Common Ownership and Firm Dividend Policies*

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Abstract

This paper examines the relationship between common ownership and dividend policy of firms. Using a detailed dataset on investors' holdings we find that dividend policies of firms that are *newly added* to a portfolio evolve towards the dividend policies of firms that are already in the portfolio of the new owner. This relation is strongest for owners that are financial institutions that have high turnover and large portfolios. The effect is more pronounced when the new owner purchases firms with low concentrated institutional ownership, high ownership diversity, high fraction of institutional investors, absence of a large controlling family owner and low ownership of the CEO. Overall, our results suggest that owners have a "dividend policy taste", are influential in dividend decisions, and that their influence depends on the type of co-owner, and on the governance and existing ownership of the firm.

Keywords: Common ownership, dividends, institutional investors, family ownership

Jel Codes: G35, G32

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1. Introduction

Common ownership, which refers to an owner in one company holding shares in at least one other company, is an important global phenomenon. For example, BlackRock is the single largest shareholder of one fifth of all American firms (The Economist, 2013). The Big Three (BlackRock, Vanguard and State Street) are the largest single shareholder in almost 90% of S&P 500 firms (UK Business Insider, 2017). In Continental Europe the top five families own between 7% (Spain) and 25% (Portugal) of stocks in a country (Faccio and Lang, 2002).

Previous literature has shown that common ownership has an effect on the corporate finance strategies of firms owned and specifically on the choices of leverage and cash reserves (Semov, 2016), merger and acquisitions (Matvos and Ostrovsky, 2008; Harford, Jenter and Li, 2011; and Brooks, Chen and Zheng, 2016), management incentives (Anton, Ederer, Gine, Schmalz, 2016), technological process and innovation (Geng, Hau and Lai, 2016; and Kostovetsky and Manconi, 2016), disclosure policy (Jung, 2013), and governance practices (He, Huang and Zhao, 2017).

However, to the best of our knowledge, there is not evidence on the relation between common ownership and dividend payout, which is one of the essential corporate financial decisions. Different types of owners have different "taste" for dividends. Family firms might have a strong desire for dividend (DeAngelo and DeAngelo, 2000, Sekerci, 2018). Financial institutional investors tend to also to ask for a high level of dividends (Crane, Michenaud, and Weston, 2016). However, short horizon institutional investors with a high portfolio turnover are less likely to demand high dividends (Gaspar, Massa and Matos, 2012). This finding suggests that high-turnover investors demand on average a low level of dividends to firms they hold. That is, they have a consistent "payout taste" based on their turnover.

This paper investigates the relation between common ownership and firm dividend policy. More specifically, we explore if a) investors do have a "payout taste", and if that depends on the characteristics of their portfolio not only in terms of turnover (similar to Gaspar, Massa and Matos, 2012), but also in terms of a number of shares, portfolio values and expertise; b) if this is the case also for all type of owners (i.e. family firms); and c) under what circumstances this taste can be

implemented (e.g. type of existing ownership of the firm in terms of concentration, diversity, and main existing owner's identity). We focus on common owners' new purchasing activities, that is, including a new stock in their portfolios. Previous studies only look at common owners' *existing* portfolios. In this regard, our study is also the first to investigate the portfolio formation considerations of common owners.

Our analysis is based and extends the analysis of Gaspar, Massa and Matos (2012) on payout.[1] We therefore mainly focus on dividend policy, which is a way to distribute cash to shareholders directly. Hence, it creates an "immediate" outcome for the institutional investor. This is as opposed to long-term investments, such as R&D for which the investor has to stay in the firm long-enough to be able to reap the related returns from it.[2]

Analyzing 193 listed companies in Sweden from 2000 to 2014 we are the first to examine the relation between common ownership and dividend policy. The Swedish setting offers us the advantage of examining ownership by its type, e.g. institutional investors, family firms, CEOs and founders. We do not focus only on the institutional investors as most of the previous literature. Similar data are available also in other Scandinavian countries. However, Sweden suits our purpose better because of its higher variation in firm-ownership structures (Faccio and Lang, 2002). Furthermore, our sample shares a common feature with the US market: the majority of common owners are indeed institutional investors. As underlined by Giannetti and Simonov (2006) "The Swedish stock market offers a unique context in which to analyze issues related to investor behavior and corporate governance, and allows conclusions to be drawn, which go well beyond the Swedish market".[3]

Our results show that there is a positive relation between dividend payout in *new* and *existing* firms of common owner's portfolio. One standard deviation increase in the weighted average portfolio

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[1] Gaspar, Massa and Matos (2012) focus primarily on overall payout (dividend and stock repurchases), although they also specifically analyze the relation between investors turnover and dividends (Table 5 page 290). In our paper the main focus is dividend policy but we also analyze stock repurchases.

[2] We also test if there is an effect of common ownership on investment policy (capex and R&D), however we find no effect in our sample.

[3] Giannetti and Simonov (2006), page 1511.

dividend yield (1.51) is related to an increase of 16.61% (1.51*0.11) of the dividend yield in the newly purchased firm.[4]

Furthermore, our results show that this relation is significant mainly when the co-owner is a financial firm. Unlike family owners, institutional investors tend to implement similar payout policies across all firms in their portfolios. In our sample this finding is mostly true for institutions with a high value portfolio and a high number of stocks in it. Presumably, the owners have less incentive and time to implement diversified payout policies as portfolios grow in size and number of firms (Kempf, Manconi and Spalt, 2017). Moreover, co-owners might be able to influence dividend policies more easily if they have a credible exit threat. Having large portfolios allows exiting from the firm in question more easily. This credible threat of exit might help better exert their dividend policy in the firm they own (Edmans and Manso, 2011). Finally, the effect on future dividends is more pronounced among high-turnover owners. Owners with a short investment horizon may focus more on changing short-horizon corporate decisions (e.g. Gaspar et al., 2012).

Our dividend "taste" effect might be purely due to selection: financial investors may target firms that have similar payout ratio to the ones in their portfolio. To address this concern, we investigate if common owners with high dividend paying firms in their portfolios target high paying dividend firms. Our results show that this is not the case: co-owners in general and financial co-owners in particular do not hunt for firms that have similar dividend policies to the ones they already have in their portfolios. Furthermore our dividend "taste" effect is significant and similar in terms of coefficients both in firms that were dividend payers and in firms that were non-dividend payers prior the co-purchase, reinforcing the finding that co-owners do not target a specific type of firm.

Next, we explore firm characteristics in terms of ownership and governance. We expect that the new co-owners have a strong power and are able to impose their dividend policies in firms characterized by high institutional ownership dispersion and high ownership diversity, which has been shown

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[4] Or 7.3% of the dividend yield standard deviation.

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leading towards lower coordination (Volkova, 2017).[5] Furthermore, family firms are more long-term oriented (Anderson and Reeb, 2003) and potentially less inclined to accept the "dividend taste" of the new owner. We expect the new financial owner to have less power to implement its dividend policies when the main existing shareholder is a family firm and to have more power when there is a high fraction of institutional investors. Similarly, we expect this to be the case also when the owner is the CEO and/or the founder. In those cases the main existing shareholders not only have long term (as in the family) objectives, but also these objectives are aligned with the management, making more difficult for the new financial owner to implement its dividend policies. Indeed, our results show that new co-owners influence dividend policies in firms a) with highly dispersed ownership; b) with diverse ownership; c) with a high fraction of institutional investors; d) when the main existing shareholder is not a family, the CEO or the founder.

By using the information on the identity of owners, their portfolio composition, the governance characteristics of firm purchased we are the first to examine if there is a relation between common ownership and dividend policies. We are also the first to show evidence of common ownership practices in Continental Europe and the portfolio formation considerations of common owners.

Our paper contributes to the literature on common ownership and firm corporate financial choices (Brooks, Chen and Zheng, 2016; Semov, 2016; Harford, Jenter and Li, 2011; and Matvos and Ostrovsky, 2008) and common ownership and governance practices (He, Huang and Zhao, 2017; He and Juang, 2017; Edmans, Levit and Reilly, 2018; and Jung, 2013). It also relates to the extensive literature on institutional investors and their role on firm policies in general (among the others Derrien et al., 2013; and Chemmanur, Hu and Huang, 2010) and in particular on dividend decisions (Crane et al. 2016; Gaspar et al. 2012; and Grinstein and Michaely, 2005).

The rest of the paper proceeds as follows. Section 2 presents the data, variable construction and descriptive statistics. In Sections 3-4, we discuss the methodology and empirical results including robustness tests. Finally, in Section 5, we present concluding remarks.

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[5] Measured as in Volkova (2017): one minus the sum of squared ratios of the different identity's shares over total firm shares.

2. Data and Variable Construction

2.1 Data

Our sample includes 193 firms (excluding the banks and insurance companies) listed on the NASDAQ-OMX stock exchange in Stockholm and domiciled in Sweden.[6] The Swedish market is a well-developed stock market with 234% market capitalization to GDP ratio. Our sample offers a setting with influential family owners and prevalent multiple block-holders. In these respects, it is a very representative sample for Continental Europe (e.g., Faccio and Lang, 2002; Bennedsen, Nielsen, Pérez-González and Wolfenzon, 2007; Maury and Pajuste, 2005; and Bach, 2010). Nevertheless, it is also similar to the US setting in the sense that the majority of common owners are institutional investors (see Summary Statistics below for more on this).

We collect accounting and firm characteristics data from Datastream and annual reports. Ownership data are collected manually from the ownership database provided by Modular Finance AB. All the data used are collected as fiscal year-end values. Our unbalanced panel dataset covers the period from 2000 through 2014.[7]

We focus on the top five owners in the firm ownership structure. The ownership database offers data on all types of owners, not only on institutional investors who are the focus of the prior literature thanks to the comprehensive 13F database. The database also indicates whether a firm uses a dual-class share structure. Individual holdings are presented as percentages of both total votes and cash flow rights, when they are different. Moreover, the ultimate shareholdings for each stock and each investor are taken into account in the database. Furthermore, similarly to Ekholm and Maury (2014) we do not have information about fixed income holdings or holdings of international stocks of our investors. Yet, based on their work and the home bias literature (see Massa and Simonov (2006) for

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[6] Fourteen foreign firms were removed from the sample.

[7] Our sample also extends Cronqvist and Nilsson (2003)'s time frame which is 1991-1997, as well as Giannetti and Simonov (2006)'s cross-sectional time setting, which exploits across-firm variation in year 2001. Both studies only use part of the ownership data from Modular Finance AB (called SIS Ägarservice AB back then).

Sweden, and Grinblatt and Keloharju (2001) for Finland) we assume that Swedish investors hold primarily Swedish stocks.[8]

2.2 Variable Construction

In this section we describe how we construct our main variables of interest, i.e. dividends and measures of co-ownership. For the definitions of all the variables used in this study, please see the Table 1.

< Insert Table 1 about here >

Previous studies only look at common owners' existing portfolios. Since our focus is on common owners' new purchasing activities, that is, including a new stock in their portfolios, we measure common ownership in the following way: *Co-purchase* is a dummy variable taking value of 1 if the firm is newly co-purchased by at least one co-owner (common owner defined as an owner investing in at least two firms in their portfolios), and 0 otherwise. Following Crane et al. (2016), Becker et al. (2011), Chemmanur, He, Hu and Liu (2010) and Graham and Kumar (2006) among the others, we measure our dependent variable, dividends as dividend yield, which is dividend paid per share as a percentage of the share price. Accordingly, we include the market-to-book ratio on the right-hand-side of our regressions to control for the variation in the dependent variable that comes from the changes in stock prices. *PortDIV*, the main explanatory variable, is calculated as the weighted average dividend yield in the portfolio of the co-purchaser one year before the new purchase; *PortDIVHigh* is a dummy variable taking value of 1 if an average stock in coowners' portfolio of stocks pays above year-median dividend yield, and 0 otherwise; *Co-purchaseFin* is a dummy variable taking value of 1 if the new co-purchase is done by an institutional investor, and 0 otherwise; *Copno* is the total number of co-purchases in the firm. *Copvotes* is the total fraction of votes co-purchased in the firm; and *Copshares* is the total fraction of shares co-purchased in the firm.

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[8] Ekholm and Maury (2014) restrict their sample to shares of listed Finnish firms with the following argument stated in their footnote on page 907: "The Finnish Central Securities Depository (FCSD) shareholder register includes a relatively small fraction of foreign securities, as well as other securities than shares."

2.3 Summary Statistics

In this section, we first present an overview of our sample in terms of how influential owners are. Table 2 exhibits the percentage of shares held by the top five owners. We note that the largest shareholder holds on average a substantial fraction of shares (22.8%). Yet, the minimum value of 0.2% regarding the largest shareholder's holding indicates that some firms have dispersed ownership. Moreover, our data show the presence of multiple blockholders (shareholders that have more than 5% of firm shares): the third owner in the ownership structure is on average a block-holder, holding 5.8% of firm shares. Finally, in Table 2 we show that the fifth largest shareholder has on average only 3.3% of the firm's shares. This suggests that looking at the top five owners is sufficient in investigating (co-) owners' influence in firm governance. Another reason for choosing exactly five largest owners is that usually the top 5 owners in Sweden are represented in nomination committees which nominate the board members (Dent, 2013), and therefore can have more direct effect on corporate polices.[9]

< Insert Table 2 about here >

In our sample family owners are large controlling owners. They have on average 25.7% of the shares of firms. Financial institutions also hold significant amount of shares (16%). 'Others' category includes: corporations, foundations and government institutions. We note that investors belonging to this 'others' categories are the least influential ones, they own only 5.4% of the shares.

Next, we present some key aspects of our data set by using univariate tests. Table 3, Panel A shows the fraction of holdings by co-owner's identity. We show that the majority of co-purchasers are financial institutions. They buy a smaller fraction of firm shares compared to family-co-purchasers. Table 3, Panel B shows that not only financial institutions but also family firms are co-owners: 13.2% of family firms in our sample own shares in more than one firm.

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[9] Swedish listed companies have nomination committees that have usually four to five members, and these committees typically are formed by the representatives of the company's major shareholders (Dent Jr., 2013).

< Insert Table 3, Panel A and B about here >

< Insert Table 4 about here >

Lastly, in Table 4, we present the summary statistics of the characteristics of the firm, sorted by being co-purchased or not. The two types of companies are comparable. They are of similar size, profitability; they have similar levels of dividend yield, leverage, market to book and capital expenditure. Firms that are co-purchased have on average less R&D expenses.

3. Empirical Design

In the main analysis, we examine whether dividend policy in a newly co-purchased firm is similar to dividend policy in other firms in co-owners portfolio. A positive relationship is in line with new owners adapting dividend policies which are similar to the ones of the firms in their portfolio.

We examine the relationship between dividends in a newly co-purchased firm and the average dividends of the other firms in co-owners portfolio using OLS methodology. Our empirical strategy exploits portfolio composition of multiple owners for a single firm per year. We run the following regression at a co-purchase level:

$$Div_{i,t+1} = \alpha + \beta \cdot PortDiv_{i,t} + X_{i,t}\delta + Z_{i,t}\lambda + \varepsilon_{it+1} \qquad (1)$$

where Div_{it+1} (named *FDIV* in tables) is the firm-year level dividends in firm *i* in year *t+1*, $PortDiv_{i,t}$ is the value-weighted average dividends in the portfolio of firms owned in year *t* by the co-purchaser of a firm *i*. X is a set of ownership related controls. In most regression specifications we use *HH Ownership* - the sum of the squared ratios of the top five institutional investors' holdings over total ownership. Z controls for a set of the following firm characteristics. *DIV* is firm's current dividend yield. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *logASSETS* is natural logarithm of total assets in SEK. We limit the

concerns related to time- or sector-varying dividend policies by augmenting regression (1) with year and sector fixed effects. ε_{it} is the error term clustered at owner level.

In regression (1), our coefficient of interest is $\beta_{.}$. A positive and significant coefficient implies a positive relationship between the dividend policy of the new firm and of the firms in the portfolio the owner has.

4. Results

4.1 Co-purchasers and Dividend Policy

This section investigates the relationship between dividend policies in the firms that the co-purchaser already has and the policies in the new firm that it acquires. It also examines the variation of this relationship depending on the co-owner's identity as well as the portfolio characteristics prior to the new purchase. Finally, it investigates if the past dividend level of the firm can explain the entry of co-purchasers in the firm.

In Table 5 we evaluate whether the dividend yield level is similar in the portfolio of firms that the co-owner holds and the next year dividend yield of a firm that it acquires. To be specific, we test if being co-purchased by at least one co-owner can explain the dividend yield of the firm newly acquired (Table 5, Column 1). For this analysis, we use observations at firm level. The coefficient on *Co-purchase* is insignificant indicating that firms whose shares co-owners buy do not pay different levels of dividends the next year after the co-purchase.

Using observations at a co-purchase level we examine firm's dividends using the variation across dividend policies within portfolios of co-owners. The positive and significant coefficient on *PortDIV* suggests that the future dividend yield of the firm and the average portfolio dividend yield of its new co-owner are positively related (Table 5, Column 2). Firms whose shares co-owners buy have similar levels of dividend yield the next year after the co-purchase. Our results suggest that a copurchaser with one percentage point higher average portfolio dividend yield raises dividend yield by 0.1

percentage point in a newly acquired firm. The effect is larger in firms co-purchased by owners with high dividend-paying stocks in their portfolios (Table 5, Column 3).

< Insert Table 5 about here >

Next, we investigate if the number of shares and voting rights the co-purchaser buys in the new firm might matter for the future firm dividends. We interact the *PortDIVHigh* variable with measures of shares and votes purchased.[10] The cross-sectional variation in ownership does not affect shareholder's influence on firm's future dividends (Table 5, Column 4 and 5). This finding might be explained by the fact that in Sweden, almost all the largest 5 shareholders have their representatives on nomination committees which nominate the board members, and hence they tend to have similar importance in the governance. Overall, the findings from Table 5 are consistent with the premise that co-owners tend to implement similar strategies across the companies that they own.[11, 12]

< Insert Table 6 about here >

We investigate if this positive relation between future firm dividends and *PortDIV* varies depending on *who* this co-purchaser is. More specifically, we look at the identity of the co-purchaser as well as their portfolio size prior to the new purchase. An identity of the co-purchaser is important since it might affect their incentives over firm's decisions.[13] To evaluate this conjecture, we re-run regression (1), in the subsamples based on co-purchaser's identity. We find that only the copurchasers that are financial institutions impose their "taste" for dividend in the newly acquired firms (Table 6, Columns 1 and 2).[14]

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[10] The unreported regression where we interact the *PortDIV* continuous variable with *Copshares* yields similar results. However, we report the *PortDIVHigh*Copshares* interaction term results since it is easier to interpret when one of the constitutive terms is a dummy variable (e.g., *PortDIVHigh*).

[11] In unreported tables we re-run our main table, Table 5 using sector*year fixed effects. We obtain similar findings to those reported in Table 5.

[12] Following the literature, we also studied stock repurchases, and ran our main regression by using the repurchase variable instead of dividend payout. We do not obtain significant results which might be due to the low coverage we have for the stock repurchase data available for Sweden.

[13] For institutional investors' incentives over firm dividends see Gaspar, Massa, Matos, Patgiri, and Rehman (2012); and for family owners' incentives over dividends see Sekerci (2018).

[14] Among the non-financials we have family and others (as defined before) but others represent a small fraction of our sample (see Table 3).

Following Gaspar et al (2012), we also study the turnover of the co-owner. The average portfolio dividend yield, *PortDIV*, for high turnover co-owners is 2.25, it is 2.48 for low turnover.[15] Once we split our sample into high and low turnover co-owners, we observe that the coefficient of *PortDIV* is positive and significant in the sub-sample of high turnover co-owners only (see Column 3 and 4 in Table 6). In Gaspar et al (2012) both low- and high-turnover investors impose firm's dividend policies, however the coefficient and the t-statistics of the former were much lower than the latter (one third), which is in line with our results.

< Insert Table 7 about here >

Next, we investigate if co-purchaser's expertise and portfolio size matter. We find that co-purchasers are more able to insert their dividend taste in firms that are in sectors where the co-purchaser has expertise. We define a co-purchaser having a sector-specific expertise if she is among the top 5 owners in at least one other firm in the same sector, and 0 otherwise (Table 7). Moreover, co-purchasers' portfolio size may add weight to the shareholder's bargaining power. Co-purchasers might be able to influence dividend policies more if they have a credible exit threat (Edmans and Manso, 2011). All else being equal, having a large portfolio provides an easier exit from a firm. This credible threat of exit might enable and hence help co-owners insert their dividend policy more easily. To test this argument, we re-run our main specification by splitting the sample based on co-purchaser's portfolio size. Co-purchaser's portfolio size is measured in two ways: a) *Number of Stocks in Portfolio* of the co-purchaser prior the new purchase, and b) *Portfolio Value* of the co-purchaser prior to the new purchase. Sample-year-median values are used to determine the cut-off points for the splits. We find that co-purchasers with larger portfolios are more able to insert their dividend strategies in the new firm they purchase (Table 7, Column 3-6).

< Insert Table 8, Panel A and B about here >

Do co-owners purchase firms with similar dividend strategies, or do they co-purchase firms with different dividend strategies, and then they make them similar to their own dividend taste? To evaluate potential reverse causality argument we examine if past dividend yield determines co-

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[15] If we compare the dividend yield of the first and third tercile of our sample based on turnover.

purchasing activities. We control for a potential unobserved firm heterogeneity, by evaluating the effect within the firm over the time by adding firm fixed effects to the regression (1).[16] We show that past firm dividends are unable to explain any of the following proxies of a co-purchase: 1) probability of being co-purchased, 2) probability of being co-purchased by an institutional investor, 3) probability of being co-purchased by an institutional investor who holds high dividing paying firms in its portfolio prior to the co-purchase, 4) number of co-purchases at a firm-year level, 5) fraction of votes co-purchased, 6) fraction of shares co-purchased, and 7) fraction of shares co-purchased by a financial institution which holds high dividend paying firms in its portfolio one year prior to the purchase (Table 8, Columns 1-7). Overall, the estimates in Table 8 suggest that co-owners do not tend to co-purchase firms that have similar dividend strategies as they have.[17]

However, it could be the case that the managers of future co-owners forecasts the increase or decrease in future dividends of firms, and buy shares of those firms accordingly, i.e. they base their acquisition strategies not on the current dividends but on the predicted ones. Assuming that managers of co-owners do not have inside information about firms, they will base their predictions of future dividends on public information. We regress the current dividend on all our controls (*HH, ROA, RD, CAPEX, LEV, MB, LogAsset* and year and industry dummies) and we save the fitted values, *Divpr*. Those values should capture common trend in dividend payments which could be forecasted by managers. In table 8 Panel B we use the same model of Panel A but we replace the lagged dividend with the fitted ones, *Divpr*. Results are similar to the ones found in Panel A.

< Insert Table 9 about here >

Lastly, we investigate the relation for dividend payers versus non-dividend payers. We find that our dividend "taste" effect is significant in both - dividend and non-dividend payers (Table 9). The coefficient on *PortDiv* is not significantly different in both subsamples, which reinforces the argument that co-owners do not target a specific type of firm.

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[16] Alternative regressions using sector fixed effects are available from authors upon request.

[17] We further investigate in which other firm policies co-purchasers with high dividend paying firms in their portfolios might insert their strategies. We do not find any significant pattern.

4.2 Co-purchasers and Dividend Policy in Different Ownership Settings

The results in the previous section support the hypothesis that co-purchasers can insert their dividend policy. In this section we investigate if co-purchasers' ability to influence depends on the firm's ownership setting prior to the new co-purchase. We first examine if institutional ownership concentration, ownership identity diversity, as well as the collusion potential between the co-purchaser and the existing owners might matter for co-purchaser's influence. In Table 10 we split the sample based on the level of institutional ownership concentration (Column 1 and 2), ownership identity diversity (Column 3 and 4), and financials' influence (Column 5 and 6). We measure the level of institutional ownership, *HH Ownership* as the sum of the squared ratios of the top five institutional investors' holdings over total ownership. We calculate *Ownership Identity Diversity* as one minus the sum of squared ratios of the different identity's shares over total firm shares (following Volkova, 2017). The higher the *Ownership Identity Diversity* measure is, the higher the heterogeneity among different identity blocks is. We measure *Financials' Influence* as the total shares owned by institutional investors that are among the top five owners. In all sample splits, we use sample median values as the cut-off points. In Column 1 and 2 we present that the positive relation between *PortDIV* and future firm dividends holds only in firms with low level of institutional ownership concentration. In other words, co-purchasers are more able to insert their dividend strategies in the new firm they invest only if the institutional ownership is not highly concentrated prior to their arrival.

< Insert Table 10 about here >

We show that co-purchasers can materialize their dividend strategies more in firms with a high heterogeneity among different identity blocks (Table 10, Columns 3 and 4). We explain the result with coordination problems among the different type of owners hampering their monitoring ability. When monitoring intensity decreases, co-purchasers in a way take the advantage of this situation and insert their policies.

Our results also suggest that co-purchasers are more able to insert their dividend strategies when the influence of the existing intuitional investors is already high (Table 10, Columns 5 and 6). The collusion theory suggests that same identity owners tend to collude whereas different identities

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monitor each other (Faccio et al., 2001; Maury and Pajuste, 2005). Since the majority of our co-purchasers are institutional investors, the existence of influential institutional investors might work as a collusion friendly setting for the co-purchaser. These co-purchasers might then collude with the other financial institutions, and this collusion enables them insert their strategies more easily.

Overall, the results in Table 10 suggest that co-purchasers can insert their dividend strategies in firms with certain ownership-related governance settings; such as firms with less concentrated institutional ownership, with high diversity in owners' identity, and with a collusion friendly environment. These settings can be associated with high-expected agency costs, which suggests that co-purchasers are more influential in high-agency conflict situations.

<center>< Insert Table 11 about here ></center>

Next, we study how the dividend "taste" intrusion varies with the role of the largest owner and her characteristics. We evaluate this relationship using the largest owner's voting power, identity, as well as ability to entrench via holding dual-class shares. First, we show that the portfolio-firm dividend relationship effect is stronger when the largest owner is not a powerful owner in terms of voting rights (Table 11, Columns 1 and 2). This result is in line with the absence of large controlling owners having incentives to monitor the manager (Shleifer and Vishny, 1986) usually through either voice or exit (Hirschman, 1970). Second, the effect is stronger when the largest owner is not a family owner (Table 11, Columns 3 and 4). Agency costs are expected to be higher in firms with no controlling family owners (Anderson and Reeb, 2003) and our results are in line with the notion that family firms are powerful owners able to limit institutional investors' initiations to change dividend policies. Third, the positive relationship holds when the largest owner does not hold dual-class shares (Table 11, Columns 5 and 6). Even though dual-class shares can reflect entrenchment (possibilities) for large owners, and their existence is associated with lower firm value and overinvestment (Cronqvist and Nilsson, 2003; Wei and Zhang, 2008; and Gompers, Ishii and Metrick, 2010), they are not necessarily harmful for the firm if the largest owner prioritizes the specific firm in their portfolio (Ravid and Sekerci, 2018). Overall, Table 11 indicates that co-purchasers are influential in environments where there are high expected agency costs.

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< Insert Table 12 about here >

Lastly, we investigate if the largest owner's role as the CEO or the founder of the firm plays a role in the relation between *PortDIV* and future firm dividends. Table 12 reports the results of this analysis. Co-purchasers are more able to insert their strategy on dividends in the new firm they buy if the largest shareholder is not closely related to the firm. Being the CEO (Columns 1 and 2 in Table 12) or the founder (Columns 3 and 4 in Table 12) of the firm in addition to being the largest owner of the firm would give the largest owner more power, and essentially mitigate potential agency problems. Once again, we find that co-purchasers can be more influential regarding their dividend strategies in firms where expected agency costs are high, that is where the largest owner is not the CEO and/or the founder.

5. Conclusion

Common owners is a global phenomenon today, and the theory and empirical evidence on them indicate that they have different incentives for firm governance and market competition. This paper contributes to the emerging stream of literature on common ownership. By using the information on the *identity* of an owner and its *portfolio* of common stocks we are the first to examine the relationship between common ownership and dividend policy.

We first note that 89% of our total co-purchase events, i.e., firms that a common owner has just added it to their portfolio, in Sweden is conducted by institutional investors. This makes the Swedish sample similar to the US sample, where The Big Three (BlackRock, Vanguard and State Street) are the largest single shareholder in almost 90% of S&P 500 firms. The Swedish sample is also a representative for Continental Europe in that family firms with influential owners are widely observed, and multiple block-holders are widespread.

We find that dividend payout in new and existing firms of common owner's portfolio is positively related. This relation holds only in firms with certain governance settings which are associated with high expected agency costs; such as, less concentrated ownership and high ownership diversity, and

absence of large controlling (family) owners. Co-owners' portfolio characteristics also matter since the relation holds for co-owners with a more credible *exit* threat (i.e., co-owners with larger portfolios, and those with portfolios including a larger number of stocks in it). We also find some support to the collusion theory since common owners seem to insert influence more easily if there is already high level of institutional ownership prior to their arrival. Overall, our results suggest that common owners are influential in dividend decisions, and that their power is dependent on governance, co-owner and firm related factors.

References

Anderson, R., and D. Reeb, (2003), "Founding-Family Ownership and Firm Performance: Evidence from the S&P 500," *The Journal of Finance* 58, 1301–1327.

Anton, M., F., Ederer, M., Giné, and M. C. Schmalz, (2016), "Common Ownership, Competition, and Top Management Incentives", Working Paper, available at SSRN at 802332.

Azar, J., S., Raina, and M. C. Schmalz, (2016), "Ultimate Ownership and Bank Competition", Working Paper, available at SSRN at 2710252.

Bach, L., (2010), "Why Are Family Firms So Small?", Working Paper, available at SSRN at 1695320.

Becker, B., Ivković, Z., and Weisbenner, S. (2011), "Local Dividend Clienteles", *The Journal of Finance 66*(2), 655-683.

Bennedsen, M., K. Nielsen, F. Pérez-Gonzalez, and D. Wolfenzon, (2007), "Inside the Family Firm: The Role of Families in Succession Decisions and Performance," *Quarterly Journal of Economics* 122, 647–691.

Brooks, C., Z. Chen, and Y. Zeng (2016), "Institutional Cross-ownership and Corporate Strategy: The Case of Mergers and Acquisitions, Working paper, Available at SSRN at 2747036.

Chemmanur T. J., J. He, G. Hu and H. Liu (2010), "Is Dividend Smoothing Universal? New Insight from a Comparative Study of Dividend Policies in Hong Kong and the U.S." *Journal of Corporate Finance*, 16 (4) 413-430.

Chemmanur T. J., G. Hu, and J. Huang (2010) "The Role of Institutional Investors in Initial Public Offerings", *The Review of Financial Studies* 23(12) 4496–4540.

Crane, A. D., S. Michenaud, and J. P. Weston, (2016), "The Effect of Institutional Ownership on Payout Policy: Evidence from Index Thresholds", *The Review of Financial Studies* 29(6), 1377-1408.

Cronqvist, H., and M. Nilsson, (2003), "Agency Cost of Controlling Shareholders", *Journal of Financial and Quantitative Analysis* 38(4), 695–719.

DeAngelo and DeAngelo, (2000) "Controlling Stockholders and the Disciplinary Role of Corporate Payout Policy: a Study of the Times Mirror Company". *Journal of Financial Economics,* 56 (2) 153-207

Dent, G. W. (2013), "Corporate Governance: The Swedish Solution", *Florida Law Review*, 364, 1633.

Derrien, F., A. Kecskés, and D. Thesmar, (2013), "Investor Horizons and Corporate Policies", *Journal of Financial and Quantitative Analysis* 48(06), 1755-1780.

Edmans A., D. Levit, and D. Reilly, (2018), "Governance Under Common Ownership", *Review of Financial Studies*, forthcoming, available at SSRN at 2482935.

Edmans A., and G. Manso, (2011), "Governance through Trading and Intervention: A Theory of Multiple Blockholders", *The Review of Financial Studies* 24(7), 2395-2428.

Ekholm, A. and B. Maury, (2014), "Portfolio Concentration and Firm Performance", *Journal of Financial and Quantitative Analysis* 49(04), 903-931.

Faccio M., and L. H. Lang, (2002), "The Ultimate Ownership of Western European Corporations", *Journal of Financial Economics* 65(3), 365-395.

Faccio, M., L. H. Lang, and L. Young, (2001), "Dividends and Expropriation", *American Economic Review*, 54-78.

Freeman, K. (2016), "The Effects of Common Ownership on Customer-Supplier Relationships", available at SSRN at 2873199.

Gaspar, J. M., M. Massa, P. Matos, R. Patgiri, Z. Rehman, (2012), "Payout Policy Choices and Shareholder Investment Horizons", *Review of Finance* 17(1), 261-320.

Geng, H., H., Hau, and S. Lai, (2016), "Technological Progress and Ownership Structure", Working Paper, available at SSRN at 2723325.

Giannetti, M. and A. Simonov, (2006), "Which Investors Fear Expropriation? Evidence from Investors' Portfolio Choices", *The Journal of Finance* 61(3), 1507-1547.

Gompers, P. J. Ishii and A. Metrick, (2010), "Extreme Governance: An Analysis of Dual-Class Firms in the United States", *The Review of Financial Studies* 23 (3) 1055-1088.

Graham, J. and A. Kumar, (2006), "Do Dividend Clienteles Exist? Evidence on Dividend Preferences of Retail Investors", *The Journal of Finance* 61, 1305-1336.

Grinblatt, M. and M. Keloharju, (2001), "How Distance, Language, and Culture Influence Stock Holdings and Trades", *The Journal of Finance* 56, 1053–1073.

Grinstein, Y., and Michaely, R. (2005), "Institutional Holdings and Payout Policy", *The Journal of Finance*, 60(3), 1389-1426.

Harford, J., D. Jenter, and L. Li, (2011), "Institutional Cross-holdings and Their Effect on Acquisition Decisions", *Journal of Financial Economics*, 99(1), 27-39.

He, J., and J. Huang, (2017), "Product Market Competition in a World of Cross-Ownership: Evidence from Institutional Blockholdings", *The Review of Financial Studies*.

He, J., J. Huang, and S. Zhao (2018), "Internalizing Governance Externalities: The Role of Institutional Cross-Ownership", *Journal of Financial Economics, forthcoming*

Hirschman, A.O., (1970), "Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States", Cambridge, MA: Harvard University Press.

Jung, M. J. (2013), "Investor Overlap and Diffusion of Disclosure Practices", *Review of Accounting Studies*, 18(1), 167-206.

Kempf, E., A. Manconi, and O. Spalt, (2017), "Distracted Shareholders and Corporate Actions", *The Review of Financial Studies*, 30(5), 1660-1695.

Kostovetsky, L., and A. Manconi, (2016), "Common Institutional Ownership and Diffusion of Innovation", Working paper, Available at SSRN at 2896372.

Massa, M., and A. Simonov, (2006), "Hedging, Familiarity, and Portfolio Choice", *The Review of Financial Studies* 19, 633–685.

Matvos, G., and M. Ostrovsky, M. (2008), "Cross-ownership, Returns, and Voting in Mergers", *Journal of Financial Economics*, 89(3), 391-403.

Maury, B. and A. Pajuste, (2005), "Multiple Large Shareholders and Firm Value", *Journal of Banking & Finance* 29(7), 1813-1834.

Ravid A. and N. Sekerci, (2018) "Large Investors' Portfolio Compositions and Firm Value", *Journal of Corporate Finance*, forthcoming.

Sekerci, N. (2018), "Factors Associated with Strategic Corporate Decisions in Family Firms: Evidence from Sweden", *International Review of Finance*, forthcoming.

Shleifer, A., and R. W. Vishny, (1986), "Large Shareholders and Corporate Control", *Journal of Political Economy*, 94(3), 461-488.

Semov, S. (2017), "Common Ownership, Competition and Firm Financial Policy", Working paper, Available at SSRN at 2956062.

The Economist (2013), "The rise of BlackRock", available at: http://www.economist.com/news/leaders/21591174-25-years-blackrock-has-become-worlds-biggest-investor-its-dominance-problem

UK Business Insider (2017), "These 3 firms own corporate America", http://uk.businessinsider.com/american-corporation-big-three-firms-2017-5?international=true&r=UK&IR=T

Volkova, E. (2017). "Blockholders Diversity: Effect of Polyphony on the Power of Monitoring", Working Paper, available at SSRN at 3047469.

Wei, K.C.J., and Y.Zhang. (2008), "Ownership Structure, Cash Flow, and Capital Investment: Evidence from East Asian Economies Before the Financial Crisis", *Journal of Corporate Finance,* 14 (2), 118-132.

Table 1. Definition of Variables

Variables of interest	
Co-purchase	Dummy variable taking value of 1 if the firm is newly co-purchased by at least one co-owner (common owner being an owner investing in at least two firms in their portfolios), and 0 otherwise.
PortDIV	Weighted average dividend (yield) in the portfolio of the co-purchaser one year before the new purchase.
PortDIVHigh	Dummy variable taking value of 1 if an average stock in coowners' portfolio of stocks pays above year-median dividend yield, and 0 otherwise.
Co-purchaseFin	Dummy variable taking value of 1 if the new co-purchase is done by a financial institution, and 0 otherwise.
Copno	Total number of co-purchases in the firm.
Copvotes	Total fraction of votes co-purchased in the firm.
Copshares	Total fraction of shares co-purchased in the firm.
CopFinHDIV	Dummy variable taking value of 1 if the new co-purchase is done by a financial institution which holds high dividend paying firms in its portfolio one year prior to the purchase, and 0 otherwise.
CopsharesHDIV	Total fraction of shares co-purchased by the financial institution which holds high dividend paying firms in its portfolio one year prior to the purchase.

Other variables	
Ownership Characteristics	
HH Ownership	Sum of the squared ratios of the top five institutional investors' holdings over total ownership.
Fraction of votes	% of votes held by the owner.
Dual-class	Dummy variable that equals 1 if the firm has a dual-class share structure.
Identity	Dummy variables created to represent the identity of the owner. It takes value of 1 if the owner is: a) family (groups) or individuals, b) financial institution, c) others; and 0 otherwise.
Ownership Identity Diversity	One minus the sum of squared ratios of the different identity's shares over total firm shares.
Financials' Influence	Total shares owned by institutional investors that are among the top five owners.
Largest Owner CEO	Dummy variable that equals 1 if the largest owner is the CEO.
Largest Owner Founder	Dummy variable that equals 1 if the largest owner is the founder.
# of stock in portfolio	Total number of stocks in the portfolio of the co-purchaser.
Portfolio Value	Size of the co-purchaser's portfolio.
Portfolio Turnover	Following Gaspar et al. (2012), we define the annual portfolio turnover as the ratio of purchases and sales over one year in SEK normalized by SEK value of the portfolio by excluding the co-purchased firm.
TurnoverOthers	Average turnover of other shareholders having at least one other firm in a co-purchased firm.
Expertise	Dummy variable that takes value of 1 if a co-purchaser owns at least one other firm in the same sector, and 0 otherwise.
Firm Characteristics	
DIV	Dividend yield which is dividend per share as a percentage of the share price.
ROA	Return on Assets is calculated as net income over total assets.
RD	Research and development expenses over total assets.
CAPEX	Capital expenditures over total assets.
LEV	Total liabilities over total assets.
MB	Market-to-book ratio.
ASSETS	Natural logarithm of total assets.

This table presents the definitions of all variables used in this study.

Table 2. Sample Overview

% shares by owner:	mean	stdev	min	max
1	22.8	14.9	0.2	72.8
2	9.3	6.2	0.1	38.8
3	5.8	3.4	0.1	24.4
4	4.3	2.4	0.1	15.9
5	3.3	2.1	0.0	15.7
TOP 5	45.8	17.5	0.0	91.0

This table presents the summary statistics on the firm shares held by the top five owners. The first column orders the top five owners. Accordingly, the second column presents the average firm shares held by these top five owners, respectively. The last three columns present the standard deviations, minimum and maximum values of shares held by these top five owners.

Table 3, Panel A. Holdings of Owners and Co-owners

	Frequency	Votes	Shares	Difference	T-stat
Family	82	8.99	8.87	0.12	0.43
Financial	842	3.59	4.31	-0.72	-15.38
Others	18	4.52	5.10	-0.58	-1.48

Observations: 942

This table reports summary statistics on holdings of *co*-owners. The first column shows the number of observations of co-owners for each identity category, respectively. The second and third columns are the votes and shares held by co-owners that belong to a different identity group. The last two columns show the mean difference tests between votes and shares average values.

Table 3, Panel B. Number of Firms Co-owned

Number of firms co-owned	Financial	Family	Others
1	64.4%	86.8%	93.8%
2	11.9%	6.3%	5.4%
3	4.2%	2.6%	0.8%
>3	19.5%	4.3%	0%

This table reports summary statistics on the number of firms co-owned by different type of *co*-owners.

Table 4. Firm Characteristics

	Co-purchased			Non-copurchased				
	Mean	Std.	Obs	Mean	Std.	Obs	Difference	T-stat
ASSETS	12.33	35.62	1,139	13.21	38.10	849	-0.88	-0.53
ROA, %	0.68	18.92	1,135	0.28	20.18	848	0.40	0.44
RD, %	3.07	7.86	1,135	3.92	9.41	848	-0.85	-2.18
CAPEX, %	3.67	4.56	1,125	3.88	4.88	840	-0.21	-0.99
LEV, %	49.65	19.56	1,135	50.57	20.01	848	-0.92	-1.02
MB	2.95	3.53	1,126	3.08	3.41	834	-0.13	-0.81
DIV, %	2.26	2.29	1,127	2.19	2.29	834	0.07	0.64

This table presents summary statistics on the characteristics of firms that are co-purchased and not co-purchased. *ASSETS* is total assets in billion SEK. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *DIV* is firm's current dividend yield.

Table 5. Co-purchasers and Dividend Policy

	(1)	(2)	(3)	(4)
	FDIV	FDIV	FDIV	FDIV
Co-purchase	0.01			
	(0.12)			
PortDIV		0.11**		
		(2.62)		
PortDIVHigh			0.27**	0.33**
			(2.62)	(2.16)
Copshares				0.16
				(0.08)
PortDIVHigh_Copshares				-1.13
				(-0.46)
HH Ownership	0.38	0.23	0.28	0.27
	(1.25)	(0.49)	(0.59)	(0.57)
DIV	0.61***	0.55***	0.55***	0.55***
	(18.59)	(11.43)	(11.61)	(11.56)
ROA	1.24***	1.09***	1.10***	1.10***
	(4.97)	(5.11)	(5.22)	(4.96)
RD	-0.67	-1.09***	-1.09**	-1.10**
	(-1.40)	(-2.64)	(-2.63)	(-2.60)
CAPEX	1.15	2.71	2.70	2.67
	(1.18)	(1.42)	(1.44)	(1.43)
LEV	-0.13	-0.56**	-0.55*	-0.54*
	(-0.58)	(-2.04)	(-1.95)	(-1.97)
MB	-0.00	0.01	0.01	0.00
	(-0.32)	(0.45)	(0.44)	(0.41)
logASSETS	0.06***	0.06	0.06*	0.06*
	(2.92)	(1.66)	(1.76)	(1.72)
Constant	0.16	-0.28	-0.20	-0.17
	(0.44)	(-0.50)	(-0.36)	(-0.30)
Observations	1,937	942	942	942
R-squared	0.58	0.56	0.56	0.56
Cluster	Firm	Owner	Owner	Owner

Regressions are at a firm-year (Column 1) and a co-purchase level (Columns 2-4) depending on the focus of the analysis. Dependent variable, *FDIV* is firm's dividend yield in year t+1. *Co-purchase* is a dummy variable taking value of 1 if in year t the firm is co-purchased by at least one co-owner (common owner being an owner investing in at least two firms in their portfolios), and 0 otherwise. *PortDIV* is the weighted average dividend (yield) in the portfolio of the co-purchaser one year before the new purchase (t-1). *PortDIVHigh* is a dummy variable taking value of 1 if an average stock in coowners' portfolio of stocks pays above year-median dividend yield, and 0 otherwise (in year t-1). All the subsequent variables are defined in year t. *Copshares* is total fraction of shares co-purchased in the firm. *HH Ownership* is the sum of the squared ratios of the top five institutional investors' holdings over total ownership. *DIV* is firm's current dividend yield. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *logASSETS* is natural logarithm of total assets. All regressions include year and sector fixed effects. The standard errors are clustered at firm level (Column 1) or at owner level (Columns 2-4). T-statistics are in the parenthesis.

Table 6. Dividend Policy and Co-purchaser's Identity and Portfolio Turnover

	Co-purchaser:		Portfolio Turnover:	
	Fin	nonFin	Low	High
	(1)	(2)	(3)	(4)
	FDIV	FDIV	FDIV	FDIV
PortDIV	0.12**	0.05	0.05	0.20**
	(2.57)	(0.37)	(0.78)	(2.30)
TurnoverOthers			0.05	0.15*
			(0.47)	(1.90)
HH Ownership	0.40	-3.68**	0.37	0.00
	(0.80)	(-2.38)	(0.65)	(0.01)
DIV	0.54***	0.55***	0.57***	0.51***
	(10.42)	(3.42)	(8.87)	(6.23)
ROA	1.08***	0.93	0.86**	1.30***
	(4.87)	(0.86)	(2.30)	(2.83)
RD	-1.20**	-1.40	-1.43*	-1.58
	(-2.49)	(-1.17)	(-1.95)	(-1.58)
CAPEX	2.65	6.42	1.05	5.47*
	(1.25)	(1.04)	(0.39)	(1.91)
LEV	-0.50*	-1.17	-0.47	-0.41
	(-1.70)	(-0.87)	(-0.96)	(-1.01)
MB	0.00	0.00	-0.02	0.02
	(0.26)	(0.06)	(-1.05)	(0.98)
logASSETS	0.06	0.09	0.06	0.04
	(1.66)	(0.62)	(1.12)	(0.82)
Constant	-0.35	-0.25	0.40	-0.86
	(-0.59)	(-0.13)	(0.44)	(-1.09)
Observations	842	100	450	451
R-squared	0.56	0.61	0.58	0.58

Regressions are at a co-purchase level. Dependent variable, *FDIV* is firm's dividend yield in year t+1. *PortDIV* is the weighted average dividend (yield) in the portfolio of the co-purchaser one year before the new purchase (t-1). All the subsequent variables are defined in year t. *TurnoverOthers* is the average turnover of other shareholders having at least one other firm in a co-purchased firm. *HH Ownership* is the sum of the squared ratios of the top five institutional investors' holdings over total ownership. *DIV* is firm's current dividend yield. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *logASSETS* is natural logarithm of total assets. *Co-purchaser Fin* is a dummy variable taking value of 1 if the new co-purchase is done by a financial institution, and 0 otherwise. *Portfolio Turnover* is the annual portfolio turnover and measured, following Gaspar et al. (2012), as the ratio of purchases and sales over one year in SEK normalized by SEK value of the portfolio by excluding the co-purchased firm. The sample is split based on the identity of the co-purchaser, financials (Fin) and non-financials (nonFin) (Column 1 and 2, respectively); based on the portfolio turnover (low vs. high) of the co-purchaser (Column 3 and 4, respectively). All regressions include year and sector fixed effects. The standard errors are clustered at owner level. T-statistics are in the parenthesis.

Table 7. Dividend Policy and Co-purchaser's Expertise and Portfolio Size

	Expertise:		# of stocks in portfolio:		Portfolio Value:	
	Yes	No	High	Low	Large	Small
	(1)	(2)	(3)	(4)	(5)	(6)
	FDIV	FDIV	FDIV	FDIV	FDIV	FDIV
PortDIV	0.18***	0.02	0.30***	0.05	0.21*	0.07
	(3.12)	(0.22)	(3.68)	(1.00)	(1.88)	(1.59)
HH Ownership	0.41	-0.49	0.84	0.10	0.35	0.28
	(0.87)	(-0.48)	(1.11)	(0.22)	(0.53)	(0.40)
DIV	0.53***	0.61***	0.50***	0.62***	0.47***	0.61***
	(8.80)	(5.21)	(8.39)	(10.68)	(6.68)	(9.35)
ROA	1.08***	1.28*	1.07***	0.93***	1.25**	1.05***
	(2.89)	(1.93)	(3.96)	(2.76)	(2.45)	(4.05)
RD	-1.46**	-0.07	-1.91***	-0.63	-1.45	-1.12**
	(-2.24)	(-0.05)	(-3.24)	(-1.07)	(-1.66)	(-2.18)
CAPEX	3.93*	0.90	2.55	1.81	3.44	2.56
	(1.73)	(0.28)	(0.70)	(1.10)	(0.99)	(1.41)
LEV	-0.60	-0.31	-0.50	-0.45	-0.52	-0.71*
	(-1.64)	(-0.41)	(-1.00)	(-1.10)	(-1.11)	(-1.88)
MB	0.00	0.03	0.00	-0.00	0.01	0.00
	(0.02)	(0.78)	(0.24)	(-0.11)	(1.04)	(0.00)
logASSETS	0.05	0.10	0.04	0.04	0.08	0.03
	(1.15)	(1.24)	(1.00)	(0.91)	(1.61)	(0.48)
Constant	-0.30	-1.19	-0.46	-0.00	-0.72	0.18
	(-0.41)	(-1.04)	(-0.76)	(-0.01)	(-1.16)	(0.20)
Observations	716	226	513	528	446	496
R-squared	0.55	0.63	0.57	0.58	0.54	0.59

Regressions are at a co-purchase level. Dependent variable, *FDIV* is firm's dividend yield in year t+1. *PortDIV* is the weighted average dividend (yield) in the portfolio of the co-purchaser one year before the new purchase (t-1). All the subsequent variables are defined in year t. *HH Ownership* is the sum of the squared ratios of the top five institutional investors' holdings over total ownership. *DIV* is firm's current dividend yield. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *logASSETS* is natural logarithm of total assets. *Expertise* is a dummy variable that takes value of 1 if a co-purchaser owns at least one other firm in the same sector, and 0 otherwise. *# of stocks in portfolio* the total number of stocks in the portfolio of the co-purchaser. *Portfolio Value* is the size of the co-purchaser's portfolio. The sample is split based on the expertise of the co-purchaser (Column 1 and 2, respectively); based on the number of stocks in co-purchaser's portfolio (Column 3 and 4, respectively); and based on the portfolio value of the co-purchaser (Column 5 and 6, respectively). All regressions include year and sector fixed effects. The standard errors are clustered at owner level. T-statistics are in the parenthesis.

Table 8, Panel A. Firm Level Determinants of Co-purchase

	(1) Copurchase	(2) CopurchaseFin	(3) CopFinHDIV	(4) Copno	(5) Copvotes	(6) Copshares	(7) CopsharesHDIV
LDIV	-0.69	-0.53	0.39	-0.54	-0.05	-0.06	-0.08**
	(-0.97)	(-0.76)	(0.59)	(-0.49)	(-0.88)	(-1.04)	(-1.99)
LHH	-0.27	-0.41*	-0.31	-0.39	-0.03*	-0.03	-0.01
	(-1.09)	(-1.76)	(-1.32)	(-1.21)	(-1.76)	(-1.37)	(-0.55)
LROA	0.09	0.17**	0.20***	0.21*	0.01**	0.01**	0.00
	(1.01)	(2.24)	(2.67)	(1.71)	(2.25)	(2.26)	(0.72)
LRD	-0.06	-0.37	-0.12	-0.27	0.01	0.00	-0.01
	(-0.19)	(-1.37)	(-0.54)	(-0.58)	(0.23)	(0.11)	(-0.95)
LCAPEX	0.35	0.60*	0.38	0.54	-0.02	-0.03	-0.02
	(0.98)	(1.80)	(1.14)	(1.10)	(-1.11)	(-1.08)	(-1.11)
LLEV	-0.01	0.00	-0.08	0.06	0.00	0.00	-0.01*
	(-0.07)	(0.04)	(-0.77)	(0.33)	(0.26)	(0.35)	(-1.81)
LMB	0.01	0.00	0.01*	0.01	0.00	0.00	0.00
	(0.93)	(0.80)	(1.77)	(1.16)	(0.64)	(0.56)	(1.54)
LlogASSETS	-0.01	-0.00	0.02	-0.02	-0.00	-0.00	0.00
	(-0.22)	(-0.20)	(0.74)	(-0.61)	(-0.89)	(-1.01)	(0.03)
Constant	0.52	0.49	0.10	0.84	0.05	0.06*	0.02
	(1.31)	(1.29)	(0.29)	(1.42)	(1.62)	(1.74)	(0.69)
Observations	1,806	1,806	1,806	1,806	1,806	1,806	1,806
R-squared	0.00	0.01	0.01	0.01	0.01	0.00	0.01

The table presents the coefficients of OLS regressions at a firm-year level. Dependent variables are defined at year t, explanatory – at year t-1. *Co-purchase* (dummy variable taking value of 1 if the firm is newly co-purchased by at least one co-owner, common owner being an owner investing in at least two firms in their portfolios); *Co-purchaseFin* (dummy variable taking value of 1 if the new co-purchase is done by a financial institution); *CopFinHDIV* (dummy variable taking value of 1 if the new co-purchase is done by a financial institution which holds high dividend paying firms in its portfolio one year prior to the purchase); *Copno* (total number of co-purchases in the firm); *Copvotes* (total fraction of votes co-purchased in the firm); *Copshares* (total fraction of shares co-purchased in the firm); and *CopsharesHDIV* (total fraction of shares co-purchased by the financial institution, which holds high dividend paying firms in its portfolio one year prior to the purchase). *LHH* is a sum of the squared ratios of the top five institutional investors' holdings over total ownership. *LDIV* is firm's dividend yield. *LROA* is net income over total assets. *LRD* is research and development expenses over total assets. *LCAPEX* is capital expenditures over total assets. *LLEV* is total liabilities over total assets. *LMB* is market-to-book ratio. *LlogASSETS* is one year lagged natural logarithm of total assets. All regressions include firm fixed effects and are clustered at firm level. T-statistics are in the parenthesis.

Table 8, Panel B. Firm Level Determinants of Co-purchase

	(1) Copurchase	(2) CopurchaseFin	(3) CopFinHDIV	(4) Copno	(5) Copvotes	(6) Copshares	(7) CopsharesHDIV
DIVpr	0.01	0.01	0.00	-0.01	-0.00	-0.00	-0.00**
	(0.40)	(0.78)	(0.27)	(-0.27)	(-0.81)	(-0.76)	(-2.53)
LHH	-0.33	-0.47**	-0.49**	-0.61*	-0.07***	-0.07***	-0.02
	(-1.40)	(-2.04)	(-2.10)	(-1.83)	(-3.06)	(-2.70)	(-1.08)
LROA	0.17*	0.21**	0.18**	0.30**	0.02***	0.02***	0.01*
	(1.87)	(2.55)	(2.32)	(2.31)	(2.91)	(2.97)	(1.66)
LRD	0.22	-0.23	-0.04	-0.14	0.01	0.01	-0.01
	(0.66)	(-0.72)	(-0.12)	(-0.27)	(0.15)	(0.29)	(-0.54)
LCAPEX	0.48	0.68	0.88*	0.68	-0.01	-0.01	-0.01
	(1.03)	(1.53)	(1.91)	(1.05)	(-0.23)	(-0.28)	(-0.44)
LLEV	0.11	0.11	0.02	0.21	0.01	0.01	-0.00
	(0.84)	(0.87)	(0.13)	(1.18)	(0.75)	(0.96)	(-0.43)
LMB	0.00	0.00	0.01	0.00	0.00	0.00	0.00
	(0.46)	(0.19)	(1.18)	(0.42)	(0.02)	(0.06)	(1.31)
LlogASSETS	-0.03	-0.03	0.01	-0.07	-0.01*	-0.01**	-0.00
	(-0.98)	(-0.92)	(0.21)	(-1.47)	(-1.97)	(-2.06)	(-0.44)
Constant	0.79*	0.74	0.23	1.46**	0.11***	0.12***	0.03
	(1.69)	(1.64)	(0.50)	(2.13)	(2.67)	(2.72)	(1.03)
Observations	1,517	1,517	1,509	1,517	1,517	1,517	1,509
R-squared	0.01	0.01	0.01	0.01	0.02	0.01	0.01

The table presents the coefficients of OLS regressions at a firm-year level. Dependent variables are defined at year t, explanatory – at year t-1. *Co-purchase* (dummy variable taking value of 1 if the firm is newly co-purchased by at least one co-owner, common owner being an owner investing in at least two firms in their portfolios); *Co-purchaseFin* (dummy variable taking value of 1 if the new co-purchase is done by a financial institution); *CopFinHDIV* (dummy variable taking value of 1 if the new co-purchase is done by a financial institution which holds high dividend paying firms in its portfolio one year prior to the purchase); *Copno* (total number of co-purchases in the firm); *Copvotes* (total fraction of votes co-purchased in the firm); *Copshares* (total fraction of shares co-purchased in the firm); and *CopsharesHDIV* (total fraction of shares co-purchased by the financial institution, which holds high dividend paying firms in its portfolio one year prior to the purchase). *LHH* is a sum of the squared ratios of the top five institutional investors' holdings over total ownership. *DIVpr* is the firm's predicted dividend yield, i.e. the fitted value of a regression of *DIV* (*dividend yield*) on concurrent *LHH, ROA, LRED, LCAPEX, LLEV, LMB, LlogAsset, industry and year dummies. LROA* is net income over total assets. *LRD* is research and development expenses over total assets. *LCAPEX* is capital expenditures over total assets. *LLEV* is total liabilities over total assets. *LMB* is market-to-book ratio. *LlogASSETS* is one year lagged natural logarithm of total assets. All regressions include firm fixed effects and are clustered at firm level. T-statistics are in the parenthesis.

Table 9. Co-purchasers and Dividend Policy in Dividend Payers vs. Non-dividend Payers

	Dividend Payers	Non-dividend Payers
	(1)	(2)
	FDIV	FDIV
PortDIV	0.11**	0.13**
	(2.01)	(2.29)
HH Ownership	-1.05*	0.79
	(-1.82)	(1.35)
ROA	7.03***	0.55***
	(5.09)	(2.71)
RD	-11.30***	0.15
	(-6.59)	(0.55)
CAPEX	2.40	2.07
	(1.02)	(0.94)
LEV	-0.73	0.06
	(-1.46)	(0.20)
MB	-0.09***	0.01
	(-3.71)	(0.43)
logASSETS	0.07*	0.09*
	(1.74)	(1.81)
Constant	0.90	-0.64
	(1.14)	(-0.79)
Observations	595	350
R-squared	0.32	0.25

Regressions are at a co-purchase level. Dependent variable, *FDIV* is firm's dividend yield in year t+1. *PortDIV* is the weighted average dividend (yield) in the portfolio of the co-purchaser one year before the new purchase (t-1). All the subsequent variables are defined in year t. *HH Ownership* is the sum of the squared ratios of the top five institutional investors' holdings over total ownership. *DIV* is firm's current dividend yield. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *logASSETS* is natural logarithm of total assets. The sample is split based on the firm paying (Column 1) or not paying (Column 2) dividends in year t-1. All regressions include year and sector fixed effects. The standard errors are clustered at owner level. T-statistics are in the parenthesis.

Table 10. Co-owners' Ability to Influence given Ownership Concentration, Identity Diversity and Collusion Potential

	HH Ownership:		Ownership Identity Diversity:		Financials' Influence:	
	High	Low	High	Low	High	Low
	(1)	(2)	(3)	(4)	(5)	(6)
	FDIV	FDIV	FDIV	FDIV	FDIV	FDIV
PortDIV	0.02	0.16**	0.15**	0.09	0.13**	0.08
	(0.41)	(2.50)	(2.06)	(1.35)	(2.13)	(1.25)
HH Ownership			0.28	0.55	0.52	0.69
			(0.42)	(0.90)	(1.11)	(1.02)
DIV	0.60***	0.45***	0.57***	0.61***	0.54***	0.59***
	(9.15)	(5.19)	(8.34)	(10.11)	(6.44)	(11.31)
ROA	1.39***	1.32***	1.31**	0.94**	1.43***	1.04***
	(3.44)	(4.27)	(2.58)	(2.43)	(4.67)	(3.08)
RD	-0.30	-0.97	-2.26***	-1.18	-1.86***	0.28
	(-0.34)	(-1.62)	(-2.66)	(-1.53)	(-3.16)	(0.41)
CAPEX	0.91	6.98**	8.62**	-1.00	-0.29	4.26
	(0.56)	(2.28)	(2.36)	(-0.49)	(-0.17)	(1.58)
LEV	-0.25	-0.48	-0.77*	0.03	-0.99**	-0.38
	(-0.53)	(-1.29)	(-1.99)	(0.05)	(-2.26)	(-1.17)
MB	0.00	0.00	0.01	0.01	0.04**	-0.02
	(0.02)	(0.32)	(0.60)	(0.33)	(2.10)	(-1.17)
logASSETS	-0.00	0.10**	0.02	0.09	0.09*	0.07
	(-0.07)	(2.54)	(0.37)	(1.37)	(1.68)	(1.48)
Constant	0.99	-1.16*	-0.75	0.02	0.56	-1.32
	(1.01)	(-1.80)	(-0.81)	(0.02)	(0.65)	(-1.54)
Observations	476	466	375	365	471	471
R-squared	0.58	0.59	0.60	0.62	0.56	0.63

Regressions are at a co-purchase level. Dependent variable, *FDIV* is firm's dividend yield in year t+1. *PortDIV* is the weighted average dividend (yield) in the portfolio of the co-purchaser one year before the new purchase (t-1). All the subsequent variables are defined in year t. *HH Ownership* is the sum of the squared ratios of the top five institutional investors' holdings over total ownership. *DIV* is firm's current dividend yield. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *logASSETS* is natural logarithm of total assets. *Ownership Identity Diversity* is calculated as one minus the sum of squared ratios of the different identity's shares over total firm shares. *Financials' Influence* is defined as total shares owned by institutional investors that are among the top five owners. The sample is split based on the level of institutional ownership concentration (Column 1 and 2, respectively); based on high or low level of ownership identity diversity (Column 3 and 4, respectively); and based on high or low level of financials' influence (Column 5 and 6, respectively). All regressions include year and sector fixed effects. The standard errors are clustered at owner level. T-statistics are in the parenthesis.

Table 11. Co-owners' Ability to Influence given the Largest Owner's Power, Identity and Entrenchment

	Fraction of votes:		Identity:		Dual class:	
	High	Low	FamInd	nonFamInd	Yes	No
	(1)	(2)	(3)	(4)	(5)	(6)
	FDIV	FDIV	FDIV	FDIV	FDIV	FDIV
PortDIV	0.03	0.16**	0.06	0.16*	0.03	0.15***
	(0.49)	(2.41)	(1.15)	(1.86)	(0.53)	(2.66)
HH Ownership	0.43	3.26	0.65	-1.72**	0.58	-0.41
	(1.04)	(1.39)	(1.66)	(-2.07)	(1.13)	(-0.67)
DIV	0.59***	0.46***	0.66***	0.34***	0.55***	0.45***
	(9.26)	(5.44)	(12.57)	(3.13)	(9.67)	(5.97)
ROA	1.86***	1.19***	1.00**	1.05***	1.40**	1.12***
	(3.97)	(4.18)	(2.19)	(3.77)	(2.64)	(4.37)
RD	0.28	-1.47***	-0.62	-1.41**	-1.82*	-0.57
	(0.27)	(-2.86)	(-0.83)	(-2.46)	(-1.99)	(-1.28)
CAPEX	0.34	8.49**	-0.07	8.94**	0.62	4.81*
	(0.21)	(2.64)	(-0.04)	(2.42)	(0.32)	(1.84)
LEV	-0.48	-0.33	-0.30	-1.22**	-0.84*	-0.10
	(-1.03)	(-0.87)	(-0.83)	(-2.22)	(-1.69)	(-0.27)
MB	0.00	0.01	-0.01	0.02	-0.00	-0.00
	(0.10)	(0.50)	(-0.47)	(1.24)	(-0.08)	(-0.22)
logASSETS	0.04	0.06	0.04	0.24***	0.05	0.10**
	(0.61)	(1.61)	(0.96)	(4.27)	(0.80)	(2.00)
Constant	0.49	-0.92	-0.39	-3.91***	0.01	-0.72
	(0.54)	(-1.44)	(-0.80)	(-3.26)	(0.01)	(-0.91)
Observations	468	474	625	317	442	500
R-squared	0.59	0.59	0.62	0.58	0.56	0.61

Regressions are at a co-purchase level. Dependent variable, *FDIV* is firm's dividend yield in year t+1. *PortDIV* is the weighted average dividend (yield) in the portfolio of the co-purchaser one year before the new purchase (t-1). All the subsequent variables are defined in year t. *HH Ownership* is the sum of the squared ratios of the top five institutional investors' holdings over total ownership. *DIV* is firm's current dividend yield. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *logASSETS* is natural logarithm of total assets. *Fraction of votes* is % of votes held by the owner. *Identity* is a dummy variable taking value of 1 if the owner is a family (group) or individuals, and 0 otherwise. *Dual class* is a dummy variable that equals 1 if the firm has a dual-class share structure. The sample is split based on high or low level of *largest* owner's votes (Column 1 and 2, respectively); based on the *largest* owner's identity (Column 3 and 4, respectively); and based on the existence of a dual-class share structure in the firm (Column 5 and 6, respectively). All regressions include year and sector fixed effects. The standard errors are clustered at owner level. T-statistics are in the parenthesis.

Table 12. Co-owners' Ability to Influence given the Largest Shareholder's Managerial or Influential Role

	Largest Owner is CEO:		Largest Owner is Founder:	
	Yes	No	Yes	No
	(1)	(2)	(3)	(4)
	FDIV	FDIV	FDIV	FDIV
PortDIV	0.03	0.09**	-0.14*	0.16***
	(0.28)	(2.13)	(-1.76)	(2.97)
HH Ownership	-0.80	0.58	-0.05	0.36
	(-0.69)	(1.14)	(-0.06)	(0.61)
DIV	0.79***	0.51***	0.50***	0.51***
	(9.33)	(10.91)	(4.55)	(8.20)
ROA	1.13	1.33***	1.63**	1.23***
	(0.93)	(4.81)	(2.21)	(4.89)
RD	-1.88	-1.10**	-3.53***	-0.86
	(-1.20)	(-2.42)	(-2.95)	(-1.60)
CAPEX	1.91	4.23*	-4.23	6.92***
	(0.38)	(1.88)	(-1.65)	(3.09)
LEV	2.87	-0.37	-0.59	-0.66**
	(1.40)	(-1.23)	(-0.70)	(-2.27)
MB	-0.03	0.00	-0.00	0.02
	(-0.99)	(0.00)	(-0.12)	(1.16)
logASSETS	-0.21	0.06*	0.03	0.08**
	(-0.90)	(1.70)	(0.22)	(2.13)
Constant	-3.52	-0.31	1.73	-0.89
	(-0.91)	(-0.56)	(1.29)	(-1.26)
Observations	104	794	204	738
R-squared	0.78	0.57	0.61	0.58

Regressions are at a co-purchase level. Dependent variable, *FDIV* is firm's dividend yield in year t+1. *PortDIV* is the weighted average dividend (yield) in the portfolio of the co-purchaser one year before the new purchase (t-1). All the subsequent variables are defined in year t. *HH Ownership* is the sum of the squared ratios of the top five institutional investors' holdings over total ownership. *DIV* is firm's current dividend yield. *ROA* is net income over total assets. *RD* is research and development expenses over total assets. *CAPEX* is capital expenditures over total assets. *LEV* is total liabilities over total assets. *MB* is market-to-book ratio. *logASSETS* is natural logarithm of total assets *Largest Owner CEO* is a dummy variable that equals 1 if the largest owner is the CEO. *Largest Owner Founder* is a dummy variable that equals 1 if the largest owner is the founder. The sample is split based on *Largest Owner CEO* (Column 1 and 2, respectively); and based on *Largest Owner Founder* (Column 3 and 4, respectively). All regressions include year and sector fixed effects. The standard errors are clustered at owner level. T-statistics are in the parenthesis.