

Rapid evidence review: Plural ownership

Introduction

Plural ownership policies aim to support businesses with alternative legal and organisational structures – such as co-operatives, social enterprises, and municipal enterprises. This rapid evidence review focuses on evaluations that examine whether the performance of plurally-owned businesses is different from other businesses.

This rapid evidence review informed our briefing on assessing the local economic impacts of plural and local ownership.

Things to consider

Need for more evidence

We need more evidence on all aspects of plural ownership, including on whether outcomes (such as employment, productivity, and wages) are different in plurally-owned businesses to other businesses, whether rates of plural ownership affect local economic outcomes, and evidence on what interventions are most effective in supporting plural ownership.

Policy lessons are covered in the briefing.

Evaluation evidence

What is plural ownership?

Plurally-owned businesses include a variety of different types of organisations including co-operatives, social enterprises, and municipal enterprises.

Most of the studies in this review focus on co-operatives. Co-operatives are owned and controlled by

their members and exist for their benefit. Members can be customers, workers, suppliers, or the wider community. Co-operatives UK estimates there are 7,600 co-operatives in the UK, with 14.3 million members and employing just under 250,000 people.¹

Understanding the impact of plural ownership

Our evidence reviews include studies that What Works Growth team has scored as three or above on the Maryland Scientific Methods Scale (SMS), which classifies evaluations based on methodological robustness and implementation.² Our toolkits and rapid evidence reviews also include studies with a score of two or above when these add to the evidence base (for example, where there are no or few studies that score SMS 3 on a policy or outcome). Two-thirds of the studies included in this rapid evidence review score SMS 3 or above.

Our search identified six evaluations. Four studies were scored as SMS 3, and two as SMS 2. In summarising the evidence, we place greater evidence on studies that used more robust methods.

Four of the studies look at co-operatives. Although we looked for studies that evaluated the economic impact of other types of plurally-owned businesses we found few studies, and only include one looking municipal enterprises. We also include one study that looks at situations where employees have ownership in otherwise private sector companies, to allow for effects from greater employee involvement and ownership within conventional organisational forms.

Our search also identified 13 studies that looked at agricultural and fishing co-operatives but we do not include these studies as they are not the focus of plural ownership policy in the UK and the lessons are unlikely to be transferable to other sectors.

We looked for – but did not find – studies on the impacts of business advice and access to finance on the establishment or performance of plurally-owned businesses.

The majority of studies compare the performance of plurally-owned businesses to other businesses on economic outcomes – such as employment and productivity. One study looks at the evidence on what influences the establishment of plurally-owned businesses.

Be cautious of findings based on a small number of studies.

Evidence on impacts

Comparison of economic outcomes across organisational types

We found five studies that examine whether outcomes differ between plurally-owned businesses (mainly co-operatives) and other businesses. One study examines effects on employment, two on productivity, one on sales, and one on production costs.

Employment

PO-1 (SMS 3) looks at businesses in Spain. It suggests employment is more stable in co-operatives. It finds that a one percent increase in the national unemployment rate is associated with a 1.08 percent decrease in employment for privately-owned businesses, but only a 0.34 percent decrease for worker-owned co-operatives. The relationship is present in recessionary and expansionary periods, but the difference is smaller in recessionary periods. The study finds no difference in working time or wage volatility.

1 Co-operatives UK (2023). [Co-operative and mutual economy 2023](#).

2 For more information on how we rank the robustness of evaluations, see our introduction to the [Maryland Scientific Methods Scale](#).

Productivity

Two studies look at firm productivity. One study (SMS 2) looks at co-operatives and the other (SMS 3) at firms with employee involvement mechanisms.

- PO-2 finds investor-owned enterprises in Portugal are on average more productive than co-operatives at the aggregate level and at the industry-level for eight out of 13 industries analysed.
- PO-3 (SMS 3) examines productivity at large South Korean manufacturers. Productivity is around 10 percent higher in businesses with profit-sharing and team incentive plans in place for one year or more, than in businesses without such plans. However, higher productivity only persists for profit-sharing plans. Team incentive plans in place for three years or more have no effect on productivity. Employee stock ownership or option plans have no effect on productivity over any time period.

Sales

PO-4 (SMS 3) compares the performance of Spanish supermarkets and hypermarkets with high employee ownership, modest employee ownership, and conventional stores. It finds faster sales growth in Spanish hypermarkets with high employee ownership than in those with modest employee ownership.³ For supermarkets, ownership had no effect on sales growth. However, within a sub-group of smaller supermarkets that operated as small neighbourhood grocery stores, sales growth in high employee ownership co-operatives was higher than in conventional stores.⁴

Production costs

PO-5 finds that production costs reduce when bus services provided by public transit systems from a municipal enterprise are transferred into an autonomous or limited liability company, even if public ownership persists.

Summary

The evidence suggests that ownership models can affect firm outcomes – but there is no clear pattern, limited evidence, and most studies look at co-operatives. Overall, there is no strong evidence for or against claims about the importance of plural ownership for firm performance.

Establishment of plurally-owned businesses

PO-6 (SMS 2) examines factors that influence the establishment of co-operatives, worker co-operatives, and privately-owned businesses across Spanish regions. Higher local unemployment levels and salary levels are associated with establishment of more co-operatives and worker co-operatives. Unemployment is negatively associated with privately-owned business starts and salary levels have no effect. GDP per capita growth is positively associated with privately-owned business and co-operative starts, but not worker cooperative starts. The proportion of population educated to secondary level is positively associated with cooperative starts, but negatively associated with privately-owned business starts. Several additional factors are associated with starts of one organisational type only. Combined, this suggests that whilst there are some common factors underpinning private sector and co-operative starts, many of the factors driving start-ups are different, including cases where they have opposite effects.

Again, the limited nature of this evidence means these findings need interpreting with care. They suggest that areas that are already struggling (for example, with population decline or low salary levels) may be less likely to see co-operatives set up without specific policy support.

³ There were no conventionally-owned hypermarkets – so they are not included in this analysis.

⁴ There were no modest employee ownership small supermarkets – so they are not included in this analysis.

Annex: Evidence on plural ownership

For this rapid evidence review, we looked for evaluation evidence of plural ownership on local economic and wider outcomes. Given that we anticipated there would be relatively few studies, the search involved two stages. Using a wide range of terms, we searched for all studies relating to businesses with alternative legal and organisational structures using methods that could potentially score SMS 2 or above. The search was undertaken using the EconPapers database. Studies were then reviewed to identify if they focused on local economic outcomes (such as employment, productivity or wages) or wider outcomes that may be important to local economies. We focused on evidence from OECD countries (or similar), published in English. We considered any study providing before-and-after comparisons or cross-sectional studies controlling for differences between areas. We also included more robust studies that compare changes in outcomes in treated areas with changes in outcomes in similar non-treated areas.

We found six studies. Four were scored as SMS 3, and two SMS 2. In summarising the evidence, we place greater emphasis on studies that used more robust methods. Three studies are from Spain, and one each from Italy, South Korea, and Portugal.

Comparison of economic outcomes across organisational types

Employment

PO-1 (SMS 3, Spain) looks at whether there is a difference in the employment stability of conventional employees (i.e. wage earners) in worker-owned enterprises compared to capital-owned enterprises. The study also examines whether there is a difference in the volatility of working hours or wages. The study uses a firm-level panel dataset constructed using data from the Spanish Continuous Sample of Employment Histories (Muestra Continua de Vidas Laborales) for the period 2005 to 2017. The final sample includes 458,496 capital-owned enterprises with 684,027 employees and 7,116 co-operatives with 20,793 employees. Using a panel fixed effects approach, this study finds that employment elasticity with respect to macroeconomic conditions varies across employer types. A one percent increase in the national unemployment rate (a proxy for macroeconomic conditions in Spain) is associated with a 1.08 per cent decrease in employee firm size for capital-owned firms, but only a 0.34 per cent decrease for worker-owned firms. There is a difference in both expansionary and recessionary periods, but the variation is smaller in recessionary years. The study also finds that higher employment stability in worker-owned businesses is not associated with higher working time or wage volatility.

Productivity

PO-2 (SMS 2, Portugal) examines the differences in total factor productivity between co-operatives and investor-owned businesses at the aggregate level and across 13 different industries. It uses a firm-level panel dataset from the Portuguese National Institute of Statistics, which includes all goods or service producing businesses in Portugal. Data for the period 2010 to 2012 is used, with data restricted to those industries (defined at the 5-digit level) in which co-operatives represent at least 2 percent of all businesses, meaning the dataset includes 685 co-operatives and 10,164 investor-owned businesses. Using a random effects generalised least squares (GLS) model, the study finds higher productivity on average for investor-owned businesses than for co-operatives at the aggregate level and for eight of the 13 industries. Using a system-generalised method of moments (GMM) estimator, the results are less conclusive and are only consistent with the GLS estimates for certain subsamples, with the overall results being very sensitive to sample selection criteria and other specifications.

PO-3 (SMS 3, South Korea) looks at the effect of employee financial participation schemes on business total factor productivity. The study compares Profit-Sharing Plans (PSPs), Employee Stock Ownership Plans (ESOPs), Stock Option Plans (SOPs) and Team Incentive Plans (TIPs). The study analyses panel data from the Survey on Human Resource Management, a firm-level survey of businesses listed on Korean Stock Exchange conducted by the Korea Labour Institute in August and September 2000 and accounting data from corporate proxy statements assembled by the Korea Listed Companies Association, which provides data on the use of schemes, labour and capital input between 1990 and 2000. A Cobb-Douglas production function fixed effects model with different specifications is used to evaluate scheme impact on productivity. The study finds that businesses with PSPs and TIPs in place for one year or more have productivity that is 10.6 percent and 12.2 percent higher than firms without such schemes. Effects persisted over time for PSPs, with productivity 13.5 percent higher in businesses with PSPs in place for three years or more. TIPs have no effect over this time period. ESOPs or SOPs had no effect over any time period.

Sales

PO-4 (SMS 3, Spain) compares three types of stores found within Eroski (the largest member of the Mondragon group of worker co-operatives) – co-operatives with significant employee ownership, co-operatives with modest employee ownership and limited voice, and conventional stores with no employee ownership. The data consists of monthly observations between February 2006 and May 2008, with a sample of 9,800 supermarkets and 2,150 hypermarkets (large superstores combining supermarkets and department stores). The study uses a first-difference model to estimate performance difference between the three store types. The study finds that sales growth is 0.2 percentage points higher per month for hypermarkets with high employee ownership relative to those with modest employee ownership and limited voice. There are no conventional hypermarkets within the group. For supermarkets, there were no differences in sales growth across different ownership structures. For a sub-group of smaller supermarkets that operated as small neighbourhood grocery stores (which only included high employee ownership and conventional stores organisational types), the co-operatives had sales growth 0.7 percentage point higher than conventional stores per month.

Production costs

PO-5 (SMS 2, Italy) studies the effects of the transformation of a municipal firm into a limited liability company on the production costs of a local public service whose ownership is maintained by the local government. This process is known as ‘corporatisation’, with one theory proposing that corporatisation is a potentially effective way to improve efficiency even without privatisation. The study uses information on bus services provided by public transit systems in Italy, which experienced governance reforms during the 1990s. Data for 33 local bus companies for the period 1993 to 2002 are included. The study finds that, even if public ownership persists, the transformation of a municipal enterprise into an autonomous company (corresponding to the first stage of the corporatisation) or into a limited liability company reduces production costs.

Establishment of plurally-owned businesses

PO-6 (SMS 2, Spain) analyses the regional factors that are associated with the establishment of co-operatives, worker co-operatives, and capitalist businesses. The study uses regional panel data for the period 1995 to 2009 for NUT-2 level regions (the largest political-administrative division within a European Union country), from the Spanish National Statistics Institute’s Mercantile Registry census, and the Ministry of Labour and Immigration directories. Using panel fixed effects at the regional level, the study finds that GDP per capita growth, salary levels, regional unemployment rate, the proportion of population educated to secondary level, and the proportion of population with higher education are positively associated with establishment of co-operatives. Population growth, salary levels, regional

unemployment rate, a right-wing party in the regional government, and a measure of worker co-operative density (number of worker co-operatives per capita squared) are positively associated with establishment rate of worker co-operatives. The regional unemployment rate and the proportion of the population educated to secondary level are negatively associated with establishment of capitalist businesses. GDP growth per capita, the service sector as a proportion of GDP and population density (urbanisation) are positively associated with capitalist businesses establishment rate. This means some factors are common across two types of organisation, some have opposite influence on capitalist and co-operative organisations, and some are associated with only one organisation type.

References

- [PO-1] Garcia-Louzao, J. (2019). Employment and wages over the business cycle in worker-owned firms: Evidence from Spain, Bank of Lithuania Working Paper Series, no. 68.
- [PO-2] Monteiro, N. and Straume, O.R. (2016). Are cooperatives more productive than investor-owned firms? Cross-industry evidence from Portugal, NIPE Working Papers, Universidade do Minho, no. 9/2016.
- [PO-3] Kato, T., Lee, J.H., and Ryu, J.S. (2010). The productivity effects of profit sharing, employee ownership, stock option and team incentive plans: Evidence from Korean panel data, IZA Discussion Papers, Institute of Labor Economics, no. 5111.
- [PO-4] Arando, S., Gago, M., Jones, D., and Kato, T. (2015). "Efficiency in employee-owned enterprises", *ILR Review*, vol. 68(2), pp. 398-425.
- [PO-5] Carlo, C., Filippini, M., Piacenza, M., and Vannoni, D. (2011). "Corporatization and firm performance: Evidence from publicly-provided local utilities", *Review of Law and Economics*, vol. 7(1), pp. 191-213.
- [PO-6] Diaz-Foncea, M. and Marcuello, C. (2015). "Spatial patterns in new firm formation: are cooperatives different?", *Small Business Economics*, vol. 44(1), pp. 171-187.

This work is published by the What Works Centre for Local Economic Growth, which is funded by a grant from the Economic and Social Research Council, the Department for Business and Trade, the Department for Levelling Up, Housing and Communities, and the Department for Transport. The support of the Funders is acknowledged. The views expressed are those of What Works Growth and do not represent the views of the Funders.

Every effort has been made to ensure the accuracy of the report, but no legal responsibility is accepted for any errors omissions or misleading statements.

The report includes reference to research and publications of third parties; What Works Growth is not responsible for, and cannot guarantee the accuracy of, those third party materials or any related material.

March 2024

What Works Centre for Local
Economic Growth

info@whatworksgrowth.org
@whatworksgrowth

www.whatworksgrowth.org

© What Works Centre for Local
Economic Growth 2024



HM Government



Economic
and Social
Research Council