Impact of Political Regime Shift on Stock Returns of Oligarch Firms

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Introduction and Practical Contribution of Research

Ukrainian stock market is one of the most volatile among emerging economies. From January 2004 to December 2007 market major indicator – PFTS index – increased by a factor of 14, sometimes appearing the world fastest growing index. Thereafter it fell more than twofold in second half of 2008. High growth renewed in early 2010 and lasted till May 2011, but it was driven rather by local, than by international players. International investors now treat Ukraine quite cautiously, despite historical high returns. High political risk is what stays behind this caution. Most of blue chips, actively traded on Ukrainian stock exchanges, are stocks of firms with politically powerful owners (oligarchs). Thus, measuring the value of these firms’ connections is crucial for investors’ decision-making. Such analysis would be of huge importance for the companies as well. Information about the value of political connections in Ukraine may have implications for corporate governance and for government institution-building policy.

In our research we consider two major shifts in political power that happened in 2004 and 2010. Specifically, we would like to estimate the impact of Orange Revolution and 2010 Presidential elections on the performance of oligarchs’ companies. Orange Revolution that started as a reaction to incidents of massive falsification of 2004 Presidential elections results, has brought to power Viktor Yushchenko. 2010 Presidential elections resulted in Viktor Yanukovych undertaking the post of the President of Ukraine. These two events were to a certain degree unexpected as in 2004 no one expected the Revolution to break out and in 2010 there were almost equal chances for Yuliya Tymoshenko and Viktor Yanukovych to come to power. Unexpectedness of the 2004 and 2010 election results rules out an anticipation bias in our estimation strategy.

Objective

The main objective of our research is to quantify the influence of political connections on firms’ valuation and stock market fluctuations. We also intend to identify losers and winners of political regime shifts in 2004 and 2010, i.e., to find out which oligarch companies benefited from Orange revolution and from the revenge of Yanukovych camp in 2010.

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1An anticipation of the event can bias results of an event study, because then markets have time prior to the event to adjust to it. And hence, parameters of the market model estimated in the estimation window will absorb information about the event results.
Hypotheses

The main research question we intend to answer in our study is whether there are any gains from political connections in Ukraine. In order to answer this question, we consider two events: Orange Revolution (when Viktor Yushchenko came to power) and 2010 Presidential elections (when Viktor Yanukovych became a President of Ukraine). We also consider the following industrial groups: those close to Orange party - Industrial Union of Donbass (Serhiy Taruta), Finance and Credit (Konstantin Zhevago), Ukprprominvest (Petro Poroshenko); and those close to Viktor Yanukovych - System Capital Management (Rinat Akhmetov) and Group DF (Dmytro Firtash). We hypothesize that pro-Orange industrial groups could have benefited from Orange revolution. And transition from President Yushchenko to President Yanukovych could have increased the value of pro-Yanukovych groups. Campaign contributors could obtain preferential access to bank loans, VAT refund, etc., while oppositional businessmen faced the risks of re-privatization and repressive regulations. All these effects are supposed to be captured by abnormal returns of corresponding stocks.

Literature review

There are several strands of literature, relevant to our project. There are numerous studies devoted, first, to political connections and, second, to impact of news and events on stock performance.

Most of the research papers about political connections are country specific. For example, Raymond Fisman (2001) analyzed impact of news on stock returns of Indonesian companies linked with Sukharto regime. He discovered that rumors about Sukharto’s health problems had significantly affected market quotes. Thomas Ferguson and Hans-Joakim Voth (2008) estimated the value of connections of German companies with Nazi party in first quarter of 1933 – it appeared to be very high by international standards. Stock returns for companies that supported Hitler were 5-8% higher than returns for non-connected firms.

Eitan Goldman et al. (2009) estimated value of political ties for the United States. They divided companies from S&P 500 into those who are more connected either to Democrat Party or to Republican Party. Using event study approach authors found that companies attributed to Republican group significantly outperformed companies with Democrat Party connections in a post-election period in 2000. They explored that political connections increase company value even in a developed country with strong legal system. Michael Cooper et al. (2010) measured the impact of political contributions in US on long-term stock dynamics. The authors regressed annual stock returns (for 1979-2004) on lagged political contribution indexes and set of firms’ characteristics (capitalization, market share, leverage, etc) and detected strong and robust correlation.

Contrary to previously mentioned studies, research of Joseph Fan et al. (2007) doesn’t support the hypothesis that political connections add value to companies. Having analyzed the performance of 625 listed Chinese firms, the authors found that stock returns of firms with politically connected CEOs underperformed their counterparts’ returns by 30% during three-year period after IPO. Researchers explain such situation by worse quality of corporate governance and accounting and low professionalism on boards.
The paper by Benjamin Maury and Eva Liljeblom (2009) investigates the impact of political regime shift on valuation of oligarch companies in Russia. The authors used panel data on listed Russian firms and Tobin’s q ratio as a measure of firms’ value. Maury and Liljeblom ran OLS regression with oligarch dummy, state and foreign ownership dummies, cross-listing abroad and industry dummies. They found that shift from President Yeltsin to President Putin increased the value of oligarch-controlled companies.

Christopher Baum et al. (2008) explored political connections in Ukrainian banking system. Researchers came to a conclusion that politically affiliated banks in 2003-2005 had lower interest rate margins and higher capitalization.

Cross-country analysis shows that political connections have different value in different countries. Mara Faccio (2006) identified 541 firms with political ties in 47 countries. She found that such connections are more common in countries with higher level of corruption and in countries with foreign investment restrictions. The event study methodology supported the following hypothesis: when businessmen gain political power their companies significantly increase in value. However, position of prime minister adds more to a firm’s capitalization than election to parliament.

In a recent study Faccio (2010) used data from 47 countries to compare politically connected and non-connected firms. With the help of OLS regressions she found out that the former have higher leverage, pay less taxes and have higher market shares than the latter.

There is growing bulk of literature which investigates impact of news and events on stock performance. Some of them make specific reference to Ukraine. For example, Olha Zadorozhna (2011) analyzed impact of Ukrainian-Russian gas disputes on stock returns of European companies that depend on Russian gas supply. Lyubomyr Pelykh (2008) investigated influence of news on stock returns of Ukrainian oligarch companies. He used a specification of market model to determine the correlation between positive and negative news and daily stock returns. Companies of richest Ukrainian – Rinat Akhmetov – appeared to be the most sensitive to news. To our knowledge there no other studies concerning individual stock returns in Ukraine. We are also not aware about attempts to estimate the value of political connections in Ukraine. Our study is supposed to fill this gap and to complement the two mentioned strands of literature.

**Methodology**

a) **Data**

We are going to use the data of two stock exchanges – PFTS and Ukrainian exchange. The main source for corporate news will be Interfax Database.

Preliminary selected stocks are given in Appendix 1. Daily stock quotes for the period around Orange revolution will be taken from PFTS. Since 2009 Ukrainian exchange became epicenter of liquidity, therefore we will rely on its data while analyzing political regime shift in 2010.
b) Theoretical model and estimation strategy

Suggested methodology for this research is the one described by Campbell, Lo and MacKinlay (1997). An efficient stock market reacts to news and, therefore, the impact of political events should be captured by the unexplained residual of the market model, called abnormal returns:

\[
r_t = \alpha + \beta r_t^M + \theta S_t + \epsilon_t
\]

where \( r_t \) is the daily stock return, \( r_t^M \) is the market portfolio return, \( S_t \) is a set of dummy variables for company-specific events unrelated to 2004 and 2010 elections results (i.e. dividend payment announcements, M&A, external debt restructuring agreements, etc), \( \epsilon_t \) is the abnormal return. Dummy variables are included into the model in order to ensure that abnormal returns estimated from equation (1) capture only investors’ reaction to the elections results and do not reflect any other company specific information. The assessment of the impact of elections results on performance of oligarchs’ companies is performed by examining the cumulative abnormal returns, \( CAR_t = \sum_{j=t_0}^{t} e_j \), in the event windows and estimation windows. An event window is an interval \( [t_0; t_1] \) around the event date \( T^* \) (see Graph 1 below) over which markets are expected to adjust to political events which are Presidential elections of 2004 and 2010 in the case of our study. An estimation window is an interval \( [t_0; t_1] \) before an event \( T^* \) over which the market model is estimated.

Graph 1. Event and estimation windows timeline.

Event study methodology is performed in a sequence of steps. First, the parameters of the market model \((\hat{\alpha}, \hat{\beta})\) are estimated in the estimation window. Then, \( \epsilon_t \) is predicted in the event window:

\[
e_t = r_t - \hat{\alpha} - \hat{\beta} r_t^M
\]

Finally, CAR is calculated:

\[
CAR_t = \sum_{j=t_0}^{t} e_j
\]
If $CAR_t$ is positive and statistically significant, it suggests that election results have had a positive impact on 
abnormal returns of the oligarchs companies. If $CAR_t$ has a negative sign and is statistically significant, it 
suggests that election results have influenced abnormal returns of the oligarchs companies in a negative way.
If $CAR_t$ is statistically equal to zero, then 2004 and 2010 Presidential election results have had no effect on 
stock prices of the companies under consideration. Magnitude of $CAR_t$ in our study is an estimate of political connections.

An alternative estimation strategy is to perform the so-called “dummy regressions” undertaken by 
Guidolin and La Ferrara (2010). It consists in estimating the following model:

$$ r_t = \alpha + \beta r_t^M + \delta I_t + \epsilon_t $$

where $r_t$ is the daily stock return, $r_t^M$ is the market portfolio return, $I_t$ is a dummy variable taking the value 
of 1 during event days and zero otherwise, $\epsilon_t$ is white noise. In this case, $\delta$ is a measure of the degree to 
which an event impacts stock return. If $\delta$ is significantly different from zero then an event has had a 
significant influence on the performance of a company.

c) Expected research output

A priory, it is expected that performance of companies from Industrial Union of Donbas, Finance 
and Credit, and Ukrprominvest – pro-Orange groups - is improved significantly as a reaction to Orange Revolution and is deteriorated in 2010 after the Presidential elections. On the other hand, we expect 
performance of companies from System Capital Management and Group DF – pro-Yanukovych groups - to show opposite reaction: to deteriorate at times of Orange Revolution and to improve after Yanukovych 
comes to power in 2010. Such results would mean that political connections matter in Ukraine.

Bibliography

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Cooper M., Gulen H., Ovtchinnikov A., 2010, Corporate Political Contributions and Stock Returns. The 
Faccio M., 2010, Differences between politically connected and non-connected firms: a cross country 


Participants:

**Natalia Zaderey**, research initiator. Experience in monetary policy research (transmission mechanism modeling). Current research interests and area of expertise: oligarch companies valuation


**Alternative/additional sources of funding**

Participants haven’t applied for any other grant.

**Project timetable:**

- Literature review: November 2011-December 2011
- Data collection and analysis: December 2011 - February 2012
- Model specification, estimation, robustness checking: February 2012 – May 2012
- Results analysis and production of interim report: May 2012- June 2012
- Conclusions stating, preparation of final report: June 2012 – November 2012
Appendix 1. List of companies under study.

<table>
<thead>
<tr>
<th>Company</th>
<th>Beneficiary (since when)</th>
<th>Stock exchange (ticker)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azovstal</td>
<td>Rinat Akhmetov</td>
<td>UX (AZST)</td>
</tr>
<tr>
<td>Avdiyiv Cokery Plant</td>
<td>Rinat Akhmetov</td>
<td>UX (AVDK)</td>
</tr>
<tr>
<td>Khartsyzsk Tube Works</td>
<td>Rinat Akhmetov</td>
<td>UX (HRTR)</td>
</tr>
<tr>
<td>Central GZK</td>
<td>Rinat Akhmetov</td>
<td>UX (CGOK)</td>
</tr>
<tr>
<td>Dniproenergo</td>
<td>Rinat Akhmetov</td>
<td>UX (DNEN)</td>
</tr>
<tr>
<td>Yenakyieve Metallurgical Plant</td>
<td>Rinat Akhmetov</td>
<td>UX (ENMZ)</td>
</tr>
<tr>
<td>DTEK Komsomolets Donbassa Mine</td>
<td>Rinat Akhmetov</td>
<td>UX (SHKD)</td>
</tr>
<tr>
<td>Northern GZK</td>
<td>Rinat Akhmetov</td>
<td>UX (SGOK)</td>
</tr>
<tr>
<td>Inguletsky GZK</td>
<td>Rinat Akhmetov</td>
<td>PFTS (IGOK)</td>
</tr>
<tr>
<td>Pavlogradvyllya</td>
<td>Rinat Akhmetov</td>
<td>PFTS (PGVL)</td>
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<tr>
<td>INTERPIPE - Nyzhnodniprovsky Tube-Rolling Plant</td>
<td>Victor Pinchuk</td>
<td>UX (NITR)</td>
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<tr>
<td>INTERPIPE - Novomoskovsk Pipe-Production Plant</td>
<td>Victor Pinchuk</td>
<td>UX (NVTR)</td>
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<tr>
<td>Ukrotsbank</td>
<td>Victor Pinchuk (till January 2008)</td>
<td>UX (USCB)</td>
</tr>
<tr>
<td>Nikopol Ferroalloy Plant</td>
<td>Victor Pinchuk</td>
<td>UX (NFER)</td>
</tr>
<tr>
<td>Dniprospetsztal</td>
<td>Viktor Pinchuk (till May 2008)</td>
<td>UX (DNSS)</td>
</tr>
<tr>
<td>Dniprovsky Iron and Steel Integrated Works n.a. Dzerzhynsky</td>
<td>Serhiy Taruta/ISD</td>
<td>UX (DMKD)</td>
</tr>
<tr>
<td>Alchevsky Metallurgical Plant</td>
<td>ISD</td>
<td>UX (ALMK)</td>
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<tr>
<td>Alchevsky Cokery Plant</td>
<td>ISD</td>
<td>UX (ALKZ)</td>
</tr>
<tr>
<td>Zaporizhzhya Ferroalloy Plant</td>
<td>Igor Kolomoyskiy/Privat</td>
<td>UX (ZFER)</td>
</tr>
<tr>
<td>Dniprozazot</td>
<td>Privat</td>
<td>PFTS (DNAZ)</td>
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<tr>
<td>Ukmafta</td>
<td>Privat (operational control)</td>
<td>UX (UNAF)</td>
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<td>UX (MGZC)</td>
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<td>Southern GZK</td>
<td>Privat (till end 2007)</td>
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<td>UX (PGOK)</td>
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<td>UX (SVGZ)</td>
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<tr>
<td>AvtoKraz</td>
<td>Konstantin Zhevago</td>
<td>UX (KRAZ)</td>
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<td>Galychfarm</td>
<td>Konstantin Zhevago</td>
<td>UX (GFARM)</td>
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<tr>
<td>Bank Finance and Credit</td>
<td>Konstantin Zhevago</td>
<td>PFTS (FIKR)</td>
</tr>
<tr>
<td>Krymech Soda Plant</td>
<td>Dmytro Firtash</td>
<td>UX (KSOID)</td>
</tr>
<tr>
<td>Rivneazot</td>
<td>Dmytro Firtash (since October 2007)</td>
<td>UX (RAZT)</td>
</tr>
<tr>
<td>Bogdan Motors</td>
<td>Petro Poroshenko</td>
<td>UX (LUAZ)</td>
</tr>
<tr>
<td>Dneprovagonmash</td>
<td>Serhiy Tihipko</td>
<td>PFTS (DNVM)</td>
</tr>
<tr>
<td>Business Standard Bank (formerly TAS Businessbank)</td>
<td>Serhiy Tihipko</td>
<td>PFTS (BSST)</td>
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Sources: PFTS, Ukrainian Exchange, Forbes Magazine