What Determines State Capture in Poland?

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Abstract

In this paper we examine the determinants of ex-ante state capture analyzing all the legal acts that have been passed in the period 1990-2011 in Poland. We find that during this period 37 percent of legal acts were passed with the aim to satisfy the interest of particular groups. Furthermore, the regression analysis shows that the likelihood of state capture increases during the period of economic growth and local elections. The likelihood of state capture, however, declines during presidential elections. The results we attribute to different interests of political parties in the period of local and presidential election. Finally, we find that the state capture increased over the years in Poland. Additionally, we show that the EU accession did not prevent state capture in Poland. In contrast, the financial crisis of 2007 resulted in a wake-up effect and the likelihood of state capture declined in Poland.

Keywords: law, corruption, state capture, public interest, transition country, Poland

JEL: H11, H30, H50, K42, P31, P37

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1. Introduction

In Poland in a 2002 famous film producer Lew Rywin approached Adam Michnik, founder of largest media conglomerate Agora. In exchange for a bribe of 17.5 million USD, Rywin offered a change in a draft law aimed at limiting the print media's influence on radio and television, which would have been in Michnik's favour as the original draft have prevented Agora from taking over a TV station. Michnik, however, secretly recorded the conversation and started investigations to establish the identity of the group in power, which was behind this offer. In 2003, the Polish parliament created a special committee to conduct an investigation into the circumstances of the affair, yet the group in power was never revealed. Few months later, however, a separate penal prosecution resulted in Rywin being sentenced to two years in prison. Nevertheless only few years later a similar case came to light, which was this time related to gambling industry.

Those cases show that in Poland corruption is still very widespread despite that the political and economic transition took place over twenty years ago. Moreover, Hellmannn et al. (2000) documents that corruption increased in recent years in most of the Central and Eastern European (CEE) countries as well the Commonwealth of Independent States. Corruption in those countries, however, can take a various form. Hellmann et al. (2000) describes two examples to distinguish the two main forms of corruptions in transition countries. First is described by owner of a business, who is visited by bureaucrats demanding a bribe to overlook violations or simply to prevent additional visits. Second, an oligarch buys off politicians to shape the regulations to his own advantage as in the example presented above.

While, a number of papers investigated the first type of corruption (de Soto, 1989; Shleifer and Vishny, 1994, 1999) little is known about the second type of corruption, where powerful groups have the capacity to capture the state and, by doing so, to extract potentially substantial rents. In this study, we assume that the second type of corruption occurs less frequently than the first type in transition countries, but we think it may results in higher social and economic costs in the long run. Indeed, Kowalewski and Rybinski (2011) expect that the higher economic growth in Poland may significantly decline in the future years because of increased role of state, which is often the result of state capture by political and private interest groups. Therefore, in our opinion, understanding the second type of corruption and its determinants should be of great interest. Henceforth, in this paper we try to establish the determinants of the state capture in Poland.

We do this creating a unique database that include all the legal acts that have been passed in Poland in the years 1990-2011. In the database each of the legal acts is classified whether it satisfy the interest of the public welfare or the incumbents. In classifying the legal acts we identify the ex-ante state capture were incumbents were able to create or change a law in their interests prior it was passed to the parliament. Goetz and Zubek (2007), Zubek (2008) and Alwasiak et al. (2012) documents that in Poland most legal acts are created or shaped in the interest of the incumbents before they reach the parliament phase. After the legal act has been passed to the parliament as new legislative project the modifications to it are minor and not significant. We assume, henceforth, that in Poland ex-ante state capture is widespread, which is also reflected by the presented cases in the beginning. Moreover, in the study we try to establish whether the incumbents capture the reform for their own narrow interests (regulatory capture), or politicians abuse regulatory powers for own purposes (regulatory opportunism).

Our data shows that the majority of new legal acts were passed in the interest of different interest groups in the period 1990-2011 in Poland. Using logistic regression we find that the likelihood of ex-ante state capture increases during a period of economic growth. Moreover, we show that legal acts in favor of incumbents are more likely to be passed in the period of the elections to the local governments in Poland. We assume that during this period political parties attempt to satisfy the interest of particular groups in order to win the elections. However, we do not find direct evidence of regulatory opportunism during the period of local elections. In contrast, we find that during the period of presidential elections the ex-ante state capture declines in Poland. We attribute it to the fact that in Poland the president should be neutral as he presents a counterweight to the parliament. As a result during presidential elections parties are more likely to be immune to ex-ante state capture as they try to present their candidate as neutral and resistant to pressure from different interest groups.

In line with Martimort (1999) life-cycle theory of regulatory agencies we find that the ex-ante state capture increased since the political transformation toward democracy began in Poland in 1990s. Moreover, we find that accession to the EU did not result in the decline of ex-ante state capture in Poland. Indeed, we find that after the accession the regulatory capture, in the interest of narrow private groups, increased. While, we find that the global financial crisis of 2007

resulted in a wake-up effect in Poland and ex-ante state capture declined, but at the same time the likelihood of regulatory capture increased.

Our paper contributes to the literature in several ways. First, using a unique database and approach our results confirm the existing of ex-ante state capture in Poland. Second, we documents that state capture is accompanied either by regulatory capture or regulatory opportunism. Third, we present for the first time some of the determinates of state capture in an developing country. In our opinion understanding the determinants of state capture is important as it may help to create instruments to mitigate it in the future.

The rest of the paper is structured as follows. Section two discuss shortly the literature on state capture, in particular in transition countries. In section three, we present the data, while in section four we describe the econometric strategy and the empirical results. Finally, section five draws the conclusions.

2. Literature Review

The idea that powerful organizations with private interests may capture the government in order to foster their private goals is certainly not a recent one, but the concept of regulatory capture has been introduced in modern economic analysis for the first time by Stigler (1971). The basic hypothesis of Stigler is that an industry may use the coercive public power of the state to establish and enforce rules in order to obtain private benefits. However, the term state capture was introduced later by Hellman and Kaufmann (2001), where it refers to the actions of individuals, groups, or firms both in the public and private sectors to influence making of laws, regulations, decrees, and other government policies to their own advantage as a result of the illicit and non-transparent provision of private benefits to public officials.

Additionally, Hellman, Jones and Kaufmann (2000) empirically investigate the dynamics of the state capture on the basis of 4,000 firms in 22 transition countries. The authors finds that in transition countries captor firms are more likely to be new entrants to the market. The authors attribute their results to the fact that new entrants adopted a strategy of state capture, where they used political forces with the aim to create zones of relative security and advantage for themselves at the expense of all other firms. Moreover, the authors also suggest that once a country has fallen into the trap of a capture economy, foreign direct investment can magnify the

problem. Indeed, Slinko et al. (2005), for example, using a measure of state capture in the Russian regions based on Russian legislation in 1992-2000 show that politically powerful firms benefit greatly from their political influence compared to firms without political influence. His results shows that political powerful firms' sales and employment grew faster and they invested more and received more profits, and besides, their performance picked up with the growth of capture.

3. Data

In our study we try to establish the determinants of the ex-ante state capture in post-transition country. In other words we try establish what determines that interest groups are able to shape the design of regulations in their favour before they come into effect in Poland. In order to do so we construct a unique database that include all the legal acts, which have been passed by the Polish parliament in the years 1990-2011. In this period 3.644 legal acts were passed by the parliament. We have decided, however, to exclude from analysis five categories of legal acts. First, we excluded from the analysis regulations that change the institutional infrastructure on central and local level in Poland. Second, we exclude legal acts that determines the living of the individuals as for example civil law, criminal law or administrative law. Those laws are of interest to individuals but not incumbents. Third, we exclude legal acts, which were the implementation of EU regulations in Poland. Finally, we exclude technical acts as the introduction of another legal act or an uniform act of existing laws. As a consequence our sample was reduced to 1.363 legal acts, which represented 37% all the legal acts that were passed in Poland in the years 1990-2011.

Each of the legal acts in the sample was analyzed, whether it is in the interest of the society or only a particular interest groups. We assume that if the legal acts represents the interests of a group than influences was exerted by incumbents on the rule-making processes in Poland. The interest groups may have initiated the legislation process at one of the ministries or changed its design during the public consultation period, yet before it was sent as a draft to the parliament. Such a participation by incumbents has the clear advantage that rules can be respected afterwards and no efforts have to be wasted in trying to circumvent compliance. In order to classify whether an legal act is in the interest of the society or an particular interests group we used Rawls (1971) definition of justice. Using Rawls' definition we define legal acts to be in the interest of the

society, which are to the benefit of the least advantaged in the society. As we are aware that the definition is subjective each of the public finance acts was additionally scrutinized if it fulfills two conditions. First, weather public transfers are in the best interests of the least advantaged. According to this definitions public transfers for example as additional or higher pension schemes for army members are not justified as this group is not the least advantaged in the society. However, we agree that public transfers to middle or higher income group may be justified, but only if they lead to higher economic growth in the long run. In our opinion, in such cases, the least advantaged group in the society will benefit, yet in the future. Assuming that the legal acts fulfill the first condition we check the second condition were we examine whether the new legal act could have been better designed in order to redistribute public funds. In other words whether the public transfers are in the best interests of the least advantages or if they are indirectly benefiting the interests groups because of its design. If the public transfers are efficient and good intended the second condition is full field. Consequently, in this case our first dependent variable ($capture_d$) take the value 0 if the two conditions are meet and 0 otherwise. Moreover, we use a second dependent variable ($caputre_s$) were we scale the interests of the legal acts from -3 (strongly in the interests of the society) to 3 (strongly in the interest of interest groups).

According to Alesina (2000) various interest groups, factions pressure groups fight over the allocation of common pool of resources in the case of surpluses. Consequently, we assume that ex post state capture is more likely during a period of economic growth, low level of deficit or public debt. We control for the macroeconomic environment in Poland using economic growth (*GDP growth*) and in addition we control for the level of countries development using log of *GDP per capita*. We assume that as the country develops economically it will be less prone to ex-ante state capture. Moreover, we control for the current situation of public finance using two variables. The variable *Deficit* is the government budget balance as a percentage of GDP, while the variable *Debt* is the log of total government debt to GDP.

Interests of a group may influence the decision making process in order to increase their benefits in form of additional public spending or by limiting the business access. In the first case we assume that the aim of additional public spending is to satisfy the interest groups, who are important for politicians to for example in order to be reelected. Therefore, it reflects the abuse of regulatory powers by politicians for own propose (regulatory opportunism). We control for regulatory opportunism using the variable *Finance*, which measures whether an new legal act

increased or decreased public spending. The variable can take a value from -3 (increased spending by several billions Polish zloty) to 3 (decreased spending by several billions Polish zloty).

In the second case we assume that interest groups as oligarch use politicians to capture the reform for their own narrow interests (regulatory capture). In most cases we assume that this form of capture is related to private business and following Hellman et al. (2000) the aim of the new law is to restrict competition in the market to extract additional rents. Henceforth, we control for regulatory capture using the variable *Business*, which measures whether an new legal act increased or decreased competition in the market. The variable can take a value from -3 (opens fully a market to competition) to 3 (close a market to competition).

In Poland for the legislative process to get started, it is necessary to introduce a bill to the Sejm (lower house of the parliament). Based on the Polish constitution only four qualified subjects enjoy the right of legislative initiative and each of them can be subject to pressure to incumbents in order to present a new bill to the parliament, which is in their own interests. Henceforth, in the regressions we control for the legislative initiative using dummies for each of the subjects. The variable *Ini. Government* takes the value 1 if the government proposed the bill and 0 otherwise. The variable *Ini. President* takes the value 1 if the president proposed the bill and 0 otherwise. The variable *Ini. Lower House* takes the value 1 if the Sejm (deputies' bills may be introduced by a Sejm committee or a group of at least 15 deputies) proposed the bill and 0 otherwise. The variable *Ini. Upper House* takes the value 1 if the Senat (a resolution of the entire chamber is necessary) proposed the bill and 0 otherwise. Finally, in special situation an legal act can be introduced in a fast track, where the legislation procedure is significantly shortened in the parliament. We control for the situation using a dummy variable *Ini. Urgent* that takes the value 1 if the bill was passed in the urgent procedure or 0 otherwise.

According to Rogoff (1990) governments at all levels frequently undertake a consumption binge prior to elections. In order to be visible politicians introduce tax cuts or increase public transfers often in favor of interest groups. Consequently, during election periods government spending is distorted towards highly visible items. We control for the election periods introducing three dummies. Namely, we employ variables for the year of elections of parliamentary deputies (*Elect. Parliamentary*), local governments (*Elect. Local*) and the president (*Elect. Presidential*).

Additionally, we use variables calculated as the interactions between these election variables and variables encoding the state capture aims i.e. increase spending or business restrictions.

Table 1 reports the summary statistics and correlations of all the variables employed in the empirical specifications. Table 1 Panel A shows the descriptive statistics for the dependent variables and the main control variables. The variable $Capture_d$ and $Capture_s$ averages 0.318 and -0.409. Consequently, the data confirms that ex-ante state capture exists in Poland, but the second variable indicates that state capture scale is lower than may be assumed.

In the years 1990-2011 the new legal acts are often in the interest of politicians as they were more likely to increase public spending as the mean value for *Finance* is 0.261. In contrast, we find that regulatory opportunism is present to lesser extend as the average value for *Business* is -0.121. It means that in the same period the new legal acts on average increased the economic freedom in Poland.

In the analyzed period the average economic growth was 3.425% in Poland, while the budget deficit on average 4.397%. Table 1 Panel B shows that the two ex-ante state capture variables are highly correlated and statistical significant. Moreover, the variables for state capture, increased public spending and market restrictions are positively and significantly correlated with economic growth. While, those variables are negatively correlated with the level of budget deficit and public debt.

[Table 1 here]

4. Methodology and results

There are several dimensions by which to study ex-ante state capture. We opt for a very straightforward one and use a panel model relating state capture to the abovementioned number of variables and interaction variables. As our primary dependent variable $state_d$ is a binary variable and we therefore employ the random effects probit model. The second dependent variable $state_s$ is a discrete continuous variable and its range is constrained. Henceforth, we decided to use a Tobit model, which is left and right censored at -3 and 3. In both cases we use the following specification:

$$C_{i,t} = \alpha_{i,t} + F_{i,t} + B_{i,t} + X_{i,t} + I_{i,t} + E_{i,t} + \varepsilon_{i,t} \quad (1)$$

where $S_{i,t}$ is one of the two variables that indicate ex ante state capture in legal act i at year t, $F_{i,t}$ controls for public spending (saving), $B_{i,t}$ shows business restrictions (openness), $X_{i,t}$ is a vector of macroeconomic variables, $I_{i,t}$ is a dummy variable for legislative initiative, $E_{i,t}$ is a dummy variable for elections. We control for country dependent variation in state capture over time using variables reflecting aspects of macro-economic policy of the country.

3.1. State capture

In Table 2 we show the results for the pooled probit regression. We regress the dependent variable first against macroeconomic variables and then add the set of other control variables. In all the specification the coefficient for economic growth is positive and significant at 1% level. Adding control variables hardly changes the coefficient for economic growth. The result is in accordance with the hypothesis that positive economic situation in a country encourage ex-ante state capture. We find that none of the dummy variables controlling for the legislative initiative is significant. Consequently, there is no indication that a person or group responsible for the legislative initiative is especially prone to ex-ante state capture in Poland. The results, however, show that during the elections period incumbents may influence the legislation process. Interesting we find that ex-ante state capture is more likely to take place during the local elections. In contrast, during the presidential elections the likelihood of ex-ante state capture declines significantly. One explanation for our results is that parties represented in parliament try to be visible as they are competing for votes during the local elections. In Poland the local elections are very important for the political parties for two reasons. First, the control of the local governments guarantees the political parties a significant number of positions in municipal administration and companies. Second, a strong representation in the local governments guarantees provides a very strong support during the parliamentary elections. Consequently, political parties may be inclined to satisfy the interests of various groups in order to win their votes during the local election period, which may explain our results. In contrast, we find that during the presidential election period ex-ante state capture is less likely. In Poland the president provides a counter balance to the parliament and henceforth needs to be an independent person in public view, who can also go against the interest of his party when needed. Henceforth, we assume that political parties are opposed to any pressure from various interests groups during the presidential election period in order to uphold the view that its candidate is independent.

[Table 2 here]

In Table 4 we present the results for Tobit regression, which are in line with our previous findings. The coefficient for economic growth is again positive and significant in all the specifications. Moreover, the results confirm that ex-ante state capture is more likely during the local elections as the coefficient is again positive and highly significant. Similarly, we observe again during presidential election period the ex-ant state capture is less likely to be present.

In opposition to the previous results, however, we find that the parliament is more prone to the pressure of ex-ante state capture as the coefficient for parliamentary legislative initiative is positive and significant, yet only at 10% level. The results are in line with our expectation as the parliament is the most likely place to put pressure in order to enforce a law in the interest of a particular group. In contrast, we find that the coefficient for the initiative of upper house is negative and significant, yet again only at 10% level. We assume that for interest groups it is very difficult to use the upper house of the parliament for its interest as in order to start a legal initiative you need the votes of all the upper house members, which are originating from different political parties. In opposition, in the lower house a new legal act can be proposed by only 15 members out of the 460 parliamentarians. Henceforth, it is more easier for the various interest groups to initiate a new law in their interest through the lower house, what has indeed been observed in the past (Alwasiak et al., 2012).

[Table 3 here]

3.2. Regulatory opportunism

In Table 4 we present the results for the pooled probit regression for ex-ante state capture, where we additionally control for government spending (saving). We assume that ex-ante state capture may be often be accompanied by increased government spending as the aim of the interest groups was to increase public transfers for their welfare. An example for the interest groups could be military or miners representatives, which through ex-ante state capture increase their social benefits. Consequently, in those cases politicians abuse regulatory powers in order to please particular groups and increase their visibility, henceforth for their own purposes (regulatory opportunism).

In line with the previous results we find that the coefficient for economic growth is positive and highly significant. Moreover, we find that ex-ante state capture is often accompanied by regulatory opportunism as the coefficient for government spending is positive and significant at 1% level in all the specifications. Consequently, the results confirms that state capture and regulatory opportunism are strongly correlated in Poland. Moreover, the coefficient for government debt is now positive but only significant at 10% level. Consequently, the results shows that increasing government debt does not have a negative effect on ex-ante state capture, which may also explain fiscal problems in various Central and Southern European countries during the recent crisis. In line with the previous results we find that ex-ante state capture is more likely to occur during the local election periods. However, we find that in this period the ex-ante state capture is not likely to be related to increased spending. One explanation for the results is that political parties are afraid of any criticism during election campaign. Therefore, we assume that political parties are likely to put forward new legal acts in the interest of various interest groups during local elections, but only if they are not accompanied by increased public spending what may be used against them during political campaigns. Finally, we find again the ex-ante state capture is less likely to occur during the presidential election period.

[Table 4 here]

Table 5 shows the results for the pooled Tobit regression for ex-ante state capture and our additional control variable, namely government spending (saving) to control for regulatory opportunism. The results are in line with the previous regressions. The coefficients for economic growth and government debt is positive and significant. Moreover, the coefficient for government spending is again positive and highly significant. Henceforth, the results confirm that ex-ante state capture is strongly correlated with regulatory opportunism, which leads to increased government spending. Similarly, we find again that during local elections ex-ante state capture is more likely, but without increased government spending. While, the results once more show that during the presidential elections ex-ante state capture is less likely to occur.

[Table 5 here]

3.3. Regulatory state capture

In this section we try to control for regulatory capture by adding into the regression another control variable that control whether a new law increased or decreased business restrictions. Using this variable we hope to control for various groups that are related to private business, which use their power in order to influence the law in order to provide for example restrictions for new entrants. Consequently, they are protecting their market position by creating monopolies or oligopolies, which allow them to extract additional rents. In Poland, an example for such restrictions, was the passing of a new law in 1997 introducing the need of a professional real estate license. The license was issued by the Minister of Construction Industry based on a qualification procedure and a final examination, which was monitored by the existing real estate agents. Consequently, the existing real estate agents forced a new law that significantly reduced competition in their market (Alwasiak et al., 2012).

Table 6 confirms that ex-ante state capture is likely to occur with the introducing of business restrictions through a new law as the coefficient for the additional control variable is positive and significant at 1% level. Consequently, regulatory capture is strongly related to state capture in Poland. The results confirm also our previous findings as the coefficient for economic growth and government debt is positive and significant again. Moreover, the coefficients showing the annual budget deficit and GDP per capita are positive and highly significant.

As in previous regression we find that ex-ante state capture is more likely to occur during local election period. However, in the period of local election the ex-ante state capture is opposite to business restrictions. In the same way as with increased public spending we assume that political parties are prone to be influence by incumbents during the election campaign, yet are afraid to introduce during this time business restrictions. Indeed, the interactive term for parliamentary election and business is negative and significant. Consequently, showing that regulatory capture is less likely to occur during the elections periods in Poland.

[Table 6 here]

Finally, the Table 7 presents the results for the pooled Tobit regression for ex-ante state capture and the control variable for business restrictions (freedom). The results are in line with our previous finding. The coefficients for business restrictions is again positive and highly significant. Consequently, confirming that ex-ante state capture is likely to be accompanied by regulatory capture. The coefficients for the remaining control variables are all once more positive

and highly significant. Only the coefficient showing local elections is insignificant now, yet the sign remains positive. Additionally, the interactive terms for local and parliamentary elections and business restrictions are insignificant, but as well remain negative. While, the coefficient for presidential elections is negative and significant as in all the pervious regressions.

[Table 7 here]

4. Robustness test

To ensure confidence in our main findings, we ran two sets of robustness checks. The first set keeps the exogenous variables and data samples the same as in the main runs, but uses econometric methods that are distinct from the maximum likelihood estimation techniques. The second set uses the main econometric specifications and data samples but alters the specifications of the exogenous variables. The robustness results are summarized here, but are not all shown in the tables for brevity.

As alternative econometric specifications, we tried the ordinary least squares approach in which we employ both state-capture variables as the dependent variable. The results did not change significantly, confirming the determinants of ex-ante state capture in Poland.

Turning next to our robustness checks that used alternative specifications of the exogenous variables, we tried the following additional variables: the duration of democracy *(demo)*, EU entrance (*EU)* and the time period of the crisis period *(crisis)*. We use the first variable as another explanation for regulatory capture is provided by the so-called life-cycle theory of regulatory agencies by Martimort (1999), described also in Estache and Martimort (1999). According to this theory a new regulatory agency undergoes a life-cycle. When established an agency is subject to close scrutiny by the government and the general public, but with time the attention focuses on other topics and the day-to-day activities. As a result the regulators are less in the spotlight of public attention. While at the beginning the regulator faces strong pressures to effectively play his role as a protector of the users against the industry, this pressure decreases with time while the pressure by the industry remains constant. With this evolution, the regulator becomes more prone to be dominated by the interests of the regulated firms. Consequently, we may assume that with time the parliament, ministries and various agencies that were established at the beginning of the transformation in Poland were more likely to be more prone to ex-ante state capture with time.

We use the second variable *EU* as we may expect that the accession to the EU reduced the ex-ante state capture in Poland as the membership was conditioned on the adoption of policies designed to fight corruption. However, once admission to the EU was granted, the set of sanctions available to punish violations of the previous set criteria or the failure to adopt or enforce the EU law or regulation diminished (Vachudova, 2005). Consequently, the EU effect on ex-ante state capture can be very short lived. Indeed, excessive corruption cases have been reported recently in Romania after the country joined the EU in 2007.

The last variable *Crisis* as we assume that the global financial crisis of 2007 and later the Greek crisis of 2009 made the general public more aware of the consequences of bad governments and accompanying its corruption and state capture. Henceforth, we expect that during the recent financial crisis the ex-ante state capture declined in Poland. On the other hand, Poland as the only European country was not strongly affected by the financial crisis. Consequently, the wake up effect of the crisis can be insignificant.

Table 8 presents the results of the robustness checks, whereas we present for each of the additional control variable in the first specification the results of the probit regression and in the second for the Tobit model. Again, our results chiefly suggest that the ex-ante state capture is most likely to be accompanies either by regulatory capture or opportunism as the coefficients for increased public finance and business restrictions are once more positive and highly significant in all the specifications.

In line with the life-cycle theory of regulatory agencies we find that with the progress of democracy the ex-ante state capture increased in Poland. The coefficient for the duration of democracy is positive and significant. However, the interactive term democracy and finance or business are insignificant. In contrast to expectation we find some evidence that the Poland's accession to the EU increased state-capture, which was accompanied by increased business restrictions. One explanation for the results is that the accession was accompanied by the need to uniform the Polish law with EU regulations, which often induced new restrictions. However, an alternative explanation was provided by Kowalewski and Rybinski (2011). According to them a large number of interest groups used the accession and the ongoing adjustment of the Polish law to the EU regulation to fulfill their aims and introduce restrictions in their own interest.

Similarly, against our expectation we find that during the crisis period the ex-ante state capture was accompanied by additional business restrictions. However, we find also some evidence that during the crisis period the ex-ante state capture declined, which we attribute to the weak up effect that lead to increased public securitization of political system and parties.

[Table 8 here]

Finally, we employed additional robustness checks and used alternative specifications using one period lagged exogenous variables. The coefficients for the main variables are also of the same order of magnitude as those in the main results for all the specifications. In conclusion, the results of the robustness tests confirm the statistically significant relationship between ex-ante state capture and increase spending or increased business restrictions. The alternative econometric methods and alternative exogenous variable specifications all support our core results.

5. Conclusions

Over the last few decades, research on state capture has concentrated on establishing the magnitude and reasons for political corruption, in particular in transition countries and emerging markets. Only a few studies to date have examined the reasons why and when state capture occurs. However, most of these studies use either theoretical, survey or anegdotical evidence. Furthermore, none of them presents empirical evidence regarding the motivation and reasons for ex-ante state capture.

In the present paper, we present for the first time an insight into the reasons when state capture occurs in a post-transition country, using an original sample of 1.363 legal acts that were passed in Poland in the years 1990-2011. Moreover, in this study we try to establish whether the incumbents capture the reform for their own narrow interests (regulatory capture), or politicians may abuse regulatory powers for own purposes (regulatory opportunism). Indeed, we find that state capture is accompanied by regulatory capture and regulatory opportunism in Poland. Moreover, we document that state capture is more likely to occur during a period of economic growth. Additionally, we find that the period of local elections encourage state capture, what we assume is related to buying votes. However, we find also that the likelihood of passing legal acts that increase public spending decreases during the local elections. Additionally, we find that the likelihood of state capture declines during presidential elections.

Nevertheless, we find that state-capture has increased over the time in Poland. In contrast to the expectation we find that the accession into the EU did not reduced the level of state-capture. Indeed, we find that after the EU accession the number of legal acts aimed at restricting markets have increased. However, we find that the global financial crisis of 2007 resulted in an wake up effect in Poland as the likelihood of state capture declined in this period. Though, we find that at the same time the likelihood of regulatory capture has increased.

Our findings confirms the existing of state capture in Poland and presents for the first time some of its determinants. Hence, we document that state-capture prevails even in leading transition countries, which is related to regulatory opportunism as well regulatory capture. While, we show the political and economic development did not prevent the development of state capture in Poland, yet the crisis resulted in a wake up effect. However, whether this effect will be long lasting is unknown. Moreover, a questions remains unsolved how to prevent further state capture in emerging countries. In order to solve this problem, however, more research is needed on the determinants of state capture. Understanding the mechanism and factors determining state capture may help to create institutional mechanisms that will be able to mitigate it in the future.

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Table 1
Descriptive statistics and correlations

	$Caputre_d$	$Capture_s$	Finance	Business	Growth	Debt	Deficit	GDP
Panel A: Descriptive Statistics								
Mean	0.318	-0.409	0.261	-0.121	3.426	3.892	-4.397	9.322
Std. Dev.	0.466	1.600	1.242	1.318	3.616	0.243	1.840	0.381
Min.	0	-3	-3	-3	-11.6	3.605	-7.5	8.633
Max.	1	3	3	3	7.087	4.555	3.1	9.933
Obs.	1363	1363	1363	1363	1363	1363	1363	1363
Panel B: Correlations (N= 1363)								
$Capture_d$	1							
$Capture_s$	0.9024^{***}	1						
Finance	0.3903^{***}	0.4639^{***}	1					
Business	0.6151^{***}	0.6786^{***}	0.2786^{***}	1				
Growth	0.1885^{***}	0.2383^{***}	0.2675^{***}	0.2699^{***}	1			
Debt	-0.0475	-0.0847^{***}	-0.1326^{***}	-0.1838^{***}	-0.5034^{***}	1		
Deficit	-0.0162	-0.0639^{**}	-0.1020^{***}	-0.1237^{***}	-0.2986^{***}	0.2847^{***}	1	
GDP	0.0224	0.0801^{***}	0.0935^{***}	0.0324	0.2922^{***}	-0.3660^{***}	-0.4779^{***}	1

*, **, and *** indicate significance at 10%, 5%, and 1% levels.

Table 2.
Pooled Probit results for ex-ante state capture

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Growth	0.17***	0.17***	0.17***	0.16***	0.16***	0.17***	0.16***	0.32**	0.18***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.16)	(0.03)
Debt	0.43	0.42	0.43	0.42	0.45	0.44	0.42	1.12	0.56*
	(0.29)	(0.30)	(0.29)	(0.30)	(0.30)	(0.30)	(0.30)	(0.77)	(0.32)
Deficit	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.09	0.00
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.09)	(0.04)
GDP	-0.02	-0.03	-0.02	-0.03	-0.01	-0.03	-0.01	0.15	-0.03
	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.19)	(0.18)	(0.35)	(0.19)
Ini. Government		-0.12							
		(0.12)							
Ini. President			0.32						
			(0.67)						
Ini. Lower House				0.20					
				(0.12)					
Ini. Upper House					-0.60				
					(0.43)				
Ini. Urgent						-0.04			
						(0.23)			
Elect. Parliamentary							-0.04		
							(0.15)		
Elect. Local								0.92*	
								(0.51)	
Elect. President									-0.41**
									(0.18)
Constant	-2.85	-2.60	-2.84	-2.83	-2.98	-2.81	-2.86	-8.29	-3.32
	(2.22)	(2.24)	(2.22)	(2.22)	(2.22)	(2.24)	(2.22)	(5.78)	(2.41)
N	1363	1363	1363	1363	1363	1363	1363	1363	1363

χ^2	48.63***	49.38***	48.87***	51.20***	50.23***	48.62***	48.73***	4.16***	33.40***

*, **, and *** indicate significance at 10%, 5%, and 1% levels.
t statistics based on robust standard errors in parenthesis

Table 3.
Pooled Tobit results for ex-ante state capture

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GDP Growth	0.13***	0.13***	0.13***	0.13***	0.13***	0.13***	0.13***	0.14***	0.13***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Gov. Debt	0.34	0.32	0.33	0.32	0.35	0.34	0.35	0.49**	0.41*
	(0.23)	(0.23)	(0.23)	(0.23)	(0.23)	(0.23)	(0.23)	(0.23)	(0.23)
Gov. Deficit	0.01	0.01	0.01	0.00	0.00	0.01	-0.00	0.03	-0.00
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
GDP per capita	0.14	0.12	0.14	0.13	0.15	0.14	0.12	0.22	0.15
	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.15)	(0.15)	(0.15)	(0.14)
Ini. Government		-0.13							
		(0.10)							
Ini. President			0.25						
			(0.55)						
Ini. Lower House				0.17*					
				(0.09)					
Ini. Upper House					-0.52*				
					(0.29)				
Ini. Urgent						-0.00			
						(0.18)			
Elect. Parliamentary							0.11		
							(0.12)		
Elect. Local								0.37***	
								(0.11)	
Elect. President									-0.27**
									(0.12)
Constant	-3.44**	-3.15*	-3.44**	-3.40*	-3.57**	-3.43*	-3.34*	-4.77***	-3.77**
	(1.75)	(1.76)	(1.75)	(1.75)	(1.75)	(1.76)	(1.75)	(1.78)	(1.75)
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)

Obs.	1363	1363	1363	1363	1363	1363	1363	1363	1363
Left censored obs.	68	68	68	68	68	68	68	68	68
Right censored obs.	67	67	67	67	67	67	67	67	67
χ^2	87.86***	89.70***	88.07***	91.05***	91.31***	87.87***	88.80***	100.38***	93.29***

*, **, and *** indicate significance at 10%, 5%, and 1% levels.
t statistics based on robust standard errors in parenthesis

Table 4.
Pooled Probit results for ex-ante state capture and government spending (saving)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Finance	0.84***	0.82***	0.91***	0.84***	0.83***	0.84***	0.86***
	(0.07)	(0.07)	(0.09)	(0.07)	(0.07)	(0.07)	(0.08)
GDP Growth	0.13***	0.14***	0.13***	0.13***	0.13***	0.13***	0.13***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Gov. Debt	0.54*	0.66**	0.63*	0.64**	0.63**	0.53*	0.53*
	(0.32)	(0.32)	(0.32)	(0.32)	(0.32)	(0.32)	(0.32)
Gov. Deficit	0.01	0.03	0.03	-0.00	-0.00	0.01	0.01
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)
GDP per capita	0.05	0.13	0.14	0.04	0.04	0.06	0.05
	(0.20)	(0.20)	(0.20)	(0.19)	(0.19)	(0.20)	(0.20)
Elect. Local		0.31**	0.47***				
		(0.15)	(0.17)				
Elect. Local*Finance			-0.25*				
			(0.14)				
Elect. President				-0.38**	-0.43**		
				(0.17)	(0.21)		
Elect. President*Finance					0.07		
					(0.19)		
Elect. Parliamentary						-0.04	0.04
						(0.16)	(0.19)
Elect. Parliamentary*Finance							-0.12
							(0.16)
Constant	-4.19*	-5.43**	-5.43**	-4.49*	-4.47*	-4.20*	-4.20*
	(2.40)	(2.48)	(2.49)	(2.40)	(2.39)	(2.41)	(2.40)
N	1363	1363	1363	1363	1363	1363	1363
χ^2	183.29***	185.87***	184.89***	187.14***	187.08***	183.41***	183.38***

Table 5.
Pooled Tobit results for ex-ante state capture and government spending (saving)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Finance	0.63***	0.62***	0.66***	0.63***	0.64***	0.63***	0.61***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
GDP Growth	0.07***	0.08***	0.07***	0.07***	0.07***	0.07***	0.07***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Gov. Debt	0.32	0.39*	0.37*	0.38*	0.38*	0.33	0.34
	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)	(0.21)
Gov. Deficit	0.01	0.03	0.03	0.01	0.01	0.01	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
GDP per capita	0.12	0.16	0.15	0.13	0.13	0.10	0.11
	(0.13)	(0.13)	(0.13)	(0.13)	(0.13)	(0.13)	(0.13)
Elect. Local		0.16*	0.22**				
		(0.10)	(0.10)				
Elect. Local*Finance			-0.13*				
			(0.08)				
Elect. President				-0.24**	-0.23**		
				(0.11)	(0.11)		
Elect. President*Finance					-0.05		
					(0.09)		
Elect. Parliamentary						0.11	0.09
						(0.11)	(0.11)
Elect. Parliamentary* Finance							0.07
							(0.09)
Constant	-3.15**	-3.75**	-3.63**	-3.45**	-3.44**	-3.05*	-3.12**
	(1.57)	(1.61)	(1.61)	(1.58)	(1.58)	(1.58)	(1.58)
Obs.	1363	1363	1363	1363	1363	1363	1363
Left censored obs.	68	68	68	68	68	68	68
Right censored obs.	67	67	67	67	67	67	67

χ^2	411.22***	414.71***	417.26***	417.67***	417.91***	412.56***	412.72***

*, **, and *** indicate significance at 10%, 5%, and 1% levels.
t statistics based on robust standard errors in parenthesis

Table 6.
Pooled Probit results for ex-ante state capture and business restrictions (freedom)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Business	1.63***	1.62***	1.87***	1.62***	1.58***	1.63***	1.71***
	(0.09)	(0.09)	(0.34)	(0.09)	(0.10)	(0.09)	(0.11)
GDP Growth	0.11***	0.12***	0.12***	0.11***	0.11***	0.11***	0.12***
	(0.03)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)
Gov. Debt	1.50***	1.67***	1.58***	1.54***	1.51***	1.49***	1.50***
	(0.39)	(0.40)	(0.49)	(0.39)	(0.39)	(0.39)	(0.39)
Gov. Deficit	0.13**	0.16***	0.18***	0.13**	0.13**	0.14**	0.13**
	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)	(0.05)	(0.05)
GDP per capita	0.89***	1.01***	1.04***	0.88***	0.85***	0.90***	0.89***
	(0.25)	(0.25)	(0.30)	(0.24)	(0.24)	(0.25)	(0.25)
Elect. Local		0.40**	0.62***				
		(0.18)	(0.22)				
Elect. Local*Business			-0.57***				
			(0.21)				
Elect. President				-0.28	-0.35		
				(0.21)	(0.23)		
Elect. President*Business					0.25		
					(0.27)		
Elect. Parliamentary						-0.08	0.02
						(0.20)	(0.20)
Elect. Parliamentary*Business							-0.34*
							(0.19)
Constant	-15.01***	-16.87***	-16.82***	-15.08***	-14.74***	-15.03***	-15.11***
	(3.02)	(3.16)	(4.21)	(3.02)	(3.02)	(3.03)	(3.00)
Obs.	1363	1363	1363	1363	1363	1363	1363
χ^2	331.79***	331.31***	31.30***	333.70***	332.55***	332.19***	331.66***

*, **, and *** indicate significance at 10%, 5%, and 1% levels.
t statistics based on robust standard errors in parenthesis

Table 7.
Pooled Tobit results for ex-ante state capture and business restrictions (freedom)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Business	0.85***	0.90***	0.91***	0.90***	0.92***	0.90***	0.89***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
GDP Growth	0.04***	0.05***	0.05***	0.05***	0.05***	0.05***	0.05***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Gov. Debt	0.70***	0.78***	0.77***	0.77***	0.78***	0.75***	0.75***
	(0.16)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
Gov. Deficit	0.06***	0.07***	0.07***	0.06**	0.06***	0.05**	0.06**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
GDP per capita	0.41***	0.50***	0.50***	0.48***	0.48***	0.45***	0.46***
	(0.10)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
Elect. Local		0.13	0.13				
		(0.08)	(0.08)				
Elect. Local* Business			-0.05				
			(0.06)				
Elect. President				-0.16*	-0.17*		
				(0.09)	(0.09)		
Elect. President* Business					-0.09		
					(0.07)		
Elect. Parliamentary						0.12	0.13
						(0.09)	(0.09)
Elect. Parliamentary* Business							0.08
							(0.07)
Constant	-6.71***	-7.96***	-7.85***	-7.70***	-7.73***	-7.43***	-7.49***
	(1.24)	(1.33)	(1.34)	(1.30)	(1.30)	(1.30)	(1.30)
Obs.	1363	1363	1363	1363	1363	1363	1363
Left censored obs.	68	68	68	68	68	68	68
Right censored obs.	67	67	67	67	67	67	67

χ^2	1194***	1176***	1177***	1178***	1178***	1174***	1176***

*, **, and *** indicate significance at 10%, 5%, and 1% levels.
t statistics based on robust standard errors in parenthesis

Table 8.
Pooled Probit and Tobit results for ex-ante state capture and additional control variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Finance	0.85***	0.70***			0.82***	0.65***			0.82***	0.69***		
	(0.23)	(0.11)			(0.08)	(0.04)			(0.07)	(0.04)		
Business			1.50***	1.04***			1.50***	0.92***			1.59***	0.92***
			(0.35)	(0.10)			(0.11)	(0.03)			(0.36)	(0.03)
Demo	0.11	0.17***	0.25*	0.10*								
	(0.11)	(0.06)	(0.14)	(0.06)								
Demo* Finance	0.01	-0.02										
	(0.10)	(0.05)										
Demo*Business			0.03	-0.06								
			(0.14)	(0.04)								
EU					0.06	0.14	0.64***					
					(0.15)	(0.09)	(0.17)					
EU*Finance					0.14	0.09						
					(0.14)	(0.08)						
EU*Business							0.36*	-0.03				
							(0.19)	(0.06)				
Crisis									-0.51***	-0.10	-0.43	0.06
									(0.19)	(0.10)	(0.28)	(0.09)
Crisis*Finance									0.22	-0.18		
									(0.23)	(0.12)		
Crisis*Business											1.28***	-0.06
											(0.47)	(0.08)
Constant	-1.45***	-1.00***	-1.68***	-0.55***	-1.21***	-0.66***	-1.32***	-0.31***	-1.06***	-0.57***	-1.11***	-0.33***
	(0.28)	(0.16)	(0.36)	(0.15)	(0.10)	(0.06)	(0.12)	(0.04)	(0.08)	(0.05)	(0.28)	(0.04)
N	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363	1363
Left censored obs.		68		68		68		68		68		68
Right censored obs.		67		67		67		67		67		67

χ^2	175.71***	384.69***	327.76***	1106***	177.36***	382.03***	332.07***	1098***	184.86***	380.60***	19.87***	1099***