

Institutional shareholding, common ownership and productivity: a cross-country analysis*



By Maria Bas (University of Paris 1 Panthéon-Sorbonne), Lilas Demmou (OECD),
Guido Franco (OECD), and Javier Garcia-Bernardo (Utrecht University)

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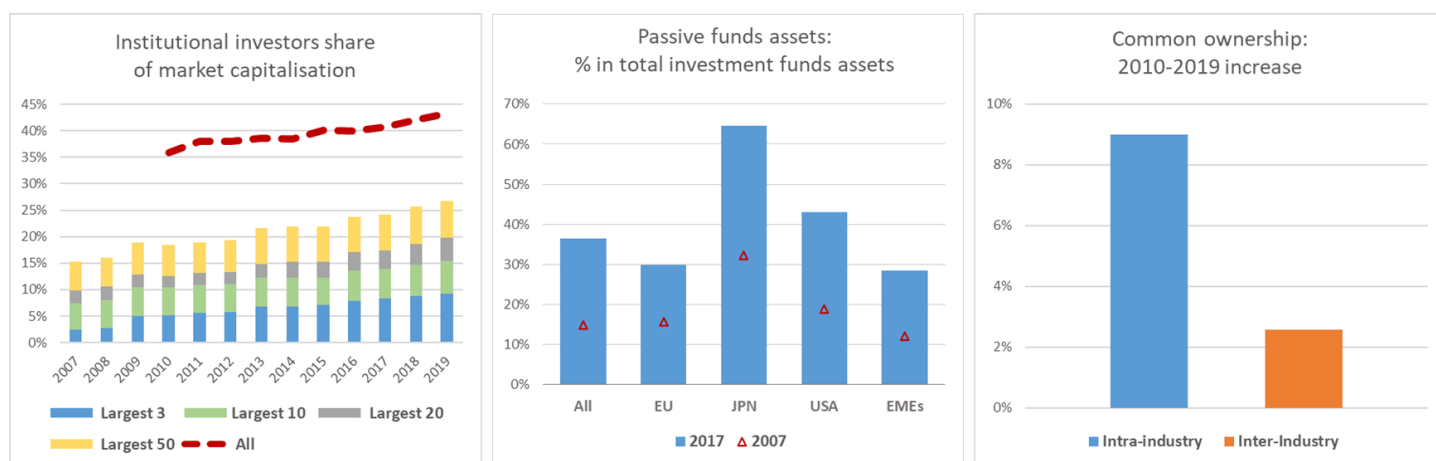
JEL codes: D22, D24, G32.

The increase in institutional ownership, accompanied by the shift towards passive portfolio management and the rise of common ownership, have transformed OECD countries financial markets in the last decades. Using cross-country firm-level data, this Policy Brief investigates the impact of these transformations on productivity and provides evidence that: i) firms with higher institutional ownership tend to have higher productivity (growth), provided that institutional investors have a sufficiently long time horizon; ii) intra-industry common ownership is related to lower firm-level productivity, but these negative consequences materialise only under certain conditions, while inter-industry common ownership is associated to higher firm-level productivity.

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Financial markets in OECD countries have undergone significant transformations over the past decades (Figure 1). First, most countries have experienced a dramatic increase in institutional ownership, as the assets under their management have more than doubled since the mid-2000s. Second, equity holders' investment style has progressively shifted towards passive portfolio management, which entails a quasi-automatic allocation of savings. Third, common ownership, both across competing companies and across sectors, has increased over time.

Figure 1: The rise of institutional ownership, passive style of investment and common ownership

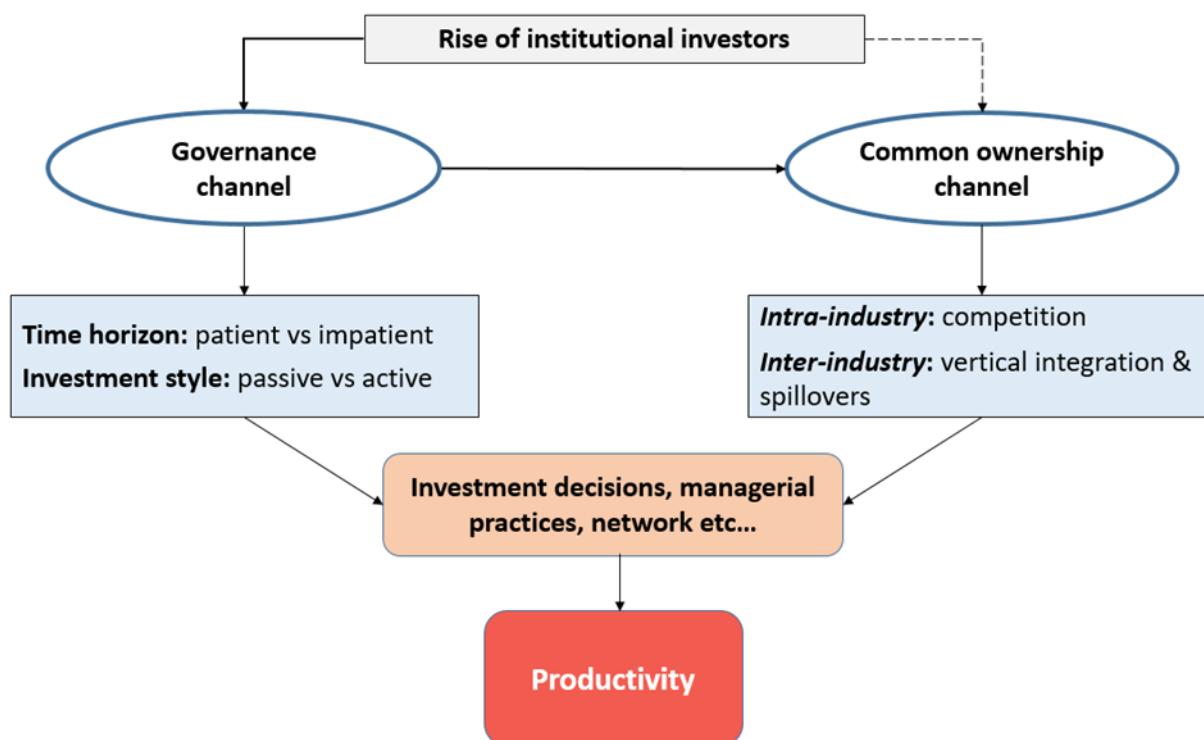


Note: Left panel. Authors' calculations based on Medina et al. (2022). Middle panel. Passive funds' share of investment fund assets, in percent, by geographical focus (BIS data). Right panel. Common ownership is computed according to the measure developed by Azar et al. (2018) and Azar and Vives (2021b), focusing on the so-called "Big 3" investors (BlackRock, Vanguard, and State Street). Source: Bas, Demmou, Franco and Garcia-Bernardo (2023).

These transformations have the potential to influence listed firms' productivity, given the role of equity owners in allocating private savings across firms and influencing firms' investment decisions. Against this backdrop, Bas et al. (2023) analyse the nexus between equity ownership structure and productivity, relying on a rich firm-level dataset covering financial and ownership information on firms across a wide range of countries and sectors. A substantial data-construction effort was deployed in order to generate a granular description of firms' equity ownership structures and to compute innovative measures of common ownership and investors' networks, including replicating the methodology pioneered by Azar et al. (2018) and Azar and Vives (2021b) as well as calculating degree centrality and betweenness centrality indicators.

We identify two main channels through which recent changes in the equity market landscape may affect firms' productivity (Figure 2): a "governance channel", looking at the role of institutional owners' business model (i.e., investment style, time horizon etc.); and a "common ownership" channel, analysing the productivity impact of simultaneous ownership of shares in competing firms (i.e. intra-industry) or potentially vertically integrated firms (i.e. inter-industry).

Figure 2: Analytical framework



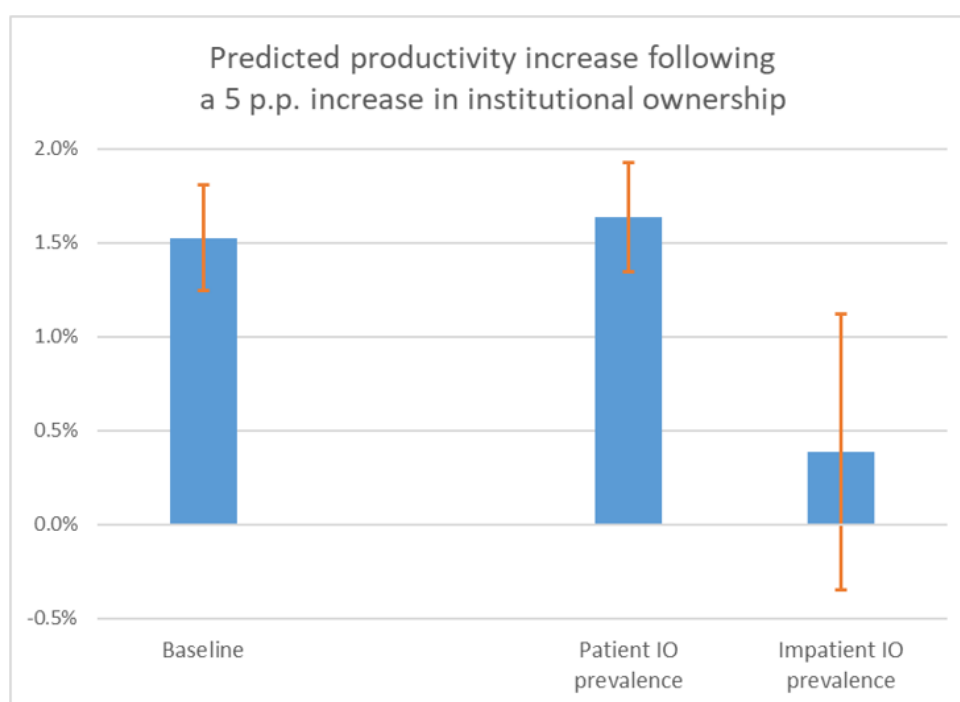
Source: Bas, Demmou, Franco and Garcia-Bernardo (2023).

The governance channel

Equity owners could enhance firm's performance through effective governance, potentially offering valuable guidance and industry expertise or introducing new managerial techniques and facilitating access to additional funds. The business model of institutional owners, which significantly differ from those of corporate or individual investors, has recently been the subject of intense policy debate in two main areas: their time horizon and their investment style.

- *Time horizon.* The time horizon of equity holders influences a firm's investment choices. Long-term-oriented owners are more likely to support innovative and human capital-intensive projects that yield benefits over time. Institutional investors, however, tend to have higher portfolio turnover rates than corporate owners, potentially inducing a focus on short-term outcomes (Davies et al., 2014).
- *Passive investment style.* Institutional investors increasingly rely on passive investment styles. Passive investments often align with longer time horizons but can also result in reduced monitoring, which may increase agency costs due to misaligned interests between shareholders and managers. However, they are also related to a higher degree of diversification, which can encourage support for R&D activities, especially when coupled with a long-term orientation, attenuating idiosyncratic risks associated with innovation (Aghion et al., 2013; Brossard et al., 2013).

Our main findings suggest, overall, a positive relationship through the governance channel: firms displaying higher institutional ownership tend to have higher productivity levels and growth rates compared to their peers (Figure 3). Results hold both in a static and a simple dynamic framework, as well as when dealing with endogeneity concerns through propensity score matching techniques.

Figure 3: Institutional ownership and productivity are positively related at the firm-level

Note: Interpreting results as if they were causal, the blue bars represent the average change in firms' productivity following a 5 p.p. increase in institutional ownership. The orange whiskers indicate the 95% confidence intervals. Source: Bas, Demmou, Franco and Garcia-Bernardo (2023).

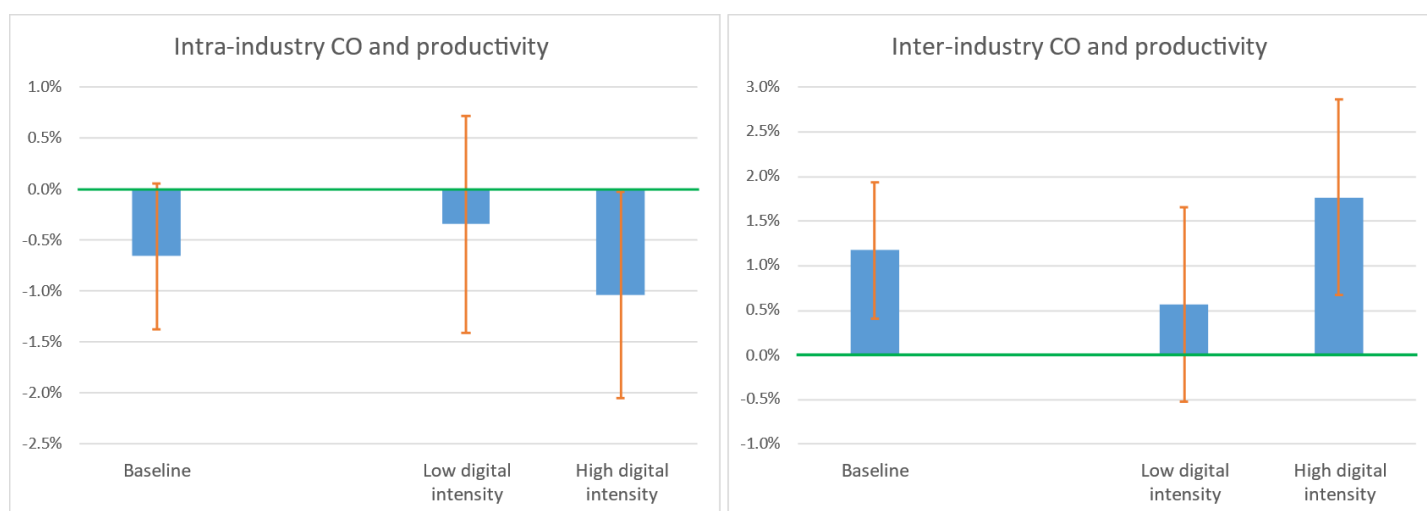
The common ownership channel

The consequences of common ownership for firms' productivity may vary depending on whether it occurs within industries or across industries:

- *Intra-industry common ownership.* Firms operating in the same industry and belonging to the same investor's portfolio may, in the interest of their common shareholders, compete less intensively on product markets, with detrimental consequences for productivity (*competition channel*; Azar, Schmalz, and Tecu, 2018). Commonly owned firms could charge higher prices, for instance by colluding more easily, as investors that are highly diversified in a given industry have enough ties across companies to facilitate communication and eventually enforce collusive agreements. At the same time, however, the overall effect of intra-industry common ownership on innovation and productivity could turn positive when inter-firm coordination is explicit (e.g. joint ventures or strategic alliances) and firms cooperate in their R&D efforts and share knowledge (*cooperation channel*). Indeed, common owners' interest in the combined value of their holdings may mitigate frictions arising from information asymmetries and incomplete contracting, by moderating the risk of being expropriated when collaborating with rivals and thus facilitating profitable collaboration opportunities.
- *Inter-industry common ownership.* Simultaneous shareholding across industries makes common owners' incentives more complex, due to externalities arising when firms operate in vertically related industries (Azar and Vives, 2021a). From a general equilibrium perspective, the potential gains stemming from price collusion are indeed more uncertain: the attempt to increase profits through higher prices and lower competition is not immune to a backlash for common owners, as they risk ending up with lower profits in downstream industries due to higher inputs costs that could not always be passed-off on customers. Common ownership along the value chain may also lead to stronger business relationships among vertically integrated firms, (*vertical integration / spillover channel*; Schmalz, 2018), by attenuating hold-up problems when information asymmetries are high, which is especially the case for innovative projects (Freeman, 2023).

The estimates from the analysis linking intra-sector common ownership and productivity are not always significant (Figure 4, left panel). Still a negative relationship appears to prevail when they are, hinting that the competition channel may slightly outweigh the cooperation channel. The negative association is stronger in intangible intensive and digital intensive sectors, further corroborating the potential existence of a competition channel. A potential reason for this finding could be that innovative industries tend to be more concentrated and, as a consequence, the combination of high product market concentration and high common ownership may reinforce anti-competitive behaviours. On the contrary, the empirical investigation supports the existence of a positive relationship between inter-industry common ownership and firm-level productivity (Figure 4, right panel). The positive association is again stronger for firms producing in intangible-intensive and digital-intensive sectors, potentially due to a more efficient network of vertical relationships and technological spillovers, which are particularly relevant for innovation in these sectors.

Figure 4: The implications of common ownership depend on whether it occurs intra- or inter-industry



Note: Interpreting results as if they were causal, the blue bars represent the average change in firms' productivity following an increase in inter (left panel) or intra (right panel) industry common ownership from 0 to the level observed at the 75th percentile of the distribution of the respective firm level common ownership measure. The orange whiskers indicate the 95% confidence intervals. Source: Bas, Demmou, Franco and Garcia-Bernardo (2023).

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About the authors

Maria Bas is a Professor of Economics at the University of Paris 1 since 2015. She holds a PhD in Economics at EHESS and Paris School of Economics (PSE), with Highest Honors. She has been a Postdoctoral Fellow at the London School of Economics, Center for Economic Performance (CEP) and at Penn State University. From 2009-2015 She worked as an Economist specialized in International Trade and firm performance at the CEPII (Paris). She was a Research Fellow at Sciences Po from June 2013 till May 2014. Her research interests focus on international trade and economic development, micro-econometric studies using firm-level data, firm heterogeneity trade models, and the impact of trade liberalization on firm performance. See also [personal website](#).

Lilas Demmou is the Deputy head of the Structural Policy Analysis division of the OECD Economics Department. She is currently the head of the Financial Policy, Investment and Growth workstream in the Economics department at the OECD, working mainly on the link between finance and productivity. Before that she worked in the country branch of the Economics Department on Belgium, Russia, Slovakia, Lithuania and Estonia desks. Before joining the OECD Lilas was economist at the French Ministry of Economy for three years and post-doctoral scholar at the Paris school of Economics, Erasmus University and London School of Economics. She holds a Ph.D from the University Paris VIII. Her main area of interest and of publication are: innovation and productivity, international trade, and labour market.

Guido Franco is currently an Economist at the Structural Policy Analysis division of the OECD Economics Department. He joined the OECD in 2018, while completing his Ph.D. in Economics at the "University of Rome Tor Vergata". He previously worked as an external consultant for the Inter-American Development Bank and as a business analyst for the consulting firm Arthur D. Little. Prior to the Ph.D., he participated to the Graduate Program at the Einaudi Institute for Economics and Finance (EIEF) and obtained a Master degree in Economics at "Bocconi University". His main research interests are in productivity dynamics and its drivers, resources misallocation and, more generally, applied economics. See also [personal website](#).

Javier Garcia-Bernardo is an Assistant Professor of Methodology & Statistics at Utrecht University (The Netherlands), working within the Social Data Science (SoDa) team. Previously, he held postdoctoral positions at the University of Amsterdam and Charles University, and worked as a data scientist at the Tax Justice Network. Javier's research focuses on the development and application of computational models to unravel complex social and economic systems, particularly in the context of firm networks and international taxation. See also [personal website](#).

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SUERF Secretariat
c/o OeNB
Otto-Wagner-Platz 3
A-1090 Vienna, Austria
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