STUDY
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Barriers to Competition through Joint Ownership by Institutional Investors

Policy Department for Economic, Scientific and Quality of Life Policies
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Barriers to Competition through Common Ownership by Institutional Investors

Abstract

In recent years, the phenomenon of common ownership by institutional investors has sparked considerable debate among scholars about its impact on competition and companies' corporate governance. This study analyses some specific features of common ownership by institutional investors in the European banking sector. It also examines closely the tension between competition policy and corporate governance tools aimed at enhancing shareholder engagement.

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LIST OF ABBREVIATIONS

AIF	Alternative Investment Fund
AIFMD	Alternative Investment Fund Managers Directive
CFI	Court of First Instance
CH	Switzerland
CJEU	Court of Justice of the European Union
CMA	Competition and Markets Authority
CRD IV	Capital Requirements Directive
ECB	European Central Bank
EFTA	European Free Trade Association
ETF	Exchange Traded Funds
ESG	Environmental, social and governance
ESMA	European Securities and Markets Authority
EU	European Union [1]
EUMR	European Union Merger Regulation
FSB	Financial Stability Board
G20	Group of Twenty
GDP	Gross Domestic Product
G-SIB	Global Systemically Important Banks
HHI	Herfindahl-Hirschman Index
IFRS	International Financial Reporting Standards
ISS	Institutional Shareholders Services
MHHI	Modified Herfindahl-Hirschman Index

[1] EU-28 Member States, unless specified otherwise.

MIFID II	Markets in Financial Instruments Directive (II)
OECD	Organisation for Economic Cooperation and Development
P2P	Peer-to-Peer
R&D	Research and Development
ROE	Return on Equity
RPE	Relative performance evaluation
SIEC	Significantly impedes effective competition
SRD I	Shareholders' Rights Directive I
SRD II	Shareholders' Rights Directive II
TFEU	Treaty on the Functioning of the European Union
UCITS	Undertakings for collective investment in transferable securities
UN	United Nations
US	United States of America

LIST OF DEFINITIONS

Asset manager: broad definition mainly referring to an institution that manages investments on behalf of clients (either through investment funds or through discretionary portfolio management mandates). Under EU legislation[2], the definition of asset managers encompasses investment firms that provide portfolio management services to investors; alternative investment fund managers (AIFM) who manage alternative investment funds (AIFs)[3], as well as management companies of one or more UCITS in the form of common funds or of investment companies (collective portfolio management of UCITS)[4].

Asset owner: A broad umbrella definition referring to the institutions that have the legal ownership of the assets on behalf of ultimate investors who bear the economic risk of the investment. Asset owners are, typically, pension funds, insurance companies, banks and sovereign wealth funds. Other types of asset owners are, for example, endowments and foundations, family offices, and individual investors located all around the world. Typically, a "fund" is the owner of the assets. The "owner" is distinct from the "asset manager", namely the company that manages the assets, but does not legally own the assets. Some asset owners manage assets directly on behalf of the ultimate beneficiaries, while others outsource the management to an external asset manager. Others yet use a combination of direct management and outsourcing.

Blockholdings: The existence of one or more owners of a large block of a company's shares and/or bonds, which is influential enough to impact corporate behaviour but not alone able to control the company.

Banks: Credit institutions, the business of which is to take deposits or other repayable funds from the public and to grant credits for their own account[5].

Common ownership: A situation in which a third party, generally, an investor, concomitantly holds minority equity shares in several competing companies[6].

Control: A proxy that determines whether a "concentration" exists pursuant to Article 3(1) EUMR.

Coordinated effects: under merger control laws, the circumstance when, under certain market conditions, the merger increases the probability that, post-merger, merging parties and their competitors will successfully be able to coordinate their behaviour in anti-competitive ways, for example, by engaging in collusive conduct.

Cross-ownership: A situation in which rival firms have direct ownership interests in each other.

ESG investing: a class of investing that is also known as "sustainable investing", an umbrella term for investments that seek positive returns and long-term impact on society and environment.

[2] Article 2(f), Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement, OJ L 132, 20.5.2017 (hereinafter, "SRD II").

[3] Article 4(1)(b), Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010 Text with EEA relevance, OJ L 174, 1.7.2011 (hereinafter, "AIFMD").

[4] Article 2 (b), Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS), OJ L 302, 17.11.2009 (hereinafter, "UCITS").

[5] Article 4(1), Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, OJ L 176, 27.6.2013.

[6] OECD, Directorate for Financial and Enterprise Affairs - Competition Committee, (2017). Background Note "Common Ownership by Institutional Investors and its Impact on Competition". Available at: https://one.oecd.org/document/DAF/COMP(2017)10/en/pdf (hereinafter, "OECD, Background Note on Common Ownership (2017)"). OECD, (2018). Summary of Discussion of the Hearing on Common ownership by institutional Investors and its Impact on Competition. Available at: https://www.oecd-ilibrary.org/finance-and-investment/oecd-institutional-investors-statistics_2225207x. (Hereinafter, "OECD, Summary of Discussion on common ownership (2018)").

Exchange traded funds (ETFs): Investment funds, i.e. a portfolio of securities (such as stocks, bonds or alternative assets), which often track the performance of a specific market index but which can also use different investment strategies. ETFs are listed on exchanges and ETF shares trade like ordinary stock.

Global Systemically Important Bank (G-SIB): A financial institution whose failure or impairment could create enormous stress in the financial system. The list of G-SIBs is established by the Financial Stability Board (FSB).

Herfindahl-Hirschman Index (HHI): A measure of the level and trend of concentration in a particular market. The HHI is calculated by squaring each entity's market share (relative to the total market), and summing the resulting values. A higher index represents a more concentrated, or less competitive, market. A lower index indicates the opposite.

Institutional investor: An organisation or company that pools in money from various investors and invests in a variety of different financial instruments and asset classes on their behalf. An umbrella term that encompasses a broad category of professional investors which includes insurance companies, pension funds, investment funds, mutual funds, hedge funds, sovereign wealth funds, commercial banks, index funds, endowments and asset managers.

Investee company: A company in which an institutional investor invests.

Joint ownership: See common ownership.

Minority shareholder: A shareholder who does not exert control over a company.

Modified Herfindahl-Hirschman Index (MHHI): Empirical measure intended to account for both the *product market concentration* among firms captured by the HHI, and the *common ownership concentration* across firms in the market.

Unilateral effects: Under merger control laws, the circumstance when, under certain market conditions, the merger increases the probability that, post-merger, the merged entity will successfully be able to unilaterally exercise market power, for example, by profitably raising the prices of products, lowering product or service quality, etc.

Passive index funds: Funds that track the performance of a specific market index. Typically, the fund will buy all the stocks in the same proportion in which they are represented in the index but without trading the underlying portfolio.

Stewardship: Stewardship is the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society[7].

[7] Financial Reporting Council, 'The UK Stewardship Code 2020'.

EXECUTIVE SUMMARY

The rapid expansion of institutional investors in both the US and the EU over the last decade has been accompanied by the phenomenon of institutional investors known as "asset managers" to invest the assets they manage by purchasing shares in some of the biggest companies worldwide. As a result, the largest non-controlling shareholders of many US and EU listed companies, including in the banking sector, hold stakes in competing companies. This shareholding pattern is known as "common ownership" or "joint ownership" by institutional investors.

In recent years, scholars have raised concerns about the alleged ability of institutional investors, especially asset managers and the index funds they manage, to increase their short term returns by reducing competition among commonly owned firms through exercising influence over the management of the investee companies.

Against this background, the purpose of this study is to examine whether and, in the affirmative, through which channels, institutional investors' ownership of multiple rival companies in the same business sector could raise competition concerns. There is a particular focus on the EU banking sector.

The notion of institutional investor is a broad umbrella definition which encompasses, but is not limited to, "*investment funds, banks, insurance companies and pension funds who are major collectors of savings and suppliers of funds to financial markets*"[8].

Concerns about what the effect of institutional investors owning stakes in rival companies is on competition have increased with the development of passive forms of asset investment strategies, such as passive index funds, particularly those by a few US asset managers. Passive index funds track the performance of a particular market index and provide higher returns at lower costs compared to active management. Traditionally, shareholding by asset managers managing passive index funds has also been deemed to be passive shareholding, since, unlike active owners, such shareholders have not been interested in being actively involved in the corporate governance of investee companies. However, recently, also as a result of corporate governance reforms enacted after the 2008 financial crisis, they have been called upon to increase their activism in the companies they invest in. Such increased activism, while desirable from a corporate governance standpoint, has an impact both on other shareholders owning stakes in those companies, and on competition among companies whose shares those common investors own.

What the impact of common owners exactly is on competition among commonly owned firms is an ongoing debate. A growing body of law and economic literature suggests that passive index funds that hold significant ownership stakes in several listed companies in the same sector might reduce competition among those companies. Asset managers, such as BlackRock, Capital Group, State Street Global Advisors and Vanguard have, directly or indirectly through their passive index funds, stakes of a few percent each in most of the publicly listed banks in both the US and the EU. This literature, mostly US-focused, opines that among companies with dispersed ownership, such as credit institutions, corporate governance rules and practices can enable a small subset of shareholders – so-called common owners - to wield influence over the banks' management disproportionate to the percentage of the stock owned.

In the EU banking sector, a set of EU-wide rules on disclosure, transparency, engagement of institutional investors and banking supervision applies in concomitance with EU competition rules, at times causing tensions between these two areas of law in terms of legal obligations incumbent upon asset managers. In particular, a trade-off presents itself here. After the 2008 financial crisis it became

8 OECD, Background Note on Common Ownership (2017), cited.

clear that significant weaknesses in the corporate governance of financial institutions, including of Global Systemically Important Banks (G-SIBs), played a role in that crisis. On the one hand, if the majority of shareholders remain passive, do not seek interaction with the company and do not vote, the functioning of the corporate governance system is less effective. As a result, sector-specific regulation to increase institutional investors' involvement in the corporate governance of the companies whose shares they own finds its *rationale* in the benefits of such involvement for the long-term management of the owned companies. This tenet led to the enactment, post-crisis, of several corporate governance reforms in the EU. On the other hand, active governance and strong involvement of a few and financially powerful investors in competing companies may raise competition law concerns.

The current theoretical and empirical scholarship appears to be split on what common ownership means for competition. In particular, a growing body of literature has argued that common owners have an ability to further their own interests in the context of the firms whose shares they own, at the expense and to the detriment of other non-common stakeholders. Such common owners are said to have both the incentives and the practical capability, through corporate governance mechanisms, to influence managerial behaviour to behave anti-competitively. This literature argues that such influence could lead to management of the rival firms being dis-incentivised to compete more vigorously with one another, as well as increasing the potential for collusion – including tacitly - among these firms (with the common owner being a conduit through which such collusion could occur). As such, this scholarship argues that common ownership has the potential to give rise to anti-competitive effects, which may manifest themselves in two types: unilateral effects and coordinated effects.

Another stream of law and economics literature argues, however, that institutional investors have diverging and heterogeneous incentives, so that it cannot be assumed that softened competition between rival firms whose shares they own is desirable from the common owners' portfolio standpoint. It also argues that management of those firms is constrained in furthering some owners' interests at the expense of others by corporate fiduciary duties (namely, the duty to act in all shareholders' interest), but also by the risk of incurring into liability as a result of violating competition laws.

Most of the above-mentioned scholarship comes from the US, while no investigation of the impact of common ownership in the EU banking sector has yet been carried out in the EU[9]. This study attempts to fill this gap by examining the ownership patterns and analysing the role of common ownership in the EU banking sector. This analysis will be done against the background of the governance structure of the EU banking sector, the ownership pattern that characterises a sample of major European banks for a defined period of time when data is available, and the way in which corporate governance and competition rules could apply in this context. This study remains agnostic on the implications for competition of the common ownership pattern it identified in the relevant sector: it neither concludes that there are anti-competitive effects from common ownership, nor concludes to the contrary. Neither does the study purport to answer the question as to what should be done about the current antitrust toolbox were such effect to be identified.

After outlining the legal landscape applying to the EU banking sector, the study investigates, from an empirical standpoint, the specific ownership structure of a sample of major European banks. The empirical analysis focuses on the presence of institutional investors in the 25 largest publicly listed European banks over the period 2012-2015. The research identifies the 15 largest shareholders in those banks, ranked by equity value held at the beginning and the end of the sample period (2012 Q1 and 2015 Q4). The ownership holdings are defined as the percentage of the shares that the shareholders

[9] This study was carried out prior to the UK withdrawing from the EU and therefore, unless indicated otherwise, by EU we mean the EU-28, including the UK.

own relative to the total number of shares of the bank, and including only those companies in which those shareholders have an ownership stake ("block") larger than 1 %.

The empirical analysis shows that the EU banking sector is dominated by US (and to a lesser extent UK) institutional investors. This pattern relates to the nature of the asset management industry, which manages large sums of money coming from investments on behalf of other people. The asset management industry structure is dominated by US funds, whereas Europe's funds are smaller and more fragmented than their US counterparts.

Data collected for the study was limited and aims to show the level of interconnectedness of the sampled banks. From this data, it is not possible to infer evidence of competition issues linked to the common ownership pattern of institutional investors in the EU banking sector. In this respect, the study points out that the existing benchmarks to assess concentration in the presence of common ownership have limitations; it uses "connectedness" as a benchmark to assess such potential common ownership patterns. The results of the empirical analysis across the chosen sample of banks showed that French, Spanish and Swiss banks are, over the time framework under investigation, less connected through common ownership within their countries than are Italian, Swedish and UK banks. The empirical analysis also shows that the presence of the same institutional investors in the 25 largest publicly listed European banks is counterbalanced by the specific ownership structure of the EU banking sector. This ownership structure has been significantly reshaped by restructuring and nationalisation processes, especially in the aftermath of the 2008 crisis, with various national governments acquiring shares in the supported or rescued banks.

From a theoretical standpoint, the study looks both at the potential anti-competitive theories of harm associated with common ownership that the literature has identified, as well as the literature on the pro-competitive effects of common ownership. In particular, part of the literature takes the view that common ownership may give rise to potential anti-competitive effects in the form of **unilateral effects**, i.e. the reduction in management's incentives to compete when competitor companies have common investors. The study also looks into the literature arguing that common ownership may give rise to anti-competitive **coordinated effects**, i.e. the theory that common ownership provides managers of firms who have common owners with the ability and incentives to collude tacitly, or even explicitly. In addition, this study focuses on identifying potential areas for future research.

In relation to **unilateral effects,** the study analyses the arguments in the literature to support or rebut the unilateral effects' theory of harm. It highlights the fact that institutional investors' capacity to influence a lessening of competition will be dependent not only on an investor's ability to affect a firm's management decisions and the nature of the investor's incentives, but also on the extent to which shareholdings are diversified across competitors. It focuses on common owners' and company management's incentives, as well as on the mechanisms for common owners to exert influence by means of corporate governance tools (i.e. vote, voice, including other informal engagement tools, and exit). It also draws some conclusions on the plausibility of such arguments in the specific case of the EU banking sector. In particular, the study analyses whether proxy voting and relying on the advice of proxy advisors, the rise of stewardship codes, executive compensation or other corporate means of influencing commonly owned banks' management could be tools through which common owners engage with commonly owned firms' management so as to further their own interests. The thrust of the argument made in this literature is that common owners might not desire vigorous competition among commonly owned firms insofar as such competition would deleteriously affect the portfolio value (i.e. the value of all the shares they own). On this point, the literature is inconclusive.

With reference to **coordinated effects,** the study first recalls that collusion between competitors is prohibited under EU competition rules, insofar as it amounts to an anti-competitive agreement or a concerted practice under Article 101(1) TFEU and cannot be redeemed by the legal exception under Article 101(3) TFEU. In the EU, the test of whether a concerted practice among competitors exists consists of ascertaining whether the communication among rivals "knowingly substitutes practical cooperation between them for the risks of competition". At times, even without direct communication between competitors, tacit collusion may occur: in certain circumstances, such conduct is benign under EU competition rules, but at other times it is not. Problematic conduct entails cooperation between competitors going as far as removing uncertainties in the future parameters of competition, thus leading to a collusive outcome. The study's findings are inconclusive on whether, and if so when, common ownership might give rise to coordinated effects (in particular, insofar as tacit collusion is concerned). The study suggests that future studies may be needed to establish this conclusively.

An important outcome of the study is, however, that the assumptions and conclusions of US law and economics scholarship on the potential for common ownership to give rise to competition concerns cannot be applied directly in the EU banking sector: the sector regulation, market structure, bank ownership structures and prevailing business models are different than the market and business model conditions prevailing in the US, as well as its specific regulatory framework. As a result, the study identifies a potential avenue for future research on the effects of common ownership for competition in the EU. Such future research could focus on further understanding both common owners' potential to influence management of commonly owned firms to soften competition, depending on their business models and specific incentives, the governance tools at their disposal, and how this influencing might (or not) be implemented by the management of EU banks. Another avenue for future research is the role of market structure in such types of effect and also whether anti-competitive explicit or tacit collusion could be more likely to occur in the presence of common ownership and, if so, under what circumstances.

1. INTRODUCTION

Over the course of the last decade, financial markets have undergone a significant transformation. Among other things, this decade was characterised by the growing importance of institutional investors as managers of assets and owners of corporations. Institutional investors have different business models and investment strategies. These often relate to their investment objectives and policies, which, in turn, reflect their corporate governance approaches, with some being more activist than others.

A group of three US institutional investors (Vanguard, State Street and BlackRock, *i.e.* the "Big Three") have gained prominence in many countries, also due to them managing assets on behalf of investors through the development of instruments called passive index funds. Such funds reduce the management costs of investments, while allowing individuals to benefit from asset managers' specialised expertise. They also allow investors to benefit from the risk diversification that such funds entail. The consolidation of the asset management sector and the growth of passive index funds[10] have been accompanied, over the last years, with the phenomenon of many firms having the same institutional investor shareholders as their competitors. This phenomenon is commonly referred to as "common ownership" or "joint ownership".

The prominence of institutional investors and the emergence of such ownership pattern led to a lively debate on what role common ownership plays on competition[11]. Scholars have examined whether the different investment strategies that asset managers adopt may also have an influence on competition between commonly owned companies active in the same market. The question of whether common ownership is beneficial for or detrimental to competition, innovation, and ultimately consumer welfare is currently ongoing. A few years' ago, a heated debate was sparked by two empirical papers in the US[12]. Although still in its infancy when compared to the US, the common ownership debate has in recent years made its way into the European Commission's merger decisional practice[13] as part of the assessment on whether a concentration it is notified could lead to a significant impediment to effective competition.

In the case of the banking sector, the debate surrounding common ownership and its effects on competition was triggered by a US empirical research paper[14] correlating an increase in fees observed in the US retail banking sector with large institutional investors' ownership in the sector. According to this paper's authors, cross-ownership between rival banks and common ownership by institutional investors strongly correlate with an increase in fees, in particular in certain geographical areas with particularly high concentration of retail banks.

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[10] First developed by US asset management companies (Vanguard, Blackrock, State Street being some of the major ones), the ETF business model also subsequently expanded across the EU asset management sector. By August 2019, assets in US index-based equity based mutual funds and ETFs, topped those in active stock funds for the first time in the history of the investment industry. The European EFT market is also rapidly growing, with the ESG segment having the fastest growth rate in 2019.

[11] OECD, Background Note on Common Ownership, (2017).

[12] Azar, J., Raina, S. and Schmalz, M. C. (2016), *Ultimate Ownership and Bank Competition*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2710252 (hereinafter, "Azar, Raina *et al*") and Azar, J., Schmalz, M. C. and Tecu, I. (2018), 'Anticompetitive Effects of Common Ownership', *Journal of Finance*, 73(4). Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2427345. (Hereinafter, "Azar *et al*"). While most of the literature is US-based, this law and economics literature is also explored since this is where most of the empirical evidence and theoretical arguments come from. In the EU, the debate is still at a very preliminary phase, apart from some economics papers dealing with evidence from some EU Member States (e.g. Banal-Estañol, A., Newham, M. and Seldeslachts, J., (2017), 'Common ownership of German companies', *DIW Berlin Economic Bulletin*. Available at: https://www.diw.de/documents/publikationen/73/diw_01.c.562467.de/diw_econ_bull_2017-30.pdf).

[13] European Commission Decision of 27.3.2017, Case M.7932, Dow/DuPont, declaring a concentration to be compatible with the internal market and the EEA Agreement.

[14] Azar, Raina *et al*, (2016), cited.

This work prompted a series of other empirical papers, some of which highlighted the absence of empirical evidence of the anti-competitive effects of common ownership. According to some scholars[15], the possible causal mechanism that may link common ownership to less competition (e.g. in the form of higher prices) is either empirically untested or generally implausible. In their view, account must be taken of the fact that not only shareholders, but also management must act in the best interests of the company. A failure by management to do so would imply a breach of their statutory fiduciary duty[16].

In the EU, on the one hand, Section 3 shows that the EU banking sector is also characterised by a common ownership pattern. On the other hand, as will be seen in more detail below, there are relevant governance differences in the EU banking sector compared to the US, with the prominence, for some banks in some EU Member States, of significant shareholdings on the part of non-common owners. In addition, as a result of the 2008 financial crisis, the EU regulatory framework has required increased engagement on the part of institutional shareholders as a means of overseeing management. While this oversight is, indeed, desirable from a corporate governance standpoint, it may at times be a source of tension with competition laws.

In this context, in 2018, Commissioner for Competition, Margarethe Vestager, announced that DG Competition is starting "the complex task of finding out if it's frequent here in Europe for companies in the same industry to have the same shareholders. It's also important to understand what effect common ownership really has [on competition][17]". The European Parliament in its resolution on the European Commission's Annual Report on Competition Policy in April 2018[18] stated that it "is concerned at the anti-competitive effects of common ownership by large institutional investors; believes that the fact that these investors hold a significant part of the shares of direct competitors in the same sector, such as airlines companies for example, creates a quasi-oligopoly and adverse effects for consumers and the economy as a whole by limiting competition; it calls on the Commission to take all necessary measures to deal with the possible anti-competitive effects of common ownership; calls on the Commission, furthermore, to investigate common ownership and draw up a report, to be presented to Parliament, on the effects of common ownership on European markets, particularly on prices and innovation"[19].

Against this background, this study aims to contribute to the debate on the possible anticompetitive effects of common ownership in the EU banking sector. The study does not carry out a competition analysis to assess whether those effects materialise in the EU banking sector. Neither does it purport to draw a conclusion on whether common ownership does, or does not, have anticompetitive effects in the EU banking sector, and, in the affirmative, what those effects might be. After a survey of the corporate governance literature, the study finds that common ownership does characterise the EU banking sector in the sample chosen. The study contrasts the EU common ownership scenario with the

[15] Hemphill, C.S. and Kahan, M. (2019), 'The Strategies of Anticompetitive Common Ownership', New York University, NYU Law and Economics Research Paper No. 18-29; European Corporate Governance Institute (ECGI) - Law Working Paper No. 423/2018. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3210373 (hereinafter, "Hemphill and Kahan").

[16] Ibid, and German Monopolies Commission, (2018). Excerpt from Chapter II of the XXII. Biennial Report of the Monopolies Commission ("Competition 2018") in accordance with Section 44 Paragraph 1, Sentence 1 of the German Act against Restraints of Competition (hereinafter, "German Monopolies Commission, (2018)").

[17] European Commission, Press release (2018). Margrethe Vestager's speech in Competition in changing times, FIW Symposium, Innsbruck, 16 February 2018. Available at: https://wayback.archive-it.org/12090/20191129215248/https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/competition-changing-times-0_en. At Member State level, a study was carried out by the German Monopolies Commission, (2018). This study follows an empirical analysis the German Monopolies Commission conducted in 2016 based on data provided by the Orbis business database supplied by the Bureau van Dijk. German Monopolies Commission. Twenty-First Biennial Report of the Monopolies Commission (2016).

[18] European Parliament resolution of 19 April 2018 on the Annual Report on Competition Policy, P8_TA(2018)0187.

[19] Ibid.

rather different US banking ownership scenario. In particular, the empirical evidence and the economic analysis arising from the US cannot necessarily be transposed to the EU. The EU banking sector structure is different, and EU and national regulation have very specific implications for the corporate governance of listed companies. However, no conclusion can be drawn that there is no way in which the US-based analysis can be considered relevant in the context of the EU debate.

This study is structured as follows: Section 2 defines institutional investors, briefly describes their investment strategies, their role in corporate governance and the corporate governance landscape which applies to them, including the rise of stewardship codes, and provides an overview of the relevant EU legislation.

Section 3 contains an empirical analysis. This identifies the largest institutional investors in the 25 largest publicly listed EU banks and their level of connectedness and it provides an overview of the voting policies of selected institutional investors.

Section 4 provides an overview of the literature on competition law and economics on the effects of common ownership on competition, and in particular, the arguments supporting or rebutting the theories of harm suggested by the scholarship ("unilateral effects" and "coordinated effects"). It also analyses whether some of the assumptions may, or not apply, in the EU, given the specificities and particular features of the EU banking sector. In analysing scholarship on potential theories of harm, the Section highlights how cross-ownership and common ownership are two different fact scenarios. The Section also looks at the arguments for, and against, an amendment to EU merger control rules to address the competition concerns of common ownership. It does not draw any conclusion on whether such amendment is desirable. Finally, it also tackles the potential applicability of competition law tools beyond merger control laws (namely, Articles 101 and 102 TFEU) to some of the concerns that the theoretical and empirical literature has identified, but it also does not conclude whether the conditions for the application of those Treaty provisions are met.

The study proposes avenues for future research including, in particular, a better understanding of the corporate governance of common ownership, and how common shareholdings translate into influence on management of commonly owned firms. In addition, corporate governance has not yet answered the question of how the preferences of different investors (including the different types of investor) are accounted for by the firm in its decision-making: therefore, future research is needed on this point.

Section 5 contains conclusions.

2. INSTITUTIONAL INVESTORS

KEY FINDINGS

- The definition of institutional investors covers a large number of investors, such as asset managers, investment funds, insurance companies, pension funds and sovereign wealth funds.

- Institutional investors have different business models. Some institutional investors, called "asset owners", have legal ownership of the assets (typically, pension funds, insurance companies and sovereign wealth funds). Asset owners may either choose to manage assets directly or to outsource the management of their assets to other companies (called "asset management companies"). For example, some institutional investors own the shares they also manage and others only manage shares on behalf of investor beneficiaries (typically asset managers). They also have different investment objectives and strategies (for example, the objective of a hedge fund is not the same as that of a pension fund). This heterogeneity, in turn, influences the governance of the investee companies.

- Common ownership refers to the phenomenon of asset managers acquiring large stakes of several companies within the same industry. The increased presence among a company's shareholders of passive index funds developed by the US largest asset managers has been considered to have negative implications for the firms' corporate governance, since traditionally these funds have been considered to be passive investors. The goal of passive investing is to replicate the return earned by a part of the market, without deviating from it to achieve extra-returns.

- Various factors have played a role in explaining the passive index funds' reticence to engage with management, including the need to keep costs low and maximise the gains for the ultimate beneficiaries. Yet, over the last few years, these funds have started to take a more active role. In recent years, the EU has put in place various policy measures which, in particular, aim at promoting long-term engagement on the part of shareholders (including institutional shareholders), and at increasing transparency in corporate governance mechanisms, including through the rise of stewardship codes. This regulatory framework has resulted in increased corporate engagement by institutional investors in the investee companies.

- On the one hand, lack of institutional investors' engagement may have negative implications for the corporate governance of investee companies, making increased involvement in investee companies desirable from a corporate governance standpoint. On the other hand, increased engagement on the side of institutional investors increases tension with competition laws. The increased shareholders' engagement fostered by corporate governance laws has led to common owners facing legal uncertainty, since such engagement raises the question of whether it increases the likelihood for them to incur into carrying out certain anticompetitive conduct, such as lessened competition or potential collusion between competing firms having the same shareholders. The increased engagement also raises the question of whether the need to abide by EU competition rules can be reconciled with restrictions in EU sectoral regulation and national company law provisions that may impact asset managers' conduct. The size of the blockholdings may lead to a degree of "structural prominence" in the investee company's decisions yielding to greater influence upon management than the tools typically used by competition laws to gauge market power in a properly defined relevant market would suggest. In particular, in highly concentrated markets where institutional investors hold relevant blockholdings in competing firms, this "structural prominence" may lessen the incentives common owners have to prompt the commonly owned firms' management to compete more vigorously with one another. The corporate governance literature has not so far provided any clarification on how, in choosing how to compete with each other, the management of commonly owned firms factors in the preferences of different institutional shareholders, given the heterogeneity of the business models of the latter[20].

2.1. The definition of institutional investors

There is no precise definition of institutional investors at EU level. A relevant definition used by the OECD is that they are: "investment funds, insurance companies and pension funds who are major collectors of savings and suppliers of funds to financial markets"[21]. They differ widely in terms of business models, operational modalities and the investment strategies they pursue[22]. For the purposes of this study, the definition of institutional investors encompasses various types of organisations, including asset managers, investment funds, pension funds and sovereign wealth funds. Due to their different nature, they have different investment objectives. The study focuses on the institutional investors' conduct as holders of shares in the investee company, which allow them to vote at the investee shareholders' meeting.

"Asset manager" is a broad definition mainly referring to the management of investments on behalf of clients. They generate returns for their clients by setting up and managing various investment funds, rather than by investing directly in companies. Under EU legislation[23], the definition of asset managers encompasses investment firms that provide portfolio management services to investors; alternative investment fund managers (AIFM) who manage alternative investment funds (AIFs)[24], as well as management companies of one or more UCITS in the form of common funds or of investment companies (collective portfolio management of UCITS)[25]. Despite the variety of business models, investment funds pool together capital from different investors to collectively purchase assets or securities, thereby providing a broader selection of investment opportunities, risk diversification, economies of scale and professional management expertise.

At the same time, while each investor in an investment fund owns (or has rights to) a proportion of the assets acquired by the fund, the investors do not make a decision about how the fund's assets are invested. The investment fund is managed by an asset manager on the basis of a specific investment strategy, which differs widely between the different funds. Some institutional investors, such as pension funds or insurance funds, manage collective pools of assets (for example, retirement schemes), which they invest in order to generate returns and provide income in retirement, or in specific benefits. Sovereign wealth funds are state-owned investment funds. Those types of investors are also referred to as "institutional investors". Some institutional investors, such as hedge funds, typically invest money of their own in the fund they manage. Other institutional investors, such as asset management companies, make investment decisions on investors' portfolio on their behalf, in exchange for a fee. When these portfolios are invested in equities, then the asset manager exercises the voting rights linked to the equity instruments held on behalf of the asset management firms' investors, typically by

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20 Çelik, S., Isaksson, M. (2014), 'Institutional investors and ownership engagement', *OECD Journal: Financial Market Trends*. Available at: https://www.oecd.org/finance/Institutional-investors-ownership-engagement.pdf.

21 OECD, Background Note on Common Ownership, (2017).

22 German Monopolies Commission, (2018).

23 Article 2(f) of SRD II.

24 Article 4(1)(b) of AIFMD.

25 Article 2(b) of UCITS Directive.

means of a proxy ballot. At EU level, depending on the type of activity they carry out, asset managers' conduct may be covered by the Markets in Financial Instruments Directive (MiFID II)[26], by the regime for Undertakings for Collective Investments in Transferable Securities (UCITS Directive), or by the AIFMD.

Asset management techniques may be active and passive. In the case of **active management**, the fund manager will try, in the daily purchase and sale of shares, to outperform the returns of an index used as a benchmark, which includes the investee companies. In an active fund, the manager will pick stocks to buy and then compare the returns that they make against the benchmark. In the **passive management** style of investing, also known as index tracking, the fund will buy all the stocks in an index *pro rata* to their representation in the index. When the overall index rises or falls, so will the value of the fund that tracks it. Maintaining a passive investment strategy requires no trading as long as the composition of the index does not change. Therefore, passive investment funds hold equity in the relevant companies for a long time and are hence by nature long term investors.

At present, large and few investment managers manage both actively managed and passive index funds as the assets under management have exponentially increased over the last two decades. A study carried out by Darvas and Schoenmaker found that in the past fifteen years in the EU, assets managed by institutional investors (defined as pension funds, insurance companies and investment funds) "have increased both in absolute value and as a share of EU GDP"[27]. According to this study, "pension fund assets increased from 20 % of GDP to 30 % from 2001 to 2014, while insurance funds' assets expanded from 53 % of GDP to 68 % from 2001 to 2015. The fastest growth was in investment funds, where unfortunately [data for] a much shorter period is available: their assets increased from 40 % of GDP to 87 % from 2008 to 2015"[28].

Passively managed funds have also seen an upsurge in the US, and more recently, in the EU. The rise of passive index funds acted as an incentive to competition for active asset managers. According to some, active managers started to lose market share to the benefit of passive index funds because of the dot.com bubble of 2000. Subsequently, the financial crisis of 2008 "dealt a serious blow to active management. (During that time), investors began pouring money into passive funds. Active managers—especially those who did little more than mimic the index with a little window dressing—found themselves underperforming and unable to justify their higher fees. Now, the best active managers are getting energized. For many, that means turning "active" into activism"[29].

Due to the high concentration of the index fund industry, the exponential rise of funds designed to track stock indexes creates corporate governance implications. In particular, the "big Three" leading passive funds managers (BlackRock, Vanguard and State Street) make up an important component of the shareholder base of listed companies as they hold relevant minority stakes (usually not exceeding

[26] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (MiFID II).

[27] Darvas, Z. and Schoenmaker D., (2019), Institutional Investors and Development of Europe's Capital Markets, Chapter 18 in Busch, D., Avgouleas, E. and Ferrarini, G. (eds), Capital Markets Union in Europe, Oxford University Press, Oxford.

[28] Ibid.

[29] Norton, L., (2019), 'Corporate America Had Better Take Note. Fund Managers Are the New Activist Investors'. Available at: https://www.barrons.com/articles/mutual-fund-managers-activist-investors-51554498763. Also see Whyte, A. (2018), 'How Passive Fund Giants Are Driving Higher Returns'. Available at: https://www.institutionalinvestor.com/article/b18kb9pr2zn96b/how-passive-fund-giants-are-driving-higher-returns.

5 %)[30] in thousands of US and EU companies[31], including in the financial sector. Together, they constitute the largest shareholder in 88 % of the S&P 500 firms.

Therefore, even when the assets are passively managed, as is the case for equity index funds, the inclusion of the equity securities of all or most members of an industry in the hands of the same shareholders raises the question how the behaviour on the part of the firms whose equities are included in the fund portfolios is shaped by such ownership pattern.

2.2. Institutional investors and company governance

Corporate governance rules define the relationship between the shareholders themselves, and between shareholders and the companies' management. They address the agency problems arising from the modern corporate governance structure, where ownership and management are separate. These rules have a relevant impact on how institutional investors invest and manage their stakes.

The institutional investors' engagement with the investee companies is important as it reduces the asymmetry of information between firms' management and shareholders, while fostering the owners' disciplinary powers over the management. Other shareholders also rely on institutional investors to control the management's power. In principle, institutional investors' long-term engagement is considered to generate benefits for the company and for other investors. If the majority of shareholders (including institutional investors) remain passive, do not seek interaction with the company and do not vote, the functioning of the corporate governance system is less effective. In such circumstances, no corrective action can be expected from the shareholders' side.

One of the issues that emerged after the 2008 financial crisis was that significant weaknesses in the corporate governance of financial institutions, including G-SIBs (in particular the insufficient involvement by institutional investors in actively monitoring and challenging corporate boards) played a role in that crisis. Therefore, a large part of the academic literature devoted to institutional investors focuses on the negative corporate governance implications of the (relatively) large stockholdings of institutional investors, especially of passive index funds. This is because passive index funds have traditionally been considered to also be passive shareholders, who are not interested in being actively involved in the corporate governance of investee companies. Their reticence to engage in companies' corporate governance is attributed to various factors, including the need to keep costs low in order to increase short-term returns for their investors. Active engagement increases the costs due to the need to gather and analyse the relevant corporate information to reduce the asymmetry of information between the management and the companies' shareholders.

Moreover, when institutional investors actively monitor investee companies and engage in a company's governance, the information they provide has added value for other shareholders, including other institutional investors, who can free-ride on this information[32]. Thus, the costs incurred to engage with an investee company also benefit other institutional investors in the same company. The potential downsides of active engagement for passive index funds are even greater than they are for actively managed funds because, "in the passive fund industry, the free rider problem is even more

[30] The limit is mainly due to the need to avoid being considered as "insiders" under the US Exchange Act, which imposes a filing obligation and disclosure on beneficial owner reports in Schedule 13D or 13G.

[31] Fichtner, J., Heemskerk, E. M. and Garcia-Bernardo, J., (2017), 'Hidden Power of the Big Three? Passive Index Funds, Re-Concentration of Corporate Ownership and New Financial Risk', in *Business and Politics*, DOI: 10.1017/bap.2017.6. Available at SSRN: https://ssrn.com/abstract=2798653.

[32] Anand, A., Puskas, C., (2019), *Legal and economic rationales for shareholder duties and their enforcement in Enforcing Shareholders' Duties*, Elgar Financial Law Series. OECD, (2011), *The Role of Institutional Investors in Promoting Good Corporate Governance*, Corporate Governance, OECD Publishing.

significant"[33]. As passive funds automatically track an index, for example the S&P 500, the potential benefits of corporate governance engagement are very limited due to the large number of portfolio companies, and inevitably create an advantage for all competitors tracking the same index. In addition, the asset managers may hold different positions in the investee company (long and short). A vote that helps one position could hurt others within its overall portfolio. Consequently, until recently, passive institutional investors have invested limited resources in engaging with investee companies.

However, not all institutional investors are reticent to engage with owned companies' corporate governance. Certain investors, such as hedge funds, are considered "activists", since they actively make use of the shareholders' tools (voting, voicing and walk out) to influence or change the management.

While passive investment strategies may have negative corporate governance consequences in terms of control over the management, the active engagement of institutional investors may result in "structural prominence" over the company decisions due to the size of their blockholdings (shareholdings above 5 % are considered "significant")[34]. The structural prominence of the institutional investors and their engagement within the owned companies is relevant from a competition law perspective in cases of common ownership, as discussed in more detail in Section 4. In particular, some academic and empirical research suggests that incentives for management of investee companies to engage in vigorous competition may be lessened in highly concentrated markets where the institutional investors hold relevant blockholdings in competing firms.

2.3. EU legislation covering institutional investors

Institutional investors' EU regulatory framework is variegated. This legal framework mainly aims to increase transparency and reduce conflicts of interest. The acquisition and disposal of qualifying holdings, as well as coordinated actions of shareholders in listed companies are covered by the Transparency Directive[35] and by the Takeover Bids Directive[36]. Acquisitions and disposals of qualifying holdings in banks are also subject to CRD IV[37]. In addition, specific transparency and disclosure provisions stem from the relevant provisions applicable to institutional investors in the UCITS Directive, the AIFMD and most recently in the Regulation[38] and Directive[39] on the prudential requirements and supervision of investment firms.

More recently, EU legislative intervention (in particular, SRD II) has focused on transparency and duties to incentivise long-term engagement of shareholders, including with ESG, to avoid corporate practices that could result in detriment to other shareholders and to competition among the owned companies.

33 Strampelli, G., (2018), 'Are Passive Index Funds Active Owners? Corporate Governance Consequences of Passive Investing', *San Diego Law Review*, Bocconi Legal Studies Research Paper No. 3187159. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3187159.

34 Young, K. (2015), 'Not by structure alone: power, prominence, and agency in American finance', *Business and Politics*. Available at: https://www.cambridge.org/core/journals/business-and-politics/article/not-by-structure-alone-power-prominence-and-agency-in-american-finance/7013F0C275098D7DB6EAEB994B3902D8.

35 Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC, OJ L 390, 31.12.2004 (hereinafter, "Transparency Directive").

36 Directive 2004/25/EC of the European Parliament and of the Council of 21 April 2004 on takeover bids OJ L 142, 30.4.2004 (hereinafter, "Takeover Bids Directive").

37 Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, OJ L 176, 27.6.2013 (hereinafter, "CRD IV").

38 Regulation (EU) 2019/2033 of the European Parliament and of the Council of 27 November 2019 on the prudential requirements of investment firms and amending Regulations (EU) No 1093/2010, (EU) No 575/2013, (EU) No 600/2014 and (EU) No 806/2014, OJ L 314, 5.12.2019.

39 Directive (EU) 2019/2034 of the European Parliament and of the Council of 27 November 2019 on the prudential supervision of investment firms and amending Directives 2002/87/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU, 2014/59/EU and 2014/65/EU, OJ L 314, 5.12.2019.

Anticompetitive behaviour in the context of common ownership may stem from failures in the control mechanisms laid down by corporate governance rules.

2.3.1. Acquisition or disposal of qualifying holdings

Various EU legislative acts impose disclosure obligations on investors when an acquisition reaches a certain threshold. Under the Transparency Directive (Article 9), when a shareholder acquires or disposes of shares of a listed company, he or she must notify the issuer of the proportion of voting rights held as a result of the acquisition or disposal as soon as the threshold of 5 % of voting rights is reached. At every increase of 5 %, or multiple of 5 %, a subsequent notification must be made to the issuer.

The AIFMD, which applies to alternative investment funds (AIFs), including hedge funds and large private equity investors, requires a notification and disclosure by the manager of the AIF to the competent authorities when it acquires certain holdings/control of portfolio companies which have their registered office in the EU (Article 27 AIFMD). When investors intend to acquire a qualifying holding (i.e. which represents 10 % or more of the shares and/or voting rights or crosses the other relevant thresholds of 20 %, 30 % or 50 %) in a credit institution, they must obtain the declaration of non-opposition of the banking prudential regulator (Article 22(1) CRD IV). The notification must indicate the size of the intended holding and other relevant information. In addition, under CRD IV (Article 26(1) first paragraph), the investee bank has to report to the competent authority any acquisition and disposal of significant holdings of its capital (i.e. crossing the relevant thresholds of 20 %, 30 % or 50 %). Moreover, under Article 26(1) second paragraph of the CRD IV, credit institutions admitted to trading on a regulated market are required to inform the competent authorities, at least annually, of the names of shareholders and members possessing qualifying holdings and the size of such holdings.

Therefore, there may be some transparency issues when the acquisition or disposal does not reach the regulatory thresholds, leaving some grey areas. This could result in institutional investors' blockholdings, which are not subject to notification or disclosure, but which may have a significant impact on the investee company's governance and business objectives.

In addition, under the Transparency Directive (Article 10(a)), a notification to the issuer is also required when the investors have concluded an agreement "which obliges [them] to adopt, by concerted exercise of the voting rights they hold, a lasting common policy towards the management of the issuer in question". Under Article 5 of the Takeover Bids Directive, a bidder, or bidders acting in concert, are required, when a threshold in terms of control is exceeded, to buy all the rest of the shares of the target company as a means to protect minority shareholders of that company. "Acting in concert" is defined under Article 2(1)(d) of the Directive as the situation referring to natural or legal persons who cooperate with the offeror or the offeree company on the basis of an agreement, either express or tactic, either oral or written, aimed either at acquiring control of the offeree company or frustrating the successful outcome of a bid. Acting in concert may be problematic in cases of common ownership since any such coordinated actions might be used to align the position of the blockholders *vis-à-vis* the management of the investee companies, potentially reducing competition. Most institutional investors' long term engagement practices (voicing, voting, call for meetings) would not amount to "acting in concert" and would fall under the European Securities and Markets Authority's (ESMA) White List, which lists practices which in principle do not require prior notification[40]. Yet, this does not mean that these practices may automatically escape the scope of EU competition laws. The use of voting coalitions,

[40] Information on shareholder cooperation and acting in concert under the Takeover Bids Directive, (2014). Available at: https://www.esma.europa.eu/document/information-shareholder-cooperation-and-acting-in-concert-under-takeover-bids-directive-0.

even if creates stability within the company, may raise competition concerns. Whether the level of cooperation between shareholders amounts to acting in concert or not is something to be determined case-by-case under the national legislation transposing the Takeover Bids Directive.

2.3.2. Long-term engagement of shareholders and corporate monitoring

In recent years, also due to the various EU legislative reforms designed to promote the long-term engagement of shareholders and increased transparency, the corporate engagement of institutional investors in the companies whose shares they own has increased. As mentioned above, greater involvement of shareholders in corporate governance is considered as one of the levers that can help improve the financial and non-financial performance of companies, including environmental, social and governance factors (ESG). In particular, "*effective and sustainable shareholder engagement is one of the cornerstones of the corporate governance model of listed companies, which depends on checks and balances between the different organs and different stakeholders.*" (Recital 14 SRD II).

SRD II introduced both new shareholder responsibilities as well as further rights to balance interests along the investment chain (e.g. company boards/managers, asset managers and owners, and end-beneficiaries, as well as broader stakeholders)[41]. Article 3a of the SRD II provides for the right of companies to request identification of their shareholders. However, the Directive gives Member States the option to introduce some limits to the right to request identification from the intermediary for smaller shareholdings (that do not exceed 0.5 % of the voting rights or shares).

Moreover, under this Directive, institutional investors must report publicly on their engagement policies and voting decisions (by means of stewardship codes) on a comply-or-explain basis. The engagement policies have to detail how institutional investors monitor the investee companies, their governance objectives, and the disclosure of potential conflicts of interest or business relationships with the investee company. Such conflicts might exist when the institutional investors manage assets, such as pension schemes, on behalf of the investee. It can also happen that the institutional investor provides investment advice under an advisory contract or provides other management services to the investee company.

Additionally, on an annual basis, institutional investors are required to disclose publicly how the engagement policies have been implemented, including a general description of voting behaviour; an explanation of the most significant votes, and the use of the services of proxy advisors. They must publicly disclose how they have cast votes in the general shareholders' meetings of companies whose shares they own.

Institutional investors are required to disclose to the public, annually, information explaining how the main elements of their equity investment strategy are consistent with the profile and duration of their liabilities as well as how those elements contribute to the medium- to long-term performance of their assets. When the institutional investor does not invest directly but uses the services of another asset manager or institutional investor, the asset managers are required to disclose to institutional investors how their investment strategy and the implementation of that strategy contribute to the medium- to long-term performance of the institutional investor's assets. That disclosure must cover reporting on the key material medium- to long-term risks associated with the portfolio investments, including corporate governance matters and other medium- to long-term risks, to ensure that the asset manager's long-term policies are aligned with those of the investors.

[41] Hirt, H. C. and Jones, A., (2019), 'The Shareholder Rights Directive II', *Hermes Investment Management*, Harvard Law School Forum on Corporate Governance paper.

Furthermore, Article 21 of Commission Directive 2010/43/EU[42] implementing the UCITS Directive lays down a specific obligation on monitoring corporate events and disclosure related to voting policies. It requires a report on when and how voting rights attached to instruments held in the managed portfolios are to be exercised, including the procedures for: (a) monitoring relevant corporate events, (b) ensuring that the exercise of voting rights is in accordance with the investment objectives and policy of the relevant UCITS, and (c) preventing or managing any conflicts of interest arising from the exercise of voting rights.

Therefore, the obligations stemming from SRD II and the UCITS Directive overlap to a certain extent, although SRD II is applicable to all institutional investors, while the UCITS Directive focuses on a specific category of institutional investor.

In some Member States, national legislation has introduced mechanisms to incentivise institutional investors' engagement and stewardship. Notably, in Italy, the "*voto di lista*" requires that one of the members of the board of directors of listed companies be appointed by the minority shareholders, using a system of a list of candidates[43]. The board member appointed by the minority shareholders must be from a different list than the one which received most votes. This system provides a counterweight to concentrated ownership and a block, which ensures independent board composition sensitive to the needs of all shareholders. It aims to increase active engagement by minority shareholders.

2.3.3. Proxy advisors

Another important aspect of the institutional investors' engagement with the investee companies' corporate governance is the use of proxy advisors for both voting advice and voting. Proxy advisors provide analysis and voting recommendations, but also vote on behalf of institutional investors, reducing the costs of monitoring each of the investee companies.

Two main concerns can arise about the role of proxy advisors: first, they provide their services for different institutional investors who may hold stakes in the same companies. Therefore, they may indirectly influence the engagement and voting policies of the institutional investors. In the event of common ownership, the role of the proxy advisors is particularly important, since their voting recommendations may be able to align the management objectives of all the owned companies in the same sector to the relevant investor's financial objectives, if many investors rely on the advice on how to vote in the general shareholders' meeting provided to them by same proxy advisory firm. Section 4 provides further considerations on the role on proxy advisors in the management of the commonly owned firms and, in particular, on how relying on proxy advisors making recommendations on how investors should exercise their vote on issues such as management appointment or executive compensation could shape managerial incentives of rival firms displaying a common ownership pattern.

From a consultation about the role of proxy advisors carried out by ESMA in 2012,[44] it emerged that there is a high correlation between voting outcomes and proxy advice. Although a high correlation differs from causality since voting outcomes might be driven by external factors, it was recognised that there is a perception of some degree of influence of proxy advice on voting outcomes. However, clear evidence is rarely available and no specific market failures were identified. In addition, there may be

[42] Directive 2010/43/EU of 1 July 2010 implementing Directive 2009/65/EC of the European Parliament and of the Council as regards organisational requirements, conflicts of interest, conduct of business, risk management and content of the agreement between a depositary and a management company, OJ L 176, 10.7.2010.

[43] Article 147-bis, paragraph 3, of Legislative Decree 58/1998, Consolidated Financial Law (2019 version).

[44] ESMA, (2013), Feedback statement on the consultation regarding the role of the proxy advisory industry, Final Report, ESMA/2013/84. Available at: https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-84.pdf.

issues related to conflict of interest since the proxy advisor may also provide services to both the institutional investor and the investee company. It is relevant here that SRD II has imposed transparency requirements and an obligation for the proxy advisors to adhere to a code of conduct and to report on application of that code. Proxy advisors are also required to disclose certain key information relating to the preparation of their research, advice and voting recommendations, and to disclose any actual or potential conflicts of interest or business relationships that may influence the preparation of the research, advice and voting recommendations.

2.3.4. Disclosure obligations

The recently adopted Regulation[45] and Directive[46] on the prudential requirements and supervision of investment firms have introduced far-reaching requirements on the disclosure, among others, of the investment policies, remuneration policies and practices and governance standards of investment firms. These measures clearly aim to tackle joint investments. In particular, Article 52 of the Regulation requires the investment firms to disclose:

a) the proportion of voting rights attached to the shares held directly or indirectly by the investment firm, broken down by Member State and sector;

b) a complete description of voting behaviour in the general meetings of companies, an explanation of the votes, and the ratio of proposals put forward by the administrative or management body of the company which the investment firm has approved;

c) an explanation of the use of proxy advisor firms; and

d) the voting guidelines regarding the companies the shares of which are held.

While these requirements are similar those under the SRD II, the main difference is that the disclosure obligation is *vis-à-vis* the competent authorities. This will increase the level of attention that investment firms pay to these issues and their potential conflicts of interests with the investees.

2.3.5. Regulatory limits to institutional investors' engagement

Legal uncertainties have also acted as barriers to institutional investors' engagement with investee firms. Although asset managers often are competitors, when engaging with the company, they exchange information and cooperate with one another. This engagement can be caught by the scope of "acting in concert" under the abovementioned Transparency Directive and the Takeover Bids Directive and therefore be subject to specific disclosure obligations. Institutional investors could also be considered in breach of competition rules insofar as they engage in anti-competitive behaviour.

Moreover, it is important to note that, within the EU, limits to the active engagement of institutional investors also stem from the applicable sector-specific legislation. For example, the UCITS Directive prohibits an investment fund from acquiring "any shares carrying voting rights which would enable it to exercise significant influence over the management of an issuing body."[47] Specific national company law provisions could also influence institutional investors' engagement: for example, provisions requiring a minimum number of shareholders for the validity of the general (or special) shareholders' meeting or to add a proposal to the meeting agenda.

In addition, limits to the capacity of the institutional investors to engage actively with the company governance are directly linked to the different voting weights attached to the shares held. Traditionally,

[45] Regulation (EU) 2019/2033, cited.

[46] Directive (EU) 2019/2034, cited.

[47] Article 56(1) of UCITS Directive.

each share has a right to one vote attached to it ("one share, one vote" principle). However, in various Member States, different voting rights are attached to shares, in particular multiple voting rights are granted through dual class share structures, while other share classes have no voting rights. Often the multi-vote shares are not "free floating" (i.e. available to investors to purchase on the market) but are held by strategic shareholders, who can therefore keep control of the company. This is typical of the Nordic market, where, in some cases, shares of a specific class carry ten times the voting rights of shares of another class[48].

48 Institutional Shareholder Services (ISS), Analysis: Differentiated Voting Rights in Europe. Available at: https://www.issgovernance.com/analysis-differentiated-voting-rights-in-europe/.

3. EMPIRICAL ANALYSIS – COMMON OWNERSHIP BY INSTITUTIONAL INVESTORS IN THE EU BANKING SECTOR

KEY FINDINGS

- Common investors are present in our bank sample consisting of the largest 25 European publicly listed banks. The most important among them is BlackRock, the largest asset manager worldwide. Institutional investors in the EU are often the same groups as in the US, albeit with various differences, as will be seen in more detail below.
- Some, but not all of the most prominent institutional investors in our sample of European banks are also present in US banks, and to a comparable extent. The main difference between the ownership structure of the EU and US banking sectors is the presence of local shareholders (i.e. from the same Member State as the bank's headquarters), holding the number one position with a share above 10 %, or even larger, in the European banks sampled. Some local investors are national governments.
- One of the largest European institutional investors, Norges Bank Investment Management (NBIM), has characteristics similar to those of common investors in the US in terms of the size of the holdings of the top investors. However, NBIM a different type of investor, as it is owned by the Norwegian government.
- There are country-specific differences. There are no US institutional investors in Swedish banks, for example. UK bank ownership structure looks more like that of the largest US banks, due also to the presence of pension funds. The differences can, therefore, be explained by market structure, the different regulations applicable, and different share voting classes (Sweden) that impact bank control.
- The differences in terms of governance structure can also be explained by the different impact of the crisis on banks: in particular, some banks which were severely hit by the crisis have seen an increase in the amount of shares held by US institutional investors as of 2015, whereas other banks now have national governments as their largest investor.
- The analysis of the engagement reports of the three largest institutional investors in the sampled banks provide evidence that they exercise their voting rights extensively, especially on board composition, remuneration and ESG policies. Statistics suggest that in most cases they vote in favour of the management's proposal.

Banks are key players in the EU, as its financial system is principally bank-based, considerably more so than that of the US, which is predominantly capital market based. Therefore, this study provides an empirical analysis of the levels of common ownership among the 25 largest publicly listed banks in Europe[49] for the period from the first quarter of 2012 until the last quarter of 2015. This period is representative of common ownership levels and trends in more recent periods, as no major structural

[49] For the purposes of this study, we use the term Europe as including the countries in the EU and the European Free Trade Association (EFTA), i.e. also including Iceland, Liechtenstein, Norway and Switzerland.

market shifts have occurred in investors' holdings in the meantime[50]. This period is also subsequent to the major restructuring in the EU banking sector that occurred after the financial crisis[51].

For this analysis, the data used is extrapolated from the Thomson Reuters Global Ownership database[52], which reports the ownership holdings of all publicly listed corporations and banks worldwide[53].

3.1. Bank sample selection

We first identify the 25 largest publicly listed banks in Europe. Several criteria have traditionally[54] been used to define bank size and importance:

- *Total assets*. This is arguably the most commonly used measure, and the one we also use. The disadvantage of this measure is that it is subject to different accounting/measurement rules[55].
- *Market capitalisation*. This measure is more performance-based and hence more volatile, but it does not suffer from accounting/measurement issues.
- *G-SIB (global systemically important banks)*. This is a set of banks tracked and labelled as G-SIB by the Financial Stability Board since the end of 2011[56].

Table 1 shows the 25 largest publicly listed banks in Europe on the basis of (and ranked by) total assets, measured at the end of our sample period, i.e. at the end of 2015[57]. Several large banks are not included in the sample because, while they rank among the top banks measured merely by total assets, they are either not publicly listed or were not listed within the reference period, or some other exclusion criteria apply. For example, Groupe BPCE (No 8 by total assets), Crédit Mutuel (No 16), KfW Group (No 22), DZ Bank (No 24) and Landesbank Baden-Württemberg (No 34) are not publicly listed or have been delisted. Cassa Depositi e Prestiti (No 25) is a joint-stock company under public control in Italy. ABN AMRO Group (No 26) only listed in late 2015 and is therefore not included in the sample. Finally, Nationwide Building Society (No 29) is listed but has been omitted due to insufficient ownership data availability.

As shown by the table, the banks in the sample are spread across a large number of European countries: the UK (5), France (3), Spain (3), Sweden (3), Germany (2), Italy (2), Switzerland (2), Belgium (1), Denmark (1), Finland (1), the Netherlands (1) and Norway (1).

[50] Banal-Estañol, A., Seldeslachts, J., Vives, X., (2020), 'Diversification, Common Ownership, and Strategic Incentives', *AEA Papers and Proceedings*, DOI: https://doi.org/10.1257/pandp.20201026.

[51] For instance, the restructuring of Dexia, a large Belgian bank, was completed in the last quarter of 2011.

[52] Thomson Reuters collects information from stock markets, the companies themselves, through direct contact or via their websites, financial newspapers and other sources.

[53] We restrict ourselves to the investor holdings that represent at least one percent in the overall equity of each bank, as this is arguably the minimum threshold through which owners can have influence.

[54] Laeven, L., Ratnovski, L., Tong, H., (2015), 'Bank Size, Capital, and Systemic Risk: Some International Evidence', *Journal of Banking & Finance*, DOI: 10.1016/j.jbankfin.2015.06.022. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0378426615001910.

[55] The sample also includes Swiss banks, which are not subject to IFRS.

[56] The Financial Stability Board (FSB) is an international body that monitors and makes recommendation about the global financial system (www.fsb.org).

[57] We use total assets as the main criterion because it is the most commonly-used measure, but the sample also covers the top 18 European banks in terms of market capitalisation, as well as all the 14 publicly listed European banks considered G-SIBs at the end of 2015.

Table 1: Bank sample: The 25 largest publicly listed banks in Europe

No	Bank	Country	Rank by total assets (2015)[58]	Rank by market capitalisation (2015)	G-SIB (Nov 2015)[59]
1	HSBC Holdings	UK	1	1	YES
2	BNP Paribas	FR	2	4	YES
3	Crédit Agricole Group	FR	3	16	YES
4	Deutsche Bank	DE	4	13	YES
5	Barclays PLC	UK	5	6	YES
6	Banco Santander	ES	6	3	YES
7	Société Générale	FR	7	14	YES
8	Royal Bank of Scotland Group	UK	9	8	YES*
9	Lloyds Banking Group	UK	10	2	NO*
10	UBS AG	CH	11	5	YES
11	UniCredit S.p.A.	IT	12	12	YES
12	ING Group	NL	13	-	YES
13	Credit Suisse Group	CH	14	11	YES
14	BBVA	ES	15	9	NO*
15	Intesa Sanpaolo	IT	17	7	NO
16	Nordea Bank	FI	19	10	YES
17	Standard Chartered Plc	UK	20	-	YES
18	Commerzbank AG	DE	21	-	NO*
19	Danske Bank	DK	23	15	NO
20	CaixaBank	ES	27	-	NO
21	Svenska Handelsbanken	SE	30	17	NO
22	DNB Group	NO	31	-	NO
23	Skandinaviska Enskilda Banken	SE	32	-	NO
24	KBC Group NV	BE	33	-	NO
25	Swedbank	SE	35	18	NO

Source: Authors' own calculations on the basis of data from the Thomson Reuters Global Ownership database.

3.2. Major shareholders in the sample of European banks

Table 2 shows the 15 largest shareholders in the 25 largest publicly listed banks in Europe, ranked by total[60] equity value held in these banks at the beginning and the end of our sample period (2012 Q1 and 2015 Q4).

Of those 15 major shareholders in 2015, 12 are not based in the EU: 7 are based in the US (including BlackRock, the most prevalent shareholder by far), 1 in Norway (NBIM) and 1 in Canada, while 3 are based in the UK. The 3 EU shareholders have shares in only a limited number of banks (SAS Rue La Boétie in Crédit Agricole, Fundació la Caixa in Caixabank and Nordea in 4 banks).

[58] Relbanks.com publishes the ranking of banks by total assets based on published annual reports.

[59] NO* in the G-SIB column means the bank was not a G-SIB at the end of 2015, but has been listed as a G-SIB in the past. YES* means the bank was a G-SIB in the FSB's 2015 update, but is now no longer a G-SIB.

[60] By aggregated assets. We use the Thomson Reuters Global Ownership Database, which includes holdings by each shareholder in each publicly listed firm for every year-Quarter. Our database utilizes a "money-manager view." With this view, the database combines together one or more filings to link the holdings to the actual firm that manages the investments. In other instances, it might break apart a single filing in order to accomplish the same. The holdings would then be assigned to one or more of the managers listed on the file.

The reason why the European banking sector is dominated by US (and to a lesser extent UK) investors is that the worldwide asset management industry, which manages large sums of money coming from investments on behalf of other people, is dominated by US funds. Europe's funds are smaller and more fragmented than their US counterparts. Indeed, many of the largest European asset managers are subsidiaries of banks and insurance companies, which tend to rely on selling in-house products via distribution channels within national boundaries. Moreover, US households are more comfortable with the risks of investing whereas European households are more likely to keep their savings in bank deposits, compared to the US counterparts. Finally, pension funds are significantly larger in the US than in Europe, which remains more reliant on government-funded retirement schemes.

Nevertheless, the largest shareholders in the bank sample in terms of value held include some European investors ("local insiders") (SAS Rue La Boétie[61], Government of Norway via NBIM, Government of Belgium and AXA Group) which each hold large stakes in one bank. However, when comparing the beginning and the end of the sample period, these "local" insiders are becoming less important (only SAS Rue La Boétie remains, while Fundació la Caixa is new).

Table 2: The largest investors in the top 25 publicly listed European banks - Value held in billion US dollars

2012 Q1	Country	Value held	Company count[62]	2015 Q4	Country	Value held	Company count
BlackRock	US	40	14	BlackRock	US	62	23
UK Financial Investments Ltd.	UK	32	2	UK Financial Investments Ltd.	UK	49	2
NBIM	NO	14	18	NBIM	NO	22	18
Royal Bank of Canada	CA	13	2	Vanguard Group	US	18	20
Temasek Holdings Pte. Ltd.[63]	SG	11	1	SAS Rue La Boétie	FR	18	1
Aberdeen Asset Management	UK	10	2	Royal Bank of Canada	CA	14	4
Legal & General Group	UK	10	4	Aberdeen Asset Management	UK	13	7
Nordea	FI	9	3	HarbourVest Partners	US	12	7
SAS Rue La Boétie	FR	8	1	Fundació la Caixa	ES	12	1
Fidelity Investments	US	8	4	State Street Global	US	11	6
Government of Norway	NO	7	1	Nordea	FI	11	4
GIC Private Limited	SG	7	1	Fidelity Investments	US	9	8
Capital Group	US	7	5	Legal & General Group	UK	9	4
Government of Belgium	BE	6	1	Dodge & Cox	US	8	6
AXA Group	FR	6	1	Capital Group	US	8	7

Source: Authors' own calculations on the basis of data from the Thomson Reuters Global Ownership database.

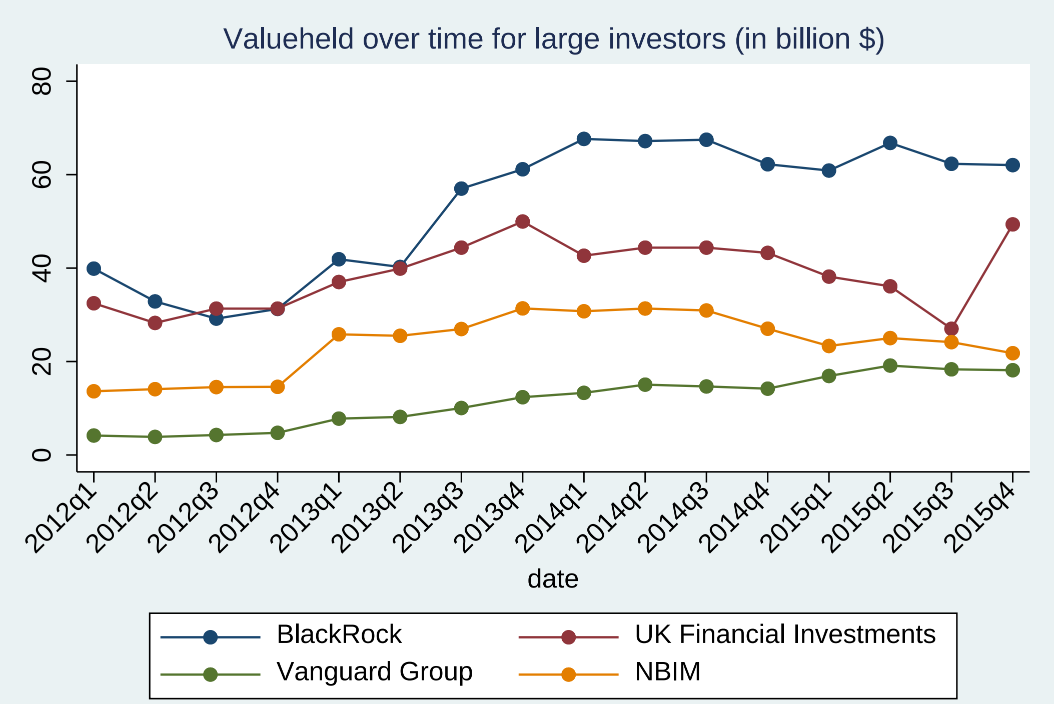
[61] SAS Rue La Boétie is the parent company of the Crédit Agricole.

[62] The number of holdings >1 % in the bank sample.

[63] Both Temasek and GIC are owned by the Government of Singapore.

Figure 1 shows the evolution of the value held by the top four investors in our sample in 2015 Q4. It shows that the value held by the top shareholders, especially BlackRock, the top investor, has increased.

Figure 1: Evolution of value held by the investors in the top four as of 2015 Q4



Source: Authors' calculations based on the Thomson Global Ownership Database.

The value held depends on the share price at a given point of time, i.e. these numbers go hand in hand with stock market fluctuations. We, therefore, also examine the number of blockholdings across the bank sample, as this does not fluctuate with stock markets. Moreover, this measure gives a better picture of the level of common ownership. We define the "number of blockholdings" as the number of banks in which a given investor holds an ownership stake larger than a certain threshold (1 %, 3 % and 5 %). The number of blockholdings thus provides an indication of the size and density of an investor's common ownership network across the top 25 European banks. Table 3 shows the 10 largest blockholders in the bank sample. The table ranks investors by the number of blocks of at least 1 % at the beginning and the end of our sample period (2012 Q1 and 2015 Q4, respectively)[64].

While there were four EU-based top blockholders in 2012 Q1 (all Scandinavian: Swedbank, Svenska Handelsbanken, Nordea and Fjärde AP-fonden); none of the top 10 major blockholders in 2015 Q4 is based in the EU, apart from Aberdeen Asset Mgt (UK). Further, 8 out of 10 are based in the US (including BlackRock, the largest shareholder by far) and the 10th (NBIM) is from Norway.

[64] Note that there are a number of ties in 2012 Q1, which results in there being more investors shown in that Q than in 2015 Q4.

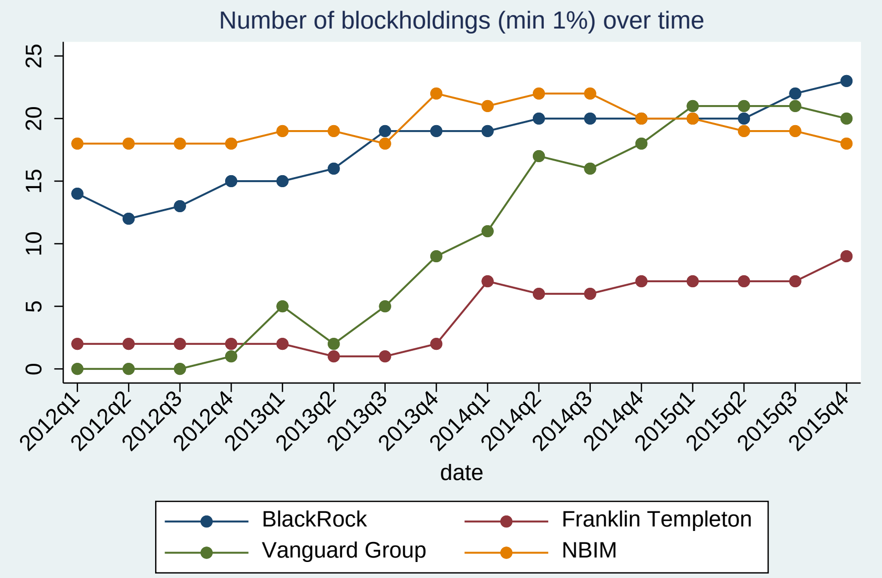
Table 3: The largest investors in the top 25 publicly listed European banks - Blockholdings

2012 Q1	Country	Number of Blockholdings			2015 Q4	Country	Number of Blockholdings		
		>1 %	>3 %	>5 %			>1 %	>3 %	>5 %
NBIM	NO	18	0	0	BlackRock	US	23	15	14
BlackRock	US	14	10	7	Vanguard Group	US	20	0	0
DnB NOR	NO	5	2	1	NBIM	NO	18	3	0
Capital Group	US	5	2	0	Franklin Templeton	US	9	1	0
Swedbank	SE	4	3	0	Fidelity Investments	US	8	1	0
Legal & General Group	UK	4	3	0	Aberdeen Asset Mgt.	UK	7	1	1
Fidelity Investments	US	4	1	0	HarbourVest Partners	US	7	1	1
Svenska Handelsbanken	SE	4	0	0	Capital Group	US	7	0	0
Nordea	FI	3	1	1	Dodge & Cox	US	6	2	0
Harris Associates L.L.P.	US	3	1	0	State Street Global	US	6	1	0
Dodge & Cox	US	3	0	0	-				
Fjärde AP-fonden	SE	3	0	0	-				
T. Rowe Price	US	3	0	0	-				
State Street Global	US	3	0	0	-				

Source: Authors' own calculations on the basis of data from the Thomson Reuters Global Ownership database.

Figure 2 shows the evolution of the number of blockholdings of at least 1 % of the top four blockholders in our sample from 2012 Q1 to 2015 Q4. It shows an increase in the number of blocks, especially Vanguard's, over the sample period. The top three, BlackRock, Vanguard and NBIM, are much larger in terms of 1 % blockholdings than the number four (Franklin Templeton).

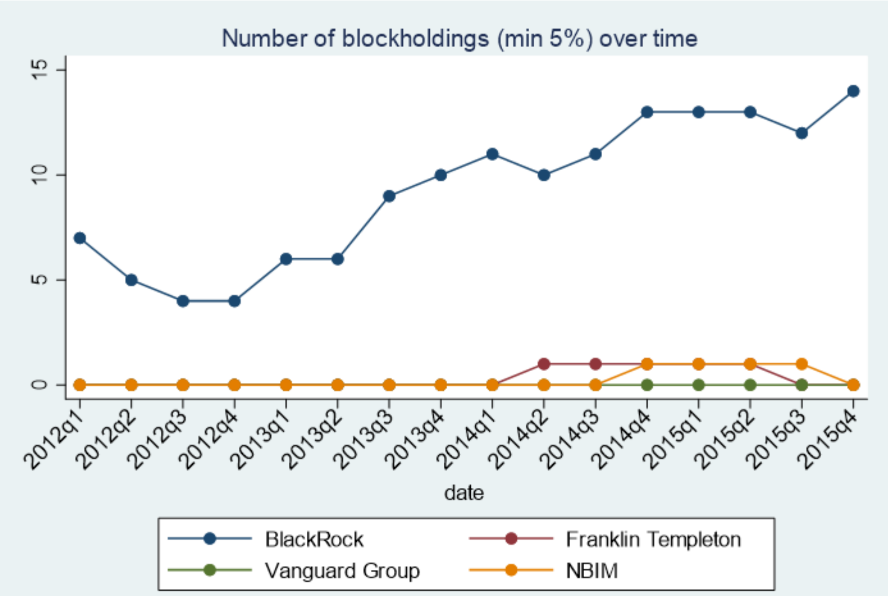
Figure 2: Evolution of the number of blockholdings (min 1 %) held by the blockholders in the top four as of 2015 Q4



Source: Authors' calculations based on the Thomson Global Ownership Database.

Figure 3 shows the evolution of the number of large blockholdings (at least 5 %) of the top four blockholders in 2015 Q4. It shows that the number of large blocks held by BlackRock has been increasing steadily over the sample period. The large blockholdings of the others are few in number and stable.

Figure 3: Evolution of the number of large blockholdings (at least 5 %) held by the blockholders in the top four as of 2015 Q4



Source: Authors' calculations based on the Thomson Global Ownership Database.

3.3. Common ownership between European banks

In this Section, we show the evolution of two aggregate measures of common ownership over time[65]. Those two measures are defined as follows, with a formal definition in Box 1 below:

(1) We first define the "common ownership interest of a given common investor in a given pair of banks" in two possible ways: as the (i) ***minimum*** **ownership holdings** in the two banks, or (ii) as the ***average*** **ownership holdings** in the two banks. If an investor owns 5 % of one of the banks' equity and 10 % of the other, the common ownership interest in the two banks is 5 % in the first measure and 7.5 % in the second. If another investor owns 20 % of both banks' equity, the common ownership interest in the two banks is 20 % in both measures. In both measures, if one (or both) of these two individual stakes increases, the investor has greater (or equal) common ownership interests in the two banks. While the first measure is likely to understate the true common interest of the investor, it takes into account that ownership stakes in the two banks may be asymmetric. The second measure does not reflect this asymmetry, but it captures the increasing incentives and ability to exert influence of an investor that has even larger ownership stakes in the firm in which there is a larger ownership stake[66].

65 Note that we do not take a stance on what the relevant markets are in EU markets. We, therefore, refrain from calculating HHIs and MHHIs as well.

66 Newham, M., Seldeslachts J., and Banal-Estañol, A., (2018), 'A Common Ownership and Market Entry: Evidence from the Pharmaceutical Industry', DIW Berlin Discussion Paper No. 1738. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3194394 show that these two measures of common ownership can be viewed as two extremes in a "production function" approach, which assumes that there is a function that transforms each common investor's shareholdings in the two firms (inputs) into a joint profit steering index

(2) For each of the two measures, we then define the "**degree of common ownership** of two given banks" as the sum of the common ownership interest of all the investors. Following the example above, if the two investors were the only ones with stakes in both firms, the degree of common ownership would be 25 % in the first measure and 27.5 % in the second. Of course, if an investor's stake in one of the banks is zero (or less than one percent), the contribution to the degree of common ownership is zero. The degree of common ownership between two banks can also be viewed as a degree of connectivity between the two banks.

We finally define the **aggregate measure of common ownership** in the EU banking sector as the average of the degree of common ownership for every pair of banks in the sample of European banks. We also define a country-based measure using the banks based in the same country. Despite having a low number of banks, the country-based measures make sense because the European banking sector is typically considered national (or, for some segments, regional) in terms of geographical market definition[67].

Box 1: Formal definition of the two measures of common ownership

1. Consider two banks (*j* and *k*) and a set of investors that own shares in one or both of them. Given ownership shares α_i^j and α_i^k of investor *i* in banks *j* and *k*, respectively, we define the common ownership interest of a common investor *i*, holding shares in the two banks *j* and *k*, either as (i) $c_i^{j,k} = \min\{\alpha_i^j, \alpha_i^k\}$ or as (ii) $c_i^{j,k} = (\alpha_i^j + \alpha_i^k)/2$ if both α_i^j and α_i^k are at least 1 %.
2. The degree of common ownership between banks *j* and *k* is defined as $C_{j,k} = \sum_i c_i^{j,k}$, where we add the individual contributions across all common investors.
3. The aggregate common ownership measure is calculated by taking the average of $C_{j,k}$ for each possible bank pair of banks in our sample, or for a subsample of banks of a given country.

We can use the degree of common ownership between any pair of banks to define a "weighted network" of banks. In such a network, banks can be viewed as nodes and the degree of common ownership between two banks as the weight of the connection between them. The aggregate measure can then be considered a network measure of how connected the sector is. Figure 4 below shows that the aggregate level of common ownership increases over time, for both measures. Of course, by definition, the average measure levels are higher than the minimum.

(output). This index increases with the size of the investor's shareholdings in one firm, because it naturally implies a greater ability to influence decision-making (ability), but also the shareholdings in the other firm, because it increases concerns about the effects of such decisions on the profits of the other firm (incentives). The first measure assumes that the effects of these two shareholdings are perfect complements while the second assumes that they are perfect substitutes.

[67] Please note that insofar as retail banking is concerned, the relevant geographic market is sometimes considered regional.

Figure 4: Evolution of the level of common ownership in the bank sample

Source: Authors' calculations based on the Thomson Global Ownership Database.

Table 4 shows our measures of common ownership by country[68]. As shown by the table, in Q1 of 2012, French, Spanish and Swiss banks are clearly less connected through common ownership within their countries than Italian, Swedish and UK banks. In Q4 of 2015, French and Spanish banks continue to be less connected through common ownership than their Italian, Swedish, German and UK banks. In all cases, but for Sweden, connectedness through common ownership has increased over time.

This is also reflected when we look at the top five investors per bank, grouped by country (see Table 5).

Table 4: Common ownership by country

2012 Q1	Banks (No)	Common ownership measure		2015 Q4	Banks (No)	Common ownership measure	
Country		min link	average link	Country		min link	average link
CH	2	0.035	0.048	CH	2	0.145	0.193
DE	2	0.058	0.115	DE	2	0.081	0.087
ES	3	0.032	0.034	ES	3	0.044	0.065
FR	3	0.016	0.017	FR	3	0.042	0.047
IT	2	0.114	0.125	IT	2	0.174	0.179
SE	3	0.104	0.159	SE	3	0.092	0.150
UK	5	0.064	0.091	UK	5	0.100	0.161
All	25	0.024	0.034	All	25	0.060	0.083

Source: Authors' own calculations on the basis of data from the Thomson Reuters Global Ownership database.

[68] The number of possible "pairs" depends on the country (e.g. for Italy there is only 1 possible pair as we only have two banks in the sample, while for Sweden or UK there are more).

The degrees of connectedness of the European banks measured at the country level, reported in Table 4, are generally higher than the degrees of connectedness measured at the European level, included in the last row of the same table. This reflects the national focus of some of the investors.

To assess the magnitude[69] of common ownership of the European banks, we can compare their degrees of connectedness at the country level with the degrees of connectedness of the companies in the German car and chemical sectors. Seldeslachts, Newham and Banal-Estañol (2017)[70] report degrees of connectedness of the top three car and chemical companies in Germany using the same measure of common ownership: the minimum measure. The levels of common ownership of the banks have increased faster in the period 2012-2015 than those in the car and chemical sectors, although they generally started from a lower base. Towards the end of the sample period, the levels of common ownership of the banks are, however, generally in between those of the car sector (around 0.07) and those of the chemical sector (around 0.15).

[69] The absolute level is the numerical level, i.e. the actual numbers.

[70] Banal-Estañol, A., Newham, M. and Seldeslachts, J., (2017), cited.

Table 5: Top five investors per bank[71]

UK									
2012q1									
HSBC		*Barclays*		*Royal Bank of Scotland*		*Lloyds*		*Standard Chartered*	
Royal Bank of Canada	7 %	BlackRock	8 %	UK Financial Investments, Ltd.	67 %	UK Financial Investments, Ltd.	40 %	Temasek holdings Pte. Ltd.	18 %
BlackRock	6 %	Qatar Insurance Company (QIC)	7 %	Schroders	0 %	Legal & General Group	2%	BlackRock	8 %
Legal & General Group	3 %	Sheikh Mansour Bin Zayed	6 %	Legal & General Group	0 %	NBIM	1 %	Aberdeen Asset Mgt	7 %
NBIM	2 %	Legal & General Group	4 %	Standard Life	0 %	Schroders	1 %	Legal & General Group	3 %
T. Rowe Price	2 %	NBIM	3 %	Lansdowne partners Ltd.	0 %	HarbourVest Partners	1 %	T. Rowe Price	2 %
2015q4									
HSBC		*Barclays*		*Royal Bank of Schotland*		*Lloyds*		*Standard Chartered*	
BlackRock	8 %	BlackRock	7 %	UK Financial Investments, Ltd.	73 %	UK Financial Investments, Ltd.	10 %	Temasek holdings Pte. Ltd.	16 %
Royal Bank of Canada	5 %	Credit Suisse	6 %	Artisan Partners	2 %	BlackRock	7 %	Aberdeen Asset Mgt	9 %
Legal & General Group	3 %	QIC	5 %	T. Rowe Price	2 %	NBIM	3 %	Dodge & Cox	4 %
Vanguard Group	2 %	Capital World Investors	4 %	Schroders	1 %	Legal & General Group	2 %	Northern Cross	2 %
State Street Global	2 %	NBIM	3 %	BlackRock	1 %	Fidelity Investments	2 %	BlackRock	2 %

[71] Source: Thomson Reuters.

Sweden								Norway	
2012q1								**2012q1**	
Nordea		*Svenska Handelsbanken*		*Skandinaviska Enskilda Banken*		*Swedbank*		*DNB*	
Nordea	22%	AB Industrivärden	11%	Investor AB	21%	Sparbankernas Riksförbund	6%	Government of Norway	34%
Government of Sweden	13%	Stiftelsen Oktogonen	10%	Trygg-Stiftelsen	8%	Alecta	4%	DnB NOR	11%
Nordea-fonden	4%	Swedbank	3%	Alecta	7%	Folksam	4%	Folketrygdfondet	5%
Swedbank	3%	L.E. Lundberg Kapitalförvaltning AB	2%	DnB NOR	4%	AMF Pension	3%	BlackRock	3%
DnB NOR	2%	AMF Pensionsförsäkring AB	2%	Swedbank	3%	Swedbank	2%	Fidelity Investments	2%
2015q4								**2015q4**	
Nordea		*Svenska Handelsbanken*		*Skandinaviska Enskilda Banken*		*Swedbank*		*DNB*	
Nordea	22%	stiftelsen oktogonen	10%	Investor AB	21%	Folksam	9%	Government of Norway	34%
Nordea-fonden	4%	AB Industrivärden	10%	Alecta	6%	Sparbankernas Riksförbund	9%	DnB NOR	11%
Swedbank	2%	Swedbank	4%	Trygg-Stiftelsen	6%	Alecta	5%	Folketrygdfondet	6%
Alecta	2%	L.E. Lundberg Kapitalförvaltning AB	2%	Swedbank	4%	AMF Pension	4%	MFS Investment Mgt	3%
BlackRock	2%	Alecta Pensionsförsäkring, Ömsesidigt	2%	AMF Pension	3%	Sparbanksstiftelserna i Sverige	4%	Newton Investment Management Ltd.	3%

France						Italy			
2012q1						**2012q1**			
BNP Paribas		*Crédit Agricole*		*Société Générale*		*Unicredit*		*Intesa Sanpaolo*	
Government of Belgium	11 %	SAS Rue La Boétie	56 %	Société Générale Employees	8 %	Mubadala Investment Company PJSC	7 %	Compagnia di San Paolo	10 %
BNP Paribas Employees	7%	Crédit Agricole, S.A. ESOP	5%	Lyxor asset Mgt.	7 %	Credit Agricole	6 %	Credit Agricole	7 %
AXA Group	5%	NBIM	1%	Capital Group	5 %	Government of Libya	5 %	Amundi Asset Mgmt.	5%
MBIM	2%	Natixis	0%	Groupama	4 %	BlackRock	4 %	BlackRock	4%
BlackRock	2%	Aviva	0%	Caisse des Dépôts et Consignations	4 %	Fondazione Cassa di Risparmio di Verona, Vicenza, Belluno e Ancona	4 %	Fondazione Cassa di Risparmio di Padova e Rovigo	4%
2015q4						**2015q4**			
BNP Paribas		*Credit Agricole*		*Société Générale*		*Unicredit*		*Intesa Sanpaolo*	
Government of Belgium	10 %	SAS Rue La Boétie	57 %	Société Générale Employees	7 %	BlackRock	8 %	Compagnia di San Paolo	10 %
BlackRock	7%	Crédit Agricole S.A. ESOP	4%	BlackRock	7 %	Mubadala Investment Company PJSC	7 %	BlackRock	8%
BNP Paribas Employees	5%	Franklin Templeton	1%	Caisse des Dépôts et Consignations	3 %	Credit Agricole	4 %	Credit Agricole	5%
NBIM	2%	NBIM	1%	Capital Group	2 %	Fondazione Cassa di Risparmio di Verona, Vicenza, Belluno e Ancona	4 %	Fondazione Cassa di Risparmio di Padova e Rovigo	4%
Franklin Templeton	2%	BlackRock	1%	Capital world investors	2 %	Government of Libya	3 %	Ente Cassa di Risparmio di Firenze	3 %

Belgium		Denmark		Netherlands		Germany			
2012q1		**2012q1**		**2012q1**		**2012q1**			
KBC Group		*Danske Bank*		*ING*		*Deutsche Bank*		*Commerzbank*	
Cera CVBA	30 %	A.P. Møller og Hustru Chastine Mc-Kinney Møllers Fond til almene Formaal	23 %	MFS investment Mgt	1 %	BlackRock	7 %	German government	25 %
M.R.B.B.	13 %	Realdania	10 %	Fidelity International	1 %	Aberdeen Asset Mgt	6 %	BlackRock	3%
Fidelity Investments	1%	Cevian Capital	5 %	Deutsche Asset Management Investment GmbH	1 %	DekaBank Group	3 %	Allianz Group	3%
NBIM	1%	NBIM	3 %	Wellington Mgmt.	1 %	Capital Group	3 %	Deutsche Asset Management Investment GmbH	2%
MFS investment Mgt	1%	Didner & Gerge fonder AB	1 %	BlackRock	1 %	NBIM	2 %	NBIM	1%
2015q4		**2015q4**		**2015q4**		**2015q4**			
KBC Group		*Danske Bank*		*ING*		*Deutsche Bank*		*Commerzbank*	
Cera CVBA	21 %	A.P. Møller og Hustru Chastine Mc-Kinney Møllers Fond til almene Formaal	22 %	BlackRock	8 %	BlackRock	7 %	German government	16 %
MRBB	11 %	Cevian capital	9%	State Street Global	3 %	Sheikh Hamad Bin Jassim Bin Jabor	3 %	BlackRock	7%
BlackRock	7%	NBIM	2%	Vanguard Group	2 %	DekaBank Group	3 %	Capital World Investors	5%
Fidelity Investments	4%	Didner & Gerge Fonder AB	1 %	HarbourVest Partners	2 %	HarbourVest Partners	3 %	Franklin Templeton	3%
Parvus Asset Management Europe Limited	3%	Vanguard Group	1 %	NBIM	2 %	NBIM	2 %	Vanguard Group	2%

Spain						Switzerland			
2012q1						2012q1			
Banco Santander		*BBVA*		*CaixaBank*		*UBS*		*Credit Suisse*	
BlackRock	6%	BlackRock	5%	NBIM	<1%	GIC private limited	6%	Olayan financing company	7%
Wells Fargo	3%	Wells Fargo	3%	Slim Helú (Carlos)	<1%	BlackRock	6%	QIC	6%
NBIM	2%	NBIM	2%	Vanguard Group	<1%	Fidelity Investments	4%	Harris Associates l.p.	3%
Botin (Emilio)	2%	Janus Capital Group	1%	BlackRock	<1%	HarbourVest Partners	2%	Franklin Templeton	3%
Botin-Sanz Sautola Family	1%	Vanguard Group	1%	Dimensional Fund Advisors	<1%	Franklin Templeton	2%	Capital Group	3%
2015q4						2015q4			
Banco Santander		*BBVA*		*CaixaBank*		*UBS*		*Credit Suisse*	
BlackRock	7%	BlackRock	7%	Fundació Bancaria Caixa d'Estalvis i Pensions de Barcelona	57%	GIC private limited	6%	NBIM	5%
Vanguard Group	2%	Vanguard Group	2%	BlackRock	1%	HarbourVest Partners	5%	QIC	5%
NBIM	2%	Northern Cross	2%	Invesco	1%	BlackRock	5%	Olayan financing company	4%
Mellon Financial Corporation	1%	NBIM	1%	Fundacion Privada Monte de Piedad y Caja de Ahorros de San F	1%	NBIM	3%	Dodge & Cox	4%
Lyxor asset management	1%	Mellon Financial Corporation	1%	Fundacion Caja Navarra	1%	Credit Suisse Securities (USA) LLC	3%	Harris Associates L.P.	4%

3.4. Ownership structure of the EU banking sector

In order to understand the potential impact and the influence of common ownership over the largest European banks examined, it is necessary to take into account their specific ownership structure. The ability of the blockholders to influence the banks' governance and to exert structural prominence over business objectives also depends on the other shareholders' position.

The banking sector has been reshaped by the financial crisis, and the subsequent restructuring and privatisation processes, including publicly funded bail-outs.

The empirical analysis shows that institutional investors, such as BlackRock, NBIM and Vanguard, are common owners in the sampled banks but the aggregate ownership of institutional investors is dispersed across a large number of shareholders, each with small amounts of holdings, typically between 5 % and 9 %. Usually, the stakes held by the asset managers managing passive index funds are lower than the notification thresholds set out in the Transparency Directive (5 %), as well as the CRD IV threshold for qualifying holdings (10 %).

In some banks, the main shareholders hold large stakes, i.e. above 10 %, such as in Standard Chartered (Temasek Holding) and KBC (Cera). In other banks, such as Banco Santander, ownership is relatively concentrated but the largest shareholders still hold a relatively small fraction of the overall capital, i.e. below 10 %.

In some EU banks, the State is the largest shareholder. This is the result of some governments' strategy of holding stakes in a sector which is considered crucial as well as the result of bank bailouts and public support at a time of crisis. Among the largest EU banks, BNP Paribas [72] and Commerzbank have the government as their single largest minority shareholder.

Employees also have relevant aggregated shares, such as in the case of Societé Générale, where they represent the largest stake together with BlackRock (see Table 5, France, 2015 Q4).

3.5. Comparison with common ownership in US top banks

Although we cannot assess the impact of common ownership on market outcomes and market power without analysing the degree of competition between the banks in the sample,[73] we can make a comparison with the situation of the largest US banks at the same point in time (2015 Q4). As a sample, we chose the same US banks as those examined by the US scholars who first found a correlation between increased prices and common ownership in the US retail banking sector[74]: JP Morgan Chase, Bank of America, Wells Fargo, Citi Group, US Bancorp and Capital One. Although market structure and regulation are very different, it is worth comparing ownership structures.

We focus first on BlackRock – the most prominent institutional investor in our sample of European banks. Table 6 shows that BlackRock is the largest or the second largest investor in the sampled US banks, and it holds the same position in 13 of 25 sampled European banks in 2015 Q4[75]. Moreover, the share it holds in these US and European banks is comparable in size: mostly between 5 % and 8 %.

However, other US investors that make up most of the top five investors in US banks (Fidelity, Vanguard, State Street Global), who have for a while ranked among the top EU investor list (see table 3), have a low presence in the shareholdings of EU banks overall. In some countries, such as Sweden, US institutional investors do not have any shareholding at all. Where they are particularly to be found is in the capital of UK banks. One of the top three institutional investors in the European sample of banks is NBIM, with 18 holdings larger than 1 %. NBIM has no holdings in the US table at all. Various factors may explain these results, including different business strategies as well as legal and regulatory challenges, including taxation of foreign investments. Perhaps the biggest difference between the ownership structure of the EU and US banking sectors is the presence of local shareholders in the sampled European banks. In some cases, they occupy the number one position with a share above 10 %, or even

[72] This shareholding originated in 2008-2009 transactions in the context of the deteriorated financial condition of Fortis Bank Belgium (now BNP Paribas Fortis), whereby the Belgian State held (through the SFPI) 25 % of the shares of Fortis Bank Belgium and the remaining shares were held by BNP Paribas. The Belgian State has progressively reduced its shares in the bank but still remains the largest shareholder.

[73] Engaging in such an exercise would require (i) defining relevant markets, (ii) assessing competition in these markets by taking into account common ownership, and (iii) analysing its impact on market outcomes, such as prices. While indeed this would be very interesting, this is far beyond the scope of this study.

[74] Azar *et al.* (2018), cited.

[75] The banks are HSBC, Barclays, Lloyds, BNP Paribas, Société Générale, Unicredit, Intesa Sapaolo, ING, Deutsche Bank, Commerzbank, Santander, BBVA, CaixaBank.

larger. For example, Fundacio la Caixa holds 57 % of Caixabank in Q4 of 2015. Some of these largest shareholders are national governments, as is the case of the German government with a stake of 16 % in Commerzbank in 2015 Q4. Finally, some of the sampled European banks, notably all Swedish banks, have *no* investor in common with the top investors in the US banks[76]. This may be explained by the presence of classes of shares with multiple voting rights (Section 2.3.5) held by strategic shareholders, who can therefore keep control of the company. This may reduce the incentive for non-local institutional investors to acquire stockholdings due to the limited weight of their voting rights. Another difference between the European and US samples is the almost complete absence of pension funds and insurance groups among the largest banks' blockholders.

Table 6: Top five investors US banks – 2015 Q4

Bank of America Corp		
Rank	Investor	Holding
1	BlackRock	6 %
2	Vanguard Group	6 %
3	State Street Global	4 %
4	Fidelity Investments	3 %
5	Royal Bank of Canada	2 %

Capital One Financial Corp		
Rank	Investor	Holding
1	Dodge & Cox	9 %
2	BlackRock	6 %
3	Vanguard Group	6 %
4	Capital World Investors	5 %
5	Fidelity Investments	5 %

Citigroup Inc		
Rank	Investor	Holding
1	BlackRock	7 %
2	Vanguard Group	6 %
3	State Street Global	4 %
4	Fidelity Investments	3 %
5	Royal Bank of Canada	2 %

JPMorgan Chase & Co		
Rank	Investor	Holding
1	BlackRock	6 %
2	Vanguard Group	6 %
3	State Street Global	4 %
4	Fidelity Investments	3 %
5	Capital World Investors	3 %

[76] Banal-Estañol, A., Seldeslachts, J., Vives, X., (2020), cited. Laeven, L., Ratnovski, L., Tong, H., (2015), cited. Newham, M., Seldeslachts J., and Banal-Estañol, A., (2018), cited.

U.S. Bancorp		
Rank	Investor	Holding
1	BlackRock	6 %
2	Vanguard Group	5 %
3	Fidelity Investments	5 %
4	Berkshire Hathaway	5 %
5	State Street Global	4 %

Wells Fargo & Co		
Rank	Investor	Holding
1	Berkshire Hathaway	9 %
2	BlackRock	5 %
3	Vanguard Group	5 %
4	State Street Global	4 %
5	Capital World Investors	3 %

3.6. Stewardship codes and voting policies of selected institutional investors in the EU banking sector

We have analysed the shareholder engagement reports of the three largest institutional investors in the sampled banks, with particular regard to their voting policies and management of conflicts of interest, as these are particularly important in a common ownership context. Overall, their engagement and voting statistics show that they vote extensively at the shareholder meetings of investee companies and they engage with the boards and at investor meetings, especially on issues such as board composition, remuneration and ESG policies. The statistics suggest that, in most cases, they vote in favour of the management proposal. In general, direct engagement with the board of directors seems the technique that is most used to resolve conflicts with the board. The 2019 engagement reports of the asset management companies we analyse below provide information about engagement policies by macro-areas, which concern governance aspects (such as board effectiveness and diversity), corporate strategy and capital allocation, executive compensation aspects, environmental risks and opportunities as well as human capital management. Occasionally, the reports are granular enough to give an insight into certain aspects, such as board diversity[77].

3.6.1. BlackRock

At the end of our sample period (2015 Q4), BlackRock was the largest institutional investor in the sample of the largest European banks, both in terms of value held (see Table 2) and of number of blockholdings (see Table 3). It has adopted engagement policies for its investments in the EU market, also taking into account engagement policy requirements under SRD II.

BlackRock's Investment Stewardship team consists of 40 professionals[78]. It acts as a central clearinghouse of BlackRock's views across the various portfolios with holdings in individual companies and aims to present a clear and consistent message on BlackRock's approach to corporate governance, including relevant environmental and social considerations.

[77] Vanguard, Investment Stewardship Annual Report, (2019). Available at: https://www.blackrock.com/corporate/literature/publication/blk-annual-stewardship-report-2019.pdf.

[78] BlackRock, Shareholder Rights Directive II - Engagement Policy. Available at: https://www.blackrock.com/corporate/literature/publication/blk-shareholder-rights-directiveii-engagement-policy.pdf.

Voting

BlackRock has included voting at the annual and special shareholder meetings of the investee companies as one of its four stewardship responsibilities. However, **in addition to voting** at the shareholders' meeting in support of or against the management, BlackRock **also uses "voice" techniques**, i.e. direct engagement with management when there are concerns in order to give the investee company time to address or **resolve the issue before it is put to a vote**. However, it is not clear which kind of concerns might give rise to such direct voicing and the impact that this would have on BlackRock's investment strategies.

BlackRock reports that the **voting analysis** is mainly carried out **internally** using voting guidelines as a benchmark against the shareholder meeting agenda.

Collective and concerted actions

According to BlackRock's SRD II engagement policies, it participates in a **number of formal coalitions, shareholder groups or initiatives**, at both international and market-specific levels. It does this to facilitate high-level communication between shareholders and companies on corporate governance, and social and environmental matters.

It also **engages on matters of public policy**, when appropriate, to help shape the policy debate and represent portfolio clients' interests. In such cases, BlackRock's Investment Stewardship team partners with BlackRock's Global Public Policy Group "to establish a BlackRock view on emerging policy issues or existing policies that are under review."

BlackRock may engage with a company in collaboration with other organisations or investors (for example, **through joint shareholder-company meetings**), when allowed by the legislation and when it considers that such collaboration will enhance the possibilities of engaging with a company or achieving the desired outcome.

Conflict of interest management

According to their engagement report, BlackRock's Investment Stewardship team maintains **policies and procedures** that seek to prevent undue influence on BlackRock's proxy voting activity. Such influence might stem from any relationship between the investee company (or any proponent or dissident shareholder) and BlackRock, BlackRock's affiliates, a fund managed by Blackrock or such fund's affiliates, or BlackRock employees.

3.6.2. NBIM

NBIM is the asset management unit of the Norwegian Central Bank (Norges Bank). It manages the Norwegian Government Pension Fund Global. The fund is currently one of the world's largest funds, owning almost 1.5 % of all shares in the world's listed companies, with holdings in around 9 000 companies worldwide.

The Norwegian Parliament and the Ministry of Finance have laid down rules for the management of the fund and delegated responsibility for its management to Norges Bank. The Ministry of Finance has set up an independent Council on Ethics to perform ethical evaluations of companies. The Council on Ethics sends its recommendations to Norges Bank's Executive Board, which then makes the final decision on exclusion, observation or active ownership[79].

[79] Norges Bank Investment Management (NBIM), more information available at: https://www.nbim.no/en/the-fund/about-the-fund/.

Voting

NBIM **votes to enhance the fund's long-term interests**. Accordingly, the fund votes based on a series of principles designed to maximise the long-term performance of its investments. NBIM bases its voting decisions on internationally recognised standards, such as the G20/OECD Principles of Corporate Governance, UN Global Compact, UN Guiding Principles on Business and Human Rights, and the OECD Guidelines for Multinational Enterprises.

According to its 2019 Investment Report[80], NBIM **voted at 97.8 % of shareholder meetings** in 2019. **Reasons for not voting** related to situations where voting would lead to share blocking, thereby restricting the ability of the fund to trade, or due to other market practices that make it difficult to exercise voting rights. When **proxies** are used, NBIM has an online platform where an external service provider brings together all necessary information about upcoming shareholder meetings, and all the items to be voted on, the board's position on these items, and the relevant deadlines.

The **voting decisions are published** on NBIM's website one day after a general meeting has concluded. In certain cases, voting intentions may be published ahead of general meetings for a selected number of companies, and for certain fundamental issues that it wishes to emphasise.

Collective and concerted actions

According to the 2019 Investment Report[81], NBIM meets with board members, senior management and specialists at companies in the portfolio. As a large and long-term investor, it communicates regularly with the boards of largest companies.

In 2019, the focus of shareholder resolutions was on corporate governance matters (on issues such as board accountability and effectiveness, for example, the right to propose competing board candidates, or calls for independent chairperson, executive remuneration and shareholder rights, such as the right to call extraordinary shareholder meetings) as well as sustainability matters, . In 2019, NBIM voted in line with the board's recommendation in 94.8 % of the cases and in 70.9 % of the shareholders' meetings, on par with 2018. According to the report, NBIM uses the **extraordinary shareholders' meeting** to press for corporate changes and it works towards reducing the threshold for minority shareholders to call for extraordinary meetings.

3.6.3. Vanguard

Vanguard is one of the world's largest investment management companies. It has a mutual fund structure. Vanguard funds own the management company known as Vanguard. Under its agreement with the funds, Vanguard must operate "at-cost"; it can charge the funds only enough to cover its cost of operations. It focuses on long-term investments which generate returns. Keeping costs low contributes to this.

Vanguard owns shares in more than 1 500 companies in Europe. At the end of our sample period (2015 Q4), Vanguard was also the second largest institutional investor in the sample of European banks, in terms of blockholdings (See Table 3) and it also was the third largest in terms of value of assets held (see Table 2). In order to improve its engagement and stewardship in Europe, Vanguard launched a Europe-focused Investment stewardship team in its London office in 2018.

80 Norges Bank Investment Management, Responsible Investment, (2019). Available at: https://www.nbim.no/contentassets/aaa1c4c4557e4619bd8345db022e981e/spu_responsible-investments-2019_web.pdf.

81 Ibid.

Voting

In the US, **voting is centralised** within a specific company within the group. In particular, **proxy** voting on behalf of all of Vanguard's index and active funds is **administered centrally** by Vanguard's Investment Stewardship team[82]. For externally managed funds, in the first half of 2019, Vanguard gave full proxy voting privileges to the funds' external managers, with stewardship on a fund-by-fund basis.

For proxy voting and stewardship, it adopted **Proxy Voting Procedures and Guidelines**. The main objective taken into account when voting is to support proposals and director nominees that maximise the value of a fund's investments, and those of fund shareholders over the long term.

Collective and concerted actions

In 2019, in Europe[83], Vanguard reported engagement with more than 140 European companies. Those engagements represented 47 % of the total European equity assets under management. It reports **engagement with companies' boards** to discuss strategies and risks, but also voicing their position in roundtables and conferences.

According to a 2016 policy statement[84], Vanguard proactively seeks input on stewardship matters from relevant stakeholders including other investors, academics and non-governmental organisations.

Conflict of interest management

In order to avoid and manage potential conflicts of interest, Vanguard has set out **policies** to address conflicts of interest in proxy voting and corporate governance.

In particular, a **separation of proxy voting and client functions**, and the use of documented **guidelines**, is intended to eliminate potential conflicts in the proxy voting process. A **Proxy Oversight Committee** has been created which does not include anyone whose primary duties include external client relationship management or sales.

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82 Vanguard, Investment Stewardship Annual Report, (2019), cited.

83 Ibid.

84 Vanguard Asset Management, Limited and Vanguard Investments UK, Limited Stewardship Policy, (2016). Available at: https://global.vanguard.com/documents/stewardship-policy.pdf.

4. COMPETITION LAW CHALLENGES

KEY FINDINGS

- Institutional investors' ownership of shares in competing firms has prompted recent law and economics scholarship, mostly in the US, to investigate, both from a theoretical standpoint and at an empirical level, whether common ownership has anticompetitive effects and, in the affirmative, what these effects are. The debate among regulators on the two sides of the Atlantic on the scope and extent of such effects, as well as how current competition laws could tackle them (or whether such laws should be amended) is still in its infancy.

- Some authors are of the view that, since common owners' interests in competing firms differ from the interests of an owner in a single firm, the current antitrust toolbox – created to address the latter scenario – does not provide an exhaustive conceptual framework for capturing how these interests may influence competition, including anticompetitive effects. Other authors argue, on the contrary, that there is no proof of causation between common ownership and anticompetitive effects and that, until such proof is provided, the current antitrust laws are best suited to also deal with this ownership phenomenon.

- There is as yet no consensus on whether and, in the affirmative, how common ownership negatively impacts competition. There are two main theories of harm that the empirical and theoretical literature has put forward in the context of common ownership. They both borrow from merger control.

- Potential anticompetitive effects can present themselves in the form of unilateral effects (i.e. arise from the individual conduct of the commonly owned firms). Under such a theory, by virtue of their simultaneous holdings in competitors' shares, common shareholders, unlike a single owner, have an interest in the profits of competitor firms whose shares they own. This may, from a portfolio standpoint, give them an incentive to prompt the management of these rival firms to engage in less vigorous competition in the relevant market. The proponents of the unilateral effects' theory argue that, by the very structure of the common shareholdings, common owners would also have the ability to influence the management of commonly owned firms to compete less with one another (e.g. by raising prices or negatively impacting other parameters of competition, such as quality or innovation) than would be the case under a single firm owner scenario. In addition, commonly owned firms' management would be receptive to such common shareholders' influence. Various corporate governance mechanisms could be the channels through which such influence is exercised.

- Other possible effects concern coordination among commonly owned firms to the detriment of competition, which may increase when such firms display a common ownership pattern. The theory of harm is that common ownership increases the potential for collusion among common owners, managements of commonly owned firms, or both. Most of the literature on this comes from scholarship which analyses partial cross-ownership. Under this theory of harm, explicit collusion would become more likely, since common owners would have incentives to act as a conduit for commonly owned firms to influence managers of firms they own to raise prices ("common owners as a ringleader" theory of harm). In addition, common ownership can foster tacit collusion among common owners because it can align the incentives of competitors to run a stable cartel. This, in turn, can make explicit collusion more successful. While the scholarship is not conclusive as to when such behaviour by common owners and commonly owned firms' management violates Articles 101(1) TFEU (either as an "agreement" or as a "concerted practice"), the potential effect of common ownership on the attractiveness of engaging in explicit collusion may be a concern. This said, the scholarship disagrees on whether common owners have incentives or not to render collusion sustainable. In particular, it is not obvious to what extent insights from the cross-ownership literature transpose to common ownership structures. In addition, the conduits through which tacit collusion could, under certain circumstances, concretely lead to a finding of concerted practice under Article 101 TFEU being made are currently under-researched as well.

- In the context of EU merger control, the Commission held the view that common shareholdings should be taken into account as an element of context in the appreciation of any significant impediment to effective competition. While decisional practice shows that the Commission has not used common ownership as an independent theory of harm under either Articles 101 or 102 TFEU, post-acquisition, these two TFEU provisions remain applicable, if, as will be seen in more detail below, the conditions for applying them are met.

- This study does not purport to research any causation mechanism between common ownership in the EU banking sector and anticompetitive effects. We do not conclude, in our analysis, that there is a positive correlation between the common ownership pattern identified in the previous chapters, and lessened competition. Neither do we conclude that there is a negative correlation. The current Section merely seeks to summarise the state of play which could trigger future research.

- Given the state of play, there is no agreement on whether common ownership fosters or hinders competition. More research is needed to understand this. We therefore caution that, unless there is evidence that common ownership does indeed negatively impacts competition in the EU banking sector, amending the current competition law toolbox to address any as yet unproven competition law concerns about such a phenomenon could be premature. Indeed, common ownership also has positive effects on competition, as well as on other parameters, such as the stability of the financial sector, and the facilitation of individuals' savings. Any such positive effects should be weighed against possible competition law concerns.

An empirical and theoretical debate as to what effects common ownership has on competition has over the last few years attracted the attention of competition regulators, as well as competition law and economic practitioners, and the broad institutional investor community on both sides of the Atlantic. While the debate is still in its infancy, it has already led to a lively discussion in the corporate governance and competition communities on the potential of common ownership to create anticompetitive effects.

In the EU, the European Commission has thus far not investigated common ownership theories of harm on a standalone basis and outside the context of merger control. In **the context of EU merger control** rules, in the *Dow/DuPont* and *Bayer/Monsanto* decisions, it held the view that common shareholdings should be taken into account as an "element of context in the appreciation of any significant impediment to effective competition…"[85]. It also shed light on the possible means by which management could be influenced by common owners and discussed at length that, in the specific circumstances of those cases, common ownership could diminish incentives to innovate for the commonly owned firms involved.

In addition, as indicated in Section 1, in 2018 Commissioner for Competition, Margarethe Vestager, confirmed that the Commission is taking a closer look at the effects of common ownership on competition. Moreover, also in 2018, the European Parliament expressed concerns about the anti-competitive effects of common ownership by large institutional investors and asked the Commission

[85] European Commission, case M.7932, Dow/DuPont, Annex 5, paragraph 81. Commission, Case M.8084, Bayer/Monsanto.

to draw up a report, to be presented to Parliament, on the effects of common ownership on European markets, particularly on prices and innovation[86]. The US could not remain immune to the common ownership debate either, since most of the literature is US-focused, and US regulators are also attempting to understand the implications of the increase in common ownership for competition in the current economy[87].

In the US, two empirical economic studies sparked a debate on the potential anticompetitive effects of common ownership. In one paper, centred on evidence from the US airline market, scholars showed that there was a statistically significant increase in the retail price level when the levels of common ownership increased[88]. In another paper, focused on the US banking sector, scholars concluded that interest rates and fees for banking deposit services were higher when the pattern of common ownership was present[89]. However, no conclusion was drawn in either of the papers as to whether there was causation (i.e. that common ownership was the cause of such increases in retail prices).

Prompted by those empirical papers, legal corporate governance and competition law scholarship, mostly in the US, has analysed the potential competition issues associated with common shareholdings. This literature has also identified procompetitive effects from common ownership.

In a nutshell, this scholarship has identified **two types of potential anticompetitive effect**: unilateral and coordinated effects. **Unilateral effects theory of harm** deals with the possible anticompetitive behaviour of a single undertaking. The theory borrows from the analysis of competitive effects in merger control[90]. According to this theory, rival companies with common shareholders would have an incentive to compete less with one another since their common owners would have both the ability and the incentives to induce them to do so, as this would maximise the value of the common shareholders' portfolios[91]. This theory adds that the management of commonly owned firms would be receptive to such influencing.

Coordinated effects occur when, in the presence of given market conditions (e.g. market transparency, product homogeneity, etc.), the merger or acquisition increases the probability that, post-transaction, merging parties and their competitors, or the acquirer and its competitors may successfully be able to coordinate their behaviour in an anticompetitive way, for example, by raising prices. According to the theory of coordinated effects, common ownership could increase the potential for collusion among common owners or the managements of commonly owned firms, or both. Such collusion need not consist of an agreement caught by the scope of Article 101 TFEU, for even indirect contact among competitors (without the need for any direct communication) could be sufficient to constitute a concerted practice under such Treaty provision.

Both theories have been amply criticised in the law and corporate governance literature. Thus, there is no consensus so far among scholars either on the circumstances in which, and the extent to which,

86 European Parliament resolution of 19 April 2018 on the Annual Report on Competition Policy, P8_TA(2018)0187.

87 DOJ Press-Release, assistant Attorney General Makan Delrahim Delivers Remarks at Fordham University School of Law, New York, NY, May 1, 2019. Available at: https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-new-york-university-school-law. Speech by FTC Commissioner Noah Joshua Phillips, FTC Hearings on competition and consumer protection in the 21st Century, Corporate Governance, Institutional Investors, and Common Ownership, a joint FTC-NYU event, NY, December 2018. Available at: https://www.ftc.gov/public-statements/2018/12/opening-remarks-commissioner-noah-joshua-phillips-ftc-hearing-8.

88 Azar *et al*, (2018), cited.

89 Azar, Raina *et al*, (2016), cited.

90 European Commission, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ C 31, 5.2.2004, p. 5–18. In the US, US Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines (hereinafter "HMG"), issued August 19, 2010, at Section 6.

91 Posner, E.A., Scott Morton, F.M. and Weyl, E. G., (2017), 'A Proposal to Limit the Anti-Competitive Power of Institutional Investors', *Antitrust Law Journal*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2872754.

such anticompetitive effects exist, nor on the scope and magnitude of the potential concerns. First, it is not clear from the literature how shareholdings translate into action and influence upon management. In addition, given differences in the type of investor, it could very well be that these holdings enter the objective functions [92] of the firm in different ways, depending on the investor type. Therefore, while in some cases of common ownership collusion is plausible, collusion may also arise in other cases which do not involve common ownership.

Law and economics scholarship have also investigated how existing competition law tools apply to any such concerns and whether the common ownership phenomenon warrants any adjustments to the current competition law toolbox. There is no consensus either on what, if anything, EU (and US) competition law and the authorities tasked with enforcement should do about this.

Against this background, this Section is structured as follows: first, we analyse the literature highlighting the potential pro-competitive effects of common ownership (Section 4.1). Subsequently, we address the possible anticompetitive effects of common ownership (Section 4.2), and in particular unilateral effects (Sections 4.2.1 and 4.2.2) and the competition laws applicable to them (Section 4.2.3). We then tackle coordinated effects (Section 4.3), both with respect to the law and economic literature (Sections 4.3.1 to 4.3.4) and the laws applicable to them (Section 4.3.5).

4.1. Pro-competitive effects of common ownership

Common ownership can bring about several positive effects on competition. Some of these effects do not concern competition as such but the real economy at large. For the purposes of this study, we shall regard both as "efficiencies".

We cluster the main pro-competitive effects of common ownership in the financial sector, in particular, and of institutional investors, in general, by the level of the economy at which they manifest themselves: one such effect is at macro level, where common ownership helps achieve the stability of the financial system, for example, during a liquidity crisis, as well as allows equity markets to thrive. Another positive effect concerns improved corporate governance: it is said that institutional investors help oversee management more effectively than dispersed owners who have few incentives to exercise such oversight. The other procompetitive effect is at micro level, and relates to the benefits to individuals who invest in passive index funds. They ultimately also benefit from the lower transaction costs from the economies of experience of specialised asset managers and the diversification effects that the passive index funds achieve.

One macro level benefit, in particular, relates to the circumstance that institutional investors' presence increases liquidity in equity markets. Indeed, "capital markets could benefit from the liquidity provided by frequent institutional investor transactions (e.g. portfolio rebalancing transactions conducted by index funds to ensure they track their target index)" [93]. Another positive effect is on the financial stability of the financial system as a whole. The doctrine has observed that overlapping financial investor ownership positively impacts the stability of financial markets [94]. According to the OECD, "financial stability concerns may in fact produce an increase in common ownership, and therefore be at odds with a competition perspective. In particular, policymakers seeking to avoid bank failures in times of crisis could call on institutional investors to provide emergency capital, and may therefore be less likely

[92] An objective function is an equation specifying which output the firm attempts to maximise, with which variables and under which constraints.

[93] OECD, Background Note on Common Ownership (2017), cited.

[94] Baker, J.B., (2016), 'Overlapping Financial Investor Ownership, Market Power, and Antitrust Enforcement: My Qualified Agreement with Professor Elhauge', *129 Harvard Law Review Forum 212*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2746874.

to promote competition policy measures regarding common ownership when experiencing systemic threats…" and "from a financial stability perspective, procompetitive common ownership measures could in theory reduce risk exposure (…)"[95]. The capital raised in times of liquidity crisis is an example of how the presence of institutional investors can positively impact the stability of the financial system.

In addition, at a macro level, this ownership pattern can also yield more effective corporate governance insofar as these shareholders may have a greater incentive to oversee management compared to a dispersed ownership scenario. As seen in previous Sections, passive index funds are long-term shareholders of the companies in the index. These funds can reduce volatility while increasing transparency and added-value information for other investors. Some empirical work has found that higher institutional investors' ownership facilitates information production, as it "is associated with greater management disclosure", lower trading costs and "higher liquidity, resulting in lower information asymmetry"[96]. The facilitation of information production could lead to better corporate governance than would otherwise be the case. In particular, it may help diminish the agency costs associated with the separation of ownership and control, where firm managements act in a self-interested fashion[97]. Scholars are of the view that "index fund investors are uniquely concerned with long-term, sustainable economic growth and stability, and they are likely to be more representative of the average American investor than many other financial industry players, such as hedge funds"[98]. Thus, index funds align their interests with their ultimate beneficiaries, i.e. final investors.

In addition, one of the benefits of common ownership by passive investment funds is the diversification and liquidity of portfolios[99]. These benefits increase competition between funds in attracting new clients and investors. Indeed, "overlapping financial investor ownership improves the functioning of capital markets and encourages investment by making diversification less difficult or less expensive for investors[100]".

Scholars also point to the benefits of the low-cost diversification that the emergence of passive index funds has brought about for households that seek to invest, for example for pension purposes. A shift from the direct ownership of stocks to investment in funds has allowed investors to diversify their risks and benefit from the services of professional portfolio managers[101]. From a micro-economic standpoint, this positively impacts the individuals who ultimately invest in these funds. The rise of institutional investors has benefited citizens, who can place their savings in these investment funds at lower transaction costs, and benefit from the economy of experience that asset managers have displayed.

Evidence of potential pro-competitive effects from common ownership by institutional investors also comes from the, economic scholarship, which finds that commonly owned firms experience higher market share growth as a result of product market cooperation between firms[102]. In the view of these scholars, common ownership by institutional investors increases phenomena such as "within-industry

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95 OECD, Background Note on Common Ownership (2017), cited. The OECD Background Note, however, points out that the risk of contagion among financial institutions is higher with a common ownership pattern.

96 Boone, A. and White, J., (2015), 'The Effect of Institutional Ownership on Firm Transparency and Information Production', *117 Journal Finance Economics 508*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2528891.

97 Baker (2016), cited.

98 Griffin C., (2019), 'We Three Kings: Disintermediating Voting at the Index Fund Giants', *Maryland Law Review*, Forthcoming. Available at SSRN: https://ssrn.com/abstract=3365222.

99 Ibid.

100 Baker (2016), cited.

101 OECD, Background Note on Common Ownership (2017), cited.

102 He, J. and Huang, J. (2016), 'Product Market Competition in a World of Cross-Ownership: Evidence from Institutional Blockholdings', *Review of Financial Studies* No. 30, p. 2674–2718. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2380426.

joint ventures, strategic alliances, or within-industry acquisitions, and improves innovation productivity and operating profitability." Similarly, other empirical work finds that institutional investor ownership positively affects the spread of innovation. They find a "higher intensity of patent citations among firms that share institutional owners"[103]. This may well be more relevant in sectors which are more research and development intensive than it is the banking sector.

4.2. Potential anti-competitive effects of common ownership: unilateral effects' theory of harm

This Section analyses the theoretical literature which assesses whether common ownership may facilitate decreased competition in the relevant market as a result of the own behaviour of the commonly owned firms. These effects are labelled in merger control theory as "unilateral effects".

One group of US law and economics scholars argues that:

(a) empirical[104] and theoretical[105] work shows that common ownership does influence corporate behaviour. Such influence occurs by the very nature of the shareholdings, without the common owners needing to engage in certain action for this influence to be unleashed;

(b) certain mechanisms of corporate governance influence commonly owned firms' management to further the common owners' interests by means of their own firm's behaviour to the detriment of other shareholders ("**unilateral effects**")[106]; and

(c) as a result, competition law should already intervene without awaiting conclusive proof as to the causal mechanisms by which common shareholders influence corporate behaviour[107].

Another group of empirical[108] and theoretical[109] work observes that:

(a) common owners' incentives are not the same, and;

(b) neither are the means by which they influence the management of firms. For instance, a passive index fund does not have similar objectives to a hedge fund. There are several business models for common owners: some are the ultimate owners of shares, such as Berkshire Hathaway, while others, like Vanguard or Fidelity, are asset managers, i.e. they manage shares ultimately owned by clients on clients' behalf[110]. Those who are sceptical of the unilateral effects' theory of harm argue that it is questionable whether asset managers have incentives to push rival firms to compete less: indeed, asset managers earn a percentage fee upon the assets they manage (so a decrease in competition of any rival firm would negatively impact these common owners' fees). In addition,

103 Kostovetsky, L. and Manconi, A. (2018), 'Common Institutional Ownership and Diffusion of Innovation'. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2896372.

104 Azar, Raina *et al* (2016), Azar *et al* (2018), cited.

105 Elhauge, E. R., (2019), 'The Causal Mechanisms of Horizontal Shareholding', *Ohio State Law Journal*, Forthcoming. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3370675 (hereinafter 'Elhauge, Causal Mechanisms (2019)'). Elhauge, E.R., (2019), 'How Horizontal Shareholding Harms Our Economy And Why Antitrust Law Can Fix It', *Harvard Business Law Review*, Forthcoming. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3293822 (hereinafter 'Elhauge, (2019)'). Posner, E. A., Scott Morton, F.M. and Weyl, E. G., (2017), cited. Scott Morton, F. M. and Hovenkamp, H., (2018), 'Horizontal Shareholding and Antitrust Policy', *Yale Law Journal*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2872754.

106 Elhauge, Casual mechanisms (2019), cited. Elhauge, (2019), cited.

107 Elhauge, Casual mechanisms (2019), cited. Elhauge, (2019), cited. Posner, E. A., Scott Morton, F. M. and Weyl, E. G., (2017), cited. Scott Morton, F. M. and Hovenkamp, H., (2018), cited.

108 Gramlich, J. and Grundl, S., (2017), 'Testing for Competitive Effects of Common Ownership, Finance and Economics Discussion', *Series 2017-029*. Available at: https://www.federalreserve.gov/econres/feds/files/2017029pap.pdf.

109 Hemphill, C. S. and Kahan, M. (2019), cited. Patel, M., (2019), 'Common Ownership and Antitrust: Eight Critical Points to Guide Antitrust Policy', *Antitrust Chronicle*. Available at: SSRN https://ssrn.com/abstract=3377720.

110 Gramlich, J. and Grundl, S., (2017), cited.

scholarship also opines that management of commonly owned firms also faces legal risks in terms of violation of duties to act in the best interest of all shareholders[111]. As a result, this scholarship:

(c) cautions against amending EU competition laws as they now stand, prior to conclusive proof of competitive harm of common ownership.

Specifically, this Section will look at the conditions under which the unilateral effects' theory of harm literature predicts that common owners have both:

(a) the incentives to influence management of commonly owned firms to engage in less competition than would prevail if owners were separate; and

(b) the ability to do so.

It will also look at what management's incentives are to accommodate (or not) such potential influencing. In addition, it will touch upon the corporate governance tools through which they could materialise. It will also, after explaining what the unilateral effects may be, look at whether the current EU competition tools as they now stand can address them and what these potential EU competition law tools are, both within the remit of merger control law (which is where they originate) and elsewhere.

Since the theoretical and empirical literature on unilateral and coordinated effects of common ownership is still in the early stages of development, as is the legal scholarship on the EU competition law tools applicable, we caution against premature conclusions and instead advocate further research.

As has been discussed previously, in the US, the Azar, Raina *et al* 2016 paper and the Azar *et al* 2018 paper empirically prompted the concern that common owners may influence management of commonly owned firms to compete less with rivals. The gist of the argument is that a unilateral price increase by any of the commonly owned firms would yield profits to all horizontal common owners. The fundamental reasoning is that, with separate ownership, each corporation's objective is to maximise its own profits. However, the presence of common shareholders taints the corporation's goal of single firm profit maximisation. More specifically, under the unilateral effects theory of harm, institutional investors who hold small shareholdings in the same rival companies could earn more in the long run if companies whose shares they own competed less aggressively with one another[112]. The company's manager would maximise the "weighted sum of shareholders' portfolios, which, for a particular shareholder, is assumed to equal the sum of the profits the shareholder obtains from all firms in the relevant market"[113]. The argument is as follows: the companies' managers will have incentives to compete less vigorously than if there were no common ownership, because the portfolios of some shareholders at least will include interests in rival companies. Therefore, some of the profits lost by the company from its diminished competition will be returned back to their company's shareholders through their ownership in rival companies[114].

In addition, the proponents of this theory take the view that, since common owners make use of corporate governance mechanisms which impact managerial conduct, they also have the ability to shape management's incentives to engage effectively in such anticompetitive effects over and above the incentives inherent in their holdings. Common ownership is said then to have the potential to

[111] Hemphill, C. S. and Kahan, M. (2019), cited.

[112] O'Brien, D. and. Salop, S., (2000), 'Competitive Effects of Partial Ownership: Financial Interest and Corporate Control', *Antitrust Law Journal*, Vol. 67. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=192629. OECD, Background Note on Common Ownership (2017), cited.

[113] Patel, M., (2019), cited.

[114] Ibid.

generate unilateral anticompetitive effects through price increases or to impact the incentives for firm's management to innovate less, hence decreasing product quality or innovation [115]. Such price increases or deteriorated parameters of competition would, in other words, offset the loss of profit due to the drop in demand from the diversion of customers[116].

To understand why this is so, it is necessary to look at the theory of partial ownership in the pioneering work of O'Brien and Salop a few decades ago. These scholars, drawing also on some earlier scholarship, looked into how firms make decisions when owners have divergent interests ("partial ownership theory") [117]. They argued that the competitive effects of partial ownership[118] critically depend on two separate and distinct elements: financial interest and corporate control.

They distinguish between three hypotheses:

(a) sole proprietorship (where a single shareholder has both a financial interest in the company and corporate control);

(b) a situation where there is, for example, a partnership (with two or more stakeholders having shares in the company, and one of them exercising control); and

(c) a situation of dispersed ownership of financial interests with no majority shareholder (where minority shareholders may jointly have control – albeit not in the EU competition law sense – disproportionate to their financial stake in the company, including as a result of their ability to form voting coalitions).

In the third scenario, the unilateral effects' theory suggests that the commonly owned firm's management may have incentives to benefit the interests of common owners, at the expense of other owners of the firm. From an empirical standpoint, Azar *et al* took the reasoning further.

4.2.1. Market structure considerations

That said, this scholarship focuses on a model where a specific type of competition prevails. Indeed, the model underpinning this theory applies to imperfect competition *à la* Cournot, i.e. an oligopoly market structure, with firms selling a homogenous product and competing on quantity (rather than on price), whereby each of them sets quantity independently and the price is then driven by industry output and demand. In the Cournot model, firms choose simultaneously and independently. Only when products are homogenous do the firms make a positive economic profit in a competitive oligopoly equilibrium. In the event of deviation (from a potentially collusive outcome), each firm believes that its rivals will not change their output if the firm changes its output unilaterally – which is correct in equilibrium. The model typically applies when firms set capacities. The market structure and number of competitors are typically assumed to be fixed, which would be the case if barriers to entry were sufficiently high.

In this scholarship's view, the traditional index (HHI) used in merger control to gauge whether concentration may lead to price increases after a merger is not well suited to capturing the effective

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115 German Monopolies Commission, (2018), cited.

116 OECD, Background Note (2017), para 33.

117 O'Brien, D. and. Salop, S., (2000), cited. This became the first scholarship to provide the theoretical foundations of what later became the unilateral effects theory. For a better overview, Schmalz, M. (2018). Common ownership: theory, mechanisms, empirics and policy EAGCP Plenary.

118 Theirs is called "the theory of partial ownership" and it *"examines the roles of financial interests and corporate control by shareholders in determining a firm's pricing incentives. Partial ownership in that paper… encompasses "common ownership" where –or more firms have a common owner that partially owns each of them."* O'Brien, D. P., (2017) 'The Competitive Effects of Common Ownership: Ten Points on the Current State of Play', OECD, DAF/COMP (2017)10. Available at: https://one.oecd.org/document/DAF/COMP/WD(2017)97/en/pdf. OECD, Background Note on Common Ownership (2017), cited.

market power firms have in the presence of partial and/or common ownership scenarios. Instead, a modified index (MHHI) would be best suited to capturing the features of corporate control since it factors the partial ownership interests into the analysis [119]. The O'Brien and Salop MHHI is in later work referred to by the Azar *et al* literature as a potential benchmark to measure market power. This means that a higher MHHI would not gauge competitive harm but could be a *prima facie* benchmark for carrying out closer scrutiny on what effects common ownership has in a given market structure.

Beyond the MHHI, when it comes to competitive harm, the model theorised by O'Brien and Salop predicts that, when the same investors each hold shares in one or more of the competing firms in the relevant market, each competing firm's management would maximise the weighted sum of the common shareholders' portfolios (i.e. the sum of all the profits the shareholder obtains from all firms whose shares they own) by competing less vigorously. According to this argument, the common ownership structure would in itself lead to common owners having major incentives not to seek to influence the management of commonly owned firms to engage in vigorous competition (without necessarily doing something to actively influence management to compete less), since any such competition would adversely affect their portfolios. In addition, common owners would have the ability to prompt management to compete less by deploying several corporate governance means of influencing management even in the absence of a controlling stake in the company. The models that suggest that there are unilateral incentives to increase prices or engage in acting on other parameters of competition are, therefore, based on the assumption that an oligopoly structure prevails. For unilateral effects to be a theoretical possibility, the market example is an "oligopolistic market in which an institutional investor holds a minority of all or most firms" [120]. This assumption underpins the theoretical literature that was taken into consideration by the OECD when examining the unilateral effects theory of harm. The literature on common ownership finds that the anticompetitive effects of common ownership in oligopolistic markets might have the following results: (1) prices may be higher, (2) collusion may be more likely and (3) management incentives may be oriented towards industry performance and not firm performance.

It is doubtful that the Azar *et al* assumptions apply directly in the current EU banking market structure. Arguably, many banking product markets may not have binding capacity constraints, so that competition is of a Bertrand-type, on prices, rather than an oligopoly à la Cournot. While this need not matter fundamentally for the type of arguments made in the scholarship reviewed above, in particular not when there is sufficient product differentiation between a limited number of larger banks, price competition can result in findings that are orthogonal to quantity competition.

Second, barriers to entry also need to be looked at. Barriers to entry in financial services' markets importantly include regulatory requirements (such as authorisation laws, capital requirements, access to financing, regulatory compliance, security concerns). While there appear to be nationally delineated markets with high barriers to entry in banking services in many Member States, there are arguably competitive forces and more market integration on the horizon. From a dynamic viewpoint, the impact of fintech on traditional banking could also impact entry barriers. Some authors consider that it is not necessarily certain that the advent of fintech [121] and digitisation of the banking sector will lower barriers to entry in the future compared to the case only few years ago [122].

[119] O'Brien, D. P. (2017), cited.

[120] OECD, Background Note on Common Ownership (2017), cited.

[121] Carmona, A. F., Lombardo, A. G., Rivera Pastor, R., Tarín Quirós, C., Villar García, J. P., Ramos Muñoz, D. and Castejón Martín, L., *Competition issues in the Area of Financial Technology (FinTech)*, Study for the Committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg, 2018. Available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2018/619027/IPOL_STU(2018)619027_EN.pdf.

[122] Ibid.

Fintech is the use of innovative information and automation technology in financial services. The FSB defines it as "technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services." It encompasses, *inter alia*, innovations in payment systems (including for example, cryptocurrencies), credit markets (including P2P lending) and insurance, with blockchain-assisted smart contracts playing an important enabler role in the uptake of such business models[123].

Over the last few years, cross-border financing of fintech has skyrocketed on the two sides of the Atlantic[124]. Some authors consider its role disruptive of the banking business model. For example, a recent study carried out for the European Parliament argues that fintech "has an important potential to disrupt markets [...] by lowering barriers of entry"[125]. By looking at the inter-relationship between incumbent banks and new players in the US, some economists argue that, empirically, that if P2P lenders were to be perceived by banks as serious competitive threats, taking away some of their market share, then banks would invest more in relationship lending"[126]. Other authors are more sceptical and consider true disruption to be linked to the full-scale entry of top digital internet companies into payment services[127]. Some economists have focused on the strategies of the incumbents, which may also entail anticompetitive behaviour on the side of incumbents to fend off competition from fintech[128].

To conclude, while some argue that the uptake of fintech may spur competition in banking, this is uncertain and there is no definitive answer yet as to whether it lowers banking entry barriers, since much will depend on how competition between traditional banks and fintech players plays out. Models of oligopolistic banking competition appear to remain valid for all policy prediction purposes, yet may be more suitable when of the Bertrand-price competition type. More research into common ownership effects in such settings is called for[129].

4.2.2. Common owners' incentives and ability to influence management and managerial incentives to further common owners' interests

The theory under which common ownership could give rise to unilateral effects assumes the following:

(a) Common owners have incentives to drive managers into competing less. Common owners would all benefit from such lesser competition despite them themselves having different business models (e.g. some may be owners of their shares, others may just manage them), and different portfolios, since for all of them the costs of such effects would be lower than the benefits they capture.

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123 Thakor, A., (2019), 'Fintech and Banking', *Journal of finance intermediation*. Available at: https://clsbluesky.law.columbia.edu/2019/08/14/fintech-and-banking/.

124 Cardenas, J., (2019), *Cross-Border Financing of FinTech: A Comparison of Venture and Growth Fintech Financing Trends in Europe and the United States*, The International Comparative Legal Guide [ICLG] to: Fintech 2019, 3rd ed., London: Global Legal Group [GLG] Ltd., chapter 2, pages 7-13.

125 Carmona, A.F., Lombardo, A.G., Rivera Pastor, R., Tarín Quirós, C., Villar García, J. P., Ramos Muñoz, D. and Castejón Martín, L., (2018) Study for the European Parliament, Competition issues in the Area of Financial Technology (FinTech). Available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2018/619027/IPOL_STU(2018)619027_EN.pdf.

126 Thakor (2019), cited.

127 Vives, X., (2017), 'The Impact of Fintech on Banking', *European Economy, Banks, Regulation, and the Real Sector*. Available at: https://european-economy.eu/2017-2/the-impact-of-fintech-on-banking/.

128 Schinkel, M. P., (2018), 'Foreclosure of FinTech? A Competition Law Perspective', Discussion at Competition Workshop, Competition Workshop, "FinTech and Competition in the Financial Sector" February 28th 2018, CPB, The Hague. Available at: https://www.cpb.nl/sites/default/files/omnidownload/FintechSchinkeldiscussionACMstudy.pdf.

129 Partial ownership in the spirit of O'Brien and Salop and in the context of unilateral effects analysis for merger control in both Cournot and Bertrand competition is studied in Goppelsroeder, M., Schinkel, M.P. and Tuinstra, J., (2008), 'Quantifying the Scope for Efficiency Defense in Merger Control: The Werden-Froeb-Index', *Journal of Industrial Economics*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=916556.

(b) Common owners would not only have the incentives, but also the means and ability to influence management to engage in sub-par competition. These means are closely linked to them engaging with management of commonly owned firms and are said to be of three types: voting and voice, executive compensation, and exit (the threat by common owners of selling their shares).

(c) Management of commonly owned firms would have incentives to further the interest of common owners at the expense of non-common owners: in a cost versus benefit analysis, common owners' interest would trump the other owners' interest from the management's standpoint. Management would also be receptive to the ability of common owners to exercise influence upon them.

We shall look at those assumptions in turn, pointing out relevant empirical and theoretical literature that has questioned each of them.

a. Assumption: common owners' incentives to drive managers into competing less

In this Section, we look at the decision-making on the part of common owners, including their incentives, given their varied business models, to abstain from driving commonly owed companies' management to compete more, without this necessarily requiring them to engage themselves in any specific anticompetitive action.

The incentives for common owners not to influence management to compete more vigorously are said to be structural. This would not be the case if they were single owners. For example, Elhauge takes the view that common shareholdings incentivise common investors to "expend less effort on encouraging greater competition or cost reductions than they would have exerted if they invested in only one of the competing corporations"[130]. This, in turn, assumes that doing so would, from their viewpoint, be portfolio-enhancing: namely, the returns to them in terms of profit maximisation of their overall portfolio value offset the costs of one single firm's reduction in demand due to such diminished competition. According to Elhauge, there are no costs for common shareholders in not doing anything to push management to compete more aggressively, since the "incremental costs of lessening competition are generally zero or negative"[131]. According to him, index funds have "ample incentives to engage in costless activity of exercising their votes and influence in ways that favour less competitive managers" but also weaker incentives to press corporations to compete more vigorously. These incentives are said to be exacerbated by the presence of proxy advisors. In the view of the proponents of the unilateral effects' theory of harm scholarship, hence, the concentration of voting rights, and potential conflicts of interest, associated with institutional investors employing proxy advisory firms to analyse shareholder voting decisions could cause concern from a competition law standpoint[132].

However, the theory that the growing importance of institutional investors (such as passive index funds) leads managers of firms showing a common ownership pattern to compete less is questioned by other researchers[133]. What exactly happens when common shareholders have diverging incentives vis-à-vis non-common shareholders (who may well be single owners), or even when common owners have different objectives between them, because they have different portfolios or business models, is not predicated by the unilateral effects theory proponents. Such proponents assume that all common owners are alike and that common owners' interests are the same across the holdings.

[130] Elhauge, Casual mechanisms, (2019), cited, page 40.

[131] Elhauge, Casual mechanisms, (2019), cited, page 39.

[132] Muraca, J., Freeman, A., (2017), 'Regulation of Proxy Advisory Firms'. Available at: https://www.kwm.com/en/au/knowledge/insights/regulation-proxy-advisory-firms-influence-voting-20170303.

[133] Bebchuk, L. A., Cohen, A. and Hirst, S., (2017), 'The Agency Problems of Institutional Investors', *Journal of Economic Perspectives*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2982617. O'Brien, D.P., (2017), cited. Hemphill, C. S. and Kahan, M. (2019), cited.

The scholarship that predicates potential incentives on the side of common owners to lead commonly owned firms to compete less cautions, however, that the economic literature has not produced a definitive, tested prediction as to "how minority shareholdings translate into control when owners have divergent interests"[134]. Sceptics argue that this theory does not sufficiently account for the portfolio value of the common shareholders (which not only includes shares of those rivals, but can be heterogeneous and diversified), and how an eventual influence on management to compete less could impact the overall value of such portfolio. When this overall impact is negative, i.e. when the profits are offset by the losses of other firms in the portfolio, even assuming they have the ability to induce the investee companies to compete less vigorously, institutional investors with these portfolios would lack the incentives to do so.

Common owners may well have diverging interests because they operate under different business models: in this sense, asset managers who are not owners of the shares that they manage may not be incentivised to push for lesser competition since they are remunerated based on fees. These latter incentives would differ from the incentives of common owners who are also the ultimate owners of the shares they also manage. Therefore, in order to understand whether, and to what extent these incentives occur, common owners' varying business models need to be looked at and factored into the analysis.

More specifically, passive index funds hold large portfolios, representing many retail investors, and common owners' preference to have management compete less may not be optimal in the broader context of their overall portfolios[135]. Most common ownership in the EU banking sector occurs through institutional investors like BlackRock and Vanguard, which "invest in many companies through many different funds that have different portfolios and different sets of retail investors"[136]. Passive index funds (such as ETFs) are managed by asset managers who are remunerated for their investment solutions services through a percentage fee on the investments they are able to attract. As assets increase, so does the fee accruing to the asset manager. Assuming that an incentive to have some commonly owned firms to compete less would negatively impact some other company in their portfolio, then the institutional investors would not be able to maximise overall portfolio profits and thus one would not necessarily expect this alignment between their interests and those of commonly owned firms to occur. It is unclear how the fee amounts they collect can be maximised if some portfolio companies suffer as a result of such alleged incentives.

Consider, for example, a fund which owns a stake in a traditional bank but also in a fintech company. If the fund were to push the bank's management to compete less, such softened competition could also influence other portfolio holdings, including those in the fintech company (which in fact competes directly with the bank). Pushing for decreased competition among the individual firms in which they invest could thus have negative repercussions on the overall portfolio value for the common owners: this heterogeneity in portfolios counterbalances the potential incentive to engage in prompting management of owned rival firms to compete less vigorously. This would not be a maximising strategy taking the overall portfolio value into account.

Finally, some scholars argue that each action to influence management is costly, while only a limited portion of the benefits accrue specifically to the asset manager, since the remainder of the benefits accrue to rival funds. Those scholars are of the opinion that such behaviour would entail higher costs

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[134] O'Brien, D. P., (2017), cited. OECD, Background Note on Common Ownership (2107), cited.

[135] O'Brien, D. P., (2017), cited.

[136] Ibid.

than benefits for common owners[137]. As a result, some argue that the effort involved in the institutional investor exerting influence over the owned companies would be higher than the benefits obtained by individual investor[138]. The reason for this is that the efforts by institutional investors to engage and influence the corporate governance would allow other minority shareholders (including rival common owners or non-common owners) to "free-ride"[139] on the individual institutional investor's analysis. Free-riding, therefore, acts as a disciplining mechanism on common owners. This scholarship argues that when unilateral effects encouraged by an institutional investor could benefit competing investment funds more, then it becomes implausible that a given institutional investor would have the incentive to influence management to compete less[140].

Furthermore, a recent analysis[141] has shown that there are at least four classes of different business model for banks in the EU. While according to the classical textbook business model, banks maximise profits via the spread between lending and borrowing rates, in reality, the source of banks' profits is more diversified. Each business model thus has a different business strategy. Moreover, from the retail standpoint, the counterparts of these transactions are much more diverse, involving consumers, SMEs, large non-financial corporations, other banks, central banks, etc. Under the EU "universal bank" model, in addition to granting loans and taking deposits, banks can invest and trade, including engaging in securitisation and hedging, using mainly derivatives. Based on the possible range of activities each bank thus displays a different business model.

Therefore, common ownership by institutional investors in different banks does not necessarily imply that the same business strategy on the part of the institutional investor would work for the different business models of the otherwise commonly owned banks. Corporate governance strategies aimed at lessening competition in commonly owned banks would require a complex analysis and the coordination of different strategies applied to different business models. This would increase the management costs as well as the costs for common owners of engaging in such coordination, and could run contrary to the purpose of keeping these low (which in turn benefits investors). In addition, such coordination would have to be carried out in a volatile environment where the return on equity (ROE) is linked to various elements[142], including the structural weakness of the operating environment and the cost of capital.

b. Assumption: common owners' ability to influence management

Even assuming that common owners may have the incentives to influence management to engage in anticompetitive unilateral conduct, one must look at whether they have the ability to do so. On this point the literature is also inconclusive.

The proponents of the unilateral effects theory argue that funds may "pressure individual companies to forego profit opportunities that come at the expense of other companies in the portfolio"[143], because

[137] Bebchuk, L. A., Cohen, A. and Hirst, S., (2017), cited.

[138] Ibid.

[139] Enriques, L. and Romano, A., (2018), 'Institutional Investor Voting Behavior: A Network Theory Perspective', *European Corporate Governance Institute (ECGI)* - Law Working Paper No. 393/2018; Oxford Legal Studies Research Paper No. 9/2018. Available at: SSRN https://ssrn.com/abstract=3157708.

[140] Rock, E.B. and Rubinfeld, D.L., (2017), 'Defusing the Antitrust Threat to Institutional Investor Involvement in Corporate Governance', cited in OECD, Background Note on Common Ownership, (2017), page 26. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2925855.

[141] Farnè M. and Vouldis A., (2017), 'Business models of the banks in the euro area', ECB Working Paper Series No 2070. Available at: https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2070.en.pdf.

[142] Euro area banks: the profitability challenge. Keynote speech by Luis de Guindos, Vice-President of the ECB, at the ABI annual conference "Banking Union and Basel III – risk and supervision 2019", Rome, 25 June 2019.

[143] For proponents of this view, Elhauge, E. R., Casual mechanisms, (2019), cited; Elhauge, E.R., (2019), cited; Posner, E. A., Scott Morton, F. M. and Weyl, E. G., (2017), cited; Scott Morton, F.M., Hovenkamp, H. (2018), cited.

what matters for such funds is the performance of the overall portfolio. Those scholars take the view that the conduits for such ability to influence the management of commonly owned firms are embedded in the corporate governance mechanisms in which the common owners take part. Therefore, the analysis of the institutional investors' means of exercising influence, in particular voting and voicing, but also influencing managerial compensation, as well as exit, are of relevance.

An analysis of how institutional investors vote shows that they are often deferential to management[144], meaning that, if at all, they influence management too little. In turn, the opponents' literature opines that the unilateral effects theory may be implausible. Below, we look at the various mechanisms of influence.

There are several possible mechanisms through which common owners are said to have the ability to influence management. Corporate governance mechanisms such as voting, including on management and the board of directors' appointments, and on executive compensation proposals ("say on pay"), are some of the potential conduits to exercise such influence. Proxy voting, the use of proxy advisors, and the rise of stewardship codes are the governance mechanisms that the theoretical literature considers relevant in this respect. As observed by scholars[145] "institutional investors state that they have a fiduciary duty to weigh on firms' decisions and do so through (…) voting at annual general meetings by the employment, for example, of proxy voters..."

Whether these mechanisms would confer on the common owners the ability to prompt managers of the firms they own to compete less is controversial. No specific action would be required in this respect, an omission to influence management to compete more sufficing to this end.

Voting: proxy voting, the growing importance of proxy advisors and voting coalitions

Formal channels (typically, voting at the annual general shareholder's meeting) are one means of asset owners and managers engaging directly with the investee company management. Voting power is a key mechanism at the disposal of institutional investors, including the ability to vote against management.

An analysis of how institutional investors vote carried out by some scholars[146] shows that institutional investors vote in alignment with management proposals[147]: according to this scholarship "the issues subject to shareholder votes may constrain the influence of investors diversified across an industry (upon management) since they do not touch upon firm strategy"[148]. Scholarship[149] interprets this circumstance as evidence that "institutional investors' horizontal interests benefit from existing firm management structures"[150]. Others point to the conflicts of interest that this situation may entail[151].

For sceptics, Rock, E.B. and Rubinfeld, D.L., (2017), cited; OECD, Background Note on Common Ownership (2017), cited; Romano, A., (2018), 'Horizontal Shareholding: The End of Markets and the Rise of Networks', *Yale Journal on Regulation*, Forthcoming. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3255948.

144 Hemphill, C.S. and Kahan, M., (2019), cited.

145 Newham, Seldeslachts, and Banal-Estañol (2018), cited.

146 Hemphill, C.S. and Kahan, M., (2019), cited.

147 OECD, Background Note on Common Ownership (2017), cited.

148 Rock, E.B. and Rubinfeld, D.L., (2017), cited.

149 Elhauge, E. R., (2017), 'Tackling horizontal shareholding: an update and extension to the Sherman Act and EU competition law', cited in OECD, Background Note on Common Ownership, (2017).

150 Ibid.

151 Dressler, E., (2019), 'Institutional Investors, Voting Power, and Voting Patterns'. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3277511.

Passive funds are said to have the ability to exert this influence through voting. Active funds which have to outperform the benchmark index are said to have even bigger ability to influence corporate behaviour in a way detrimental to competition[152].

Let us first introduce a caveat as to the mechanisms and process of voting shares.

As industry representatives have pointed out, "**Voting in proxies** is one of the primary ways that shareholders can express their views on matters important to the success of the company. Many asset owners choose to vote themselves. This includes both asset owners who manage their assets in-house, as well as some who outsource to asset managers. When an asset manager has the authority to vote on behalf of their clients, stewardship codes and regulations encourage, and, in some cases, mandate, them to do so"[153].

Some scholars believe that *proxy voting* is a mechanism through which firm managers' unilateral incentives are shaped in a way that leads them to compete less with rival firms than would be the case were there no common ownership pattern[154]. The argument used is that proxy voting provides a mechanism which channels the influence on management to compete less since it could help align the interests of different common owners in situations where a firm has no major shareholder and in the absence of engagement by other minority investors who use the voting mechanism to challenge the institutional investor's views.

When it comes to proxy voting, the proponents of the unilateral effects theory[155] argue that there is no need for direct communication with management in order for institutional investors to exercise the ability to influence managements' incentives to confer more weight to the interests of institutional shareholders at the expense of all other shareholders. According to this literature, it costs "little to use voting to influence corporate conduct"[156]. Recent research argues that use of proxy voting by institutional investors is not sufficiently democratic[157] in that the process is largely dominated by index fund giants without the institutional shareholders' ultimate shareholders (typically, consumers and individual investors) having a direct say in corporate conduct since they are dispersed. This then becomes an agency problem: namely, who are institutional investors accountable to when they vote?

Separately, the reliance on proxy advisors is said to align common owners' interests in a way that further increases their ability to influence management. In particular, asset owners and managers can choose to vote shares themselves but can also choose to make use of the services of **proxy advisors,** who provide to them research and voting recommendations on proxy voting ballots. Some global providers provide the asset owners and managers with the expertise and infrastructure to do so.

Scholars argue that institutional investors' growing reliance on proxy advisors, whose suggestions they typically follow when voting, exacerbates the ability for common owners to lead company management to engage in subpar competition. While the use of proxy advisors keeps costs lower, which is important for passive index funds in particular, this may confer on common owners the ability

[152] Elhauge, E. R. (2017), cited.

[153] Revised and Extended Remarks at FTC Hearing #8: Competition and Consumer Protection in the 21st Century Panel Discussion on Institutional Investors, Diversification, and Corporate Governance, Barbara Novick, December 6, 2018. Available at: https://www.blackrock.com/corporate/literature/publication/remarks-barbara-novick-ftc-hearing-8-competition-consumer-protection-21st-century-120618.pdf.

[154] This scholarship has been summarised by the OECD, Background Note on Common Ownership, (2017), cited.

[155] Elhauge, E.R. (2017), cited.

[156] Griffin, C., (2019), cited.

[157] Ibid.

to align their incentives both among themselves (voting through proxies on the basis of recommendations by a proxy advisor), as well as with those of commonly owned firms' management.

On the one hand, engaging with management and directors through information obtained from proxy advisors reduces the costs of corporate monitoring and governance engagement. On the other hand, the view has been expressed that the use of proxy voting advisors by common owners may lead to stability of voting coalitions. This could be a conduit for common owners to influence management to compete less vigorously. In terms of the impact on stability of voting coalitions and deference to management, some scholars [158] consider that the stability of voting coalitions increases with proxy advisor prominence. Through voting coalitions made possible through the voting recommendations of proxy advisors, an institutional investor holding a small percentage of stock has the ability to exercise shareholder influence upon management.

According to some literature, "reliance by institutional investors on a small number of proxy voting advisors, who analyse shareholder voting decisions and make recommendations, can increase the stability of voting coalitions"[159]. While this may increase stability within a company, it may be problematic when the voting coalitions involve the same investors in commonly owned companies. Voting coalitions may be a means of influencing management to engage in competing less, without this necessarily requiring an action on the side of common owners. According to recent research, passive index fund investors cannot even indirectly express their preferences by selecting a particular fund or a particular index fund provider that is more likely to vote in line with their interest and values. This is because, "the shares controlled by different individual funds are nearly always voted in the exact same manner and since the different index fund providers share very similar voting philosophies and priorities"[160]. As a result, a small number of individuals at a handful of passive index fund providers "wield increasingly dominant power, with only very limited accountability"[161].

To conclude, according to the proponents of this theory, the interests of the institutional investors in a voting outcome could align more easily as a result of the use of proxy voting advisors. Such influence may be expressed through voting coalitions and through a deferential-to-management pattern, insofar as "the institutions thus empowered tend to be management friendly and vote mostly in favour of management-sponsored proposals"[162].

Having considered proxy voting and proxy advice, we now look at whether the proponents' assumptions seem justified. When it comes to voting, critics of this theory argue that the proponents of the common ownership theory underestimate the effect and influence of proxy advisors on voting. The involvement of proxy advisors and their prominent role is said to "exceed the influence of any individual, or even multiple, asset managers", something that the proponents of the theory do not sufficiently account for[163]. Indeed, these critics suggest that "though this represents multiples of the voting power of any asset manager, the influence of proxy advisory firms has not been accounted for in the common ownership dialogue"[164].

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158 Muraca, J. and Freeman, A., (2017), cited.

159 Ibid. They refer to a study by the European and Securities Markets Authority (ESMA), which noted that "*although there is a perception of some degree of influence of proxy advisors on voting outcomes, clear evidence is rarely available*": ESMA, (2013), Final Report on Proxy Advisors. Available at: https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-84.pdf.

160 Griffin, C. (2019), cited.

161 Ibid.

162 Dressler, E., (2019), cited.

163 Novack, B., Blackrock, (2018), Remarks at FTC Hearing, cited.

164 Ibid.

In addition, a stream of economic research[165] takes the view that heterogeneity of common holdings may imply a divergence in incentives for institutional investors. In particular, according to this research, the divergence in terms of such incentives thwarts the stability of voting coalitions. Other authors argue that the stability of the voting coalitions is directly related to the concentration of the ownership[166]. In a governance pattern such as that of the EU's banking sector, the stability of the voting coalitions would be under great pressure since other non-common owners' views also matter.

Finally, the extent to which common owners are able to impose their own agenda in terms of board of directors and management candidates to shape management's incentives to compete less, is questionable, since, as seen, it is common for owners voting in favour of management proposals in the context of the general shareholders' meeting. However, it may well happen that candidates favoured by common owners can be appointed to managerial positions through the help of common owners. Or, to the contrary, common owners can veto management candidates having a reputation for vigorous competition. Some empirical literature confirms this. It opines that "Perhaps most interesting are the proposals where the Big Three oppose a positive management recommendation. We found that about half of them concern the (re)election of the board of directors (BlackRock 50 %; Vanguard 46 %; State Street 45 %). This suggests a proxy voting strategy where the Big Three typically support management, but will use their shareholder power to vote against management when they are dissatisfied"[167]. This is the most obvious scenario through which management can be influenced, since appointment or re-appointment to the board or a top management position could well depend on the management's ability to render and keep common owners satisfied.

Voice: Informal talks with management and public statements

Informal channels can also be mechanisms of influence (informal meetings with management, typically prior to the annual general shareholders' meetings). As the OECD Background Note on Common Ownership points out, "Azar *et al* characterise voting as the "stick", which is generally used only when the "carrot" of informal engagement using an investor's voice fails"[168].

Informal mechanisms of influence can thus also be relevant. Common owners do often engage with management even beyond voting in the general assembly. This is confirmed in common owners' own reports, which are now available for the public at large, given the uptake of stewardship codes. There are several reasons for this engagement: to request clarifications on information in company disclosures with a view to preparing to vote at the company's shareholder meeting, or on environmental, social or governance matters that may impact long-term value. Informal talks with management are common. For example, according to its 2019 Investment Stewardship Annual report, BlackRock "engaged a large French bank around the challenges associated with job cuts due to increased competition and consumer shifts towards digital banking. The company aimed to establish a climate of cooperation by working collaboratively with employee unions by having union representatives on the board to provide direct feedback. This bank has invested heavily in the retraining of employees[169]". Similarly, in its Stewardship Annual Report 2019, Vanguard confirms that: "We will engage with directors, consider their perspectives, and constructively challenge their

[165] Rock, E.B. and Rubinfeld, D.L., (2017), cited.

[166] Bratton, W. W. and McCahery, J., (2015), *Institutional Investor Activism*, in Socially Responsible Finance and Investing: Financial Institutions, Corporations, Investors, and Activists, (eds.), chapter 19. Available at: https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118524015.ch19.

[167] Fichtner, J., Heemskerk, E. M. and Garcia-Bernardo, J., (2017), cited.

[168] OECD, Background Note on Common Ownership, (2017), cited, page 24.

[169] Vanguard, Investment Stewardship Annual Report, (2019), cited.

assumptions and historical practices. We may support shareholder proposals that seek greater board diversity disclosure"[170].

Some authors argue that firm managers engaging with common owners informally would be indicative of common owners having the ability to influence them through such a conduit: indeed, a survey of institutional investors found that they prefer to engage management and board members in informal settings, i.e. outside of formal shareholder meetings, to influence firm management[171].

Yet, critics of the theory question how influential such mechanisms are, since few staff are appointed for such engagements to keep costs low[172]. As the OECD Background Note on Common Ownership recalls, "institutional investors report having direct engagements with management, often prior to exercising voting rights to express dissent. However, while numerous anecdotal examples of such engagement have been identified, it is not clear whether institutional investors have the capacity or inclination to actively engage with the majority of their portfolio firms"[173].

"Say on Pay" and lessened incentives to compete: a plausible mechanism?

An aspect of voting policies that is considered specifically susceptible of influencing the company's management and behaviour is voting on executive compensation ("say on pay"). Having a "say on pay" on managers' compensation could, in principle, endow the shareholders (including common owners) with the capacity to influence management's decisions in the direction of positions more favourable to shareholders. When common owners are able to shape executive compensation, engaging in lessened competition with peers would be wealth creating for managers.

There is ample literature[174] on how pay has been decoupled from performance of the individual firm in US companies with a dispersed ownership pattern[175]. For example, some scholars have reported empirical evidence of a negative association between common ownership and the use of executive relative performance evaluation (RPE), i.e. how their pay depends on the performance of their own company[176]. When RPE is used less, it means that executive compensation is linked to sector, rather than own firm performance: according to this empirical literature, therefore, the higher common ownership, the less likely it is that managers are remunerated based on their own firm's performance. However, it is unclear whether the lesser use of RPE means always lessened incentives for management to compete. Anton, Ederer *et al* opine that "relative performance evaluation can give pro-competitive incentives if performance is measured in terms of firm value creation, but can have anti-competitive effects if performance is measured in terms of margins. Merely checking for the presence of relative performance provisions in contracts is therefore not informative about the question of competitive incentives"[177].

Proponents of the unilateral effects' theory argue that voting on **executive compensation** proposals ("say on pay") is an important tool in shaping management's incentives. Indeed, a stream of theoretical

170 Ibid., p. 18.

171 McCahery, J., Sautner, Z. and Starks, L., (2016), 'Behind the Scenes: The Corporate Governance Preferences of Institutional Investors', *Journal of Finance*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1571046.

172 Çelik, S. and Isaksson, M., (2014), cited, p. 109 and OECD, Background Note on Common Ownership, (2017), cited, page 24.

173 OECD, Background Note on Common Ownership, (2017), cited, page 24.

174 Elhauge, E. R., (2019), cited.

175 Bebchuk, L. A. and Spamann, H., (2009), 'Regulating Bankers' Pay', *Georgetown Law Journal*, Harvard Law and Economics Discussion Paper No. 641. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1410072.

176 Anton, M., Ederer, F., Gine, M. and Schmalz, M., (2017), 'Common Ownership, Competition, and Top Management Incentives', *European Corporate Governance Institute*, Finance Working Paper No. 511/2017. Available at SSRN: http://papers.ssrn.com/abstract=2802332. (Hereinafter "Anton, Ederer *et al*").

177 Anton, Ederer *et al,* (2017), cited.

literature argues that executive pay at firms in concentrated industries which display high common ownership may be designed to dampen the incentives of the commonly owned companies' managers to compete aggressively with peer firms[178]. Scholarship holds the view that, in the presence of common ownership, top management executive compensation linked to industry performance, rather than firm-specific performance, is an avenue that provides incentives to management to compete less vigorously[179].

Other scholars question this view[180]. According to the sceptics, proponents of the theory that common owners would have the ability to influence management to compete less by preferring managerial pay mechanisms which reward managers for industry rather than firm performance[181] do "not identify a channel through which (this) would will be implemented. Moreover, major institutional investors and the leading proxy advisory firm both have guidelines that push for the firm performance part of the standards in determining whether to vote against a "say on pay" resolution"[182].

Moreover, empirical studies have also questioned the view that the bulk of managers' variable pay is linked to industry, rather than individual, firm performance, when the firms display a common ownership pattern[183]. Other scholars also take issue with empirical evidence underpinning top executive compensation as an influencing mechanism upon management[184]. Some scholarship looks at whether RPE-based arrangements are more common in the presence of common ownership and have found that this is the case[185]: this literature considers that institutional investors with common ownership exert a strong influence on executive compensation in a positive way since prevailing pay mechanisms in the presence of common ownership show less alignment of executive pay with industry performance. Yet other scholars have not found any distinction in the use of RPE-based arrangements between commonly owned firms and others[186]. The literature is thus inconclusive and divided in this area.

In addition, the EU-specific regulatory provisions on the remuneration policy for banks' top management act as a limit to the ability of common owners to use "say on pay" to influence the management to soften competition with rivals. It is important to note that in the EU banking sector the variable remuneration of executive managers is specifically regulated under CRD IV (Articles 92-96) and ultimately subject to supervisory review by the banking prudential regulator. CRD IV provides for the possibility of capping the variable remuneration in order to avoid excessive risk-taking and incentives to use equity or debt instruments issued by the bank which are payable under long-term deferral arrangements as a component of variable remuneration. In particular, in order to avoid excessive risk-taking by managers, CRD IV introduced "an express obligation for credit institutions and investment

178 Anton, Ederer *et al,* (2017) cited. Azar *et al*, (2018), cited. Another stream of literature, questions this view - among others, Walker, D., (2019), 'Common Ownership and Executive Incentives: The Implausibility of Compensation as an Anticompetitive Mechanism', *99 Boston University Law Review 2373*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3345120.

179 Anton, Ederer *et al*, (2017), cited. DeSimone, R., (2017), 'Stealth Ownership and Executive Incentives', *Unpublished manuscript*. Kwon Heung, J., (2016), 'Executive Compensation under Common Ownership, *Department of Economics, University of Chicago*. Available at: http://fmaconferences.org/Boston/ExecutiveCompensationunderCommonOwnership.pdf. Liang, L. M., (2016), 'Common Ownership and Executive Compensation' *Univ. Texas - Dallas Working Paper*, cited by Hemphill, C. S. and Kahan, M., (2019). Available at: https://acfr.aut.ac.nz/__data/assets/pdf_file/0008/58085/43082-L-Liang-Common_ownership_V2.pdf. Hemphill, C. S. and Kahan, M., (2019), cited.

180 Hemphill, C. S. and Kahan, M., (2019), cited.

181 Anton, Ederer *et al*'s findings are nuanced, as seen above.

182 Rock, E.B. and Rubinfeld, D.L., (2018), 'Common Ownership and Coordinated Effects', NYU Law Review, Research Paper No 18-40. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3296488.

183 Kwon Heung, J., (2016), cited.

184 Hemphill, C. S. and Kahan, M., (2019), cited.

185 Kwon Heung, J., (2016), cited and Walker, D., (2019), cited.

186 DeSimone, R., (2017), 'Stealth Socialism? Common Ownership and Executive Incentives 2', *unpublished manuscript*, cited in Elhauge, E. R., (2019), cited.

firms to establish and maintain, for categories of staff whose professional activities have a material impact on the risk profile of credit institutions and investment firms, remuneration policies and practices that are consistent with effective risk management" (Recital 62). Therefore, the assessment of the performance-based component of remuneration has to take into account long-term bank performance, and the current and future risks associated with that performance.

Exit market

Institutional investors also have the capability to influence the owned company by selling the owned stock. The sale of a relatively large portion of the shares would have a negative impact on the share price: it hence puts pressure on the company's management. However, this mechanism is more relevant for actively managed funds, as passive index funds are mandated by their nature to stay with the investment as long as the index which they are tracking maintains the same composition; therefore walking away is not a suitable option for the index tracking funds.

c. Assumption: Incentives for management of commonly owned firms to further the interests of the common owners

The proponents of the unilateral effects theory opine that, in the presence of a common ownership pattern, company managers have higher incentives not to engage in greater competition than to compete vigorously. Such competition would be for them less desirable. They argue that the very structure of the common shareholding is sufficient to achieve this[187]. Because competing vigorously is hard work for company managers, they are less likely to do it unless their shareholders are actively pressing them to compete. Hence, they would naturally be inclined to go along with any such influencing.

That said, the proponents of the unilateral effects theory also make some assumptions onto how commonly owned companies' managers weigh divergent interests among shareholders. An assumption of the proponents of the unilateral effects theory - uncorroborated by evidence - is that the common owners' weight on management is always higher than that of non-common owners. In turn, this reflects the influence that the common owners have over management. Some literature argues that this influencing is not a one-size-fits-all type of conduct, because the extent to which managers would be incentivised to be receptive to it also depends on how the remainder of the ownership is split among the other non-common shareholders. This would require the remainder of the shares to be even more dispersed among shareholders other than the common owners. In the EU banking sector, the extent to which this is so is questionable, since we saw in Section 3 that many banks have larger non-common shareholders, often holding a share of more than 20 % in those banks, and sometimes having an ownership stake which allows non-common owners to control those banks. Therefore, the weight of other non-common shareholders in the firms' decision-making needs to be taken into account.

In order to better understand this assumption let us look at the incentives for management and how these may interact with the ability of the common owners to influence management's conduct by means of corporate governance mechanisms. As seen above, institutional investors can use corporate governance techniques, including voting and voicing (for example, by speaking to management informally), in order to engage with the banks' management. They can also use other means, such as executive compensation, to shape management's incentives, but they can also exit. Whether these mechanisms are conduits through which unilateral effects may emerge is contested in the literature and was analysed above. This Section will look at how that may shape managerial incentives and

[187] Elhauge, E. R., (2019), cited and Azar *et al*, (2018), cited.

willingness to accommodate the common owners' ability to influence their behaviour, even below the threshold of control.

Voting

Let us first look at voting as a first conduit through which such influence can be exercised. In order to see how this may affect management, it is necessary to ask what management can lose or gain by competing more vigorously. First, as seen above, by not going along with common owners' preferences, management can lose both the possibility of being elected in the first place, but also the possibility of being re-elected. For example, Elhauge argues that the prospect of being voted out of office gives company managers powerful incentives to take industry performance into account instead of individual firm performance, in order to keep common shareholders happy[188]. In a context of proxy voting, for example, some small minority giants can influence the choice of management proposed to sit on the board of directors when they are being elected for the first time or are up for re-election[189]. Schmalz, argues that in a proxy context, the current management can be voted out if it has a reputation for vigorously competing or proposed management can even not be elected in the first place. He gives the example of a manager who had a reputation for pushing for increased competition, who lost a campaign at DuPont in 2015 since large asset managers voted against his campaign platform aimed at increasing DuPont's market share. Aside from anecdotal examples, empirical literature shows that funds do resort to coordination through proxy voting to increase the performance of their overall portfolios. In particular, this literature[190] measures how "coordinated voting behavior of asset managers is in corporate elections across their funds, as well as how often they vote with management". The findings are that "BlackRock and Vanguard are on the forefront of asset managers with internally consistent proxy voting behaviour"[191].

Under this assumption, "the institutional investor does not face engagement from other minority investors who challenge his or her views in the context of voting mechanisms"[192], since it is only in this circumstance that there could be more incentives for management to follow suit to guarantee re-election. Failing such an assumption, it is unclear whose views management would choose to give more weight to.

Underpinning this assumption is one that takes for granted that the shareholdings of the other non-common owners are so dispersed that the counter-effect by non-common owners on the behaviour of managers is negligible. The allegation also assumes that the ability of other non-common minority shareholders (consider for example, an activist hedge fund) to influence management of the commonly owned firms to try to gain market share is otherwise weak. This is not necessarily the case. We call this argument the fallacy of "lack of countervailing non-common owners' power".

Aside from any general scepticism, this assumption is not necessarily correct in the current EU ownership pattern where, as seen in the empirical analysis under Section 3, blockholding prevails. Other non-common owners also have a say in the context of proxy contests: they may push for their own candidates to be appointed to top management or board of director positions, and these candidates may well have the incentive to maximise firm value, as opposed to industry value. This contrasts with the DuPont example that Schmalz gives, suggesting that non-common owners' interests are also taken into account by management. The proponents of the theory do not account for this

188 Elhauge, E.R., Causal Mechanisms, (2019), cited.

189 Schmalz, M., (2018), 'Common ownership: theory, mechanisms, empirics and policy', EAGCP Plenary 2018. Available at: https://ec.europa.eu/dgs/competition/economist/eagcp_plenary_20181204_session_4_1.pdf.

190 Fichtner, J., Heemskerk, E. M. and Garcia-Bernardo, J., (2017), cited.

191 Ibid.

192 Schmalz, M., (2018), cited.

circumstance. Consider a bank where the State, for example, still has a strong incentive to oversee management given a minority shareholding of a much larger relative size than a common owner's small shareholding. The unilateral effects scenario would also assume that non-common owners do not exercise a role in disciplining management or, if they do, such role is insignificant compared to the role of common owners. Neither of these assumptions can be said to occur with a significant degree of evidence in the current EU banking sample under analysis.

Another reason which could lead to scepticism about the ability of proxy voting to skew management incentives to compete less is the fiduciary duty of both the company management to all shareholders and of institutional investors to their clients. Moreover, the proponents of the unilateral effects theory assume that a commonly owned firm's management does not face costs in engaging in furthering the benefits of common owners at the expense of others. However, that is not the case. As some scholars[193] point out, company managers have a fiduciary duty to all shareholders, not only those that are institutional investors. Furthering the interests of some owners at the expense of others (non-common owners) would expose management of firms to accusations of a breach of fiduciary duties - duty of care and duty of loyalty, under US corporation laws -, to act in all shareholders' best interest[194]. In corporate law across EU Member States, too, management has the duty to act as fiduciary of all shareholders, and not only a subset of them. This fiduciary duty breach can be costly for management because it may result in liability from a corporate law standpoint. In addition, competition law liability can also be a plausible cost for management: in some countries, like the UK, competition law liability may result in directors' disqualification, while in yet other countries, such as the US, competition law liability can also entail civil claims or criminal liability.

Voice

As seen above, informal talks between common owners and management of commonly owned firms do routinely occur. This may be the case in the context of ESG topics. However, this fact, i.e. that common owners and management do engage in informal talks, does not tell us anything about the common owners' ability to shape management's conduct through such informal meetings with management in a way which is conducive to management being receptive to such influencing. Informal direct engagement with company management should not be conflated with evidence that such involvement on the part of institutional investors leads company managers to endorse the views of asset managers, at the expense of other shareholders.

Moreover, the board or the company's management may not automatically be keen to endorse the institutional investors' suggestions (including those made formally). For example, a resolution on environmental concerns proposed by two large institutional investors was rejected by the Exxon board of directors who considered that the resolution would amount "*to inappropriate micromanaging*" of the company[195].

Executive compensation

Yet, another mechanism that shapes managerial incentives is management compensation. According to the proponents of the unilateral effects theory, the incentives for managers to compete less vigorously are also *inter alia* integrated into **executives' compensation**[196]. The argument is that, when

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193 Hemphill, C. S. and Kahan, M., (2019), cited.

194 Ibid.

195 In May 2019, the Church Commissioners of England and the New York State Common Retirement Fund were lead sponsors of a resolution that would have asked Exxon to set targets on emissions from burning oil and gas. The SEC accepted the company's objection that the resolution would have amounted to inappropriate micromanagement of the company's decision-making authority. Available at: https://www.sec.gov/divisions/corpfin/cf-noaction/14a-8/2019/nyscrf040219-14a8.pdf.

196 Patel, M., (2019), cited. For such an argument, Anton, Ederer *et al,* (2017), cited.

executives are remunerated based on industry-wide results, rather than individual firm results, they themselves reap the benefits of lessened competition. Indeed, the theory goes, this decreased competition results in the maximisation of their own remuneration for they would also profit if rivals gained market share.

For the purposes of this Section, let us look at why the legal framework of EU securities law may put hurdles in the way of incentive-related compensation for management. As seen, under CRD IV, executive compensation in the banking sector must reflect the need to avoid excessive risk taking on the side of management, and variable compensation can be capped and also subject to regulatory review. Indeed, even assuming that the executive pay mechanism affected the managements' incentives, lessening their incentives to compete more, the empirical literature has not examined the impact of the specificities of the EU banking sector on executive compensation. This could be a subject for future research.

In addition, the competent banking supervisory authorities are required to monitor these policies as part of their supervisory review function and may impose qualitative or quantitative measures on the relevant banks to address any problems that might have been identified.

Finally, non-executive independent directors with a say in compensation committees may well effectively represent the interests of non-common owners. This theory does not look at how this presence can constrain management's incentives, embedded in compensation, to take action to further the common owners' interests (assuming these latter's interests are aligned, something which is also questionable, considering the variety of business models under which they operate).

Exit

When it comes to the incentives for management, some authors argue that the potential of an "exit" by an institutional investor may lessen, as opposed to increase, the incentives for management to behave anti-competitively. For example, it has been found that in an "exit model, the manager's incentives to work are stronger since the price impact of investor selling is greater"[197]. Therefore, if anything, the threat of exit could actually decrease, rather than increase, managerial incentives to compete less than under a single owner scenario.

That said, when it comes to whether management conforms to common owners' views, some authors argue that the risk that large institutional investors would walk away ("exit") in disagreement with the management would send a signal to the market and could thus be sufficient for the management to take the investor's view into account[198].

Hence, while another mechanism to exercise influence is through exit due to the negative repercussions it has on a firm's ability to attract capital and liquidity, and thus indirectly on managerial behaviour, some empirical literature has found that exit exercises a positive disciplining effect upon management[199].

[197] Edmans, A., Levit, D. and Devin, R., (2018), 'Governance Under Common Ownership', *Review of Financial Studies*, Forthcoming; European Corporate Governance Institute (ECGI) - Finance Working Paper No. 437/2014. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2482935.

[198] According to Griffith, J., (2020), 'Opt-In Stewardship: Toward an Optimal Delegation of Mutual Fund Voting Authority', *98 Texas Law Review*, forthcoming: "*mutual funds should follow the voting recommendations of unconflicted managers, as will typically be the case with regard to environmental and social proposals. However, when management is conflicted, as will often be the case with regard to governance proposals, funds should abstain from voting altogether.*" Available at: https://corpgov.law.harvard.edu/2019/07/11/opt-in-stewardship-toward-an-optimal-delegation-of-mutual-fund-voting-authority/.

[199] Lewellen, K. and Lowry, M. B., (2019), 'Does Common Ownership Really Increase Firm Coordination?' Tuck School of Business Working Paper No. 3336343. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3336343.

d. Conclusion on unilateral effects from common ownership

As seen above, the incentives of common owners to engage in prompting management to compete less depend importantly on the extent to which their strategies align (something which has not been conclusively proven in the literature, given the divergence of common owners' business models). The ability of common shareholders to influence management in the banking sector through voting and voice for instance, and managerial receptiveness to such an influence, depends, as seen in the literature, on how dispersed the remainder of the ownership structure is. In the presence of blockholdings, the extent to which there are incentives for managers to take into account common owners' views at the expense of non-common owners' views is questionable. In addition, in the case of the EU banking industry: (a) the variable remuneration of executive managers is specifically regulated by CRD IV and capped; (b) executive remuneration packages are overseen by the regulator. Finally, exit is less relevant in this area, since, to the extent that exit happens, if at all, it could exercise a disciplining effect upon management.

To conclude, the literature is split on whether common owners do or not have incentives to influence the management of the firms whose shares they own to compete less vigorously. In addition, there is no consensus as to their effective ability to do so. Due to the heterogeneity of both the business models of asset owners and managers, and the banking firms' business models, it cannot be concluded that the presence of a common ownership pattern gives rise in all circumstances to common owners having the incentives and the ability to generate lessened incentives for the firm's managers to compete more vigorously with their peers. Moreover, even if this were the case, there is no conclusive proof as to the conduits through which such ability could be exercised. Neither is it uncontroversial that management would be receptive to such ability. On the one hand, some authors believe that proxy voting and the rise of proxy advisors, as well as informal meetings with management, and executive compensation mechanisms, or the threat to management of selling shares, are mechanisms for institutional investors to influence management anti-competitively. Others argue that it depends on specifics and the analysis should therefore be case by case, since the means by which management may influence shareholders are not the same across all common shareholders, given their heterogeneous business models.

Addressing the major lack of active shareholder engagement (including by institutional investors) as a means of disciplining management has been the objective of several reforms at EU level in an effort to induce more corporate governance oversight of management, with particular regard to the ability of institutional investors to exercise influence over firms' long-term governance. While institutional investors, in particular, passive index funds, have in the past been characterised by a lack of engagement with governance of the investee companies, they have recently started to be more active. This has occurred both as consequence of the market forces[200], but also as a consequence of the various reforms aimed at incentivising their long-term involvement[201], among others the adoption of SRD II and the emergence of stewardship codes. This objective is certainly legitimate, and some would argue, desirable.

Against this background, the tension between the increased engagement of institutional investors' with firms' management as a disciplining corporate governance mechanism, on the one hand, and potential for concern from the competition law standpoint when such owners are said by some authors

[200] Fisch, J. E., Hamdani, A. and Davidoff Solomon, S., (2019), 'The New Titans of Wall Street: A Theoretical Framework for Passive Investors', *University of Pennsylvania Law Review*; Inst for Law & Econ Research Paper No. 18-12; UC Berkeley Public Law Research Paper; European Corporate Governance Institute (ECGI) - Law Working Paper No. 414/2018. Available at SSRN: https://ssrn.com/abstract=3192069.

[201] Shaun, J. M. and Casazza, L., (2019), 'Surviving Activist Shareholders, Passive Index Funds and Corporate Crises', *Corporate Board Member Journal*. Available at: https://boardmember.com/surviving-activist-shareholders-passive-index-funds-corporate-crises/.

to have become "too active", on the other, becomes apparent when considering whether, and to what extent, common ownership negatively impacts competition.

This means that a holistic approach must be adopted when analysing the mechanisms influencing managerial corporate conduct in the presence of common ownership. Common owners do indeed have the ability to influence management, as seen above. Whether they have the ability to influence management to behave anti-competitively, and whether management is receptive to this, is another matter. The overview of the literature presented in this Section shows that this literature has not conclusively found this to be the case.

4.2.3. The current EU competition toolbox and unilateral effects of common ownership

In this Section we analyse whether and how any potential unilateral effects of common ownership would feature in the context of the current EU competition law toolbox. First, we look at EU merger control framework, and some relevant recent precedents in the Commission merger practice, albeit in different industry sectors than the one on which this study has a particular focus. Within this debate, we briefly discuss the EU merger control reform proposed some years ago, but then set aside. That proposal sought to expand the scope of the current EU Merger Regulation (EUMR)[202] to non-controlling minority shareholdings. We assess its usefulness or not in the context of the EU banking sector under analysis. Beyond the recent merger control cases, there are no other precedents clarifying how the Commission might deal with any unilateral effects of common ownership in other areas of competition law. Neither has a standalone theory of harm been attempted thus far. We outline the state of play in the literature on whether potential unilateral effects associated with common ownership could be caught by the scope of EU competition laws, as interpreted by the EU courts.

The current EU merger control framework would, in principle, not capture minority shareholding acquisitions. The *ex ante* assessment by the Commission of whether a share/asset acquisition or a merger is potentially harmful for competition in the single market depends on the legal notion of "control" under the EUMR. Indeed, only acquisitions or mergers consisting of a "change of control on a lasting basis" give rise to the notion of "concentration" caught by the scope of the EUMR.

Although non-minority acquisitions not involving a lasting change of control are not subject to the European Commission's *ex ante* scrutiny, *ex post,* an anticompetitive behaviour of one or more undertakings can be caught by the scope of Articles 101 and 102 TFEU. However, on the one hand, the decisional practice shows that the European Commission has not used common ownership as an independent theory of harm under Articles 101 or 102 TFEU. On the other, if post-acquisition the merged entity exercises market power in an anticompetitive fashion, these two TFEU provisions remain applicable, if the conditions for applying them are met. Specifically, in the context of potential unilateral effects of common ownership, we look at the scope for application of Article 102 TFEU, against the background of the well- established case law of the courts of the Union. We discuss that in further detail subsequently. For our purposes, the question remains as to what extent the merged entity's behaviour is shaped by the presence of common owners and what can EU competition law do about it. This needs to be looked case by case. Some general observations are nevertheless possible on the basis of past European Commission merger decisional practice.

a. Merger control and unilateral effects

In its merger control review, the Commission looked at the minority shareholdings of diversified investors where the parties to the merger and/or other competitors are linked by common investors in

[202] Council Regulation (EC) N° 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation - EUMR) (Text with EEA relevance), Official Journal L 024, 29/01/2004.

the context of several "concentrations" notified to it. It did so in order to assess what effects such common shareholdings had on competition and, in particular, what the post-merger entity's incentives to behave anti-competitively in the relevant markets would be, given the presence of a common ownership pattern. In the context of the merger control policy toolbox, the European Commission elaborated on the potential anticompetitive unilateral effects of common ownership in its review of the *Dow/DuPont* as well as *Bayer/Monsanto* concentrations.

The starting point is the theory of harm of unilateral effects when concentrations between competitors (also called, improperly, "horizontal mergers") are at stake. As the Commission has clarified in its Horizontal Merger Guidelines (paragraph 22), unilateral effects are, alongside coordinated effects, the two main ways in which this type of transaction may significantly impede effective competition, in particular by creating or strengthening a dominant position. These effects materialise when the transaction eliminates important competitive constraints on one or more firms, something which would allow the firm resulting from the concentration to exercise market power, without the firms resorting to coordinated behaviour (so-called "non-coordinated effects" or "unilateral effects"). This Section focuses only on the unilateral effects the Commission considered to have materialised in the context of its merger control scrutiny of the *Dow/DuPont* as well as *Bayer/Monsanto* mergers. In both those cases, a common ownership pattern prevailed in the specific circumstances of the relevant markets where the parties had overlaps. This pattern led to the Commission's concerns, which the Commission elaborated on further in those decisions.

In addition, we also look at the Commission's enforcement practice in the context of cross-ownership, e.g. *Ryanair/Aer Lingus*, even if cross-ownership is not the subject of this study. The reason for engaging in an analysis of how the Commission looked at cross-ownership and common ownership in its merger control review is that, from the few precedents available, the European Commission appears to see parallels between cross-shareholdings and common ownership. Furthermore, the decisional practice discussed below, including on cross-shareholdings, sheds light on the criteria the Commission itself might consider relevant for a non-controlling shareholding's ability to influence management. As such, it can also help with understanding how the mechanisms of influence of non-controlling shareholders upon management may occur, even below the threshold of "control". Finally, the Commission's competitive analysis of precedents discussed in the Section below highlights the importance of innovation in its approach: in particular, it clarifies that unilateral anticompetitive effects can occur not only as a result of price increases by the own behaviour of commonly owned firms, but also as a consequence of acting on other parameters of competition, such as innovation. The non-price analysis of the effects of common ownership may be more relevant for sectors where there is heavy investment in research and development (e.g. pharma), and less so in the EU banking sector. Hence, we shall not address this aspect of the decision at length. Nevertheless, it is important to understand that the European Commission looks not only at the static but also the dynamic incentives of the merged entity, i.e. those that relate to incentives to innovate. We shall thus then briefly outline that part of the decision.

Notion of control under the EUMR

The EUMR prohibits mergers and acquisitions which significantly reduce competition in the EU single market. The assessment of whether competition could be significantly reduced (the so-called "SIEC test", i.e. it significantly impedes effective competition) presupposes notification to the European Commission of a transaction (merger or acquisition[203]) consisting of a "concentration". Under the

[203] The transaction can consist of the merger of two or more previously independent undertakings or parts of undertakings, or the acquisition, by one or more persons already controlling at least one undertaking, or by one or more undertakings.

current EUMR, the notion of "concentration" rests on the need for the transaction to entail a change of "control" on a lasting basis[204].

Under Article 3(2) of the EUMR, control arises when the acquisition or merger confers on the holder(s), which may be persons or undertakings[205], "the possibility of exercising decisive influence on an undertaking". Although it is not necessary to show that the decisive influence is or will actually be exercised, "the possibility of exercising that influence must be effective"[206].

Furthermore, Article 3(2) EUMR provides that the possibility of exercising decisive influence on an undertaking can exist on the basis of rights, contracts or any other means, either separately or in combination, and taking into account any considerations of fact and law involved. A concentration therefore may occur on a legal or a de facto basis, may take the form of sole or joint control, and extend to the whole or parts of one or more undertakings (cf. Article 3(1)(b)). Whether a transaction gives rise to an acquisition of control therefore depends on a number of legal and/or factual elements. The most common means for the acquisition of control is the acquisition of shares, possibly combined with a shareholders' agreement in cases of joint control, or the acquisition of assets[207].

The Commission Consolidated Jurisdictional Notice (hereinafter, "Notice"), further clarifies the notion of control triggering the application of the EUMR[208], linking it to "the possibility of exercising decisive influence over another undertaking". According to the Notice, "decisive influence in this sense normally means the power to block actions which determine the strategic commercial behaviour of an undertaking."

Therefore, there are two key tenets of EU merger control of relevance for our purposes.

First, when the common shareholding does not involve an acquisition that results in a lasting change of control over a target such that the transaction gives rise to the notion of concentration under the EUMR, then any such shareholding escapes the European Commission's review under the EUMR.

Second, the possibility of exercising decisive influence on another undertaking characterises the notion of "control" pursuant to the EUMR.

Acquisitions involving cross-ownership and influencing of firm's management

The threshold of "possibility to exercise decisive influence" –which in turn influences whether control according to the EUMR is triggered - is set high under EU law. In *Ryanair/Aer Lingus,* the CJEU did not uphold the view that Ryanair's voicing (voting against management on one specific occasion), or request for extraordinary general meetings to reverse strategic decisions adopted by Aer Lingus (where Ryanair held a non-minority shareholding) were sufficient elements to conclude that Ryanair exercised decisive influence on Aer Lingus within the meaning of the EUMR[209].

Even absent a triggering of the notion of control, some precedents shed light on how the national competition authorities view the ability of minority shareholders (though they are different from common owners) to influence management. Special voting or veto rights attached to minority

204 EUMR, Article 3(1).

205 EUMR, Article 3(3) lays down that the persons or undertakings who acquire control are "*the holders of the rights or entitled to rights under the contracts concerned*"; or the holder of "*the power to exercise the rights deriving therefrom*" even if they are not the holders of such rights.

206 Judgment in Case T-282/02 Cementbouw v Commission, paragraph 58, ECLI:EU:T:2006:64.

207 Commission Consolidated Jurisdictional Notice under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings, 2007.

208 Ibid.

209 Case T-411/07, Aer Lingus v European Commission, ECLI:EU:T:2010:281.

shareholdings as well as factors such as patterns of voting could be a way to exercise a material influence on the banks' management.

As will be better seen below under Section 4.2.3.b, some clarification on what constitutes "material influence" is provided by national competent authorities which use this test. As an OECD Policy Note on minority shareholdings recalls that the UK former competition authority (Office of Fair Trading),now the Competition and Markets Authority ("CMA"), "in assessing if there is an acquisition of "material influence", the following factors are taken into account: (i) the distribution and holders of the remaining shares; (ii) patterns of attendance and voting at recent shareholders' meetings; (iii) the existence of any special voting or veto rights attached to the shareholding under consideration; (iv) any other special provisions in the constitution of the company conferring an ability to materially influence policy; (iv) whether the acquiring entity has or will have board representation; and (v) whether there are any additional agreements with the company which would enable the holder to influence policy"[210].

In *ITV/BskyB,* the UK Competition Commission considered that a non-controlling shareholding could influence management through veto rights enabling the blocking of the merged entity's strategic decisions, and thus would diminish competition in the relevant market[211]. However, it did not conclude that unilateral effects were likely.

Dow/DuPont and Bayer/Monsanto: unilateral effects' analysis

The sector analysed by the European Commission in its decisions on the *Dow/DuPont* and *Bayer/Monsanto* mergers was the agrochemical sector. While the conclusions reached are not necessarily applicable to the banking sector, they are important in order to understand the Commission's approach towards common ownership under competition law perspective, in particular the unilateral effects theory.

The first time common ownership came to the European Commission's attention was in the context of its 2017 review of the *Dow/DuPont* merger. In this merger, a small number of common shareholders collectively held around 29-36 % of Dow, DuPont and Monsanto[212], the main competitors in the agrochemical sector, which displayed an oligopoly structure.

Common ownership is unlikely to give rise to legal control, but this does not mean that common owners do not influence the management of the firms whose shares they own. This was precisely the case in *Dow/DuPont*. As some authors point out, common ownership is "not associated to either formal legal control or even clear economic control of the firm on a standalone basis but rather with situations of indirect, de facto, collective control in firm governance and product markets due to the interaction and cumulative effect of small parallel holdings in competitors by diversified investors"[213].

The Commission looked at the post-merger entity incentives to innovate in the presence of a common shareholding pattern and it found that unilateral effects were likely to arise. The Commission's conclusion in *Dow/DuPont* may be summarised as follows: first, the threshold below which the Commission gauges market power should also reflect the common ownership pattern; second, the Commission considered that common ownership did have an impact on competition in the relevant market. In *Dow/DuPont*, the European Commission devoted a lengthy appendix to reviewing how the

[210] OECD Policy Roundtables, Minority Shareholdings, 2008, page 43, 4.

[211] UK Competition Commission, Acquisition by British Sky Broadcasting Group PLC of 17.9% of the shares in ITV Plc, Report sent to the Secretary of State, 14 December 2007.. Thépot, F., (2019), *The Interaction Between Competition Law and Corporate Governance*, Cambridge University Press, page 118. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3380211.

[212] European Commission, case M.7932 – Dow/DuPont, annex 5, paragraph 90.

[213] Tzanaki, A., (2019), 'The common ownership boom: or how I learnt to start worrying and love antitrust', *CPI International*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3401209.

cross-ownership literature predicting possible unilateral effects of such ownership pattern applies in a common ownership context[214]. While it considered the literature on cross-shareholdings also to be relevant when it comes to the type of common shareholding at issue here, it did not provide a detailed reasoning of why this is the case.

On the first point, in Annex 5, the Commission dedicated several pages to "the effects of common shareholding on market shares and concentration measures." The Commission found that "current market shares and concentration measures such as the HHI underestimate the market concentration and the market power of the parties"[215]. To better gauge market power in the presence of common ownership, the Commission referred to the MHHI, which in addition to capturing the product market concentration among firms aims to account for the common ownership concentration across firms in the market. The MMHI is, however, not a proxy for competitive harm. As scholarship points out, the "MHHI is derived from an economic model that is predicated on certain underlying assumptions, as is the case with all economic models. If the actual characteristics of the market do not sufficiently match the assumptions of the model, the MHHI may not necessarily serve as a good gauge of competitive harm"[216].

The Commission used the MHHI to carry out a closer scrutiny of how competition occurs among commonly owned competitors. It also made reference to the empirical studies, which argue that "the presence of significant common shareholding in an industry is likely to have material consequences on the behaviour of the firms in such industries, in particular that prices are likely to be higher"[217].

It also recalled the literature on managerial compensation, which has suggested that common ownership "influences the monetary incentives of firms' executives in order to align them with industry performance, and not only their firm's specific performance"[218]. Then it went on to argue that, while this literature focuses on price competition, its rationale also applies when competition parameters such as innovation are at stake.

In particular, the Commission argued that common ownership may affect commonly owned firms' incentives to innovate through R&D (para 2352). Under the circumstances of the case, it could lessen them. The Commission used the theory of cross-ownership to reach this conclusion. The crucial paragraph where the European Commission spelled out its view of the unilateral effects theory is paragraph 2351 of the *Dow/DuPont* Decision. According to the Commission, "by increasing its efforts in R&D, a firm incurs a cost that decreases its current profits in expectation of future benefits brought by the resulting products of its innovation. Such future benefits would necessarily materialise through price competition of future products which, given the specificities of the agrochemical industry, in particular the fact that the total size of the crop protection industry is typically not related to innovation, is likely to be mainly at the expense of its competitors. In other words, the decision taken by one firm, today, to increase innovation competition has a downward impact on its current profits and is also likely to have a downward impact on the (expected future) profits of its competitors. This, in turn, will negatively affect the value of the portfolio of shareholders who hold positions in this firm and in its competitors. Therefore, **as for current price competition, the presence of significant common**

[214] European Commission, case M.7932 – Dow/DuPont.

[215] Ibid.

[216] Patel, M., (2019), cited.

[217] European Commission, case M.7932 – Dow/DuPont, paragraph 2349.

[218] Ibid.

shareholding is likely to negatively affect the benefits of innovation competition for firms subject to this common shareholding"[219].

Indeed, acknowledging that a number of large agrochemical companies in the market sector at stake in *Dow/DuPont* had a significant level of common shareholding[220], the Commission concluded that "in the context of innovation competition, such findings provide indications that innovation competition in crop protection should be less intense as compared with an industry with no common shareholding"[221].

In Bayer/Monsanto[222], the Commission reiterated the Dow/DuPont conclusions[223]. In particular, it took common ownership into account as an element of context in the appreciation of any significant impediment to effective competition raised in its decision.

These two mergers were sector-specific and, apart from providing some clarifications on the Commission's approach to common ownership, they cannot be applied directly to the banking sector without an appropriate market analysis, including on the entry barriers and incentives to compete.

Usually, minority shareholding situations which have attracted competition attention are around 10-25 % (and in *Dow/DuPont* even higher), and in both the abovementioned precedents, they concerned different market structures, i.e. highly concentrated ones, such as the agrochemical sector.

In conclusion, in the precedents above, the Commission signalled a willingness to scrutinise the effects on competition of common shareholdings due to the unilateral behaviour of the commonly held firms. In particular, it acknowledged that large minority shareholders can exert more control than their equity share suggests[224]. In *Dow/DuPont*, it accepted that "large shareholders have a privileged access to the companies' management and can, therefore, share their views and have the opportunity to shape the companies' management's incentives accordingly"[225]. It recalled the empirical evidence that "passive" investors are, in fact, "active owners, in the sense that they act to influence the behaviour of the firms in which they have shares"[226].

b. Merger review of minority shareholdings in Germany and UK, and EU's potential merger control reform

In several countries, the notion of "concentration" is broader than under the EUMR. A minority shareholding acquisition below the threshold of "control" can also trigger a notification obligation, if certain criteria are met. For example, in Austria, Germany and UK, merger control review applies when an undertaking is able to exercise a material competitive influence on another.

German merger control law provides that the merger review is triggered when the acquiring party reaches a 25 % shareholding in the target undertaking, and in the event of "any other combination of undertakings enabling one or several undertakings to exercise directly or indirectly a material

[219] European Commission, case M.7932 – Dow/DuPont, paragraph 2351.

[220] 17 shareholders collectively owned ca. 21 % in BASF, Bayer and Syngenta and 29-36 % of Dow, DuPont and Monsanto.

[221] European Commission, case M.7932 – Dow/DuPont, paragraph 2352.

[222] European Commission, case M.8084 – Bayer/Monsanto.

[223] Ibid. paragraph 228: "*The Commission considers that in the presence of common shareholding (i) concentration measures, such as market shares or the Herfindahl-Hirschman index ("HHI"), are likely to underestimate the level of concentration of the market structure and, thus, the market power of the Parties; (ii) common shareholding is a reality in the biotech and agrochemical industry, …(iii) common shareholding in these industries are to be taken as an element of context in the appreciation of any significant impediment to effective competition that is raised in this Decision*".

[224] European Commission, case M.7932 – Dow/DuPont, Section 4 of Annex 5.

[225] Ibid, paragraph 21 of Annex 5.

[226] Ibid, Section 4 of Annex 5.

competitive influence on another undertaking"[227]. The definition of material competitive influence includes some specific cases, such as the right to nominate seats on the board of directors; a consortium agreement on voting at the shareholders' meeting, veto rights in relation to the sale of shares of the target, the execution of certain contracts by the target; and low attendance at shareholder meetings[228].

Given the importance of corporate links between competitors in the form of minority shareholdings and the common ownership of large institutional investors (such as BlackRock or Vanguard) in companies which compete with one another, this raises the question of the extent to which German practice in this area might contribute to this debate considering that in Germany the acquisition of certain minority shareholdings is subject to merger control.

In the UK, the Competition and Markets Authority (CMA) may have jurisdiction over a non-controlling minority shareholding in operations where such shareholding confers on the acquirer the ability to exercise material influence over the targeted undertaking. Unlike in EU merger control law, where the Notice speaks of "decisive influence", in the UK "material influence" has been defined as the ability to influence strategic decisions[229]. In its Guidance on Jurisdiction and Procedure, the CMA "lays down that an acquirer is presumed to have the ability to exercise material influence if it has acquired 25 % or more of the shares of the target company. However, this presumption is rebuttable depending on the case"[230]. Therefore, a presumption that the ability to exercise material influence exists is in place for minority shareholding acquisitions above a certain threshold.

Against this background, the European Commission started a process of thinking about potentially amending the EUMR, but this appears to have been dormant for several years as other priorities took precedence. In particular, in 2014, the Commission adopted the White Paper "*Towards more effective EU merger control*"[231] outlining its potential future policy aims for an overhaul of merger control rules. In that paper, it announced that it was considering *inter alia* a proposal to expand the Commission's competence to review potential anticompetitive effects resulting from acquisitions of non-controlling minority shareholdings, thus doing away with requiring a concentration to entail "a lasting change of control". The White Paper proposed addressing the issue through the use of a targeted and non-intrusive transparency system[232]. This would have allowed the Commission to detect potentially problematic transactions from the outset, namely through the identification of operations creating a "competitively significant link". This would have allowed the transaction to be monitored and controlled effectively by the Commission, even without the need for a full notification obligation[233]. In order to fall under the definition of "competitive significant link", a transaction would have had to fulfil two cumulative criteria, namely the competitive link would be considered significant if the acquired shareholding was (1) around 20 % or (2) between 5 % and around 20 %, but accompanied by additional so-called plus factors, such as rights which would give the acquirer a "de-facto" blocking minority, a seat on the board of directors, or access to commercially sensitive information of the target. The parties would have been required to self-assess whether a transaction created a "competitively significant link" and, if so, submit an information notice to the European Commission.

[227] Gesetz gegen Wettbewerbsbeschränkungen, "GWB".

[228] Spark Legal Network and Queen Mary University of London, (2016), 'Support study for impact assessment concerning the review of Merger Regulation regarding minority shareholdings'. Available at: https://op.europa.eu/en/publication-detail/-/publication/85490864-fa5c-11e6-8a35-01aa75ed71a1.

[229] Ibid.

[230] Ibid.

[231] European Commission, (2014), 'Towards more effective EU merger control', White Paper. Commission Staff Working Document, accompanying the White Paper Towards an Effective Merger Control, COM(2014) 449 final.

[232] Ibid.

[233] Ibid.

The Commission argued that this system could lead to the *ex ante* review of anticompetitive transactions, preventing competitive distortions and consumer harm. Furthermore, in the Commission's views, the targeted transparency system would have limited the administrative burden on businesses because the Commission would only need to be informed of a limited number of cases, namely where a "competitively significant link" exists.

A public consultation followed in 2014 and 2015 further to the Commission's proposals. This covered *inter alia* whether to enlarge the scope of the EUMR to capture acquisitions of non-controlling minority stakes. The consultation yielded mixed results. Many stakeholders observed that the proposals would place a substantial additional burden on market players and took the view that the proportionality of the targeted transparency system proposed by the Commission was questionable.

On 14 October 2016, the Commission published a "support study", prepared at its request, in order to inform its review and proposal to amend the EUMR in respect of minority shareholdings[234]. This study concluded that, while there have been practical examples in certain jurisdictions, the number of the acquisitions that had given rise to competition problems was comparatively very low when the total of such non-minority acquisitions was taken into account. Therefore, it was not clear whether there was a problem and whether the administrative costs of the new system would be offset by the benefits, given that the problematic transactions were really few. Indeed, as some authors had found prior to the reform being considered, the potentially notifiable transactions would be likely to capture a significant proportion of harmless shareholdings[235]. The authors of the study had thus concluded that caution needed to be exercised prior to amending the EUMR[236].

The size of the problem is still a matter of debate, because it is "difficult to know *a priori* the extent to which minority shareholdings in practice give rise to serious competition concerns"[237]. Other concerns with respect to the Commission's proposal also emerged during the course of the consultation. In the abovementioned study it was highlighted that "Thus, if the Commission's initiative to develop jurisdiction over non-controlling minority acquisitions at EU level were to proceed, such a system would need to ensure an appropriate balance between the ability to review potentially anti-competitive transactions, while at the same time reducing administrative burdens to the minimum and fitting seamlessly with the existing systems of merger control at European and national level". According to some authors, re-writing the EUMR rules so as to bring non-controlling minority shareholdings within the ambit of this piece of EU legislation would raise many questions about the threshold for intervention (i.e. the threshold of the shareholding above which such a review would be triggered). For example, the abovementioned study cautioned, as some scholarship had earlier done[238], that the threshold choice could end up being arbitrary; it would also imply major changes to the current jurisdictional framework for determining which transactions are notifiable. The study suggested that "a "safe harbour" could be provided, below which a minority shareholding would generally not be subject to review. Such a "safe harbour" could potentially be set at 15 %, as suggested during some stakeholder interviews, or perhaps at 10 %, given that according to our findings such a shareholding is generally considered to be passive". Yet, it cautioned that "However, in determining any "safe harbour", the difficulties associated with identifying a clear threshold for demarcating active or passive minority

[234] Spark Legal Network and Queen Mary University of London, (2016), cited.

[235] Friend, M., (2012), 'Regulating minority shareholdings and unintended consequences', *European Competition Law Review* 2012, Vol. 33(6), p. 303-306. Available at: http://docplayer.net/28397848-Regulating-minority-shareholdings-and-unintended-consequences.html.

[236] Spark Legal Network and Queen Mary University of London, (2016), cited.

[237] Ignjatovic, B. and Ridyard, D., (2012), 'Minority Shareholdings, Material Effects? (1)', *CPI Antitrust Chronicle*. Available at: https://www.competitionpolicyinternational.com/minority-shareholdings-material-effects/.

[238] Friend, M., (2012), cited.

shareholdings in the form of a legal threshold or presumption should be taken into account". Some respondents to the abovementioned consultation also argued that the Commission's proposal of some "additional factors", on the basis of which the existence of a "competitively significant link" would be assessed, was too uncertain. Some respondents argued that the proposed definition of these "additional factors" was not sufficiently clear and the mechanisms through which those factors would impact the degree of control over the target were also unclear[239]. These considerations were cause for caution, in the view of these respondents, about the need to reform a generally well-functioning system.

Furthermore, according to some authors, a review of the EUMR could also lead to unintended consequences[240], such as the fact "that the minority stakes also occur in joint venture transactions and this is an area that does not seem to have featured very much in the debate so far." These authors suggest that the joint venture debate received little attention during the review of the EUMR. In other words, joint venture transactions encompassing minority shareholdings would not be captured by the amended rules and this could mean that potentially problematic transactions could then be carved out in a way that escaped review.

It was also argued that expanding the scope of the EUMR could also increase the administrative backlog linked to an enormous volume of capital markets transactions which would need to be notified. The costs of compliance would need to be weighed against the potential harm that the eventual transactions might entail[241], since Articles 101 and 102 could in any event apply, as will be seen under point (c) of this Section and point (b) of Section 4.3.5. Careful consideration should therefore be given to whether the benefits outweigh the costs of such policy amendments.

In the specific context of the sector which is the object of our study, the empirical analysis of the EU banking sector in Section 3 shows that the common shareholdings of individual institutional investors in the industry under consideration are usually below 5 % of the shares held. This renders such a situation significantly different from the one attracting competition attention in the case of the Commission's merger precedents, where the minority shareholdings of common investors are around 10-25 % (and in *Dow/DuPont* were even higher) and occur in highly concentrated, oligopolistic markets[242]. This should be taken into account should there be a debate about the appropriateness of reviving EUMR potential reform.

Some scholars point out that common ownership has brought several benefits in the context of the global corporate governance debate, including enhanced incentives for monitoring macro legal risks and experiential learning of macro legal risks[243]. In this context, common owners as long-term investors may act as a disciplining mechanism and a risk minimiser. These benefits are crucial in the context of the financial sector given the overarching importance of financial stability and the important role financial regulators play: therefore, a reform of merger control rules also needs to take into account its effect on other areas of the law, such as securities law, that directly impact the stability of financial markets.

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239 British Institute of Comparative and International Law, (2017), The CLF Response to the European Commission's Consultation Towards more effective EU merger control. Available at: https://www.biicl.org/documents/10062_346_the_clf_response_to_the_european_commissions_consultation_towards_more_effective_eu_merger_control.pdf.

240 On the scale of the debate, Ignjatovic, B. and Ridyard, D., (2012), cited.

241 Ibid.

242 EUMR, Section 4.2.1.

243 Eckstein, A., (2018), 'The virtue of common ownership in the era of corporate compliance', *Iowa Law Review*, page 105. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3194605.

To conclude, the introduction of a review system for non-controlling minority shareholdings acquisitions is a complex debate. Going forward, therefore, there needs to be "compelling evidence that the (proposed) system could work"[244] well and without undue complexity at EU level, prior to making any policy changes.

c. Abuse of dominant position (Article 102 TFEU)

Article 102 TFEU prohibits the abuse of an (individual or collective) dominant position. Decisional practice shows that the Commission has not used common ownership as an independent theory of harm under Article 102 TFEU. Yet, this TFEU provision remains applicable, if the conditions for applying it are met.

The CJEU has long settled that Article 102 TFEU applies to the conduct of shareholders who have acquired a minority shareholding in a target competitor. This does not presuppose that control over the conduct of the company, in which the investment has been made, is required for Article 102 TFEU to apply. The CJEU explicitly clarified in *Philip Morris*[245] that Article 102 TFEU remains applicable also to cases where a minority shareholding is at stake. In particular, prior to the EUMR being adopted, the Commission had argued that Article 102 TFEU could not apply to a transaction in which a company acquired a minority shareholding in a competitor when the effect or the object was the distortion of competition: however, the CJEU explicitly rejected this view in *Philip Morris*[246].

According to the CJEU, as reiterated by the Commission in its later *Gillette* decision, "an abuse of a dominant position may arise when the shareholding in question (i.e. minority shareholding) results in effective control of the other company or *at least in some influence in its commercial policy*"[247]. The threshold for "at least some influence on the target's policy" was set low in *Gillette*.

Let us look at what is needed to demonstrate an influence in the target which may trigger the potential application of Article 102 TFEU, provided that a finding of individual or collective dominance is made. First, in *Gillette*, the acquirer company acquired 22 % of the equity of the target. In that case, the Commission made clear that Gillette had at least some influence on the target's policy. In the particular circumstances of this case, due to the financial dependence of the target upon the buyer, the target "could not reasonably be expected to ignore such financial dependence"[248]. Some authors interpret this decision as implying that "sufficient influence could be established even absent voting rights and the existence of a covenant not to exercise any influence on the corporate board, as long as the firm would naturally take the views of its shareholder into account"[249]. Such was the case in *Gillette*, given the financial reliance of the target on the acquirer. Elhauge's view[250] is that this low threshold for "influence" as explained in *Gillette* is met in the case of horizontal common shareholdings.

However, both in *Philip Morris* and in *Gillette*, neither the CJEU nor the Commission argued that it suffices for such "influence" to be potential: a concrete finding of such influence is still required.

Ex post, therefore, Article 102 TFEU, which prohibits the abuse of an (individual or collective) dominant position remains applicable to a common shareholding situation, provided it is shown that at least some influence in the investee's commercial policy is exercised by the common owner. First, there must

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244 Commissioner Vestager speech, Refining the EU Merger Control System, 10 March 2016.

245 Judgment of 17 November 1987, Joined cases 142 and 156/84, BAT and Reynolds v Commission, ECLI:EU:1987:490.

246 Ibid. Case 6/72, Europemballage and Continental Can v European Commission, ECLI:EU:C:1973:22.

247 Judgment of 17 November 1987, Joined cases 142 and 156/84, BAT and Reynolds v Commission, ECLI:EU:1987:490, paragraph 65. Warner-Lambert/Gillette, 1993, OJ L 116/21, paragraph 24.

248 Warner-Lambert/Gillette, 1993, OJ L 116/21, at paragraph 24.

249 Elhauge, E. R., (2017), page 21.

250 Elhauge, E. R., (2017), cited.

be a finding of a dominant position. Second, a theory of harm on a possible abuse must be robustly construed.

Dominant position

Certain conduct by a dominant firm may amount to an abuse of dominance (including collective abuse of dominance) under Article 102 TFEU. First, it is necessary to define the relevant market, both from a geographical and from a product/service viewpoint. Indeed, a dominant position can only exist on a particular market. Once the relevant market has been identified, it is necessary to assess whether the undertaking or the undertakings concerned have a dominant position on the relevant market. Because only undertakings which are dominant in a certain relevant market can abuse their position, a finding of dominance is a prerequisite for a possible finding of abuse.

As clarified by the CJEU, a dominant position is "a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition … on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers"[251]. Under EU competition laws, it is not in itself illegal for an undertaking to be in a dominant position and such a dominant undertaking is entitled to compete on its merits. However, when competing in a given market, a dominant undertaking has "a special responsibility not to allow its conduct to impair genuine undistorted competition on the common market"[252]. According to the well-established case law of the CJEU, the scope of the "special responsibility" of a dominant firm must be considered in the light of the specific circumstances of each case"[253]. In addition to the possible dominance of one undertaking, a dominant position may be enjoyed jointly by two or more independent economic entities united by economic links in a specific market ("collective dominance").

Consistent with the law of the EU courts, collective dominance requires companies to act in the market as a single undertaking. Links due to common ownership are not tantamount to discharging the burden of proving this by the competent competition authority investigating the conduct. On alleged collective dominance, the CJEU has expressed itself as follows: "in the case of an alleged collective dominance position, the Commission is therefore obliged to assess, using a prospective analysis of the reference market, whether (…) the concentration leads to a situation in which effective competition in the relevant market is significantly impeded by the undertakings involved in the concentration and one or more undertakings which together, in particular, because of factors giving rise between them, are *able to adopt a common policy on the market and to act to a considerable extent, independently of competitors, customers and also of consumers*"[254] (emphasis added). In Elhauge's view[255], collective dominance in the area of competition law can be established either on the basis of structural links, such as the links existing between common owners, so that this conduct could be caught by the scope of Article 102 TFEU. For a collective dominant position to occur, the firms must adopt a common policy on the market so as to act as a single undertaking "to a considerable extent" independently of competitors.

To conclude, some authors, such as Elhauge, take the view that collective dominance further to a concentration may also arise when connections are in place with companies not involved in the

[251] Judgment of 13 February 1979, Case 85/76, Hoffmann-La Roche & Co. AG v Commission of the European Communities, ECLI:EU:C:1979:36.

[252] Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, para 1. Judgment of 9 November 1983, NV Nederlandsche Banden Industrie Michelin v Commission of the European Communities, Case 322/81, ECLI:EU:C:1983:313.

[253] Judgment of 14 February 1978, Case 27/76, United Brands Company and United Brands Continentaal BV v Commission of the European Communities, ECLI:EU:C:1978:22.

[254] Joined Cases C-68/94, France v Commission, 1998, ECR I-1375, paragraph 221, ECLI:EU:C:1998:148.

[255] Elhauge, E. R., (2017), cited.

concentration. As is the case with common ownership, a proof of such (collective) dominant position would still need to be provided.

Abuse of a collective dominant position in the context of common ownership

This said, no standalone theory of harm has ever been attempted. Abuse of a collective dominant position must be proven by the competent authority. Elhauge's view is that a common shareholding can be caught by the scope of Article 102 TFEU when it "creates a collective dominant position that leads to excessive pricing"[256]. As is well known, the threshold for excessive pricing – something that Elhauge speaks about as a possible theory of harm – under EU law is very high, as clarified by the CJEU in *United Brands*[257]. In Elhauge's view, structural links between common owners could be caught by the scope of Article 102 TFEU. Concerning the *Kali und Salz* case, Elhauge argues that the "CJEU has shown that no agreement nor concerted practice would be needed, since when contractual or structural links reduce competition and raise prices, then a collective dominant position would exist"[258]. In *Kali und Salz*, however, the CJEU does keep separate the existence of collective dominance, which is legal, and abuse, which is prohibited.

Unfairly high prices may well constitute an abuse of a dominant position under Article 102(a) TFEU, provided the *United Brands* test laid down by the CJEU is met. We are of the view that the theory of harm that Elhauge advocates for would be a novel application of Article 102(a) TFEU since there is no competition authority, including the Commission, which has, to our knowledge, attempted it. Usually, collective dominance-related theories of harm relate to coordination among firms. We discuss this below in Section 4.3.5.

In the context of excessive pricing, the Commission's intervention has been very limited and cautious. It is true that national competition authorities have considered excessive pricing of potential relevance in sectors such as pharma[259]. However, the relevance of such precedents in the EU banking sector is questionable. To conclude, structural links among firms, even if they were to entail the existence of a collective dominant position in a relevant market, are not tantamount to evidence of an abuse of dominance, in particular an excessive pricing abuse. A *quid pluris* is required which could constitute the proof of abuse.

4.3. Potential anti-competitive effects of common ownership: coordinated effects theory of harm

This Section analyses the theoretical literature which assesses whether common ownership may facilitate coordination among competing firms. These effects are labelled as "coordinated effects". Common ownership may also give rise to circumstances that can be favourable to coordination amongst rivals. In merger control, the concept of "coordinated effects" refers to the fact that "after the merger, it will become more likely that the merging firms and (at least one important subset of) their rivals will increase their market power by coordinating their actions". Such effects relate to the "higher probability that, post-merger, the main firms in the market will reach a (tacit or explicit) collusive outcome or – if collusion was already taking place – would strengthen such an outcome, for instance

[256] Ibid., page 22.

[257] Case 27/76, United Brands, ECLI;EU:C:1978:22.

[258] Elhauge, E. R., (2017), cited, page 23, quoting Joined Cases C-68/94, France v Commission (Kali and Salz), 1998, ECR I-1374, paragraphs 171 and 221, ECLI:EU:C:1998:148.

[259] Among others, CMA, Pfizer/Flynn, decision of 7 December 2016.

by managing to reach higher collusive prices, or by making collusion more stable"[260]. The economic theory of collusion has a focus on "what outcomes are sustainable and the strategy profiles that sustain them"[261]. From an economic standpoint, collusion thus presents two main elements:

(a) coordination (which often, but not always, involves some form of communication between rivals), and

(b) enforcement of the agreement(s) (i.e. sustainability, namely, the ability to enforce the terms of such coordination by punishing cheaters, which may or may not involve communication between rivals).

Certain market characteristics can create circumstances in which coordination is sustainable without the need for communication. This is referred to as 'tacit collusion'. If there is communication between rivals to collude, there is 'explicit collusion'.

In the context of common ownership, a stream of US economic literature argues that the presence of common shareholdings could facilitate the management of the investee companies engaging in collusive behaviour leading to coordinated outcomes[262].

Typically, only certain types of competition structures are amenable to coordinated effects. In highly competitive markets, for instance, it may be very difficult for rivals to organise themselves into cartels because in such an ownership structure there are many competing producers[263]. By contrast, in concentrated markets characterised by an oligopoly structure, the possibilities for coordinating price and output for rival firms, as well as the ability to enforce the terms of such coordination and enforcement by punishing cheaters, are greater, because of the small number of competitors. However, while such incentives and abilities may be enhanced by common ownership, so that collusion may become more likely, this does not mean that common ownership must always cause anticompetitive effects in the form of coordinated effects[264]. Economists acknowledge that "less attention has been devoted in the past to potential coordinated effects"[265] in the context of common ownership. The reason for this may be that this analysis is particularly challenging, in essence because the effects of common ownership on the circumstances for collusion very much depend on the specifics of the ownership and control structure. The study of the subject is also, however, simply still rudimentary.

The most direct type of possible anticompetitive effect from common ownership would be from explicit coordination. Under the coordinated effects' theory of harm, explicit collusion would be made more likely, since common owners would have incentives to act as a conduit for influencing commonly owned firms' managers to reach a collusive outcome (e.g. raise prices above the competitive level, restrict output, etc.). One example identified in the literature is the ability of the common owner to act as a cartel ringleader in enabling rival commonly owned firms to collude (i.e. communicate among them price increases, quantity restrictions, etc.)[266]. Under this theory of harm, the common owners (or a sub-set of them) could facilitate the achievement of a collusive outcome among commonly owned firms, similar to the role that a trade industry association plays in the stabilisation of a cartel between

[260] Motta, M. and Fabra, N., (2013), 'Coordinated effects in merger cases', Report Commissioned for the World Bank, page 1. Available at: https://www.fne.gob.cl/wp-content/uploads/2014/05/CRCAL-2013-Coordinated-effects-in-merger-cases.pdf. Motta, M., (2004), 'Competition Policy: theory and practice', *Cambridge University Press*. Available at: https://cadmus.eui.eu/handle/1814/2148.

[261] Harrington, J. (2011), 'A Theory of Tacit Collusion, Department of Economics Johns Hopkins University. Available at: https://www.tse-fr.eu/sites/default/files/medias/stories/SEMIN_11_12/ECONOMIC_THEORY/harrington.pdf.

[262] Rock, E.B. and Rubinfeld, D.L., (2018), cited.

[263] Ibid.

[264] Ibid.

[265] Ibid.

[266] Ibid.

rivals. Ringleaders may have a stabilising effect on the collusive outcome, since, when commonly owned rival firms receive instructions on which prices to apply, or which quantity to choose, for example, in the presence of private information the ringleader possesses, they may not know what the optimal deviation strategy may be.

The effectiveness of the common owner as a cartel ringleader (i.e. the ability to succeed as one) would depend on the ownership structure of a given firm (in this case, the commonly owned firm). For example, is it more likely that a common owner can be expected to take on a ringleadership role when the other shares (i.e. shares held by non-common owners) are dispersed? In that case, the common owner could be valuable in coordinating price and output, in monitoring performance of the collusive outcome and in the ability to punish cheating. The emergence of a common owner would create this role, where it previously did not naturally exist.

Beyond this "explicit collusion" scenario, in certain circumstances coordination among rivals that threatens competition can be more subtle. This occurs, for example, when a number of firms can engage successfully in tacit collusion. While tacit collusion does not involve communication between the rival parties, the outcome of such behaviour, for example, in terms of prices set or quantities produced, can resemble that of explicit collusion[267]. Tacit collusion may become a sustainable equilibrium in repeated games, where it was not before, when the ownership structure changes with the emergence of common ownership. The effect is a rather general concern in the case of cross- and partial ownership. Even though the conditions under which tacit collusion may be more stable under common ownership are under-researched, it seems to be a concern.

Tacit collusion is a grey area of EU competition law, since it may arise spontaneously in an oligopoly structure (so-called "conscious parallelism"). Yet it may also amount to a concerted practice in violation of Article 101(1) TFEU, as will be seen below. Moreover an enhanced ability to collude tacitly can also make explicit collusion more attractive and more likely to be successful.

Against this background, this Section will first look at the economic literature on coordinated effects when cross-ownership is at stake (**Section 4.3.1**). Subsequently, we shall look at the literature on coordinated effects and common ownership, both with respect to tacit (**Section 4.3.2**) and explicit collusion (**Section 4.3.3**), drawing conclusions (**Section 4.3.4**). Then, we shall look at the competition law tools that could hypothetically apply in such a scenario, both with respect to merger control and Article 101(1) TFEU (**Section 4.3.5**).

4.3.1. Coordinated effects and cross-ownership

The earlier literature on coordination under cross-ownership is also highly relevant for coordinated effects of common-ownership[268]. In essence, cross-ownership is a situation in which competitors are entitled to a share in each other's profits. This reduces incentives to defect from any coordination between cross-owned companies, which can stabilise collusion between them. Common ownership is different in essence in that a common owner holds shares in the profits of otherwise independent competitors. Yet a similar incentive effect arises in that the common owner has an incentive to prevent undercutting through a collusive agreement amongst the competitors it owns, which may stabilise coordination between them – to a large extent depending on the make-up of the common owner's

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267 Ivaldi, M., Jullien, B., Rey, P., Seabright, P. and Tirole, J., (2003), 'The Economics of Tacit Collusion', Final Report for DG Competition, European Commission. Available at: https://ec.europa.eu/competition/mergers/studies_reports/the_economics_of_tacit_collusion_en.pdf.

268 For coordinated effects in the context of minority shareholdings, Tzanaki, D., (2017), 'The Regulation of Minority Shareholdings and Other Structural Links between Competing Undertakings: A Law & Economics Analysis', Doctoral Thesis, UCL (University College London). Available at: https://discovery.ucl.ac.uk/id/eprint/1572270/.

portfolio and the level(s) of influence that the common owner has on the business strategies of the competitors in which it holds a stake.

Economists began scrutinising coordinated effects associated with the presence of cross-ownership several decades ago. In the 1990s, it was established in *Cournot* settings that cross-ownership has an ambiguous effect on collusion[269]. In 2000, drawing on earlier work by Bresnahan and Salop[270], O'Brien and Salop discussed potential anticompetitive effects of partial ownership (cross-ownership) as compared to single ownership[271]. Gilo, Moshe and Spiegel ("Gilo *et al*")[272] look at the incentives of firms with passive investments in rivals (cross-ownership) to engage in coordinated conduct. Gilo *et al* assume that an infinitely repeated *Bertrand* oligopoly model of cross-ownership exists (they call it a partial cross-ownership structure). In a *Bertrand* oligopoly model, interactions among firms occur, with firms setting prices and the customers choosing quantities at the prices set. In this model, the empirical literature finds that an increase in the stake of a firm "r" of a rival firm "s" "never hinders collusion" and it may indeed "facilitate tacit collusion, provided that (a) each firm in the industry holds a stake in at least one rival; (b) the maverick in the industry (i.e. a firms who has the incentive to deviate from the coordination[273]) has a direct or an indirect stake in firm "r"; (c) firm "s" is never an industry maverick"[274].

This means that all cross-owned firms must invest in at least one rival as a necessary condition: only industries with a multilateral partial cross-ownership structure could be subject to increased antitrust scrutiny. According to Gilo *et al*, suppose that there are 10 firms in the industry. Firms 1 to 4 invest only in each other and firms 5 to 10 do not have cross-shareholders. Any increase in stakes of firms 5 to 10 in rivals, which impact firms 1 to 4, would facilitate tacit collusion, unless one among the cross-owned rivals 1 to 4 is an industry maverick, or the increased ownership stake is in the maverick firm.

The authors emphasise[275] that this ownership pattern does not incentivise coordination at the profit-maximising equilibrium in each and in every circumstance. They discuss how coordinated effects may arise in the context of cross-ownership[276]: yet at times, passive investments in rivals have no effect on the ability of firms to engage in tacit collusion. Gilo *et al* demonstrate that there is a likelihood that cross-ownership may facilitate tacit collusion when: (a) cross-ownership holdings are multilateral; (b) the investment is made in firms that are not industry mavericks; (c) shares are spread equally among rivals; (d) the investment is made by the most efficient firm in the most efficient rival[277].

This literature also shows that the likelihood of cross-ownership increasing potential incentives to collude and the ability of firms to engage in tacit collusion depends on the question of whether the incentives for rivals to collude are or are not outweighed by the incentives to deviate from this collusion. This is case-specific. Consequently, such ownership patterns affect the incentives for each

[269] Malueg, D., (1992), 'Collusive Behavior and Partial Ownership of Rivals, International Journal of Industrial Organization', *International Journal of Industrial Organization*, 10(1), page 27–34. Available at: https://www.sciencedirect.com/science/article/abs/pii/016771879290045Z.

[270] Bresnahan, T. and Salop, S., (1986), 'Quantifying the Competitive Effects of Production Joint Ventures', *International Journal of Industrial Organization*, page 155-175. Available at: https://www.sciencedirect.com/science/article/abs/pii/0167718786900287.

[271] O'Brien, D. P. and Salop, S., (2000), cited.

[272] Gilo, D., Moshe, Y. and Spiegel, Y., (2006), 'Partial Cross Ownership and Tacit Collusion', *RAND Journal of Economics*, page 81–99. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=422840.

[273] The Commission Guidelines on horizontal mergers describe a maverick as a firm "with a high likelihood of disrupting coordinated conduct" (paragraph 20(d)), i.e. "*that has a history of preventing or disrupting coordination, for example by failing to follow price increases by its competitors, or has characteristics that gives it an incentive to favour different strategic choices than its coordinating competitors would prefer*" (paragraph 42).

[274] Spiegel, Y. and Gilo, D., (2004), 'Partial cross-ownership and tacit collusion', *Econometric Society*. Available at: https://cpb-us-e1.wpmucdn.com/sites.northwestern.edu/dist/a/570/files/2015/08/2003-CSIO-WP-0038-1hzk1pi.pdf.

[275] Gilo, D., Moshe, Y. and Spiegel, Y., (2006), cited.

[276] Ibid.

[277] Ibid.

firm to engage in collusion in a complex way[278]. Moreover, any effects on the incentives (and abilities) to coordinate from common ownership will depend heavily on the common owner's portfolio. In various circumstances the effects of coordination among some of a common owner's firms might have negative effects on its other holdings, for example through reduced demand. Lopez and Vives, for example, analyse the potential of overlapping ownership in a *Cournot* oligopoly to stimulate competition and improve welfare, provided that spill-overs are sufficiently large[279].

Therefore, while cross-ownership may facilitate tacit collusion, it need not do so. The extent to which the incentives of firms to collude increase depends, according to this literature, "in a complex way on *the whole set* of partial cross-ownership in the industry"[280]. The empirical literature has, however, so far not found much evidence that cross-ownership increases firm coordination[281].

The relevance to common ownership situations of the observations above on cross-ownership has been widely considered[282]. In *Dow/DuPont*, the European Commission accepted that the literature on cross-shareholdings applies also to common shareholders' conduct[283].

There are, however, critics of the view that applies cross-ownership coordinated effects analysis to a common ownership scenario. For example, a Note to the OECD by the United States affirms that "common ownership is distinct from cross-ownership"[284]. As has been explained above, cross-ownership refers to the direct ownership of stakes in the competitor and "there is established enforcement practice that significant cross-ownership can potentially have anticompetitive effects (see e.g. the European Commission's decision in *J&J/Actelion*)"[285]. However, indirect passive minority shareholdings[286] by an institutional investor and simultaneously holding shares in competitors do not coincide: cross-ownership refers to situations in which rival firms have direct ownership interests in each other, while common ownership refers to the situation where a third party, e.g. an investor, holds shares in competing firms in an industry. As Vives believes, "competition should distinguish among cases of overlapping ownership according to the degree of control they imply and whether they stem from cross- or common ownership", because "the same extent of shareholding will lead to different degrees of internalisation of rival profits"[287].

4.3.2. Coordinated effects and common ownership: tacit collusion

Certain common ownership patterns may give rise to coordinated effects in the form of tacit collusion[288]. Without expressly communicating with each other, competitors may be able to raise prices above the competitive level, obtaining profits above the competitive market equilibrium. From an economics standpoint, tacit collusion can arise when rivals repeatedly interact: firms could maintain

278 Spiegel, Y. and Gilo, D., (2004), cited.

279 Lopez, A. and Vives, X., (2016), 'Cross-ownership, R&D Spillovers, and Antitrust Policy', CESifo Working Paper Series No. 5935. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2805398.

280 Ibid.

281 Lewellen, K. and Lowry, M., (2019), cited.

282 OECD, Background Note on Common Ownership, (2017), cited.

283 European Commission, case M.7932 – Dow/DuPont, annex 5.

284 OECD, Hearing, Note by the US, (2017), cited.

285 Wilson, T., (2019), 'Common ownership – where do we stand?'. Available at: http://competitionlawblog.kluwercompetitionlaw.com/2019/04/15/common-ownership-where-do-we-stand/, citing Commission decision, Case M.8401, J&J/Actelion, 9 June 2017. Caroppo, C. and Kuhn, T., (2019), '5 Things You Need To Know About The Debate: Whether "Common Ownership" Of Competitors By Institutional Investors Raises Antitrust Concerns'. Available at: https://awards.concurrences.com/en/awards/2020/business-articles/5-things-you-need-to-know-about-the-debate-whether-common-ownership-of.

286 Tzanaki, A., (2017), cited.

287 Lopez, A. and Vives, X., (2016), cited.

288 OECD, Background Note on Common Ownership. (2017), cited.

such profits by tacitly agreeing that any deviation from a collusive outcome could entail some form of retaliation, which must be sufficiently likely and costly to outweigh the short term benefits of cheating. As a result of this coordination, the firms' behaviour may resemble that of a single dominant firm: in the EU, this has been dealt with by the case law on collective dominance. Several factors, beside the number of competitors, affect the likelihood and sustainability of tacit collusion: some are structural, such as how symmetric rivals' market shares are; entry barriers; how frequently firms interact; and market transparency. Other factors are supply-side characteristics, for example, how mature is the industry and are other markets differentiated. Yet other factors depend on the demand: is the industry stagnating, growing or declining and what its business cycles are[289].

Similar to unilateral effects, the assumption is that institutional investors with minority shareholdings in rivals have the incentive to increase the profitability of all firms in the market by softening competition among them. Unlike unilateral effects, however, the conduits may be different. This is because the focus is on the behaviour and inter-dependency between rivals, as well as between rivals and common owners.

With tacit collusion, no express communication is required to achieve a collusive outcome. Tacit coordination can occur, e.g. through "price leadership and less than full mutual understanding of strategies"[290]. The abovementioned stream of economic literature also discusses "the possibility that common owners may, by their presence alone or by their actions, increase the likelihood that a tacitly collusive outcome will be reached"[291], without them necessarily having crossed the legal line of having entered into "an agreement" under EU competition laws. Unlike explicit collusion, which is banned by competition laws, theoretical literature has not been able to resolve the question of what is legal tacit collusion ("conscious parallelism") and what is an illegal agreement/concerted practice occurring when firms tacitly coordinate a collusive outcome[292].

There are no clear answers yet in the economic literature that studies whether the likelihood of achieving a coordinated outcome in the form of tacit collusion increases as the shares of common ownership increase, and under what conditions. The scholars opining that common ownership may increase the likelihood of coordinated effects in the form of tacit collusion do not attempt to demonstrate whether it does so in practice, and when this conduct may violate EU competition laws[293]. First, in the presence of common ownership, depending on the market characteristics and the heterogeneity of owners' holdings, the collusive outcome could be more likely in the presence of a single owner than a common owner. Therefore, there is no literature concluding that common ownership causes tacit collusion leading to a coordinated outcome in violation of EU competition laws.

Second, common owners may at times be a conduit to render tacit collusion less likely, rather than more sustainable. Rock and Rubinfeld believe that[294] the heterogeneity, fluidity and extent of holdings may lead to diverging incentives among common owners, with some having incentives to prefer soft competition and others having incentives to prompt commonly owned firms' management to undercut competitors.

Bearing in mind this caveat, there are some mechanisms for influence. Rock and Rubinfeld[295] describe two fact scenarios:

[289] Ibid.

[290] Harrington, J., (2011), cited.

[291] Rock, E.B. and Rubinfeld, D.L., (2018), cited, page 14.

[292] Ibid, page 4.

[293] Rock, E.B. and Rubinfeld, D.L. (2018), cited.

[294] Rock, E. B. and Rubinfeld, D.L., (2017), cited.

[295] Rock, E.B. and Rubinfeld, D.L., (2018), cited.

(a) At higher levels of common ownership, talks with management could be tantamount to cheap talk which impacts the potential for collusion. The authors remain agnostic both with respect to the theory and the empirics.

(b) At lower levels of common ownership, several fact scenarios may occur.

First, the common owner could be a conduit between firms colluding (public communications could be a means through which commonly owned firms could signal to one another conduct which may amount to an exchange of information). Also, compensation linked to industry-wide performance fostered by a common owner could be a practice that both raises the incentives of commonly owned firms to implicitly collude, as some empirical literature has concluded[296], and a device through which it may be possible for the common owner to foster coordination and stabilisation of a cartel. From a legal standpoint, this can be substantiated either in the form of conscious parallelism or an agreement/concerted practice in violation of Article 101 TFEU. Finally, cheap talk could be a device through which a collusive outcome could be reached.

4.3.3. Coordinated effects and common ownership: explicit collusion

In general, when collusion become tacitly more stable, the likelihood of/attraction for firms to engage in explicit collusion increases. In the knowledge that their coordination would be more likely to be stable in the long run, firms would be more tempted to talk and agree explicitly, for example for the purpose of coordinating on particular or several coordinated market equilibria. Rock and Rubinfeld[297] look at two specific case scenarios where common ownership could facilitate explicit cartel-like conduct:

(a) at **higher levels of common ownership**, where the influence of a common owner approaches control (for example, because the common owner can appoint a board member), a common owner can "facilitate and stabilize a non-competitive outcome by signaling a desire to maximize joint profits backed by a credible threat of coordination"[298]. This would occur through an increased likelihood of a coordinated outcome, since a common owner being able to appoint a board member would endow that common owner with the capacity to become a conduit for information-sharing and punishing the management of each firm. Management would then go along with such an outcome, since deviating from the non-competitive equilibrium (i.e. competing more aggressively) would be more costly than complying (as deviation could mean, given the influence of common owners on management appointments, losing one's job)[299].

Rock and Rubinfeld refer to this as a cartel "stabilisation" story, which involves explicit collusion. According to the authors, a common owner can sometimes be a better cartel organiser, due to access, knowledge of the firms and influence on the commonly owned firm. Vehicles for such possible collusion could be access to the information detained by more rivals by the same common owner who holds shares in them, occurring during quarterly earnings calls. Other venues could be informal mechanisms of speaking to management before the general assembly of shareholders (where non-common owners will most likely not be present), namely so-called voice corporate governance mechanisms. This communication is said to increase coordination and monitoring. At

[296] Neus, W. and Stadler, M., (2019), 'Common holdings and Coordinated Manager Compensation', University of Tübingen Working Paper. Available at: https://econpapers.repec.org/paper/zbwtuewef/109.htm. Likewise, L. Liang concludes "*that institutional common blockholders use CEO compensation contracts to mitigate competition and increase joint performance among rival portfolio firms*", finding evidence that CEO pay in a co-owned firm is positively associated with co-owned peer compensation (in particular, the variable part of compensation, consisting of stocks and options). Liang, L., (2016), cited.

[297] Rock, E.B. and Rubinfeld, D.L., (2018), cited.

[298] Ibid.

[299] Ibid.

the same time, the knowledge that common owners have of various rivals may encourage a common owners' move towards such collusive equilibrium and may help them detect cheating.

Common owners would also have higher incentives to influence this sub-competitive equilibrium, and to monitor the outcome: however, the punishment of cheating may be less credible, since in punishing this behaviour, the common owners will hurt themselves in the process insofar as they also hold shares in the cheating firm. On the other hand, the threat by the common owner could be more credible, and they can use "say-on-pay" (i.e. management compensation schemes designed to promote the common owners' interests, which may induce a less aggressive output conduct by the coordinated firms). They may employ the ability of saying no to management by voting "no" in management elections to render such threat credible. Another aspect to consider is the costs for the common owner in engaging in such conduct. The literature has also pointed out that "investors must be willing to play an active role in coordinating the cartel, thus exposing themselves to antitrust liability, to have an impact on the likelihood of firm deviation"[300].

(b) at **lower levels of common ownership**, a cartel-like theory of harm would see the common owner as a cartel initiator. This could occur when, during public or private meetings, the common owner uses talk to persuade management to carry out some business strategy that will have as an outcome capacity restriction and result in a price increase. We discuss below what is required for this to reach the threshold of an "agreement" under EU competition laws.

4.3.4. Conclusion on coordinated effects from common ownership

It is far from clear whether, how, and if so to what extent common ownership raises concerns of coordination, tacit and/or explicit. It depends on many specifics of the case whether common ownership increases or decreases the sustainability of a coordinated outcome. It may also directly and indirectly facilitate explicit collusion. Whether sharing one (or more) shareholder(s) promotes the same long-term strategies with regard to all the competitors remains to be determined on the basis of the specifics of each case. It may not be the case, for example, if there is a broad heterogeneity of holdings in common owners' portfolios. More targeted research is needed on these issues before it is possible to draw definitive conclusions on the competitive threats that certain common ownership positions may pose.

4.3.5. EU Competition law tools in the context of coordinated effects

Coordinated effects can fall under EU competition law scrutiny, both in the context of *ex ante* merger control analysis and in the context of the *ex post* application of Article 101 TFEU.

We shall look at those two hypotheses in turn, and, in particular, the scrutiny of coordinated effects in the context of merger control, and Article 101 TFEU. For considerations on Article 101 TFEU, we refer to both explicit and tacit collusion (when this latter conduct may amount to an agreement or coordinated practice in violation of Article 101 TFEU).

a. Merger control

To begin with, in the context of a notified concentration, coordinated effects arise when the likelihood increases that, after the transaction, merging parties and their competitors will be able to successfully

[300] Rock, E.B. and Rubinfeld, D.L., (2018), cited.

coordinate their conduct in an anticompetitive fashion, namely, by increasing prices or lowering quality or acting on other parameters of competition[301].

For firms to coordinate their behaviour and earn supra-competitive profits, at times tacit coordination suffices. For the European Commission, this entails looking at whether a concentration notified to it may give rise to anticompetitive effects as part of its substantive test on whether the transaction significantly impedes effective competition ("SIEC"), in particular as a result of the existence or strengthening of a dominant position. Such a dominant position can be exercised individually, but also jointly among undertakings. In *Airtours*, the then Court of First Instance (CFI), now General Court, took issue with the Commission's view that a collective dominant position had been established and concluded to the contrary[302]. According to the CFI, for a collective dominant position to exist three conditions must be met: first, each firm must know how other members were behaving over time (i.e. is there sufficient transparency in the market to enable coordination); second, tacit coordination must be sustainable over time (i.e. are there credible retaliation mechanisms deterring deviation from the equilibrium); and third, the foreseeable reactions of competitors/customer would not jeopardise the results expected of the common policy[303] (i.e. there would be no countervailing competitor/customer power able to undermine the coordination).

In *Impala*, the CJEU[304] clarified that the *Airtours* criteria (also endorsed by the CFI in *Impala*[305]) must be interpreted as follows: for collective dominance to exist, there must be sufficient market transparency for each undertaking in the market to be aware of the market conduct of the other parties; there must be a credible form of deterrent mechanism should deviation be detected; and the reaction of outsiders and customers should be not such as to jeopardise the results of the coordination. These three criteria, according to the CJEU, must not be established in turn and mechanically (as a checklist) in isolation, but the overall economic mechanism of an overall hypothetical tacit coordination must be looked at. Indirect indicia may infer the existence of such a collective dominant position[306].

The analysis of whether a merger gives rise to coordinated effects is complex. Thus, for pedagogical purposes, we use a scheme proposed by de la Mano to understand which criteria matter in establishing tacit coordination[307]. He takes the view that one must distinguish between "tacit collusion" and "coordinated effects", with tacit collusion being a state where there is only rudimentary competition and the latter ("coordinated effects") referring to the change in the state of the competition. Besides incentives to collude for common owners, however, for there to be a robust coordinated effects case for theory of harm in the context of a merger, three conditions must exist: (a) the collusion post-merger must be possible and sustainable; (b) the merger makes collusion easier, more stable and more effective, and (c) firms reach an understanding on the collusive mechanisms. These three conditions must be met regardless of whether explicit or tacit collusion is at stake.

Collusion must be possible and sustainable: The explanation of the likelihood of collusion in economic terms draws from non-cooperative repeated games in game theory. In a repeated game

301 European Commission Horizontal Merger Guidelines, paragraph 39: "*A merger in a concentrated market may significantly impede effective competition, through the creation and strengthening of a collective dominant position, because it increases the likelihood that firms are able to coordinate their behaviour in this way and raise prices, even without entering into an agreement or resorting to a concerted practice within the meaning of Article 101 TFEU.*"

302 Judgment of the General Court in Case T-342/99, Airtours plc v Commission (2002), ECR II-2585, ECLI:EU:T:2004:192.

303 Ibid.

304 Judgment of the Court of Justice (Grand Chamber) in Case C-413/06 Bertelsmann and Sony v Impala, ECLI:EU:C:2008:392.

305 Judgment of the General Court in Case T-464/04 Impala v Commission (2006) ECR II-2289.

306 Ibid., paragraph 251.

307 De la Mano, M., Coordinated Effects, Presentation to DG COMP. Available at: https://ec.europa.eu/dgs/competition/economist/delamano2.pdf.

scenario, firms interact frequently, and take each other's behaviour into account in such interaction. In this case, collusion can be the equilibrium if, in the short run, the profit from deviating from such behaviour for a commonly owned firm is lower than the long-run loss as a result of the punishment by other firms after the deviation[308]. This means that, to be sustainable, this tacitly agreed upon coordination requires both monitoring and a credible threat of punishment of cheaters.

Tacitly collusive equilibrium also requires that it is "in each firm's self-interest to reach and *maintain* the collusive outcome"[309]. Analysing the sustainability of collusion entails an understanding of how the industry characteristics (not just the number of competitors, but also other factors) affect this equilibrium. Certain factors are crucial ("critical factors"). First, the number of competitors matters: in highly competitive markets, it is very difficult for rivals to organise themselves into cartels for competing producers are many[310]. In an oligopoly structure, as seen above, the possibilities to coordinate price and output for rival firms and the ability to enforce the terms of such coordination by punishing cheaters are made more likely because of the small number of competitors. Other critical factors that matter are low entry barriers: in this case, as firms lose less from retaliation when entry is more likely with low entry barriers, the collusion may not be sustainable. In addition, frequency of interaction matters, since when firms react more quickly, retaliation may occur sooner. This may also impact the sustainability of the collusion. Finally, market transparency is also a critical factor: with higher transparency, it is easier to reach the terms of coordination, and transparency allows deviations to be detected. These are all factors that directly impact the sustainability of collusion, or lack thereof.

Other factors are called "influential" factors, and they also entail structural links[311]. It is unclear whether in all cases these links make collusion more or less sustainable. Cross-ownership, the argument goes, reduces the gains from undercutting another firm[312]. In this case, structural links may influence the collusive outcome, but it does not mean that they are the reason why it occurs[313]. Also, they may, if the cost of deviating is lower than without common ownership, render the collusive outcome less, rather than more, likely. Therefore, it is not easy to prove that common ownership makes the coordinated outcome more sustainable. As de la Mano concludes, "there are practical difficulties" in establishing the sustainability of collusion since "the relevant quantities cannot be observed directly and many factors affect these quantities in different ways and in different degrees"[314].

Causal mechanism: the merger must make coordination easier, and more stable and effective. The criterion of whether the merger makes collusion easier, more stable and more effective, is enshrined in paragraph 22 of the EU Horizontal Merger Guidelines. It is worth clarifying that the Gilo *et al* analysis, which finds an acquisition of a maverick firm benign contrasts with the US Horizontal Merger Guidelines, which consider the acquisition of a maverick firm as increasing the likelihood of coordinated effects[315]. According to Gilo *et al,* acquisitions of passive investments in rivals are not tantamount to horizontal mergers where a firm obtains control over rivals. Indeed, when it comes to assessment of coordinated effects, there are factors in the structure of the market likely to be affected by the merger and one must ask whether they have an impact, and if so, how the existence of collusive equilibria is affected. While elimination of a maverick under EU competition law is a factor which may increase the sustainability of collusion, for Gilo *et al*, elimination of a maverick in the presence of cross-

308 De la Mano, M., cited.
309 Rock, E.B. and Rubinfeld, D.L., (2018), cited.
310 Ibid.
311 De la Mano, M., cited.
312 Patel, M., (2019), cited.
313 Rock, E.B. and Rubinfeld, D.L., (2018), cited.
314 De la Mano, M., cited.
315 Spiegel, Y. and Gilo, D., (2004), cited, page 14.

ownership in a *Bertrand*-type competition scenario is a benign factor. Therefore, while the EU Horizontal Merger Guidelines provide examples as to what steps the Commission follows in assessing whether the merger is likely to give rise to coordinated effects, they do not apply necessarily to passive investments in rivals. The reduction of incentives to innovate was a tenet in *Dow/DuPont*, as seen above. However, this precedent is also not particularly helpful. Indeed, in that case, the Commission used the cross-ownership literature to speak also about potential coordinated effects. However, it did not delve in depth into why it would also apply it to a common ownership scenario.

Firms reaching an understanding on the terms of the coordination: multiple equilibria. When it comes to how firms reach a tacit understanding on the terms of the coordination, this is also the hardest hurdle since the same market situation could give rise to many different equilibria (some of which are benign and not anticompetitive). The fact, for example, that it is possible for firms to sustain collusion does not mean that they actually succeed in doing so. One of these mechanisms could, for example, be announcements (which will be discussed further below). To conclude, according to economists, "mergers may have a limited impact on the factors that help sustain collusion" and "little influence on how firms select the collusive equilibrium"[316].

b. Prohibition of anticompetitive agreements and coordinated practices (Article 101 TFEU)

Coordinated effects can be caught by the notion of anticompetitive "agreement" or "coordinated practice" enshrined in Article 101(1) TFEU. This provision prohibits "all agreements (…) and concerted practices (...) which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market (…)"[317]. The Treaty does not contain a definition of "agreement". The notion is defined in the CJEU case law as "a concurrence of wills between economic operators on the implementation of a policy, the pursuit of an objective, or the adoption of a given line of conduct on the market, irrespective of the manner in which the parties' intention to behave on the market in accordance with the terms of that agreement is expressed"[318]. Therefore, the notion of "agreement" requires "a meeting of minds" between competitors.

In oligopolistic markets, pricing with mark-up may sometimes be benign when it does not involve explicit agreements to reduce competition (i.e. conscious parallelism), yet communication among rivals can entail coordination which can at times also be problematic insofar as it may be anticompetitive. Sometimes, coordinated effects lead to the conduct being caught by the scope of Article 101(1) TFEU. This would be the case when the pricing (or quantity setting) entails explicit collusion falling under the notion of "agreement" according to Article 101(1) TFEU, or otherwise entails a communication, which while not amenable to explicit collusion, can be caught by the scope of a "concerted practice" under that Treaty provision. In both cases, Article 101(3) TFEU may be used to intervene to save the conduct from being condemned under antitrust laws, with the company under investigation bearing the burden of proving why the legal exception under Article 101(3) TFEU applies. While in theory, the dividing line between what constitutes anticompetitive conduct pursuant to Article 101(1) TFEU and what is allowed conduct appears easy, in practice it is not.

An agreement is a form of **explicit collusion**. The most obvious mechanism through which competitors can achieve a collusive outcome in a given relevant market is for the firms to interact

316 De la Mano, M., cited.

317 Among those agreements and concerted practices caught by the scope of Article 101(1) TFEU, the following are explicitly mentioned under such Treaty provision: (a) directly or indirectly fixing purchase or selling prices or any other trading conditions; (b) limiting or controlling production, markets, technical development, or investment; (c) sharing markets or sources of supply; (d) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage.

318 Judgment of the General Court in Case T-41/96, Bayer AG v Commission, ECLI:EU:T:2000:242.

directly, agreeing on the optimal level of price or output. Such behaviour lies at the one end of the spectrum, where Article 101(1) TFEU applies (and an exception under Article 101(3) TFEU is unlikely, albeit the application of Article 101(3) TFEU remains theoretically possible). The typical example is a cartel (where competitors typically fix prices, limit quantity, etc.).

The common owner acting as a cartel ringmaster[319] in enabling rivals to collude (i.e. communicate among them price increases, quantity restrictions, etc.) is a most obvious example. Rock and Rubinfeld discuss this alleged theory of harm in depth[320]. This does not require direct communication between the common owner and the management of the commonly owned firms. It requires, however, "a meeting of minds" between commonly owned firms which reaches the threshold of agreement under EU competition case law. Those scholars opine that the common owner acting as a cartel ringmaster depends on the commonly owned firm ownership structure. When shares are dispersed among other shareholders, and there is no controlling shareholder, the common owner could coordinate and monitor the collusive equilibrium, and could also punish cheaters. However, when a controlling shareholder exists, punishment of those deviating from the cartel is left to him. Therefore, whether a common owner may facilitate a collusive equilibrium as a cartel ringmaster is a question that cannot be answered in the abstract: a fact intensive inquiry into the firms' ownership structure must be carried out to such end.

At the other end of the spectrum, there is a wide range of firm behaviour, in which firms consciously adapt to rivals' moves: this is the so-called **conscious parallelism**, which is allowed by competition laws. The reason for this is the fact that, "in oligopolistic markets, firms tend to be interdependent in their pricing and output decisions so that the actions of each firm impact on, and result in, a counter response from the other firms"[321].

However, in such circumstances, oligopolistic firms may go further than simply taking their rivals' actions into account, and in effect "co-ordinate their actions as if they were a cartel, but without an explicit agreement"[322], a conduct that is referred to as tacit (or sometimes implicit) collusion, as seen above. Tacit collusion falls in the middle of the spectrum, i.e. "a grey area of business behaviour which goes beyond conscious parallelism but at the same time does not involve an express agreement between competitors"[323].

Coordination is problematic if a certain market structure is present. Indeed, simplifying, the argument is that sometimes the presence of oligopoly pricing (pricing at a level which is profit maximizing for rivals in an oligopoly, which take their competitors' pricing into account) "is facilitated and stabilized by the presence of common ownership to a point that crosses the line"[324] beyond conscious parallelism and is caught by the Article 101(1) prohibition.

In this "grey area", the distinction between what is allowed and what is prohibited is not clear. In economic terms, distinguishing between tacit collusion falling under Article 101(1) TFEU and benign conscious parallelism is far from a settled matter. The question of when certain types of this "grey area" behaviour constitute a violation of Article 101(1) TFEU is in fact one of the thorniest areas of EU law because complex economic theories of tacit collusion come into play. Uncertainties in this area remain,

[319] The ringmaster typically has vertical relationships with the cartel members, and sets, organizes and enforces the cartel for them.

[320] Rock, E.B. and Rubinfeld, D.L., (2018), cited.

[321] OECD, (2012), 'Unilateral disclosure of information with anticompetitive effects' (e.g. through press announcements). Available at: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WP3(2012)1&docLanguage=En.

[322] Ibid.

[323] Ibid.

[324] Rock, E.B. and Rubinfeld, D.L., (2018), cited.

despite the availability of academic research on the economics of tacit collusion[325]. CJEU case law, which clarifies how Article 101(1) TFEU applies to these scenarios, has not, however, settled the existing debate.

One question that emerges is whether there are mechanisms of common ownership influencing management that may potentially fall under the scope of Article 101(1) TFEU despite not being an agreement. For example, signalling future strategy (e.g. prices) – directly or indirectly – may at times be a means of facilitating collusive conduct and may amount to an information exchange caught by the scope of Article 101(1) TFEU. Here, as well, game theory shows that there are different equilibria. Some can be benign to competition, others anti-competitive. The dividing line is hard for economists.

Signalling future business strategy can occur through announcements, including public ones. The analysis of public announcements by a competition authority has to be made case by case[326]. The OECD has summarised EU competition law on unilateral announcements, observing that they "can be a practice facilitating collusion and can be prohibited as anti-competitive if, as a result of this practice, competitors can reach some type of formal or informal understanding to reduce competition on their future conduct. Whether there are pro- or anti-competitive effects of unilateral announcements depends on the specific circumstances in which they occur; in particular, the risk of anti-competitive effects is higher in concentrated markets with homogeneous products. (…) Public announcements (i.e. to customers as well as to competitors) of future conduct can, in theory, be used to facilitate collusion, but are generally viewed as procompetitive as they generate a wide range of benefits, including providing better information to customers who can make better informed choices"[327].

Public announcements can take the form of signalling, through indirect communication between competitors. Such communication may occur through price *signalling*. This is a mechanism through which a firm raises its price, hoping that other firms will interpret this move as an invitation (a signal) to *collude*, responding to such behaviour by matching the price increase. Signalling to corporate management the investors' views when such management has the same common shareholders, the argument goes, could facilitate collusion among rival companies, even if they do not enter into an express agreement to do so.

Such announcements, by means of which signalling can occur, can fall under the prohibition under Article 101(1) TFEU, when they hinge upon firm's future strategic business conduct without entailing firms fixing prices of quantities (in which case they would be fined akin to a cartel), beyond conscious adaptation to the competitors' conduct[328]. Conscious parallelism indeed precludes "any direct or indirect contact among competitors, the object or effect of which is to create conditions of competition which do not correspond to the normal competitive conditions of competition, regard being had to the nature of products or services, the size and number of undertakings, and the volume of this market"[329].

Private announcements (i.e. between competitors only) of future commercial conduct are generally viewed as having an anticompetitive purpose and can hardly be justified for procompetitive efficiency

[325] Ivaldi, M., Jullien, B., Rey, P., Seabright, P. and Tirole, J., (2003), cited.

[326] Communication from the Commission - Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements, OJ 2011 C 11/01, page 1, (hereafter "European Commission's Guidelines on Horizontal Agreements"), paragraph 86-94.

[327] OECD, (2010), 'Information Exchanges Between Competitors under EU Competition', Law Note by the European Union. Available at: http://www.oecd.org/competition/cartels/48379006.pdf.

[328] OECD, (2010), cited, page 4.

[329] Judgment of the Court of Justice in Case C-7/95 PO, John Deere, ECLI:EU:C:1998:256, paragraph 87.

reasons under Article 101(3) TFEU[330]: they would be treated as a cartel. When an undertaking discloses to one company strategic information concerning its future business strategy and the other accepts it, the threshold of a "concerted practice" under Article 101(1) TFEU may also be met, without the rivals having necessarily having entered into a cartel.

The notion of concerted practice was further clarified by the European Commission in its 2010 Guidelines on the applicability of Article 101 TFEU to horizontal cooperation. The Guidelines suggest that unilateral disclosures of strategic information concerning future commercial policy by "one undertaking … to its competitor(s) who accept(s) it can also constitute a concerted practice"[331].

While the EU Treaties do not contain the definition of a "concerted practice", this notion was defined by the CJEU in the ICI case ("*Dyestuffs*")[332]: for a concerted practice to occur, the firm communicating future business strategy must "knowingly substitute practical cooperation between them for the risks of competition". Namely, the information exchanged among rivals, must be "capable of removing uncertainties concerning the intended conduct of the participating undertakings"[333]. When the data are of a sensitive nature and the exchange hinges not only on their market positions, but also on the strategies of individual competitors,[334] this plays a fundamental role in the assessment of the restrictive nature of the exchange of information: this is the case when there are recent data of a sensitive and accurate nature at short intervals[335]. Information exchanges may be anticompetitive "by object": such is the case when they individualise data concerning future prices or quantities.

This means that "there is no need to take account of its actual effects"[336], once it has been established that the practice has the "potential to have a negative impact on competition"[337]. In other words, for the conduct to be anticompetitive by object, the conduct must simply be "capable in an individual case [having regard to its legal and economic context][338] of resulting in the prevention, restriction or distortion of competition within the common market"[339]. Once it has been established that the object of an agreement or a concerted practice "is to restrict competition, it is irrelevant, for the purposes of determining whether an infringement of Article 101(1) has occurred, whether the concerted practice or agreement in question actually had an anti-competitive effect"[340]. Hence, while a capability analysis

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330 OECD, (2010), cited.

331 European Commission's Guidelines on Horizontal Agreements, paragraph 62.

332 As the CJEU has held in Case 48/69, ICI v Commission, [1972] ECR 619, paragraphs 64 and 65, a concerted practice is *"[…] a form of co-ordination between undertakings which, without having reached the stage where an agreement properly so-called has been concluded, knowingly substitutes practical cooperation between them for the risks of competition. By its very nature, a concerted practice does not have all the elements of a contract but may inter alia arise out of coordination, which becomes apparent from the behaviour of the participants"*. Judgment of the Court of Justice in Joined Cases C-89/85 and others, Wood Pulp, [1993] ECR 1307, paragraph 63, and more recently Judgment of the Court of Justice in Case C-8/08, T-Mobile Netherlands, ECLI:EU:C:2009:343, paragraph 26. When the Commission or national competition authority proves that "*concertation has taken place, the market behaviour can be presumed, reversing the burden of proof onto the parties*": judgment of the Court of Justice in Case C-49/92P, Commission v Anic Partecipazioni, [1999] ECR I-4125, paragraph 118, ECLI:EU:C:1999:356.

333 Judgment of the Court of Justice in Case C-8/08, T-Mobile Netherlands, ECLI:EU:C:2009:343.

334 Judgment of the Court of First Instance (now General Court) in Case T-16/98, Wirtschaftsvereinigung Stahl, ECLI:EU:T:2001:117, paragraph 39.

335 Ibid., paragraph 44.

336 Judgment of the Court of Justice in Case C-8/08, T-Mobile Netherlands. Case C-67/13 P, Groupement de Cartes Bancaires v Commission, ECLI: EU:C:2014:2204, Judgment of the Court of Justice in Case C-32/11, Allianz Hungaria, ECLI:EU:C:2013:160.

337 Ibid.

338 In this respect, regard must be had to the content of the agreement's provisions, the objectives it seeks to attain, as well as the legal and economic context of which it forms part. Judgment of the Court of Justice in Case C-67/13 P, Groupement de Cartes Bancaires v Commission, ECLI: EU:C:2014:2204, and judgment of the Court of Justice in Case C-32/11, Allianz Hungaria, ECLI:EU:C:2013:160.

339 Judgment of the Court of Justice in Case C-8/08, T-Mobile Netherlands, cited.

340 Judgment of the Court of Justice in joined Cases 56/64 and 58/64 Consten and Grundig, ECLI:EU:C:1966:41. Judgment of the Court of Justice in Case C-226/11 Expedia ECLI:EU:C:2012:795, Case C-67/13 P, Groupement de Cartes Bancaires v Commission, cited, Case C-32/11, Allianz Hungaria, cited. Alexiadis, P. and Figueroa, P., (2018), 'Mixed Messages in the "By Object" vs "By Effects" Saga: The Enigma of

suffices[341], a restriction by object can never be established in the abstract[342]. In a recent Opinion, AG Bobek has clarified that a threshold of plausibility suffices[343]. When the restriction of competition is not by object, it is by effect[344]: in that case anticompetitive effects must be concretely established, the likelihood of such anticompetitive effects not sufficing to this end[345].

Unilateral price announcements (including those made publicly), therefore, can either be anticompetitive by object or by effect, or they can be procompetitive. To be a violation of Article 101(1) TFEU, they must diminish the uncertainty concerning rivals' future business conduct to the threshold of "concerted practice". The leading EU court case on public price announcements is *Wood Pulp,* which dealt with quarterly public price announcements by wood pulp manufacturers. Scholarship considers that in this case the CJEU "prominently stated that public announcements of future prices did not infringe competition rules and constituted 'market behaviour which does not lessen each undertaking's uncertainty as to the future attitude of its competitors'"[346]. Even then, it must be remembered that efficiencies under Article 101(3) TFEU may be pleaded.

Because much depends on the nature of the communications, investors who hold shareholdings in competing firms, and the investor relations' departments of these firms, must steer clear of discussing pricing and other topics which could touch on future business strategy[347].

US scholars[348] argue that signalling can be one of the mechanisms through which tacit collusion can occur insofar as common owners may have increased incentives to do so. However, they remain agnostic as to whether this happens with common ownership. One US scholar maintains that because commonly held firms face less uncertainty and respond by holding less cash, this is "consistent with a response to reduced competition and greater incentives to coordinate or collaborate on product strategies"[349]. He further argues that: "However, agreements need not be explicit; more subtle changes in firm behaviour can also increase the ability of firms to coordinate implicitly. For example, firms can disclose more details about their product market strategy to investors. This information is also visible to competitors and may help soften competition. Pawliczek & Skinner (2018) document a positive correlation between coordinated effects of common ownership and voluntary disclosure of product market related information in 10-K and 10-Q filings"[350]. Therefore, the author argues, public announcements in the context of quarterly earning calls on product market information could be an example of vehicles for achieving softened competition. Whether that happens in practice has not, however, been answered conclusively.

To conclude, the literature is not there yet on when public announcements in the presence of common ownership may be evidence of an agreement or concerted practice. Economists have not reached a

Lundbeck', *CPI International*. Available at: https://www.competitionpolicyinternational.com/mixed-messages-in-the-by-object-vs-by-effects-saga-the-enigma-of-lundbeck/.

341 Judgment of the Court of Justice in case C-67/13 P, Groupement de Cartes Bancaires v Commission, cited, paragraph 53. Case C-32/11, Allianz Hungaria, cited, paragraph 36.

342 AG Bobek Opinion in Case C-228/18, Budapest Bank, ECLI:EU:C:2019:678, paragraphs 45 to 48.

343 Ibid., paragraph 82.

344 Article 101(1) TFEU prohibits both.

345 Case C-67/13 P, Groupement de Cartes Bancaires v Commission, cited, paragraph 52. Case C-32/11, Allianz Hungaria, cited, paragraph 34.

346 De Coninck, R., (2010), 'Information exchanges and price signalling: an economic perspective', *Bruylant*. Available at: https://www.crai.com/sites/default/files/publications/Information-Exchanges-and-Price-Signaling-An-Economic-Perspective.pdf; OECD, (2010), cited, page 4.

347 Ibid.

348 Rock, E.B. and Rubinfeld, D.L., (2018), cited.

349 Schmalz, M, (2018), 'Common-Ownership Concentration and Corporate Conduct', *Annual Review of Financial Economics*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3046829.

350 Schmalz, M., (2018), cited, page 26. '10-K and 10-Q filings' refer to US corporate disclosure requirements, where 10-K is the annual report and the 10-Q is the quarterly report.

conclusion on what a collusive outcome could look like and how (common) shareholdings exactly enter the objective function of firms, when the collusive outcome is then an outcome of maximising joint profits.

On the one hand, investor communications in the context of earnings calls are legal. They are even required – for companies listed on stock exchanges – in other fields of law, namely securities law, and are aimed at investor protection. At the same time, such communications need to abide by competition laws.

In our opinion, future work may be required to investigate the possible incentives for an institutional investor, such as an asset manager, to play an active role in such coordination because thus far the economic literature is not conclusive on whether coordinated effects exist or not in the presence of common ownership, something which cannot be answered in the abstract.

In addition, the literature discussing coordinated effects posits that coordination is more likely in the presence of an oligopoly structure. For instance, US law and finance scholarship that analyses coordinated effects in the context of common ownership speaks about an oligopoly market structure as one of the preconditions of such effects being likely to arise, and in particular, for collusion to be profitable[351].

As seen above, institutional investors do commonly engage in informal talks with management, as reported publicly by them. However, unless the substance of the talks with management concerns significant and detailed aspects of future business strategy such as to reach the abovementioned *Dyestuffs* threshold, of which there must be precise evidence, including circumstantially[352], for example internal documents, etc., competition laws are not violated. At the same time, it is important to highlight that these talks are desirable from the viewpoint of the increased shareholder engagement that the EU legal framework has called for after the financial crisis, including by adopting SRD II. This, again, exemplifies the dilemma, on the one hand, of desirable institutional investors' disclosure to foster corporate governance oversight, and, on the other, of an undesirable impact on competition in the relevant market materialising in anticompetitive conduct.

As a result, the management of firms may find itself in the presence of tension between compliance with EU competition laws, on the one hand, and the involvement in corporate governance incentivised, or required, by EU and national legislation. Finally, despite certain market structures being more amenable than others to leading to possible collusion, one must also look at the characteristic of the market and understand that the same conduct can, depending on the equilibria, be a conscious parallelism or even procompetitive, instead of a restriction of competition. As this study has noted, the law on exchanges of information and collective dominance is a thorny area in EU competition law, and the dividing line between what is anti- or procompetitive is often blurry. The economic literature is agnostic on when tacit collusion is legal and when it instead leads to illegal conduct. Therefore, on the one hand, compliance tools become important, since the Commission Horizontal Guidelines could help business operators self-assess their conduct[353], but they only help to a certain extent; on the other hand, it is premature to draw policy conclusions suitable for answering the question of what competition law should do to capture the potential concerns. Hence, prior to advising any future policy amendments further theoretical and empirical work on coordinated effects needs to be carried out.

351 Rock, E.B. and Rubinfeld, D.L., (2018), cited, page 10-11. Kovacic, W. E., Marshall, R. C., Marx, L. M. and White, H. L., , (2011), 'Plus Factors and Agreement in Antitrust Law', *10 Michigan Law Review 393*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1980164.

352 Valassis Communications, FTC File No. 051 0008 (April 19, 2006), cited in De Coninck, *supra*.

353 Rock, E.B. and Rubinfeld, D.L., (2018), cited, advocate thresholds to shield conduct from antitrust liability.

5. CONCLUSIONS

This study aims to provide evidence of some features of common ownership by institutional investors with specific reference to the banking sector in the EU, where their presence has increased significantly since the 2008 crisis. It also aims to address what this pattern may mean for competition.

The study shows that institutional investors (sovereign wealth funds, insurance companies, pension funds, asset managers, investment funds, etc.) differ greatly in terms of business structure and business models, management strategies and objectives. This is relevant because institutional shareholders represent the largest minority shareholders in the European banks analysed in this study. The empirical analysis shows that US asset managers BlackRock, and, to a lesser extent, Vanguard, together with the Norwegian sovereign wealth fund, NBIM, are the main institutional investors in the largest European banks.

Another outcome of the study is that, when the same institutional investor simultaneously holds blocks of stocks in competing firms ("common ownership"), there are implications both from a regulatory (corporate governance and capital markets) and competition law perspective. Common ownership may exemplify the tension among these areas of policy, and how striking the proper balance among the three is a delicate exercise. On the one hand, anticompetitive conduct in commonly owned banks may stem from failures of the control mechanisms provided by corporate governance rules. On the other hand, corporate governance rules that foster increased engagement on the part of institutional investors in commonly owned firms' management can also create legal uncertainty for market players on how this increased engagement may be reconciled with compliance with EU competition laws.

From a corporate governance perspective, institutional investors, especially passive index funds, have for a long time been considered as passive investors, reticent to exercise their shareholders' rights, including by voting. Their reticence to engage with management has been attributed to various factors, including the need to keep costs low in order to increase short-term returns. Active engagement increases the costs of oversight for institutional investors due to the need to gather and analyse the relevant corporate information. More recently, EU-wide legislative reforms have incentivised institutional investors' engagement with investee companies on the assumption that this engagement improves these firms' corporate governance. These reforms have led to growing engagement of passive index funds' asset managers with management of investee firms. Other legislative provisions may, however, also constrain the engagement of institutional investors. In this context, limitations to institutional investors' engagement also stem from some legislative provisions, such as the UCITS Directive's prohibition on investment funds acquiring controlling shares in the issuing body, or different voting weights attached to the shares held.

On the one hand, passive investment strategies might have negative corporate governance consequences in terms of lack of shareholder interest in disciplining management and rendering it accountable to the company's shareholders. On the other hand, active engagement of institutional investors could result in their "structural prominence" over the company's decisions due to the size of their blockholdings. This, in turn, may impact competition in ways that need to be further explored. Yet, scholarship is not conclusive in agreeing on the scope, or the extent of the potential anticompetitive effects of common ownership.

The current study does not purport to conclude whether these effects materialise, or not, in the presence of common ownership. While providing an overview of the literature on the potential pro- and anticompetitive effects of common ownership, the study remains agnostic on what the impact of any such common ownership pattern may be on competition in the sector under analysis: we have not investigated (and thus cannot conclude) whether such effects arise.

However, some conclusions can be drawn.

First, the results of the empirical analysis show that there is common ownership by large (mainly US) institutional investors in the 25 largest publicly traded European banks. Currently, no single institutional investor appears to have a blockholding level sufficient on its own for it to exert "significant" influence over the management. Institutional investors' stakes in each owned bank in the sample under analysis are usually between 5 % and 7 %. However, shareholder agreements (for example, voting in concert) might achieve this influencing collectively.

Second, the capacity of an institutional investor (or a set of such investors) to exercise influence over an investee company (so-called "structural prominence") could potentially lead to a lessening of competition among the commonly owned companies in the form of unilateral or coordinated effects, which, in turn, will depend on the investor's ability to affect the decisions of the management of the different companies. Investors' ability to influence the management of the investee companies to extract short-term returns or to pursue long-term engagement correlates with the corporate governance rules applicable in the specific context, including disclosure obligations and voting weights. The study has illustrated how corporate governance rules still differ across the Member States despite efforts to harmonise them at EU level. In addition, institutional investors have both different business models and different business strategies. Management of commonly owned firms also needs to take non-common owners' interests into account.

Furthermore, with specific reference to the potential anticompetitive effects of common ownership in the EU banking sector, it is important to take into account that the EU banking sector is highly regulated and supervised in order to align the short-term horizon of shareholders to the long-term objectives of depositor protection and financial market stability. Moreover, the ownership structure of the EU banking sector has been heavily reshaped by post-crisis restructuring, which has led to consolidation and disintermediation in the sector.

Last but not least, from a policy perspective, some authors wonder how common ownership can be caught by the scope of *ex ante* EU competition laws since they may not entail a "lasting change of control" under the EUMR. Some authors have argued that amending EU merger control rules to capture non-controlling shareholdings in the notion of "concentration" under the EUMR could be a tool to address eventual competition concerns raised by common ownership which could otherwise escape the European Commission's *a priori* review. The literature takes inspiration from countries such as Germany and the UK where the notion of "material influence", which is sufficient to trigger the authority's merger control review, also includes certain corporate law tools, such as blocking votes, concerted actions and low attendance at shareholder meetings. However, an analysis of past Commission decisional practice indicates that there is no compelling evidence that minority shareholdings systematically create competition harm. We have highlighted both sides of the debate on whether EU merger control laws should be amended to bring acquisitions of non-controlling minority shareholdings under the EUMR scope. Such amendments are certainly not a panacea to address any potential concerns with common ownership's effects on competition. In the absence of concluding whether common ownership negatively impacts competition, sweeping conclusions on policy are, in our opinion, still premature.

Outside the realm of merger control, we look at whether Articles 101 and 102 TFEU could apply, and consider some hurdles in applying them, both with respect to potential unilateral or coordinated anti-competitive effects.

To conclude, whether and in which circumstances common ownership is beneficial or deleterious for competition, innovation, and, ultimately, citizen welfare is still an open debate. Views differ on whether, and, in the affirmative, how institutional investors influence the management of investee companies, inducing such management to raise prices or negatively impact other parameters of competition, such as innovation. In addition, there is still ongoing debate as to whether common ownership drives commonly owned firm's managements to compete less or to coordinate future business strategy with one another in a collusive fashion.

Common owners' corporate governance mechanisms for influencing management could at times be benign from the viewpoint of EU competition laws, but at other times they could also give rise to competition law scrutiny. In this study, we do not conclude on where the dividing line lays. We did, however, try to draw a link between competition law, corporate governance rules and financial stability legislation, highlighting the tension between these areas of law. On the one hand, zealous competition law intervention to remedy unsubstantiated concerns of common ownership on competition may negatively impact financial market stability and the desirability of more effective corporate governance over the commonly owned firms' management, including thanks to institutional investors' engagement. On the other hand, more institutional investor involvement in firm management raises the question of how increased engagement with commonly owned firms impacts competition. The debate is still in its infancy. With this study, we do not provide answers. Instead, the study identifies potential avenues for future research, including a further understanding of both institutional investors' potential incentives to soften competition and how they might be implemented (or not) by banks' management in the EU banking sector context, the role of market structure in the materialisation of such types of effects, and how likely and sustainable tacit collusion could be in the presence of common ownership.

REFERENCES

Publications

- Alexiadis, P. and Figueroa, P., (2018), 'Mixed Messages in the "By Object" vs "By Effects" Saga: The Enigma of Lundbeck', *CPI International*. Available at: https://www.competitionpolicyinternational.com/mixed-messages-in-the-by-object-vs-by-effects-saga-the-enigma-of-lundbeck/.
- Anand, A., Puskas, C., (2019), Legal and economic rationales for shareholder duties and their enforcement in Enforcing Shareholders' Duties, Elgar Financial Law Series.
- Anton, M., Ederer, F., Gine, M. and Schmalz, M., (2017), ,Common Ownership, Competition, and Top Management Incentives', European Corporate Governance Institute, Finance Working Paper No. 511/2017. Available at http://papers.ssrn.com/abstract=2802332.
- Azar, J., Raina, S. and Schmalz, M.C., (2016), *Ultimate Ownership and Bank Competition*. Updated May 2019. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2710252.
- Azar, J., Schmalz, M.C. and Tecu, I, (2018), 'Anticompetitive Effects of Common Ownership, *Journal of Finance*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2427345.
- Baker, J.B., (2016), 'Overlapping Financial Investor Ownership, Market Power, and Antitrust Enforcement: My Qualified Agreement with Professor Elhauge', *129 Harvard Law Review Forum 212*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2746874.
- Banal-Estañol, A., Newham, M. and Seldeslachts, J., (2017), 'Common ownership of German companies', *DIW Berlin Economic Bulletin*. Available at: https://www.diw.de/documents/publikationen/73/diw_01.c.562467.de/diw_econ_bull_2017-30.pdf.
- Banal-Estañol, A., Seldeslachts, J., Vives, X., (2020), 'Diversification, Common Ownership, and Strategic Incentives', *AEA Papers and Proceedings*, DOI: https://doi.org/10.1257/pandp.20201026.
- Bebchuk, L.A., Cohen, A. and Hirst, S., (2017), 'The Agency Problems of Institutional Investors', *Journal of Economic Perspectives*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2982617.
- Bebchuk, L.A. and Spamann, H., (2009), 'Regulating Bankers' Pay', *Georgetown Law Journal*, Harvard Law and Economics Discussion Paper No. 641. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1410072.
- BlackRock Shareholder Rights Directive II - Engagement Policy. Available at: https://www.blackrock.com/corporate/literature/publication/blk-shareholder-rights-directiveii-engagement-policy.pdf.
- Boone, A. and White, J., (2015), 'The Effect of Institutional Ownership on Firm Transparency and Information Production', *117 Journal Finance Economics 508*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2528891.
- Bratton, W.W. and McCahery, J., (2015), Institutional Investor Activism, in Socially Responsible Finance and Investing: Financial Institutions, Corporations, Investors, and Activists, (eds.), chapter 19. Availabe at: https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118524015.ch19.
- Bresnahan, T. and Salop, S., (1986), 'Quantifying the Competitive Effects of Production Joint

Ventures', *International Journal of Industrial Organization*. Available at: https://www.sciencedirect.com/science/article/abs/pii/0167718786900287.

- British Institute of comparative and international law, (2017), The CLF Response to the European Commission's Consultation Towards more effective EU merger control. Available at: https://www.biicl.org/documents/10062_346_the_clf_response_to_the_european_commissions_consultation_towards_more_effective_eu_merger_control.pdf.
- Cardenas, J., (2019), *Cross-Border Financing of FinTech: A Comparison of Venture and Growth Fintech Financing Trends in Europe and the United States*, The International Comparative Legal Guide [ICLG] to: Fintech 2019, 3rd ed., London: Global Legal Group [GLG] Ltd., chapter 2, pages 7-13.
- Carmona, A.F., Lombardo, A.G., Rivera Pastor, R., Tarín Quirós, C., Villar García, J.P., Ramos Muñoz, D., Castejón Martín, L., Competition issues in the Area of Financial Technology (FinTech), Study for the Committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg, 2018. Available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2018/619027/IPOL_STU(2018)619027_EN.pdf.
- Caroppo, C. and Kuhn, T., (2019), '5 Things You Need To Know About The Debate: Whether "Common Ownership" Of Competitors By Institutional Investors Raises Antitrust Concerns'. Available at: https://awards.concurrences.com/en/awards/2020/business-articles/5-things-you-need-to-know-about-the-debate-whether-common-ownership-of.
- Çelik, S. and Isaksson, M., (2014), 'Institutional investors and ownership engagement', *OECD Journal: Financial Market Trends*, OECD Publishing. Available at: https://www.oecd.org/finance/Institutional-investors-ownership-engagement.pdf.
- Darvas, Z. and Schoenmaker D., (2019), Institutional Investors and Development of Europe's Capital Markets, Chapter 18 in Busch, D., Avgouleas, E. and Ferrarini, G. (eds), Capital Markets Union in Europe, Oxford University Press, Oxford.
- De Coninck, R., (2010), 'Information exchanges and price signalling::an economic perspective', *Bruylant*. Available at: https://www.crai.com/sites/default/files/publications/Information-Exchanges-and-Price-Signaling-An-Economic-Perspective.pdf.
- DeSimone, R., (2017), 'Stealth Ownership and Executive Incentives', unpublished manuscript.
- DeSimone, R., (2017), 'Stealth Socialism? Common Ownership and Executive Incentives 2', unpublished manuscript.
- Dressler, E., (2019), 'Institutional Investors, Voting Power, and Voting Patterns'. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3277511.
- Eckstein, A., (2018), 'The virtue of common ownership in the era of corporate compliance', *Iowa Law Review*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3194605.
- Edmans, A., Levit, D. and Devin, R., (2018), 'Governance Under Common Ownership', *Review of Financial Studies*, Forthcoming; European Corporate Governance Institute (ECGI) - Finance Working Paper No. 437/2014. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2482935.
- Elhauge, E.R., (2019), 'The Causal Mechanisms of Horizontal Shareholding', Ohio State Law Journal. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3370675.

- Elhauge, E.R., (2019), 'How Horizontal Shareholding Harms Our Economy And Why Antitrust Law Can Fix It', Harvard Business Law Review, Forthcoming. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3293822.
- Elhauge, E.R., (2017), 'Tackling horizontal shareholding: an update and extension to the Sherman Act and EU competition law, paper submitted to the OECD Hearing on Common Ownership by institutional investors and its impact on competition, December 2017. Available at: https://one.oecd.org/document/DAF/COMP/WD(2017)95/en/pdf.
- Enriques, L. and Romano, A., (2018), 'Institutional Investor Voting Behavior: A Network Theory Perspective', European Corporate Governance Institute (ECGI) - Law Working Paper No. 393/2018; Oxford Legal Studies Research Paper No. 9/2018. Available at: SSRN https://ssrn.com/abstract=3157708.
- ESMA, (2013), Feedback statement on the consultation regarding the role of the proxy advisory industry, Final Report, ESMA/2013/84. Available at: https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-84.pdf.
- European Commission, (2014), Towards more effective EU merger control, White Paper.
- Farnè, M., Vouldis, A., (2017), 'Business models of the banks in the euro area', ECB Working Paper Series No 2070. Available at: https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2070.en.pdf.
- Fichtner, J., Heemskerk, E.M. and Garcia-Bernardo, J., (2017), 'Hidden Power of the Big Three? Passive Index Funds, Re-Concentration of Corporate Ownership, and New Financial Risk', *Business and Politics*. DOI: 10.1017/bap.2017.6. Available at SSRN: https://ssrn.com/abstract=2798653.
- Financial Reporting Council, 'The UK Stewardship Code 2020'. Available at: https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814a-d14e156a1d87/Stewardship-Code_Dec-19-Final-Corrected.pdf.
- Fisch, J.E., Hamdani, A. and Davidoff Solomon, S., (2019), 'The New Titans of Wall Street: A Theoretical Framework for Passive Investors', University of Pennsylvania Law Review; Inst for Law & Econ Research Paper No. 18-12; UC Berkeley Public Law Research Paper; European Corporate Governance Institute (ECGI) - Law Working Paper No. 414/2018. Available at SSRN: https://ssrn.com/abstract=3192069.
- Friend, M., (2012), 'Regulating minority shareholdings and unintended consequences', *European Competition Law Review*, 2012, Vol. 33(6), p. 303-306. Available at: http://docplayer.net/28397848-Regulating-minority-shareholdings-and-unintended-consequences.html.
- German Monopolies Commission, (2018). Biennial Report XXII: "Competition 2018" in accordance with Section 44 Paragraph 1, Sentence 1 of the German Act against Restraints of Competition.
- Gilo, D., Moshe, Y. and Spiegel, Y., (2006), 'Partial Cross Ownership and Tacit Collusion', RAND Journal of Economics, page 81–99. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=422840.
- Gramlich, J. and Grundl, S., (2017), 'Testing for Competitive Effects of Common Ownership', *Finance and Economics Discussion Series 2017-029*. Available at: https://www.federalreserve.gov/econres/feds/files/2017029pap.pdf.
- Griffin, C., (2019),' We Three Kings: Disintermediating Voting at the Index Fund Giants', *Maryland Law Review*, Forthcoming. Available at SSRN: https://ssrn.com/abstract=3365222.

- Griffith, J., (2020), 'Opt-In Stewardship: Toward an Optimal Delegation of Mutual Fund Voting Authority', *98 Texas Law Review*, forthcoming. Available at: https://corpgov.law.harvard.edu/2019/07/11/opt-in-stewardship-toward-an-optimal-delegation-of-mutual-fund-voting-authority/.
- Goppelsroeder, M., Schinkel, M.P. and Tuinstra, J., (2008), 'Quantifying the Scope for Efficiency Defense in Merger Control: The Werden-Froeb-Index', *Journal of Industrial Economics*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=916556.
- Harrington, J., (2011), 'A Theory of Tacit Collusion, Department of Economics Johns Hopkins University. Available at: https://www.tse-fr.eu/sites/default/files/medias/stories/SEMIN_11_12/ECONOMIC_THEORY/harrington.pdf.
- He, J. and Huang, J., (2016), 'Product Market Competition in a World of Cross-Ownership: Evidence from Institutional Blockholdings', Review of Financial Studies No. 30, p. 2674-2718. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2380426.
- Hemphill, C.S. and Kahan, M., (2019), 'The Strategies of Anticompetitive Common Ownership', New York University, NYU Law and Economics Research Paper No. 18-29; Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3210373.
- Hirt, H.C. and Jones, A., (2019), 'The Shareholder Rights Directive II', *Hermes Investment Management*, Harvard Law School Forum on Corporate Governance paper.
- Ignjatovic, B. and Ridyard, D., (2012), 'Minority Shareholdings, Material Effects?', *CPI Antitrust Chronicle*. Available at: https://www.competitionpolicyinternational.com/minority-shareholdings-material-effects/.
- Institutional Shareholder Services, Analysis: Differentiated Voting Rights in Europe. Available at: https://www.issgovernance.com/analysis-differentiated-voting-rights-in-europe/.
- Ivaldi, M., Jullien, B., Rey, P., Seabright, P. and Tirole, J., (2003), 'The Economics of Tacit Collusion', Final Report for DG Competition, European Commission. Available at: https://ec.europa.eu/competition/mergers/studies_reports/the_economics_of_tacit_collusion_en.pdf.
- Kostovetsky, L. and Manconi, A., (2018), 'Common Institutional Ownership and Diffusion of Innovation'. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2896372.
- Kovacic, W.E., Marshall, R.C., Marx, L.M. and White, H.L., (2011), 'Plus Factors and Agreement in Antitrust Law', 10 Michigan Law Review 393. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1980164.
- Kwon Heung, J., (2016), 'Executive Compensation under Common Ownership, Department of Economics, University of Chicago. Available at: http://fmaconferences.org/Boston/ExecutiveCompensationunderCommonOwnership.pdf.
- Laeven, L., Ratnovski, L., Tong, H., (2015), 'Bank Size, Capital, and Systemic Risk: Some International Evidence', Journal of Banking & Finance, DOI: 10.1016/j.jbankfin.2015.06.022. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0378426615001910.
- Lewellen, K. and Lowry, M.B., (2019), 'Does Common Ownership Really Increase Firm Coordination?' Tuck School of Business Working Paper No. 3336343. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3336343.

- Liang, L.M., (2016), 'Common Ownership and Executive Compensation' Univ. Texas - Dallas Working Paper. Available at: https://acfr.aut.ac.nz/__data/assets/pdf_file/0008/58085/43082-L-Liang-Common_ownership_V2.pdf.
- Lopez, A. and Vives, X., (2016), 'Cross-ownership, R&D Spillovers, and Antitrust Policy', CESifo Working Paper Series No. 5935. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2805398.
- Malueg, D., (1992), 'Collusive Behavior and Partial Ownership of Rivals, International Journal of Industrial Organization', *International Journal of Industrial Organization*. Available at: https://www.sciencedirect.com/science/article/abs/pii/016771879290045Z.
- McCahery, J., Sautner, Z. and Starks, L., (2016), 'Behind the Scenes: The Corporate Governance Preferences of Institutional Investors', *Journal of Finance*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1571046.
- Motta, M. and Fabra, N., (2013), 'Coordinated effects in merger cases', Report Commissioned for the World Bank. Available at: https://www.fne.gob.cl/wp-content/uploads/2014/05/CRCAL-2013-Coordinated-effects-in-merger-cases.pdf.
- Motta, M., (2004), 'Competition Policy: theory and practice', Cambridge University Press. Available at: https://cadmus.eui.eu/handle/1814/2148.
- Muraca, J., Freeman, A., (2017), 'Regulation of Proxy Advisory Firms'. Available at: https://www.kwm.com/en/au/knowledge/insights/regulation-proxy-advisory-firms-influence-voting-20170303.
- Neus, W. and Stadler, M., (2019), 'Common holdings and Coordinated Manager Compensation', University of Tübingen Working Paper. Available at: https://econpapers.repec.org/paper/zbwtuewef/109.htm.
- Newham, M., Seldeslachts J., and Banal-Estañol, A., (2018), 'A Common Ownership and Market Entry: Evidence from the Pharmaceutical Industry', *DIW Berlin Discussion Paper No. 1738*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3194394.
- Norton, L., (2019), 'Corporate America Had Better Take Note. Fund Managers Are the New Activist Investors'. Available at: https://www.barrons.com/articles/mutual-fund-managers-activist-investors-51554498763.
- O'Brien, D.P., (2017), 'The Competitive Effects of Common Ownership: Ten Points on the Current State of Play', paper submitted to the OECD Hearing on Common Ownership by institutional investors and its impact on competition, December 2017. Available at: https://one.oecd.org/document/DAF/COMP/WD(2017)97/en/pdf.
- O'Brien, D.P. and. Salop, S., (2000), 'Competitive Effects of Partial Ownership: Financial Interest and Corporate Control', *Antitrust Law Journal*, Vol. 67.Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=192629.
- OECD, Institutional Investors Statistics, (2018). Available at: https://www.oecd-ilibrary.org/finance-and-investment/oecd-institutional-investors-statistics_2225207x.
- OECD, Directorate for Financial and Enterprise Affairs - Competition Committee, (2017). Background Note "Common Ownership by Institutional Investors and its Impact on Competition". Available at: https://one.oecd.org/document/DAF/COMP(2017)10/en/pdf.

- OECD, Hearing on Common Ownership by institutional investors and its impact on competition - Note by the United States, (2017). Available at: https://one.oecd.org/document/DAF/COMP/WD(2017)86/en/pdf.
- OECD, (2012), 'Unilateral disclosure of information with anticompetitive effects'. Available at: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP/WP3(2012)1&docLanguage=En.
- OECD, (2011), *The Role of Institutional Investors in Promoting Good Corporate Governance, Corporate Governance*, OECD Publishing.
- OECD, (2010). Information Exchanges Between Competitors under EU Competition Law Note by the European Union. Available at: http://www.oecd.org/competition/cartels/48379006.pdf.
- OECD, Policy Roundtables, (2008), Minority Shareholdings.
- Patel, M., (2019), 'Common Ownership and Antitrust: Eight Critical Points to Guide Antitrust Policy', Antitrust Chronicle. Available at SSRN: https://ssrn.com/abstract=3377720.
- Posner, E.A., Scott Morton, F.M. and Weyl, E. G, (2017), 'A Proposal to Limit the Anti-Competitive Power of Institutional Investors', *Antitrust Law Journal*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2872754.
- Responsible Investment Government Pension Fund Global, (2018). Available at: https://www.nbim.no/contentassets/e1632963319146bbb040024114ca65af/responsible-investment_2018.pdf.
- Rock, E.B. and Rubinfeld, D.L., (2018), 'Common Ownership and Coordinated Effects', NYU Law Review, Research Paper No 18-40. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3296488.
- Rock, E.B. and Rubinfeld, D.L., (2017), 'Defusing the Antitrust Threat to Institutional Investor Involvement in Corporate Governance'. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2925855.
- Romano, A., (2018), 'Horizontal Shareholding: The End of Markets and the Rise of Networks', *Yale Journal on Regulation*, Forthcoming. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3255948.
- Scott Morton, F.M. and Hovenkamp, H., (2018), 'Horizontal Shareholding and Antitrust Policy', *Yale Law Journal*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2872754.
- Shaun, J.M. and Casazza, L., (2019), 'Surviving Activist Shareholders, Passive Index Funds and Corporate Crises', *Corporate Board Member Journal*. Available at: https://boardmember.com/surviving-activist-shareholders-passive-index-funds-corporate-crises/.
- Schinkel, M.P., (2018), 'Foreclosure of FinTech? A Competition Law Perspective', Discussion at Competition Workshop, Competition Workshop, "FinTech and Competition in the Financial Sector", CPB, The Hague. Available at: https://www.cpb.nl/sites/default/files/omnidownload/FintechSchinkeldiscussionACMstudy.pdf.
- Schmalz, M., (2018), 'Common ownership: theory, mechanisms, empirics and policy', EAGCP Plenary 2018. Available at:

https://ec.europa.eu/dgs/competition/economist/eagcp_plenary_20181204_session_4_1.pdf.

- Schmalz, M, (2018), 'Common-Ownership Concentration and Corporate Conduct', Annual Review of Financial Economics. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3046829.
- Spark Legal Network and Queen Mary University of London., (2016), Support study for impact assessment concerning the review of Merger Regulation regarding minority shareholdings. Available at: https://op.europa.eu/en/publication-detail/-/publication/85490864-fa5c-11e6-8a35-01aa75ed71a1.
- Spiegel, Y. and Gilo, D., (2004), 'Partial cross-ownership and tacit collusion', Econometric Society. Available at: https://cpb-us-e1.wpmucdn.com/sites.northwestern.edu/dist/a/570/files/2015/08/2003-CSIO-WP-0038-1hzk1pi.pdf.
- Strampelli, G., (2018), 'Are Passive Index Funds Active Owners? Corporate Governance Consequences of Passive Investing', *San Diego Law Review*, Bocconi Legal Studies Research Paper No. 3187159. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3187159.
- Thakor, A., (2019), 'Fintech and Banking', *Journal of finance intermediation*. Available at: https://clsbluesky.law.columbia.edu/2019/08/14/fintech-and-banking/.
- Thépot, F., (2019), 'The Interaction between Competition Law and Corporate Governance', *Cambridge University Press*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3380211.
- Tzanaki, A., (2019), 'The common ownership boom: or how I learnt to start worrying and love antitrust', *CPI International*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3401209.
- Tzanaki, A., (2017), 'The Regulation of Minority Shareholdings and Other Structural Links between Competing Undertakings: A Law & Economics Analysis', Doctoral Thesis, UCL (University College London). Available at: https://discovery.ucl.ac.uk/id/eprint/1572270/.
- Vanguard Asset Management, Limited and Vanguard Investments UK, Limited Stewardship Policy, (2016). Available at: https://global.vanguard.com/documents/stewardship-policy.pdf.
- Vanguard, Investment Stewardship Annual Report, (2019). Available at: https://about.vanguard.com/investment-stewardship/perspectives-and-commentary/2019_investment_stewardship_annual_report.pdf.
- Vives, X., (2017), 'The Impact of Fintech on Banking', European Economy, Banks, Regulation, and the Real Sector. Available at: https://european-economy.eu/2017-2/the-impact-of-fintech-on-banking/.
- Walker, D., (2019), 'Common Ownership and Executive Incentives: The Implausibility of Compensation as an Anticompetitive Mechanism', *99 Boston University Law Review 2373*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3345120.
- Whyte, A., (2018), 'How Passive Fund Giants Are Driving Higher Returns'. Available at: https://www.institutionalinvestor.com/article/b18kb9pr2zn96b/how-passive-fund-giants-are-driving-higher-returns.

- Wilson, T., (2019), 'Common ownership – where do we stand?'. Available at: http://competitionlawblog.kluwercompetitionlaw.com/2019/04/15/common-ownership-where-do-we-stand/.
- Young, K., (2015), 'Not by structure alone: power, prominence, and agency in American finance', Business and Politics. Available at: https://www.cambridge.org/core/journals/business-and-politics/article/not-by-structure-alone-power-prominence-and-agency-in-american-finance/7013F0C275098D7DB6EAEB994B3902D8.

EU Legislation

- Commission Consolidated Jurisdictional Notice under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings, 2007.
- Communication from the Commission - Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements, Official Journal C 11, 14 January 2011.
- Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) (Text with EEA relevance), Official Journal L 024, 29/01/2004.
- Directive 2010/43/EU of 1 July 2010 implementing Directive 2009/65/EC of the European Parliament and of the Council as regards organisational requirements, conflicts of interest, conduct of business, risk management and content of the agreement between a depositary and a management company, OJ L 176, 10.7.2010.
- Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement, OJ L 132, 20.5.2017.
- Directive (EU) 2019/2034 of the European Parliament and of the Council of 27 November 2019 on the prudential supervision of investment firms and amending Directives 2002/87/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU, 2014/59/EU and 2014/65/EU, OJ L 314, 5.12.2019.
- Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC, OJ L 390, 31.12.2004.
- Directive 2004/25/EC of the European Parliament and of the Council of 21 April 2004 on takeover bids OJ L 142, 30.4.2004.
- Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (recast), OJ L 302 17.11.2009.
- Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010, OJ L 174, 1.7.2011.
- Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and

2006/49/EC, OJ L 176, 27.6.2013.

- European Commission, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ C 31, 5.2.2004, p. 5–18.
- Regulation (EU) 2019/2033 of the European Parliament and of the Council of 27 November 2019 on the prudential requirements of investment firms and amending Regulations (EU) No 1093/2010, (EU) No 575/2013, (EU) No 600/2014 and (EU) No 806/2014, OJ L 314, 5.12.2019.
- Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, OJ L 176 27.6.2013.

European Commission Decisions and Case law

- Judgment of the Court of Justice in case C-8/08, T-Mobile Netherlands, ECLI:EU:C:2009:343.
- Judgment of the General Court in case T-282/02, Cementbouw v Commission, ECLI:EU:T:2006:64.
- Judgment of the General Court in case T-411/07, Aer Lingus v European Commission, ECLI:EU:T:2010:281.
- Judgment of the Court of Justice in case C-67/13 P, Groupement de Cartes Bancaires v Commission, ECLI: EU:C:2014:2204.
- Judgment of the Court of Justice in case C-32/11, Allianz Hungaria, ECLI:EU:C:2013:160.
- Judgment of the Court of Justice in joined Cases 56/64 and 58/64, Consten and Grundig, ECLI:EU:C:1966:41.
- Judgment of the Court of Justice in case C-226/11, Expedia, ECLI:EU:C:2012:795.
- Judgment of the Court of Justice in case C-7/95, John Deere, ECLI:EU:C:1998:256.
- Judgment of the Court of Justice in case 48/69, ICI v Commission, ECLI:EU:C:1972:70.
- Judgment of the Court of Justice in case C-49/92P, Commission v Anic Partecipazioni, ECLI:EU:C:1999:356.
- Jugdment of the General Court in case T-16/98, Wirtschaftsvereinigung Stahl, ECLI:EU:T:2001:117.
- Judgment of the General Court in case T-41/96, Bayer AG v Commission, ECLI:EU:T:2000:242.
- Judgment of the General Court in case T-342/99, Airtours v Commission, ECLI:EU:T:2004:192.
- Judgment of the General Court in case T-464/04, Impala v Commission, ECLI:EU:T:2006:216.
- Judgment of the Court of Justice in case C-413/06 Bertelsmann and Sony v Impala, ECLI:EU:C:2008:392.
- Judgment of the Court of Justice in Case 85/76, Hoffmann-La Roche & Co. AG v Commission of the European Communities, ECLI:EU:C:1979:36.
- Judgment of the Court of Justice in case 27/76, United Brands, ECLI:EU:C:1978:22.
- Judgment of the Court of Justice in joined cases 142 and 156/84, BAT and Reynolds v Commission, ECLI:EU:1987:490.
- Judgment of the Court of Justice in Case 6/72, Europemballage and Continental Can v European Commission, ECLI:EU:C:1973:22.

- European Commission Decision, Case M.8084, Bayer/Monsanto.
- European Commission Decision of 27.3.2017, Case M.7932, Dow/DuPont.
- European Commission Decision in Warner-Lambert/Gillette, 1993, OJ L 116/21.

Other

- European Parliament resolution of 19 April 2018 on the Annual Report on Competition Policy, P8_TA(2018)0187.
- European Commission, Press release (2018). Margrethe Vestager's speech in Competition in changing times, FIW Symposium, Innsbruck, 16 February 2018. Available at: https://wayback.archive-it.org/12090/20191129215248/https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/competition-changing-times-0_en.
- Speech by FTC Commissioner Noah Joshua Phillips, FTC Hearings on competition and consumer protection in the 21st Century, Corporate Governance, Institutional Investors, and Common Ownership, a joint FTC-NYU event, NY, December 2018. Available at: https://www.ftc.gov/public-statements/2018/12/opening-remarks-commissioner-noah-joshua-phillips-ftc-hearing-8.
- Department of Justice Press-Release, assistant Attorney General Makan Delrahim Delivers Remarks at Fordham University School of Law, New York, NY, May 1, 2019. Available at: https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-new-york-university-school-law.
- Revised and Extended Remarks at FTC Hearing #8: Competition and Consumer Protection in the 21st Century Panel Discussion on Institutional Investors, Diversification, and Corporate Governance, Barbara Novick, December 6, 2018. Available at: https://www.blackrock.com/corporate/literature/publication/remarks-barbara-novick-ftc-hearing-8-competition-consumer-protection-21st-century-120618.pdf.

In recent years, the phenomenon of common ownership by institutional investors has sparked considerable debate among scholars about its impact on competition and companies' corporate governance. This study analyses some specific features of common ownership by institutional investors in the European banking sector. It also examines closely the tension between competition policy and corporate governance tools aimed at enhancing shareholder engagement.

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