profit-sharing schemes

a. Percentage of employees receiving profit-sharing (by company size) b. Share of profit-sharing in total compensation by salary level



Source: ECMOSS (2018).

[13] Our work shows that a company with fewer than 50 employees that adopts a profit-sharing agreement in a given year (compared with a similar company that has not adopted an agreement) is 60 percentage points more likely to pay profit-sharing five years later.

The effects of compulsory *participation*: lessons from the 1990 reform

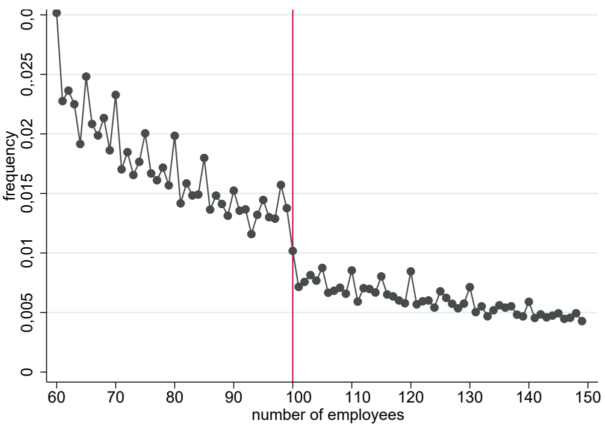
Traditionally, the economic literature has stumbled upon the issue of evaluating the various profit-sharing mechanisms. The main reason is that, for most of these schemes, adoption is voluntary, which makes causal evaluation difficult. Where schemes are mandatory, evaluation is generally made difficult by the absence of a natural control group (a group of companies similar to those subject to the profit-sharing obligation, but not affected by it). The analysis we present in the *Focus* associated with this Note[14] exploits a mandatory mechanism – *participation* – and focuses on a reform of the mechanism that allows the construction of such a control group.

In November 1990, Rocard government changed the conditions of compulsory *participation*: whereas General de Gaulle had set the limit at 100 employees, the reform lowered it to 50 employees. Passed in November 1990, the reform was implemented in 1991. This natural experiment allows us to study the effects of the profit-sharing scheme on the sharing of value added, company size, investment and productivity.

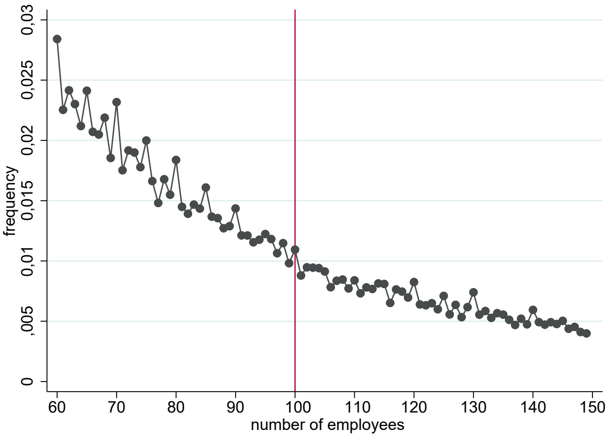
The first analysis concerns company size. If companies cannot lower wages to compensate for the introduction of the profit-sharing scheme, the latter represents a net loss of profits for shareholders. At the margin, some companies may then decide to remain below the mandatory profit-sharing threshold despite the loss of earnings resulting from this underemployment. We therefore study how the distribution of employment around the 100-employee threshold is affected by the 1990 reform. It is important to note that *participation* is the only mechanism introduced at this threshold. Before the 1990 reform, the distribution of employment was characterised by a discontinuity around the threshold of 100 employees with an excessive mass of companies just

Figure 5. Distribution of employment around the 1990 reform

Panel A: 1985-1992



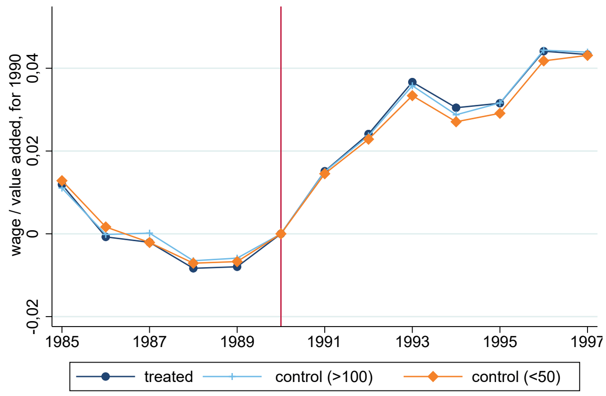
Panel B: 1992-1997



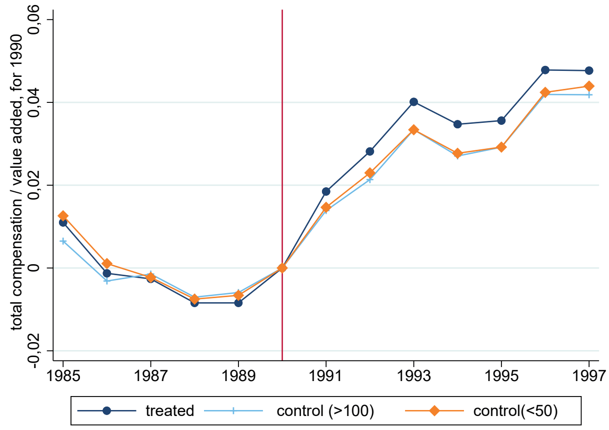
Sources: Nimier-David E., Sraer D. et Thesmar D. (2023) : « Les effets de la participation obligatoire, les enseignements de la réforme de 1990 », CAE, *Focus* n° 100, July.

Figure 6. Share of wages and total compensation in value added

Panel A: Share of wages in value added



Panel B: Share of labour total compensation in value added



Sources: Nimier-David E., Sraer D. et Thesmar D. (2023) : « Les effets de la participation obligatoire, les enseignements de la réforme de 1990 », CAE, *Focus* n° 100, July.

[14] Nimier-David E., Sraer D. and Thesmar D. (2023): «Les effets de la participation obligatoire, les enseignements de la réforme de 1990», CAE, Focus n° 100, July.

below the threshold and a missing mass above it. After 1991, this phenomenon disappeared and the distribution of employment once again became continuous around the threshold (see Figure 5).[15]

It is possible to show - by analysing the average payroll and average profits per employee reported around this threshold – that the excess mass observed over the period preceding the reform corresponds to real underemployment and not to a purely declarative effect. It can therefore be estimated from Figure 5 that around 1% of employment in companies with between 85 and 120 employees was affected as a result of the 100-employee *participation* threshold. This analysis suggests that it is therefore difficult for companies to avoid the obligation to pay profit-sharing, either by lowering wages or by resorting to other avoidance mechanisms. Mandatory *participation* would therefore represent a net cost for shareholders.

This evidence can be pushed a bit further by following the behaviour of companies over time. For this analysis, the companies in the sample are grouped into three categories according to their employment in 1989 and 1990: (1) a so-called treatment group corresponding to companies with 55 to 85 employees; (2) a first control group comprising companies with 35 to 45 employees; (3) a second control group comprising companies with 120 to 300 employees. Group 1 corresponds to companies where *participation* was not compulsory before 1991 but where it became compulsory from 1991 onwards; group 2 includes companies where *participation* is still not compulsory and group 3 those where it has always been compulsory.

We observe that the wage share follows a similar trend in the three groups of companies (Figure 6, Panel A) and that the share of employees' total income increases by almost 0.6 percentage point in companies in the treatment group relative to the two control groups (Figure 6, Panel B). Our analysis clearly shows that there is no *participation*/wage substitution effect.

In the absence of a negative effect on wages, it makes sense that profit-sharing should lead to a fall in shareholder income. We show in the Focus associated with this Note that, for companies in the treatment group, the 1990 reform led to a relative fall of 0.44 percentage point in the share of profits in value added. Ultimately, at company level, the mandatory profit-sharing leads to a net increase in the share of income received by employees without any effect on the wage share. This increase is financed both by the State, which suffers a slight fall in the share of corporate tax in value added, and by shareholders, whose share of profits in value added falls significantly.

Using DADS employer-employee data, we can explore the impact of compulsory *participation* on different categories of workers: (a) those with low qualifications (socio-professional category corresponding to routine workers), (b) those with medium qualifications (intermediate professions) and (c) those with high qualifications (managers and company directors). The analysis shows that mandatory profit-sharing benefits less to highly qualified workers, whose wage is adjusted downwardly when their companies are required to pay profit-sharing. A plausible interpretation of this result is that wage rigidity is greater for low-skilled workers, making it more difficult to substitute profit-sharing for wages.

Beyond its redistributive effects, profit-sharing can affect companies in two ways: (1) by providing stronger incentives to workers, it can encourage higher productivity; (2) insofar as the expected return on company equity is higher than the 5% stipulated in the formula, profit-sharing can discourage investment. Analysis of the 1990 reform shows, however, that these two effects are negligible: the introduction of compulsory profit-sharing does not reduce investment, but neither does it increase productivity.

Finding 3. Mandatory profit-sharing is not a substitute for wages, nor does it reduce investment or improve company productivity. It is a costly form of redistribution since it reduces corporate tax revenues.

The effects of voluntary adoption of value-sharing schemes

The above results for the mandatory profit-sharing scheme do not necessarily apply to the other schemes, for two reasons. Firstly, the operation of the other schemes (calculation formulas, etc.) may be more conducive to substitution with wages. Secondly, the adoption of these schemes is voluntary, which may induce a selection effect.

Voluntary *participation* or ***intéressement***

There are many studies on voluntary profit-sharing schemes. Their first finding is that companies that adopt these schemes have specific economic and financial characteristics. It is the most profitable companies that set up these schemes, evidence found in every context, in the United States[16] or in France. Furthermore, the companies which adopt a voluntary

[15] To determine eligibility for profit-sharing, the number of employees in the company is calculated every month. Profit-sharing is compulsory when the number of employees has reached one hundred during the financial year in question, for a period of at least six months, whether consecutive or not. The definition of employment used in Figure 5 and reported in the tax returns corresponds to the arithmetic mean of the number of employees at the end of each calendar quarter of the financial year. This difference in definition underestimates the effect of participation on the bunching observed in the data.

[16] Kruse D. (1993): Profit sharing: does it make a difference? The productivity and stability effects of employee profit-sharing plans.

scheme are also those with the highest level of workers' *participation* in company decisions.[17]

We use company data for the period 1995-2020 to gain a better understanding of the dynamics surrounding the voluntary adoption of a profit-sharing agreement. To do this, we first identify all companies with fewer than 40 employees that adopt a *participation* agreement for the first time.[18] We then create a control group of companies similar at the time of adoption (in terms of workforce, sector and pre-adoption value added growth rate) but which do not adopt an agreement over the period.

Our initial analysis confirms the validity of the approach: companies in the treatment group pay 2 points of VA to workers in terms of profit-sharing at the time of adoption, and still pay one point 5 years later. Our second analysis (Figure 7, Panel A) shows that adopting firms have a stronger growth dynamic. Although we take into account the pre-adoption growth dynamic, we observe that the VA and total employment of treated firms continue to increase by 5 and 10 percentage points over the 5 years following adoption. The empirical strategy used does not allow us to interpret these results unambiguously: they could reflect a causal effect of *participation* as well as a selection effect (companies that adopt this scheme anticipate better performance). The reverse causality issue, source of dynamic selection, makes it difficult to interpret the results of any study that examines voluntary adoption in absence of a randomized experimental framework that would make possible the comparison of similar companies adopting or not the scheme. The results of these studies must therefore be interpreted with caution. However, a number of key lessons seems to emerge.

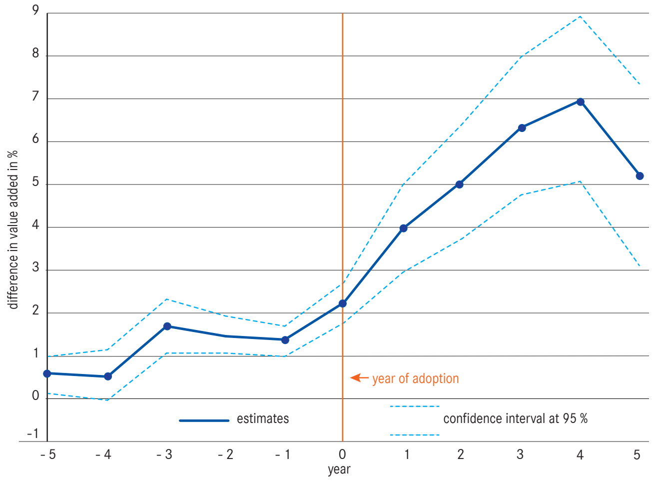
Limited impact on total compensation

First of all, it seems that the voluntary adoption of profit-sharing schemes is accompanied by wage moderation with limited effects on workers' total compensation. A study[19] analysis the effect of the introduction of a *participation* or *intéressement* agreement on basic wages and total compensation of employees, comparing similar companies with and without an agreement, over the period 1997-2007 in France. Their results suggest that adoption does not lead to any significant increase in employees' total compensation, implying an almost complete substitution between wages and value-sharing arrangements.

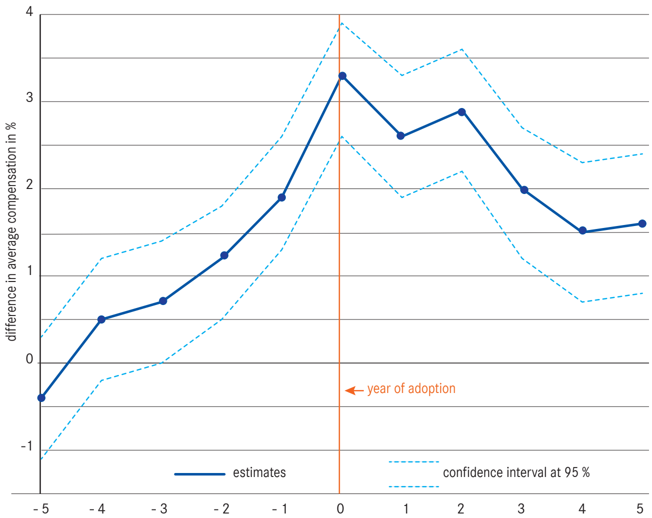
As illustrated in Figure 7, Panel B, the average compensation of employees (wages plus profit-sharing schemes), that was growing before adoption, stabilizes after adoption, compared with employees in companies with similar pre-adoption characteristics but which do not adopt. The absence of any significant effect on total compensation suggests the presence of strong substitution effects between wages and profit-sharing at the time of adoption.

Figure 7. Voluntary adoption of participation in companies with less than 50 employees

Panel A: difference in value added (in %) between companies voluntary adopting or not participation



Panel B: difference in average compensation (in %) between companies with and without voluntary participation



Sources: authors' calculations.

[17] Floquet M., Guery L., Guillot-Soulez C., Laroche P. & Stévenot A. (2016): «The relationship between profit-sharing schemes and wages: Evidence from French firms», Management revue, 27(4), pp. 219-233.

[18] As we do not observe the year of adoption of a profit-sharing agreement in the FICUS data, a company is deemed to have adopted an agreement when it reports in its tax return a strictly positive amount for the special profit-sharing reserve for the first time between 1995 and 2020.

[19] Delahaie N. and Duhautois R. (2013): The impact of collective profit-sharing schemes on pay in France. An empirical analysis over the period 1999-2007.

Limited impact on employment and productivity

The voluntary adoption of profit-sharing schemes does not appear to have a significant effect on employment in companies.[20, 21] The effects on productivity are, however, more ambiguous. Theoretically, value-added sharing schemes are instruments which allow employees to receive a share of the company's profits. This sharing is supposed to encourage them to perform better, but the fact that they are given to all workers regardless of their individual contribution creates "free-riding" problems. Empirically, the oldest studies seem to indicate positive, albeit limited, effects on productivity,[22 to 24] but indicate strong heterogeneity depending on the initial quality of social dialogue in the company.[25] Beyond the effect on compensation or performance, studies have not found any significant effect of profit-sharing mechanisms on absenteeism, turnover or job satisfaction, but they have noted that they contribute to reinforcing employees' feeling of belonging to their company and to improving the social climate and collective bargaining.

Effects of the exceptional purchasing power bonus (Pepa)

The French National Statistic Office (Insee) assessed the effect of the exceptional purchasing power bonus (Pepa) on wages using two different approches.[26] The first study compares employees who have received the Pepa with employees who have not, taking into account their individual characteristics and those of their company (microeconomic approach). According to this approach, Insee estimates that one euro of Pepa paid results in a 15 cent reduction in wages. A second study compares the change in average wage at macroeconomic level between 2018 and 2019 with that observed between 2017 and 2018, taking into account changes in the minimum wage and productivity. According to this approach, Insee estimates that one euro of Pepa paid results in a 40-centime reduction in wage.

Finding 4. Voluntary profit-sharing schemes do not appear to have a significant impact on company performance and are a strong substitute for wage.

Most profit-sharing mechanisms therefore lead to substitution effects with wage. Mandatory profit-sharing, on the other hand, seems to fully benefit to employees. This difference can be partly explained by the voluntary nature of profit-sharing schemes, which allows companies to optimize the timing of adoption and encourages substitution. For example, a company may decide to introduce profit-sharing at the time of a major recruitment drive and use this mechanism to negotiate down the starting wage of new employees.

Implications for the regulation of profit-sharing schemes

While they do not affect company performance or the behaviour of employers and employees, these schemes essentially serve to redistribute profits to workers. It is therefore interesting to compare the total public cost of these schemes per euro of profit actually transferred to wages. These schemes have a cost for public finances, as one euro of profit, which would normally have been subject to corporate tax (at a rate of 25%), is now exempt from tax and is taxed at a reduced rate of payroll deductions (only CSG-CRDS at a rate of 9.7%), so that the mechanical tax cost is 15.3 centimes per euro transferred. The total public cost per euro of value added actually transferred therefore depends on this mechanical rate, but also on the level of substitution with wages induced by the scheme. Indeed, greater substitution implies that the State will have to make more tax concessions to effectively transfer one euro from profits to employees.

Mandatory profit-sharing schemes in companies with 50 or more employees are characterised by zero substitution (cf. results of the 1990 reform) and therefore a mechanical public cost equal to 15.3 centimes per euro redistributed from capital to labour, a cost which corresponds to the estimated loss of corporate tax but which is only partially offset by gains in CSG-CRDS. For voluntary schemes creating greater substitution (such as the PPV), the budgetary cost is higher, and can be as high as 38 centimes per euro redistributed for an elasticity assumption of 0.6.[27]

[20] Cahuc P. and Dormont B. (1997): «Profit-sharing: Does it increase productivity and employment? A theoretical model and empirical evidence on French micro data», Labour economics, 4(3), pp. 293-319.

[21] Bellmann L. and Möller I. (2010): «Profit sharing and employment stability», Schmalenbach Business Review, 62, pp. 73-92.

[22] Weitzman M., L. and Kruse D.L. (1990): Profit sharing and productivity. Paying for productivity: A look at the evidence, p. 95.

[23] OECD (1995).

[24] Doucouliagos C. (1995): «Worker participation and productivity in labor-managed and participatory capitalist firms: A meta-analysis», ILR Review, 49(1), pp. 58-77.

[25] Fakhfakh F. and Perotin V. (2000): «The effects of profit-sharing schemes on enterprise performance in France», Economic Analysis, 3(2), pp. 93-111.

[26] Frel, Cazenave and Guggemps (2021): «Prime exceptionnelle de pouvoir d'achat en 2019: entre hausse des salaires et aubaine pour les entreprises», Insee, Insee Références, July.

[27] These figures underestimate the total budgetary cost insofar as profit-sharing and incentive schemes may create a shortfall in terms of income tax revenue since income from these schemes is exempt from income tax when it is blocked in a savings account for more than 5 years.

Finding 5. The public cost per euro of value added effectively redistributed from profits to wages is around 15 centimes for mandatory profit-sharing, and between 21 and 38 centimes for voluntary schemes such as *intéressement* or PPV.

What can we expect from the requirement made to companies with 11 to 49 employees to adopt a scheme?

Analysis of the 1990 reform shows that the labour market does not equalise the total compensation of workers between companies with sharing arrangements and those without. Furthermore, total workers compensation as a proportion of value added is lower in companies with 11 to 49 employees than in those with 50 to 99 employees (49% compared with 53%).[28] Finally, low wage earners are over-represented in companies with 11 to 49 employees compared to those with 50 to 99 employees.

All these factors suggest that the compulsory introduction of a value-added sharing scheme for companies with fewer than 50 employees could indeed induce a pay increase of an a priori more disadvantaged category of workers. We assume that employees eligible to the reform will receive the average amount of PPV (low hypothesis) or the average amount of *participation* and *intéressement* made in companies with 50 to 99 employees (high hypothesis). This assumption undoubtedly provides us with an upper bound of the effects to be expected from the reform.

The total effect to be expected ultimately depends on the substitution between wages and the new mechanism adopted. Under the bill, companies will be able to choose the type of agreement to enforce. Insofar as the PPV scheme is one of the options, we consider that this elasticity of substitution will be at least 0.3 (average of the elasticities estimated by Insee for this scheme).

Finding 6. The reform envisioned in the bill could result in a transfer of between €350 and €500 million from profits to workers, at a total fiscal cost of €75 to €200 million.

We can therefore see that the fiscal cost of the proposed reform is potentially high with respect to the redistribution actually achieved if the profit-sharing mechanism adopted does not limit substitution between wages and the sharing scheme.

Some key-principles for more effective profit-sharing mechanisms

Looking at the literature and our empirical analyses, a number of key principles emerge for optimizing profit-sharing mechanisms in terms of effective transfer to employees and tax cost.

Generally speaking, flexible mechanisms from the point of view of companies (for example, choice of definition of performance criteria for profit-sharing and the ad hoc nature of the payment for PPV) can more easily lead to substitution between wages and sharing schemes. This flexibility may allow companies to optimize the timing or adapt the performance criteria in order to obtain more wage concessions from employees. Insofar as this substitution limits the benefits of these mechanisms while increasing their fiscal cost, it therefore seems important to restrict it by imposing a single system to companies.

Ideally, this single scheme should be based on a simple, transparent formula clearly linked to company's profitability. Transparency is a necessary condition to limit companies' avoidance of the scheme through, for example, accounting manipulation. The use of a simple formula facilitates workers' control of the scheme and enables them to easily assess the expected income from profit-sharing, which can also limit substitution effects. In this sense, mandatory *participation* seems to be a good model.

The *participation* formula defines excess profits as all profits in excess of 5% of equity. This expected return on equity may be appropriate for larger companies. However, for SMEs, where the risk held by shareholders is less diversified, it may be too low. The mandatory *participation* formula could therefore be retained for all companies, but with the return on equity used in the formula modulated according to the size of the company. In order to avoid threshold effects, the rate used could gradually decrease with the size of the company.

Recommendation 1. To limit substitution effects, base the profit-sharing scheme on a single formula whose parameters could be adjusted according to company size, or negotiated at branch or company level. The formula should be easy to observe and difficult to manipulate.

[28] Source: ACEMO-PIPA and FARE, 2019

Beyond profit-sharing mechanisms

Numerous policies are likely to influence income-sharing beyond profit-sharing mechanisms: industrial, education and research policies, competition policies, labour market regulations, institutional rules determining the role of trade unions, wage bargaining, taxation, etc. A value-sharing policy must therefore coordinate all these tools. Among the latter, the strengthening of employee representation and the taxation of profits have given rise to recent debates, the lessons of which we attempt to clarify.

Worker's representation and co-determination

Employee representation and co-determination are arrangements that enable employees to participate in the governance of the company, by being present on management bodies or consultative bodies. In France, the law of 14 June 2013 on securing employment, which transposed the national inter-professional agreement of 11 January 2013, introduced the obligation for employees to be represented on the board of directors or supervisory board of private companies with more than 1,000 employees (5,000 for multinational companies). These representatives are appointed by the trade unions representing the company and have the same rights and obligations as other directors.[29]

Although the effects of the 2013 law have not yet been properly assessed in France, a number of recent studies have provided a better understanding, using quasi-experimental methods, of the impact that this type of employee representation reform can have on wages, the sharing of value added, productivity and labour relations. Researchers,[30] for example, studied the effect of the elimination in Germany of the rule requiring one-third of supervisory board seats to be held by employee representatives in companies listed on the stock exchange for the first time after 1994. Their results suggest that this reform had no significant effect on performance, wages or the sharing of value. Other studies confirm this absence of effects: research carried out in Finland[31] analysed the impact of the introduction, in 1990, of employee representation on the board of directors of companies with more than 150 employees. This absence of effects at micro level is found at macro level. The effect of multiple reforms of employee representation and co-determination on labour relations was measured using a panel of countries.[32] It found little or no effect on the intensity of strikes and union representation.

How can these negligible effects be explained? The answer lies mainly in the fact that the reforms under consideration confer only limited authority to employees: having employee representatives on company management bodies does not mean that they have any real power over the company's strategic or financial choices. Furthermore, these reforms are also being implemented in contexts where the level of informal participation is already high: having employee representatives on company management bodies does not mean that they are the only ones to participate in company governance. There may be other forms of informal participation, such as consultation, information or dialogue, which allow employees to express their opinions or suggestions.

It therefore seems that recent reforms, such as the 2013 law or the changes introduced by the PACTE law, are too marginal to have a structural impact on the way in which value is shared. Employee representation on the board of directors, while important, cannot therefore replace other institutions, such as collective bargaining, unionisation or social legislation, which play a predominant role in determining employees' working conditions and pay.

Taxation of profits and profit transfers

Value-sharing mechanisms focus on the redistribution of profits within the company. An apparent alternative is to redistribute profits to society as a whole by taxing them. Unlike value-sharing mechanisms, whose fiscal cost depends on the favourable tax treatment they receive, the cost of direct redistribution via the taxation of profits depends solely on the behavioural response of companies to the taxation of profits. Redistributing one euro in this way costs the community $1+\varepsilon IS$ euros, where εIS represents the elasticity of taxable profits to the tax rate (percentage change in the value of profits when the corporate tax rate increases by 1%). In this regard, several important points should be noted.

Firstly, the most recent empirical work suggests that this elasticity may be high, although there is little consensus, with estimates varying from 0.15 to 1. There is no reference estimate on French data. Secondly, this behavioural response should a priori be taken into account for all other profit-sharing schemes insofar as they correspond to an implicit tax on profits. However, it may differ depending on the context: employee control, the possibility of wage substitution or the low level of the implicit tax on profits imposed by profit-sharing schemes could, for example, explain the absence of significant effects observed on profits. Thirdly, the social

[29] According to a study by Rehfeldt, U. (Board-level employee representation in France: Recent developments and debates, 2019), although France has introduced a form of co-determination at board level, the arrangements differ from those in other European countries. In Germany, for example, co-determination applies to companies with more than 500 employees, with employee rep-resentatives occupying half the seats on the supervisory board. In Sweden, co-determination applies to companies with more than 25 employees and provides for employee representatives to occupy one third of the seats on the board of directors.

[30] Jäger S., Schoefer B., & Heining J. (2021): «Labor in the Boardroom», The Quarterly Journal of Economics, 136(2), pp. 669-725.

[31] Harju J., Jäger S. & Schoefer B. (2021): «Voice at work», No. w28522, National Bureau of Economic Research.

[32] Jäger S., Noy S. & Schoefer B. (2022): «What does codetermination do?», ILR Review, 75(4), pp. 857-890.

cost is only a real cost when the elasticity captures real behaviour (linked, for example, to the fall in investment). If, on the other hand, the behaviour is one of tax avoidance, optimisation or evasion, then it is not a cost but a transfer (to the beneficiaries of this tax optimisation). Recent literature suggests that profit elasticity is largely a reflection of such optimisation behaviour.[33]

Among these behaviours, profit-shifting practices, which have exploded over the last forty years, undoubtedly represent the most decisive issue for the sharing of value. The most recent estimates suggest that taking these practices into account would lead to a two percentage points increase in the share of capital in value added in France, and a corresponding percentage fall in the share of labour.[34] In addition, the transfer of profits represents a substantial loss of corporate tax resources. A conservative estimate by the CAE, based solely on tax avoidance strategies involving presence in a tax haven,[35] put these losses at around €5 billion, but the most recent estimates suggest losses of around €15 billion a year.[36] The fight against profit transfer therefore seems to be a key instrument in any value-sharing policy.

[33] Coles J. L., Patel E., Seegert N. and Smith, M. (2022): «How do firms respond to corporate taxes?», *Journal of Accounting Research*, 60(3), pp. 965-1006.

[34] Tørsløv T., Wier, L. and Zucman G. (2023): «The missing profits of nations», *The Review of Economic Studies*, 90(3), pp. 1499-1534.

[35] Fuest C., Parenti M. and Toubal F. (2019): «International corporate taxation: what reforms for what effects?», CAE, *Note* no. 54, November.

[36] Tørsløv T., Wier L. and Zucman G. (2023): *op.cit.*

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