When cutting dividends is not bad news: The case of optional stock dividends

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Abstract:
We provide evidence on optional stock dividends, a mechanism that allows shareholders to choose between cash dividends and the equivalent number of new shares in lieu of cash. We find that, in contrast to dividend cuts, shareholders do not view this option as bad news. When firms offer optional stock dividend in lieu of cash dividends, the market does not react negatively. Facing the choice between cash and stock dividend, shareholders choose 55% of the total dividend in the form of stock dividend. Our findings suggest that firms that are more committed to paying dividends are more likely to offer optional stock dividends to their shareholders.

JEL: G35, G32

Keywords: dividends, stock dividends, scrip dividends, dividend cuts, dividend reinvestment plan (DRIP)

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1. Introduction

Since Lintner (1956), several studies have documented the dividend smoothing phenomena and have reported that managers view dividend stability as one of the most important factors in payout policy. Firms that decrease or omit dividends suffer a severe decline in value (Pettit, 1972 and Aharony and Swary, 1980), making managers reluctant to cut dividends. Based on a survey of executives, Brav, Graham, Harvey, and Michaely (2005) note that “many of the interviewed executives would like to cut dividends but feel constrained by their historic policy. Some of these firms look for opportunities for a stealth cut in dividends.” Dividends create a constraint for managers that conflicts with their common objective of conserving cash and maintaining financial flexibility (Jannagathan, Stephens and Weisbach (2000), and Blau and Fuller (2008)).

Companies can temporarily reduce their cash outflows by offering their shareholders the option to receive new shares in lieu of cash. The purpose of this paper is to study shareholders’ perception of this method of paying dividends, which enables firms to refrain from decreasing their dividend per share, and, at the same time, maintain their cash balance and their financial flexibility. This practice, commonly known in Europe as scrip dividends, is popular in several countries. However, its institutional setting is not homogeneous, particularly in terms of option length, reference price and tax treatment. In this paper, we focus on France—a major western country with the sixth-largest economy in the world and a well-developed corporate sector—where firms offer this option in a tax-neutral environment. For example, Bouygues offered optional stock dividends (OSDs) for the first time in 2014 (fiscal year 2013), after its BBB+ credit rating was placed on negative watch. Accepted by 79.1% of its shareholders, this option enabled the firm to increase its capital by 5%. Optional stock dividends share some features with dividend reinvestment plans (DRIPs), which are used by a large proportion of U.S. dividend paying firms.1

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1 In both cases, shareholders renounce cash to receive more shares of the firm. However, only registered shareholders can enter DRIPs, and in most cases, they receive shares bought by the firm in the stock market. Further, most programs limit the maximum dollar amount of dividends that can be reinvested by any individual shareholder, and DRIPs are therefore effectively intended for retail investors only. In contrast, in offering optional stock dividends, the firm issues new shares, often at a discount, and the option is available for all shareholders, including institutional investors. Further, DRIPs are multiannual programs, whereas optional stock dividends are voted on each year that the firm intends to offer the option.
Optional stock dividends provide a valuable framework to investigate firms’ reluctance to decrease dividends and a unique opportunity to measure shareholders’ willingness to receive stocks instead of cash. Exploiting this opportunity, we address three questions. First, which firms use optional stock dividends rather than decrease their dividends? Second, why do firms prefer optional stock dividends to paying a cash dividend and simultaneously raising external capital? Third, do shareholders exercise the option of receiving stock dividends, and do they value this option?

In this paper, we use a hand-collected dataset of 287 French firms for the 2003-2012 period to analyze the decision to pay optional stock dividends in a tax-neutral environment. We perform a multinomial logit analysis to examine the three-way choice among cash dividends, optional stock dividends, and dividend cuts. We find that firms with a high past dividend yield and a large percentage of their capital held by institutional investors offer optional stock dividends to their shareholders; these firms are the most committed to paying dividends. The main difference between optional stock dividend payers and dividend cutters relates to net income variation: optional stock dividend payers show positive net income variation, whereas dividend cutters’ suffer a 40% decrease in their net income on average. Further, higher leverage and lower cash holdings distinguish optional stock dividend payers from cash dividend payers. Optional stock dividend payers are therefore firms committed to paying dividends that are in need of cash and equity, and optional stock dividends provide these firms with an opportunity to temporarily cut their cash outflows while maintaining their commitment for future dividends.

In addition, we find that optional stock dividends are used primarily during recession periods, when seasoned equity offerings are penalized by significant discounts on the issue price. Optional stock dividends can therefore be viewed as backdoor equity during periods of economic downturns, when SEOs are expensive and when banks are reluctant to take the risk of underwriting them.

In the second part of our analysis, we study the market reaction to optional stock dividend announcements. In contrast to dividend cuts, shareholders do not view this option as bad news: we document a positive market reaction on the announcement day of optional stock dividends and find that shareholders value nominal dividends as if they were cash dividends for the total amount. Further, the average approval rate of optional stock dividends at general meetings, during which the stock dividend option has to be presented and adopted as a specific resolution,
is 97.48%. Besides general meetings, the most convincing way to measure shareholders’ approval is to examine their participation rate. Optional stock dividends provide us with a unique opportunity to measure shareholders’ takeup of stocks rather than cash. As better-informed shareholders should be able to take advantage of their superior information to opt for stock when it is worth more than the offer price and to opt for cash when it is worth less, we expect the takeup of stock to increase with the fraction of the capital owned by informed shareholders. We find that the shareholders’ takeup is on average 55.4% and that the takeup increases with the fraction of capital held by institutional investors and blockholders, who can be viewed as informed investors. These findings further suggest that optional stock dividends signal favorable prospects. We also find that the takeup is larger the first time the optional stock dividend is offered, suggesting that shareholders are more willing to accept temporary dividend cuts.

Finally, we examine whether our results are robust to considering share repurchases. We find that firms that offer optional stock dividends repurchase shares less frequently and for a lower amount than firms that pay cash dividends. Our results regarding the choice between cash dividends and optional stock dividends are qualitatively unchanged when the subsamples of repurchasing and non-repurchasing firms are analyzed separately.

A small body of empirical literature focuses on optional stock dividends. Lasfer (1997a) investigates optional stock dividends in the UK over the 1987-1992 period. During this period, stock dividends were not subject to the advanced corporation tax payable on cash dividends, and the study results reject the tax motivation for the choice to pay optional stock dividends. On the other hand, Lasfer (1997b) conducts a survey among a sample of UK companies that offered their shareholders this option and a control sample of firms that paid only cash dividends. The majority of the respondents feel that the stock dividend option is driven by tax issues. Jacquillat (1992) investigates informational effects related to optional stock dividends in France, and Jacquemet (1998) proposes and tests a valuation model for the option to take dividends in stock. However, both papers examine a period that includes several years (1989 to 1992), during which optional stock dividends enjoyed a tax benefit for French firms.2

Also related to our study are a few papers that analyze tax motivations for different classes of shares that offer access to either stock or cash dividends but that do not offer options for both.

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2 The tax rate on corporate profits paid out to shareholders in the form of stock has been 39%, compared to 42% on profits paid out in cash.
Ang, Blackwell, and Megginson (1991) study British investment trusts with one class of shares entitled only to stock dividends and another class entitled to cash dividends. They find that after the tax advantage of stock dividend shares is eliminated, investors express a preference for cash dividend shares and convert all stock dividend shares into cash dividend shares. Similarly, Hubbard and Michaely (1997) examine the case of Citizens Utilities Company, which also offers two classes of stock, one that pays cash dividends and one that pays stock dividends. They find that the relative price of both classes varies over time and does not adjust to changes in relative taxation. However, these papers rely on tax differences between stock dividends and cash dividends, whereas our paper is based on a tax-neutral environment.

Our paper is also related to the literature on DRIPs. For example, according to Scholes and Wolfson (1989), DRIPs provide an investment banking function in issuing equity. Dammon and Spatt (1992) analyze the value of options and the optimal exercise policy in DRIPs, whereby most firms allow shareholders to make voluntary cash investments with a monthly, quarterly or annual maximum amount. Berkman and Koch (2016) examine the behavior of stock prices around the time that dividends are paid and find a significant price increase concentrated among stocks with DRIPs. However, DRIPs are mainly for retail investors, and data on firm-specific DRIP participation rates are not available, rendering an analysis of shareholders’ preferences for stocks over cash difficult.

Our study is also related to the literature on traditional stock dividends, which are offered to all shareholders on a pro-rata basis. Within this literature stream, Lakonishok and Lev (1987) find evidence showing that stock dividends provide a temporary substitute for cash dividends for firms that are unable to pay cash dividends, whereas other authors view stock dividends, similar to stock splits, as a way to keep the stock price within an acceptable trading range or as a device to increase stock market liquidity (Copeland, 1979). Stock dividends are viewed as good news for shareholders (Grinblatt, Masulis and Titman (1984); McNicols and Dravid (1990), and Bessembinder and Zhang (2015)). Recently, Zhang and Kalay (2016) argue that investors overreact to a firm’s initial stock dividend announcements, and then subsequently learn that post-dividend firm performance is poor, explaining the near extinction of stock dividends in recent years. Pure stock dividends are mainly cosmetic changes and intrinsically differ from OSDs which imply a dividend reinvestment decision. Thus, pure stock dividends do not permit one to observe the decision of shareholders between stock and cash.
The remainder of the paper is organized as follows. In Section 2, institutional settings are presented. Section 3 reviews various theories that have implications for the decision to pay optional stock dividends and develops testable hypotheses. Section 4 describes our data and explains the construction of various variables that are used in the study. Empirical results are reported in Section 5. Our conclusions are presented in Section 6.

2. Institutional settings for the stock dividend option in France

Since the law of 1983 (n°83-1 - 3 January 1983), French firms have been allowed to pay dividends in either cash or stock. Firms have no tax motivation for optional stock dividends in France, as both stock and cash dividends have been taxed similarly since 1993. The stock dividend option has to be explicitly voted upon each year that it is to be offered. At the annual general meeting approving the payment of a dividend, a separate resolution giving shareholders the option to receive dividends in either cash or newly created shares thus has to be approved. Shareholders have to define the new share issue price. According to the current legislation, this issue price must exceed 90% of the average closing stock price over the 20 trading days prior to the general meeting, less the net amount of the dividend to be paid. In practice, most firms tend to apply an exact 10% discount on the reference stock price. In 2009, more than 25% of the firms belonging to the CAC40 index (the major French index) used optional stock dividends.

The timing of the stock dividend option is voted upon during the general meeting. Shareholders agree on the conversion period, starting from the ex-dividend date, during which they can individually opt for a dividend in cash or in stocks for the total amount of their dividend and decide on the date of the dividend payment at which, when appropriate, new shares are to be issued and can be sold. Optional stock dividends can thus provide valuable options for shareholders, who can decide whether to invest given the available price information on the last date of the conversion period. However, shares are available only at the dividend payment date.

Shareholders exercising their option receive the nearest whole number of shares lower than or equal to the product of the net dividend per share (DPS) and the number of shares held,
divided by the new share issue price. Unlike pure stock dividends, which are not taxable, stock dividends received as part of the optional mechanism follow the same taxation rules as cash dividends.

Thus, every shareholder can choose whether to receive a dividend in stock or in cash. Moreover, the stock dividend option applies only to dividends for the past fiscal year. However, the option can concern all or part of dividends. Despite being inherently similar to SEOs—which are limited to the amount of dividends—stock dividends are not subject to SEO regulation. The stock dividend decision has to be made at the ordinary general meeting (a majority of 50%), whereas SEOs are authorized at the extraordinary general meeting (supermajority of 2/3). Registration by AMF and information regulation for SEOs are not applicable to optional stock dividends. Finally, in contrast to the accounting of traditional stock dividends for which firms reduce their retained earnings account and increase their common stock account, the accounting of optional stock dividends acknowledges the distribution of a dividend for the total amount and increases the common stock account for the fraction of the dividend paid in stock.

To illustrate the optional stock dividend process, let us take the example of SANOFI in 2011. In the annual report, the firm managers expressed their willingness to offer shareholders the stock dividend option to retain part of the 5.7 billion euro net profit realized in 2010. During the General Meeting of Shareholders (May 6, 2011), the payment of a DPS of 2.50€ was approved, and shareholders were offered the option to receive new shares instead of cash. The issue price was set at 49.60€, which represented the 20-day average stock price measured the day before the general meeting minus the net DPS, without a discount (the majority of other firms offer the maximum discount of 10%). The conversion period was set from May 16, 2011 (the ex-dividend date) to June 3, 2011 (the share price on June 3 was 52.43€). Any shareholder who had not exercised the option at this date will receive the dividend in cash. The new shares, entitled to dividends on January 1, 2011, were listed on the Euronext Paris Stock Exchange on June 16, 2011—with an opening price of 51.68€. In all, 38,139,730 new shares were listed on the market, representing a 58% takeup and 2.9% of the capital. Not all shareholders exercised the conversion option, although the Sanofi stock price had remained above the issue price during the entire

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3 The cash adjustment can be paid either by the firm or by the shareholder, who then receives a supplementary share.

4 Autorité des Marchés Financiers, the French financial market regulator.
conversion period. Figure 1 presents the timeline of the optional stock dividend process for Sanofi.

### 3. Hypotheses and predictions

Our empirical work on optional stock dividends draws on two approaches. In the first approach, optional stock dividends are viewed as an alternative to dividend cuts. Paying optional stock dividends instead of cash dividends allows a firm to payout a dividend while preserving cash equal to the fraction of the total dividend that shareholders choose to receive as stock. If all shareholders choose stock dividends, the result is equivalent in terms of cash flow and stock equity balance to the firm retaining earnings. Retaining earnings saves on taxes and transaction costs, specifically the administrative cost of running the stock dividend option and the transaction costs of reselling shares in the secondary market. However, cutting dividends may not be an acceptable option for a large fraction of firms, given the observed inflexibility in corporate dividend policies and the negative market reaction to the reduction or omission of dividends.

In the second approach, OSDs are viewed as an alternative to issuing equity. Firms in need of cash can either pay dividends and independently raise equity, before or after the dividend payout, or offer OSDs. In the second case, if all shareholders take the dividend in stock, the firm is left with as much cash as if it had paid a cash dividend and then clawed it back from the same shareholders via a rights offering.

We examine the consequences of these alternative views regarding the choice among cash dividends, dividend cuts and OSDs, the market reaction to optional stock dividend announcements and the preference of shareholders for stock over cash.

#### 3.1. The choice among cash dividends, dividend cuts and optional stock dividends

To explain the choice among cash dividends, dividend cuts and OSDs, we first examine agency conflict reasons. We then focus on OSDs being an alternative to cash dividends associated with an SEO.
3.1.1. Agency costs

In agency-based models, dividends are used to control the agency costs of free cash flow. According to Easterbrook (1984), paying high dividends forces firms to constantly stay in the market for capital, which allows current investors to monitor firm managers. As growth firms regularly raise capital, paying dividends would not help reduce agency costs. Dividends thus play a monitoring role for older and more mature firms, with less need for capital, by forcing them onto the market. Allen, Bernardo, and Welch (2000) and Leary and Michaely (2011) find evidence showing that institutional investors are more likely to hold dividend smoothing stocks. In contrast, Javakhade, Ferris and Sen (2014) document that ownership concentration negatively affects dividend smoothing. In closely held firms, blockholders strongly monitor and discipline managers. These firms do not need to use dividend smoothing to mitigate agency problems between shareholders and managers. Furthermore, for undiversified blockholders (families for example), dividends represent a critical income (Isakov and Weisskopf (2015)), and these shareholders may prefer effective cash payouts rather than stock dividends.

According to the smoothing clientele view, firms that are committed to paying dividends to satisfy their investor clientele should use optional stock dividends to display a dividend payout while saving cash rather than cutting dividends.\(^5\)

*Our first hypothesis is as follows:* Optional stock dividends are an alternative to dividend cuts for firms committed to paying smoothed dividends, essentially mature, widely held firms, with a large institutional investor ownership, when their level of cash holdings does not enable them to pay cash dividends.

3.1.2. Optional stock dividends as an alternative to issuing new equity

Firms intending to issue new equity incur several direct and indirect costs. According to Eckbo *et al.* (2007), expected flotation costs include the underwriter spread and out-of-pocket

\(^5\) Shefrin and Statman (1984), based on Thaler and Shefrin’s (1981) theory of self-control, suggest that irrational individual investors can adopt the rule of devoting dividends to their consumption and avoid having to make decisions about how much to consume. The decision to offer optional stock dividends has a number of advantages with respect to these aspects. Dividends are declared for the total amount, and even if the investor chooses to receive the dividend in stock, he does not have to break his “do not consume out of capital” rule. Dong, Robinson and Veld (2005) survey a panel of Dutch investors and confirm that individual investors prefer companies to pay a stock dividend rather than no dividend at all.
expenses (e.g., listing fees, fees to law firms and accountants, advertising costs, and management
time devoted to the issue process), expected underpricing and the probability of offer cancellation
multiplied by the expected cost of cancellation. Optional stock dividends allow firms to issue
new shares directly to shareholders without the help of an investment bank (e.g., Scholes and
Wolfson (1989), and Eckbo and Masulis (1992), for U.S. DRIPs) and thus save firms a large part
of the flotation costs. A major cost associated with optional stock dividends is the discount
offered to shareholders opting for stock dividends, the average of which is 8.5% (the legal
maximum is 10%). The discount is earned by current shareholders who opt for stock dividends,
whereas it is earned by external investors in public offerings. This discount is larger than the
discount documented by Corwin (2003) for U.S. SEOs (a 3% discount for firm commitments in
the 1990s). In France, the discount varies according to the flotation method. For example,
Gajewski et al. (2007) find a 22% discount for standby rights issues and 7% for public offerings,
but these discounts vary over time depending on market conditions. Discounts in rights offerings
should be offset by the value of rights for shareholders. However, several studies document that
shareholders who sell their rights suffer a substantial loss because the market for rights lacks
liquidity (see, e.g., Massa, Vermaelen and Xu (2013)). Discounts in optional stock dividends and
in SEOs are therefore of similar magnitude. However, OSDs can be an alternative to SEOs
during recession periods. SEOs are highly dependent on market conditions (Bayless and
Chaplinsky (1996)). In bear markets, volatility is high, stock prices are low, and flotation costs,
especially underwriting fees, are large. In addition, both the probability of cancellation and
underpricing required to sell equity are likely to be high.

*Our second hypothesis is as follows:* French firms will use optional stock dividends as
backdoor equity during periods of economic downturns when they are unable to raise equity on
the market at an acceptable cost. Under this hypothesis, leveraged firms seeking equity should
use optional stock dividends during recession periods.
3.2. The market reaction to an optional stock dividend announcement

The market reaction to the announcement of optional stock dividends is a combination of three components: reaction to the cash dividend, reaction to the option to get stock and reaction to the equity offering part of the stock dividend.

3.2.1. The signaling function of dividends

Dividend-signaling models analyze the role of dividends in communicating relevant information about firm value beyond the information contained in earnings (for example, Bhattacharya (1979); Miller and Rock (1985), or John and Williams (1985)). Managers use dividends to communicate their private information to the market. Favorable information can help eliminate underpricing, and selling shareholders—or firms issuing equity—will receive a higher price. Several models for dividend-smoothing policies are also based on information asymmetry (for example, Kumar (1988), and Guttman, Kadan and Kandel (2010)). The observed market reaction to changes in dividends is consistent with signaling models’ predictions. However, there is little empirical evidence that changes in dividends predict future changes in earnings. In Kumar (1988)’s model, dividend changes reflect only broad changes in a firm’s prospects. Dividend decreases signal substantial deterioration in firms’ prospects, but dividends are nevertheless a poor predictor of firms’ earnings. A firm paying optional stock dividends, by maintaining nominal dividends and offering shareholders to reinvest their dividends, is still committed to paying the total dividend if all shareholders prefer cash, which signals better prospects than a dividend decrease. Furthermore, because each shareholder can opt for a cash dividend if he prefers cash, the dividend signaling view implies that the market reaction to optional stock dividends should not differ from the one associated with pure cash dividends, which mainly depends on the magnitude of dividend variations.

3.2.2. The option to receive stock instead of cash

Shareholders are granted an option to convert their dividend into stock instead of receiving cash. The market reaction should reflect the value of the option (a warrant, to be more precise, as new shares are issued). To give an idea of the magnitude of the warrant value, let us consider average values: the new shares are issued at a mean 8.5% discount, and the number of new shares
represents on average 2.3% of the previous number of shares. If we consider the time value of the warrant to be zero, given its short maturity (19 days), the value of the warrant is about 8.5% of the share price; thus, the average fraction of the market reaction reflecting the warrant value should be approximately 0.20%.

3.2.3. Adverse selection costs: optional stock dividends as backdoor equity

OSDs can also be analyzed as a 100% cash dividend associated with an equity offering. The average market reaction to SEOs documented in the literature is approximately -1% to -1.5% for equity issues representing an average 10% to 20% of the total market value of a firm (see Eckbo, Masulis and Norli, 2007). There are three reasons why the magnitude of the negative component of the market reaction associated with the equity features of OSDs should be small. One, in our sample of OSDs, the equity issue represents on average 2.3% of the market value, which is only a small fraction of usual SEO proceeds. Two, since only current shareholders are able to elect the stock dividend option, the adverse selection problem noted in Myers and Majluf (1984) is reduced. Three, similarly to convertible bonds in Stein (1992)’s model, OSDs can be viewed as a device to obtain equity through the backdoor in situations in which conventional equity offerings are unattractive. In presence of costly distress, a company that is already substantially leveraged will choose OSDs only if it is optimistic about its prospects and if it believes that shareholders share its optimism. Firms cannot force shareholders to choose stock dividends, but they can induce them to do so by offering a discount on the issue price. Firms with unfavorable prospects will prefer straight dividend cuts as OSDs offer no guarantee that shareholders will choose stocks over cash. Firms with low leverage do not need equity, and they will prefer cash dividends. Thus, the market should react less negatively to the announcement of an OSD compared with the announcement of a SEO.

We argue that the positive market reaction due to the option value and the negative market reaction to the equity part of the OSD should be of similar magnitude; thus, their sum should be approximately zero. After controlling for dividend variations, the market reaction to announcements of OSDs should therefore be similar to the reaction to cash dividends.
Our third hypothesis is as follows:

- Optional stock dividends signal more favorable prospects than dividend cuts. Therefore, the market reaction to OSD announcements should be less negative than the reaction to dividend cuts.

- The market reaction to OSDs should be similar to the market reaction to cash dividends.

3.3. Ownership and shareholders’ takeup

According to both the dividend signaling view and the backdoor equity view, optional stock dividends should convey more favorable information on firms’ prospects than dividend decreases or a conventional equity offering. These positive prospects should translate in future stock price increase, and informed shareholders should therefore be willing to choose stock dividends rather than cash. As Barclay and Smith (1988) and Brennan and Thakor (1990) suggest for the choice between repurchases and dividends, when cash dividends are paid, informed and uninformed investors receive a pro-rata amount. When the stock dividend option is available, better-informed shareholders may be able to take advantage of this information to opt for stock when it is worth more than the offer price and to opt for cash when it is worth less. Because of the fixed cost of collecting information, large shareholders will have a greater incentive than small shareholders to become informed. Hence, large shareholders should be more willing to choose stock dividends than small shareholders. The takeup of stock in optional stock dividends should increase with the fraction of the capital owned by informed shareholders—whether blockholders or institutional investors. An alternative explanation following Shefrin and Statman (1984) would be that institutions choose stock not because they know more but rather because in contrast to individual

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6 However, as the proportion of stock dividend depends on shareholder demand, the wealth transfer from uninformed to informed shareholders is lower in the case of optional stock dividends than in the case of share repurchases.

7 We cannot rule out the possibility that the discount may attract arbitrageurs. Some funds (e.g., index trackers) are unwilling to take the stock dividend option because their holdings would become larger than their investment guidelines permit. In such instances, stock can be lent out, and the borrower can choose the stock and sell the newly issued shares on the market. The proceeds from selling the shares are then used to pay the lender the cash dividend that they have forgone by lending the shares. The borrower makes a profit equal to the difference between the market value of the shares and the cash dividend, less the stock lending fee.
investors, they do not need the money for consumption. They act like mutual fund investors who reinvest their dividends.

*Our fourth hypothesis* can be declined as follows: As offering optional stock dividends may signal that a firm’s prospects are favorable, shareholders should be willing to receive stock dividends rather than cash. In addition, stock dividend takeup should increase with the proportion of informed shareholders, whether institutional investors or blockholders.

4. Sample

Our primary data source for dividend payments is the EUROFIDAI-OST database, which provides unique and detailed historical data on cash and stock dividends paid by French firms. We select firms listed on the CAC All Tradable index (former SBF 250) for the 2003-2012 period. The aggregate market value of these firms represents on average 92.5% of the market capitalization of all public firms in France. We further obtain data on 2033 dividend payments initiated by 287 firms, including 168 cases of optional stock dividends. Most French firms only pay annual dividends. There are 46 interim dividend paying firms (113 firm-years) in our sample. For these firms, we focus on the first dividend payout following the firm’s general meeting at which the option to receive a stock dividend is decided.

For each stock dividend payment option, the expiry date of the conversion option is manually extracted from either the Factiva database or firms official reports. We are able to identify all characteristic dates for 148 optional stocks dividends; however, the expiry date of the conversion option is not available for the remaining observations. In addition, the Eurofidai database allows us to extract, for each observation, the total DPS, the reinvested DPS, and the issue price for new shares.

We complete our data by using vote results from firm shareholders’ meetings. For every CAC All Tradable firm that uses the stock dividend option during a given year, we hand collect the corresponding vote results from shareholders’ meetings and extract the percentage of votes in

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8 Very few French firms use optional stock dividends outside the CAC All tradable index.
9 We exclude hedge funds from our sample. As a robustness check, we also run our tests excluding all financial firms.
favor of the dividend payment and the proportion of votes in favor of the stock dividend option.\textsuperscript{10} We also collect the percentage of votes in favor of each resolution relative to a SEO, either a rights issue or a public offering.

Accounting and market data for the CAC All Tradable firms are extracted from the Thomson Reuters Datastream and Thomson Reuters Worldscope databases. We collect data for the fiscal years 2002 to 2011, corresponding to dividends initiated between 2003 and 2012. Because the Eurofidai database alone allows us to sort only between cash and stock dividends, we use Datastream data types to identify absences of dividends. In other words, we cross-reference the two databases to identify listed firms that choose not to pay a dividend to their shareholders. For the same fiscal period, we also extract ownership data from the Thomson One Banker database for the CAC All Tradable firms. The final panel data have 2,446 firm-years (287 unique firms).\textsuperscript{11}

Table 1, Panel A, reports the distribution of all dividend payments over the 2003-2012 period. The table presents the total number of dividend payments, the number of observations without dividends, and the number and proportion of optional stock dividends. Optional stock dividends represent 8.26\% of the observations over the entire period. Column (5) highlights a strong increase in optional stock dividends in 2009 and 2010, with more than 15\% of the dividend payments offered as optional stock dividends.

Table 1, Panel B, details the characteristics of the stock dividend option. On average, if all shareholders chose to receive their dividend in stocks, optional stock dividend paying firms would have increased their capital by 4.2\% (median 3.5\%). The average subscription rate (shareholder takeup) is 55.4\% (median 63.1\%), which means that more than half of the shareholders choose stocks rather than cash. Moreover, the actual mean capital increase is 2.3\% (median 1.9\%), and the mean discount at the end of the conversion period is 8.5\% (median 8.1\%). The conversion period (from the ex-dividend day to the last day when the choice for stocks is possible) lasts on average 19.06 days (median 17 days), and the conversion to issue date (date when shareholders effectively receive and can sell their stock dividend) period lasts 11.56 days (median 11 days). At the issue date, the discount is still 8.5\% on average (median 7.9\%).

\textsuperscript{10} We thank Proxinvest for providing data regarding optional stock dividend resolutions.
\textsuperscript{11} In our different tests, the sample size may vary depending on the restrictions we impose on the subsample relied on.
The use of stock dividends is temporary. Figure 2 shows that while just over half of the firms resort to this mechanism for a second year, firms that use it more than three consecutive times are relatively infrequent.

We construct variables for firm profitability, size, cash holding, leverage, payout ratio, dividend yield, market-to-book ratio, stock return volatility, liquidity, and ownership by following the standard procedures in the literature. The variable construction and sources are described in the Appendix.

Table 2 reports the summary statistics and univariate comparison of various firm characteristics across the three categories of dividend payments: cash dividends, optional stock dividends, and dividend cuts (omissions or dividend cuts by more than 30% for former dividend paying firms). Firms offering optional stock dividends are larger, and they have a lower market-to-book ratio, less cash, and more debt than firms offering cash dividends only. The results in Table 2 also suggest that firms offering optional stock dividends have a higher dividend yield and a higher median payout ratio than firms offering cash dividends only. Optional stock dividend firms have a large fraction of their capital held by institutional investors, and they are large, mature firms, which typically have an implicit contract to pay smoothed cash dividends. They are less frequently closely held: the largest shareholder holds 30.3% (38.8%) of the capital for optional stock dividend payers (cash dividend payers). Further, optional stock dividends are more frequently used during recessions: the mean GDP variation during the year that the dividend is offered is 1.1% for cash dividends and 0.6% for optional stock dividends.

The last column of Table 2 compares the characteristics of firms offering optional stock dividend with those of firms cutting dividends by at least 30%. Optional stock dividend firms are larger, on average, than dividend cutters. Moreover, optional stock dividend firms hold less cash and have more debt than firms that cut dividends. Whereas net income variation is not significantly different between cash dividend payers and optional stock dividend payers, firms cutting dividends significantly differ from the other firms by having a mean negative net income variation.
5. Empirical results

5.1. Why do firms use optional stock dividends?

We first investigate whether the institutional variables and firm characteristics discussed in sections 2 and 3 influence the likelihood that firms use optional stock dividends. French firms can choose to pay an optional stock dividend rather than cutting dividends or paying a 100% cash dividend. Each firm faces this discrete choice each year during the sample period. To examine the factors driving the payout choice, we estimate a multinomial logit model. The choice set consists of a dividend cut, a cash dividend, and an optional stock dividend. The sample comprises OSD-paying firms, dividend cutters (omissions or dividend decreases by more than 30% for former dividend paying firms), cash dividend payers with a non-negative change in DPS. We exclude dividend initiations\(^\text{12}\) and all observations prior to the initiation of dividends, firms that never paid any dividend, and firm-years with zero-dividend corresponding to a repeated dividend omission. The resulting sample contains 1,715 firm-year observations.\(^\text{13}\) We assume that there is no natural ordering of the alternative payout channels. Because clustering effects could bias the statistical significance of the results owing to time series dependence (residuals for a given firm could be correlated over time), in estimating our regressions, we adjust the standard errors for clustering by firm.

Table 3 reports the multinomial logit regression results, with cash dividends being the baseline category. The coefficients for cash variables (either the continuous variable or the dummy for cash-rich firms) are negative, thus suggesting that the likelihood of offering OSDs decreases when firms are not cash-constrained.

The results show that firms with high past dividend yields are more likely to offer OSDs than other firms. The impact of institutional investors on firms’ likelihoods of offering OSDs is weakly yet significantly positive. Closely held firms prefer paying cash dividends to offering OSDs. In additional tests comparing dividend cuts with OSDs, we find that closely-held firms prefer dividend cuts rather than OSDs. Unlike in the U.S. and the U.K., where dispersed

\(^{12}\) We identify a dividend initiation as the first strictly positive DPS reported in Datastream.

\(^{13}\) We also repeat our multinomial logit analysis on a sample including all no-dividend observations instead of dividend cuts only, and the results remain similar.
ownership predominates, in France, a considerable proportion of listed firms are closely held, reflecting ownership by multiple family branches that may have continued for decades. Large blockholders monitor the firm well; thus, these firms can choose a dividend policy without the need to use cash dividends as a monitoring device. These findings broadly confirm our first hypothesis that OSDs are used by the firms that are the most committed to paying dividends when they do not have enough cash to pay cash dividends.

Further, our results show that firms that offer OSDs are in a similar position to cash dividend payers in terms of their net income variation. However, these firms have significantly more debt than firms that offer cash dividends. In unreported tests, we find that net income variation increases the likelihood that firms use OSDs rather than cut dividends. These results suggest that firms that offer OSDs need equity to rebalance their capital structure, but that they do not exhibit deteriorated earnings. They reduce their cash outflows before getting in trouble and being subject to negative earnings. OSDs provide them with flexibility ahead of potential earnings deterioration. The results also show that firms are more likely to use OSDs during recession periods (negative GDP growth) or when SEO discounts are large. These findings confirm our second hypothesis that firms use OSDs as backdoor equity when they are unable to raise equity on the market under acceptable conditions.

Overall, the evidence supports the view that firm characteristics have an important influence on the choice to offer optional stock dividends. Specifically, a stronger commitment to paying dividends or needs for equity are associated with a greater likelihood of offering OSDs.

5.2. Announcement effects

We examine equity market reactions to optional stock dividend, cash dividend, and dividend cut announcements. Our sample comprises all dividend announcements between 2003 and 2012, and we restrict our sample to events in which the announcement date is a non-missing trading date. Daily abnormal returns are computed by using the market model for CAC All Tradable index, and market model parameters are estimated over 250 trading days ending 11 trading days before the dividend announcement. Table 4 reports the CAR results on the announcement days. We observe that the stock price drops significantly at the announcement of a dividend cut. On average, the CARs in the [-1,0] event window are -0.68%. By contrast, the CARs on the
announcement of an optional stock dividend are significantly positive, +0.59%, and this value is not significantly different from the CARs for traditional cash dividends (+0.64%). These results provide support for both the signaling view that OSDs signal a commitment to future dividends and the backdoor equity view that firms using OSDs are in a better position than issuers of equity.

We then run multivariate regressions with CARs on the dividend announcement day as the dependent variable and report the results in Table 5. Our variable of interest is the optional stock dividend dummy. We first run our regressions on the subsample of OSDs and dividend cuts. On average, when we control for the variation of dividends and other firm characteristics, OSDs experience a 1.7% larger market reaction than dividend cuts (Table 5, OLS regressions, models (1) and (2)). This result underlines that two mechanisms leading to comparable consequences in terms of cash outflows may incur different market reactions. Two reasons may justify our findings: first, shareholders can still take cash if they prefer cash; thus, they explicitly accept cuts in cash outflows. Second, in a signaling framework, because OSDs represent a temporary cut in cash outflows but the firm still being committed to a long-term dividend, the signal is more favorable.

We then compare OSDs and cash dividends. The market reaction to the announcement of OSDs reflects three components: reaction to cash dividends, reaction to the option to get stock and reaction to the SEO triggered by the stock dividend option exercise. We argue that the option value and the market reaction to the equity issue component of OSDs are of same magnitude but opposite sign and that these two effects are likely to cancel.

To verify our hypothesis that the market reaction to OSDs is similar to the market reaction to cash dividends, we run our regressions on the subsample of OSDs and cash dividends with a non-negative change in DPS. Because of the dividend-smoothing policy usually observed, the market reacts in the event of significant variations in dividends that bring new information to the market. In our analysis comparing the market reactions to announcements of pure cash dividends and OSDs, we include a variable that captures changes in dividends. The coefficient for the dummy variable OSD in the multivariate regression measures the market reaction to OSDs, after controlling for the information content of changes in dividends. The market reaction to OSDs
does not appear to differ from the market reaction to cash dividends (Table 5, OLS regressions, models (5) and (6)).

Our models are estimated on the implicit assumption that the optional stock dividend dummy is exogenous. However, firms that may incur a more negative market reaction from cutting dividends are likely to prefer optional stock dividends. Therefore, we employ two-stage least-squares regressions to account for endogeneity. The results of the second stage are reported in Table 5, models (3) to (4) and models (7) to (8).

We consider two instruments for optional stock dividends (OSD dummy): the one-year lag of Largest Shareholder and a Past OSD Activity dummy that is equal to 1 when the company offered the option for stock dividends at least once over the sample period before the current year. These two variables are likely to be relevant and valid (exogenous) instruments. First, firms that paid an OSD in the past are most likely to resort to offering an OSD when the need arises. Yet, there is no ex ante reason that suggests that a firm’s past OSD activity should be correlated to the market reaction to contemporaneous payout policy announcements (especially because this information should already be incorporated in a firm’s stock price). Second, because blockholders (e.g., family investors) are unlikely to drastically change their holdings in a given firm over a short-term horizon (except in the case of “extreme” corporate events, such as a merger or a takeover), the one-year lagged share of capital held by the largest shareholder is likely to be correlated with contemporaneous OSD policy choices. However, one can also reasonably expect this lagged variable not to be directly correlated with investors’ reactions to payout policy announcements, especially after controlling for contemporaneously disclosed information.

To be valid, our instruments should be uncorrelated with the error terms in our model but correlated with optional stock dividends. The first statistic that we consider to assess the validity of our instrument is the first-stage exclusion F-test for our two instruments. The high F-stats (associated with p-values lower than 1%) confirm the explanatory power of our instruments. We also examine the validity of the restrictions associated with our instruments. To do so, we rely on the Sargan-Hansen J-test statistic. The associated p-values are reported in the last row of columns (3) to (4) and columns (7) to (8) in Table 5. All p-values are above the 10% level; thus, we do not reject the null hypothesis that our instruments are uncorrelated with the error term in the second-
stage regressions and that our model is well specified. Once we control for endogeneity issues, we find that the stock market reacts 3.1% more favorably to optional stock dividend announcements than to dividend cut announcements. The announcement effect does not differ between optional stock dividends and cash dividends.

Our evidence is consistent with our prediction that optional stock dividends are not bad news for shareholders: shareholders are willing to receive lower cash amounts if the firm is committed to paying the total amount of announced dividends either in stock or in cash.

5.3. Shareholder takeup

Shareholders rarely have a choice between stock and cash dividends. In our setting, we are able to directly observe shareholders’ willingness to receive stock dividends. First, on average, at the shareholders’ general meeting, the percentage vote in favor of optional stock dividends is 97.48%, which is slightly lower than but not significantly different from the percentage vote in favor of cash dividends (98.1%). However, this percentage vote is significantly larger than the percentage vote in favor of SEOs with rights (94.7%) and SEOs without rights (85.6%).

We are able to observe shareholder takeup, which captures shareholders’ willingness to receive stock instead of cash. Shares are proposed with a mean 8.5% discount (median 8.1%). In perfect markets, the takeup should be either 0% or 100% depending on the stock price at the end of the option period. In our sample, the mean shareholder takeup is 55.4% (median 63.1%). Table 6, Panel A, reports the values of takeup for several classes of discount. The takeup varies from 54.6% to 65.3% (with a median of 61.4% to 68.6%) as long as the discount is positive at the end of the conversion period. Even when the discount is negative, the takeup is still positive, with a mean of 35.2% (median 23.6%). These findings suggest that shareholders do not choose stock dividends to obtain a pure arbitrage gain.

We run multivariate regressions with takeup as the dependent variable (Table 6, Panel B). The results show that the coefficient for discount is significantly positive, suggesting that shareholders choose stock rather than cash when the discount is high. The takeup increases with the fraction of capital held by institutional investors and by blockholders, confirming our hypothesis that the takeup should increase with the fraction of capital owned by informed
shareholders. Our previous results highlight that closely held firms are less likely to use optional stock dividends. However, once they have decided to use the optional stock dividend mechanism, blockholders subscribe to the new shares to avoid diluting their control and to use their positive information about the prospects of the firm. Further, the takeup is larger when the market for the stock is more liquid and when the period from the general meeting to the ex-dividend day is longer, suggesting that shareholders have more time to decide and a better ability to trade on the stock.

The takeup is also larger when a firm switches to optional stock dividends for the first time. This result suggests that shareholders favorably view optional stock dividends as temporary dividend cuts or backdoor equity, during exceptional situations, but that they are less willing to receive stocks when the mechanism is renewed.

5.4. Share repurchasing and optional stock dividends

In our final set of tests, we examine whether our results are robust to considering share repurchases. It could be that companies that opt for OSDs also rely more on buybacks than those that reduce their dividend or pay a cash dividend. This could distort both our assessment of the reasons why these companies offer OSDs and the market reaction to the announcement of these operations. Indeed, firms that offer OSDs could payout in the form of cash, when including repurchases, a larger amount than that paid out with pure cash dividends.

To verify that the share buyback policy does not change our results, we collect information on share buybacks in the Bloomberg database. The Bloomberg database provides actual repurchases, which correspond to an effective outflow of funds to shareholders, not just announced repurchases. The difference between announced and actual repurchases is important because on average, only half of the companies that announce buyback programs actually perform effective repurchases (Ginglinger and Hamon (2009) for France) and only 25% of the announced buybacks are realized in the first year after announcement (Manconi, Peyer and Vermaelen (2015) for 33 countries including U.S.).
5.4.1. The option for stock dividends

Table 7 reports the repurchase activity of firms according to their dividend policy: cash dividends, OSDs, and dividend cuts. Approximately 41% of firm-years conduct share repurchases, which are more common among firms paying cash dividend. Firms that reduce their dividend and those that opt for optional stock dividend do not significantly differ in terms of repurchasing activity. We then examine the repurchase intensity (ratio of repurchases to market capitalization). Firms that opt for a cash dividend repurchase significantly more than firms that opt for OSDs, the latter being comparable to firms that reduce their dividend. These results suggest that in terms of buyback strategies, firms that use OSDs are much more similar to dividend cutters than to cash dividend payers. These firms may be short of cash and unable or unwilling to conduct intensive share buybacks. In unreported tests, we find that the likelihood of choosing OSDs is negatively related to the existence of effective repurchases during a given year and to the intensity of repurchases, thus suggesting that a lower amount of repurchases is associated to optional stock dividends. However, these findings have the potential to incorporate some element of endogeneity bias to the extent that even if actual repurchases are spread over the whole year, they may be decided given the adopted dividend policy.

In Table 8, we reproduce our results regarding the choice between cash dividends, OSDs and dividends cuts for the subsamples of firms with and without repurchases in a given year. For the two subsamples, our results are broadly similar to our previous findings regarding the main determinants of the choice of OSDs (leverage, recession, largest shareholders and cash, the latter variable having a significantly negative coefficient only for the subsample of non-repurchasing firms).

Finally, in unreported results, we run a multinomial logit analysis on the choice among cash dividends, cash dividends associated with repurchases, OSDs and OSDs associated with repurchases, for a subsample restricted to dividend paying firms. The determinants of OSDs, regardless of whether they are associated with repurchases, remain qualitatively unchanged.

Overall, our results suggest that the reasons why firms choose OSDs are not affected by considering repurchases. However, a decrease in repurchases and the choice of OSDs may be two complementary mechanisms that provide flexibility to payout policies when cash becomes rare or during periods of economic downturn.
5.4.2. The market reaction to OSDs

To verify that the market reactions to OSD announcements are not related to the repurchase activity, we present the CARs for two sub-samples of firms that have/have not repurchased shares in a given year. The results are qualitatively unchanged (Table 9, panel A). CARs to dividend cuts are significantly more negative than CARs to OSDs. There is no significant difference in the CARs to cash dividends and to OSDs. We then reproduce the regressions explaining market reactions to announcements of dividend distribution arrangements, including a dummy variable that is equal to one if the firm repurchases shares during a given year. The results are similar. Finally, we interact the OSD dummy variable with a buyback dummy and find that the market reaction to OSDs is not different for firms that have a contemporaneous share repurchase activity, regardless of the counterfactual, i.e., paying a cash dividend or cutting the dividend (Table 9, Panel B).

5.5. Robustness checks

In this section, we perform several additional robustness checks to ensure that our results are not sensitive to our specific variable definitions or empirical design.

To provide further evidence on the characteristics that are important in firm’s decision to use optional stock dividends, we perform several tests on a restricted subsample that is matched on firm size, year and industry characteristics. We are able to obtain 282 (238) observations from 141 (119) unique pairs of matched firms for the choice between optional stock dividends and cash dividends (dividend cuts by more than 30% for former dividend paying firms). We estimate several binomial logit models to investigate which factors determine the choice for cash dividend paying firms between paying optional stock dividends and cutting dividends or between paying optional stock dividends and paying cash dividends.

Table 10, columns (1) and (2), presents the regression results regarding firms’ choice between optional stock dividends and dividend cuts. The dependent variable is a dummy that equals 1 in case of an optional stock dividend payment and 0 otherwise. Consistent with our previous results, we find that net income variations and blockholdings are the main drivers of the preference for OSDs over dividend cuts. Table 10, columns (3) and (4), reports the regression
results regarding firms’ choice between optional stock dividends and cash dividends, and the results confirm the findings highlighted by the multinomial logit analysis. In particular, the coefficients for debt and institutional investors are positive, whereas the coefficients for cash and largest shareholder are negative, suggesting that leveraged firms with low cash holdings that are held by institutional investors are more likely to use optional stock dividends. Further, we rerun our multinomial logit analysis on only the matched sample, and our findings are broadly confirmed.

We conduct several other robustness checks regarding firms’ dividend policy choice: we focus solely on non-financial firms, consider thresholds of 40% and 50% for dividend cuts (instead of 30%) in our dividend cut subsample, and use alternative measures of firm profitability with different definitions of net income and EBITDA, and in each case, we obtain similar results. We also use alternative measures of firm size, e.g., market value instead of total assets, and the results are unchanged. We then use several dummies to measure blockholders with more than 5%, 10%, and 20% instead of the percentage of the capital held by the largest shareholder, and our results are again qualitatively unchanged. We re-run the regressions on the subsample of firms that offer only an annual dividend, and the results remain unchanged. We also verify that the pattern of our results is unaltered by the inclusion of all no-dividend observations. Finally, we reproduce our analysis using variables winsorized at the 1st and 99th percentiles or the 5th and 95th percentiles. Our results are again similar to our earlier results.

6. Conclusions

This paper presents an empirical analysis of the choice to offer optional stock dividends by French firms. We use a hand-collected dataset of firms offering optional stock dividends to investigate why firms choose this particular form of dividend and what the consequences are for shareholders. We find that firms that are the most committed to paying dividends are the most likely firms to use optional stock dividends when providing cash dividends becomes difficult: when recessions occur or when high leverage increases the need for equity. We further find that the abnormal stock returns upon the announcement of an optional stock dividend are positive: even if the cash payout decreases, optional stock dividends are good news for shareholders.
Shareholders approve optional stock dividends, and a substantial portion of them subscribe to the new shares even if the discount is negative. Finally, the takeup increases with the fraction of the capital held by institutional investors and blockholders, thus suggesting that informed shareholders are willing to accept temporary dividend cuts.
## Appendix: Variable definitions and data sources

### Economic conditions (Sources: INSEE, AMF)

| Variable                        | Definition                                                                                                                                 |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| GDP Growth                      | Yearly change in the French GDP, as published by the INSEE (French National Statistics Office)                                         |
| Recession                       | Dummy variable that equals one if the economy is in recession according to the INSEE definition (i.e., negative GDP Growth) and 0 otherwise. |
| Median Discount on SEOs         | Yearly median discount on SEOs made by firms listed on compartment A of the Eurolist by NYSE-Euronext (Source: registration notices, AMF) |

### Firm characteristics (source: Thomson Reuters Worldscope)

| Variable      | Definition                                                                                                                                 |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Size           | Logarithm of the book value of total assets (in thousand Euros)                                                                          |
| MtoB           | Aggregate market value of the firm divided by the aggregate book value                                                                   |
| Cash           | Cash and cash equivalents divided by the book value of total assets                                                                    |
| Cash Rich      | Dummy variable that equals one if a firm’s cash ratio (Cash) is in the top tertile of the overall sample yearly distribution of cash ratios |
| Debt           | Sum of short-term and long-term debt divided by the book value of total assets                                                             |
| EBITDA/Assets  | Earnings Before Interests, Tax, Depreciation and Amortization, divided by the book value of total assets                                   |
| Net Income Variation | Change in net income between two subsequent years, expressed as a percentage.                                                   |
| Amihud Illiquidity Factor | Amihud factor, computed for firm i as:  
\[
(1/D_i) \times \sum_{t=0}^{D_i} \frac{|r_{it}|}{EVol_{it}}
\]
where \(r_{it}\) is firm’s \(i\) stock return on date \(t\), \(EVol_{it}\) is the exchanged volume—expressed in Euros—on date \(t\), and \(D_i\) is the number of days with available data during the fiscal year prior to a dividend payment. |
| Short Term Illiquidity | Amihud factor computed for the conversion period of an optional stock dividend (OSD) payment. Computed for OSD payers only. |

### Dividend policy variables (source: Thomson Reuters Worldscope)

| Variable    | Definition                                                                                                                                 |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Dividend Yield | Dividend per share (DPS) divided by the contemporaneous year-end stock price                                                               |
| Payout Ratio | DPS divided by earning per share for the contemporaneous fiscal period                                                                     |
| OSD         | Dummy variable that equals one in the case of an OSD payment and zero otherwise. Used to identify OSD paying firms.                         |
| Dividend Cut | Dummy variable that equals one if a firm decreases its DPS by more than 30%, including dividend omissions (100% decrease), and zero otherwise. Used to identify dividend cutters |

### Share repurchase activity variables (source: Bloomberg)

| Variable   | Definition                                                                                                                                 |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Repurchase (dummy) | Dummy variable that equals one if a firm has effectively repurchased shares during a given year                                          |
| Ownership variables (Source: Thomson Reuters One Banker) |
|--------------------------------------------------------|
| Institutional Ownership                                |
| **Number of shares held by institutional investors at the end of a given fiscal year divided by the total number of traded shares** |
| Largest Shareholder                                   |
| **Number of shares held by the largest shareholder at the end of a given fiscal year divided by the total number of traded shares** |
| **Optional stock dividend characteristics**            |
| % Votes in Favor of OSD                                |
| **Percentage of votes in favor of an OSD, as expressed during the shareholders’ general meeting** |
| Conversion Period (Days)                              |
| **Length of the conversion period, *i.e.*, the number of days between the ex-dividend date and the expiry date of the OSD conversion option** |
| Conversion to Issue Period (Days)                      |
| **Number of days between the end of the conversion period and the date at which new shares are delivered to the shareholders who elected to receive their dividend in shares (hereafter, the effective payment date)** |
| Takeup                                                 |
| **Shareholders’ subscription rate to an OSD**          |
| OSD % Capital (Maximum)                               |
| **Maximum (*i.e.*, in the case of a 100% takeup) number of shares issued through an OSD payment, expressed as a percentage of a firm’s total number of shares** |
| OSD % Capital (Effective)                             |
| **Number of shares effectively issued through an OSD payment, expressed as a percentage of a firm’s total number of shares** |
| Discount (End of Conversion Period)                    |
| **Relative difference between the effective stock price at the end of the conversion period and the issue price for shares issued through an OSD payment** |
| Effective Discount                                    |
| **Relative difference between the effective stock price at the effective payment date and the issue price for shares issued through an OSD payment** |
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### Table 1: Optional Stocks Dividends – Summary Statistics

#### Panel A: Yearly Distribution of Dividend Payments
The sample consists of 287 listed (CAC All Tradable) French firms for the period 2003-2012. Column (1) presents the number of available observations in each year. Column (2) presents the number of dividend payments—including optional stock dividends (hereafter OSD)—in each year. Column (3) presents the number of dividend omissions in each year. Columns (4) and (5) present the number of OSD and OSD as percentage of the total number of dividend payments in each year.

| Year | Obs. | Dividend Payments (All) | No Dividend | OSD | % OSD  |
|------|------|-------------------------|-------------|-----|--------|
| 2003 | 245  | 176                     | 69          | 10  | 5.68%  |
| 2004 | 253  | 178                     | 75          | 10  | 5.62%  |
| 2005 | 260  | 191                     | 69          | 11  | 5.76%  |
| 2006 | 268  | 204                     | 64          | 8   | 3.92%  |
| 2007 | 278  | 219                     | 59          | 11  | 5.02%  |
| 2008 | 279  | 231                     | 48          | 12  | 5.19%  |
| 2009 | 279  | 201                     | 78          | 32  | 15.92% |
| 2010 | 282  | 198                     | 84          | 31  | 15.66% |
| 2011 | 285  | 219                     | 66          | 25  | 11.42% |
| 2012 | 283  | 216                     | 67          | 18  | 8.33%  |
| Total | 2712 | 2033                    | 679         | 168 | 8.26%  |

#### Panel B: Optional Stock Dividends – Characteristics
This table presents summary statistics for the key characteristics of optional stock dividends (hereafter OSD) payments. The sample consists of 168 OSD paid by French listed firms during the period 2003-2012. Definitions of all variables are reported in the Appendix.

| Variables                        | Observations | (1) | (2) | (3) | (4) |
|----------------------------------|--------------|-----|-----|-----|-----|
| % Votes in Favor of OSD          | 168          |     | 98.475 | 99.5 | 0.027 |
| Conversion Period (Days)         | 145          |     | 19.062 | 17   | 9.187 |
| Conversion to Issue Period (Days)| 145          |     | 11.559 | 11   | 4.136 |
| Takeup                           | 160          |     | 0.554  | 0.631 | 0.254 |
| OSD % Capital (Maximum)          | 150          |     | 0.042  | 0.035 | 0.034 |
| OSD % Capital (Effective)        | 142          |     | 0.023  | 0.019 | 0.020 |
| Discount (End of Conversion Period) | 145      |     | 0.085  | 0.081 | 0.104 |
| Effective Discount               | 165          |     | 0.085  | 0.079 | 0.117 |
Table 2: Dividend Policy - Univariate Comparisons
This table presents the summary statistics and univariate comparisons of various firm characteristics across three categories of dividend payments: (i) cash dividends (excluding dividend initiations), (ii) optional stock dividends (hereafter OSD) and (iii) dividend cuts (omissions or dividend decreases by more than 30% for former dividend paying firms). Definitions of all variables are reported in the Appendix. ***, ** and * indicate significance of t-statistics (chi-squared) for the test of a difference in means (medians) between two subsamples at the 1%, 5% and 10% levels, respectively.

(Continued on next page)
Table 2: Dividend Policy - Univariate Comparisons (cont’d)

| Variables                     | (1)  | (2)  | (3)  | (4)  | (5)  | (6)  | (7)  | (8)  |
|-------------------------------|------|------|------|------|------|------|------|------|
|                               | Obs  | Mean | Obs  | Mean | Obs  | Mean | Cash vs | Cuts vs |
|                               |      | [Median] |      | [Median] |      | [Median] | OSD    | OSD    |
| GDP Growth                    | 1865 | 0.011 | 168  | 0.006 | 208  | 0.001 | 2.926*** | -2.378** |
|                               | [0.018] | [0.017] | [0]  | [0]  | [8.927***] | [1.233] |
| Recession                     | 1865 | 0.208 | 168  | 0.262 | 208  | 0.394 | -1.526  | 2.752*** |
|                               | [0]  | [0]  | [0]  | [0]  | [2.672] | [7.304***] |
| Median Disc. on SEOs          | 1865 | 0.312 | 168  | 0.411 | 208  | 0.457 | -2.494** | 0.849   |
|                               | [0.284] | [0.331] | [0.316] | [0.890***] | [0.800] |

Financials

| Variables     | (1)  | (2)  | (3)  | (4)  | (5)  | (6)  | (7)  | (8)  |
|---------------|------|------|------|------|------|------|------|------|
| Size          | 1850 | 13.910 | 168  | 14.718 | 207  | 13.025 | -3.669*** | -6.382*** |
|               | [13.579] | [14.282] | [12.614] | [-3.654***] | [-5.704***] |
| MtoB          | 1839 | 1.950 | 168  | 1.461 | 203  | 1.456 | 7.000*** | -0.043  |
|               | [1.62] | [1.23] | [1.13] | [4.098***] | [-2.229**] |
| Cash          | 1850 | 0.136 | 168  | 0.094 | 207  | 0.128 | 6.538*** | 3.221*** |
|               | [0.104] | [0.077] | [0.1]  | [4.224***] | [3.51***] |
| Cash Rich (dummy) | 1850 | 0.358 | 168  | 0.167 | 207  | 0.343 | 6.183*** | 4.018*** |
|               | [0]  | [0]  | [0]  | [5.000***] | [3.847***] |
| Debt          | 1865 | 0.356 | 168  | 0.454 | 208  | 0.379 | -5.774*** | -3.389*** |
|               | [0.359] | [0.429] | [0.374] | [-5.791***] | [-4.231***] |
| ΔNet Income   | 1742 | 0.247 | 155  | 0.244 | 176  | -0.212 | 0.041   | -5.683*** |
|               | [0.123] | [0.099] | [-0.468] | [0.86]  | [-5.437***] |
| Amihud Factor | 1841 | 1.692 | 164  | 1.646 | 207  | 3.524 | 0.072   | 2.215**  |
|               | [0.045] | [0.01] | [0.314] | [3.169***] | [5.878***] |

Dividend Policy

| Variables    | (1)  | (2)  | (3)  | (4)  | (5)  | (6)  | (7)  | (8)  |
|--------------|------|------|------|------|------|------|------|------|
| Past Yield   | 1845 | 0.031 | 164  | 0.049 | 208  | 0.051 | -3.14*** | 0.336  |
|              | [0.025] | [0.039] | [0.036] | [-6.742***] | [0.187] |
| Yield        | 1859 | 0.035 | 164  | 0.046 | 208  | 0.019 | -2.867*** | -6.136*** |
|              | [0.027] | [0.039] | [0.012] | [-4.96***] | [-7.474***] |
| Payout Ratio | 1774 | 0.648 | 145  | 0.679 | 143  | 0.560 | -0.34   | -0.894  |
|              | [0.373] | [0.5] | [0.247] | [-4.837***] | [-6.17***] |

Ownership Structure

| Variables      | (1)  | (2)  | (3)  | (4)  | (5)  | (6)  | (7)  | (8)  |
|----------------|------|------|------|------|------|------|------|------|
| Inst. Ownership| 1727 | 0.402 | 138  | 0.453 | 189  | 0.358 | -2.479** | -3.414*** |
|                | [0.376] | [0.472] | [0.262] | [-2.221**] | [-3.338***] |
| Largest Shareholder | 1727 | 0.388 | 138  | 0.303 | 189  | 0.408 | 4.554*** | 4.499*** |
|                | [0.387] | [0.231] | [0.361] | [4.458***] | [4.745***] |
Table 3: Dividend Policy Choice Model
This table presents a multinomial logit analysis of the choice of dividend policy. The sample consists of 287 French firms belonging to the CAC All Tradable index during the period 2003-2012. We exclude dividend initiations and all observations prior to the initiation of dividends, firms that never paid any dividend, and firm-years with zero-dividend corresponding to a repeated dividend omission. In columns (1) to (5), the dependent variable is equal to 0 in the case of a dividend cut greater than 30% or an omission for former dividend paying firms (Div cut), 1 in the case of cash dividend payment with a non-negative change in DPS (Cash) and 2 in the case of an optional stock dividend (OSD). In all specifications, the baseline group is outcome 1 (cash dividend). Definitions of all variables are reported in the Appendix. Robust standard errors clustered at the firm level are used. The corresponding p-values are reported between brackets. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

(Continued on next page)
Table 3: Dividend Policy Choice Model (cont’d)

| Variables               | (1)         | (2)         | (3)         | (4)         | (5)         |
|-------------------------|-------------|-------------|-------------|-------------|-------------|
|                         | Div Cut    | OSD         | Div Cut    | OSD         | Div Cut    | OSD         | Div Cut    | OSD         | Div Cut    | OSD         |
| Cash                    | 0.534      | -2.473*     | 0.152      | -0.667**    | 0.162      | -0.621**    | 0.209      | -0.593**    | 0.197      | -0.506*     |
|                         | (0.604)    | (0.090)     | (0.415)    | (0.017)     | (0.374)    | (0.021)     | (0.275)    | (0.034)     | (0.310)    | (0.085)     |
| Cash Rich               |            |             |            |             |            |             |            |             |            |             |
| Debt                    | 1.987***   | 2.040***    | 2.022***   | 1.997***    | 2.033***   | 1.742***    | 2.227***   | 2.101***    | 2.021***   | 2.217***    |
|                         | (0.000)    | (0.003)     | (0.000)    | (0.004)     | (0.000)    | (0.007)     | (0.000)    | (0.002)     | (0.000)    | (0.004)     |
| Size                    | -0.294***  | -0.068      | -0.294***  | -0.073      | -0.281***  | -0.057      | -0.285***  | -0.072      | -0.263***  | -0.195**    |
|                         | (0.000)    | (0.323)     | (0.000)    | (0.284)     | (0.000)    | (0.386)     | (0.000)    | (0.284)     | (0.000)    | (0.014)     |
| MtoB                    | -0.284***  | -0.216      | -0.284***  | -0.220      | -0.259***  | -0.245      | -0.230***  | -0.152      | -0.224***  | -0.239      |
|                         | (0.009)    | (0.214)     | (0.009)    | (0.203)     | (0.011)    | (0.121)     | (0.043)    | (0.375)     | (0.043)    | (0.228)     |
| ΔNet Income             | -1.621***  | -0.049      | -1.621***  | -0.047      | -1.796***  | -0.156      | -1.530***  | 0.027       | -1.695***  | 0.007       |
|                         | (0.000)    | (0.763)     | (0.000)    | (0.772)     | (0.000)    | (0.342)     | (0.000)    | (0.872)     | (0.000)    | (0.972)     |
| Median discount on SEOs |            |             |            |             |            |             |            |             |            |             |
|                         | 3.825***   | 3.467***    |             |             |             |             |             |             |             |             |
|                         | (0.000)    | (0.004)     |             |             |             |             |             |             |             |             |
| Recession               |             |             |             |             | 1.058***   | 1.737***    | 0.947***   | 1.845***    |             |             |
|                         |             |             |             |             | (0.001)    | (0.000)     | (0.002)    | (0.000)     |             |             |
| Past Yield              |             |             |             |             | -9.822     | 17.951***   |             |             | -0.228     | 1.137*      |
|                         |             |             |             |             | (0.159)    | (0.000)     |             |             | (0.531)    | (0.088)     |
| Institutional Ownership |             |             |             |             |             |             | -2.561***  |             |             |             |
|                         |             |             |             |             |             |             | (0.079)    |             |             |             |
| Largest Shareholder     |             |             |             |             |             |             |             |             |             |             |
|                         |             |             |             |             |             |             |             |             |             |             |
| Constant                | 1.874**    | -2.649**    | 1.872***   | -2.670**    | 0.430      | -2.983***   | 0.686      | -3.889***   | 1.381*     | -0.738      |
|                         | (0.011)    | (0.020)     | (0.008)    | (0.016)     | (0.566)    | (0.009)     | (0.358)    | (0.001)     | (0.097)    | (0.556)     |
| Observations            | 1.715      | 1.715       | 1.715      | 1.715       | 1.715      | 1.715       | 1.705      | 1.705       | 1.583      | 1.583       |
| Year dummies            | Yes        | Yes         | Yes        | Yes         | Yes        | Yes         | Yes        | Yes         | Yes        | Yes         |
| Industry dummies        | Yes        | Yes         | Yes        | Yes         | Yes        | Yes         | Yes        | Yes         | Yes        | Yes         |
| Pseudo R²               | 0.202      | 0.202       | 0.205      | 0.205       | 0.169      | 0.169       | 0.226      | 0.226       | 0.224      | 0.224       |
| Observations            | 1,715      | 1,715       | 1,715      | 1,715       | 1,715      | 1,715       | 1,705      | 1,705       | 1,583      | 1,583       |
Table 4: Market Reaction to Dividend Announcements - Summary Statistics by Type of Dividend

This table reports the equity market price reaction to optional stock dividend (OSD) announcements, dividend cut (omissions or dividend decreases by more than 30% for former dividend paying firms) announcements and cash dividend announcements. The equity market price reaction is computed as the cumulative abnormal returns (CARs) for a particular window around the announcement day. Daily abnormal returns are computed by using the market model for the CAC-All Tradable index and are reported in columns (1) and (2). Market model parameters are estimated over a 250-day window ending 11 days before the announcement date. The announcement day is denoted as date 0. Patel t-statistics are reported between brackets for each series of CARs. In columns (3) and (4), t-statistics for the test of a difference in means with the subsample of OSDs are reported for each subsample of dividend cuts and cash dividends. ***, ** and * indicate significance of t-statistics at the 1%, 5% and 10% levels, respectively.

| Dividend Type                      | N   | (1)  |   | (2)  |   | (3)  |   | (4)  |   |
|------------------------------------|-----|------|---|------|---|------|---|------|---|
| Optional Stock Dividends (All)     | 166 | 0.30**|   | 0.59**|   | 2.06**|   | 2.37**|   |
| Dividend Cuts (All)                | 145 | -0.69***|   | -0.68*|   | -1.36|   | -1.58|   |
| Positive DPS only                  | 97  | -0.5*|   | -0.36|   | -1.90*|   | -2.11**|   |
| No dividend only                   | 48  | -1.17***|   | -1.29**|   | -1.90*|   | -2.11**|   |
| Cash dividends (All)               | 1276| 0.48***|   | 0.64***|   | 0.67|   | 0.18|   |
| Cash dividends (with a non - negative change in the DPS) | 1099| 0.54***|   | 0.73***|   | 0.87|   | 0.45|   |
Table 5: Announcement Effect of Optional Stocks Dividends
This table reports the regression results of abnormal stock returns upon the announcement of a dividend payment. Abnormal stock returns for each dividend announcement are computed as the cumulative abnormal returns (CARs) for a particular window around the announcement day. Daily abnormal returns are computed by using the market model for the CAC-All Tradable index. Market model parameters are estimated over a 250-day window ending 11 days before the announcement date. The announcement day is denoted as date 0. Our variable of interest is the OSD dummy that is equal to 1 in case of an optional stock dividend (OSD) payment. Columns (1) to (4) present the results for the subsample of dividend cutters (omissions or dividend decreases by more than 30% for former dividend paying firms) and OSD paying firms. Columns (5) to (8) present the results for the subsample of OSD and cash dividend payers (with non-negative changes in DPS). We run both OLS and IV-2SLS regressions on each subsample. In the IV-2SLS specifications (i.e., columns (3) to (4) and (7) to (8)), the results for the 2\textsuperscript{nd} stage regressions are reported. The OSD dummy variable is instrumented using a dummy variable that equals one if a firm has paid at least one OSD over the sample period before the current year and the one-year lagged share of a company’s equity held by its largest shareholder (Largest Shareholder). Definitions of all variables are reported in the Appendix. Robust standard errors clustered at the firm level are used. The corresponding p-values are reported between brackets. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

(Continued on next page)
| Variables        | Dividend Cuts and OSD                  | Cash Dividends and OSD                  |
|------------------|----------------------------------------|----------------------------------------|
|                  | OLS | IV Regression - 2nd Stage | OLS | IV Regression - 2nd Stage |
|                  | CAR[0] | CAR[-1:0] | CAR[0] | CAR[-1:0] | CAR[0] | CAR[-1:0] | CAR[0] | CAR[-1:0] |
| Change in DPS (%)|     |           |        |       |     |           |        |       |
|                  | 0.006 | 0.006     | 0.002 | 0.002 | 0.007*** | 0.007*** | 0.009*** | 0.007*** |
|                  | (0.155) | (0.204) | (0.779) | (0.767) | (0.004) | (0.010) | (0.000) | (0.003) |
| OSD              | 0.017** | 0.017*   | 0.031** | 0.031* | 0.004 | 0.006 | 0.009 | 0.011 |
|                  | (0.032) | (0.050) | (0.020) | (0.051) | (0.264) | (0.139) | (0.410) | (0.382) |
| MtoB             | -0.001 | -0.003    | -0.002 | -0.006 | -0.000 | -0.001 | -0.000 | -0.001 |
|                  | (0.836) | (0.372) | (0.513) | (0.190) | (0.796) | (0.523) | (0.695) | (0.396) |
| EBITDA/Assets    | -0.065 | 0.009     | -0.093 | -0.009 | 0.005 | 0.015 | -0.008 | 0.013 |
|                  | (0.294) | (0.890) | (0.139) | (0.905) | (0.784) | (0.495) | (0.726) | (0.598) |
| Size             | -0.002 | -0.002    | -0.003** | -0.003 | -0.001** | -0.001** | -0.001** | -0.001* |
|                  | (0.121) | (0.162) | (0.036) | (0.106) | (0.031) | (0.033) | (0.044) | (0.068) |
| Constant         | 0.057** | 0.055     | 0.036 | 0.016 | 0.027*** | 0.033*** | 0.025* | 0.024 |
|                  | (0.034) | (0.113) | (0.499) | (0.799) | (0.001) | (0.000) | (0.084) | (0.133) |
| Observations     | 225 | 225       | 188 | 188 | 1.168 | 1.168 | 994 | 994 |
| R²               | 0.102 | 0.090     | 0.126 | 0.110 | 0.038 | 0.044 | 0.043 | 0.039 |
| Year dummies     | Yes | Yes       | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry dummies | Yes | Yes       | Yes | Yes | Yes | Yes | Yes | Yes |
| First Stage F-stat | 68.41 | 68.41     | 68.41 | 68.41 | 91.47 | 91.47 | 91.47 | 91.47 |
| Sargan test (p-value) | 0.242 | 0.396 | 0.242 | 0.396 | 0.698 | 0.820 | 0.698 | 0.820 |
Table 6: Shareholders’ Choice between Cash and Stock Dividends - Determinants of Shareholder Takeup

Panel A: Summary Statistics – Shareholder Takeup

This table reports summary statistics for several classes of discounts at the end of the conversion period. The sample consists of 174 optional stock dividend payments for which we are able to compute the effective shareholder takeup during the period 2003-2012. Definitions of all variables are reported in the Appendix.

| Variables | (1) Obs. | (2) Mean | (3) Median | (4) Std. Dev |
|-----------|---------|---------|------------|--------------|
| Takeup    | 174     | 0.548   | 0.631      | 0.264        |

Discount at the end of the conversion period

| Discount at the end of the conversion period | (1) | (2) | (3) | (4) |
|---------------------------------------------|-----|-----|-----|-----|
| Discount < 0%                               | 24  | 0.339 | 0.232 | 0.299 |
| Discount ∈ [0%;5%[                          | 31  | 0.533 | 0.614 | 0.242 |
| Discount ∈ [5%;10%[                         | 31  | 0.551 | 0.631 | 0.251 |
| Discount ∈ [10%;15%[                        | 24  | 0.670 | 0.652 | 0.110 |
| Discount ∈ [15%;20%[                        | 12  | 0.653 | 0.686 | 0.174 |
| Discount > 20%                              | 52  | 0.569 | 0.665 | 0.285 |

(Continued on next page)
Table 6: Shareholders’ Choice between Cash and Stock Dividends (cont’d)

Panel B: Determinants of Shareholder Takeup

This table reports the OLS estimation of shareholder takeup in the case of an optional stock dividend (OSD). The sample consists of OSD payments during the period 2003-2012 for which we are able to (i) compute the effective takeup and (ii) identify the end of the conversion period. *GM to Ex-Div* is the natural logarithm of the number of days between the general meeting and the ex-dividend date. *Duration of Option* is the natural logarithm of the length in days of the conversion period. *Switch to OSD* is a dummy that is equal to 1 when a cash dividend paying firm switches to paying an OSD and 0 otherwise. Definitions of all other variables are reported in the Appendix. Robust standard errors are used. The corresponding p-values are reported between brackets. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

| Variables                      | Takeup (1) | Takeup (2) | Takeup (3) | Takeup (4) | Takeup (5) | Takeup (6) |
|-------------------------------|------------|------------|------------|------------|------------|------------|
| Discount (End of Conversion Period) | 1.768***   | 1.684***   | 1.680***   | 1.693***   | 1.688***   | 1.760***   |
|                               | (0.000)    | (0.000)    | (0.000)    | (0.000)    | (0.000)    | (0.000)    |
| Size                          | 0.011      | 0.002      | 0.002      | 0.001      | 0.001      | 0.009      |
|                               | (0.270)    | (0.882)    | (0.884)    | (0.954)    | (0.944)    | (0.379)    |
| MtoB                          | -0.003     | 0.003      | 0.012      | 0.001      | 0.010      | 0.004      |
|                               | (0.889)    | (0.902)    | (0.545)    | (0.957)    | (0.604)    | (0.829)    |
| Switch to OSD                 | 0.108**    | 0.105**    | 0.100**    | 0.110**    | 0.105**    | 0.112**    |
|                               | (0.024)    | (0.030)    | (0.038)    | (0.041)    | (0.041)    | (0.024)    |
| Institutional Ownership       | 0.332***   | 0.272**    | 0.224**    | 0.290***   | 0.239**    | 0.307***   |
|                               | (0.001)    | (0.013)    | (0.033)    | (0.009)    | (0.024)    | (0.001)    |
| Largest Shareholder           | 0.176*     | 0.203**    | 0.199**    | 0.205**    | 0.200**    | 0.173*     |
|                               | (0.071)    | (0.040)    | (0.040)    | (0.041)    | (0.040)    | (0.074)    |
| Amihud factor (Conversion period) | -0.040*    | -0.040*    | -0.038     | -0.039*    |           |           |
|                               | (0.092)    | (0.050)    | (0.128)    | (0.078)    |           |           |
| GM to Ex-Div                  | 0.051**    | 0.050**    | 0.050**    |           |           |           |
|                               | (0.020)    | (0.022)    | (0.018)    |           |           |           |
| Duration of Scrip Option      |           | -0.038     | -0.032     | -0.053     |           |           |
|                               |           | (0.681)    | (0.712)    | (0.498)    |           |           |
| Constant                      | -0.253     | -0.032     | -0.147     | 0.068      | -0.062    | -0.207     |
|                               | (0.120)    | (0.867)    | (0.432)    | (0.819)    | (0.826)   | (0.439)    |
| Observations                  | 111        | 106        | 106        | 106        | 106       | 111        |
| Year dummies                  | Yes        | Yes        | Yes        | Yes        | Yes       | Yes        |
| Industry dummies              | No         | No         | No         | No         | No        | No         |
| R²                            | 0.520      | 0.516      | 0.546      | 0.518      | 0.547     | 0.552      |
Table 7: Dividend Policy and Share Repurchase Activity – Summary Statistics

This table presents summary statistics and univariate comparisons of the yearly share repurchase activity for 287 listed (CAC All Tradable) French firms across three categories of dividend payments: (i) cash dividends with non-negative changes in DPS (excluding dividend initiations), (ii) optional stock dividends (OSD) and (iii) dividend cuts (omissions or dividend decreases by more than 30% for former dividend paying firms). Columns (2), (5) and (8) report the yearly share of firms that effectively repurchased shares for each category of dividend payment. Columns (3), (6) and (9) report the yearly mean volumes of share repurchases, expressed in percentages of market capitalization. In columns (10) and (11), t-statistics for the test of a difference in means with the subsample of OSDs are reported for the cash dividends and dividend cuts subsamples, respectively. ***, ** and * indicate significance of t-statistics at the 1%, 5% and 10% levels, respectively.

| Year | Obs. | % of Firms | Mean Repurchase | % of Firms | Mean Repurchase | % of Firms | Mean Repurchase | Mean Repurchase Mean Repurchase Mean Repurchase Mean Repurchase |
|------|------|------------|----------------|------------|----------------|------------|----------------|----------------------------|-----------------|
|      |      | Cash Div   | Activity       | OSD        | Activity       | Div Cuts   | Activity       | (% Mkt Cap)               | (% Mkt Cap)       | (% Mkt Cap)       | (% Mkt Cap)       |                           |
|      |      |            |                |            |               |            |                |                          | (OSD)           | (Cuts)          | Differences            | (T-stats)       |
| 2003 | 120  | 19.167%    | 0.237%         | 10         | 0.000%        | 0.000%     | 16             | 18.750%       | 0.441%         |                           | 3.468***       | 1.032 |
| 2004 | 138  | 42.754%    | 0.927%         | 10         | 20.000%       | 0.176%     | 22             | 18.182%       | 0.123%         |                           | 4.189***       | -0.278 |
| 2005 | 150  | 40.000%    | 0.826%         | 11         | 27.273%       | 0.059%     | 10             | 30.000%       | 0.317%         |                           | -0.300         | 0.834 |
| 2006 | 158  | 51.899%    | 0.639%         | 8          | 25.000%       | 0.912%     | 17             | 27.778%       | 0.456%         |                           | 2.225**        | -0.483 |
| 2007 | 170  | 60.000%    | 0.985%         | 11         | 36.364%       | 0.415%     | 11             | 45.455%       | 0.303%         |                           | 1.675          | -0.119 |
| 2008 | 178  | 70.787%    | 0.855%         | 12         | 83.333%       | 0.457%     | 19             | 45.000%       | 0.422%         |                           | 1.769*         | 0.344 |
| 2009 | 104  | 27.885%    | 0.265%         | 32         | 21.875%       | 0.201%     | 61             | 37.500%       | 0.324%         |                           | 4.001***       | 1.859* |
| 2010 | 114  | 50.000%    | 0.745%         | 31         | 54.839%       | 0.310%     | 37             | 27.027%       | 0.424%         |                           | 0.419          | 0.720 |
| 2011 | 151  | 62.252%    | 0.727%         | 25         | 56.000%       | 0.857%     | 13             | 46.154%       | 1.081%         |                           | 1.769*         | 0.344 |
| 2012 | 151  | 54.305%    | 0.725%         | 18         | 22.222%       | 0.010%     | 26             | 46.154%       | 0.232%         |                           | 4.001***       | 1.859* |
| Total| 1434 | 49.791%    | 0.719%         | 168        | 39.161%       | 0.338%     | 232            | 34.177%       | 0.378%         |                           | 3.824***       | 0.829 |
Table 8: Dividend Policy and Share Repurchase Activity – Choice Model

This table presents a multinomial logit analysis of the choice of dividend policy that accounts for contemporaneous share repurchase activity. The sample consists of 287 French firms belonging to the CAC All Tradable index during the period 2003-2012. We exclude dividend initiations and all observations prior to the initiation of dividends, firms that never paid any dividend, and firm-years with zero-dividend corresponding to a repeated dividend omission. In columns (1) to (5), the dependent variable is equal to 0 in the case of a dividend cut greater than 30% or an omission for former dividend paying firms (Div cut), 1 in the case of cash dividend payment with a non-negative change in DPS (Cash) and 2 in the case of an optional stock dividend (OSD). In all specifications, the baseline group is outcome 1 (cash dividend). Column (1) reports results for the subsample of firms that effectively repurchased shares during a given year. Column (2) reports results for the subsample of firms that do not exhibit any share repurchase activity during a given year. Dividend initiations are excluded. Definitions of all variables are reported in the Appendix. Robust standard errors clustered at the firm level are used. The corresponding p-values are reported between brackets. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

| Variables            | (1) Firms with repurchase activity | (2) Firms with no repurchase activity |
|----------------------|------------------------------------|--------------------------------------|
|                      | Div Cut | OSD | Div Cut | OSD |
| Cash Rich            | 0.137   | -0.690 | 0.052   | -0.748** |
|                      | (0.744) | (0.153) | (0.836) | (0.040) |
| Debt                 | 2.117** | 1.906* | 1.205*  | 2.301*** |
|                      | (0.020) | (0.067) | (0.074) | (0.006) |
| Size                 | -0.437*** | -0.266** | -0.159** | -0.130 |
|                      | (0.000) | (0.034) | (0.026) | (0.114) |
| MtoB                 | -0.129  | -0.356 | -0.324** | -0.140 |
|                      | (0.495) | (0.147) | (0.035) | (0.557) |
| ΔNet Income          | -2.253*** | -0.026 | -1.416*** | 0.028 |
|                      | (0.000) | (0.929) | (0.000) | (0.907) |
| Recession            | 2.486*** | 2.015* | 0.780*  | 1.791*** |
|                      | (0.002) | (0.083) | (0.061) | (0.002) |
| Institutional Ownership | -0.739 | 0.942 | -0.014 | 1.125 |
|                      | (0.277) | (0.284) | (0.973) | (0.214) |
| Largest Shareholder  | -0.775  | -3.054** | 0.437   | -2.742*** |
|                      | (0.322) | (0.016) | (0.416) | (0.003) |
| Constant             | 2.490   | -0.536 | 0.255   | -1.389 |
|                      | (0.132) | (0.775) | (0.796) | (0.318) |

Observations 725 841
Year dummies Yes Yes
Industry dummies Yes Yes
Pseudo R² 0.301 0.210
Table 9: Market Reaction to Dividend Announcements and Share Repurchase Activity
Panel A: Summary Statistics and Univariate Comparisons

This table reports the equity market price reaction to optional stock dividend (OSD) announcements, dividend cut (omissions or dividend decreases by more than 30% for former dividend paying firms) announcements and cash dividend announcements (with a non-negative change in the DPS). Firms are sorted based on their contemporaneous share repurchase activity. The equity market price reaction is computed as the cumulative abnormal returns (CARs) for a particular window around the announcement day. Daily abnormal returns are computed by using the market model for the CAC-All Tradable index and are reported in columns (2), (4) and (6). Market model parameters are estimated over a 250-day window ending 11 days before the announcement date. The announcement day is denoted as date 0. Patel t-statistics are reported between brackets for each series of CARs. In columns (7) and (8), t-statistics for the test of a difference in means with the subsample of OSDs are reported for each subsample of dividend cuts and cash dividends. ***, ** and * indicate significance of t-statistics at the 1%, 5% and 10% levels, respectively.

| Variables                  | (1) | (2) | (3) | (4) | (5)  | (6)  | (7)  | (8)  |
|---------------------------|-----|-----|-----|-----|------|------|------|------|
|                           | Cash Dividends | OSD | Dividend Cuts | |  |  |  |  |
| Firms with contemporaneous repurchase activity |  |  |  |  |  |  |  |  |
| CAR[0]                    | 595 | 0.261% | 63 | 0.213% | 45 | -1.236% | 0.193 | -2.058** |
| CAR[-1;0]                  | 595 | 0.413% | 63 | 0.554% | 45 | -1.200% | 0.443 | -2.063** |
| Firms without contemporaneous repurchase activity |  |  |  |  |  |  |  |  |
| CAR[0]                    | 504 | 0.873% | 103 | 0.346% | 100 | -0.448% | 1.21 | -1.836* |
| CAR[-1;0]                  | 504 | 1.097% | 103 | 0.616% | 100 | -0.448% | 1.086 | -1.689* |

(Continued on next page)
Table 9: Market Reaction to Dividend Announcements and Share Repurchase Activity (cont’d)

Panel B: Announcement Effect of OSDs and Share Repurchase Activity

This table reports the regression results of abnormal stock returns upon the announcement of a dividend payment. Abnormal stock returns for each dividend announcement are computed as the cumulative abnormal returns (CARs) for a particular window around the announcement day. Daily abnormal returns are computed by using the market model for the CAC-All Tradable index. Market model parameters are estimated over a 250-day window ending 11 days before the announcement date. The announcement day is denoted as date 0. Our variable of interest is the OSD dummy that is equal to 1 in case of an optional stock dividend (OSD) payment. Columns (1) to (4) present the results for the subsample of dividend cutters (omissions or dividend decreases by more than 30% for former dividend paying firms) and OSD-paying firms. Columns (5) to (8) present the results for the subsample of OSD and cash dividend payers (with non-negative changes in DPS). Definitions of all variables are reported in the Appendix. Robust standard errors clustered at the firm level are used. The corresponding p-values are reported between brackets. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

(Continued on next page)
Table 9: Market Reaction to Dividend Announcements and Share Repurchase Activity (cont’d)
Panel B: Announcement Effect of OSDs and Share Repurchase Activity (cont’d)

| Variables          | (1)       | (2)       | (3)       | (4)       | (5)       | (6)       | (7)       | (8)       |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                    | Dividend Cuts and OSD |          | Cash Dividends and OSD |          |           |           |           |           |
|                    | CAR[0]    | CAR[-1;0] | CAR[0]    | CAR[-1;0] | CAR[0]    | CAR[-1;0] | CAR[0]    | CAR[-1;0] |
| Change in DPS (%)  | 0.006     | 0.006     | 0.005     | 0.005     | 0.007***  | 0.007***  | 0.007***  | 0.007***  |
|                    | (0.140)   | (0.186)   | (0.163)   | (0.234)   | (0.004)   | (0.010)   | (0.004)   | (0.011)   |
| OSD                | 0.017**   | 0.016*    | 0.015*    | 0.013*    | 0.004     | 0.006     | 0.005     | 0.005     |
|                    | (0.032)   | (0.053)   | (0.089)   | (0.084)   | (0.335)   | (0.181)   | (0.361)   | (0.407)   |
| MtoB               | -0.000    | -0.003    | -0.000    | -0.003    | -0.000    | -0.001    | -0.000    | -0.001    |
|                    | (0.941)   | (0.454)   | (0.959)   | (0.478)   | (0.816)   | (0.535)   | (0.821)   | (0.534)   |
| EBITDA/Assets      | -0.056    | 0.018     | -0.056    | 0.019     | 0.008     | 0.018     | 0.008     | 0.018     |
|                    | (0.343)   | (0.783)   | (0.339)   | (0.779)   | (0.644)   | (0.410)   | (0.647)   | (0.409)   |
| Size               | -0.002    | -0.002    | -0.002    | -0.002    | -0.001*   | -0.001*   | -0.001*   | -0.001*   |
|                    | (0.130)   | (0.176)   | (0.136)   | (0.189)   | (0.100)   | (0.097)   | (0.094)   | (0.099)   |
| Repurchase (dummy) | -0.009    | -0.009    | -0.011    | -0.013    | -0.005**  | -0.005**  | -0.004**  | -0.005**  |
|                    | (0.194)   | (0.252)   | (0.281)   | (0.277)   | (0.019)   | (0.037)   | (0.031)   | (0.034)   |
| Repurchase × OSD   | 0.006     | 0.010     | 0.010     | 0.010     | -0.004    | 0.002     | 0.002     | 0.002     |
|                    | (0.631)   | (0.497)   | (0.556)   | (0.793)   |           |           |           |           |
| Constant           | 0.060**   | 0.058*    | 0.060**   | 0.058*    | 0.025***  | 0.031***  | 0.025***  | 0.031***  |
|                    | (0.027)   | (0.088)   | (0.026)   | (0.085)   | (0.003)   | (0.001)   | (0.003)   | (0.001)   |
| Observations       | 225       | 225       | 225       | 225       | 1,168     | 1,168     | 1,168     | 1,168     |
| R²                 | 0.108     | 0.096     | 0.109     | 0.098     | 0.042     | 0.047     | 0.042     | 0.048     |
| Year dummies       | Yes       | Yes       | Yes       | Yes       | Yes       | Yes       | Yes       | Yes       |
| Industry dummies   | Yes       | Yes       | Yes       | Yes       | Yes       | Yes       | Yes       | Yes       |
Table 10: Robustness checks: The Likelihood of Firms Paying Optional Stock Dividends – Matched Sample
This table reports the conditional logistic regressions estimating the probability of paying an optional stock dividend (hereafter OSD). The overall sample comprises French listed firms (CAC All Tradable) during the period 2003-2012. Each OSD paying firm is matched with a similar non-OSD paying firm, in terms of size, industry (measured as 1-digit SIC Code) and year of payment. In columns (1) and (2), each OSD paying firm is matched with a similar dividend cutter, and the dependent variable is a dummy variable that equals 1 in case of an OSD payment and 0 otherwise. In columns (3) and (4), each OSD paying firm is matched with a similar cash dividend-paying firm (with non-negative changes in DPS), and the dependent variable is a dummy variable that equals 1 in case of an OSD payment and 0 otherwise. Definitions of all variables are reported in the Appendix. Robust standard errors are used. The corresponding p-values are reported between brackets. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

| Variables          | Dividend Cut vs OSD (1) | Dividend Cut vs OSD (2) | Cash Dividend vs OSD (3) | Cash Dividend vs OSD (4) |
|--------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| Cash               | -1.684                  | -0.074                  | -4.207**                 | -4.303**                 |
|                    | (0.464)                 | (0.980)                 | (0.005)                  | (0.016)                  |
| Debt               | 1.942**                 | 1.488                   | 1.623**                  | 1.427                    |
|                    | (0.034)                 | (0.230)                 | (0.023)                  | (0.102)                  |
| Size               | 0.794**                 | 1.230**                 | 1.135*                   | 0.693                    |
|                    | (0.028)                 | (0.036)                 | (0.083)                  | (0.341)                  |
| MtoB               | -0.116                  | -0.449**                | -0.637***                | -0.553***                |
|                    | (0.472)                 | (0.037)                 | (0.000)                  | (0.002)                  |
| ΔNet Income        | 1.194***                | 1.616***                | -0.234                   | -0.307                   |
|                    | (0.000)                 | (0.000)                 | (0.184)                  | (0.126)                  |
| Largest Shareholder| -4.084***               |                         | -1.260*                  |                          |
|                    | (0.000)                 |                         | (0.097)                  |                          |
| Institutional Ownership | 0.896                |                         | 1.409*                   |                          |
|                    | (0.543)                 |                         | (0.093)                  |                          |
| Observations       | 238                     | 186                     | 282                      | 226                      |
| Year dummies       | No                      | No                      | No                       | No                       |
| Industry dummies   | No                      | No                      | No                       | No                       |
| Pseudo R²          | 0.343                   | 0.516                   | 0.197                    | 0.234                    |
Figure 1: The Timeline of an Optional Stock Dividend (OSD) Payment – The Example of Sanofi (2011)

Figure 2: The Distribution of Consecutive Optional Stock Dividend (OSD) payments over the Sample Period (2003-2012)