

# Is Political Risk Company-Specific?

## The Market Side of the *Yukos* Affair\*

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### Abstract

The *Yukos* affair, a state-led assault on controlling shareholders of a private Russian oil company, once again demonstrated the shaky nature of property rights in emerging markets. Toughening of the state policy towards business implied higher company-specific political risk and was immediately reflected in lower stock prices. Among private companies, the risk appeared to be especially high for non-transparent companies, oil companies, and companies privatized via ill-famous loans-for-shares auctions. Surprisingly, transparent government-owned companies were also very sensitive to *Yukos* events. This evidence suggests that investors seriously consider risks of selective government intervention, back-dated taxes and privatization review.

*Keywords:* company-specific political risk, event study, Russian stock market.

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## 1. Introduction

Political risk is a salient feature of emerging markets.<sup>1</sup> Traditionally, scholars have focused on the impact of political events on the financial performance and risk at the country level (e.g., Chan and Wei, 1996, Johnson, Kaufmann, and Zoido-Lobaton, 1998, Kim and Mei, 2001, Mei and Guo, 2002, Azam, Bates, and Biaias, 2005).<sup>2</sup> Recently, there emerged a new literature that investigates the link between politics and finance at the company level by examining the value of political connections of individual companies (e.g., Johnson and Mitton, 2003, Fisman, 2001, Faccio, 2005, Phillips-Patrick, 1989, Bailey and Chung, 1995, Chen, Fan, and Wang, 2004, Cheung et al., 2005). We contribute to the literature on company-specific political risk with the analysis of the *Yukos* affair, a highly publicized story of the state-led assault on a private Russian company owned by a small group of politically ambitious individuals.

We investigate the nature of political risk faced by Russian companies via their stock market behavior in 2003, during the first months of the *Yukos* affair. Formally, the initial criminal charges brought against major shareholders and top managers of *Yukos* had nothing to do with the company.<sup>3</sup> Yet, the market capitalization of *Yukos* decreased dramatically after its managers' arrests and other actions of government agencies against the company and its employees. Moreover, stock prices of other Russian companies also reacted negatively to *Yukos* events, and the degree of stock price reaction varied a lot across the companies.

Apparently, investors perceived the state agencies' actions against *Yukos* as a signal of the change in Kremlin's economic policy, e.g., in relations with big business. A number of alternative, though not necessarily contradicting stories circulated in the market at that time. One view was that the attack on *Yukos*' owners was meant to discourage their involvement in politics (i.e., in the upcoming parliament elections) and would not affect other companies (the "politics" hypothesis). According to another viewpoint, *Yukos* events signaled a much higher probability of imposing a stricter tax regime for natural resource companies, especially those in the oil industry

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<sup>1</sup> Political risk usually includes risk of nationalization or expropriation, change in currency and exchange controls, regulation and tax regime, and general instability.

<sup>2</sup> Other studies of political risk include Ekern (1971), Eaton and Turnovsky (1983), Alesina and Tabellini (1989), Cutler, Poterba, and Summers (1989), Erb, Harvey, and Viskanta (1996), Clark (1997), Vuchelen (2003), Amihud and Wohl (2004).

<sup>3</sup> Sufficient to say, Standard & Poor's, a leading international rating agency, has left *Yukos*' credit ratings (BB/Stable; ruAA+) unchanged in the days following its CEO's jailing. The agency's statement that circulated after Mikhail Khodorkovsky's arrest – four months after the arrest of the company's CFO Platon Lebedev – said: "The positive operational and financial indices of the company and its high liquidity protect creditors from the negative effects of these developments."

(the “oil rent” hypothesis). Finally, the back-dated tax charges issued later against *Yukos* might have indicated the government’s intention to review the tax avoidance policies actively used by Russian companies in 2000-2003 (e.g., Desai, Dyck, and Zingales, 2004) and/or privatization abuses of 1990s, and probably open the road for re-nationalization (the “tax review” and “privatization review” hypotheses, respectively). The common point was the strengthening of the Kremlin’s control over the business community and the possibility of *selective* government intervention, which could seriously damage any private company. For state enterprises, the interference of the “visible hand” of the government could be beneficial or detrimental depending on the efficiency of the company’s management.

At the early stages of the affair, when the tactics of the state has not yet been settled, various ministries and individual government officials have been involved. Our data set includes 47 events defined as publications in which *Yukos* was mentioned along with one of the state agencies during a period from January 2003 to November 2003. The typical events in our data set are threats to revoke the oil field licenses, anti-monopoly investigations, and personal charges for misdoings in past privatization deals or for tax evasion (see Appendix 1).

In the first part of the paper, we analyze using the market model as a benchmark how news involving *Yukos* along with different types of state agencies affected the company’s stock price. We find that *Yukos*’ returns were mostly driven by the employee-related charges by the law enforcement agencies rather than charges against the company, which is consistent with the “politics” hypothesis. These results are robust and not driven by a few major events, such as the arrests of *Yukos*’ top managers and shareholders.

Then, we examine which companies were most sensitive to the signals provided by the state agencies’ actions against *Yukos*. Using a sample of 25 most liquid Russian common stocks, we run pooled cross-sectional regressions of stock returns during the event dates on the company-specific political risk exposures interacted with *Yukos*’ returns. Among private companies, *Yukos* events involving the law enforcement agencies had the strongest impact on non-transparent companies and those privatized via the ill-famous loans-for-shares auctions. In addition, *Yukos* events due to the regulatory agencies had an oil-industry-wide impact. This implies that the “politics” story could not fully explain the state agencies’ actions and that investors seriously considered the risks of tax and privatization review for Russian companies. Apparently, less transparent private companies were more likely to receive *back-dated* tax claims, whereas oil companies would have to pay more taxes in the *future*. Surprisingly, transparent government-owned companies were also very sensitive to *Yukos* events, in line with the “visible hand” story. Probably, investors were afraid that these companies could be forced to join those state enterprises that provide massive non-tax benefits to the state bureaucracy (Gehlbach, 2003).

Finally, we investigate in detail the stock price behavior of two other large Russian companies, *Lukoil* and *Gazprom*, in response to their own company-related news involving state agencies as well as *Yukos*-related news. We find that stock returns of *Lukoil*, a private oil company, were affected both by its own negative events due to the law enforcement agencies and by *Yukos* events due to the other agencies. This could be due to the risks of oil rent, tax, and privatization review. In contrast, stock returns of *Gazprom*, a state-controlled gas monopolist, rose in response to the involvement of the regulatory agencies that could discipline the company's management and to negative *Yukos* company-related events, which is consistent with possible re-nationalization of *Yukos*' assets via state companies in the oil&gas sector.

On the surface, there seems to be a similarity between high-profile cases of public companies such as *Enron*, *WorldCom*, and *Parmalat*, where news about the government-led investigations had a significant impact on share prices. However, these cases are starkly different. First, the political side of investigations into *Enron* and *WorldCom* affairs was at maximum marginal compared to the *Yukos* case (and possibly non-existent at all). Second, investigation announcements in the case of *Enron* and *WorldCom* caused drops in the share prices since they carried out (mostly negative) information about the real state of affairs in the companies. In the case of *Yukos*, there was no negative information hidden from the investors' sight; the bad news was the government assault as such.

A more relevant analogy can be drawn with the history of the *Standard Oil* break-up and other anti-trust investigations. (Bittlingmayer, 1992, analyses stock returns in anti-trust cases; Glaeser *et al*, 2003, draw parallels between large business conglomerates of the Gilded Age and modern Russian companies.) However, this analogy might be misleading as well. The primary concern of the U.S. government was restoring efficiency that was harmed by the monopoly position of the *Standard Oil* and similar companies. In contrast, even being indeed a giant company, *Yukos* still faced stiff competition both at home, where the remaining four largest oil companies are almost as big, and abroad, where it had to compete with multinational majors such as *Royal Dutch/Shell*, *Chevron*, *BP*, etc. At the political side, some similarity stems from the fact that both prosecution of the *Standard Oil* and the attack on *Yukos* were directed by popular politicians and enjoyed significant support of the public in large.<sup>4</sup>

Our work is directly related to the recent studies of political connections of big businessmen in Russia (Desai, Dyck, and Zingales, 2004, Frye, 2004, Guriev and Rachinsky, 2005, Hoff and Stiglitz, 2004, Sonin, 2003) or elsewhere (e.g., Acemoglu, 2005, Desai and Moel,

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<sup>4</sup> Back in 1903, economist Gilbert Holland Montague writing for the *Quarterly Journal of Economics* (Montague, 1903) concludes his evaluation: "The present position of the Standard Oil Company is one abundant of prosperity and power" (see also DeLong, 1998.)

2004, Hellman, 1998, Morck, Stangeland, and Yeung, 2000, Morck, Wolfenzon, and Yeung, 2004, Rajan and Zingales, 2003). The closest paper to ours is Fisman (2001) that examines how political connections of Indonesian companies affected their stock market performance in 1995. He finds that Indonesian firms with close ties to the Suharto regime lost more value in response to the news on Suharto's health problems than those less politically connected. Johnson and Mitton (2003) study an interaction between cronyism and capital controls in Malaysia at the time of the Asian crisis. They demonstrate that many firms with political connections lost valuable subsidies during the first phase of the crisis; however, some of them restored subsidies after the government imposed capital controls in September 1998.

Faccio (2005) examines the value of corporate connections with political officials using a comprehensive cross-country set of firms. She finds a significant increase in market capitalization when the company's directors or large shareholders enter politics, but not when politicians become involved in business. Faccio, Masulis, and McConnell (2005) document that politically connected companies are more likely to be bailed out than other firms. Chen et al. (2004) report that post-IPO underperformance of Chinese companies is largely attributable to the presence of politically connected CEOs. Using historical data from the German stock market, Ferguson and Voth (2005) find that firms with close links to the NSDAP reacted favorably to Hitler's seizure of power in 1933.

The rest of the paper is organized as follows. In Section 2, we discuss the chronology of major *Yukos* events since its creation in 1993 and empirical hypotheses. Section 3 describes the data. In section 4, we employ time series analysis to investigate which type of *Yukos* events had the strongest impact on the company's stock price. In section 5, we use a pooled regression approach to examine factors that could explain the differences in other companies' stock price reaction to *Yukos* events. Section 6 presents a detailed time series analysis of the stock price behaviour of *Lukoil* and *Gazprom* in response to their own events and *Yukos* events involving state agencies. Section 7 concludes.

## **2. The *Yukos* Story and Empirical Hypotheses**

The story of *Yukos* has been recently reported in a number of policy texts (e.g., Aron, 2003, Hill, 2004) and newspaper articles (we use the most trusted popular sources such as the *Economist*, *New York Times*, *Financial Times*, *Wall Street Journal*, and *Washington Post*). We provide the basic facts without going into much detail, and try to delineate the event sequence for our empirical investigation.

*Yukos* was created by the Russian government to integrate a number of parts of the former oil industry in April 1993, and was subsequently privatized through one of the ill-famous 'loans-

for-shares' auctions.<sup>5</sup> Freeland (2000) (see also Hoffman, 2002) provides a comprehensive and colorful description of the privatization auctions; anecdotal evidence of extreme forms of corruption in these auctions is overwhelming (e.g. Black, Kraakman, and Tarassova, 2000, Goldman, 2003; see, however, Shleifer and Treisman, 2000, on the impossibility of another course of economic reforms). Since polls of public opinion in Russia have consistently demonstrated that a majority of population does not accept privatization results in full, any state-led attack on a former state-owned company might be interpreted as an attempt to review the privatization results.

Until the moment when the *Yukos*' core shareholder group accumulated an absolute majority of shares, the fate of the minority shareholders, including foreign institutional investors, has been miserable. (See Black, Kraakman, and Tarassova, 2000, for an extended analysis and many legal details of abuses of *Yukos*' minority shareholders after the 1998 default.) Since 1999, however, *Yukos* has often been ahead of other large Russian companies in developing new standards of corporate governance and transparency. In 1999, *Yukos* became the first large Russian company to report by international accounting standards. The company's 2002 annual report was audited by *PriceWaterhouseCoopers*. In 2000, *Yukos* paid its almost 60,000 shareholders \$300 million as dividends (\$500 million in 2001 and \$700 million in 2002), the first Russian oil company to do so. On August 2001, the *New York Times* reported "Mr. Khodorkovsky has concentrated on recasting *Yukos* to look more like a company that investors can trust."

The growth rate of *Yukos*' output was 17% in 2001, 19% in 2002, and 20% in 2003. Between 1998 and beginning of 2003, the company's market equity capitalization had grown more than tenfold. In September 2002, the *Fortune* magazine ranked Mikhail Khodorkovsky, the CEO and a major shareholder of *Yukos*, the first in "Global 40 Richest Under 40". In a paper purposed to claim at least a partial success of Russian economic reforms, Shleifer and Treisman (2005) use post-1998 *Yukos* as a success story and note that "in 2002, *Yukos* invested \$1.26 billion in property, plant, and equipment", refuting the argument that oligarchs are just stripping assets from the company (see also Guriev and Rachinsky, 2005). Apparently, impressive growth of the company's value in 1998-2003 was partly due to the historically high oil prices; still, it was faster than that of any other major oil company in the world. At the time of the assault, *Yukos* was the largest oil company in Russia and conceded only to *Gazprom* among all Russian companies, judging by market equity capitalization (see Table 1).

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<sup>5</sup> The company's name is an acronym of the names of two state-owned companies that were parts of the merger: *Yuganskneftegaz* and *KuybyshevOrgSintez*.

Events that started a new page in the *Yukos*' history and attracted attention world-wide were the arrests of two major shareholders and founders of the company, Platon Lebedev and Mikhail Khodorkovsky. Lebedev, a major shareholder and director of *Menatep*, a holding and investment company that owned 61% of *Yukos*' common stocks, was arrested on July 2, 2003, and charged with embezzling state assets in the 1994 privatization of Russia's largest phosphate extraction and enrichment plant, *Apatit*. Khodorkovsky, the CEO and the largest shareholder of *Yukos*, was arrested on October 25, 2003 and charged with tax evasion, fraud, forgery, and embezzlement (all charges being unrelated to *Yukos*). Subsequently, the Prosecutor's office has issued additional charges against Khodorkovsky and Lebedev, including tax evasion, abuse of trust, and failure to comply with a court order; their petitions for bail have been repeatedly denied.

Since July 2003, a number of law enforcement and regulatory agencies undertook unfriendly actions against the company (see Appendix 1 for the list of major *Yukos* events initiated by state agencies). There was also a coordinated attack on *Yukos*' core shareholders in media, most prominently in all the televised news. On December 2, 2003, the Ministry of Taxation informed the Prosecutor's office that *Yukos* concealed at least \$5 billion in taxes in 1998-2001. (In fact, on all the previous counts of tax-related charges, *Yukos* had already won all the trials and the Ministry had publicly agreed that there were no over-due taxes.) This was the first official statement convicting the company in violating the tax code. Since then, the amount of back-dated taxes and fines due the allegedly illegal exploitation of regional tax-incentive schemes had been steadily rising, eventually reaching \$27.5 billion.

At the early stage of the *Yukos* affair, there was no clear explanation of what caused the events happening with the company and what they would imply for the fate of *Yukos* and other Russian companies. The media were cautious: "The crackdown on Mikhail Khodorkovsky has many causes, not least Kremlin intrigue and public anger at the wealth of the oligarchs." (*Financial Times*, July 31, 2003); "At first, investors shrugged off the series of raids on the periphery of the empire of Russia's richest man, Mikhail B. Khodorkovsky, as just a passing unpleasantness. Now, as the wrangle drags into its fourth week, investors are starting to worry." (*New York Times*, July 31, 2003).

As the affair escalated, investors started to consider the state agencies' actions against *Yukos* as a signal of the changes in Kremlin's economic policy towards the business community. Several stories circulated in the market at that time, ranging from a personal feud between president Putin and *Yukos*' CEO Khodorkovsky, battle between the evil of dictatorship and the angel of democracy, clash between the supporters of a stronger role of the state and advocates of free market economy to an institutional response to the subversion of institutions by the rich

during the first decade of reforms (Glaeser, Sheinkman, and Shleifer, 2003). Each story would predict a specific market reaction to *Yukos* events.

According to the “politics” story, the attack on *Yukos*’ key figures who had been allegedly financing both left-wing and right-wing parties on a regular basis could be a part of president Putin’s strategy to eliminate any substantial political opposition to his rule. Moreover, given the unpopularity of “oligarchs,” a group of very wealthy and politically influential businessmen, it was politically expedient to oust one of them before the upcoming elections to the Duma, the lower house of Russia’s parliament. *The New York Times* editorialized on August 13, 2003: “the Kremlin's strong-arm tactics have little to do with battling economic crime and a lot to do with power and the coming elections in Russia.” Among evaluations of merits of the charges after the Khodorkovsky’s arrest, the following one was typical: “The charges of fraud and income tax evasion appear to be little more than a crude campaign to punish Khodorkovsky and his partners.” (*Washington Post*, November 2, 2003). The subsequent developments did not refute this position: “The arrest was widely seen as a Kremlin-backed campaign to clip the political ambitions of Russia's richest man, who at one point considered running against President Vladimir V. Putin.” (*New York Times*, April 12, 2004). The pure “politics” hypothesis implies that *Yukos* affair would be confined to the company (its owners would be deprived from financial resources) and should not have drastic consequences for other Russian companies.

A related explanation of *Yukos* events is the government’s intention to extract more oil rent in the period of rising oil prices. The attack on the owners of *Yukos*, the largest oil producer, curbed their political and economic influence and increased the probability of the oil export tariffs being raised. (The pro-president *Unity* party actively used the oil rent slogan in their election campaign and indeed raised the marginal oil export tariff to 90% after gaining the majority of Duma seats in December 2003.) The “oil rent” hypothesis suggests that oil companies would be sensitive to *Yukos* events.

An alternative tax-related story is that *Yukos* was investigated (and ultimately charged) for the tax minimization policies it used in the past. The largely inefficient and vague tax legislation left numerous loopholes that were used by many companies. According to the July 2003 Merrill Lynch report, the distribution of taxes paid by the Russian oil companies was very dispersed. *Yukos* was among the largest taxpayers per barrel of oil (\$7.5, compared to e.g. \$8.3 for *Lukoil*, \$7.2 for *TNK*, and \$5.6 for *Sibneft*), yet along with *Sibneft* it had the lowest effective tax rate (the ratio of taxes to taxable income) of 12% (cf. 17% for *TNK* and 32% for *Lukoil*). The seeming inconsistency between the two tax measures is apparently due to the difference in costs and, most importantly, in the degree of using regional (the so-called “internal offshore”) tax-incentive schemes. (Dyck, Desai, and Zingales, 2005, provide a detailed analysis of tax minimization

schemes used by *Sibneft*, another major Russian oil company.) The “tax review” (“tax skeletons”) hypothesis predicts that companies actively using tax minimization schemes in the past, which were typically non-transparent, would be more likely to become a target for the government’s investigations.

Yet another explanation is that the new political elite brought to the government by the dramatic rise of president Putin is eager to reconsider the shady privatization of the 1990s and retain state control over the “crown jewels” of the Russian industry. The most notorious privatization happened in 1996 before the presidential elections in which Gennady Zyuganov, a leader of the communist party, had a high chance of ousting the incumbent president Boris Yeltsin. At the time of a looming economic crisis, president Yeltsin badly needed additional budget revenues and political support of the Russian business before the elections. Probably, this motivated the government’s decision to attract loans from several Russian private banks, using large state-owned equity stakes of leading Russian natural resources companies as collateral. Then companies that were granted the right to provide loans organized the ‘loans-for-shares’ auctions; in all cases, a company affiliated with the organizer won an auction at a low price. Since the loans were not to be repaid, the auctions’ winners soon became the major shareholders of the former state enterprises. Among them were *Yukos* and five other companies including *NorilskNickel* and *Surgutneftegaz*. According to the “privatization review” hypothesis, companies privatized via shady schemes such as ‘loans-for-shares’ auctions would be sensitive to *Yukos* events.

All of the hypotheses formulated above indicate the strengthening of the Kremlin’s control over the Russian business community, yet have different implications for the stock prices of *Yukos* and other private companies. The impact of the new government policy on the state-owned companies can be twofold. On the one hand, more attention on the part of its major owner can be beneficial for the company, precluding the often murky policies used by the incumbent managers and increasing its efficiency and stock price. On the other hand, the interference of the government officials could damage those state enterprises that had already been efficiently managed and force them to join the ones that provide massive non-tax benefits to the state bureaucracy (Gehlbach, 2003). Thus, the “visible hand” hypothesis predicts positive impact of *Yukos* events on the stock prices of the inefficient state-owned companies and negative reaction of the efficiently managed state-owned companies.

### 3. Description of the data

The events analyzed in our study were selected by searching the archives of RBC news as well as *Kommersant* and *Vedomosti*<sup>6</sup> articles by keywords “*Yukos*” and a name of one of the *law enforcement* agencies (Prosecutor’s office, Ministry of Internal Affairs, Federal Security Service, and Ministry of Taxation) or *non-law-enforcement* state agencies (Ministry of Natural Resources, Ministry of Anti-monopoly Policy, Russian Federal Property Fund, and State Auditing Chamber). It should be emphasized that the news was classified as an event, when it was initiated by the authorities and not by the company. In total, this procedure produced 10 positive and 37 negative *Yukos*-related events during the period from January to November 2003; most of them happened after the arrest of the company’s CFO Platon Lebedev in July 3, 2003. The typical negative events are penalties, threats to revoke the license for the non-fulfillment of the conditions of the agreement, and charges for the involvement in past shady privatization deals (unrelated to *Yukos*) or personal tax evasion. Several positive events follow the negative ones, reducing their impact, e.g., by lowering the fine or removing the charges.

In order to study the specifics of market reaction to different types of *Yukos* events, we divide all negative events into three groups: 16 employee-related news<sup>7</sup> initiated by the law enforcement agencies, 16 company-related events involving the law enforcement agencies, and 12 company-related events involving the non-law-enforcement agencies.<sup>8</sup> We do not make a similar decomposition for positive events, since their number is too small and since most of them (8 out of 10) are initiated by the non-law-enforcement agencies.

Our analysis of stock market reaction to *Yukos* events is based on daily dividend-adjusted returns of most liquid Russian stocks.<sup>9</sup> We use the S&P/RUX as a market index.<sup>10</sup> The sample

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<sup>6</sup> RBC (RosBusinessConsulting) is a leading Russian provider of business information. *Kommersant* and *Vedomosti* (a joint project of the *Wall Street Journal* and *Financial Times*) are two leading Russian business newspapers. When the newspaper article referred to the event with a lag, we adjusted the date of the event accordingly.

<sup>7</sup> These are news affecting a person who is a *Yukos*’ employee or shareholder rather than the company. During the sample period, several *Yukos*’ employees including internal economic security officer Alexei Pichugin, CFO Platon Lebedev, CEO Mikhail Khodorkovsky, and *Yukos*-Moscow CEO Vassily Shakhnovsky were levied charges formally unrelated to the company. At least 8 persons were arrested and held for months without bail.

<sup>8</sup> The last two groups intersect, as there are 7 negative company-related events involving both types of agencies. There are no employee-related news initiated by the non-law-enforcement agencies.

<sup>9</sup> We used daily close prices at the MICEX (“Moscow Interbank Currency Exchange”) for most of the stocks. For four stocks (*MTS*, *VimpelCom*, *Golden Telecom*, and *Wimm-Bill-Dann*) that were primarily traded in NYSE, we used the corresponding ADR close prices.

period is from January 1, 2003 to November 27, 2003, including 227 trading days. We deliberately chose the end of November 2003 as the terminal date. This is motivated by the fact that in December 3, 2003, the Ministry of Taxation made the first official statement alleging that *Yukos* had evaded taxes and owed a certain amount to the state, which directly affected the value of the company. During the sample period, *Yukos* was involved in another dramatic event – a failed merger with another Russian oil company, *Sibneft*. The merger was officially announced in April 22, 2003; *Sibneft* announced a break-up of the deal in November 28, 2003. The exclusion of the merger announcement date from the sample does not affect the results.

In the cross-sectional analysis, we use four variables as main proxies for company-specific exposures to political risk. First, the company's total common stock ownership stake of the federal and regional governments at the end of 2002 helps to differentiate between private and state-owned companies. Second, the Transparency & Disclosure (T&D) score by Standard & Poor's, as of August 13, 2002, measures the degree of the company's informational transparency with respect to the ownership structure, financial and operational statements, and board of directors and management. The T&D score is conversely related to the likelihood of using tax minimization schemes and risk of tax review for private companies; for state-owned companies it is more likely to be higher in case of an efficient management. Third, the oil industry dummy separates the group of oil companies, which are most susceptible to the change in the "oil rent" taxation policy. Finally, the fraction of shares sold at loans-for-shares auctions reflects the vulnerability of private companies with respect to the risk of privatization review. Several other variables including industry dummies, dummy equal to 1 for stocks with ADRs traded at NYSE, the company's market equity capitalization are used as controls.

Our final sample includes 25 common stocks of large Russian companies that were actively traded during the sample period and had T&D score. Table 1 shows their descriptive statistics. Even though the five largest companies come from the oil and gas sector, other industries such utilities (6 companies), telecoms (5 companies), machinery, and metallurgy (both with 2 companies) are also well-represented. The government-owned companies are concentrated in the utilities and telecoms; besides those, the federal government effectively controls the gas monopolist *Gazprom* with a 38% stake and the largest retail bank *Sberbank* with a 64% stake. The T&D scores range from 0.14 for *Avtovaz*, which is a private auto-making company, and 0.17 for *Rostovenergo*, a state-owned utility company, to 0.77 for the leading private mobile operator

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<sup>10</sup> The S&P/RUX index is computed by the RTS-Interfax agency in cooperation with Standard & Poor's. It is a market-capitalization-weighted index of the Russian companies traded in the RTS ("Russian Trading System") Stock Exchange and Moscow Stock Exchange. At the end of 2003, the S&P/RUX index comprised 57 stocks.

*MTS*. On average, the T&D scores are higher for private companies than for the government-owned ones (0.4 and 0.3, respectively).

Figure 1 shows the dynamics of the market index and *Yukos*' stock price during the sample period (both normalized to 100 in the beginning). It is clearly seen from the figure that *Yukos*' stock was on par with the market index until the arrests of the company's CFO Platon Lebedev and CEO Mikhail Khodorkovsky, which led to sharp falls in *Yukos*' stock price by 4% in July 3, 2003, and by 14% in October 27, 2003, respectively. Interestingly, the first arrest had almost no effect on other stocks. Based on our conversations with the financial analysts, the prevailing opinion at the time was that this would not have drastic consequences for *Yukos* (all the more, for other companies) and finish soon. However, the second arrest was perceived by many as a border line indicating a serious change in the government's policy towards *Yukos* and, in general, towards the whole business community in Russia. As a result, the market index fell by 9.6%, whereas the firm-specific reaction varied from over 10% stock price decline for *Sibneft*, *Rostelecom*, *Avtovaz*, and *Sverdlovenergo* to a slightly positive return for *MTS*, *Wimm-Bill-Dann*, and *Golden Telecom* (see the last column in Table 1).

Table 2 reports summary statistics of the market index and *Yukos*' returns, which allow us to draw some preliminary conclusions. During the sample period, the Russian stock market was characterized by high return and volatility: an average return of 0.18% and standard deviation of 1.93% in daily terms. *Yukos*' stock had a slightly lower return (0.13%) and much higher volatility (2.98%). Days with *Yukos* events were even more volatile: positive news were associated with very high returns, while negative news brought prices down. This effect applied both to *Yukos* and to the market index, proving that *Yukos* events had an overall market impact. The reaction of other companies to *Yukos* events is further analyzed in section 5.

We conduct a preliminary analysis of the impact of government-related news on *Yukos*' returns using a control portfolio, which is a value-weighted portfolio of four other large Russian oil companies: *Lukoil*, *Sibneft*, *Tatneft*, and *Surgutneftegaz* (see Table 1).<sup>11</sup> During the sample period, the control portfolio had an average daily return of 0.14% p.a., which rose to 1.71% and fell to -0.9% during the days with positive and negative *Yukos*-related events, respectively (see Table 2). However, these swings were less pronounced than those for *Yukos*, as its average abnormal return (defined as the difference between *Yukos*' return and control portfolio's return; see, e.g., Campbell, Lo, and MacKinlay, 1997), close to zero during the whole sample period, increased to 1.01% in response to positive news and decreased to -1.06% after negative news.

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<sup>11</sup> The portfolio weights are proportional to the market capitalization of the oil companies, as of December 30, 2002.

The *Yukos*' stock price sensitivity to political news was the highest with respect to the employee-related news initiated by law enforcement agencies (the abnormal return of -1.07%), which once again proves the political nature of risk faced by the company and incorporated by investors in its stock price. A more elaborate analysis of *Yukos*' stock price behaviour is in the next section.

#### 4. The reaction of *Yukos*' stock price to the actions of the state agencies

In the current section, we investigate the reaction of *Yukos*' stock price to the actions of the state agencies, using time series analysis and employing the market model as a benchmark. The basic model is as follows:

$$R_{Y,t} = \alpha_0 + \alpha_1 \text{Pos}_t + \alpha_2 \text{Neg}_t + \beta R_{M,t} + \varepsilon_t, \quad (1)$$

where  $R_{Y,t}$  and  $R_{M,t}$  are returns of *Yukos* and market index<sup>12</sup> in day  $t$ ; *Pos* and *Neg* are dummy variables equal to 1 in the case of positive and negative events, respectively;  $\varepsilon_t$  is the error term. As was demonstrated in the previous section, *Yukos* events had a market-wide impact, influencing not only *Yukos*' own return, but also returns of other Russian stocks. This model allows us to measure the impact of different types of *Yukos*-related news on company's returns, controlling for the market risk.<sup>13</sup> In all subsequent regressions, we compute Newey-West heteroscedasticity and autocorrelation consistent standard errors.

The estimation results (see column 3 of Table 3) reinforce the conclusions made in the previous section. Both negative and positive events are associated with highly significant daily abnormal returns in the order of -1.2% and 1.4%, respectively.

To check the robustness of our findings to the presence of major events such as top managers' arrests, we add to the regression (1) a dummy variable *Arrest* equal to one for the trading days when the market received news about the arrests of *Yukos*' top managers and shareholders, Platon Lebedev and Mikhail Khodorkovsky (July 3 and October 27, 2003). The estimation results demonstrate that our general findings are robust and not driven by a few major events, such as the arrests of *Yukos*' top managers. Other negative events led to the daily abnormal return of -1.1%, while arrests implied further 2.4% decline in price (see column 4 in Table 3).

To study the specifics of market reaction to different types of news, we define two additional dummy variables: *Pers* equals one when the news affected a *person* (a *Yukos*'

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<sup>12</sup> Using S&P/RUX, which is a value-weighted market index, could potentially lead to erroneous correlation between the changes in stock price of a large company and its market beta. Our results stay qualitatively the same when we use an equally-weighted index of 47 most liquid Russian stocks rather than S&P/RUX as the market index.

<sup>13</sup> In the earlier version of the paper, we allowed the market beta to vary depending on different types of *Yukos* events. This had no material effect on the impact of news on abnormal returns.

employee or shareholder rather than the company) and *Comp* is equal to one if the charges were directed against the *company*. To separate the impact of different types of state agencies, we introduce two more dummies: *Law* and *Other* that are equal to one if a law enforcement agency or other (non-law-enforcement) agency was mentioned in the news, respectively. Since we do not have many positive events, we study the interaction effects between the additional dummy variables and *NegD*. The regression is as follows:

$$R_{Y,t} = \alpha_0 + \alpha_1 Pos_t + \alpha_4 Neg_t Pers_t Law_t + \alpha_5 Neg_t Comp_t Law_t + \alpha_6 Neg_t Comp_t Other_t + \beta R_{M,t} + \varepsilon_t \quad (2)$$

From the three types of events, only the negative employee-related news initiated by the law enforcement agencies have significant effect, driving down the level of *Yukos*' returns by approximately 1% (see column 5 in Table 3). The fact that the company-related charges have no significant impact on *Yukos*' stock price might seem puzzling at the first sight. Apparently, investors interpret personal charges, even though formally unrelated to *Yukos*, as a signal about the future of the company. This evidence is consistent with the "politics" hypothesis, according to which the actions of the state agencies against *Yukos*' shareholders driven by political motives could ultimately lead to the expropriation of the company. Another possible explanation for the decline in *Yukos*' price in response to the charges against its top managers could be the loss in their specific managerial skills that could be very valuable for the company. However, this is inconsistent with a very positive market reaction to the news about the resignation of *Yukos*' CEO Mikhail Khodorkovsky in November 3, 2003, which led to 13% rise in *Yukos*' stock price and 6% growth of the market index.

## 5. The reaction of other companies' stock prices to *Yukos* events

In this section, we investigate whether there are systematic differences in the firm-specific stock price reaction to *Yukos* events related to companies' exposures to political risk. We run pooled cross-sectional regressions of stock returns during the event days on proxies for the company's political risk exposure as well as *Yukos*' returns interacted with the proxies:

$$R_{i,t} = a_0 + a_1 Gvt_i + a_2 TD_i + a_3 Gvt_i TD_i + a_4 Oil_i + a_5 LS_i + (b_0 + b_1 Gvt_i + b_2 TD_i + b_3 Gvt_i TD_i + b_4 Oil_i + b_5 LS_i) R_{Y,t} + \varepsilon_{i,t} \quad (3)$$

where  $R_{i,t}$  is company  $i$ 's return in the event day  $t$ ,<sup>14</sup>  $Gvt_i$  and  $TD_i$  denote the government's common stock ownership and T&D score of company  $i$ , respectively,  $Oil$  is the oil industry dummy,  $LS$  is the fraction of company's shares sold at the loans-for-shares auctions; and  $\varepsilon_{i,t}$  is the error term. As we will see, the impact of the T&D score is opposite for private and government-

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<sup>14</sup> If the company's stock was not traded in a given day, this observation was excluded from the regression.

owned companies; this difference is captured by the coefficient on the interaction effect between  $Gvt_i$  and  $TD_i$ .

In this model, we allow the coefficients on political risk exposures to differ across the events; in particular, companies' stock returns may be more sensitive to events characterized by higher *Yukos*' return,  $R_{Y,t}$ .<sup>15</sup> The regression is estimated for different subsets of the events: positive, negative, negative employee-related, negative company-related due to the law enforcement agencies, negative company-related due to the non-law-enforcement agencies, and finally major negative (with *Yukos*' return below -2%; there were 17 events of this type).

Table 4 reports the results. We find that Russian companies' stock returns are indeed sensitive to their political risk exposures and that this sensitivity depends on the absolute value of *Yukos*' return and on the specific type of *Yukos* events. This is contrary to the pure "politics" hypothesis and supports the view that investors perceived developments with *Yukos* as a signal about changes in the government policy. Our main inference is based on the estimation results for the subset of all negative events (column 4). The coefficients on all interaction terms except for the one including the oil industry dummy are highly significant.

It appears that the company's transparency has an opposite effect on its sensitivity to *Yukos* events in case of private and state-owned firms. For private companies, the effect of an incremental 1% fall in *Yukos*' stock price is lower for higher levels of transparency, which is in line with the "tax review" hypothesis. For example, if we compare the least and the most transparent private companies, *Avtovaz* and *MTS*, an incremental 1% fall in *Yukos*' price will lead to the additional 0.55% fall in the stock price for the former and practically no fall for the latter. On the contrary, higher transparency of the government-owned companies is associated with higher sensitivity to *Yukos*' return: 0.7% for *Rostelecom* compared to 0.46% for *Rostovenergo*. Thus, the worst *Yukos* events have the strongest impact on transparent government-owned companies: a -5% *Yukos*' return shock implies approximately 2.7% fall in stock price for *Rostelecom*. The less transparent state-controlled companies (e.g., *Rostovenergo* and other regional utilities) or private companies (e.g., *Avtovaz*) will fall by around 1.9%, whereas transparent private companies (e.g., *Wimm-Bill-Dann*) will be the least affected with mere 0.2% decrease in price in response to this shock.

This evidence is consistent with the "visible hand" and "tax review" hypotheses. It seems that investors consider the more interventionist policy of the government as a risk factor for efficiently managed state enterprises and less transparent private companies. It should be noted

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<sup>15</sup> This approach is similar to that by Fisman (2001) who examined the effect of the political variables interacted with the return on the Indonesian stock index net of South Asian effects. We obtain similar results when we use the market return instead of *Yukos*' return as a measure of the importance of an event.

that this effect is mostly driven by market reaction to the negative employee-related events involving the law enforcement agencies (see column 5 of table 4). The very fact that personal charges formally unrelated to the company have such a strong impact not only on *Yukos*' , but also on other companies' stock prices is puzzling and hints on the political nature of the whole affair.

On top of those effects, companies with a large stake sold via loans-for-shares auctions (e.g., around 40%, as for *Surgutneftegaz*), would suffer an additional 0.34% decline in price in response to 1% fall in *Yukos*' stock price. As a result, these companies would be among the most sensitive to worst *Yukos* events; e.g., *Surgutneftegaz*' stock price will drop by 2.7% after -5% *Yukos*' return shock. This is in line with the "privatization review" hypothesis. This effect is pronounced for both employee- and company-related negative events initiated by the law enforcement agencies (columns 5 and 6 of table 4).

The company-related negative events initiated by the non-law-enforcement agencies affect oil companies, whose stock prices will decline by an additional 0.28% in response to 1% fall in *Yukos*' stock price. This clearly supports the "oil rent" hypothesis (column 7 of table 4).

We performed a number of other robustness checks. In particular, we estimated the model (4) in a subset of major negative *Yukos* events (with return below -2%, see the last column of Table 4), using a longer sample period including year 2002, and controlling for fixed time effects. This did not materially change our results. We also estimated the model (4) with additional control variables. Such variables as the energy industry dummy, the ADR dummy equal to one for stocks with ADRs traded at NYSE, and company's size measured as the log of the market value of equity turned out insignificant and had no effect on our main results.

## **6. Stock price behavior of *Lukoil* and *Gazprom* in response to their own and *Yukos* events**

In the current section, we conduct time series analysis of political risk of two other major Russian companies, *Gazprom* and *Lukoil*, which had, respectively, the largest and third-largest market equity capitalization at the end of 2002 (see Table 1). After the prosecution of *Yukos*, *Lukoil* became the largest oil producer in Russia. It is a private company, although the government had held a minor (7.6%) stake until September 29, 2004, when this stake was sold to *ConocoPhillips*. As discussed in section 2, *Lukoil* could be negatively affected by *Yukos* events along the lines of the "tax review", "oil rent", and "privatization review" hypotheses. At the same time, it could profit from the weakening of its major competitor.

*Gazprom* holds a virtual monopoly in the Russian gas market. At the time of the affair, the state owned a major (38%) stake in *Gazprom*, which allowed the government effectively control the company. As a result, *Gazprom* frequently provides support for the government policy at home (by keeping gas tariffs low) and abroad (by selling gas at low prices to the friendly

neighbouring countries), even though that comes at the expense of minority shareholders. The company is often criticized for the lack of transparency and relatively inefficient management. *The Economist* (June 20, 2005) elaborated on *Gazprom*: “The gas giant has been likened more to a state ministry than a profit-motivated corporation” and pointed to “wasteful tax-payment schemes, seeming nonchalance about unpaid bills, disproportionately high wage costs and suspiciously costly pipeline projects.” According to the “visible hand” hypothesis, the impact of the more interventionist government policy on *Gazprom* could be either positive or negative, depending on the quality of the current company’s management relative to that of the bureaucrats. In addition, *Gazprom* could exploit its closeness to the state to profit from potential *Yukos*’ break-up.

We gathered sets of positive and negative events for *Gazprom* and *Lukoil* using the same procedure as for *Yukos*. Since there were a few company-related events in 2003, the analysis in this section is based on a sample period extended by year 2002 (January 1, 2002, to November 27, 2003). Our data set comprises 26 events (including 6 positive) for *Gazprom* and 35 events (11 positive) for *Lukoil*. The extended set of *Yukos* events includes 11 positive and 42 negative news.

We study political risk of the two companies along two lines. First of all, we partly replicate the preceding time series analysis for *Yukos* (models (1) and (2)), looking at the impact of the company (*Lukoil* or *Gazprom*) events on respective stock returns. Since there were practically no employee-related events for these companies, we only make a distinction between events initiated by the law enforcement agencies and those involving other state agencies in model (2).

Secondly, we investigate whether *Yukos* events had an impact on the stock market performance of *Lukoil* and *Gazprom*, controlling for the effect of their own news. The following two regressions include dummies both for *Lukoil* (or *Gazprom*) own events and *Yukos* events. In the regression

$$R_{i,t} = \alpha_0 + \alpha_1 \text{Pos}_t + \alpha_2 \text{Neg}_t + \alpha_7 \text{Pos}Y_t + \alpha_8 \text{Neg}Y_t + \beta R_{M,t} + \varepsilon_t, \quad (4)$$

$R_{i,t}$  is return of *Lukoil* or *Gazprom* in day  $t$ , the event dummies are defined as before, and ‘Y’ denotes variables referring to *Yukos*. Here, the coefficients  $\alpha_1$  and  $\alpha_2$  measure the company’s reaction to its own news, whereas  $\alpha_7$  and  $\alpha_8$  show the impact of *Yukos* events.

We extend this model separating the impact of different types of negative events:

$$R_t = \alpha_0 + \alpha_1 \text{Pos}_t + \alpha_5 \text{Neg}_t \text{Law}_t + \alpha_6 \text{Neg}_t \text{Other}_t + \alpha_7 \text{Pos}Y_t + (\alpha_9 \text{Pers}Y_t \text{Law}Y_t + \alpha_{10} \text{Comp}Y_t \text{Law}Y_t + \alpha_{11} \text{Comp}Y_t \text{Other}Y_t) \text{Neg}Y_t + \beta R_{M,t} + \varepsilon_t \quad (5)$$

where the event dummies are defined along similar lines.

Tables 5 and 6 present results of the regression analysis for *Lukoil* and *Gazprom*, respectively. For *Lukoil*, the negative company-related events implied a significant daily

abnormal return of -0.5%, which, similarly to *Yukos*, was mostly due to the effect of news involving the law enforcement agencies. It seems that the market seriously considers the possibility of yet another case against a private oil company. Separating the impact of different types of *Yukos* events, we observe that *Yukos* news involving non-law-enforcement agencies negatively affected *Lukoil*'s returns, driving them down by 1.02% (the last column in Table 5). The sensitivity of *Lukoil* to the actions of such agencies as the Ministry of Natural Resources against *Yukos* is consistent with the "oil rent" hypothesis and results in the previous section. Indeed, *Lukoil* is quite transparent and has relatively clean privatization history (a minor 5% stake was sold via 'loans-for-shares auction'); therefore, it is less prone to the tax and privatization review risks.

The nature of political risk for *Gazprom* is very different. On the one hand, positive news involving the state agencies have a marginally significant positive impact on *Gazprom*, driving its stock price up by 1.4%. On the other hand, negative news involving non-law-enforcement state agencies also lead to positive abnormal daily returns in the order of 0.7%, which are very significant. This is in line with the "visible hand" hypothesis, according to which the inefficient management of *Gazprom* is disciplined when the respective authorities such as Ministry of Natural Resources, Ministry of Anti-Monopoly Policy, and State Auditing Chamber turn their attention to the company. Negative *Yukos* company-related events due to law enforcement agencies imply a marginally significant *increase* in *Gazprom*'s stock price by 0.65%. This may be explained by the "visible hand" hypothesis or by the view that *Gazprom* could profit from the break-up of *Yukos*.

## 7. Conclusion

This paper provides strong evidence that political risk remains a very important factor in the Russian stock market. In 2003, during the early stage of the *Yukos* affair, the state agencies' actions had a negative impact not only on *Yukos*', but also on other Russian companies' stock prices. Apparently, investors interpreted *Yukos* events as a signal about the change in the government policy towards the business community. In line with the "oil rent," "tax review," and "privatization review" hypotheses, we find that stock prices of those private companies that belonged to the oil industry, were non-transparent, and/or privatized via loans-for-shares auctions were most sensitive to *Yukos* events. This indicates that investors seriously considered the risk of expropriation of these companies through the use of such political instruments as selective tax enforcement.<sup>16</sup> In accordance with the "visible hand" hypothesis, the more interventionist

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<sup>16</sup> In the beginning of 2005, Standard & Poor's motivated an increasing gap between Russian sovereign and corporate credit ratings as follows: "The *Yukos* affair creates a dangerous precedent and illustrates potential risks of

government policy was well-perceived for non-transparent state-owned companies, such as *Gazprom*, and had detrimental effect on stock prices of transparent ones.

Did the investors' perception of political risk subsequently materialize? The events that happened during the last two years are largely consistent with our findings. The fate of *Yukos* looks miserable. The government levied on the company and its subsidiaries a series of fines eventually amounting to around \$28 billion for the purportedly illegal exploitation of regional tax-incentive schemes, bringing *Yukos* on the brink of the bankruptcy. In December 2004, *Yukos'* major production unit, *Yuganskneftegaz*, was forcibly sold via auction at a price far below market value and eventually ended up in the hands of a state-owned oil company. (Interestingly, within a few months after the auction, most tax offences against *Yuganskneftegaz*, now owned by the state, were called off.) However, the remaining government and creditor claims are still large and may require selling of what is left of the company.

Several private and state-controlled companies received large back-dated tax offences.<sup>17</sup> The most notorious one was against *Vimpelcom*, a transparent private mobile operator,<sup>18</sup> which plunged the company's stock price by 23% and market index by 6%. On the good side, the budget revenues have increased substantially. First, many large companies abandoned ('grey') tax minimization schemes used in the past, which led to an increase of their effective tax rate. Second, after the pro-president *Unity* party won an absolute majority of seats in December 2003 parliament elections, the Duma dramatically raised the export tariff on oil, making the marginal rate close to 90%. On the bad side, the fear of expropriation led to the recommencement of the capital flight and slowdown of the economic growth, despite the ever rising oil prices, which is consistent with cross-country evidence by Bohn and Deacon (2000) and Lensink, Hermes, and Murinde (2000). We observe creeping re-nationalization of the oil industry that started with the acquisition of *Yuganskneftegaz* by state-controlled *Rosneft* and continued with the acquisition of

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the selective government interference, weak protection of property rights, and insufficient independence of courts." ("Russia's Rating: Country Risk Is Rising," *Vedomosti* February 15, 2005.)

<sup>17</sup> The largest cases involved private oil companies *Sibneft* and *TNK-BP*, shipping company *Volgotanker*, state-controlled energy monopoly *RAO UES* and regional telecom operator *Dalsvyaz*, as well as several oil refineries controlled by regional governments (e.g., *MNPZ*, *Ufaneftehim*). The tax charges were often eventually settled with smaller amounts (e.g., the initial \$1 bln tax charge against *Sibneft* for 2001-2002 was subsequently reduced to \$300 mln).

<sup>18</sup> In December 8, 2004, *Vimpelcom* received the Ministry of Taxation's claim to pay \$90 mln tax bill and \$67 mln in fines for 2001 (the company's sales were equal to \$423 mln for that year). Yet, the drop in *Vimpelcom's* market capitalization of \$3.8 bln was more than 20 times the amount of tax charges. The interference of the Norwegian government, a major shareholder of *Telenor* controlling 25% of *Vimpelcom*, helped to reduce the total amount of tax charges to \$17.6 mln.

*Sibneft*, one of the largest private oil companies, by *Gazprom*. Yet, the most important consequence of the *Yukos* affair, the loss of reputation in the eyes of foreign and local investors by the Russian state, is still hard to measure.

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### Appendix A. Major *Yukos*' events in 2002-2003

Date	News	<i>Yukos</i> ' return, %
24.06.2002	St. Petersburg Prosecutor's Office examined the possibility of a criminal case for the fact of illegal operations with the <i>KTsBK</i> stocks (auctions of the <i>KTsBK</i> stocks affect interests of M. Khodorkovsky's structures, since 51% of <i>KTsBK</i> stocks served as a collateral for a bank in the <i>Menatep-Yukos</i> group).	-5.8
26.06.2003	<i>Yukos</i> ' internal economic security officer A. Pichugin was accused of a double murder.	-2.36
03.07.2003	It became known that <i>Yukos</i> ' CFO and major shareholder P. Lebedev was arrested on the charges of embezzling state assets in the 1994 privatization of <i>Apatit</i> . Basmanny court of Moscow sanctioned Lebedev's arrest.	-4.67
04.07.2003	The Prosecutor General's Office summoned for questioning two other co-owners of <i>Yukos</i> , M. Khodorkovsky and L. Nevzlin. The Ministry of Anti-Monopoly Policy postponed the solution on the merger between <i>Yukos</i> and <i>Sibneft</i> . The Federal Security Service conducted a search in <i>M-Reestr</i> , a registrar for <i>Yukos</i> and <i>Apatit</i> .	-2.03
09.07.2003	The Prosecutor General's Office declared they would start investigations on the request of <i>Rosneft</i> that charged <i>Yukos</i> with theft of 19% stocks from the company <i>Eniseyneftegaz</i> .	-4.77
11.07.2003	The Prosecutor General's Office investigators of <i>Apatit</i> case conducted search in <i>Yukos</i> .	-5.22
16.07.2003	The Prosecutor General's Office filed a request for tax audit of <i>Yukos</i> to the Ministry of Tax Collection.	-8.34
23.07.2003	The Prosecutor's Office brought new materials on the case of P. Lebedev to the court. According to the investigators, P. Lebedev inflicted more than \$400 million damage to the state.	-2.51
13.08.2003	The Minister of Anti-Monopoly Policy Yuzhanov promised to make a verdict on the merger between <i>Yukos</i> and <i>Sibneft</i> by the end of the week and mentioned there should be no obstacles.	4.24
15.08.2003	The Ministry of Anti-Monopoly Policy approved the merger between <i>Yukos</i> and <i>Sibneft</i> .	2.27
21.10.2003	The Prosecutor General's Office intended to bring charges against several <i>Yukos</i> ' managers. The Ministry of Internal Affairs conducted investigation in <i>Menatep</i> bank in St. Petersburg.	-4.57
22.10.2003	The Prosecutor General's Office made a request to the Ministry of Natural Resources, the Ministry of Energy, the Ministry of Tax Collection, and State Customs Committee to examine violations in <i>Yukos</i> ' activities.	-7.12
27.10.2003	<i>Yukos</i> ' CEO M. Khodorkovsky was arrested on October 25.	-14.65

29.10.2003	The Prosecutor General's Office disputed in the court the legality of the election of President of <i>Yukos</i> -Moscow V. Shakhnovsky as a member of the Federation Council.	-2.74
30.10.2003	The Prosecutor General's Office froze 53% of <i>Yukos</i> ' common equity shares deposited in the investment bank <i>Trust</i> .	-12.62
31.10.2003	The Prosecutor General's Office reported that it called off the arrest on part of the <i>Yukos</i> ' shares frozen on October 30.	8.83
04.11.2003	Deputy Yudin said that <i>Yukos</i> controlled the oil industry legislature process in Duma and declared that "actions of the company's owners inflicted a large economic and political damage to the state".	-4.94
05.11.2003	Vitaly Artyukhov, the Minister of Natural Resources, nearly threatened to nationalize <i>Yukos</i> ' oil fields.	-5.13
20.11.2003	By the order of the Prosecutor General's Office, the investment bank <i>Trust</i> defroze 4.5% of <i>Yukos</i> ' shares.	8.19

**Table 1. Descriptive statistics of selected Russian companies**

For each of 25 Russian companies in the sample, the table reports the company's industry, market equity capitalization, total common stock ownership stake of federal and regional governments (both as of the end of 2002), the Transparency&Disclosure (T&D) score by Standard&Poors (as of August 13, 2002), the fraction of company's shares sold at the loans-for-shares auctions, and return during the first trading day after *Yukos'* CEO Mikhail Khodorkovsky's arrest (October 27, 2003).

<b>Company</b>	<b>Industry</b>	<b>Market cap, \$ mln</b>	<b>Government stake, %</b>	<b>T&amp;D, %</b>	<b>LS, %</b>	<b>Return in 27.10.2003</b>
Gazprom	Gas	17890	38	26	0	-6.61
Yukos	Oil	15484	0	52	45	-14.65
Lukoil	Oil	10334	8	44	5	-4.21
Sibneft	Oil	10011	0	39	51	-12.76
Surgutneftegaz	Oil	7177	0	34	40	-4.27
RAO UES	Utilities	5470	53	43	0	-6.62
MTS	Telecoms	3702	0	77	0	2.07
Sberbank	Banking	2780	64	28	0	-5.04
Norilskiy nikel	Metallurgy	2675	0	42	38	-2.85
Tatneft	Oil	1760	31	33	0	-6.27
VimpelCom	Telecoms	1291	0	49	0	-1.17
Severstal	Metallurgy	1058	0	25	0	Not traded
Rostelecom	Telecoms	1012	51	48	0	-10.77
Wimm-Bill-Dann	Food & beverages	790	0	73	0	3.42
Mosenergo	Utilities	726	54	39	0	-5.39
Avtovaz	Machinery	640	2	14	0	-12.40
Golden telecom	Telecoms	458	0	49	0	2.68
Aeroflot	Airlines	378	51	36	0	-9.83
Irkutskenergo	Utilities	370	40	30	0	-8.08
OMZ	Machinery	206	0	26	0	Not traded
Krasnoyarskenergo	Utilities	156	52	25	0	-3.70
Uralsviazinform	Telecoms	115	53	29	0	-7.29
Samaraenergo	Utilities	113	49	38	0	-4.09
Sverdlovennergo	Utilities	84	49	23	0	-14.24
Rostovenergo	Utilities	50	49	17	0	-2.71

**Table 2. Summary statistics**

This table shows mean and standard deviation of daily returns on market index (S&P/RUX), *Yukos*, normal and abnormal returns during the overall sample period (January 1, 2003 to November 27, 2003), days with positive events, days with negative events, days with employee-related events, days with company-related events involving law enforcement agencies, and days with company-related events involving non-law-enforcement agencies. The normal return is a return of the value-weighted control portfolio of *Lukoil*, *Sibneft*, *Tatneft*, and *Surgutneftegaz*, the four largest Russian oil companies (besides *Yukos*). The abnormal return is the difference between *Yukos*' return and control portfolio's return.

		Overall	Positive events	Negative events			
				All	Pers-Law	Comp-Law	Comp-Other
<b>S&amp;P/RUX</b>	Mean	0.18	1.06	-0.65	-1.39	-0.17	0.37
	<i>St.dev.</i>	1.93	1.82	2.99	3.56	2.66	2.24
<b>Yukos</b>	Mean	0.13	2.72	-1.95	-2.74	-1.21	-0.93
	<i>St.dev.</i>	2.98	3.47	4.01	4.71	3.49	3.34
<b>Normal return</b>	Mean	0.14	1.71	-0.90	-1.67	-0.62	0.13
	<i>St.dev.</i>	2.38	2.57	3.17	3.59	2.98	2.47
<b>Abnormal return</b>	Mean	-0.01	1.01	-1.06	-1.07	-0.59	-1.06
	<i>St.dev.</i>	1.70	1.46	1.84	2.19	1.49	1.69

**Table 3. Reaction of *Yukos*' stock to the actions of the state agencies**

This table presents results of the regressions (1) to (3) of daily *Yukos*' returns on market returns (*Rm*) and event dummies during the period from January 1, 2003 to November 27, 2003. The event dummies are defined as follows: *Pos* and *Neg* are equal to one in the case of positive and negative event, respectively; *Arrest* is equal to one during the days surrounding the arrests of *Yukos*' top managers and shareholders; *Pers* and *Comp* are equal to one when the news affects *Yukos*' employee and the company; *Law* and *Other* that are equal to one if a law enforcement agency or other (non-law-enforcement) agency was mentioned in the news, respectively. The *t*-statistics are corrected for heteroscedasticity and autocorrelation (with 5 lags).

Model		1	2	3
<b>Const</b>	Coef	0.05	0.06	0.01
	<i>t-stat</i>	0.50	0.58	0.13
<b>Pos</b>	Coef	1.41	1.43	1.43
	<i>t-stat</i>	2.57	2.60	2.63
<b>Neg</b>	Coef	-1.23	-1.13	
	<i>t-stat</i>	-3.71	-3.49	
<b>Neg*Arrest</b>	Coef		-2.43	
	<i>t-stat</i>		-4.13	
<b>Neg*Pers*Law</b>	Coef			-0.99
	<i>t-stat</i>			-2.60
<b>Neg*Comp*Law</b>	Coef			-0.57
	<i>t-stat</i>			-1.14
<b>Neg*Comp*Other</b>	Coef			-1.02
	<i>t-stat</i>			-1.07
<b>Rm</b>	Coef	1.19	1.16	1.20
	<i>t-stat</i>	15.60	14.34	13.98
<b># observations</b>		227	227	227
<b>Adjusted R2</b>		0.683	0.687	0.676

**Table 4. Reaction of other Russian stocks to *Yukos* events**

This table presents results of the pooled cross-sectional regression (4) of stock returns during the event days on the company-specific political risk proxies as well as *Yukos*' returns interacted with the proxies during the period from January 1, 2003 to November 27, 2003.  $Gvt_i$  and  $TD_i$  denote the government's common stock ownership and T&D score of company  $i$ , respectively. Columns 3 to 8 report results of the regression estimated in different subsets of the events: positive, negative, negative employee-related, negative company-related with the law enforcement agencies, negative company-related with the non-law-enforcement agencies, and major negative (with *Yukos*' return below -2%). The  $t$ -statistics are heteroscedasticity-adjusted.

		Positive events	Negative events				
			All	Pers-Law	Comp-Law	Comp-Other	Major
<b>Const</b>	Coef	-2.40	1.15	1.42	1.09	1.40	2.98
	<i>t-stat</i>	-2.51	2.55	2.34	1.61	2.11	2.74
<b>Gvt</b>	Coef	7.15	-2.07	-3.74	-1.13	-4.29	-10.09
	<i>t-stat</i>	2.04	-1.30	-1.63	-0.45	-1.60	-3.02
<b>TD</b>	Coef	3.07	-1.78	-3.17	-1.21	-2.25	-4.86
	<i>t-stat</i>	2.15	-2.17	-2.57	-0.96	-2.09	-2.70
<b>Gvt*TD</b>	Coef	-12.90	6.21	11.64	2.14	13.69	26.49
	<i>t-stat</i>	-1.51	1.56	2.00	0.34	2.07	3.39
<b>Oil</b>	Coef	0.51	-0.17	-0.17	-0.17	-0.52	-0.50
	<i>t-stat</i>	1.15	-0.67	-0.43	-0.45	-1.29	-0.99
<b>LS</b>	Coef	1.79	0.84	0.56	-0.15	2.55	-0.93
	<i>t-stat</i>	1.24	1.15	0.56	-0.14	2.06	-0.67
<b>Ry</b>	Coef	0.71	0.69	0.90	0.51	0.46	0.91
	<i>t-stat</i>	3.56	5.17	6.85	2.78	1.87	5.49
<b>Ry*Gvt</b>	Coef	-0.54	-0.71	-1.33	0.08	-0.34	-1.65
	<i>t-stat</i>	-0.76	-1.62	-2.70	0.09	-0.37	-3.02
<b>Ry*TD</b>	Coef	-0.49	-0.93	-1.42	-0.40	-0.68	-1.36
	<i>t-stat</i>	-1.46	-4.08	-6.77	-1.10	-1.80	-5.00
<b>Ry*Gvt*TD</b>	Coef	1.61	3.36	4.89	1.18	3.01	5.85
	<i>t-stat</i>	0.84	3.21	4.09	0.53	1.40	4.53
<b>Ry*Oil</b>	Coef	0.01	0.08	0.04	0.09	0.28	0.05
	<i>t-stat</i>	0.14	1.02	0.38	0.84	2.39	0.52
<b>Ry*LS</b>	Coef	0.47	0.86	0.90	0.78	0.40	0.68
	<i>t-stat</i>	1.37	3.35	2.46	2.66	1.08	2.20
<b># observations</b>		214	788	345	340	257	366
<b>Adjusted R2</b>		0.33	0.38	0.46	0.29	0.25	0.45

**Table 5. *Lukoil*'s stock price behavior in response to the own and *Yukos* events**

This table presents results of the regressions (1), (5), and (6) of daily *Lukoil*'s returns on market returns ( $R_m$ ) and event variables during the period from January 1, 2002 to November 27, 2003. The event dummies are defined as follows: *Pos* and *Neg* are equal to one in the case of positive and negative event, respectively; *Law* and *Other* that are equal to one if a law enforcement agency or other (non-law-enforcement) agency was mentioned in the news, respectively. 'Y' denotes variables referring to *Yukos*; *Pers* and *Comp* are equal to one when the news affects *Yukos*' employee and the company, respectively. The *t*-statistics are corrected for heteroscedasticity and autocorrelation (with 5 lags).

Model		1	2	3	4
<b>Const</b>	Coef	0.01	0.01	0.03	0.02
	<i>t-stat</i>	0.16	0.13	0.39	0.31
<b>Pos</b>	Coef	-0.29	-0.29	-0.34	-0.40
	<i>t-stat</i>	-0.50	-0.49	-0.61	-0.71
<b>Neg</b>	Coef	-0.50		-0.49	
	<i>t-stat</i>	-1.99		-1.97	
<b>Neg*Law</b>	Coef		-0.52		-0.55
	<i>t-stat</i>		-1.64		-1.72
<b>Neg*Other</b>	Coef		-0.41		-0.38
	<i>t-stat</i>		-1.31		-1.18
<b>PosY</b>	Coef			0.24	0.25
	<i>t-stat</i>			0.58	0.60
<b>NegY</b>	Coef			-0.23	
	<i>t-stat</i>			-0.92	
<b>NegY*PersY*LawY</b>	Coef				0.29
	<i>t-stat</i>				0.80
<b>NegY*CompY*LawY</b>	Coef				0.09
	<i>t-stat</i>				0.22
<b>NegY*CompY*OtherY</b>	Coef				-1.02
	<i>t-stat</i>				-2.16
<b>Rm</b>	Coef	0.94	0.94	0.93	0.94
	<i>t-stat</i>	21.10	20.90	21.12	22.31
<b># observations</b>		475	475	475	475
<b>Adjusted R2</b>		0.635	0.634	0.634	0.637

**Table 6. *Gazprom*'s stock price behavior in response to the own and *Yukos* events**

This table presents results of the regressions (1), (5), and (6) of daily *Gazprom*'s returns on market returns (*Rm*) and event variables during the period from January 1, 2002 to November 27, 2003. The event dummies are defined as follows: *Pos* and *Neg* are equal to one in the case of positive and negative event, respectively; *Law* and *Other* that are equal to one if a law enforcement agency or other (non-law-enforcement) agency was mentioned in the news, respectively. 'Y' denotes variables referring to *Yukos*; *Pers* and *Comp* are equal to one when the news affects *Yukos*' employee and the company, respectively. The *t*-statistics are corrected for heteroscedasticity and autocorrelation (with 5 lags).

Model		1	2	3	4
<b>Const</b>	Coef	0.02	0.02	0.00	0.00
	<i>t-stat</i>	0.25	0.24	-0.05	0.05
<b>Pos</b>	Coef	1.43	1.43	1.44	1.41
	<i>t-stat</i>	1.73	1.73	1.73	1.75
<b>Neg</b>	Coef	0.18		0.17	
	<i>t-stat</i>	0.46		0.41	
<b>Neg*Law</b>	Coef		-0.62		-0.54
	<i>t-stat</i>		-0.81		-0.68
<b>Neg*Other</b>	Coef		0.73		0.74
	<i>t-stat</i>		2.54		2.47
<b>PosY</b>	Coef			-0.28	-0.34
	<i>t-stat</i>			-0.57	-0.68
<b>NegY</b>	Coef			0.35	
	<i>t-stat</i>			1.09	
<b>NegY*PersY*LawY</b>	Coef				0.49
	<i>t-stat</i>				0.90
<b>NegY*CompY*LawY</b>	Coef				0.65
	<i>t-stat</i>				1.89
<b>NegY*CompY*OtherY</b>	Coef				-0.67
	<i>t-stat</i>				-1.61
<b>Rm</b>	Coef	0.96	0.96	0.97	0.97
	<i>t-stat</i>	17.18	17.15	17.03	17.56
<b># observations</b>		475	475	475	475
<b>Adjusted R2</b>		0.56	0.562	0.56	0.563

**Figure 1. The dynamics of *Yukos* and market index in 2003**

This graph shows the dynamics of daily values of *Yukos* stock and market index during the period from January 1, 2003 to November 27, 2003 (both normalized to 100 in the beginning). The dates of positive events are marked as yellow cubes on the top of the graph, whereas the dates of negative events are marked as red diamonds on the bottom of the graph.

