Valuation effects of tax-free versus taxed cash distributions

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ABSTRACT

This study attempts to resolve the puzzle regarding the announcement effects of cash distributions. The introduction of taxes on dividend income since 2009 has led many Greek listed companies to seek alternative ways of distributing untaxable income, at personal level, to shareholders, mainly through the form of return of capital. Employing a unique dataset of 130 returns of capital and a control sample of 890 dividends between 2000 and 2014, we investigate the stock price behaviour surrounding the announcement of these cash distributions. The results from the event study reveal a statistically significant market reaction on the announcement day for both cash distributions; however that of returns of capital was more than double compared to dividends (1.53% vs. 0.72%). The market reaction was even stronger when firms opted to distribute a dividend and a return of capital contemporaneously. Regression analysis delves into the determinants of the market reaction documenting that dividend or return of capital yield, firm size and profitability levels explain much of the stock price appreciation on announcement dates.

JEL Classification: G14, G35

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1. Introduction

The impact of dividend policy on firm value has attracted immense attention among investors and scholars over the years. This great interest stems from the implications of dividend announcements primarily on shareholders' wealth among other reasons. However, pay-out policy remains a puzzle for many researchers due to the presence of several market imperfections that mingle much of the information content conveyed by dividend announcements. One of the most commonly observed market imperfections is taxes which are alleged to blur the dividend signalling hypothesis according to which firms with higher levels of information asymmetry would be able to reduce such asymmetry through dividends (Lee and Mauck, 2016; Modigliani and Miller, 1961). Chetty and Saez (2005) find that lower taxes have a positive impact on dividend payments. More recently, Buchanan et al.(2017) and Hanlon and Hoopes (2014) have shown that firms respond to tax changes on the individual or corporate level and adjust their pay-out policies accordingly. In this context Hanlon and Hoopes (2014) claim that tax regime changes may cause either a surge towards special dividends or a shift of regular dividends in a foreseeable lower tax period in the future.

The effects of dividend taxation on the corporate pay-out policy call for further research when they are tested during periods of economic recession and financial turmoil where most firms conserve cash and, therefore the initiation of new dividends are extraordinary and noteworthy (Payne, 2011). The focus of the current study is the investigation of the wealth effects surrounding cash distributions through dividends and/or returns of capital made by the Greek listed firms between 2000 and 2014. In particular, we gauge the combined and separate signalling effects of the two cash disgorging policies, that is, dividends and returns of capital, during an extended period that covers both "hot" and "cold" market conditions and the introduction of taxes on dividends for the first time. The imposition of taxes on dividend income concurred with the outburst of the Greek sovereign debt crisis which largely hit firms' turnovers and profits and disrupted their access to money and capital markets. In the wake of these adverse market conditions, the distribution of a tax-free cash in the form of a return of capital was the immediate reaction of the Greek listed firms to keep investors interest alive and stop further firm undervaluation through massive sell-offs.

The return of capital has grown rapidly since 2009 when taxes on dividend income were introduced for the first time at the individual shareholder level. At the same time, the distribution of a return of capital remained untaxed, thus providing the proper incentive to the Greek listed firms to make use of this distinctive cash distribution method. In contrast to

regular dividends that correspond to current earnings, where the Greek corporate law requires a minimum pay-out ratio of 35% from the profits after taxes[2], the return of capital is a cash distribution to shareholders from capitalized retained earnings. This corporate action follows a complex process that requires first the capitalization of past years corporate profits held until now as reserves for future investment use and then the distribution of these now capitalised past profits by equally reducing the firm's own capital. Compared to dividends, returns of capital are not subject to regulatory restrictions regarding the minimum pay-out ratio and the requirement of an approval from the majority of shareholders to omit or distribute a lower than the minimum dividend. The decision for a return of capital is taken by the General Assembly of Shareholders whereby by law a high majority of shareholders should offer their consent towards it[3].

The return of capital has no direct analogy with other payout methods. It is neither a special nor a script dividend as documented by prior studies (e.g., Balachandran et al., 2008). Special dividends, however, are the only extraordinary cash distribution method that bears some resemblance to the return of capital. Beladi et al. (2016) claim that during economic downturns alternative pay-out methods like special dividends become prevalent. The signaling effect stemming from these cash distributions is stronger during recessions and the ensuing abnormal returns are noteworthy.

We believe that the Greek capital market can be considered an interesting laboratory to examine valuation effects of cash distributions for the following reasons. First, Greek listed firms disgorge tax-free cash to their shareholders in the form of a return of capital which is a corporate practice not met in any other country. Unlike the Anglo-Saxon world, in Greece all cash distributions are paid out to shareholders on an annual basis. Second, the corporate governance model that applies in the Greek capital market, whereby owners are also executive BoD members as well as managers. For this reason they obviously have an active role in forming dividend distribution decisions given their influential role in all levels of company management (Dasilas and Leventis, 2013). Third, the Greek legal framework requires the distribution of a minimum cash dividend (minimum dividend requirement) on the part of profitable firms. Fourth, in Greece it is a common practice that dividends and earnings to be concomitantly announced. In contrast, return of capital distributions are announced with

[2] Greek listed firms can waive the minimum dividend requirement and pay less or no dividend if there is an approval by the majority of shareholders (>70%) at the annual General Assembly of Shareholders' meeting (Dasilas and Leventis, 2011).

[3] In order for such a General Assembly decision to be valid the law calls for a majority of two thirds of total shareholders to participate in the General Assembly and at the same time the two thirds of all present shareholders to offer their consent.

significant time lag vis-à-vis earnings. This implies that the information content of returns of capital is not contaminated with that of earnings releases. The above institutional idiosyncrasies regarding profit distribution as well as the unique features of returns of capital make Greece an appealing case to test the wealth effects of cash distributions and the drivers of the market reaction, while at the same time they highlight how taxation influences firms' pay-out policies.

The results show positive market reaction to both dividend and return of capital announcements. However, the market reaction is more than double in case of returns of capital since these are considered to contain much stronger information content due to their tax-free status and the lax regulatory framework regarding the amount distributed to shareholders. The contemporaneous announcement of dividends and returns of capital seem to send almost the same signal to the market vis-à-vis pure return of capital announcements. In line with the dividend signalling hypothesis, increases in dividends and/or returns of capital are associated with notable stock price appreciations around their announcements. Surprisingly, decreases in both types of distributions relative to previous periods still generate a weak but positive market reaction. Another interesting finding is the stronger wealth effects from dividend announcements in the taxed period compared to the tax-free one. In the same vein, the market reaction is distinctively higher for returns of capital in the post-debt crisis period which coincides with the introduction of taxes on dividends. These findings lend support to the conjecture of the tax-based dividend signalling hypothesis according to which taxes make dividend announcements more informative. Regression results show that high yields rendered by both dividends and returns of capital seem to provide the appropriate impetus for stronger market reaction on announcement dates. These results are congruent with the dividend signalling hypothesis according to which increases in cash distributions and/or yields are associated with stronger market reaction.

Our study contributes in several ways to the existing literature. First, we explore how a return of capital, which is a tax-free cash distribution not found in any other market around the globe, affects shareholders' wealth over the short-term. Second, we assess the incremental value effects from the simultaneous dividend and return of capital announcements. This helps us investigate whether the information content of taxed and tax-free distributions is mitigated or enhanced compared to pure tax-free distributions. Third, we explore whether the information conveyed by both cash distribution methods sustains throughout the Greek sovereign debt crisis, which was a period marked by recession and contractionary fiscal policies. This will help shareholders to adjust their expectations regarding profit distribution

and capital gains accordingly. Finally, the current study explains how firms can disgorge tax-free cash streams to their shareholders taking advantage of the corporate law dysfunctions.

The remainder of the paper is organized as follows. Section 2 describes the legal framework of profit distribution and taxation in Greece. Section 3 illustrates the pertinent literature review, while Section 4 outlines the research design of the study. Section 5 presents the empirical results and Section 6 summarizes the main findings of the study and discusses their implications.

2. Institutional Framework

2.1 Dividends and taxation

Greece is among the few countries in the world[4] that applies a quantifiable floor to the distribution of corporate profits. In particular, the Greek law 148/1967[5] (as modified by laws 2753/1999[6], 2789/2000[7] and 3460/2006[8]) postulates that at least 35% of corporate profits after taxes should be distributed to shareholders as minimum dividend after deducting regular reserves. However, Greek firms can waive the distribution of the minimum dividend if there is an approval by at least 70% of the shareholders vote at the annual General Assembly of Shareholders meeting. Up to 2008 firms' profits were subject to taxation at corporate level and no further tax was imposed to distributed dividends at shareholders level. However, the law 3697/2008[9] introduced for the first time a flat tax of 10% for dividend income. Essentially, this tax was imposed for all dividends paid out in 2009 (profits of the fiscal year 2008) and was applied to both individual and institutional dividend recipients. Consequently, a new era of double taxation of corporate profits emerged in the Greek capital market. The tax rate on dividends increased to 20% (law 3842/2010[10]) in 2010, while the corporate tax rate was at 25%. In 2011 the law 3943/2011[11] introduced an imputation tax system which levied a tax of 25% on dividend income. This system allowed companies to pay dividends that carry imputation credits for income tax to those shareholders in low tax brackets. For

[4] According to Goncharov and van Triest (2011), Germany, Russia and Brazil also require a minimum dividend distribution.
[5] https://www.e-forologia.gr/lawbank/document.aspx?digest=C526550E5A80F350.1D031AEA53&version=1967/10/09
[6] https://www.e-forologia.gr/lawbank/document.aspx?digest=10216D9676FD1280.1D031AEA53&version=1999/11/17

[7] https://www.e-nomothesia.gr/kat-trapezes-pistotika-idrumata/n-2789-2000.html
[8] https://www.e-nomothesia.gr/kat-epikheireseis/n-3460-2006.html
[9] https://www.e-nomothesia.gr/kat-oikonomia/n-3697-2008.html
[10] https://www.e-nomothesia.gr/kat-oikonomia/phorodiaphuge/n-3842-2010.html
[11] https://www.e-nomothesia.gr/kat-oikonomia/phorodiaphuge/n-3943-2011.html

those belonging to high tax brackets, an additional tax was imposed based on their personal income. In 2012 the law 4038/2012[12] imposed a flat tax of 25% on dividends, while the corporate tax lowered to 20%. The taxation of dividends eye witnessed a further change in 2013. In particular, the law 4172/2013[13] lowered the flat tax on dividends to 10%, while the corporate tax rate experienced a steady increase. Currently, the corporate tax rate is at 29%, while all distributed dividends are taxed at 15%[14].

2.2 Return of capital

The tax-free dividends era ended at the outset of the sovereign debt crisis that severely inflicted the Greek economy and its repercussions are still evident at corporate and individual level. Since 2009 almost one third of the Greek listed companies exited from the Athens Stock Exchange (ASE) whereas the remaining public companies underwent dramatic downsizing in their operations and profits. At the same time corporate taxation increased from 20% to 29%, thus squeezing further corporate profits available for distribution. As a consequence, the number of dividend distributions fell to historically low levels. The ever-changing taxation environment along with the harsh economic conditions has been perceived with skepticism from the majority of shareholders. This was reflected by massive sell-offs that drove down the ASE market capitalization to rock-bottom levels. During the period under examination the ASE General Index lost approximately 86% of its historically high values reached at the end of 1990s. In the wake of this adverse market momentum, the Greek listed firms were seeking for alternative ways to reimburse their shareholders by distributing past cumulative retained earnings while taking advantage of the corporate law dysfunctions.

The first distribution of a return of capital dates back to 2002 when a public Greek medical center, Iaso S.A., paid out cash from past retained earnings to its shareholders paving the way for what was to become, over the recent years, the most common way of distributing cash to shareholders. However, the return of capital became a ubiquitous conduit of cash disgorgement to shareholders once taxation was imposed for the first time on dividend income. As already mentioned, the introduction of dividend taxation coincided with the diminishing corporate profits and dividend distributions as a consequence of the Greek sovereign debt crisis. The return of capital is a cash distribution from current and past earnings. It is paid out once in a year provided that there is an approval at the annual General

[12] https://www.taxheaven.gr/laws/law/index/law/410
[13] https://www.taxheaven.gr/laws/law/index/law/528
[14] The flat tax on dividends is in effect since 1st January 2017.

Assembly of Shareholders meeting. The distribution of a return of capital follows an unusual corporate practice whereby current earnings are set aside as reserves until in the near future following a decision of the General Assembly of Shareholders they are capitalized. At the same time, the Board of Directors proposes the reduction of equities by lowering the book value of shares and distributing the excess cash in the form of a return of capital to current shareholders. The rationale is that equity belongs to the shareholders and since there are no better investment opportunities, shareholders should get part of the equity in the form of a return of capital. Getting the approval from the ASE authorities, firms' shares are then traded with the new book value. Similar to dividends, the recipients of returns of capital are those shareholders registered at the cum-day. The amount for distribution, the ex-return of capital day and the day of payment are clearly defined at the annual General Assembly of Shareholders' meeting and announced on the ASE website[15].

3. Literature Review

The valuation effects of dividend announcements have been well documented in the finance literature since the seminal paper of Lintner (1956) who set the foundations of the dividend signaling hypothesis[16] in order to construe the market reaction around dividend change announcements. Since then, a voluminous literature has confirmed the significant information content conveyed by dividend announcements. However, dividend policy is not homogeneous across countries, but rather differs based on the restrictions and regulations of each country.

According to Lintner (1956), dividend payments reflect the privy information of managers about firms' prospects. Hence, positive dividend changes are deemed to convey favourable information about management's assessment on firms' future prospects, thus triggering stock price appreciations. Contrarily, dividend cuts convey bad news to the market and, therefore, bring about negative stock returns. Pettit (1972) was the first that empirically corroborated the relationship between dividend changes and abnormal returns as posited by the dividend signalling hypothesis. However, Watts (1973) reported a trivial relation between unexpected dividend changes and stock returns, thus casting doubt on the conjectures of dividend signalling hypothesis. Since then, a large number of empirical studies have been conducted around the world exploring the market reaction to dividend announcements and

[15] www.helex.gr
[16] The dividend signalling hypothesis was further developed by Fama et al. (1969) and Ambarish et al. (1987).

providing results in line with the dividend signalling hypothesis (see Kumar, 2017; Dasilas and Leventis, 2011).

Another explanation for the positive market reaction around dividend increases is the reduction of agency costs associated with free cash flows (Balachandran and Nguyen, 2004). This is the so-called free cash flow or overinvestment hypothesis put forward by Jensen (1986) according to which managers are inclined to invest excess free cash flows into projects with negative NPV in order to capture personal perks (i.e. bonuses). Lang and Litzenberger (1989) argued that a dividend increase, all else being equal, squeezes the free cash flow for overinvestment, thus sending a good signal to the market, while a dividend cut is decoded by the market that more money is available for overinvestment, thus driving down stock prices.

The Greek capital market presents some peculiarities regarding dividend distribution as described in the previous section. According to Dasilas and Leventis (2011), the requirement for a minimum dividend distribution from net profits mitigates much of the information content of dividend announcements. The authors argued that shareholders gradually adjust their expectations regarding profit distribution through earnings announcements. Hence, once earnings figures of the last fiscal year are made public, shareholders know that at least 35% of net corporate profits should be distributed. This expectation deprives significant element of surprise conveyed by dividend announcements. Despite the minimum dividend requirement, Dasilas and Leventis (2011)[17] found support for the dividend signalling hypothesis. In particular, dividend increases were associated with significant positive abnormal returns (1.139% on days -1 and 0), whereas dividend decreases were linked with negative excess returns (-0.426% on days -1 and 0). Finally, constant dividends, that is, dividend distributions of the same amount as in the last fiscal year, were related with trivial market reaction.

Our study differentiates from that of Dasilas and Leventis (2011) in three ways. First, we analyse the wealth effects of returns of capital which emerged as an alternative route of profit distribution. Second, we explore the value relevance of concurrent dividend and return of capital distributions. Third, we extend the period of investigation from 2000 to 2014 by incorporating the period that dividends were taxed and the sovereign debt crisis inflicted the Greek economy.

[17] The study of Dasilas and Leventis (2011) covered the years from 2000 to 2004 when dividends were tax-free at shareholders level.

Previous studies have investigated the tax preferences element in pay-out method decision making processes. The profit maximisation hypothesis, given alternative pay-out scenarios, has, however, far from been at the epicentre of academic advancements. Studies have primarily focused on providing adequate policies for manoeuvring between investors' heterogeneous tax status (Allen et al., 2000). Hanlon and Hoopes (2014) also documented a shift in firms' pay-out methods resulting from investor-level tax changes. Asymmetrical tax regulation is the driving force behind shareholder pay-out method preference in Wei and Xiao (2009), while Hodgkinson and Partington (2013) also investigated the link between tax and dividend size for different dividend clienteles. Bernheim and Wantz (1995) were among the first researchers who conducted a new test for the dividend signalling hypothesis taking into account taxes. They argued that an increase in dividend taxation should increase the share price response per dollar of dividends (or "bang-for-the-buck"). The reasoning behind this proposition is that "with a high dividend tax rate, a high quality firm does not need to pay as large a dividend in order to deter imitation. Thus, the firm manages to convey the same information at a lower level of pay-out. Because of this consideration, the "bang-for-the-buck" tends to rise with the dividend tax rate" (Bernheim and Wantz, 1995, pp 533-534). In contrast, the free cash flow hypothesis and other dividend-preference theories support the negative effect of dividend taxation on firm value (Hanlon and Heitzman, 2010; Graham, 2008). In particular, prior studies report that taxes decrease firm values even for the case of taxable stock dividends (Kuo and Lee, 2013). In fact, a tax levied on dividends reduces the actual amount distributed to shareholders. Therefore, the higher the tax rate the lower the amount received by shareholders. This makes shareholders less happy and motivates them to look for less taxed cash distributions (i.e. share repurchases).

The association between individual tax rate changes and corporate dividend policy was also investigated in Buchanan et al. (2017). The main finding is that firms increase dividends on the year before the anticipated increase in shareholders taxation rate. When tax rate increases are anticipated it is more likely that firms might initiate a special dividend. Interestingly, they found that the substitution hypothesis does not hold between share repurchases and dividends, whereas it is consistent between dividends and special dividends.

As already described, dividend taxation in Greece has undergone radical changes in the last decade. The period from 2000 to 2008 is characterized by the absence of any taxes on dividend income, while that commencing in 2009 is featured by the outbreak of Greece's debt crisis and the steady increase of dividend taxation. Since this is the first study that delves into the effects of dividend taxation on the shareholders' wealth, it is interesting to see

whether the dividend signalling hypothesis or other dividend-preference theories dominate in a market that underwent structural changes recently.

Prior evidence on special or extraordinary dividend announcements has shown significantly positive stock price reaction (Balachandran & Nguyen, 2004). The initial positive reaction is followed by a long-term stock price reversal which reinforces the confrontation of special dividends as a fortunate instance following extraordinary near past earnings and stock performance, characteristics unlikely to persist in the future (Crutchley et al., 2003). Beladi et al. (2016) further claimed that special dividends become popular during recessions. Their one-off payment feature sends a stronger signal than ordinary dividends and causes a more significant short term abnormal return. Consistent with the tax hypothesis, Chowdhury and Sonaer (2016) reported significant impact of taxes on special dividends' abnormal returns. However, the return of capital is neither a special nor an extraordinary dividend, but rather it is considered a cash distribution which is paid out in lieu of a regular dividend. Their tax-free status throughout the examined period along with their unexpected size leads us to conclude that returns of capital should elicit stronger market reaction compared to dividend announcements, especially in the post-debt crisis period.

4. Research Design

4.1 Sample

Our sample consists of all ASE-listed companies that announced regular cash dividends and/or returns of capital during the period that spans from January 1st, 2000 to December 31st, 2014. Following Gurgul et al. (2003) and Dasilas and Leventis (2011) we define the announcement (event) date as the first day a cash distribution is made public. The lack of a database that records the announcement of any type of cash distributions in Greece led us to hand-collect the dividend and return of capital announcement dates from the daily financial press and the website of the ASE[18]. We identified 860 dividends and 130 return of capital distributions, respectively. 46 returns of capital were simultaneously distributed with dividends.

Table 1 presents the sample distributions of both types of cash distributions from 2000 to 2014. The first return of capital distribution occurred in 2002 and its number fluctuated thereafter. The popularity of this type of cash distribution peaked with the introduction of dividend taxation in 2009 which reduced the net dividend amount received by

http://www.helex.gr/web/guest/company-announcements2

shareholders. Despite the delisting of more than 100 listed firms from the ASE in the last decade[19] and the harsh economic conditions encountered by the remaining listed companies, returns of capital remained popular during the debt crisis period with 22 distributions in 2011, 18 in 2012, 16 in 2013 and 11 in 2014. At the same time the peak of dividend distributions took place in 2008 (124 dividend distributions), the last year before the introduction of dividend taxation. Since then, the number of dividend distributions experienced a notable decrease. Indicatively, in 2013 and 2014 dividends marginally outnumbered return of capital distributions.

To assess the wealth effects of the two cash distribution announcements, we obtained daily adjusted closing stock prices as well as fundamentals from Bloomberg.

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[Insert Table 1 about here]

4.2 Methodology

To assess the market reaction to dividends and returns of capital announcements, we employ the classical event study methodology. Specifically, we use both the market-adjusted and market model to estimate daily abnormal returns around the announcement date (day 0). We define an event period as the days -1, 0 and +1 in order to capture distribution announcements during non-trading hours. The event window for calculating abnormal returns spans from -10 days to +10 days with respect to the announcement day (day 0), whereas the estimation period used for the calculation of the market model parameters is defined as (-250, -11). We calculate average abnormal returns (AARs) around the event window (-10, +10). We also compute cumulative abnormal returns (CARs) for each company that are averaged among all observations to obtain cumulative average abnormal returns (CAARs). To capture possible information leakages or sluggish market reaction to dividend and return of capital announcements, CAARs are calculated for the following event windows: (-10, -1), (+1, +10), (-5, -1), (+1, +5), (-1, +1) and (-1, 0). The statistical significance of AARs and CAARs is conducted using parametric t-tests as suggested by Campbell et al. (1997).

Following Gurgul et al. (2003) and Dasilas and Leventis (2011) among others, we identify dividend increases, decreases and constant dividends using the naïve model. The naïve model considers the dividend process a martingale, that is, the current dividend is

[19] The total number of delistings from 2000-2014 was 200.

expected to be equal to the previous dividend and the expected dividend change is equal to zero.

$$E[\Delta D_{i,t}] = \mathrm{E}[D_{i,t}] - D_{i,t-1} = 0 \quad (1)$$

where $E[\Delta D_{i,t}]$ denotes the expected change in the dividend payout of firms i for year t, $\mathrm{E}[D_{i,t}]$ stands for the expected dividend payout of firm i for year t, and $D_{i,t-1}$ is firm i's dividend payout last year. A dividend announcement is considered a positive event if $D_{i,t} > E[\Delta D_{i,t}]$, neutral if $D_{i,t} = E[\Delta D_{i,t}]$ and negative event if $D_{i,t} < E[\Delta D_{i,t}]$ where $D_{i,t}$ denotes the announced dividend of company i for year t. A similar process is followed in the case of return of capital distributions.

Probing deeper into the valuation effects of dividend and return of capital distributions, we employ a pooled cross-section model using either abnormal returns on day 0 or cumulative abnormal returns of three days (-1, 0, 1) as dependent variable and a gamut of independent variables. The choice of explanatory variables is based on various studies[20] that have previously investigated dividend announcements' impact on abnormal returns. More specifically, we control for the minimum dividend requirement as designated by the Greek corporate law by using a dummy variable (mandated) which takes 1 when the actual distributed dividend is above the minimum required and 0 otherwise. To estimate the minimum dividend required (mandated) we use the earnings per share (EPS) of the last fiscal year multiplied by 35% which is the minimum pay-out ratio. To control for the systematic risk, we use beta as computed by the market model in the regression of firm's abnormal returns in the pre-event period (-250, -11). To measure the effects of dividend taxation on abnormal returns on announcement dates, we use a dummy (crisis) which takes 1 in the post-debt crisis (taxed) period (2009-2014) and 0 in the pre-debt crisis (untaxed) period (2000-2008). We also control for leverage levels of the announcing firms at the end of the last fiscal year. For this purpose, we use the ratio of total debt to total equity. Differences between the current dividend (or return of capital) and that of the last year (dividend or return of capital changes) are also accounted in order to gauge the signal of new announcements. Dividend (or return of capital) yield is another independent variable that is alleged to affect abnormal returns. This is the division of the dividend (or return of capital) per share and the stock price one day before the announcement date. We also control for size as measured by the logarithm of the firm's total assets (or market value) at the end of the last fiscal year, and profitability as

[20] For example, Fuller (2003), Lee and Yan (2003), McClusky et al. (2006) and Dasilas and Leventis (2011).

measured by the profit margin (or ROE) at the end of the last fiscal year. Finally, we regress Tobin's Q against abnormal returns in order to test whether firms' growth opportunities are associated with stronger market reaction on announcement dates. Tobin's Q is defined as the ratio of the market value of equity divided by the book value of total assets at the end of the last fiscal year.

5. Empirical Results

5.1 Market reaction to dividend announcements

Panel A of Table 2 reports the results from the stock price reaction to dividend announcements. For robustness reasons, we report abnormal returns calculated by the market model as well as by the market-adjusted model. However, to save space we comment only on the results from the market model since it is considered more elaborate return-generating model compared to the market-adjusted model[21]. The results show that the AAR on day 0 is 0.72%, statistically significant at the 1% level (t=3.11). Moreover, the three-day CAAR is 0.83%, while that of two-day is 0.55%, both statistically significant at the 1% and 5% level, respectively. The positive effect of dividend announcements still persists for five days subsequent to the announcement date. In particular, the CAAR of (+1, +5) is 0.57%, statistically significant at the 5% level (t=2.45). Prior to the event window of three days, we do not observe any statistically significant market reaction, implying that there is no information leakage of the dividend distribution. Our results are in line with prior research that dividends convey positive information to the market. Compared to Dasilas and Leventis (2011), we report stronger market reaction on all days surrounding to the dividend announcement date. In particular, Dasilas and Leventis (2011) found an abnormal return of 0.37% on day 0 and a three-day CAAR of 0.69%. These results demonstrate that compulsory dividend distributions still transfer valuable information to the market despite the expected dividend information component embedded into earnings releases.

Panel B shows the results from dividend increase announcements. Our results are in line with the positive information content conveyed by dividend increase announcements. Specifically, the announcement of dividend increases provokes strong market reaction on days -1 and 0 of 0.44% and 0.49%, respectively. The positive effect of the upcoming dividend increases is observed 10 days before the actual announcement as shown in CAARs (-10, -1) and it is culminated in the three-day period (-1, +1) surrounding the announcement.

[21] According to Brown and Warner (1980, p. 222), the market model is more powerful return-generating model vis-à-vis risk-adjusted models which are not been adjusted for systematic risk.

In fact, the three-day CAAR is 1.03%, while that of two days is 0.93%, both statistically significant at the 1% level. This positive market reaction is almost equivalent to that found by Dasilas and Leventis (2011) (a three-day CAAR of 1.17%). Consequently, we corroborate prior research that dividend increases send strong positive signals to the market that announcing firms are financially sound and their future prospects are favourable.

Panel C displays the results from the market reaction surrounding dividend decrease announcements. In contrast to the common view that these announcements are associated with significant stock price losses, we find excess returns of 0.34% on day 0, statistically significant at the 5% level. The CAARs of two and three days are marginally positive and far from being significant. These results are at odds with those found by Dasilas and Leventis (2011) that dividend decreases bring about negative market reaction. We attribute this unexpected market reaction to the diminishing number of companies distributing dividends since 2009 and the positive component conveyed by such distributions in periods of financial turmoil and limited access to money markets. In other words, we argue that the market welcomes even dividend distributions that are less in size compared to the previous year taking into account the deteriorating financial conditions of the announcing firms and the gloomy macroeconomic environment of Greece.

Panel D reports the stock price response to dividend announcements for companies which did not change their dividends (constant dividends). Our results are in contrast to prior studies which showed that constant dividend distributions do not bring new signals to the market and stock prices remain unaltered (Dasilas and Leventis, 2011; Kumar, 2017; Al-Yahyaee et al., 2011). In fact, we demonstrate a significant market reaction on days 0 (0.56%) and +1 (0.52%) which render a three-day CAAR of 0.74%, statistically significant at the 1% level. These results corroborate our earlier findings with regards to the market reaction to dividend decreases. The market still greets with enthusiasm constant dividend announcements considering the struggle of Greek listed firms to survive and generate profits.

Overall, our results indicate that cash dividend announcements convey new information to the market based on the sign of dividend change. Hence, the market reacts positively to good or neutral news (announcement of dividend increase or same dividend) and marginally positive to dividend cuts.

[Insert Table 2 about here]

Table 3 presents the differences in AARs and CAARs between pairs of dividend changes employing the two sample t-test and z-statistic test, respectively. Panel A shows the differences between dividend increases and decreases. Obviously, the market response to dividend increases is statistically significant in almost all event windows before and after the announcement date. In particular, the differences in two and three-day CAARs are 0.83% and 0.97%, respectively. When comparing dividend decreases versus constant dividends (Panel B) we see that apart from the two-day event window, all other windows display statistical significance between the sub-samples. Specifically, the announcement of the same dividend as in the previous year (constant dividend) sends more positive news compared to dividend cuts. Finally, Panel C reports the differences between dividend increases and constant dividends. As expected, dividend increases are linked with stronger market reaction vis-à-vis constant dividends as shown in the two and three day event windows.

[Insert Table 3 about here]

Prior empirical evidence regarding the impact of dividend taxation on firm value is mixed. This is a new attempt to decode the implications of taxes on value effects. Table 4 illustrates the market behaviour to dividend announcements pre and post-debt crisis period. Panel A shows a strong abnormal return of 0.34% in the pre-debt crisis period which coincides with the dividend tax-free period. The two and three-day CAARs are 0.55% and 0.62%, respectively, statistically significant at the 1%. Panel B shows the market reaction from the post-debt crisis period. On day 0, the abnormal return is twice as that in the pre-debt crisis period. In particular, the AAR is 0.72%, statistically significant at the 1% level. Moreover, the two-day CAAR is 0.56% and that of three days is 0.80%. Unreported results show that the market reaction is stronger in the period of taxes (post-debt crisis period) when dividend change is considered[22]. Testing for differences in the market response to dividend announcements between the two distinct periods shows that this is not statistically significant (Table 5). One has to note that this has been a period of unprecedented losses for the ASE during which very few companies made cash distributions to the shareholders[23]. When

[22] Dividend increases bring about a three-day CAAR of 0.88% in the pre-debt crisis period and 1.87% in the post-debt crisis period. Dividend decreases furnish a three-day CAAR of 0.11% in the pre-debt crisis period and 0.18% in the post-debt crisis period. Finally, constant dividend announcements have a three-day CAAR of 0.79% in the pre-debt crisis period and 0.78% in the post-debt crisis period.

[23] Indicatively in 2014 the number of firms that made cash distributions was 23 which amounted to less than 10% of the ASE listed firms at that time. On the contrary in 2008, before the severe debt crisis that struck the

examining their behaviour under these lenses one realizes that investors adapted to the conditions applying then. Depressed stock prices and a limited interest for the local stock exchange influenced the degree of market response during this period. This means that shareholders of cash distributing firms were happy to receive something than nothing. Our findings support Hu (2012) who posited that during economic contraction firms try to reduce agency costs by distributing cash and in this way receiving a positive market reaction. Overall, our results partly support the tax-based signalling hypothesis according to which higher taxes on dividends make dividend announcements more informative.

[Insert Tables 4 and 5 about here]

5.2 Market reaction to return of capital announcements

Table 6 reports the stock price behaviour around return of capital announcements. As it has already been mentioned, the return of capital is a tax-free cash distribution that is not subject to minimum payment restrictions. Panel A shows that the announcement of returns of capital render statistically significant excess returns of 1.53% and 1.26% on days 0 and +1, respectively. Furthermore, the two and three-day CAARs are 1.66% and 2.92%, respectively, both statistically significant at the 1% level. Compared to dividend announcements, return of capital distributions elicit much stronger market reaction hardly observed in prior studies. Moreover, the reported CAARs are greater than the ones reported in Dasilas and Leventis (2011) for dividend distribution announcements. These findings suggest that these unique cash distributions contain notable corporate information about the current and future prospects of the firm that are partly embedded in dividend announcements. This happens because the Greek corporate law requires a minimum dividend distribution which fairly mitigates the information content of such announcements. Beladi et al. (2016) and Brady et al. (2014) suggest that extraordinary cash payments may elicit a greater stock price response. In sum, return of capital distributions seem to contain a stronger element of surprise compared to dividends.

Partitioning the full sample of returns of capital to increases and decreases and no changes[24] we attempt to test the propositions of the signaling hypothesis based on which dividend increases are associated with positive expectations for the company's future

Greek economy, the number of firms making cash distributions was 130 which amounted to just below 50% of the listed firms.

[24] We identified only 10 cases of no change in returns of capital announcements (constant returns of capital) which were added to the sample of decreases.

prospects. On the other hand, decreases in dividends are viewed negatively by market participants thus resulting in negative short-term market reaction (Pettit, 1972). Panel B reports the results from increases in return of capital distributions. As expected, the announcement of increases in returns of capital causes a notable stock price appreciation of 2.02% on day 0 and 1.85% on the day after. The combined announcement effect of three days is 4.24% which seems enormous for the average investor. The positive impact of increases in returns of capital still persists up to 10 days following the actual announcement. Panel C displays the market reaction to decreases or no changes in return of capital distributions. Surprisingly, the stock price response is positive (0.69%) on day 0 but non-significant. Both the two and three-day CAARs are positive, however, not significant.

[Insert Table 6 about here]

Table 7 presents the differences between the two sub-samples of changes in return of capital distributions. Clearly, the market reaction to increases significantly outperforms that of decreases/no changes as shown on days 0 and +1 and in all event windows prior and post to the announcement date. Therefore, we believe that our results are congruent with the signaling hypothesis according to which increases in the amount distributed are related with strong market performance at least in the short-run. Brady et al. (2014) further claimed that shareholders reward firms on the eve of such news releases since they gather that had the profits remained intact they might have been channeled to weak investment projects.

[Insert Table 7 about here]

Many Greek listed firms announce the payment of the two types of cash distribution simultaneously. Probably the simultaneous distribution of dividends and returns of capital intends to outweigh the tax disadvantage of dividends with a tax-free cash equivalent. This corporate practice became popular once taxes on dividend income were introduced. Panel A of Table 8 reports the market response to combined cash distributions, while Panel B shows the market reaction to pure (without dividends) return of capital announcements. The concomitant cash distributions generate an abnormal return of 1.76% on day 0. The reaction is assimilated immediately by the market as it is shown from the various event windows surrounding the announcement. The two-day CAAR is 2.39% and that of three days is 3.09%, both statistically significant at the 1% level. Turning to pure returns of capital

announcements, we observe significant excess returns on days 0 (1.57%) and +1 (1.61%), which combined render a two-day CAAR of 1.51%. The three-day CAAR is 3.12% almost equal to that of the sub-sample of combined announcements.

[Insert Table 8 about here]

Table 9 documents the differences in AARs and CAARs between contemporaneous and pure announcements. The results reveal no statistical difference in CAARs of three days, while that of two-days is significantly higher for the sample of combined announcements. Though not clearly enough, we can argue that combined announcements seem to be preferred compared to pure announcements. This finding is in line with Andres et al. (2015) who claimed that dividends and payout methods are no perfect substitutes.

[Insert Table 9 about here]

Table 10 presents the results from return of capital announcements in the pre and post-debt crisis period. Though the tax-free status of returns of capital remained unaltered in both periods, the introduction of dividend taxation boosted the number of return of capital announcements in the post-debt crisis period. This result is in line with Hanlon and Hoopes (2014) who claimed that the management of firms forms corporate pay-out policy according to shareholder level taxes. Panel A shows that the announcement of a return of capital creates significant excess returns in the three days surrounding the event date (1.09%, 2.06% and 1.37% on days -1, 0 and +1) in the pre-crisis period. The three-day CAAR is 4.51%, statistically significant at the 1% level. Notably, the strong market reaction commences 10 days prior to the announcement and ends 5 days thereafter. These results imply an information leakage for the distribution of returns of capital, thus forcing shareholders to be in a long position some days before. Panel B reports the market reaction in the post-debt crisis period. The stock price abnormality is spotted on days 0 (1.43%) and +1 (1.24%) which are statistically significant. The two-day CAAR is 1.15%, while that of three days is 2.39%, both statistically significant at the 1% level. At first glance, the market reaction in the post-debt crisis period is half of that in the pre-crisis period. This finding is in contrast with Brady et al. (2014) who claim that markets react more positively to non-dividend cash distributions during recessions rather than expansions. Since the returns of capital were tax-free throughout the examined period, the market reaction has been immunized by tax effects. In

contrast, the impact on dividend announcements in the post-debt crisis period was stronger underlying the moderating role of taxes. Therefore, we can attribute the smaller stock price appreciations in the post-debt crisis period to the adverse market conditions and the selling pressures that influenced negatively the ASE-listed firms' market capitalization.

[Insert Table 10 about here]

Finally, Table 11 corroborates the statistically different market reaction to return of capital announcements between the two periods. In specific, in the two and three-day event windows the difference in CAARs exceeds 2% and it is statistically significant at the 1% level. We reach to the same conclusion focusing on the pre-event windows of 5 and 10 days, respectively. Though cash distributions should normally elicit a more favorable stock price response when firms' further growth options are limited, we find that the market reaction is weaker in the post-debt crisis period where growth rates are low and investment opportunities are scarce.

[Insert Table 11 about here]

5.3 Cross-sectional regression analysis

This section presents regression results in order to discern the drivers of the wealth effects surrounding the two types of cash announcements in Greece. We use standard ordinary least squares with t-statistics based on White's (1980) heteroscedasticity-consistent standard errors to estimate all regressions. Table 12 presents Pearson's correlation matrix demonstrating that our regressions are free of a multicollinearity problem.

[Insert Table 12 about here]

Table 13 displays the regression results for dividend announcements. The table contains eight specifications where the dependent variable is either the abnormal return (AR) of day 0 or the cumulative abnormal return (CAR) of three days around the announcement date based on the market-adjusted model and the market model, respectively. The results show that the minimum dividend requirement (mandated) plays significant role in explaining abnormal returns on dividend announcement dates. In specific, the mandated dummy has a negative and statistically significant coefficient in three out of four regressions. This means

that the announcement of a dividend above the minimum required impacts abnormal returns less than a dividend equal or less than the minimum required. Consistent with the results from the event study, the market reaction is stronger in the post-debt (taxed) crisis period lending support to the tax-based dividend signaling hypothesis according to which taxes make dividend announcements more informative (see the "bang-for-the-buck" hypothesis of Bernheim and Wantz, 1995).. Leverage has a positive and significant coefficient in five out of eight regressions suggesting that announcing firms with high leverage levels enjoy higher abnormal returns on dividend announcement dates. To put it differently, the market considers that high debt levels do not deter firms from distributing dividends, thus unveiling the good future prospects of the firms and the role of leverage to further growth.

Dividend changes between two successive years display a positive and statistically significant impact on abnormal returns in almost all regressions. This means that when the difference is positive which implies a dividend increase, the market reaction is stronger. This result is congruent with that found by Lee and Yan (2003). Consistent with the dividend clientele hypothesis the estimateddividend yield has a positive and significant impact on excess returns, implying that a high dividend yield is perceived as good news from the market. This result is similar to Lee and Yan (2003) and Dasilas and Leventis (2011). Higher profitability implies higher dividend distribution which is associated with stronger market reaction. This is confirmed by the positive and statistically significant coefficient of profit margin[25].

On the other hand, the coefficient of size has a negative sign corroborating the size effect according to which smaller firms enjoy higher abnormal returns on the announcement of pivotal corporate events such as dividend distributions. Growth opportunities also display a negative coefficient which is statistically significant in some regressions. Dasilas and Leventis (2011) using an older sample of dividend announcements in the same institutional setting also report a negative relationship between growth opportunities and abnormal returns. This means that firms with low growth opportunities (low Tobin's Q) enjoy higher wealth gains on announcement dates. The rest of independent variables fall short of being statistically significant. Our results remain unaltered when we regress the same set of independent variables against abnormal returns leaving out the mandated dummy variable (models 3, 4, 7 and 8).

[25] Similar result using ROE as a proxy for profitability was found by Lee and Yan (2003).

[Insert Table 13 about here]

Table 14 reports the regression results for return of capital announcements. We regress abnormal and cumulative abnormal returns against the same set of control variables as in dividends. However, we leave out the mandated dummy since there is no requirement for minimum distribution of returns of capital. Moreover, we include a dummy (dividend) for those returns of capital that are concurrently announced with dividends. Therefore, the dividend dummy takes the value of 1 for simultaneous announcements and 0 otherwise. The results show that the return of capital yield positively affects abnormal returns in all regressions. To put it differently, the high yield of return of capital distributions is the lure for stock price movements on announcement dates.

In contrast to dividend announcements, profitability levels display a negative and statistically significant sign for return of capital announcements. This can be explained by the law requirement to distribute dividends in case of profits, while returns of capital require first profit capitalization and then reduction of equities. Tobin's Q has a positive and statistically significant coefficient only in the first regression implying that firms with high growth opportunities enjoy higher wealth gains on returns of capital announcement dates. Moreover, concurrent announcements of dividends and returns of capital send stronger signal to the market as displayed by the positive and statistically significant coefficient of dividend dummy in models 2 and 4. Finally, the market reaction as measured by the three-day CAR is notably higher in the post-debt crisis period corroborating earlier findings from the event study.

[Insert Table 14 about here]

5.4 Sensitivity analysis

In this subsection we conduct further regression analysis in order to check whether our results are robust to changes in some control variables. In specific, we run a regression that includes both dividend and return of capital announcements simultaneously by using a dummy (Dividend-RC) that takes the value of 1 for return of capital announcements and 0 for dividend announcements. Moreover, we replace dividend and return of capital changes with two dummies. The first dummy (positive distribution) takes the value of 1 for dividend and return of capital increases and 0 otherwise. The second dummy (constant distribution) takes the value of 1 for no dividend and return of capital changes and 0 otherwise. Additionally, we

estimate size using the logarithm of market value instead of total assets. Finally, we approximate profitability levels using the return on equity (ROE) in lieu of profit margin. Table 15 displays the regression results. The positive distribution dummy has the expected positive sign which is statistically significant in all regressions. This suggests that a dividend (or return of capital) increase elicits stronger abnormal returns on day 0 and the two days around it. The constant distribution dummy has also a positive coefficient, however, statistically significant in only two regressions (models 2 and 3). ROE has positive and significant impact in model 4, while the new size measure displays a negative and significant coefficient in three out of four regressions. Finally, the dividend-RC dummy is positive and statistically significant in all regressions suggesting that returns of capital bring about stronger market reaction vis-à-vis dividends corroborating earlier results from the event study. The rest of the variables have more or less the same sign and significance as in Tables 13 and 14.

[Insert Table 15 about here]

6. Concluding Remarks

The current study delves into the wealth effects of two distinct types of cash distribution followed by the Greek listed firms, that is, dividends and returns of capital. The distribution of a return of capital as an alternative conduit of cash disgorgement became popular in the aftermath of the introduction of dividend taxation in 2009. Since then, several Greek listed firms distribute returns of capital every year making them a standard corporate practice in an attempt to transfer less taxed money to their shareholders. The return of capital is considered a cash distribution that is subject to less regulatory restrictions with regards to the amount distributed. It remained tax-free throughout the examined period, thus having a tax advantage vis-à-vis dividends since 2009. That was the main reason why returns of capital became a widespread cash distribution channel for the majority of profitable Greek listed firms in the post-debt crisis period.

In line with the dividend signaling hypothesis, dividend announcements are associated with significant stock price appreciations on announcement dates. As expected, dividend increases furnish stronger market reaction surrounding the event period. However, the market response to dividend decreases is remarkably different from that found by prior studies. In

fact, dividend cuts send a weak but positive signal to the market. Paradoxically, the market reaction to dividend announcements is stronger in the period of dividend taxation which trimmed much of the amount distributed to shareholders. We conjecture that the limited interest for the capital market during the post-debt crisis period influenced our findings. This period is marked by the outburst of the Greek debt crisis and the consequent lower earnings for the majority of firms. Apparently the market greets with more enthusiasm dividend distributions during periods of economic downturn since it takes into account the struggle of firms to remain lucrative and remain capable of producing profits.

When exploring the valuation effects of the unique cash distribution of returns of capital we find that these are linked with notable abnormal returns on announcement dates that far exceed those of dividends. Their high yield as well as the lack of profit distribution restrictions is alleged to be the main drivers of the strong market reaction to returns of capital. The return of capital, however, is no substitute for the dividend since the abnormal returns are higher when they are concurrently offered. In line with Buchanan et al. (2017), we conjecture that alternative payout methods like the return of capital gain popularity over dividends when individual level tax increases take place.

The managerial implications arising from the investigated return of capital cash disgorgement conduit include the adoption of similar policies by firm managers to the extent that is allowed by the law. The possibility of distributing tax-free money, while attaining superior stock market response on the eve of the relevant announcement, is a combination most managers would welcome. Furthermore, the return of capital is a viable alternative to dividends, following individual and corporate tax rate increases, though not a full substitute. Managers in this respect consider individual tax level in making corporate pay-out decisions since they track the relevant taxation changes and adjust their pay-out policies accordingly. The return of capital scheme may also be viewed as an incentive realignment mechanism since managers that have given out money to investors in this form tend to do so in the future as well in the fear that a no pay-out policy might disappoint shareholders.

Future research could attempt to relate extraordinary payouts of this form with the ownership structure of firms. In this way we could investigate whether high insider ownership and not the lack of investment opportunities is the main explanatory factor behind the return of capital. Finally, future research could be directed to the investigation of firm characteristics that explain the decision of disgorging dividends and/or alternative cash distributions.

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Table 1. Sample distribution of returns of capital and dividends in Greece

	Returns of capital		Dividends	
Year	No	%	No	%
2000	-	-	73	8.2%
2001	-	-	87	9.8%
2002	1	0.8%	67	7.5%
2003	2	1.5%	62	7.0%
2004	5	3.8%	58	6.5%
2005	11	8.5%	68	7.6%
2006	6	4.6%	53	6.0%
2007	8	6.2%	50	5.6%
2008	10	7.7%	124	13.9%
2009	8	6.2%	85	9.6%
2010	12	9.2%	73	8.2%
2011	22	16.9%	35	3.9%
2012	18	13.8%	23	2.6%
2013	16	12.3%	19	2.1%
2014	11	8.5%	13	1.5%
Total	130	100.0%	890	100.0%

Table 2. AARs and CAARs for the sample of dividend announcements

Panel A: Full sample of dividend announcements				
N = 890	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	-0.17	-0.71	0.21**	2.55
0	0.72***	3.11	0.54***	5.69
1	0.25	1.06	0.13	1.44
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	-0.09	-0.08	0.00	0.01
CAAR (+1 +10)	0.32	0.98	0.37	1.44
CAAR (-5 -1)	-0.05	-0.20	0.15	0.90
CAAR (+1 +5)	0.57**	2.45	0.40**	2.15
CAAR (-1 +1)	0.83***	3.59	0.85***	5.54
CAAR (-1 0)	0.55**	2.39	0.73***	5.76
Panel B: Dividend increase announcements				
N = 448	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	0.44***	3.75	0.45***	4.01
0	0.49***	4.20	0.67***	5.14
1	0.11	0.96	0.05	0.43
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	0.36***	3.05	0.34	1.04
CAAR (+1 +10)	0.38***	3.22	0.46	1.32
CAAR (-5 -1)	0.55***	4.66	0.50**	2.15
CAAR (+1 +5)	0.12	1.02	0.36	1.40
CAAR (-1 +1)	1.03***	8.81	1.16***	5.49
CAAR (-1 0)	0.93***	7.92	1.10***	6.34
Panel C: Dividend decrease announcements				
N = 315	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	-0.22	-1.35	-0.10	-0.74
0	0.34**	2.09	0.31*	1.89
1	0.01	0.08	0.01	0.01
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	-0.13	-0.76	-0.57	-1.33
CAAR (+1 +10)	0.71***	4.34	0.32	0.69
CAAR (-5 -1)	-0.15	-0.89	-0.40	-1.38
CAAR (+1 +5)	0.22	1.36	0.22	0.66
CAAR (-1 +1)	0.06	0.39	0.20	0.78
CAAR (-1 0)	0.10	0.60	0.20	0.91
Panel D: Constant dividend announcements				
N = 127	Market model		Market-adjusted model	
Days	AR %	t-statistic	AR %	t-statistic
-1	-0.27	-1.17	-0.30	-0.43
0	0.56**	2.44	0.63**	2.52
1	0.52**	2.28	0.49**	2.13
Interval	CAR %	t-statistic	CAR	t-statistic
CAAR (-10 -1)	0.23	0.52	0.25	0.35

CAAR (+1 +10)	0.06	0.28	0.19	0.29
CAAR (-5 -1)	0.25	1.11	0.30	0.64
CAAR (+1 +5)	0.67***	2.92	0.71**	2.16
CAAR (-1 +1)	0.74***	3.24	0.82***	3.18
CAAR (-1 0)	0.31	1.36	0.33	1.26

Notes: The table reports the average abnormal and cumulative abnormal returns calculated by the market model and the market-adjusted model aggregated across the cross-section of firms for the whole sample of return of capital announcements for each day within the event window. T-statistics are also reported. * denotes statistical significance at the 10% level. ** denotes statistical significance at the 5% level. *** denotes statistical significance at the 1% level.

Table 3. Differences in AARs and CAARs for the samples of dividend changes

Panel A: Differences among dividend increases and decreases				
	Market model		Market-adjusted model	
	Differences %	t-statistic	Differences %	t-statistic
Day -1	0.66***	3.36	0.56***	3.10
Day 0	0.15	0.67	0.36*	1.74
Day +1	0.10	0.48	0.05	0.28
	Differences %	z-statistic	Differences %	z-statistic
CAAR (-10 -1)	0.48***	8.05	0.91***	16.45
CAAR (+1 +10)	-0.34***	-5.29	0.13**	2.34
CAAR (-5 -1)	0.69***	8.35	0.91***	11.79
CAAR (+1 +5)	-0.10	-1.09	0.13	1.63
CAAR (-1 +1)	0.97***	7.97	0.96***	8.58
CAAR (-1 0)	0.83***	5.55	0.90***	6.58
Panel B: Differences in dividend decreases and constant dividends				
	Market model		Market-adjusted model	
	Differences %	t-statistic	Differences %	t-statistic
Day -1	0.05	0.16	0.20	0.72
Day 0	-0.22	-0.69	-0.32	-1.08
Day +1	-0.51*	-1.72	-0.49*	-1.68
	Differences %	z-statistic	Differences %	z-statistic
CAAR (-10 -1)	-0.36***	-4.06	-0.82***	-10.20
CAAR (+1 +10)	0.65***	6.96	0.13	1.53
CAAR (-5 -1)	-0.40***	-3.27	-0.70***	-6.09
CAAR (+1 +5)	-0.44***	-3.19	-0.49***	-3.94
CAAR (-1 +1)	-0.68***	-3.94	-0.62***	-3.73
CAAR (-1 0)	-0.21	-1.01	-0.13	-0.64
Panel C: Differences in dividend increases and constant dividends				
	Market model		Market-adjusted model	
	Differences %	t-statistic	Differences %	t-statistic
Day -1	0.71***	2.59	0.75***	2.91
Day 0	-0.06	-0.22	0.04	0.14
Day +1	-0.41	-1.40	-0.44	-1.54
	Differences %	z-statistic	Differences %	z-statistic
CAAR (-10 -1)	0.13	1.53	0.08	1.09
CAAR (+1 +10)	0.31***	3.55	0.26***	3.33
CAAR (-5 -1)	0.29**	2.46	0.21*	1.90
CAAR (+1 +5)	-0.55***	-4.15	-0.35***	-3.01
CAAR (-1 +1)	0.29*	1.74	0.34**	2.13
CAAR (-1 0)	0.62***	3.03	0.78***	4.05

Table 4. AARs and CAARs for the sample of dividend announcements in the pre- and post-debt crisis period

Panel A: Dividend announcements in the pre-debt crisis period (2000-2008)				
N = 642	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	0.21**	2.09	0.20**	2.07
0	0.34***	3.46	0.38***	3.77
1	0.07	0.74	0.04	0.42
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	0.36	1.14	0.22	0.53
CAAR (+1 +10)	0.13	0.40	0.05	0.21
CAAR (-5 -1)	0.23	1.02	0.14	0.36
CAAR (+1 +5)	0.09	0.43	0.09	0.42
CAAR (-1 +1)	0.62***	3.63	0.62**	2.10
CAAR (-1 0)	0.55***	3.92	0.58***	3.10
Panel B: Dividend announcements in the post-debt crisis period (2009-2014)				
N = 248	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	-0.17	-0.71	-0.24	-1.39
0	0.72***	3.11	0.74***	3.42
1	0.25	1.06	0.25	1.07
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	-0.50	-0.78	-0.57	-0.83
CAAR (+1 +10)	1.03	1.40	1.24	1.37
CAAR (-5 -1)	-0.14	-0.26	-0.20	-0.44
CAAR (+1 +5)	0.58	1.11	0.52	1.22
CAAR (-1 +1)	0.80**	2.00	0.75**	2.35
CAAR (-1 0)	0.56*	1.69	0.50*	1.67

Notes: The table reports the average abnormal and cumulative abnormal returns calculated by the market model and the market-adjusted model aggregated across the cross-section of firms for the whole sample of return of capital announcements for each day within the event window. T-statistics are also reported. * denotes statistical significance at the 10% level. ** denotes statistical significance at the 5% level. *** denotes statistical significance at the 1% level.

Table 5. Differences in AARs and CAARs for the sample of dividends pre and post-debt crisis periods

	Market model		Market-adjusted model	
	Differences %	t-statistic	Differences %	t-statistic
Day -1	0.37*	1.78	0.43**	2.22
Day 0	-0.38	-1.45	-0.36	-1.52
Day +1	-0.17	-0.72	-0.21	-0.99
	Differences %	z-statistic	Differences %	z-statistic
CAAR (-10 -1)	0.86***	13.27	0.79***	13.18
CAAR (+1 +10)	-0.90***	-12.78	-1.18***	-18.34
CAAR (-5 -1)	0.36***	4.04	0.34***	4.03
CAAR (+1 +5)	-0.48***	-4.51	-0.43***	-4.66
CAAR (-1 +1)	-0.18	-1.06	-0.14	-0.88
CAAR (-1 0)	0.01	-0.04	0.08	0.61

Table 6. AARs and CAARs for the sample of returns of capital announcements

Panel A: Full sample of returns of capital announcements				
N = 130	Market model		Market-adjusted model	
Days	AR %	t-statistic	AR %	t-statistic
-1	0.14	0.62	0.27	0.94
0	1.53***	6.96	1.56***	4.19
1	1.26***	5.73	1.32***	4.25
Interval	CAR %	t-statistic	CAR	t-statistic
CAAR (-10 -1)	-0.10	-0.46	0.06	0.33
CAAR (+1 +10)	1.32***	6.02	1.56**	2.55
CAAR (-5 -1)	0.15	0.67	0.16	0.62
CAAR (+1 +5)	1.56***	7.08	1.51***	3.90
CAAR (-1 +1)	2.92***	13.26	3.09***	4.07
CAAR (-1 0)	1.66***	7.52	1.79***	3.20
Panel B: Increases in returns of capital announcements				
N = 93	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	0.37	1.04	0.55	1.63
0	2.02***	5.66	1.91***	3.92
1	1.85***	5.21	1.66***	4.22
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	0.20	0.57	0.54	0.99
CAAR (+1 +10)	3.11***	8.73	3.07***	3.80
CAAR (-5 -1)	0.55	1.54	0.37	1.60
CAAR (+1 +5)	2.45***	6.88	2.10***	4.43
CAAR (-1 +1)	4.24***	11.91	4.04***	5.35
CAAR (-1 0)	2.39***	6.70	2.41***	4.02
Panel C: Decreases in returns of capital announcements				
N = 37	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	-0.34	-0.76	-0.43	-0.84
0	0.69	1.53	0.68	1.48
1	-0.15	-0.33	0.46	1.00
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	-0.75	-1.65	-0.50	-0.42
CAAR (+1 +10)	-1.56***	-3.43	-1.78**	-2.48
CAAR (-5 -1)	-0.72	-1.60	-0.71	-1.12
CAAR (+1 +5)	-0.06	-0.14	0.05	1.21
CAAR (-1 +1)	0.20	0.44	0.70	0.76
CAAR (-1 0)	0.35	0.77	0.25	0.35

Notes: The table reports the average abnormal and cumulative abnormal returns calculated by the market model and the market-adjusted model aggregated across the cross-section of firms for the whole sample of return of capital announcements for each day within the event window. T-statistics are also reported. * denotes statistical significance at the 10% level. ** denotes statistical significance at the 5% level. *** denotes statistical significance at the 1% level.

Table 7. Differences in AARs and CAARs for the samples of returns of capital changes

	Market model	Market-adjusted model

	Differences %	t-statistic	Differences %	t-statistic
Day -1	0.72	1.22	0.98	1.60
Day 0	1.32**	1.93	1.23*	1.83
Day +1	2.00**	2.46	1.20**	1.98
	Differences %	z-statistic	Differences %	z-statistic
CAR (-10 -1)	0.95***	5.83	1.05***	6.13
CAR (+1 +10)	4.67***	25.54	4.85***	26.67
CAR (-5 -1)	1.27***	5.42	1.08***	4.28
CAR (+1 +5)	2.51***	8.70	2.05***	7.71
CAR (-1 +1)	4.04***	9.95	3.34***	9.14
CAR (-1 0)	2.04***	4.47	2.15***	4.68

Table 8. AARs and CAARs for the sample of returns of capital with and without dividend announcements

Panel A: Sample of returns of capital combined with dividend announcements				
N = 46	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	0.63	1.43	1.17***	2.67
0	1.76***	3.98	1.77***	3.33
1	0.70	1.58	0.66	1.42
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	0.31	0.70	1.28	1.21
CAAR (+1 +10)	0.04	0.10	0.87	0.71
CAAR (-5 -1)	0.52	1.18	1.25	1.82
CAAR (+1 +5)	0.06	0.13	0.47	0.66
CAAR (-1 +1)	3.09***	6.99	3.58***	3.78
CAAR (-1 0)	2.39***	5.41	2.92***	4.17
Panel B: Sample of returns of capital without dividend announcements				
N = 84	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	-0.09	-0.27	-0.23	-0.63
0	1.57***	4.83	1.43***	2.85
1	1.61***	4.93	1.69***	4.13
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	0.24	0.74	0.78	0.94
CAAR (+1 +10)	2.73***	8.39	3.69***	3.00
CAAR (-5 -1)	0.25	0.15	0.78	1.32
CAAR (+1 +5)	2.67***	8.21	3.63***	4.83
CAAR (-1 +1)	3.12***	9.59	2.83***	3.54
CAAR (-1 0)	1.51***	4.65	1.18*	1.87

Notes: The table reports the average abnormal and cumulative abnormal returns calculated by the market model and the market-adjusted model aggregated across the cross-section of firms for the whole sample of return of capital announcements for each day within the event window. T-statistics are also reported. * denotes statistical significance at the 10% level. ** denotes statistical significance at the 5% level. *** denotes statistical significance at the 1% level.

Table 9. Differences in AARs and CAARs for the samples of returns of capital with and without dividend announcements

	Market model	Market-adjusted model

	Differences %	t-statistic	Differences %	t-statistic
Day -1	0.72	1.22	1.40**	2.49
Day 0	0.19	0.24	0.34	0.47
Day +1	-0.91	-1.28	-1.03	-1.60
	Differences %	z-statistic	Differences %	z-statistic
CAAR (-10 -1)	0.55***	3.62	0.50***	3.27
CAAR (+1 +10)	-2.68***	-17.22	-2.82***	18.50
CAAR (-5 -1)	0.52**	2.31	0.47**	2.10
CAAR (+1 +5)	-2.62**	-10.65	-3.16***	-13.79
CAAR (-1 +1)	-0.03	-0.07	0.75**	2.03
CAAR (-1 0)	0.88*	1.79	1.75***	3.78

Table 10. AARs and CAARs for the sample of returns of capital announcements in the pre- and post-debt crisis period

Panel A: Returns of capital announcements in the pre-debt crisis period (2000-2008)				
N = 43	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	1.09**	2.07	0.86*	1.78
0	2.06***	3.92	2.31***	3.34
1	1.37***	2.60	1.27*	1.93
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	1.31**	2.50	1.69	1.39
CAAR (+1 +10)	0.86	1.64	1.54	1.16
CAAR (-5 -1)	1.92***	3.67	1.81**	2.12
CAAR (+1 +5)	1.53***	2.91	1.24	1.48
CAAR (-1 +1)	4.51***	8.59	4.37***	3.61
CAAR (-1 0)	3.14***	5.99	3.10***	3.70
Panel B: Returns of capital announcements in the post-debt crisis period (2009-2014)				
N = 87	Market model		Market-adjusted model	
Days	AAR %	t-statistic	AAR %	t-statistic
-1	-0.29	-0.94	-0.02	-0.07
0	1.43***	4.71	1.19***	2.70
1	1.24***	4.08	1.34***	4.01
Interval	CAAR %	t-statistic	CAAR%	t-statistic
CAAR (-10 -1)	-0.75	-0.45	-0.60	-0.78
CAAR (+1 +10)	2.24***	7.35	3.26***	2.73
CAAR (-5 -1)	-0.67	-0.91	-0.52	-0.99
CAAR (+1 +5)	1.84***	6.04	2.14***	4.35
CAAR (-1 +1)	2.39***	7.85	2.46***	3.57
CAAR (-1 0)	1.15***	3.77	1.15**	1.99

Notes: The table reports the average abnormal and cumulative abnormal returns calculated by the market model and the market-adjusted model aggregated across the cross-section of firms for the whole sample of return of capital announcements for each day within the event window. T-statistics are also reported. * denotes statistical significance at the 10% level. ** denotes statistical significance at the 5% level. *** denotes statistical significance at the 1% level.

Table 11. Differences in AARs and CAARs for the sample of returns of capital pre and post-debt crisis periods

	Market model		Market-adjusted model	

	Differences %	t-statistic	Differences %	t-statistic
Day -1	1.37**	2.41	0.89	1.49
Day 0	0.62	0.90	1.13	1.37
Day +1	0.12	0.19	-0.07	-0.10
	Differences %	z-statistic	Differences %	z-statistic
CAAR (-10 -1)	2.06***	13.01	1.09***	6.99
CAAR (+1 +10)	-1.38***	-7.87	-1.72***	-10.51
CAAR (-5 -1)	2.60***	10.96	1.29***	5.60
CAAR (+1 +5)	-0.31	-1.12	-0.90***	-3.51
CAAR (-1 +1)	2.12***	4.71	1.91***	4.54
CAAR (-1 0)	2.00***	3.67	1.95***	3.81

Table 12: Correlation Matrices

Panel A: Correlation matrix for dividend announcements

	AR	CAR	Mandated	Beta	Crisis	Leverage	Dividend Change	Dividend Yield	Size	Profitability
AR	1									

CAR	0.657	1								
	(22.43)***	---								
Mandated	0.026	-0.009	1							
	(0.67)	(-0.23)	---							
Beta	-0.014	0.016	0.069	1						
	(-0.36)	(0.41)	(1.79)*	---						
Crisis	0.082	0.009	-0.078	-0.459	1					
	(2.11)**	(0.23)	(-2.02)**	(-13.27)***	---					
Leverage	0.081	0.015	0.037	-0.009	0.090	1				
	(2.09)**	(0.39)	(0.96)	(-0.23)	(2.33)**	---				
Dividend Change	0.067	0.144	0.001	-0.066	-0.036	-0.134	1			
	(1.74)*	(3.73)***	(0.02)	(-1.70)*	(-0.93)	(-3.47)***	---			
Dividend Yield	0.171	0.162	-0.086	-0.236	0.204	0.030	0.370	1		
	(4.45)***	(4.21)***	(-2.22)**	(-6.26)***	(5.35)***	(0.77)	(10.23)***	---		
Size	-0.046	-0.086	0.323	0.062	0.013	0.341	-0.041	-0.055	1	
	(-1.19)	(-2.21)**	(8.77)***	(1.60)	(0.33)	(9.32)***	(-1.06)	(-1.42)	---	
Profitability	0.024	0.018	0.083	-0.019	-0.116	0.050	0.062	-0.032	0.249	1
	(0.61)	(0.47)	(2.14)**	(-0.48)	(-3.00)***	(1.27)	(1.61)	(-0.81)	(6.62)***	---
Growth	-0.055	-0.080	-0.009	0.047	-0.035	-0.007	-0.002	-0.028	-0.155	0.001
	(-1.41)	(-2.07)**	(-0.23)	(1.20)	(-0.90)	(-0.17)	(-0.06)	(-0.71)	(-4.04)***	(0.01)

Panel B: Correlation matrix for return of capital announcements

	AR	CAR	Beta	Crisis	Leverage	Dividend	Size	RC yield	RC change	Profitability	Growth
AR	1										

CAR	0.758	1									
	(11.49)***	---									
Beta	-0.012	-0.014	1								
	(-0.12)	(-0.14)	---								
Crisis	-0.065	-0.080	-0.460	1							
	(-0.64)	(-0.79)	(-5.13)***	---							
Leverage	-0.042	-0.104	0.160	-0.151	1						
	(-0.42)	(-1.04)	(1.60)	(-1.52)	---						
Dividend	0.018	0.008	0.418	-0.521	0.199	1					
	(0.17)	(0.07)	(4.56)***	(-6.05)***	(2.01)**	---					
Size	-0.071	-0.124	0.422	-0.220	0.441	0.235	1				
	(-0.70)	(-1.24)	(4.60)***	(-2.24)**	(4.86)***	(2.40)**	---				
RC yield	0.538	0.656	-0.143	-0.195	-0.121	-0.079	-0.157	1			
	(6.31)***	(8.59)***	(-1.43)	(-1.97)**	(-1.21)	(-0.78)	(-1.58)	---			
RC change	0.091	0.018	0.033	-0.105	0.070	0.192	0.019	0.209	1		
	(0.90)	(0.18)	(0.33)	(-1.04)	(0.69)	(1.94)*	(0.19)	(2.12)**	---		
Profitability	-0.270	-0.066	0.012	-0.064	0.036	0.080	-0.033	-0.016	-0.041	1	
	(-2.78)***	(-0.66)	(0.12)	(-0.63)	(0.35)	(0.79)	(-0.33)	(-0.16)	(-0.41)	---	
Growth	0.003	-0.038	0.302	-0.274	-0.300	0.369	-0.056	-0.118	-0.024	0.057	1
	(0.03)	(-0.38)	(3.14)***	(-2.82)***	(-3.11)***	(3.93)***	(-0.55)	(-1.17)	(-0.24)	(0.56)	---

Table 13: Regression results on dividend announcements

	Market model				Market-adjusted			
	AR	CAR	AR	CAR	AR	CAR	AR	CAR
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	0.007	0.018**	0.003	0.010	0.009*	0.023***	0.005	0.014**
Intercept	(1.45)	(2.20)	(0.56)	(1.26)	(1.72)	(2.86)	(1.04)	(1.97)
	-0.005*	-0.006			-0.005*	-0.008**		
Mandated	(-1.85)	(-1.41)			(-1.96)	(-2.07)		
	0.005	0.009*	0.007**	0.012**	0.002	0.001	0.003	0.002
Beta	(1.58)	(1.68)	(2.28)	(2.37)	(0.73)	(0.12)	(1.05)	(0.42)
	0.004	0.001	0.006**	0.004	0.007**	0.007	0.008***	0.009**
Crisis	(1.61)	(0.27)	(2.25)	(0.82)	(2.51)	(1.55)	(3.01)	(1.98)
	0.001***	0.001**	0.001***	0.001**	0.001	0.001	0.001*	0.001
Leverage	(2.84)	(2.19)	(2.97)	(2.19)	(1.62)	(1.35)	(1.79)	(1.42)
	0.002	0.016**	0.002	0.016**	0.004*	0.013***	0.005*	0.013***
Dividend change	(0.67)	(2.48)	(0.67)	(2.38)	(1.67)	(3.13)	(1.74)	(3.16)
	0.090**	0.131**	0.073**	0.113**	0.058*	0.082*	0.044	0.064
Dividend yield	(2.24)	(2.17)	(2.05)	(2.07)	(1.66)	(1.88)	(1.40)	(1.63)
	-0.004***	-0.008***	-0.004***	-0.008***	-0.003**	-0.007***	-0.003**	-0.006***
Size	(-2.91)	(-3.64)	(-3.01)	(-3.61)	(-2.40)	(-3.18)	(-2.24)	(-2.79)
	0.001*	0.001*	0.001**	0.001**	0.001**	0.001*	0.001***	0.001***
Profitability	(1.95)	(1.73)	(2.44)	(2.29)	(2.38)	(1.95)	(2.61)	(2.87)
	0.001***	0.001***	-0.001***	-0.001***	0.001***	0.001***	-0.001***	-0.001***
Growth	(-8.30)	(-12.58)	(-9.01)	(-12.87)	(-9.72)	(-14.19)	(-10.21)	(-14.37)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	666	666	690	690	659	666	681	690
Adjusted-R^2	0.044	0.048	0.051	0.056	0.037	0.042	0.034	0.037
F-statistic	4.38***	4.69***	5.62***	6.15***	3.82***	4.26***	3.99***	4.31***

Notes: Abnormal returns (ARs) on day 0 and cumulative abnormal returns (CARs) on three days surrounding the dividend announcement date (-1, 0 +1) are the dependent variables. Independent variables include: *Mandated* is a dummy variable which takes the value of 1 when the distributed dividend is above the minimum required and 0

otherwise. *Beta* is the systematic risk as measured from the regression of firm's abnormal returns in the pre-event period (-250, -11). *Crisis* is a dummy which takes the value of 1 in the post-debt crisis (taxed) period (2009-2014) and 0 in the pre-debt crisis (untaxed) period (2000-2008). *Leverage* equals to the firm's total debt at the end of the last fiscal year, divided by total equity. *Dividend change* is the difference between the current dividend and that of the last year. *Dividend yield* is the division of the dividend per share and the stock price one day before the announcement date. *Size* is the logarithm of the firm's total assets at the end of the last fiscal year. *Profitability* is measured by the profit margin at the end of the last fiscal year. *Growth* is measured by Tobin's Q defined as the ratio of the market value of equity divided by the book value of total assets at the end of the last fiscal year. T-statistics based on White's (1980) heteroscedasticity-consistent standard errors are in parentheses beneath coefficient estimates. ***significant at 1% level, **significant at 5% level, *significant at 10% level.

Table 14: Regression results on return of capital announcements

	Market model		Market-adjusted	
	AR	CAR	AR	CAR
	(1)	(2)	(3)	(4)
Intercept	-0.022	-0.043	-0.017	-0.007
	(-1.09)	(-1.50)	(-0.83)	(-0.26)
Beta	0.011	0.035	0.008	0.012
	(0.98)	(1.64)	(0.74)	(0.65)
Crisis	0.016	0.034*	0.008	0.012
	(1.24)	(1.72)	(0.79)	(0.65)
Leverage	0.001	0.001	0.001	-0.001
	(0.96)	(-0.01)	(1.37)	(-0.53)
Dividend	0.010	0.027**	0.005	0.023*
	(1.06)	(1.98)	(0.52)	(1.81)
Size	-0.003	-0.009	-0.001	-0.002
	(-0.46)	(-0.78)	(-0.13)	(-0.17)
RC yield	0.091***	0.211***	0.068***	0.117***
	(3.61)	(5.32)	(4.37)	(3.15)
RC change	-0.002	-0.009**	0.001	-0.003
	(-1.54)	(-2.18)	(0.56)	(-0.97)
Profitability	-0.001***	-0.001***	-0.001***	-0.001***
	(-21.69)	(-5.73)	(-22.52)	(-7.20)
Growth	0.004	-0.001	0.006*	-0.003
	(1.50)	(-0.10)	(1.85)	(-0.62)
Year dummies	Yes	Yes	Yes	Yes
No. of Obs.	100	100	99	100
Adjusted-R^2	0.324	0.429	0.228	0.202
F-statistic	6.28***	9.27***	4.22***	3.79***

Notes: Abnormal returns (ARs) on day 0 and cumulative abnormal returns (CARs) on three days surrounding the returns of capital announcement date (-1, 0 +1) are the dependent variables. Independent variables include: *Beta* is the systematic risk as measured from the regression of firm's abnormal returns in the pre-event period (-250, -11). *Crisis* is a dummy which takes the value of 1 in the post-debt crisis (taxed) period (2009-2014) and 0 in the pre-debt crisis (untaxed) period (2000-2008). *Leverage* equals to the firm's total debt at the end of the last fiscal year, divided by total equity. *Dividend* is a dummy which takes 1 when returns of capital are distributed concurrently with

dividends and 0 otherwise. *Size* is the logarithm of the firm's total assets at the end of the last fiscal year. *RC yield* is the division of the return of capital per share and the stock price one day before the announcement date. *RC change* is the difference between the current return of capital and that of the last year. *Profitability* is measured by the profit margin at the end of the last fiscal year. *Growth* is measured by Tobin's Q defined as the ratio of the market value of equity divided by the book value of total assets at the end of the last fiscal year. T-statistics based on White's (1980) heteroscedasticity-consistent standard errors are in parentheses beneath coefficient estimates. ***significant at 1% level, **significant at 5% level, *significant at 10% level.

Table 15: Additional regression results on return of capital announcements

	Market model		Market-adjusted	
	AR	CAR	AR	CAR
	(1)	(2)	(3)	(4)
Intercept	0.002	0.004	-0.001	0.007
	(0.47)	(0.55)	(-0.05)	(0.84)
Beta	0.005	0.001	0.002	0.009*
	(1.64)	(0.19)	(0.80)	(1.69)
Crisis	0.005*	0.010**	0.008***	0.005
	(1.95)	(2.19)	(2.86)	(1.00)
Leverage	0.001***	0.001	0.001*	0.001**
	(3.27)	(1.34)	(1.78)	(2.08)
Yield	0.020	0.027***	0.007	0.060***
	(1.53)	(3.51)	(0.94)	(2.98)
Size	-0.003**	-0.005**	-0.002	-0.008***
	(-2.28)	(-2.35)	(-1.39)	(-3.38)
ROE	0.001	0.001	0.001	0.001*
	(0.57)	(1.61)	(0.60)	(1.88)
Growth	-0.001***	-0.001***	-0.001***	-0.001***
	(-7.51)	(-13.19)	(-7.99)	(-12.34)
Constant distribution	0.004	0.014**	0.007**	0.005
	(1.35)	(2.53)	(2.32)	(0.90)
Positive distribution	0.006**	0.017***	0.008***	0.016**
	(2.27)	(4.31)	(3.30)	(2.14)
Dividend-RC	0.011**	0.016**	0.006**	0.019**
	(2.25)	(2.21)	(2.46)	(2.14)
Year dummies	Yes	Yes	Yes	Yes
No. of Obs.	795	795	785	795
Adjusted R-squared	0.031	0.053	0.028	0.052
F-statistic	3.57***	5.45***	3.30	5.39

Notes: Abnormal returns (ARs) on day 0 and cumulative abnormal returns (CARs) on three days surrounding the dividend and return of capital announcement date (-1, 0 +1) are the dependent variables. Independent variables include: *Beta* is the systematic risk as measured from the regression of firm's abnormal returns in the pre-event period (-250, -11). *Crisis* is a dummy which takes the value of 1 in the post-debt crisis (taxed) period (2009-2014) and 0 in the pre-debt crisis (untaxed) period (2000-2008). *Leverage* equals to the firm's total debt at the end of the last fiscal year, divided by total equity. *Yield* is the division of the dividend (or return of capital) per share and the stock price one day before the announcement date. *Size* is the logarithm of the firm's market value at the end of the last fiscal year. *ROE* is the return on equity at the end of the last fiscal year. *Growth* is measured by Tobin's Q defined as the ratio of the market value of equity divided by the book value of total assets at the end of the last fiscal year. *Positive distribution* is a dummy that takes the value of 1 for dividend and return of capital increases and 0 otherwise. *Constant distribution* is a dummy that takes the value of 1 for no dividend and return of capital changes and 0 otherwise. *Dividend-RC* is a dummy that takes the value of 1 for return of capital announcements and 0 for dividend announcements. T-statistics based on White's (1980) heteroscedasticity-consistent standard errors are in parentheses beneath coefficient estimates. ***significant at 1% level, **significant at 5% level, *significant at 10% level.