

The idiosyncratic pattern of Russian corporate dividend policy during its formative era

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Abstract

In general, the dividend payout pattern for Russian corporations during their formative period from 1998 to 2006 was seemingly independent of company earnings, size, growth opportunities and capital structure, as such firm policies appear not to conform to any of the main extant dividend payout theories. The only exception we find is that of utility firms, which were inclined to pay consistent dividends. Utility firms tended to be partly owned by the state and were subject to price regulation. Consequently, they may have had limited investment prospects. Our findings suggest that dividend payout policies in non-market economies may be driven by non-traditional determinants, such as the state's overall industrial strategy.

Key words: Dividend payout policy, utility industry, Russia

JEL codes: P34, P26, P48

1. Introduction

This paper examines the dividend policies of Russian corporations during their formative years. We find no consistent pattern of dividend payouts, which generally tended to be made at irregular intervals. These results are also consistent with that of previous authors. For example, Zaltsman (2011) shows that from 1999 to 2009 Russian corporate dividend payouts were unstable. In addition, Al-Najjar (2013) finds that over the period from 2002 to 2008, Russian firms, on average, had the lowest dividend payout ratio among the sample of firms drawn from all BRIC economies. Finally, Kosmarskaya (2002) finds that Russian firms spanning an earlier 1998-2002 period, typically issued no or a negligible number of dividends. Her findings were confirmed in a later survey carried out by the Russian Institute of Directors (Grosman, 2012).

Our study on the Russian corporate dividend policy adds to the above studies in a number of ways. First, it offers a significantly larger sample size, which also spans all the major industrial sectors. Second, we find that Russian firms' dividend payout policies do not conform to any of the prevailing dividend literature theories, and tend to be independent of all main extant dividend determinants, such as company earnings, size, growth prospects and capital structure. Finally, our results indicate that only utility firms, which parent company was a state-operated monopoly during the Soviet era, paid consistent dividends over the 1998-2006 period. We argue that one possible reason for

this is that the utility sector is associated with extremely unattractive investment opportunities and dividend policy is used to attract shareholders.

At first, the above evidence on the reluctance of Russian corporations to pay dividends might appear surprising. This is especially so since Russia has a long tradition of weak property rights, including weak legal protections for company shareholders. In fact, many shareholders in the aftermath of the 1998 financial crisis were left holding worthless shares in many bankrupt companies. In addition, as we describe further below, the form of the Russian corporation under study here was of recent origin, emerging in the first few years of the first Putin regime. Consequently, there is every reason to expect investors to prefer to receive investment returns in the form of dividend payouts rather than through longer-term capital gains (La Porta et al., 2000).

Indeed, many of the firms included in our study were former state enterprises, which only a short time before were converted to a corporate form. With incorporation, came the requirement to publicly list financial information. Our data is drawn from the Russian Trading Systems (RTS) stock exchange, which was one of the country's leading stock exchanges. Though the RTS was established in 1995, meaningful company data was unavailable until 1998, in which year the RTS index offered information on approximately 150 company listings. However, the index included 50 of the most liquid and capitalized firms, collectively accounting for 85 percent of the

total market capitalization (Vanteeva and Hickson, 2015). By 2007 the number of firms trading on the RTS grew rapidly to just over 400, while the index itself increased from 300 in 2000 to 2,360 by 2007 (Lazareva et al., 2007). We chose to end our sample period at the end of 2006, which is just prior to the onset of the 2007-08 world financial crisis.

The growth in corporations described above, as reflected in the RTS index, is generally associated with a fortuitous improvement starting in the early 2000s in Russia's terms of trade due to higher oil prices. Enhanced export earnings enabled the government to promote other industrial sectors through subsidized credit interest rates and credit guarantees (Vedev, 2008). Correspondingly, during this period, Russia's capital market grew steadily, with private investment increasing from \$11 billion in 2000 to \$54 billion in 2005 (Treisman, 2007). Rapid industrial development also encouraged capital inflow, which comprised seven percent of GDP in 2007, while stock market capitalization comprised 44 percent of GDP in 2005. The new regime's industrial impetus seemed to work as GDP averaged an annual growth rate of 6.9 percent, and so between 1998 and 2006, the country's GDP increased by 57.6 percent (Semenova, 2007).

Crucial for the success of the new industrial strategy were measures designed to curtail extreme asset-stripping activity of existing oligarchs, many of whom had been

in situ managers of the former state enterprises. The regime also sought to reduce any extortionist activity by regional bureaucrats, who had siphoned off resources from firms under the former regime (Hashim, 2005). The opportunist rent-seeking behaviour on the part of oligarchs and local bureaucrats is often attributed to the lack of an effective investor-protecting legal system, but the pandemic of rent-seeking behaviour ensued only after the introduction of Yeltsin's decentralization under his free-market liberalization policy. From the beginning, the new Putin regime's industrial policy returned to a form of centralized control and became increasingly authoritarian, an important part of which was to discipline industrial oligarchs under a system of patronage.

Some authors, such as Puffer and McCarthy (2003) point out that at this time several corporate governance legal reforms were introduced, such as laws designed to protect minority shareholders. But due to the nation's shift toward more authoritarian forms of government, the effectiveness of such laws is questionable. We instead argue that of greater significance was the state's introduction of new forms of incorporation, in which the state held significant ownership shares (Vanteeva and Hickson, 2015).

Vanteeva and Hickson (2016) argue that state representation on the corporate governing boards not only prevented asset-stripping by investor managers which was so prevalent during the preceding Yeltsin regime, but also encouraged co-partnership

firms to invest in longer-term projects rather than to seek to maximize shorter-term profits. Part of this new industrializing policy also entailed that the state continued to channel subsidized investment funds from state-controlled banks to finance major investment projects. Consequently, the state policy emphasized longer-term investment projects, part of which would lead it to discourage dividend payouts in favor of capital appreciation.

The remainder of the paper is structured as follows. Section 2 outlines key financial theories that explain firm dividend payout policies around the world. Section 3 offers data description, and Section 4 presents our findings. Lastly, Section 5 concludes.

2. The traditional determinants of dividend policy

General acceptance of the Miller-Modigliani dividend irrelevance proposition impelled subsequent work to seek explanations in the idiosyncrasies of tax systems, and in transaction costs associated with asymmetric financial markets. Tax-based theories are centered on the proposition that firms develop strategies to minimize shareholder tax liabilities. Asymmetric market arguments, on the other hand, are based on the proposition that higher performing firms increase dividend payouts to signal outside investors in order to increase their stock price (Copeland and Weston, 1988).

First, we consider papers concentrating on the various strategies adopted by firms to maximize shareholder after-tax returns, particularly by exploiting differentials between capital gains tax rates and income tax rates, payable on dividend income. For example, Chetty and Saez (2005) find that a significant number of US corporations increased their dividend yields after income tax rates were reduced. Similarly, Pattenden and Twite (2008) find that Australian firms increased their dividend yields after measures were adopted that reduced the tax rate levied on dividend income. Finally, Allen et al. (2000) find a clientele effect in favor of US institutional investors, who are taxed less than individual investors, with the former preferring to hold dividend-paying stock more than individuals.

Regarding studies focusing on dividends acting as signals of improved future corporate earnings, we first note that the seminal work of Lintner (1956) found a positive relationship between company earnings and dividend payout ratios. The author attributed this relationship to managers' estimates of changes in earnings. Fama and Babiak (1968), in a later work based on a large sample of US corporations between 1947 and 1964, find robust supporting evidence for Lintner's hypothesis. Brown et al. (1977) also find a positive link between profits and changes in dividend payouts on a sample of Australian firms during the period spanning the 1960s and 1970s. One can find much supporting work on the positive relationship between higher dividend payout

ratios and higher company profits. For example, see Bhattacharya (1979), John and Williams (1985), Miller and Rock (1985), Healy and Palepu (1988), Garrett and Priestley (2000), Capstaff et al. (2004).

One type of responses to Modigliani-Miller's capital structure irrelevance proposition was to explain capital structure based on the ability of firms to write off the interest cost of debt against corporate tax obligations. While firms in this way may be able to expand their investment portfolio at less cost, they also can pass through gains from the above tax-saving to shareholders in the form of increased dividend payouts. They can alternatively reward shareholders in the form of capital gains generated by stock buybacks. For example, Adedeji (1998) established a positive relationship between leverage and dividend payout rates when analyzing a sample of 224 firms in the UK between 1993 and 1996.

An alternative approach pioneered by Myers (1984) and Myers and Majluf (1984) is based on the proposition that firms act in the interests of existing shareholders, which impels them to follow a pecking order for raising capital. Firms operating in asymmetric markets and desiring to exploit all profitable investments, would first opt to raise funds through retained earnings, as this strategy would not affect a firm's stock price. Their second preference would be to issue debt as debt is less correlated with future state-dependent investment returns, and only as a last resort would a firm issue new equity

as this option would depreciate their stock prices.

Fama and French (2001) consider costs associated with both tax and risk factors associated with paying dividends. They find that for US firms during the 1960s, high-growth firms tended to pay lower dividends. The authors also find that the proportion of US firms paying dividends fell from 65 percent in 1978 to 21 percent in 1999, which they attribute to a major influx of small, high-value firms that typically had strong investment opportunities. Consequently, they tended to enjoy high growth rates. Interestingly, Gul (1999) finds a similar negative correlation between high growth and decline in dividend payout ratios for Japanese firms between 1988 and 1992.

However, the pecking order hypothesis may be less relevant when applied to Russian firms due to the presence of state representatives on governing boards. In addition, Russian firms would have less of an incentive to attract outside investors because they tend to have highly concentrated ownership structures (Vanteeva and Hickson, 2016). Therefore, Russian firms in our period would have incurred lower transaction costs stemming from asymmetric financial market problems and consequently would have had less need to use dividends to signal to outside investors.

The Russian tax system had some characteristics which would have worked to encourage corporate dividend payouts, while other features would have worked to discourage payouts. Among the former factors were the fact that Russian corporations,

during our period, were able write-off the interest cost of debt, while paying a corporate tax rate of between 20 and 24 percent. In addition, individual tax rates payable on dividend income were reduced to 13 percent in 2001 from a much higher rate of 30 percent. Also, domestic shareholders owning at least 50 percent of a company shares enjoyed tax-free dividend income and firms owning shares in other corporations paid only 9 percent on any dividend income.

However, working against the propensity to pay dividends was the fact that Russian corporations, in comparison to western firms, carried little debt, and a large proportion of corporate debt was borrowed from state sources at very low interest rates (Vedev, 2008). Both factors above would have combined to reduce any gains from leverage. Finally, we also note that the Russian tax system treated capital gains as ordinary income, implying that shareholder-after-tax returns would be the same. Consequently, any net effect on dividend payout propensity attributable to taxation policy would depend on the relative strengths of all the above factors.

Evidence indicates that Russian firms were reluctant to pay dividends, and this reluctance contrasts with the traditional practice of western firms. But perhaps more significantly, the dividend policy of the Russian firms also contrasts with the corporate dividend practice observed in other developing financial markets, where traditional dividend policy determinants shed some light on the payout pattern. For example,

Fumey and Isaack (2013) find a strong positive relationship between financial leverage and dividend payout ratios for listed firms in Ghana. Many other studies on developing markets also find dividend payout ratios to be highly correlated with company earnings and growth (Adaoglu, 2000; Travlos et al., 2001; Aivazian et al., 2003; Naceur et al. 2006; Al-Malkawi, 2008). For instance, Mitton (2004) shows that growth and dividend payout ratios are negatively correlated across emerging economies. In addition, on a sample of 150 Indian firms from 2001 through 2010, Lahiri (2013) identifies a positive effect for foreign-institutional investor presence on dividend payouts. These results are consistent with those of Khan (2006), who finds that institutional ownership has a large positive effect on the dividend payout ratio of 330 large UK firms. Indeed, the general consensus is that corporations located in developing financial markets have similar dividend payout patterns to those of western firms.

In terms of ownership, it might be more relevant to compare Russian firms with firms in developing financial markets which also have a preponderance of state ownership. For example, as is widely recognized, Chinese legal institutions outwardly appear like those of western economies, but ultimate, and often arbitrary, commercial decisions are made by the Communist Party leadership (Pargendler et al., 2013). Milhaupt and Zheng (2015) show that privatized state-owned enterprises in China are essentially mixed (state-private) ownership firms, which are, as in Russia, similarly

avored through subsidized state loans (Feyzioglu et al., 2013). The interest on the state loans are also tax deductible. In addition, China, as in Russia, treats capital gains as ordinary income, taxable at the ordinary income-tax rate.

Lin et al. (2010) and Wang et al. (2011) find a positive relationship between dividends and state ownership in China, especially for firms with poor investment opportunities. Significantly, however, overall the Chinese government collected little to no dividend income from the state-owned enterprises, and almost all of dividend income accruing to the state was returned to the sector as subsidies (Milhaupt and Zheng, 2015). Finally, though Chinese state-run enterprises increased dividend yields in the late 2000s, they remained considerably below the corporate dividend yields of similar state-owned enterprises in other developing economies (Zhang, 2009; Huang et al., 2011).

Regarding the rent-seeking prevalence in Russia during our sample period and dividend payout incidence, Wright et al. (2003), point out that the 1996 shareholder-protection law, which covered dividend payment obligations, was rarely enforced. It should also be noted that our sample period includes the corporate policy of the incipient Putin regime, which was to increase state ownership in almost all major enterprises in the country. This ownership transformation process entailed extensive *in situ* shareholder expropriation, not only for the purpose of increased direct state

ownership, but also to favor a newly emerging political clique. But did this ownership change lead to increased rent-seeking behavior of insider-investors and local state officials? Fry and Iwasaki (2011) in their study of Russian corporate governance of the early 2000s, find no strong evidence of increased rent-seeking. Their study focused on the role of government-backed directors on corporate boards, rather than simply on the percentage of state ownership. Moreover, Liljeblom and Maury (2016) find that between 1998 to 2003 state-controlled firms paid more frequent dividends than private firms. Similarly, Ankudinov and Lebedev (2016) find that, though state firms tended to pay fewer dividends during the financial crisis than private firms, public firms in the preceding period typically paid more frequent dividends. More interestingly, the authors argue that their results are consistent with the view that the interests of the state as a stakeholder took precedence over its interests as a shareholder.

The above findings are consistent with an alternative view that state co-ownership of corporations, which required the placing of state representatives on corporate boards, increased state monitoring of inside-investors, securing longer-term investment projects. That is, state policy was to discourage increasing dividends payouts in favor of increasing overall corporate contributions into the state's social welfare fund. The latter being a primary source of government investment assistance to firms. The above view is consistent with the work of Vanteeva and Hickson (2016), which finds that

during the early 2000s, state co-ownership mostly prevailed in firms characterized by large lump-sum investment outlays with high asset specificity and long-term investment horizons, such as existing in energy and utility enterprises. The above authors find that co-ownership had a positive effect on firms' long-run performance. The authors argue that this was due to closer state monitoring of insider-investors, which lowered hold-up costs. Indeed, increased dividend payouts would also be counter-productive to the state's policy of providing extensive subsidized investment loans to favored firms.

3. Data description

3.1. Data sources

Our goal in this section is to test whether the usual factors, namely firm size, profitability, growth prospects, debt levels and dividend tax effects had any impact on corporate dividend policy in Russia during the 1998-2006 period. Our dataset is based on all the companies listed on the Russian Trading System stock exchange and main data sources are the SKRIN and RTS databases. The former was established by shareholders from the National Association of Securities Markets participants, and it offers company quarterly and annual reports from 1998 onwards. We are particularly interested in financial information, such as market capitalization, earnings, asset value,

and levels of debt, as well firm-specific characteristics, such as ownership. We also use company websites to fill in missing observations. In the beginning of our sample period, there were 150 companies trading on RTS. This number grew to 329 by the end of 2006, but our dataset is reduced to 253 companies due to missing information, as it turns out, stemming mostly from the banking sector. However, our final dataset ends up containing 1,075 firm-year observations.

3.2. Description of variables

Previous research suggests that Russian companies may have unstable dividend policies. Consequently, we follow the approach of Fama and French (2001) by using a dummy variable for our dependent variable, indicating whether a firm actually paid a dividend. This variable takes a value of 1 if a dividend is paid during a year, and 0 otherwise.

Regarding our explanatory variables, we use net profit before interest and tax divided by sales to capture company profitability (Machin and Van Reenen, 1993; Loughran and Ritter, 1997). However, as Fama and French (2001) find that profitable, dividend-paying companies also tend to have high asset values, we use the natural log of total assets variable to capture firm size (Faccio et al., 2001).

To account for the effect that high-growth-opportunity firms may devote more resources to investments, we introduce a Tobin's Q proxy, which is a measure of the

market value of assets divided by the book value of assets. Again, following Fama and French (2001), we define a firm's growth potential by the sum of its book value of debt and the market value of its equity, divided by its total assets (Fama and French, 2005; Aggarwal and Samwick, 2006). Next, we account for any effect on dividend policy, which can be attributed to the amount of debt in each firm's capital structure. To do so, we opt to follow Rajan and Zingales (1995) by including the variable defined as the sum of long and short-term debt, divided by total assets.

Lastly, we want to test for any effect on dividend policy due to any tax break advantage. As we noted above, ownership of Russian firms is highly concentrated, and ownership is largely in the hands of other corporations, financial institutions and the state.¹ More importantly, dividend income is tax free if the receiving firm is at least 50 percent owned by a domestic shareholder and has a market value of at least 500 million roubles². To capture this effect, we introduce a dividend tax-break dummy variable equal to 1 if the firm meets the above criteria, and 0 otherwise.

We include two additional control variables to capture firm longevity and ownership concentration. In general, a company's propensity to pay dividends might be affected by its longevity because 'older' firms tend to be characterized as having older

¹ Over our entire time period we have identified less than 10 individual shareholders, who own more than 5 percent of capital.

² The shareholder structure must remain the same for at least one year when dividend was decided.

technology and too being large. As such, they are less likely to have enhanced growth prospects (Evans, 1987a, 1987b; Variyam and Kraybill, 1992). Correspondingly, such firms are more likely to distribute profits to shareholders. However, we also believe that in Russia, it is particularly important to also distinguish between large, old Soviet-type firms, which still had to be registered as new joint stock companies in the beginning of the privatization period in 1992, and companies that were formed once laissez-faire reforms were introduced. The reason for this is that old Soviet-type firms were more likely to inherit the top-down corporate governance approach, which did not rely on any western free-market principles. To capture this effect, we introduce a dummy variable having a value of 1 if a firm had existed during the Soviet regime, and 0 otherwise.

Many studies find that higher ownership concentration levels adversely affect the likelihood of paying dividends. For example, Mancinelli and Ozkan (2006), in a study of 139 Italian companies, find that firms with a large and controlling shareholder tend to pay less dividends. On the other hand, Chen et al. (2005), in their study of family-owned Hong Kong firms find little effect on dividend policy. To account for such an effect, we proxy ownership concentration by the percentage of capital owned by the largest shareholder.

Finally, we want to control for the fact that firm ownership type might influence

dividend policy and we are particularly interested in state ownership. The company reports we use disclose all shareholders who hold at least five percent of a firm's capital. In our sample, the state typically owns between 50 and 90 percent of corporate capital if it is a single major shareholder, and approximately 40 percent of capital if it represents one of the major shareholders. Consequently, we define a firm as state-controlled if the government is the single major shareholder, or simply one of the major shareholders in a firm, in which case we assign a value of 1 (and 0 otherwise).³ The reason for introducing a dummy variable is that, due to high-ownership concentration, a major shareholder will possess significant decision-making power, augmented with having a seat on corporate boards, irrespective of the actual percentage of capital owned. The definition of variables is summarized in Table 1.

[insert Table 1 here]

4. Findings

4.1. Descriptive statistics

We define a firm as a 'consistent payer' if it paid a dividend during at least eight out of nine years over our sample period spanning 1998-2006. Table 2 below shows that 111 firms, less than half of firms included in our sample, paid consistent dividends. The

³ Companies, which are owned by the state indirectly, are also placed under state ownership category.

table also shows that 88 companies had inconsistent dividend policies (i.e. skipped dividends during at least two years over the given time period), and 54 firms never paid a dividend.

When we examine various characteristics of firms, we see that, as measured by the value of total assets, non-paying firms tended to be smaller companies, and inconsistent dividend payers tended to be slightly larger than consistent payers. However, the table also shows that firms, having more consistent dividend patterns, tended to be more profitable, having a profitability ratio of 0.093. In comparison, inconsistent payers have a lower profitability index of 0.082, and non-payers have a profitability index of 0.043. At this early stage, these findings might offer preliminary support for a signaling hypothesis.

Growth, (or Tobin's Q) for non-paying firms is significantly higher than that of consistent and inconsistent payers. Thus, our early findings might also lend support for the view that high-growth companies tend to reinvest earnings rather than paying dividends, but, consistent payers still exhibit a slightly higher Tobin's value than inconsistent payers. Our preliminary statistics also indicate that Russian firms do not follow a pecking-order hypothesis. For example, consistent dividend payers have the lowest debt ratio of 0.066, and non-payers have a ratio of 0.182, while inconsistent payers have a ratio of 0.227. Finally, the table shows that ownership concentration for

all companies was high, though major shareholders of non-payers own the highest percentage of capital, with a mean of just over 49 percent.

[insert Table 2 here]

4.2. Regression results

Similar to Fama and French (2001), we employ a binary logit model (L), but on an unbalanced panel data set in order to estimate the probability of a firm paying a dividend based on our predictor variables (the logit function being the natural log of odds that our endogenous variable equals one of the two outcomes). Logistic regression is widely used in analyzing categorical-response variables, as the regression does not assume the presence of a normal distribution for independent variables. Logistic equation 1 identifies the relationship between the outcome variable Y (where p is the probability of Y being equal to 1, or whether a dividend has been paid), and a set of predictor variables (X) by estimating the parameter values for β .

$$\begin{aligned} \text{Logit}(p) = \log(p/(1-p)) = & \beta_0 + \beta_1 \text{Size}_{it} + \beta_2 \text{Profitability}_{it} + \beta_3 \text{Growth}_{it} + \beta_4 \text{Debt}_{it} + \\ & \beta_5 \text{Tax break}_{it} + \beta_6 \text{Longevity}_{it} + \beta_7 \text{Ownership concentration}_{it} + v_{it} \end{aligned} \quad (1)$$

After carrying out the Hausman specification test, we could not reject the null

hypothesis that the unobserved individual firm level effects are uncorrelated with other covariates and hence we employ a random effects estimator.⁴ In addition, as a robustness check, we also introduce a probit model (P), where the dependent variable takes on the value of 1 or 0, but error terms are independent and normally distributed (column 2), as well as a linear probability model (LPM), which allows the model to be estimated by a simple linear regression (in this case, Generalized Least Squares, column 3).

It can be seen from Table 3 that none of the traditional corporate dividend policy determinants can explain dividend payout behavior of RTS-listed firms over the given period. Though size and profitability variables exhibit positive coefficients, both coefficients are statistically insignificant. We also find that the growth variable has a positive coefficient, but it is also insignificant. Thus, our results do not support the view that high-growth firms are more likely to retain profits to fund further investment. Nor do they support the view that high-growth firms located in low property-right protection environments are more likely to pay dividends (La Porta et al., 2000). Neither do our results support a pecking order hypothesis, as the coefficient for the debt variable is both negative and insignificant. But the finding is consistent with the view that the state discourages dividend payouts when firms enjoy the use of subsidized loans.

⁴ The test fails to generate a significant p-value (chi squared value is reported to be 5.67, while p-value is 0.58) to show that there is a systematic difference in coefficients.

Unsurprisingly, the table shows tentative support for the view that firms, which are subject to a more favorable tax rate, tend to have a more consistent dividend policy. The coefficient has a value of 0.660 in column 1 and 0.377 in column 2 (both significant at 10 percent level). Once we compute marginal effects, we find that being subject to a favorable tax code increases the probability of paying dividends by approximately 7 percent (0.066 and 0.071 for columns 1 and 2, respectively).

Lastly, we can see that the coefficient of our control variable for ownership concentration is both of small magnitude and insignificant in all regressions. Thus, neither do large and controlling shareholders tend to reward themselves through dividends.

However, we do find that firm longevity positively affects the propensity of firm dividend payouts. The variable's coefficient value is reported to be 2.225 in column 1, and 1.264 in column 2, being statistically significant at 1 percent level on both occasions, meaning that once we compute marginal effects again, the probability of 'older' firms paying dividends increases by 0.221 and 0.240, respectively. In column 3, the longevity coefficient decreases to 0.242, and while it is still significant at 1 percent level, we also note a low R squared. This is consistent with the fact that while the probability on the left hand-side of the equation lies between 0 and 1, the linear predictors on the right hand-side of the equation can generally be of any value, hence it

is possible that the predicted values will not be in the correct range and produce a weaker model. Nevertheless, our overall results suggest that ‘old’ companies, that is, those that had existed prior to the privatization initiative, paid dividends.

[insert Table 3 here]

We are also interested in whether corporate ownership type affects dividend policy. From Table 4 we can see that the state variable’s coefficient is large (with values of 1.186, 0.619 and 0.081) and significant. Once again, once we compute marginal effects, we can see that state (or partial state) ownership increases the probability of dividend payout by 12 percent (for logit and probit model) and 8 percent for linear probability model. This is in line with the findings of Wang et al. (2011) for China, where the authors found a positive relationship between dividend payouts and state ownership. The authors attribute their findings to the state’s need for cash flows as a motivation for its involvement in firm corporate structure. In addition, we note that the inclusion of the state variable does not change our previous findings in that tax break and longevity have almost an identical effect on dividend payout propensity.

[insert Table 4 here]

Our results on Russian corporations for our sample period fail to find supporting evidence that firm size, profitability, growth and debt ratios influenced dividend policy. However, firms which were subject to a favorable tax regime and firms that were state-

owned or partially state-owned, and pre-existed during Soviet times, did tend to pay out dividends. Next, we test whether firms differ in their dividend policy according to industry. Table 5 identifies eight major industry sectors for RTS-listed firms during the 1998-2006 period – energy, utility, transport, metallurgy and mining, manufacturing, communications, banking and services, and food and retail. The table shows that 73 percent of communication firms paid consistent dividends. Next from the table, we see that 69 percent of utility firms paid consistent dividends and 62 percent of energy firms and just over half of transport companies paid such dividends. In comparison, metallurgy and mining industry firms were the most inconsistent in paying dividends, while a large proportion of firms in the banking and services, as well as food and retail industries paid no dividends.

[insert Table 5 here]

When we incorporate industry dummy variables in our regression analysis (Table 6), we can see that only utility industry has a large, positive effect on dividend policy. Its coefficient has a value of 1.654 in column 1, 0.933 in column 2 (which corresponds to utility firms being associated with increased probability of dividend payout of 18 percent) and 0.180 in column 3, all coefficients being statistically significant at 10 percent level. All other industry variables, except for energy firms, have predicted, though insignificant coefficients. Consistently, firm longevity and state ownership have

a large and positive impact on dividend payouts, while the tax-break variable is now insignificant in columns 1 and 2.

[insert Table 6 here]

We carry out further robustness checks in Table 7. First, as the longevity variable appears to have the strongest impact on dividend payout policy, we replace the dummy variable with the actual number of years the firm has been registered for. The results in the first three columns (logit, probit and linear probability model regressions) indicate that the variable is still significant, but smaller in magnitude (once marginal effects are computed, we note that as age increases, the probability of dividend payouts rises by 1.3 and 1.4 percent).⁵

We attribute the difference in the longevity effect between age dummy variable and the number of years that the firm was registered for to the fact that the latter may not correctly identify whether the company had already existed during the Soviet times and hence inherited centrally-planned governing mechanisms. This is due to all companies (whether being old Soviet firms or entirely new enterprises) having to register as joint stock entities in the beginning of the privatization period in 1992. The age dummy variable, on the other hand, specifically targets firms' Soviet origin, which

⁵ We also included the state and industry variables in separate regressions and found that probabilities of dividend payout increased by 1.2 and 1.7 percent with firm age, which is consistent with previous findings.

may better explain its corporate governance code.⁶

We then introduce several interaction terms for key variables of interest, namely longevity and tax break, longevity and utility, longevity and state, as well as state and tax break and state and utility. We conclude that interaction terms do not offer any additional explanatory power as to why firms pay dividends, as all interaction terms are insignificant. Furthermore, we note in columns 4 and 5 and 6 that once we interact longevity and tax break, state and tax break and state and utility variables, the interaction terms display negative coefficients. This potentially signals that longevity, tax break and state variables capture similar firm characteristics and are associated with utility-sector firms.

[insert Table 7 here]

Indeed, once we repeated the regression analysis when utility sector firms were dropped from our sample, the only variable remaining significant was firm longevity, yet we noted that the Wald-chi squared statistic is extremely low, hence our independent variables carried no explanatory power. Thus, it can be argued that in Russia, over our time period between 1998 and 2006, the idiosyncratic pattern of corporate dividend policy was attributed to just utility sector firms paying stable dividends.

⁶ As an additional robustness check, we also introduced a time lag for our predictor variables in order to determine whether an unexpected change in explanatory variables in the previous periods affected current dividend policy. However, our results demonstrated that lagged explanatory variables are insignificant.

5. Discussion and concluding remarks

Our findings show that the dividend payouts of most firms trading on the Russian Trading System stock exchange between 1998 and 2006 were inconsistent. We believe that this can be explained by the structure of the Russian tax system and by the fact that the Russian corporation, which evolved at the start of our sample period, was heavily monitored by the state, which in many cases was a part owner, but also furnished favored firms with heavily subsidized investment loans.

Utility companies were the exceptions in paying consistent dividends. In our sample, this sector is primarily comprised of electricity firms. For example, there were 54 electricity firms trading on RTS in 1998, and this number grew to 106 by the end of 2006. These electricity firms are subsidiaries of the Unified Energy Systems of Russia (ROA UES), which is an 'old' firm according to our definition. It is also a firm in which the state was a major shareholder. Though in 1992 RAO UES, the vertically integrated monopoly, was unbundled and partially privatized, the state maintained its ownership of nuclear and hydropower plants, system operator and network companies and also maintained a stake in many territorial and wholesale generation firms.

There are 420 observations in this industry and we believe that our results are driven by the utility sector. We attribute the propensity of utility firms to pay consistent dividends to the fact that the utility industry in Russia is heavily regulated and does not

present a lucrative investment opportunity. The Federal Tariff Service, which replaced the Federal Energy Commission in 2004, regulated all tariffs of natural monopolies. The wholesale market, which was established in 2006, allowed for a small share (5 percent) of electricity to be sold at non-regulated prices. However, these prices were still low when compared to Europe. For example, households consistently enjoyed capped prices, with no alternative pricing plans being proposed today.⁷ Consequently, investments in electricity sector are believed to be so unprofitable, firms are unable to recover initial capital costs (Kristiansen, 2011). Engoian (2006) believes that electricity sector investments would be unable to generate sufficient returns for the first 10-15 years. With potential growth from future investments in the industry curtailed by regulation, dividend payouts from the electric utility monopolies to attract investors may be their best option.

Our paper raises several issues for future study. First, by updating our sample, we may be able to ascertain whether the propensity of firms to pay dividends is affected by adverse external shocks, such as the 2007-2008 financial crisis. Second, whether identifying and capturing other, non-traditional and ‘non-market’ determinants of dividend policy (for instance, regulation, corruption and state involvement) may better explain dividend payout patterns of corporations in countries with non-western political

⁷ No other industry in our sample is subject to similar regulations.

regimes.

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Table 1. Definition of variables*

Variable	Description
Dividend	Equals 1 if the firm paid a dividend during the year; 0 otherwise (Fama and French, 2001).
Profitability	E_t / Sales_t . The ratio of earnings before interest and taxes to sales (Machin and Van Reenen, 1993; Loughran and Ritter, 1997).
Size	$\text{Ln}A_t$. The natural log of total assets (Faccio et al., 2001).
Growth	Tobin's $Q = (V_t + \text{LTD}_t + \text{STD}_t) / A_t$. The market value of equity plus book value of debt, divided by total assets (Fama and French, 2005; Aggarwal and Samwick, 2006).
Debt	$(\text{LTD}_t + \text{STD}_t) / A_t$. The ratio of book value of long-term and short-term debt to total assets (Rajan and Zinglaes, 1995).
Tax break	Equals 1 if company shareholders are exempt from dividend tax by satisfying 50% Russian investor criteria; 0 otherwise.
Longevity	Equals 1 if the firm had existed during the Soviet era; 0 otherwise.
Ownership concentration	Fraction of capital owned by the largest shareholder, expressed in %.
State	Equals 1 if the firm has the state as its major shareholder, or one of its major shareholders; 0 otherwise.

*All financial data is expressed in thousands of Russian rubles.

Table 2. Descriptive statistics of firms trading on RTS between 1998 and 2006

Variable	Obs	Mean	Std Dev	Min	Max
<i>Consistent payers (111 firms)</i>					
Size	940	15.738	1.705	9.083	20.910
Profitability	788	0.093	0.268	-1.944	5.575
Growth	758	0.791	0.915	0.001	7.593
Debt	842	0.066	0.104	0.000	0.648
Ownership concentration	911	46.963	16.828	6.000	99.000
<i>Inconsistent payers (88 firms)</i>					
Size	617	15.788	1.861	9.664	22.215
Profitability	525	0.082	0.134	-0.197	1.902
Growth	434	0.780	0.945	0.003	6.747
Debt	547	0.227	1.661	0.000	0.984
Ownership concentration	614	47.210	20.914	8.000	99.000
<i>Non-payers (54 firms)</i>					
Size	213	15.162	1.954	9.708	21.874
Profitability	168	0.043	0.182	-1.637	0.674
Growth	127	1.383	1.971	0.050	17.931
Debt	192	0.182	0.194	0.000	0.832
Ownership concentration	187	49.106	22.982	9.220	99.000

Table 3. The effect of traditional dividend determinants on payout policy of RTS-listed firms during 1998-2006

Variable	Dividend (L)	Dividend (P)	Dividend (LPM)
Size	0.138 (0.130)	0.069 (0.074)	0.017 (0.015)
Profitability	0.041 (0.058)	0.024 (0.034)	0.002 (0.002)
Growth	0.178 (0.169)	0.102 (0.096)	0.007 (0.017)
Debt	-1.746 (1.235)	-0.949 (0.713)	-0.167 (0.148)
Tax break	0.660* (0.345)	0.377* (0.196)	0.065 (0.040)
Longevity	2.225*** (0.610)	1.264*** (0.348)	0.242*** (0.065)
Ownership concentration	0.004 (0.009)	0.002 (0.005)	0.0002 (0.001)
Time effect	Yes	Yes	Yes
Constant	-2.584 (2.081)	-1.314 (1.187)	0.232 (0.236)
Obs	1075	1075	1075
Log likelihood/ R squared	-450.52	-451.15	0.045
Wald-chi squared	23.77***	23.65***	30.85***

Table 4. The effect of state ownership on dividend payout policy of RTS-listed firms during 1998-2006

Variable	Dividend (L)	Dividend (P)	Dividend (LPM)
Size	0.137 (0.130)	0.069 (0.074)	0.017 (0.013)
Profitability	0.033 (0.054)	0.020 (0.032)	0.002 (0.004)
Growth	0.168 (0.170)	0.094 (0.096)	0.014 (0.014)
Debt	-1.701 (1.239)	-0.921 (0.715)	-0.156 (0.112)
Tax break	0.704** (0.347)	0.399** (0.197)	0.067** (0.032)
Longevity	2.124*** (0.611)	1.206*** (0.348)	0.226*** (0.060)
Ownership concentration	0.001 (0.009)	0.001 (0.005)	0.0002 (0.001)
State	1.186* (0.636)	0.619* (0.345)	0.081* (0.049)
Time effect	Yes	Yes	Yes
Constant	-2.448 (2.082)	-1.254 (1.186)	0.215 (0.205)
Obs	1075	1075	1075
Log likelihood/R squared	-448.40	-449.18	0.05
Wald-chi squared	26.67***	26.68***	31.14***

Table 5. Dividend payout pattern of RTS-listed firms across industry during 1998-2006

Industry	Consistent payers (%)	Inconsistent payers (%)	Non-payers (%)
Energy	62	26	12
Utility	69	23	8
Transport	57	28	15
Metallurgy and Mining	25	71	4
Manufacturing	47	44	9
Communications	73	27	0
Banking and Services	26	44	30
Food and Retail	35	35	30

Table 6. The effect of industry type on dividend payout pattern of RTS-listed firms during 1998-2006

Variable	Dividend (L)	Dividend (P)	Dividend (LPM)
Size	0.223 (0.134)	0.118 (0.076)	0.024* (0.013)
Profitability	0.045 (0.055)	0.026 (0.032)	0.003 (0.004)
Growth	0.243 (0.172)	0.137 (0.097)	0.019 (0.015)
Debt	-1.134 (1.257)	-0.581 (0.723)	-0.115 (0.113)
Tax break	0.575 (0.350)	0.324 (0.198)	0.056* (0.033)
Longevity	2.343*** (0.636)	1.331*** (0.361)	0.241*** (0.064)
Ownership concentration	-0.002 (0.009)	-0.001 (0.005)	-0.0001 (0.001)
State	1.319** (0.628)	0.694** (0.340)	0.091* (0.049)
Energy	-0.714 (1.200)	-0.404 (0.682)	-0.041 (0.126)
Utility	1.654* (0.955)	0.933* (0.541)	0.180* (0.097)
Manufacturing	-0.045 (1.039)	-0.029 (0.590)	0.019 (0.103)
Transport	1.440 (1.593)	0.802 (0.905)	0.150 (0.165)
Metal and mining	-0.977 (1.166)	-0.552 (0.661)	-0.065 (0.118)
Communications	1.628 (1.245)	0.925 (0.708)	0.161 (0.128)
Food and retail	-0.458 (1.307)	-0.277 (0.743)	-0.023 (0.138)
Time effect	Yes	Yes	Yes
Constant	-4.539* (2.313)	-2.436* (1.314)	0.014 (0.232)
Obs	1075	1075	1075
Log likelihood/R squared	-439.62	-440.35	0.10
Wald-chi squared	40.90***	41.42***	46.27***

Table 7. The effect of dividend determinants on payout policy of RTS-listed firms during 1998-2006 (robustness checks)

Variable	Dividend L longevity=yr	Dividend P longevity=yr	Dividend LPM longevity=yr	Dividend L	Dividend L	Dividend L
Size	0.152 (0.131)	0.078 (0.075)	0.017 (0.013)	0.137 (0.130)	0.140 (0.131)	0.196 (0.127)
Profitability	0.043 (0.061)	0.025 (0.036)	0.002 (0.004)	0.041 (0.059)	0.032 (0.054)	0.042 (0.054)
Growth	0.075 (0.163)	0.043 (0.093)	0.008 (0.014)	0.178 (0.169)	0.169 (0.170)	0.215 (0.169)
Debt	-1.725 (1.224)	-0.943 (0.707)	-0.168 (0.112)	-1.748 (1.235)	-1.729 (1.241)	-0.924 (1.266)
Tax break	0.669* (0.346)	0.382* (0.197)	0.064** (0.032)	0.793 (0.830)	0.725** (0.350)	0.609* (0.347)
Longevity	0.122** (0.053)	0.070** (0.030)	0.013** (0.005)	2.289*** (0.713)	2.125*** (0.613)	2.294*** (0.596)
Ownership concentration	0.005 (0.009)	0.002 (0.005)	0.0004 (0.0009)	0.004 (0.009)	0.001 (0.009)	-0.002 (0.009)
Longevity*Tax break				-0.152 (0.861)		
State					1.379* (0.720)	1.350** (0.655)
State*Tax break					-0.773 (1.306)	
Utility						1.722*** (0.522)
Utility*State						-0.909 (2.152)
Time effect Constant	Yes -2.421 (2.103)	Yes -1.231 (1.203)	Yes 0.237 (0.207)	Yes -2.616 (2.092)	Yes -2.490 (2.089)	Yes -4.096 (2.084)
Obs	1075	1075	1075	1075	1075	1075
Log likelihood/R squared	-454.67	-455.29	0.03	-450.50	-448.23	-443.04
Wald-chi squared	16.17*	16.16*	18.60**	23.75**	27.03***	35.76***