

The Market Reaction to Changes in Disclosure of Related-Party Transaction Rules

Vladimir Atanasov, College of William and Mary*
Adrian Pop, University of Nantes
Diana Pop, University of Angers

31 January 2017

Abstract: We examine the valuation effects of the 2004 changes in Romanian related-party transactions (RPT) disclosure rules. Because the rule changes apply only to companies listed on the Bucharest Stock Exchange (BSE), companies traded on an alternative market (RASDAQ) serve as a natural control group. We find that immediately following the adoption of the rules, BSE firms experience abnormal returns of 6% to 12% relative to matched RASDAQ firms with similar pre-reform characteristics. We also show that in the three-year period following the reforms, BSE firms experience a 20-25% increase in their Tobin's q. Overall, the results suggest that the implementation of mandatory RPT disclosure rules can be effective in decreasing tunneling and increasing minority valuations in an emerging market.

Keywords: related-party transactions, disclosure rules, propensity-score matching, differences-in-differences, event study

JEL codes: G32, G34, K22

* We thank the University of Angers for financial support and Miguel Garcia Cestona, Burcin Yurtoglu, and participants in the 17th Workshop on Corporate Governance and Investment in Istanbul for comments and suggestions.

The Market Reaction to Changes in Disclosure of Related-Party Transaction Rules

31 January 2017

Abstract: We examine the valuation effects of the 2004 changes in Romanian related-party transactions (RPT) disclosure rules. Because the rule changes apply only to companies listed on the Bucharest Stock Exchange (BSE), companies traded on an alternative market (RASDAQ) serve as a natural control group. We find that immediately following the adoption of the rules, BSE firms experience abnormal returns of 6% to 12% relative to matched RASDAQ firms with similar pre-reform characteristics. We also show that in the three-year period following the reforms, BSE firms experience a 20-25% increase in their Tobin's q . Overall, the results suggest that the implementation of mandatory RPT disclosure rules can be effective in decreasing tunneling and increasing minority valuations in an emerging market.

Keywords: related-party transactions, disclosure rules, propensity-score matching, differences-in-differences, event study

JEL codes: G32, G34, K22

I. Introduction

Many academics and policymakers believe that better disclosure increases market liquidity and reduces firm cost of capital (Verrecchia, 2001). In a recent survey, Leuz and Wysocki (2016) add that high-quality disclosures are also likely to improve the external monitoring by institutional investors or analysts, which in turn may lead to more efficient firm investment, financing, or resource allocation decisions that benefit the real economy.

The empirical literature measuring the effects of disclosure regulations uses broad definitions for disclosure and focuses mainly on the adoption of new disclosure mandates (e.g. Securities Exchange Act of 1934, Securities Act Amendments of 1964) or major extensions of the entire disclosure regime (e.g. Reg FD, SOX, or International Financial Reporting Standards). Studies evaluating the effect of widespread changes in disclosure rules often find positive effects on firm or market outcomes, but sometimes reach conflicting results. For example, Greenstone et al. (2006), Ferrell (2007), and Battalio et al. (2011) study the 1964 U.S. Securities Act Amendments that mandate financial disclosures for over-the-counter (OTC) firms. On one hand, Greenstone et al. (2006) and Ferrell (2007) find large positive valuation effects for OTC firms from the mandated disclosure. On the other hand, Battalio et al. (2011) find no significant differences before and after the 1964 Amendments in the abnormal returns around announcements by OTC firms of their intention to move to the NYSE. Battalio et al interpret this as evidence that the market placed little value on the increased mandated disclosures imposed on OTC firms.

The early studies by Stigler (1964), Benston (1969, 1973), Jarrell (1981), Chow (1983), and Simon (1989) of the introduction of new disclosure mandates on all US exchange-traded

firms in the Securities Act of 1933 and the Exchange Act of 1934 also reach skeptical conclusions about the value of disclosure regulation. These initial conclusions have been later challenged in the literature (see e.g. Friend and Herman, 1964; Seligman, 1983; Coffee, 1984, and the review in Leuz and Wysocki, 2016), but still, the overall effect of the initial introduction of SEC disclosure regulation seems to be negative or, at least, insignificant.

Even if a consensus existed that broad increases in disclosure lead to favorable outcomes, it will be still informative to identify the effects of mandating particular disclosures of, say, block ownership, insider trading, executive compensation, business segments results, or related-party transactions. The literature examining the effects of narrow changes in disclosure rules (e.g. Hope and Thomas, 2008) is much smaller, but potentially produces more valuable insights for policymakers who are deciding how to fine-tune the disclosure regime in a particular market. We contribute to this literature, by examining the short- and long-term valuation effects of the introduction in 2004 of mandatory related-party transaction (RPT) disclosure rules for a subset of listed firms in Romania.

While RPTs are not illegal *per se*, the privileged relationship between the involved parties creates a potential for wealth transfers and, hence, can adversely affect minority shareholder valuations. Indeed, a number of studies find large negative valuation effects of certain types of RPTs in emerging markets (Jian and Wong, 2004; Cheung et al., 2006; and Peng et al. 2011) or developed markets (Gordon et al., 2004; Kohlbeck and Mayhew, 2010; Ryngaert and Thomas, 2012). Given the proven materiality of RPTs for firm value, in most countries public companies are required to make timely disclosures of transactions with related parties such as executives, associates, shareholder groups or subsidiaries. In fact, these mandatory RPT disclosure rules made possible all the previous studies documenting the impact of RPTs on firm

value. To the best of our knowledge, however, there are no existing studies that examine the market effects of imposing mandatory disclosure of RPTs in the first place.

In the present paper, we examine the introduction of RPT disclosure rules in June 2004 as part of the harmonization of Romania securities laws with the EU directives in advance of Romania joining the EU. The rules require timely disclosure *directly to the public* of any RPT above EUR 50,000 equivalent. Most importantly, the disclosure requirements explicitly apply only to firms listed on a “regulated market.” Of the two major Romanian stock market platforms – the Bucharest Stock Exchange (BSE) and RASDAQ, only the BSE qualified as a regulated market. The differential treatment of BSE and RASDAQ firms by the 2004 law provides a clean research design to measure the causal effect of the disclosure rules: BSE firms are a treated group, while RASDAQ firms are control group. In comparison, most legal shocks examined in the literature on mandated disclosures apply to *all* firms. In such cases, causal inference typically relies on weaker interrupted time series designs or separating firms into treated and control groups based on whether they already comply with the new rules (Atanasov and Black, 2017).

We recognize that the average BSE firm is different than the average RASDAQ firm. Consequently, we ensure balance between the treated group of BSE firms and a set of RASDAQ firms that are comparable to BSE using propensity score matching based on pre-shock accounting and stock liquidity measures.

Using Differences-in-Differences (DiD) regressions applied to an event-study setting, we find that the market values of BSE firms increase by 6% to 12% after the publication of the law relative to their matched RASDAQ peers, suggesting that timely disclosure of RPT can significantly improve minority shareholder valuations of companies. We run a variety of robustness tests to ascertain the validity of our main results, including a leads-and-lags

specification that shows the pricing differences of BSE and RASDAQ firms over a longer (-60, 60) day window around the reforms, and placebo-period tests using two other legislative events that are expected to produce no differential effects for BSE vs. RASDAQ firms. These robustness tests fail to reject our original conclusions.

We also apply DiD techniques to annual panel data from 2001 to 2006 and find that in the post-reform period the Tobin's q of treated firms increases by 20-25% relative to their matched peers. The increase in valuation matches almost perfectly the pattern of sharp increase in RPT disclosures in the years following the disclosure changes. Our results strongly support the view that mandatory RPT disclosures can reduce tunneling and increase minority shareholder valuations.

II. Background and Hypotheses

We start this section with a brief timeline of the relevant events concerning the development of RPT disclosure rules in Romania and identify the key event date that we focus on. A more detailed discussion on the history of corporate and securities regulations is included in an Appendix. We then outline the central hypothesis and the empirical strategy to test it.

II.1. Timeline of Romanian RPT Disclosure Rules

The process for enacting RPT disclosure rules in Romania started with the publication in December 2001 of an OECD report on the quality of corporate governance in Romania. This critical report generated unprecedented public pressure to improve minority shareholder protection. In response to this pressure and to further align the national regulation with EU standards, on April 9, 2002, the Romanian Government adopted by Emergency Ordinance (OUG 28/2002) a new regulation on financial markets and securities. This ordinance included a special

chapter on market transparency and investor equality that stipulated for the first time the requirement for listed firms to disclose related party transactions. These disclosures should have been made to the CNVM – the Romanian Stock Market Regulator and later published in the CNVM Bulletin. The disclosure rules applied only to companies listed on “regulated markets,” which at the time was considered to be mainly the BSE, but the rules also stated that RASDAQ should opt to become one of the types of regulated markets within a year. On August 5th, 2002, the Parliament then adopted Law 525/05.08.2002, which approved the Emergency Ordinance OUG 28/2002 and extended the rules in OUG 28/2002 to *all* companies that became public at the end of the mass privatization program, whatever the market where their shares trading was done, either BSE or RASDAQ. We consider the April 9, 2002 and August 5, 2002 legislative events as poor candidates for studying the effect of RPT disclosure because: 1) they apply to both BSE and RASDAQ firms, and 2) the rules require companies to make RPT disclosures to CVNM and not directly to the public.

After a year of deliberations and various efforts to consolidate the existing stock market regulatory framework and synchronize it with the EU directives, on June 28, 2004, the Parliament adopted the Law 297/2004¹ that officially replaced the previous Law 525/05.08.2002. Article 225 of this law stipulates that companies traded on a regulated market have to report any RPT exceeds EUR 50,000. The informational content of the required RPT disclosures were the same as in the 2002 Law but the new law stipulated that the reporting firms should release them not only to the CNVM but also to the *public*. Based on our reading of the law, we assume that the RPT requirements applied only to BSE firms. The law directly states that companies listed on the BSE should comply with the RPT disclosures. Companies listed on RASDAQ were left in limbo, as

¹ It was published on June 29th, 2004 and became effective in July 29th, 2004.

RASDAQ did not fit the definition of a regulated market. Our assumption that RASDAQ companies are not mandated to disclose RPTs is consistent with the fact that all publicly made RPT disclosures following the 2004 Law were made exclusively by BSE companies.

It is important to note that virtually all other governance or disclosure regulations existing in Romanian law apply equally to both BSE and RASDAQ companies. As a result, the June 28, 2004 event allows us to cleanly identify the incremental effect of mandatory RPT disclosure rules.

II.2. Hypotheses and Research Design

Our central hypothesis is that the mandatory disclosure of RPTs will have a positive effect on firm market valuations. The disclosure of RPTs can cause an increase in valuation through one of two main channels. First, information about RPTs will reduce informational asymmetry and resulting adverse selection. Second, the risk of bad press coverage or shareholder litigation following disclosure of manifestly unfair RPTs can serve as a deterrent for controllers to engage in such RPTs to begin with.

To directly test our hypothesis, we need to compare the change in valuations of firms that become subject to mandatory RPT disclosure rules relative to what the same firms would have experienced in the absence of such RPT disclosure rules. This ideal setting is typically not available, but the case of the 2004 Romanian Law provides a close second-best setting, because the RPT disclosure rules do not apply to RASDAQ firms. We can then compare the change in valuations of BSE firms around the announcement of the reform to the change in valuations of RASDAQ firms. A sample of RASDAQ firms that are observationally similar to the BSE firms will thus serve as a control sample, which under certain assumptions can approximate the *ceteris paribus* change in valuations in BSE firms that would have occurred if the reforms did not occur.

We implement this design at two different time frequencies. First, we run a DiD regression model on a panel daily closing prices centered around June 28, 2004. The model includes firm and day fixed effects and an interaction of a dummy = 1 for BSE firms and a dummy equal to 1 for days after June 28, 2004. The coefficient on this interaction variable will measure the short-term treatment effect of the RPT disclosure rules. Second, we run a DiD regression model on a panel of annual firm Tobin's q observations. The model again includes firm and year fixed effects and an interaction of a dummy = 1 for BSE firms and a dummy equal to 1 for years greater than or equal to 2004. The coefficient on the second interaction variable will measure the long-term valuation effect of the RPT disclosure rules.

III. Data and Summary Statistics

III.1. Data Sources and Sample Selection

Our initial sample includes all the firms listed on the Bucharest Stock Exchange (BSE) and the Romanian Association of Securities Dealers Automated Quotation (RASDAQ) over a time period of at least 120 trading days centered on our main event date, June 28, 2004. We collect market data for the largest firms from Bloomberg, which reports daily closing prices, as well as historical series of trading volumes. For the firms that are not available in Bloomberg, we use as an alternative source of information the data warehouse available on electronic platforms managed by the two respective markets (BSE and RASDAQ). Our initial sample includes 4,318 firms, of which 107 are traded on BSE and 4,211 on RASDAQ.

We eliminate banks, insurance, and financial companies since they are subject to specific regulations. We also drop extremely illiquid companies, which have less than 30 daily stock prices available over the sample period.

We collect accounting information (total assets, book value of equity, book value of debt, sales, cash, and net profits) for the 2001-2006 period, from the Romanian Ministry of Finance. The lack of accounting data for all firms, as well as the industry filter, reduce our initial sample to 1,767 firms, of which 79 are traded on BSE and 1,688 on RASDAQ. The liquidity filter applied to those firms further reduces our sample to 1,325 firms, of which 57 are traded on BSE and 1,268 on RASDAQ. Finally, we hand-collect shares outstanding and ownership structure data for all of these firms in the years 2003 and 2004.

III.2. Comparison of BSE and RASDAQ Firms

We next examine the characteristics of firms listed on the BSE, which will be the treated group in our empirical analysis of the effects of the RPT disclosure reforms, versus firms listed on RASDAQ, which could serve as controls. In Table 1 we present summary statistics on a number of variables measured at the end of 2003 (the year before the reforms are announced) and report tests whether the means of these characteristics are the same in the two markets. Table 1 shows that the firms listed on the BSE are very different from the RASDAQ population. On average, they are about five times bigger in terms of assets, sales, and cash holdings. They also have higher liquidity, measured as share turnover or percentage of days with trading in the previous year.

The large differences in important covariates prevent the use of the entire RASDAQ population as a control group, because it is likely that the stock performance of small and less liquid firms will differ from the performance of large, liquid firms even in the absence of disclosure reforms. In other words, the parallel trends assumption behind any Difference-in-Differences or Event Study causal inference design will be likely violated if the treated and control firms are very different on covariates at the onset of an exogenous shock (Atanasov and

Black, 2016). We resolve this critical threat to the validity of our design by selecting a small portion of the RASDAQ firms that are closest in observed characteristics to the BSE firms.

III.3. Propensity Score Matching

We construct a control group of RASDAQ firms that have similar characteristics as the treated firms listed on the BSE by using propensity-score matching. We first pool all BSE and RASDAQ firms together and run a logit equation with an outcome variable equal to 1 for BSE firms. The logit model uses the same firm characteristics measured at the end of 2003 reported in Table 1. The logit estimates are presented in Table 2. We report two models – the first model includes all characteristics, the second model omits cash holdings, a variable with a number of missing observations.

Next, we use Model 2 in Table 2 to calculate for each firm a predicted propensity score and show the distribution of propensity scores of BSE and RASDAQ firms in Figure 1. Besides a couple of BSE firms which are in the right tail of the distribution with scores above 0.85, there is a reasonable overlap of firms across the entire range of the propensity score distribution, which suggests that a nearest-neighbor matching procedure will be able to find some RASDAQ firms that are reasonably similar to the BSE firms.

As the last step of the matching procedure, we find for each of the BSE firms its nearest propensity score neighbor from the set of RASDAQ firms. The nearest-neighbor matching is performed with replacement to reduce bias and improve the balance of covariates between treated and control firms. We present covariate balance tests of the final sample of treated and control firms in Table 3. In a stark difference with the original comparison in Table 1, the two groups of firms now have no statistical differences in the means of their covariates. We note that the matching with replacements results in only 40 RASDAQ firms matched to 57 BSE firms.

IV. Event Study Analysis

After constructing an appropriately balanced sample of control firms listed on RASDAQ that are not subject to the RPT disclosure requirements, we can proceed with our main empirical design. We focus on the announcement effects of the treated relative to the control firms in a short window around three key dates. First, we examine June 28, 2004 -- the date when the reform is announced in the Official Monitor (the official gazette of the Romanian Government). Second, we perform the same analysis on two other dates, April 5 and August 5, 2002. We view these two additional event studies as placebo tests, because the rules announced then neither treated BSE and RASDAQ firms differently nor were effectively enforced.

IV.1. Main Results

We run the Event Study as a DiD regression with $\log(\text{price})$ as an outcome variable, date and firm fixed effects, and an interaction of treated firm and post indicators that captures the estimated differential treatment effect of the announced reforms. We present the results of this estimation for our main event (28 June 2004) in Table 4. In Panel A, we use the entire available sample of treated and control firms and report results for six different windows ranging from (-5, 5) to (-30, 30). Except for the case of the shortest (-5, 5) window, we find significant and economically large positive effects for the BSE firms relative to their RASDAQ peers. After the publication of the RPT disclosure rules, treated firms experience between 6% and 11% larger increase in their market valuations than the controls.

In Panel B, we restrict the sample to firms that have constant number of shares outstanding through the entire event window. Removing firms that experienced a stock offering or repurchase addresses concerns that the stock prices of firms experiences changes in shares outstanding may be mechanically affected by dilution effects. If anything, these effects were

working in the opposite direction, because the results in Panel B are slightly stronger. With the exception of the shortest window, the estimated announcement effects range from 7% to 12%.

IV.2. Robustness Tests

We assess the parallel trends assumption behind our design, by running a leads-and-lags model (Atanasov and Black, 2016). The model is similar to the main DiD specification, but instead of adding one interaction of *treated*post*, we add a series of interactions of *treated* and each date in a longer period from -60 to + 60 days around the event date June 28, 2004. We set May 19, 2004 as the omitted date and the coefficient on the respective interaction of *treated* and this date to zero. The coefficients on the interaction terms can be thus interpreted as the differential movement in average market valuations of the BSE firms relative to their RASDAQ peers from the period two months before the reform to two months after. We present the results from this analysis in Figure 2. There is no evidence of non-parallel trends in the pre-shock period – the coefficients on the interactions are close to zero and do not exhibit any visible trend. In the post-reform period the DiD coefficients increase sharply for about a week after the reform and then stay relatively flat during the remainder of the two-month post-reform period.

We perform one more robustness test to further address the main threat to validity of any DiD/Event Study design -- that the trends of treated and control firms are non-parallel and the estimated effect post-event is spuriously attributed to the event, while in fact it is just an artifact of these non-parallel trends continuing post-shock. This robustness test is based on the discussion in Section II.1 that there are two additional legal reforms in 2002 that also relate to disclosure of RPT, but as we argue there, these events should not produce any differential effects for BSE firms relative to RASDAQ firms. In effect, these two event dates provide good candidates for a placebo test in the pre-shock period, which can assess the validity of the parallel trends

assumption. We report the results from the two placebo-date tests in Table 5. Across all six event windows we find no significant results, with the highest t -stat equal to 1.25. The failure to reject the null in these placebo tests provides further support to our research design.

IV.3. Alternative Explanation of the Event-Study Results

The June 2004 law also changed the threshold that requires a mandatory bid offer for all remaining shares from 50% to 33%. It is possible that some blockholders could be motivated to execute block trades after the law is announced, but before it becomes effective. This accelerated block trading in the post-shock period could result in an alternative explanation for the significant increase in BSE firm stock prices relative to RASDAQ firms observed in the month following the publication of the law. This alternative explanation can be correct if the following four conditions are met:

1. Condition 1: there is significant increase in block trading in the 30-day window following the publication of the law
2. Condition 2: The increase in block trading is larger in BSE firms relative to RASDAQ firms
3. Condition 3: The block trade prices are higher than regular trading prices
4. Condition 4: The higher block trade prices are included in the calculation of daily closing prices reported by each exchange to Bloomberg and other data sources

We have no direct data on block trading in 2004. Instead, we collected 2003 and 2004 ownership data for the 76 firms included in the Event Study analysis in Table 4. If Conditions 1 and 2 are true, we should find a large number of increases of the ownership stakes of blockholders with less than 33% stake pre-law for BSE firms but not for RASDAQ firms. We find no evidence of such differential increase in blockholder stakes in BSE firms.

Condition 3 could be true based on previous research in developed and emerging markets (e.g. Barclay and Holderness, 1989). In Romania, the mandatory bid rules put a floor on the price for tender offers for minority shares based on the maximum price paid by the controlling shareholder in the past year. These rules provide incentives for blockholders to transact at lower instead of higher prices and we believe that any block trades are unlikely to be executed at significant premia to the prevalent stock prices.

We do not have information to assess the validity of Condition 4 as of 2004. We know that block trades in 2002 occurred on a separate platform from smaller trades and the prices from the block trade platform were not used to calculate closing prices. It is likely that the same closing price calculations were in place in 2004.

Overall, we can safely rule out that any block-traded motivated by the June 2004 legal changes provides an alternative explanation for the sharp increase in the stock prices of BSE firms relative to RASDAQ firms.

V. Compliance with the RPT Disclosure Rules

In order to analyze the compliance with the mandatory RPT disclosure rules, we track over time all the reports filled by BSE and RASDAQ listed companies. The online database of the BSE displays the original statements and reports either by company name or over a 20-day rolling window for the whole market. The current BSE database covers all companies, including companies originally listed on RASDAQ and delisted ones.

We start a keyword search among all the filings mentioning in the title the number of the law article dealing with RPT, namely “art. 225”, after July 29th, 2004 when the disclosure rules became effective. We identify the name of the companies involved in such disclosing, as well as

the market segment on which the company stocks were traded at the date of report. A RASDAQ firm that opted during a calendar year to register with the regulated market is counted that year on both sides, BSE and RASDAQ. The first disclosure identified according to such a searching criterion was made on December 15, 2005. Such identification key allows us to find only two RASDAQ companies that made RPT reports in 2005 and 2006. All the others reports were made by BSE companies.

However, according to the standard form of disclosure imposed by the market authority,² a current report could contain besides the information on RPTs, other relevant events, such as changes in the control over the company, buying and selling of assets of substantial value, the bankruptcy procedure. Consequently, we also checked all the current reports whose title does not point to any specific major event (like financial statements, General or Extraordinary Assembly calls, public offers, equity events, etc.). By examining all the entries in the BSE database with no explicit mention allowing us to directly recognize their content, we are able to extend our initial coverage of companies reporting RPTs before December 2005 (18 new companies) or after this date (7 new companies).

Table 6 shows the number of individual companies making RPT disclosure reports, as well as the number of listed companies on the two market segments, BSE and RASDAQ, each year from 2002 to 2007. A comparison of the annual compliance numbers reveals that BSE firms increase RPT disclosure reports significantly relative to RASDAQ firms after the law mandated disclosure of RPTs only for firms registered on the “regulated market”. For instance, in 2006, 13 firms out of 94 listed on the BSE (13.83%) disclose RPTs, compared with one firm out of 3,679 listed on RASDAQ (0.027%). This trend is maintained in 2007, when the number of BSE firms

² The content of the required disclosure is detailed in Appendix #29 of the Regulation 13/2004, replaced by the Regulation 1/2006.

disclosing RPTs increases to 18 (i.e., 19.78% of all the firms listed on the BSE), while no RASDAQ firm discloses RPTs.

VI. Long-Term Valuation Effects

After establishing the sharply different RPT disclosure patterns of BSE and RASDAQ firms induced by the 2004 reforms, we proceed with an examination of the long-term valuation effects caused by these reforms. We compile annual data containing the year-end Tobin's q and other firm characteristics for the panel of treated and control firms used in the event study in Section IV. We calculate Tobin's q as the ratio of (Market Value of Equity + Book Value of Debt) and (Book Value of Equity + Book Value of Debt). We construct three time-varying control variables – Annual Sales Growth $((Sales_t - Sales_{t-1})/Sales_{t-1})$, Book Leverage (Book Value of Debt/ Assets), and Profit Margin (Net Income/Sales).

We first report the average Tobin's q for treated firms (listed on the BSE) and control firms (traded on RASDAQ) in Table 7. The means of both groups are similar pre-law, but the mean q of treated firms increases sharply in the three years following the disclosure reforms.

In Table 8, we report the results from standard Difference-in-Differences specifications with firm and year fixed effects. We report two specifications – one with just fixed effects and one including the three control variables. The treatment effect of the legal reforms captured by the coefficient on the interaction of Treated*Post is around 0.20 and statistically significant. Based on the average pre-law Tobin's q of treated firms in Table 7, the treatment effect translates into a post-reform increase in q of the treated firms of 20-25% relative to the control group.

To further examine the timing of the valuation effects, we report the coefficients of a leads-and-lags specification in the right two columns of Table 8. The increase in BSE firm

valuations is most pronounced in 2006 when it becomes apparent that BSE firms are complying with the RPT disclosure rules and that NASDAQ firms are not going to voluntarily comply. The pattern of q increases closely matches the pattern of RPT disclosure frequency over the 2004-2006 period.

VII. Conclusion

We exploit a unique opportunity to measure the effects for RPT disclosure rules in Romania and show that implementing such rules is viewed favorably by minority investors. Within a month of the announcement date of the disclosure reforms, the market valuations of companies that are affected by the rules rise from 5% to 12% relative to the valuations of similar companies that are not forced to comply. We show that these valuation gains persist in longer windows and are not driven by non-parallel trends occurring before the event. Furthermore, the Tobin's q of treated firms increases by 20-25% relative to peers in a three-year window after the reforms. Our findings suggest that mandatory disclosure of RPT may reduce perceived tunneling risk, increase market values, and reduce firm cost of capital in emerging markets.

References

- Atanasov, Vladimir, and Bernard Black, 2016, Shock-Based Causal Inference in Corporate Finance and Accounting Research, *Critical Finance Review*, forthcoming, working paper at <http://ssrn.com/abstract=1718555>.
- Atanasov, Vladimir, and Bernard Black, 2017, The Trouble with Instruments: Re-Examining Shock Based IV Designs, working paper at <https://ssrn.com/abstract=2417689>.
- Atanasov, Vladimir, Bernard Black, and Conrad Ciccotello, 2011, Law and Tunneling, *Journal of Corporation Law*, 37, 1-49.
- Barclay, Michael, and Clifford Holderness, 1989, Private benefits from control of public corporations, *Journal of Financial Economics*, 25, 371-395.
- Battalio, Robert, Brian Hatch, and Timothy Loughran, 2011, Who Benefited from the Disclosure Mandates of the 1964 Securities Act Amendments, *Journal of Corporate Finance*, 17, 1047-1063.
- Benston, George, 1969, The Value of the SEC's Accounting Disclosure Requirements, *The Accounting Review*, 54, 515-532.
- Benston, George, 1973, Required Disclosure and the Stock Market: An Evaluation of the Securities Exchange Act of 1934, *American Economic Review*, 63, 132-155.
- Cheung, Yan-Leung, Raghavendra Rao, and Aris Stouraitis, 2006, Tunneling, Propping and Expropriation: Evidence from Connected Party Transactions in Hong Kong, *Journal of Financial Economics*, 82, 343-386.
- Chow, Chee, 1983, The Impacts of Accounting Regulation on Bondholder and Shareholder Wealth: The Case of the Securities Acts, *The Accounting Review*, 58, 485-520.
- Coffee, John, 1984, Market Failure and the Economic Case for a Mandatory Disclosure System, *Virginia Law Review*, 70, 717-753.
- Ferrell, Allen, 2007, Mandated Disclosure and Stock Returns: Evidence from the Over-the-Counter Market, *Journal of Legal Studies*, 36, 213-251.
- Friend, Irwin, and Edward Herman, 1964, The SEC through a Glass Darkly, *Journal of Business*, 37, 382-405.
- Gordon, Elizabeth, Elaine Henry, and Darius Palia, 2004, Related Party Transactions: Associations with Corporate Governance and Firm Value, Rutgers University Working Paper.
- Greenstone, Michael, Paul Oyer, and Annette Vissing-Jorgensen, 2006, Mandated Disclosure, Stock Returns, and the 1964 Securities Acts Amendments, *Quarterly Journal of Economics*, 121, 399-460.
- Hope, Ole-Kristian, and Wayne Thomas, 2008, Managerial Empire Building and Firm Disclosure, *Journal of Accounting Research*, 46, 591-626.
- Imbens, Guido, and Donald Rubin, 2015, *Causal Inference in Statistics, Social, and Biomedical Sciences*, Cambridge University Press.

- Jarrell, Gregg, 1981, The Economic Effects of Federal Regulation of the Market for New Security Issues, *Journal of Law and Economics*, 24, 613-675.
- Jian, Ming, and T.J. Wong, 2004, Earnings Management and Tunneling through Related Party Transactions: Evidence from Chinese Corporate Groups. Chinese University of Hong Kong Working Paper.
- Kohlbeck, Mark, and Brian Mayhew, 2010, Valuation of Firms that Disclose Related Party Transactions, *Journal of Accounting Public Policy*, 29, 115-137.
- Leuz, Christian, and Peter Wysocki, 2016, The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestion for Future Research, ECGI Working Paper No. 306/2016.
- Organization for Economic Co-operation and Development (OECD), 2001, Corporate Governance in Romania, Report published in December 2001. Available online at: <http://www.oecd.org/corporate/ca/corporategovernanceprinciples/2390703.pdf>
- Peng, Winnie Qian, John Wei, and Zhishu Yang, 2011, Tunneling or Propping: Evidence from Connected Transactions in China, *Journal of Corporate Finance*, 17, 306-325.
- Ryngaert, Michael, and Shawn Thomas, 2012, Not All Related Party Transactions (RPTs) Are the Same: Ex Ante Versus Ex Post RPTs, *Journal of Accounting Research*, 50, 845-882.
- Seligman, Joel, 1983, Historical Need for a Mandatory Corporate Disclosure System, *Journal of Corporation Law*, 9, 1-57.
- Simon, Carol, 1989, The Effect of the 1933 Securities Act on Investor Information and the Performance of New Issues, *American Economic Review*, 79, 295-318.
- Stigler, George, 1964, Public Regulation of the Securities Markets, *Journal of Business*, 37, 117-142.
- Verrecchia, Robert, 2001, Essays on Disclosure, *Journal of Accounting and Economics*, 32, 97-180.

Appendix. A History of Romanian Legal Reforms

The general conditions regarding the organization of a stock company were established by the General Company Law 31/16.11.1990. Its initial version institutes the one share – one vote rule and provides details on the organization of the General³ and Extraordinary Shareholder Meetings (henceforth GSM and ESM, respectively).⁴ Article 143 prohibits any member of the Board of Directors from concluding legal transactions (acquisition sell, rent, use as guarantee) involving any asset of the company whose value exceeds 50% of the total asset value, without obtaining the approval in ESM. On November 27th, 2006 the updated version (Law 441/2006) stipulates that the members of the Board of Directors (“Administrators”) cannot give away, get or provide any good from/to the company whose value exceeds 10% of the net asset value, without obtaining the approval in ESM. Beginning with March 30th, 2010 (jurisprudence decision 64/30.03.2010) this obligation also applies to all leasing transactions and transactions concluded by relatives of Administrators and all the civil or commercial companies where those persons own at least 20% of share capital, unless that, one of the company is the subsidiary of the other one. All the updated versions of the law (around 25 revisions until 2014) pertain both to private and public companies.

The stock exchange rules forestalled the creation of the stock market. The Market Law 52, adopted in 1994, established some minimal obligations for the (hypothetical at that date) listed companies, like disclosure of substantial ownership (5%), the obligation to make a takeover bid approved by CNVM for a controlling (33%) and majority (50%) position;⁵ the requirement to publish annual reports including annual financial statements. It had also defined terms like

³ A GSM is organized at least once per year. A substantial shareholder owning 10% of the share capital can call a GSM. A shareholder can vote by proxy only if s/he is represented by another shareholder of the same company.

⁴ An ESM should be called for any change of activity, capital increase or decrease, merger, divestiture.

⁵ The conditions concerning the organization of takeover bids were established by the CNVM Rule 16/1996.

“privileged information,” “confidential information,” “insiders,” and “person acting in concert for obtaining a controlling position.”

The publication in December 2001 of the OECD report on the quality of corporate governance in Romania generated an unprecedented public pressure to improve minority shareholder protection. On April 9th, 2002, the Government adopted by Emergency Ordinance (OUG 28/2002) the new regulation on financial markets and securities trying to align the *national* regulation with the EU standards. According to the new regulation, the securities exchange qualifies as “regulated market” only if (1) it is an orderly functioning market; (2) it fulfils the CNVM requirements concerning the listing conditions for financial securities; and (3) it meets the transparency and disclosure requirements for investor protection. A regulated market could be qualified as a “stock exchange,” in which case it should have been organized as a public institution, or “other regulated market”, organized as a stock company. RASDAQ should opt for one of the types of regulated markets defined in the new regulation within the subsequent 12 months. In a special chapter on market transparency and investor equality, it is required for the first time to disclose the related party transactions. Thus, the managing director/president of the Board of Directors of a publicly held company should send to the CNVM current reports that would be afterwards published in the official CNVM Information Bulletin, detailing any legal contract between the company and its board members, employees, shareholders or any persons acting in concert with those ones, having a value of at least EUR 50,000 (equivalent amount in national currency). Those reports should contain information about (1) the identity of the contracting parties; (2) the date and nature of the contract; (3) the description of the contract; (4) the settlement amount; (5) reciprocal loans and claims; (6) guarantees; (7) settlement date and terms. It should

also explain the impact on the financial position of the company and provide any other information asked by the CNVM regulation.

On August 5th, 2002, the Parliament adopted the Law 525/05.08.2002 which approved the Emergency Ordinance OUG 28/2002. The rules stipulated in the OUG 28/2002 are extended to *all* companies that became public at the end of the mass privatization program, whatever the market where their shares trading was done, either BSE or RASDAQ. Compared with the previous regulations, the scope of RPT disclosure is reduced to the Board of Directors, employees, the *majority* shareholder and any person acting in concert with those ones.

In May-June 2003 CNVM helped by Consob, the Italian market authority, had elaborated within a PHARE program financed by the European Union the first project of the consolidated law of capital market dealing with four distinct areas: (1) the securities law; (2) the CNVM statute; (3) the commodities and derivatives market; and (4) undertakings for the collective investment in transferable securities (hereafter UCITS). The project raised also the details that should be addressed in order to facilitate the merger of the two markets, BSE and RASDAQ during the subsequent year (02/06/2003 ZIARUL FINANCIAR). The objective of such a change involving the whole market structures was double. Transposing the European directives into the national legislation was a necessary step for acceding to the EU membership. Second, integrating all market transactions could have a downsize effect on the transaction costs. (17/09/2003 ZIARUL FINANCIAR). Despite the appeal of those arguments, the brokers' community was skeptical about the positive perspectives of the two markets merger because of the risks of major delisting and the lousy transparency of the majority of public companies (12/11/2003 COTIDIANUL).

The CNVM released for the first time on its official website the "in-progress" version of the law project, on December 16th, 2003, after the closing of the market. The details concerning

the likely organization of the five national Financial Investment Companies (hereafter SIF) caused in the very next trading day a real frenzy around their stocks. Particularly, the online text contained two versions of organizational details, making the investors infer that the maximum ownership threshold in those investment companies would be relaxed to 1.0% of their share capital (instead of 0.1%). After a raise of their stock price by 4.0% in a single trading day, the CNVM withdrawn its publicity, denying any responsibility for the transactions made by the investor community, based on that information (25/12/2003). The ambiguity surrounding their status rendered the SIF themselves reluctant to any new investment project (17/02/2004 ZIARUL FINANCIAR).

In mind with the envisaged merger between BSE and RASDAQ, the president of BSE proposed to take some steps, even before the formal event, by facilitating the trading of the RASDAQ companies registered in the first category⁶ on the BSE platform. Unfortunately, the CNVM experts could not benefit from a comprehensive report from the European Commission on the relevance of the proposed changes because the timing of the planned enlargement of the EU⁷. CNVM could ask instead further explanations on specific issues raised during the regulatory process. According to the negotiation schedule to date, the Romanian Parliament should have adopted the law till the end of the first quarter of 2004 (02/02/2004 CURIERUL NATIONAL).

In March 2004, a temporary proposition regarding the disclosure of the RPT made some participants wondering whether the new law is really able to enhance the issuers' transparency.

⁶ On August 26th, 2002 CNVM issues the Regulation 2/2002 on the transparency and integrity of RASDAQ Market. In order to improve the visibility of the public companies, RASDAQ, is organized in three distinct categories: Sector I-R, Sector II-R, and Sector III-R. A company can be included, *on request*, in the Sector I-R only if (1) the total sales is higher than EUR 9 mil., (2) the value of total assets exceeds EUR 4.5 mil.; (3) the market capitalization is higher than EUR 1 mil.; (4) the free float including all stakes under 5% is higher than 15%; (5) the company reported at least one positive profit during the last two financial exercises; and (6) the company shares were exchanged on at least 50% of the trading days in the previous four quarters. In order to be assigned to the first two categories, the companies have the obligation to report different current events, including the RPT over EUR 50,000 concluded with directors, employees, shareholders, and the affiliated persons.

⁷ On the 1st of May 2004, 8 countries from Central Europe joined the EU: The Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia.

Compared with the exigence ruled by the Law 525/05.08.2002, the threshold of the cumulative value of RPT triggering their disclosure on the market should have been raised at 100,000 euros and the on-going disclosure replaced by an annual reporting within the GSM. (08/03/2004, BURSA)

After ample discussions lasting about one year on various intermediate projects, the final project of the consolidated law of capital market was released on March 16, 2004 and sent to the Minister of Finance. The financial media unanimously agreed that the new law, even if it introduced new financial concepts and enlarged the securities base, on the whole, was a deceiving one. It underlined that, compared with the previous law (Law 525/05.08.2002), the new one instituted ambiguous rules for organizing the takeover bids and the activity of SIF and reduced the scope of minority investors' protection. Particularly, the fierce criticism addressed the possibility to make in-kind contributions and to cancel the preemptive rights with the vote of shareholders commanding more than 75% of the voting rights. (17/03//2004 ZIARUL FINANCIAR).

Before passing the project to the Parliament for approval, the Minister of Finance had launched a public debate,⁸ more formal than practical, involving various groups interested in the new market rules namely, commissioners, brokers, funds administrators, registers, regulated markets, the Counsel of Foreign Investors (hereafter CIS), minority investors represented by the Romanian Association of Shareholders (hereafter AARO) (but not the issuing companies themselves), even the Financial Media. The project of the consolidated law was sent to the

⁸ The members of the Commission charged with appending the law organized the public debate without previously obtaining the formal approval of the Commission. Despite the virulent discussions raising no less than 70 change proposals, the version discussed in the Senate Chamber of the Parliament continued to be the initial one. Moreover, the project was focused on old versions of some Directives, which had been already amended or replaced in April 2004 by the Directive 2004/39/CE. Thus all participants had been expecting to face further updates just after the promulgation of the consolidated law to integrate the amended requirements.

Government on April 28th, 2004 and approved on May 6th, 2004. (19/04/2004, ?????, and 06/05/2004 CAPITAL).

The key feature of the new market structures was indeed the planned merger of BSE and RASDAQ, and the creation of a “regulated market”, focused on the overall improvement of the transparency rules. A company eligible on the regulated market should have a foreseeable market capitalization/share capital higher than EUR 1 million and a free-float higher than 25% of the outstanding shares. To deal with the companies likely to be removed from the market, the law envisaged the organization of an alternative trading platform (hereafter ATS) (24/05/2004 JURNALUL NATIONAL). Based on this definition, the bulk of the RASDAQ companies were unable to meet the listing criteria on the BSE platform.

Such a perspective concerning more than 90% of RASDAQ companies made AARO raise the question of the “coupon” minority shareholders’ rights, for which no mention could be found in any European Directive benchmark.⁹ We remind that this peculiar category of minority shareholders was composed of the citizens who subscribed shares within the Mass Privatization Program (hereafter MPP) from 1995. The proposal of the representatives of AARO to ask all the companies having at least 1,000 such MPP shareholders to publish at least bi-annual financial statements and report RPT was not acceptable for the CNVM on the ground that those companies are not “listed” in the eyes of the market authority. The Brokers Association (hereafter ANSVM) proposed to the CNVM to check only whether those companies made the reports and to simply publish them on its website without verifying the reality of the reported facts¹⁰. Besides, unsatisfied

⁹ The defenders of the rights of minority shareholders underlined that the project is a simple translation of the European rules (07/05/2004 BURSA) and accused the experts defending the project that they kept invoking the need for law harmonization as a counter-argument to any objection, even if a pertinent one. (28/06/2004 BURSA).

¹⁰ CNVM argued that the feasibility of such supervision, if finally agreed, would have been a question of available human and material resources of that institution.

shareholders should not have been allowed to complain to the CNVM but to sue the company directly to the Court. During the public debate, the CIS complained against the requirement to get the approval in GSE for any transaction made with the company's fixed assets exceeding 20% of the value of the total fixed assets (24/05/2004 JURNALUL NATIONAL), but welcomed the simplified framework stating that the stock transaction between the companies belonging to the same group could be made without organizing a public takeover (11/05/2004 BURSA).

In June 2004, the transactions involving the stocks of five RASDAQ companies were organized on the BSE platform, thanks to a pilot program agreed by the two markets before their formal merger.¹¹ Two more waves of such transfers took place after the approval of the consolidated law, namely five companies in July (20/07/2004 ZIARUL BURSA) and 100 companies in August 2004 (06/08/2004 ZIARUL FINANCIAR). However, many of those pilot-companies, despite a temporary visibility insured by their trading on the BSE were not able to meet the listing criteria on a "regulated market" in the sense of the definition of the European Directive. The solution available for them was to organize their trading on an alternative, less rigid, platform. From the investors' perspective, such an ATS insures less, if any, transparency and practically no protection to minority shareholders. Moreover, filing with the regulated market implied more than anything else complying with transparency criteria, which was the very reason that had rendered the managers of RASDAQ companies reluctant to leave until then such a less liquid market (01/10/2004 ZIARUL FINANCIAR).

Finally, on June 28th, 2004, the Parliament adopted the Law 297/2004¹² that officially replaced the previous Law 525/05.08.2002. It clarifies the resolution finally adopted on issues

¹¹ Only the trading and payment activities were made in the specialized system of the BSE. Those companies continued to be reported as listed on RASDAQ and appeared in RASDAQ statistics.

¹² It was published on June 29th, 2004 and applied only beginning with July 29th, 2004.

related to the definition of the “regulated market”, the criteria that should be met for registering a company on the regulated market, obligations concerning the disclosure of information, conditions under which the mandatory takeover bid are to be organized.¹³

In the chapter V titled “Issuer transparency”, Section I titled “The obligations of commercial companies whose shares are traded on a *regulated* market”, the Art. 225 stipulates that the president of the Board of Directors/Managing director of the registered companies has to report any legal contract between the company and its board members, employees, and controlling shareholder or any person acting in concert with those ones, whose cumulated value expressed in national currency is at least the equivalent of EUR 50,000. The transactions made with related parties such as, administrators, employees and controlling shareholder, must be made such that to respect the company’s interests, compared with similar offers available on the market. The informational content of the required current report remained the same but the company should release it not only to the CNVM but also to the *public*.

The disclosure requirements include besides the RPT, obligations to publish any information allowing the shareholder to exercise their rights (organization of general assembly, the dividend payment, issuance, distribution, conversion of shares), to communicate on any event that could affect its activity and consequently its stock price within maximum 48 hours, or any privileged information.

One of the special dispositions faced by the companies listed on a regulated market states that the president of the Board of Directors/Managing director cannot buy, sell, exchange or use as guarantee the fixed assets whose individual or cumulative value exceeds during the financial

¹³ The scope of the consolidated law of capital market is much larger, including the CNVM statute, the reorganization of the BSE as a stock company, the statute of the Central Depository for filing the securities, the organization of UCITS and SIF etc.

exercise 20% of the total value of fixed assets net of claims, without obtaining the shareholder approval in the ESM. The rental of tangible assets for a period longer than 1 year and whose individual or cumulative value in connection with the same contracting party or any related party, acting alone or in concert, exceeds 20% of the total value of fixed assets net of claims at the contracting date can also be made only with the approval in the ESM. If not, any shareholder has the right to ask the Court to cancel the transaction and sue the Administrators for obtaining the reparation of the prejudice caused to the company.

The employment of the term “regulated market” aroused a very vivid debate on the status of RASDAQ that had been lasting 10 more years after the implementation of the law. Because of the trading conditions¹⁴ and organizational peculiarity as stock company, RASDAQ could neither be qualified as a “regulated market” under the definition of European Directive 2004/39/CE nor treated as an ATS. Yet, the application of the disclosure requirements concerns, according to the legal text, only the companies listed on a regulated market. To deal with this legal ambiguity on July 29th, 2004 CNVM released the Instruction 4/2004¹⁵ on some transitory measures on the application of the (just promulgated) Law 297/2004. Thus, all financial securities would continue to be traded as before, either on BSE or RASDAQ until the publication of the specific regulation distinguishing “regulated market” from “ATS”. Moreover, *all* issuers should send to the CNVM and the respective market, annual, semi-annual, and quarterly reports by respecting specific delays, as well as current reports on events likely to affect the company activity (Art.224) or the privileged information (Art 226). Besides, the conditions to organize

¹⁴ Contrary to BSE, RASDAQ was a dealer market governed by the price not by client orders. The quotes were firm only for the quantities registered in the electronic book. After trading that minimum volume, the transactions could be executed at any other price dealt directly with another market maker.

¹⁵ The Instruction 4/2004 was published in the Official Monitor on August 6th, 2004 and had been applied between July 29th, 2004 and October 11th, 2005.

takeover bids and delist a company were temporarily extended to all companies. However, no mention is made on the related party transaction reporting (Art. 225).

Table 1. Comparison of RASDAQ and BSE Firms

Summary statistics for key variables for RASDAQ firms and firms listed on the Bucharest Stock Exchange (BSE) as of the end of 2003. Table shows *t*-test for differences in covariates x_j (indexed by j),

$|t_j| = |\bar{x}_{jt} - \bar{x}_{jc}| / [(s_{jt}^2 / N_t + s_{jc}^2 / N_c)]^{1/2}$ where s_{jt} and s_{jc} are the standard deviations for treated and control

groups and N_t and N_c are the number of treated and control firms. *, **, *** indicate significance at the 10%, 5%, and 1% levels. Table also shows absolute values of “normalized differences” (Imbens and Rubin, 2015), defined as

$$ND_j = |\bar{x}_{jt} - \bar{x}_{jc}| / [(s_{jt}^2 + s_{jc}^2) / 2]^{1/2}.$$

Variable	Mean RASDAQ	Mean BSE	Norm. Difference	T-Test Value
Total Assets (million RON)	28.173	139.179	0.367	4.483***
Sales (million RON)	23.868	153.823	0.363	5.763***
Cash Holdings (million RON)	1.036	5.277	0.335	5.598***
Profit/Loss (million RON)	-1.376	-12.481	-0.121	-2.139**
Annual turnover (% shares outstanding)	23.424	119.825	0.74	17.604***
Number of days with trades in the previous year	0.047	0.079	0.18	1.859*
Number of firms	1,268	57		

Table 2. Propensity Score Model of the Probability to Be Listed on the BSE as of June 28, 2004

Propensity score model is estimated using logit. All variables are computed as of the end of 2003. Treated firms are firms listed on the Bucharest Stock Exchange (BSE). Control firms are firms listed on RASDAQ. Turnover is defined as the total number of shares traded in 2003 divided by the average number of shares outstanding in 2003. Industry dummies identify 10 broad industry groups defined as 1-digit NACE codes. T-stats in parentheses. *, **, *** indicate significance at the 10%, 5%, and 1% levels. Significant results (at 5% or better) are in boldface.

Dependent Variable = 1 if Listed on BSE		
Variable	Model 1	Model 2
Total Assets (million RON)	-0.008*** (-2.83)	-0.008*** (-2.87)
Cash Holdings (million RON)	0.006 (0.23)	
Sales (million RON)	0.010*** (2.88)	0.010*** (3.02)
Profit/Loss (million RON)	0.007* (1.94)	0.007** (2.13)
Number of days with trades in the previous year	0.022*** (9.72)	0.021*** (9.99)
Annual turnover (% shares outstanding)	1.034 (0.84)	0.670 (0.52)
Industry dummies	Yes	Yes
N	1,304	1,325
Number of treated firms	52	57
Number of control firms	1,252	1,268

Table 3. Covariate Balance between Treated (BSE) and Control (RASDAQ) Firms

Summary statistics on covariate balance for treated and control firms as of the end of 2003. Treated firms are firms listed on the Bucharest Stock Exchange (BSE). Control firms are firms listed on RASDAQ, which are the nearest-neighbor propensity score match for the BSE firms. Matching is done with replacement using the propensity score Model 2 in Table 2 using data in the year prior to each event. Table shows t -test for differences in covariates \bar{x}_j (indexed by j), $|t_j| = |\bar{x}_{jt} - \bar{x}_{jc}| / [(s_{jt}^2 / N_t + s_{jc}^2 / N_c)]^{1/2}$ where s_{jt} and s_{jc} are the standard deviations for treated and control groups and N_t and N_c are the number of treated and control firms. *, **, *** indicate significance at the 10%, 5%, and 1% levels. Table also shows absolute values of “normalized differences” (Imbens and Rubin, 2015), defined as $ND_j = |\bar{x}_{jt} - \bar{x}_{jc}| / [(s_{jt}^2 + s_{jc}^2) / 2]^{1/2}$.

Variable	Mean Controls	Mean Treated	Norm. Difference	T-Test Value
Total Assets (million RON)	256.220	139.179	-0.146	-1.118
Cash Holdings (million RON)	5.467	5.277	-0.013	-0.094
Sales (million RON)	289.617	153.823	-0.146	-1.113
Profit/Loss (million RON)	-72.351	-12.481	0.199	1.537
Annual turnover (% shares outstanding)	123.246	119.825	-0.030	-0.229
Number of days with trades in the previous year	0.054	0.079	0.171	1.312
Number of observations	57	57		
Number of unique firms	40	57		

Table 4. Event Study Analysis of the Adoption of Related-Party Transaction Disclosure Rules on June 28, 2004

The table presents results from of panel regressions on log(stock price) with day and firm fixed effects using six different event windows from (-5, 5) to (-30,30) around the event date – 28 June 2004. The reported coefficients capture the DiD effect – the interaction of the treated firm and post-event indicators. Given the outcome variable of log(price), the DiD effect can be interpreted as the differential percentage change (return) for treated firms after the event relative to control firms. Treated firms are firms listed on the Bucharest Stock Exchange (BSE). Control firms are firms listed on RASDAQ, which are the nearest-neighbor match with replacement for the BSE firms. Matching is done using the propensity score model in Table 2 using data in the year prior to the event. T-stats calculated using errors clustered on firm are in parentheses. *, **, *** indicate significance at the 10%, 5%, and 1% levels. Significant results (at 5% or better) are in boldface.

Panel A. All firms with available data

	Window					
	(-5,5)	(-10,10)	(-15,15)	(-20,20)	(-25,25)	(-30,30)
DiD Coefficient	0.009 (0.55)	0.057** (2.45)	0.071*** (2.70)	0.092*** (3.30)	0.104*** (4.00)	0.113*** (4.21)
No. treated firms	47	48	48	49	49	49
No. control firms	21	24	25	26	27	27
No. obs.	425	733	1,096	1,536	1,909	2,217

Panel B. Excluding firms with a change in their number of shares outstanding in the event window

	Window					
	(-5,5)	(-10,10)	(-15,15)	(-20,20)	(-25,25)	(-30,30)
DiD Coefficient	0.014 (0.79)	0.066*** (2.68)	0.080*** (2.84)	0.101*** (3.36)	0.113*** (4.01)	0.122*** (4.19)
No. treated firms	43	44	44	45	45	45
No. control firms	21	24	25	26	27	27
No. obs.	399	688	1,034	1,442	1,787	2,073

Table 5. Placebo Analysis of Two Events that Should Not Produce Differential Effects for Treated and Control Firms

The table presents results from of panel regressions on log(stock price) with day and firm fixed effects using six different event windows from (-5, 5) to (-30,30) around two “placebo” event dates – 9 April 2002 (Panel A) and 5 August 2002 (Panel B). The reported coefficients capture the DiD effect – the interaction of the treated firm and post-event indicators. Given the outcome variable of log(price), the DiD effect can be interpreted as the differential percentage change (return) for treated firms after the event relative to control firms. Treated firms are firms listed on the Bucharest Stock Exchange (BSE). Control firms are firms listed on RASDAQ, which are the nearest-neighbor match with replacement for the BSE firms. Matching is done using the propensity score model in Table 2 using data in the year prior to each event. T-stats calculated using errors clustered on firm are in parentheses. *, **, *** indicate significance at the 10%, 5%, and 1% levels. Significant results (at 5% or better) are in boldface.

Panel A. Adoption of Emergency Ordinance OUG 28/2002 on 5 April 2002

	Window					
	(-5,5)	(-10,10)	(-15,15)	(-20,20)	(-25,25)	(-30,30)
DiD Coefficient	0.020 (0.67)	-0.013 (-0.53)	0.001 (0.04)	0.010 (0.37)	0.015 (0.58)	0.036 (1.25)
No. treated firms	49	58	62	62	63	65
No. control firms	50	56	60	60	61	64
No. obs.	472	968	1,483	1,868	2,171	2,563

Panel B. Adoption of Law 525/05.08.2002 on 5 August 2002

	Window					
	(-5,5)	(-10,10)	(-15,15)	(-20,20)	(-25,25)	(-30,30)
DiD Coefficient	-0.001 (-0.02)	-0.011 (-0.62)	-0.017 (-0.82)	-0.018 (-0.80)	-0.009 (-0.37)	-0.008 (-0.26)
No. treated firms	60	61	62	64	64	64
No. control firms	43	50	54	56	57	57
No. obs.	559	939	1,399	1,935	2,425	2,861

Table 6. Compliance with the RPT Disclosure Rules

The table presents the number of individual companies making annual RPT disclosure report and the number of listed companies on the Bucharest Stock Exchange (BSE) vs. RASDAQ. The law mandating annual disclosure of RPTs for companies listed on the BSE was announced in June 2004.

Year	Number of companies making RPT disclosures		Number of listed companies	
	BSE	RASDAQ	BSE	RASDAQ
2002	0	1	107	5,132
2003	2	4	104	4,843
2004	2	9	101	4,451
2005	6	6	94	3,997
2006	13	1	94	3,679
2007	18	0	91	2,412

Table 7. Average Tobin's q for Treated (BSE) and Control (RASDAQ) Firms

Tobin's q is calculated as $(MV(\text{Equity}) + BV(\text{Debt})) / (BV(\text{Equity}) + BV(\text{Debt}))$. Treated firms are firms listed on the Bucharest Stock Exchange (BSE). Control firms are firms listed on RASDAQ, which are the nearest-neighbor match with replacement for the BSE firms. Matching is done using the propensity score model in Table 2 using data as of 2003, the year before the RPT disclosure reforms.

Year	Mean q for Control Firms	Mean q for Treated Firms
2001	0.63	0.67
2002	0.82	0.75
2003	0.82	0.80
2004	0.90	0.98
2005	0.92	1.09
2006	0.85	1.25

Table 8. Annual Difference-in-Differences and Lead-and-Lags Regressions of Tobin's q

The dependent variable is Tobin's q, calculated as $(MV(\text{Equity}) + BV(\text{Debt})) / (BV(\text{Equity}) + BV(\text{Debt}))$. The *treated* dummy equals 1 for firms listed on the BSE. Control firms are firms listed on RASDAQ, which are the nearest-neighbor match with replacement for the BSE firms. Matching is done using the propensity score model in Table 2 using data as of 2003, the year before the RPT disclosure reforms. The *Post* dummy equal to 1 for years ≥ 2004 . The Leads-and-Lags model includes a series of interactions of treated and indicators for each year in the sample period excluding Year 2001, which is taken as the baseline. T-stats calculated using errors clustered on firm are in parentheses. *, **, *** indicate significance at the 10%, 5%, and 1% levels. Significant results (at 5% or better) are in boldface.

	Differences-in-Differences		Leads-and-Lags	
	Model 1	Model 2	Model 1	Model 2
treated×Post	0.205** (2.34)	0.215*** (2.81)		
treated×2002			-0.126 (-1.48)	-0.084* (-1.71)
treated×2003			-0.078 (-0.90)	-0.078 (-1.35)
treated×2004			0.013 (0.11)	0.036 (0.46)
treated×2005			0.112 (0.88)	0.170* (1.82)
treated×2006			0.330*** (2.70)	0.311** (2.57)
Sales growth		0.005 (0.27)		0.008 (0.43)
Book leverage		0.959*** (15.38)		0.957*** (15.78)
Profit margin		-0.030*** (-3.25)		-0.022** (-2.21)
Number of treated firms	57	57	57	57
Number of control firms	40	40	40	40
Number of observations	547	544	547	544

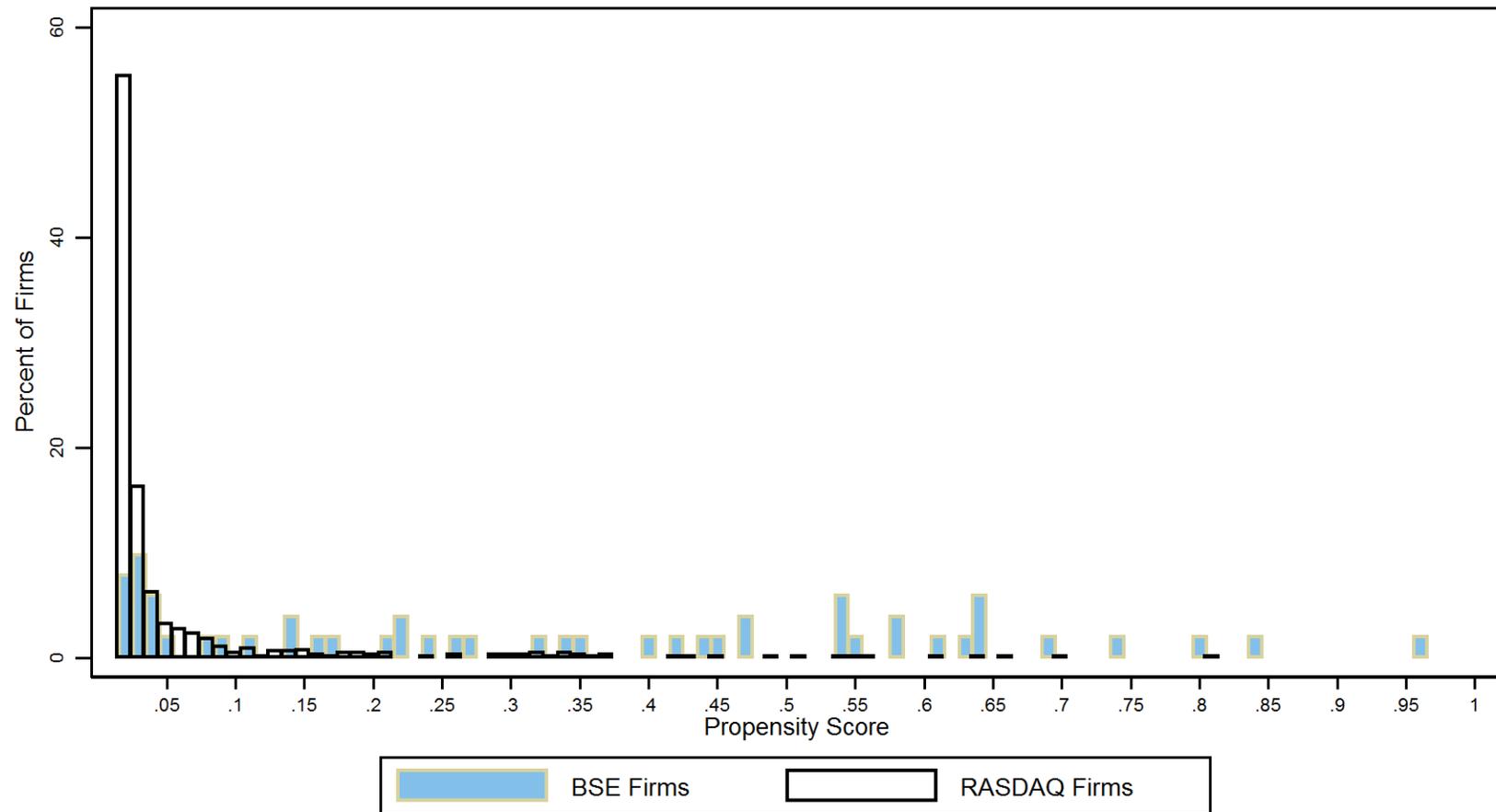


Figure 1. Propensity Score Histogram of Treated and Control Firms

Treated firms are firms listed on the Bucharest Stock Exchange (BSE). Control firms are firms listed on RASDAQ. The propensity score is calculated using Model 2 in Table 2. The histogram excludes all firms in the first three quintiles (propensity score < 0.012) of the estimated propensity score that are predominantly RASDAQ firms.

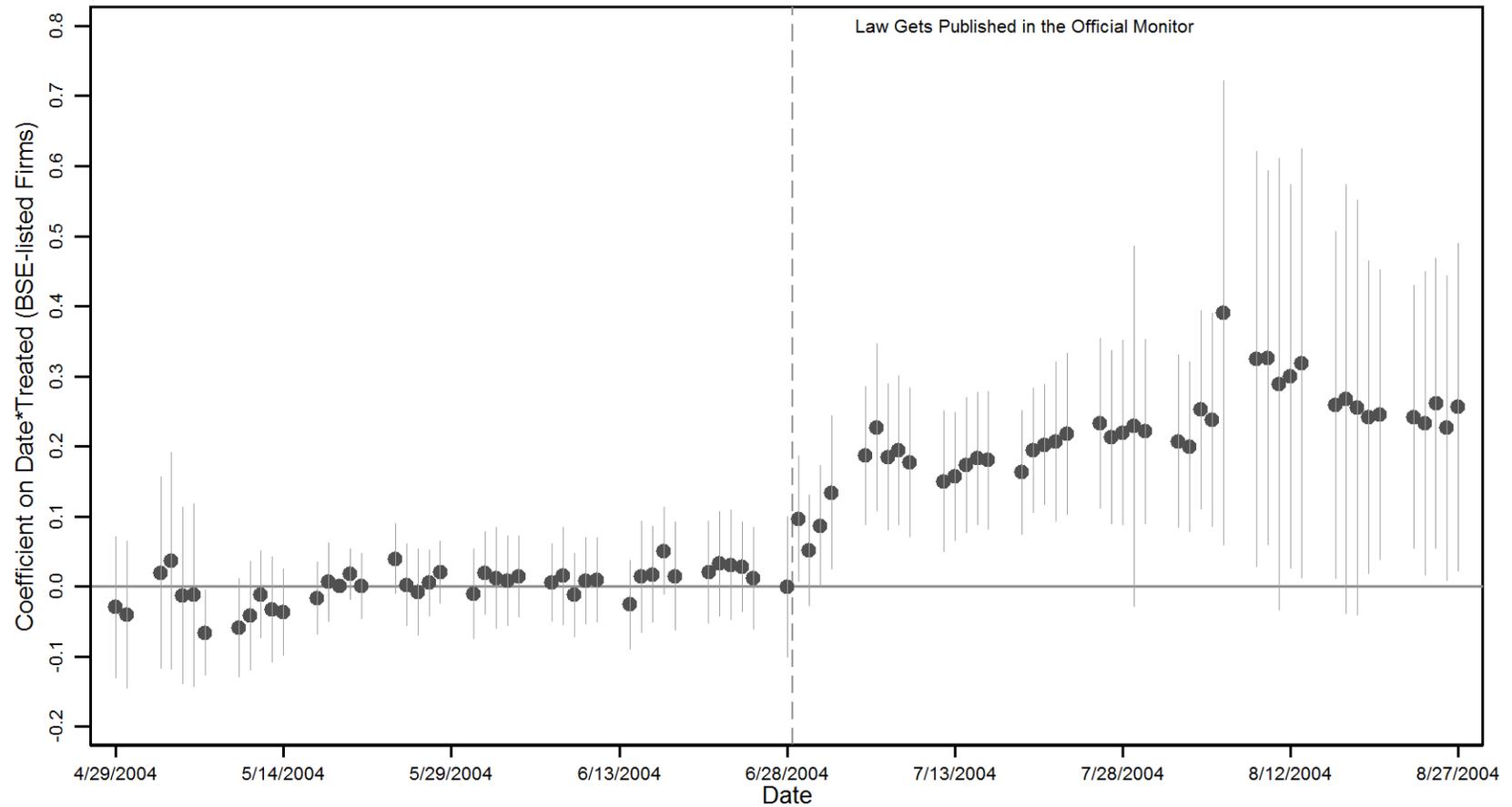


Figure 2. Leads and Lags Plot of DiD Changes in Log(price) over a (-60,60) window around June 28, 2004

Coefficients and 95% confidence intervals from regression of $\log(\text{price})$ on day and firm fixed effects, and interactions between treated dummy (=1 for firms listed on the BSE) and date dummies (with May 19, 2004 as the omitted date, the coefficient of which is set to 0). The law is passed on June 28, 2004 and published in the Official Monitor on June 29, 2004. The vertical line separates the pre- from the post-publication of law period.