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Financial Participation, Productivity and Conflicts in French Firms

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Abstract:

Several studies show that financial participation; Profit Sharing (PS) and Employee Share Ownership (ESO); have positive impacts on productivity, as well as social performance (reducing absence and labor turnover). A recent study shows that PS and ESO also reduce conflicts. In such a case, do PS and ESO continue to effect productivity, or do their effects result entirely from reduced conflict?

To answer this question, we use a sample of 2747 French firms in 2015 and 2016, to estimate a Cobb-Douglas production function. The usual sectoral and other controls were included. Profit sharing had a highly statistically significant, positive effect on productivity, but employee share ownership was insignificant. These results are not sensitive to the inclusion of conflicts.

To allow for endogeneity and for the selection of firms into PS and/or ESO, we use treatment effects models where our treatment uses combinations of PS and ESO (None, PS Only, ESO only, PS& ESO). Our results show first that both PS only, ESO only or PS&ESO significantly raise productivity. These effects are even larger with treatment models, and they are also, and again not sensitive to the inclusion of the conflict variables.

This paper documents further evidence for the positive impact of financial participation on firm productivity where the moderator's conflicts variable does not alter the impact of financial participation on productivity.

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1. Introduction

Financial participation (FP) is receiving more attention in the recent years. Whether it is profit sharing (PS) and/or employee share ownership schemes (ESO), depending on the contexts and the countries. FP is emerging as an alternative feature of remuneration packages throughout the world. The latest laws « PACTE » (2019-2022) in France encourage both PS and ESO, with an objective of 10% of capital owned by Employees, where PS bonuses are the main sources of funding shares in the firm. UK and US governments are in the same line or even more, mainly regarding ESO. The last example is the US lunching of EBSA (Employee Benefit Security Administration, 10th July, 2023). EBSA seeks to "empower workers through ownership arrangements and educate those workers on possible pathways to greater rewards in return for their labour".

This increasing interest in FP is certainly not random. The literature in this area is very large, all of it is showing positive impacts on several outcomes or performance; whether it is the firm's financial performance, or social and environmental performance. It can also benefit to employees. In their meta-analysis, Kruse Freeman & Blasi (2010) have shown that FP is a driver of firm performance since most of the studies used were showing positive impacts on performance, with no study showing a negative impact. The same results concerning firm productivity were obtained in recent studies (Prince et al. ,2020). PS and ESO are also found to reduce absence (Brown et al 1999, Wilson & Peel, 1991), to reduce labour turnover (Wilson & Peel, 1991). In a recent study, Fakhfakh & FitzRoy (2018) found in France that PS firms are favouring several environmental outcomes. Green & Heywood (2010) have shown that PS improve the relation between employees and their boss, whereas Fakhfakh et al. (2019) concluded that both PS and ESO participate to alleviate collective conflicts in the firm.

When analysing the impacts of FP, the major argument suggested in the literature is that such schemes are an excellent tool that allows realigning the interests of employers and employees. In that case, both will seek to maximize their joint interests, employees are then encouraged to act both in their own interests and in the firm's interest and solve the agency problems inherent in the firm. This will create a spirit of "positive collusion" that favour cooperation between employees, reduces the hierarchical structure where a proportion of the needed control will be, indirectly, guaranteed with the help of peer pressure (Kandel & Lazear 1992) and the help of horizontal monitoring (FitzRoy and Kraft 1987). By coming together, peer

pressure and horizontal monitoring will alleviate the free rider problem (Freeman, Kruse, and Blasi 2010), since it is in the interest of a worker, but also all co-workers to maximise the performance of their firm. We can then expect that as a consequence of the "coming together" of workers and employers, the FP firm will be managed differently and will perform quite differently from a conventional firm.

Besides these effects related to FP, ESO has its own additional impacts. The propriety feeling is at the origin of several changes in attitudes and behaviour. In the firm side, ESO is a signal that the firm will not act opportunistically, especially if workers invest in human capital specific to their firm (Robinson and Zhang 2005, Pendleton and Robinson 2011). It is in their common interest to increase the workers' human capital, through training and on the job learning, and to keep those trained workers in the firm. Reciprocity emerges then from this new win-win relation between employees and employers. That's the result of Bryson and Freeman (2018) who found that the benefits of ESO emerge through both group incentive effects and reciprocity. More specifically, they observe lower labour turnover intension. ESO is also creating a more cooperative "psychological contract between the employer and employee by getting employees to think like owners through a change in status rather than a change in direct financial incentives" (Freeman, Kruse, and Blasi 2010: 91).

The aim of this paper is twofold. First, we are using relatively recent and rich data to estimate the impacts of FP on firm performance in order to check for the durability of older estimates (Cahuc & Dormont, 1992, Fakhfakh & Pérotin 2000). Secondly, we wonder if the recently obtained impacts of FP in alleviating conflicts are at the origin of the expected firm better performance. If this is really the case, the impacts of FP will be diluted (non-significant) once we control for the conflicts. The last novelty of this paper is to handle for the endogeneity of FP with the help of Treatment Effects models. Instead of comparing FP firms to the whole remaining sample of non-FP firms, we will use propensity score matching to compare FP firms to their similar (or twin) firm.

In this paper we use two large, cross sectional French data sets, with detailed financial and other information for about 4,000 private sector firms for 2015 and 2016. In section 2, descriptive statistics for the main variables are summarized in Table 1. We see that firms with profit sharing have more than three times as many employees on average as those without

profit sharing (PS), while those with employee share ownership (ESO), have about twice as many employees as those without. Capital intensity in firms with PS is nearly four times greater than in firms without PS but is similar in firms with and without ESO.

In section 3 we describe our econometric approach. Our dependent variable is firm productivity measured by value added, and in section 4 we report estimates of augmented Cobb-Douglas production functions in Tables 2 – 7, with positive significant effects of PS on productivity, . Conclusions are summarized in a final section 5.

2. Data and Variables

Two data sets are used in this paper: REPONSE and FARE. The "RElations PrOfessionelles et NégociationS d'Entreprises" (REPONSE survey)) 2017, is carried out by the French Ministry of Labor through the Department of Research and Statistical Studies (DARES). It is addressed, in three questionnaires, to managers, employee's representative and to employees. We are using here the one addressed to managers and conducted among a representative sample of about 4000 non-agricultural establishments in the private sector, where only establishments with 11 employees or more are retained. This survey includes data on industrial relations in the establishment – conflicts, whether the firm is single establishment, has a joint consultative committee, unionization, if there is autonomy at work, individual bonus payments and if information related to wage evolution is distributed. We also use REPONSE to get information on the existence of Financial participation (FP): mainly Profit Sharing (PS) and Employee Share Ownership (ESO). We use first these binary measures of PS and ESO, and we also allow for their possible interactions by distinguishing firms with PS only (29.7%), with ESO only (5.2%) and with both PS & ESO (3.2%). 61.9% of firms in our sample have neither PS nor ESO.

The second data set, FARE, provides information at the firm level on some financial performance measures (Value Added), the number of employees as well as physical assets.

In case where many establishments are surveyed in REPONSE, we select the largest one (in terms of employment) and merge it with the corresponding firm in FARE.

Table 1a: Descriptive statistics for the main variables

	2015						
	PS=1	**PS=0**	**T**		**ESO=1**	**ESO=0**	**T**
Empl	1511	429	6***		1686	897	2.5***
Kint	297	78.25	9.87***		167	189.4	0.57
Prod	80.33	56.7	9.86***		76.44	69.33	1.93**
	2016						
Empl	1426	384	5.6***		1444	842	1.85**
Kint	355.9	94.1	8.5***		200.28	214.1	0.27
Prod	92.6	74.9	1.86*		90.8	82.9	0.47

Kint is capital intensity, total assets per employee
Prod is labour productivity given by value added per employee
Significance level : *10%, ** 5% & *** 1%. Source : REPONSE & FARE Surveys.

Table 1b: Descriptive statistics with FP

	PS only PS=1, ESO=0	**ESO only PS=0, ESO=1**	**PS & ESO PS=1, ESO=1**	**None PS=0, ESO=0**
	2015			
Empl	1368	402	2902	432
Kint	300	59.8	268.7	80
Prod	79.76	66.54	85.8	59
	2016			
Empl	1318	372	2485	385
Kint	336.2	64	332.6	97
Prod	86.12	76,64	105.5	67.56

Dependent variable: The performance measure we use is value added, which is a crude measure of performance that is not directly controlled by management (such as investment policy, depreciation, etc). We then estimate an augmented Cobb-Douglas production, where labour is measured by the equivalent full-time number of employees and capital is given by

total physical assets. We also use sectoral affiliation as well as unionization and Single as additional explanatory variables.

In this paper, we focus on the impact of financial participation, i.e. Profit Sharing (PS) & Employee Share Ownership (ESO) on firm productivity. Given that FP (PS & ESO) is found to be associated with less conflict (Fakhfakh et al 2019), we investigate whether the impact of FP is simply due to its indirect impact on conflicts. We will then test if the presence of conflicts in the production function weakens (or even negates) the effect of FP, through PS and/or ESO?

We conducted preliminary clustering analysis that leads us to consider the same "severity" conflict measure as in Fakhfakh et al 2019. Five possibilities are identified. The firm may have: no conflict at all (the reference case), a strike of 2 days or more, a strike of less than two days, a refusal of overtime work or a petition. While a petition, the weakest kind of conflict, is not expected to influence productivity, this may not the case for the other types. Where the refusal of overtime is associated with less production or losing a potential client, this may reduce productivity.

The role of strikes is ambivalent. Strikes are of course associated with work stoppage, which reduces production. But strikes could also appear in a rent sharing conflict. If employees believe that their firm is highly performing, and that their bonus is inadequate, they may go on strike if preliminary bargaining does not lead to agreement satisfying employees.

Unfortunately, we are not able to identify the duration and or the occurrence of the different types of conflict, only their occurrence during the last three years (2014-2016). The same applies for PS and ESO: we just know if there is an agreement signed during this period. This timing is not so important for PS and ESO since there is a relative stability over time of such schemes. However. it may be more important to know exactly when the conflicts occur. To handle this timing problem, we use two different years, 2015 and 2016, to see if the results are

sufficiently robust.

3. Econometric Specification

Our first approach is a standard estimation of an augmented Cobb-Douglas (C-D) production function (separately for each year).

Several specifications will be used to check whether the inclusion of conflicts influences the impact of (PS & ESO on productivity.

A crucial point related to PS and ESO is endogeneity. We were unable to find acceptable instruments and to use IV estimates as an alternative estimation method. However, to add robustness to our results, we also consider the possibility of selection/endogeneity by estimating treatment models. Treatment estimates do not depend on instruments but should respect the conditional independence hypothesis.

Selection bias occurs if some determinants of PS (or ESO) also influence the performance of the firm (such as conflicts). In that case, the outcome (the performance) and the treatment (PS or ESO) are not necessarily independent. Further, it may be difficult to tell whether the regression approach is based on extrapolation especially where the treated and untreated in the observed data are very dissimilar (Thoemmes and Ong, 2016).

Selection (into PS or ESO) is not an issue if a firm is randomly assigned to FP. But it is more likely that firms select themselves into PS (or ESO) to benefit from an expected greater gain from PS (or ESO) than the population as a whole (Bryson et al. 2002). Ignoring selection will then lead to biased FP estimates.

To account for sample selection and test the robustness of our findings to selection bias we use treatment effect estimators. The goal of treatment estimators is to identify observable

covariates that are related to potential outcomes and the treatment. By conditioning on these covariates any remaining influences on the treatment will be independent of the potential outcomes (Stata, 2017). There are numerous variations of these estimators based on whether they correct the outcome model, treatment assignment or both outcome and treatment and whether they use a matching or weighting procedure. Matching relies on 'twinning' firms in the treatment group (FP firms) to firms with similar observable characteristics in the non-treatment group (non-FP firms). Where firms are well matched and exhibit balance on the covariates, any difference in performance can then be attributed to the effect of FP (the treatment).

Conversely, weighting uses the inverse probability of treatment to generate weights that 'create a pseudo-population in which the covariates are independent of the treatment' (Thoemmes and Ong, 2016, p41). The starting point for both approaches is the same with a Probit model used to estimate the probability of treatment from which weights are generated by taking the inverse of this estimated probability. Only observable variables that significantly predict the FP decision and outcome variable are included as independent variables (Caliendo and Kopeinig, 2008). Where either of these requirements do not hold the estimated treatment effects will be biased (Bryson et al, 2002).

A key concern of the approach is whether conditioning on the covariates eliminates differences between treated and untreated groups. Several statistics have been suggested to test for balancing conditions. Due to our use of a weighted treatment estimator, we use the Imai and Ratkovic (2014, p248) specification test based on the Hansen J-statistic, where the null hypothesis is that the propensity score is correctly specified (a p-value greater than 10% will provide evidence of balanced covariates).

Treatment effects are estimated using the appropriate outcome model (these are confined to binary, continuous or counts measures of the dependent variable) weighted by the inverse probability weights.

The choice of the inverse probability weighting-regression adjusted (IPWRA) treatment model is governed by some key considerations. Firstly, this is one of the few treatment estimators that allow us to accommodate the additional weighting coming from RESPONSE survey design (to be nationally representative). Furthermore, the estimator allows us to deal with binary as well as multiple treatments which is required given our measures of FP. Finally, the IPWRA estimator gives us some flexibility as it is 'doubly robust' (Wooldridge, 2010) to model misspecification. Our preliminary results (not reported here) confirm also that specifying the treatment and the outcome is the best decision. Without specifying the outcome, the ATET becomes either very high and/or more dispersed (higher variance). This could be due to the heterogeneity of the firms, that can be reduced and reshaped by specifying the outcome equation.

4. Estimation Results

Tables 2 – 7 below present our estimation results for 2015 and 2016. In tables 2 and 3 we report Cobb-Douglas estimates with alternative specifications for financial participation for 2015 and controlling for conflicts. Table 4 reports treatment effects of FP on productivity (value added) for 2015. Table 5 reports C-D estimates for 2015, with and without FP and controls for conflicts. Table 6 reports similar estimates as table 3, but 2016, while table 7 reports treatment effects of FP on productivity (value added) for 2016.

Table 2 shows first PS increases productivity by 10.5%. This impact is stable whether we control ESO and whether we consider the conflicts measures. The impact of PS in then totally

independent from and does not rely on its indirect effect through conflicts. At the same time, ESO seems to have no impact on productivity whatever the specification we consider.

Table 3 allows for interacting PS and ESO. Firms having PS only exhibit a productivity gap of 11%. Those having both PS and ESO observe a productivity differential of about 12% (ranging from 11.5% to 13.7%), whereas firms with ESO only are either performing slightly better when we do not control for conflict (+7.9%), or performing insignificantly better when we control for conflicts (+5.8 but not statistically significant).

Table 4 present an alternative way of instrumentation through treatment effects. With or without controlling for conflicts, the impact of PS on productivity (ATET, average treatment effect on the treated) for a specification with PS only and with ESO, with or without PS).) is the same: +16.7%. When we consider the interaction between, PS and ESO, and due to the rarity of ESO, we were able to compute the ATET. The impact of PS only is now 14% whereas the impact of ESO (with or without PS) is 23%. These ATET results show first that the standard production function underestimates significantly the impact of both PS and ESO. It also shows that the interaction of PS and ESO gives the best outcome in terms of productivity, which is intuitively plausible.

The 2016 results are similar, but slightly smaller in magnitude. The production function estimates show (table 5) that PS increases productivity by 9.8% whatever the specification we consider (with or without conflicts, and controlling for ESO or not). The interaction between PS and ESO shows (table 6) that PS only increases performance by 7.7%, but that PS & ESO enhance performance by 20.6%, whereas ESO only has no impact on productivity.

Finally, table 7 shows the ATET. PS only has almost the same impact as in the production function (ranging from 7.9% to 8.4%), with an impact slightly greater when controlling for conflicts. The interaction effect (ESO with or without PS) changes slightly when we control

for conflicts. These firms are 16.7 more productive (in the absence of conflicts) but 19.3 more productive in the presence of conflicts.

To summarize, the results for 2015 and 2016 are very similar: PS is always highly significant and positive in these estimates, as found in previous studies[1]. ESO does not seem at first sight to impact performance. But once we allow for the selection of firms into these participatory schemes thanks to the treatment effect models, ESO becomes significant, and in combination with PS turns out to be optimal.

[1] Fakhfakh and Pérotin, 2000 for France; Kraft and Lang, 2016, FitzRoy and Kraft, 1987, and Cable and FitzRoy, 1980, for Germany; Robinson & Wilson, 2006 for the UK; Kruse et al., 2010 for the US and for a review

Table 2.
Cobb-Douglas production function, 2015

	Coef	T	Coef	T	Coef	T	Coef	T	Coef	T	Coef	T	Coef	T	Coef	T
K : capital	0.140***	11.55	0.136***	11.38	0.140***	11.53	0.136***	11.39	0.139***	11.47	0.136***	11.31	0.139***	11.45	0.136***	11.31
L : labour	0.866***	53.28	0.856***	51.56	0.866***	53.03	0.857***	51.34	0.868***	53.53	0.858***	51.7	0.868***	53.28	0.859***	51.49
Fin Part																
PS			0.107***	3.65			0.106***	3.61			0.106***	3.59			0.105***	3.55
ESO					0.046	1.39	0.040	1.22					0.044	1.31	0.039	1.15
conflicts																
>2 days									0.064	1.06	0.056	0.93	0.062	1.03	0.056	0.92
<=2days									-0.115	-1.37	-0.111	-1.32	-0.115	-1.37	-0.110	-1.31
Over T									-0.089*	-1.84	-0.082*	-1.69	-0.086*	-1.75	-0.081*	-1.66
Pet									0.019	0.24	0.012	0.16	0.019	0.25	0.013	0.17
Control																
single	0.051	1.55	0.054	1.63	0.050	1.52	0.054	1.63	0.050	1.52	0.053	1.61	0.049	1.5	0.053	1.61
union	0.044	1.43	0.037	1.24	0.047	1.52	0.039	1.28	0.050	1.59	0.043	1.42	0.052*	1.68	0.044	1.46
sector	YES		YES		YES		YES		YES		Yes		Yes		YES	
R2	0.9219		0.9226		0.9219		0.9226		0.9221		0.9228		0.9221		0.9228	
N	2747		2737		2737		2737		2747		2737		2737		2737	

Significance level : *10%, ** 5% & *** 1%. Source : REPONSE & FARE Surveys.

Table 3.
Cobb-Douglas production function. 2015
Multicategorical measure for financial participation

	Coef	T	Coef	T
K	0.118***	10.4	0.136***	11.33
L	0.880***	51.5	0.859***	51.35
Fin Part				
No PS. NO ESO : ref				
PS Only	0.110***	3.51	0.113***	3.56
ESO Only	0.079*	1.89	0.058	1.46
PS & ESO	0.137**	2.35	0.115**	2.09
Conflicts				
No Conf : ref				
>2 days			0.056	0.92
<=2days			-0.110	1.30
Over T			-0.079	1.61
Pet			0.014	0.19
Control				
Single	0.056*	1.67	0.054	1.63
Union	0.045	1.53	0.038	1.25
Sector	YES		YES	
R2	0.922		0.923	
N	2737		2737	

Significance level : *10%, ** 5% & *** 1%. Source : REPONSE & FARE Surveys.

Table 4.
'Treatment' effects of Financial Participation on productivity (2015)

ATET	Coef	Coef	Coef	Coef	Coef
PS	0.167*** (3.15)	0.167*** (3.14)			
FP (PS &/or ESO)					
PS only			0.142** (2.27)	0.144*** (3.35)	0.142*** (3.27)
Eso Only			0.138** (2.35)		
PS & ESO			0.242*** (3.38)		
ESO & /without PS (£)				0.228*** (4.50)	0.228*** (4.28)
Conflicts	NO	YES	NO	YES	NO
LR for bal. condition	47.25 (41)	47.25 (41)	NA	NA	NA
Prob LR	0.233	0.233			

Treatment on value added (Ln(VA)) : controlling for K, L, Union. Single. industry dummies
Propensity Score depends on: single; JCC. individual bonus. information on work evolution. autonomy at work. union rate (classes of). size dummies. industry (size#union. size#single);
PS : profit Sharing ; ESO : Employee Share Ownership
When we consider ESO only. it did not match with the conflict's types. That's why we use ESO &/without PS. (£) : either ESO only or PS & ESO at the same time.
LR: Likelihood Ratio test for balancing conditions.
Significance level : *10%, ** 5% & *** 1%. Source : REPONSE & FARE Surveys.

Table 5.
Cobb-Douglas production function (2016)

	Coef	T	Coef	T	Coef	T	Coef	T	Coef	T	Coef	T	Coef	T	Coef	T
K : Capital	0.158***	10.19	0.154***	9.99	0.156***	10.05	0.154***	9.99	0.158***	10.17	0.153***	9.87	0.153***	9.87	0.156***	10.03
L : Labour	0.818***	36.65	0.809***	35.52	0.818***	36.37	0.810	35.6	0.818***	36.47	0.810***	35.3	0.810***	35.4	0.818***	36.21
PS			0.098***	2.84			0.098***	2.84			0.097***	2.82	0.097***	2.81		
ESO			0.001	0.01					0.004	0.09	-0.001	-0.02			0.003	0.07
conflicts																
>2 days					0.108	1.59					0.100	1.48	0.100	1.48	0.107	1.57
<=2days					0.051	0.43					0.054	0.45	0.054	0.45	0.050	0.43
Over T					-0.091	-1.44					-0.083	1.29	-0.083	1.29	-0.089	1.39
Pet					0.003	0.04					-0.007	0.1	-0.007	-0.1	0.002	0.03
single	0.012	0.37	0.016	0.48	0.010	0.31	0.016	0.48	0.012	0.36	0.014	0.42	0.014	0.42	0.010	0.3
union	0.059	1.69	0.052	1.49	0.052	1.43	0.052	1.48	0.060	1.71*	0.046	1.25	0.046	1.25	0.053	1.45
sector	Yes		YES		YES		YES		YES		YES		YES		YES	
R2	0.9055		0.9059		0.906		0.906		0.905		0.906		0.906			
N	2.857		2.846		2.846		2.846		2.846		2.846		2.846		2.846	

Significance level : *10%, ** 5% & *** 1%. Source : REPONSE & FARE Surveys.

Table 6 .
Cobb-Douglas production function (2016)
Multicategorical measure for financial participation

	Coef	T	Coef	T
Capital : K	0.155***	10.16	0.154***	10.05
Labour : L	0.810***	35.55	0.810***	35.27
FP combination				
PS only	0.077**	2.23	0.075**	2.18
ESO Only	-0.058	-0.98	-0.060	-1.03
Both PS & ESO	0.205**	2.2	0.206**	2.22
Conflicts				
>2 days			0.100	1.48
<=2days			0.052	0.44
Over T			-0.091	-1.4
Pet			-0.010	-0.13
single	0.017	0.52	0.015	0.46
union	0.055	1.56	0.049	1.33
R2	0.906		0.9064	
N	2846		2846	

Significance level : *10%, ** 5% & *** 1%. Source : REPONSE & FARE Surveys.

Table 7.
'Treatment' effects of Financial Participation on productivity (2016)

	Coef.	T	Coef.	T	Coef.	T	Coef.	T	Coef.	T
PS	0.079**	2.48	0.084***	2.66						
FP										
PS_ESO										
PS only					0.083**	2.41	0.083**	2.42	0.086**	2.50
ESO Only					0.068	1.31				
PS & ESO					0.237***	4.20				
ESO&/PS							0.167***	3.44	0.193***	4.17
Conflicts	No		yes		No		NO		Yes	
LR	48.664 (41)									
Prob Chi2	.1919									
N	2.596		2.596							

Treatment on value added (Ln(VA)) : controlling for K, L , Union, Single establishment firm, industry dummies
Propensity Score depends on: single; JCC. individual bonus, information on work evolution, autonomy at work, union rate (classes of), size dummies, industry (size#union. size#single).
Significance level : *10%, ** 5% & *** 1%. Source : REPONSE & FARE Surveys.

5. Conclusions

All our specifications indicate a strong and significant positive relationship between PS and productivity. By contrast, ESO on its own was only weakly significant or statistically insignificant. However, there is also evidence for complementarity between PS and ESO which is intuitively plausible, with substantially larger coefficients for the combination of both PS & ESO. Other variables and controls had expected signs and magnitudes.

These results complement a number of previous studies that have found significant effects of PS with various data sets in several different countries. What the data does not generally allow is to establish whether residual profit claimed by owners actually increases with PS, though it is of course compelling that owners implement PS only up to the point that it raises their residual profit, which is obviously not necessarily the extent of PS that maximizes productivity. This points to the conclusion that the capital-managed or owned firm is not necessarily an efficient organization in a 'sticky' world with imperfectly competitive markets (Banerjee and Dufflo, 2019), and provides indirect evidence that labour -managed firms or co-operatives where labour is the residual claimant, may be more efficient. Direct evidence for this claim has been provided by many authors, including Kruse, Freeman, and Blasi (2010).

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