This project is co-funded by the Seventh Framework Programme for Research and Technological Development of the European Union

EU Grant Agreement number: 290529

Project acronym: ANTICORRP

Project title: Anti-Corruption Policies Revisited

WP8 - Corruption, assistance and development

D8.1.4 The political economy of grand corruption in public procurement in the construction sector of Hungary

Due date of deliverable: 28 February 2015

Actual submission date: 30 March 2015

Editor (s): Alina Mungiu-Pippidi

Author(s): Péter András Lukács, Mihály Fazekas
[Budapest Corvinus University and Corruption Research Center Budapest]

Project co-funded by the European Commission within the Seventh Framework Programme		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission	
Co	Confidential, only for members of the consortium (including the Commission	

The information and views set out in this publication are those of the author(s) only and do not reflect any collective opinion of the ANTICORRP consortium, nor do they reflect the official opinion of the European Commission. Neither the European Commission nor any person acting on behalf of the European Commission is responsible for the use which might be made of the following information.

The political economy of grand corruption in public procurement in the construction sector of Hungary

ABSTRACT

This report aims to document and to investigate the extent and the determinants of government favouritism in EU funded infrastructure development. It uses a variety of qualitative and quantitative research methods. While predominantly relying on the analysis of contract-level quantitative data on Hungarian public procurement, it also provides a discussion of the institutional framework and particular cases based on document analysis and interviews.

It finds that public procurement of infrastructure from national or EU Funds is a hotspot for corruption in Hungary just like in the other countries investigated by ANTICORRP Work Package 8. However, corruption is not pervasive everywhere and even high-level political influence has it limits. While the economic environment has varied greatly, public procurement spending on infrastructure followed a political logic with elections, EU funding cycles, and political power games playing a crucial role. It has proven to be one key public resource up for grabs for corrupt elites. Controls of corruption in public procurement in general are weak: not only is effective transparency very limited and declining rapidly since 2010, but also institutional remedies are likely to be controlled by the current governing party.

As a result of extensive public resources available, weak controls, and a complex regulatory environment facilitating close cooperation between bidders and public bodies, corruption is widespread in infrastructure provision. Political connections, far from having a uniform impact, are effective in facilitating rent extraction only when organisational integrity is weak and both the bidders and contracting entities are politically controlled. In micro-cosmoses of high integrity, political connections are ineffective at best, but may even handicap companies.

Keywords

Corruption, public procurement, infrastructure, EU Funds, political connection

Péter András Lukács, Researcher at Corruption Research Center Budapest
lukacs.peter.andras@gmail.com
Mihály Fazekas, Founder and head of research at Corruption Research Center Budapest
misi.fazekas@gmail.com

\\\

ACCRONYMS

CPV Common Procurement Vocabulary

CRI Corruption Risk Index

FIDESZ Alliance of Young Democrats (Fiatal Demokraták Szövetsége)

MSZP Hungarian Socialist Party (Magyar Szocialista Párt)

PCI Politically Connection Index

PP Public Procurement

SRI Supplier Risk Index

TABLES

Table 1. Main statistics of the analysed data – contracts

Table 2. List of institutions and positions of the political office holder database, 2010-2011

Table 3. Data availability for matching political connections based on the combined index

Table 4. Data availability for statistical matching

Table 5. Correlations of types of public procurement and GDP

Table 6. Procurement thresholds, million HUF, national Public Procurement Regime

Table 7. Component weights of CRI reflecting variable and category impact on corruption outcomes, normed to have an overall sum of 1

Table 8. Logit marginal effect models (without Corruption Risk Index)

Table 9. Logit marginal effect models by tertiers of Corruption Risk Index, all years (2008-2011), construction sector only

FIGURES

Figure 1. Histogram of the combined index values of political connections

Figure 2. Total procurement relative to GDP

Figure 3. Construction procurement relative to GDP and public expenditure

Figure 4. Share of construction procurement in total public procurement

Figure 5. Total vs. EU funded construction procurement volumes

Figure 6. Mean and median construction procurement incomes

Figure 7. Companies' market share in EU and non-EU funded public procurement (2005-2012)

Figure 8. Histogram of procurement income to turnover ratio

Figure 9. Median procurement income to turnover ratio in construction

Figure 10. Share of politically connected public procurement volumes in the total volume

Figure 11. Share in total public procurement income of companies linked to Fidesz, 2009-2014, %, communications services, N=1005

Figure 12. Proportion of contracts awarded without a prior publication of a call for tenders in the Hungarian Public Procurement Bulletin, 2009-2012

Figure 13. Public procurement spending announced in the Public Procurement Bulletin and total public procurement spending, 2009-2011

Figure 14. Average Corruption Risk Index (CRI) of tenders with and without Arbitration Court judgment, 2009-2012, Ncourt=1 386; Nno-court=51 858

Figure 15. Average Corruption Risk Indices per half-year in Hungary, 2009-2012, EU Funded and non-EU Funded public procurement of construction

Figure 16. Media CRI scores and median expected values of particularistic resource allocation (EV(CRI)), by main markets, 2009-2012, total public procurement, Hungary

Figure 17. Annual turnover of Mászáros és Mászáros ltd. 2006-2013, EUR

Figure 18. Mean tender volumes over the age of firm at the time of winning, 2005-2012

Figure 19. Ratio of public procurement income to total annual turnover, 2005-2012

I. INTRODUCTION

European Union Structural and Cohesion Funds (EU Funds) are designed to decrease regional imbalances especially in terms of per capita GDP. To this end, the EU devoted roughly a third of its budget in 2007-2013, or 347.4 billion EUR[1]. Much of this redistribution (75.5 billion EUR[2]) is spent on transport and infrastructure development in the least developed member states and their regions as lack of sufficient physical infrastructure, predominantly transport infrastructure, is considered to be one of the main impediments to poorer regions catching up to the EU average.

Despite spending such vast amounts, growth effects of EU Funds are far from clear. Some authors suggest that quality of institutions and the resulting spending efficiency exercise a decisive impact on whether EU Funds are effective in reaching their main goal of lifting growth rates (Becker, Egger, & Ehrlich, 2012). This should come as no surprise, given the numerous corruption cases reported by the media all across the EU and inspected by audit bodies. Many of these suggest that misuse of funds is happening at a large scale without much regard to economic rationality or stated public goals. But without an assessment on corruption's impact on development in key areas such as infrastructure and fiscal deficits, we cannot understand how and why development works or fails.

Nevertheless, up until now there is a considerable lack of research looking into EU Funds spending on infrastructure from the perspective of misuse of funds, corruption, and government favouritism. Furthermore, what research there is predominantly uses macro aggregates which are prone to ecological fallacy and by definition cannot take into account the diversity of phenomena on the ground. The available micro-evidence on EU Funds from a governance perspective paint a dim picture (Dimulescu, Pop, & Doroftei, 2013; Fazekas, Chvalkovská, Skuhrovec, Tóth, & King, 2013).

In order to address the above scientific and policy questions, this report aims to *document and to investigate the presence, the magnitude and the determinants of government favouritism in EU funded infrastructure development*.

In order to keep such a broad goal tractable, it is broken down into three key research questions:

- How is government favouritism taking place in EU-funded public procurement in Hungarian infrastructure development? What is its magnitude and structure?
- What are the institutional controls of government favouritism in EU-funded public procurement in Hungarian infrastructure development?
- What are the resources of government favouritism in EU-funded public procurement in Hungarian infrastructure development?

EU funded infrastructure development takes place almost exclusively through public procurement as development projects are realised by contractors which, by law,

[1] European Commission, 2008. Regional Policy—Inforegio. See: http://ec.europa.eu/regional_policy/sources/docoffic/official/repor_en.htm
[2] European Commission, 2008. Regional Policy—Inforegio. See: http://ec.europa.eu/regional_policy/archive/funds/cf/index_en.htm

have to compete for contracts, hence the focus on public procurement. Approaching government favouritism as a balance between controls of and resources for corruption helps organise the empirical material by relying on widely used theories.

Due to the high volumes of data available, only a subset of public spending transactions is investigated. First, only publicly announced public procurement data is analysed which makes the study particularly geared towards high stakes and high risk corruption. Second, the period 2005-2012 is looked at as more recent data is not fully processed for analysis. This still provides ample variation in terms of government in power and broader economic conditions with change of government in 2010 and the onset of the financial crisis in 2008. Third, infrastructure development is equated with the construction sector as identified in the Common Procurement Vocabulary (CPV) with divisions 44 - construction structures and materials; auxiliary products to construction (excepts electric apparatus), 45 - construction work, and 71 - architectural, construction, engineering and inspection services. This means that construction sector in public procurement includes a range of services, commercial, as well as construction activities in a narrow sense.

The report is structured as follows: first, a brief theoretical background is spelled out predominantly focusing on concepts directly amenable to measurement. Second, the material stake and the power discretion in public procurement construction in general and in EU funded public procurement construction in particular are discussed. Third, institutional controls of government favouritism are enumerated both in terms of legal norms and actual practice. Fourth, various corruption risk measures are discussed in the domain of public procurement. Finally, preliminary conclusions are drawn.

II. Theory

Corruption in public procurement in general and in the construction sector in particular can have a profound effect on public finances, democratic accountability, and government quality. This is because it allows for 1) concentrating vast fortunes, 2) very quickly 3) in a few hands 4) and with little effective oversight. Public procurement of infrastructure typically involves a few large contracts worth millions of EUR each where even a tiny percentage of corrupt rent translates into fortunes. Such contracts can be awarded in a short time span and payments quickly authorised if the ‘right’ technical specifications are used. Contract performance is often done by one or only a handful of companies even for the biggest contracts allowing for effective control of rent extraction by corrupt networks. Public procurement of infrastructure typically concerns complex and in many ways unique products (e.g. a new highway) with little room for benchmarking and easily establishing overpricing and low quality. In addition, such investment decisions are down to key officials in governments and public administrations. Uniqueness and legally mandated discretion make oversight cumbersome and costly.

Due to high concentration of corrupt rents, negative effects of corruption in public procurement go beyond simple loss to the budget through higher prices. It also implies:

- misguided selection of investment projects: procuring products and services based on where rent extraction is most profitable rather than on which bring most public value,
- spending structure distortion: lack of spending on maintenance in order to increase the incidence of large investment projects most profitable for corrupt groups, and
- distorted political competition: as rent extraction is tied to controlling key government positions, rents earned are typically reinvested into political competition.

Government favouritism and public procurement corruption are two closely associated concepts. People naturally favour their own family, clan, race or ethnic group: treating the rest of the world fairly is a matter of both social learning and resources (Fukuyama, 2011). In only a handful of countries the principle of universal open access to public resources has been established firmly in practice; while in many more countries this norm has been legislated while practice deviates to a large degree (Mungiu-Pippidi, 2006; North, Wallis, & Weingast, 2009; Rothstein & Teorell, 2008). Still, in either case, impartial treatment of citizens and open access to public resources are expected to be the norm, in particular within the EU. This leaves us with a clear benchmark against which favouritism and corruption can be assessed.

Government favouritism in public procurement takes place as an exchange between multiple parties, the public side typically delivering lucrative contracts for private companies in return for monetary payments, counter-favours, or votes (Piga, 2011). The exchange does not necessarily imply individual benefits as it can be collective entities benefiting, for example, a company benefiting from procurement contracts donating to a political party foundation which finances election campaigns.

The above definition of government favouritism is identical to the definition of institutionalised grand corruption in public procurement as long as the powerful group in question is able to carry out corrupt transactions in a recurrent and stable manner (Fazekas, Tóth, & King, 2013).

III. Data

1. Public procurement data

The main database derives from Hungarian public procurement announcements from 2005-2012 (this database is referred to as PP henceforth). The data represent a complete database of all public procurement procedures conducted under Hungarian Public Procurement Law. PP contains variables appearing in 1) calls for tenders, 2) contract award notices, 3) contract modification notices, 4) contract completion announcements, and 5) administrative corrections notices. As not all of these kinds of announcements appear for each procedure, we only have the variables deriving from contract award notices consistently across every procedure.

These documents are published in the Public Procurement Bulletin which appears on a weekly basis and is accessible online[3]. As there is no readily available database,

[3] See: http://www.kozbeszerzes.hu/adatbazis/keres/hirdetmeny/ (in Hungarian)

we used a crawler algorithm to capture every announcement publicly available. Then, applying a complex automatic and manual text mining strategy, we created a structured database which contains variables with clear meaning and well-defined categories. As the original texts available online contain a range of errors, inconsistencies, and omissions, we applied several correction measures to arrive at a database sufficient quality for scientific research. For a full description of database development, see Fazekas & Tóth (2012a) and Csizmás, K., Fazekas, M. & Tóth, I. J. (2014) in Hungarian and in somewhat less detail Fazekas & Tóth (2012b) in English.

A major limitation of our database is that it only contains information on public procurement procedures under the Hungarian Public Procurement Law as there is no central depository of other contracts. The law defines the minimum estimated contract value for its application depending on the type of announcing body and the kind of products or services to be procured (for example, from 1 January 2012, classical issuers have to follow the national regulations if they procure services for more than 8 million HUF or 27 thousand EUR). By implication, PP is a biased sample of total Hungarian public procurement of the period, containing only the larger and more heavily regulated cases. This bias makes PP well suited for studying more costly and more high-stakes collusion where coverage is close to complete.

As contract award notices represent the most important part of a procedure's life-cycle and they are published for each procedure under the Hungarian Public Procurement Law, their statistics are shown to give an overview of the database.

Out of the 118,537 awarded contracts announced in the Hungarian Public Procurement Bulletin throughout 2005-2012 only 78,594 were analysed in most calculations due to five distinctive, but sometimes overlapping reasons (Table 1):[4]

1. Repetitions,
2. Corrections,
3. Unsuccessfulness,
4. Cancellations, and
5. Framework contracts.

First, Hungarian announcements above the EU threshold have to be published both at the Journal of the European Union (TED) and the Hungarian Public Procurement Bulletin. However, the announcements appearing in TED also appear according to a special format in the Hungarian Public Procurement Bulletin. This leads to a duplication of announcements with only slightly different information content. Second, those announcements which were later corrected by a full, repeated announcement were also excluded from our sample for most analyses.[5] More work is needed on

[4] In fact, we should extend our data with one sample referring to centralised procurement whereby issuers do not procure on their own rather through a centralised body. Unfortunately, we do not yet have detailed data on who bought and how much from this central public procurement body. For the moment, we account for centralised procurement as one other issuer without knowing the details of the flows of goods and services between individual issuers and the central body. Data acquisition is in progress.

[5] As many corrections do not appear completely anew, rather a specific correction is published which explains which parts of the original announcement were wrong and what the correct information is, we inputted the correct data to the corrected announcements. This introduces a slight bias to our sample as correct information appears to be available in our data earlier than it was in fact for the public. As this only concerns 128 contract

this aspect as corrections are not referenced in a standardised fashion in many cases. Third, those announcements or parts of announcements which were contract award notices, but awarded no contract were also excluded. Unsuccessfulness or invalidity are explicitly marked in the announcements; however, as there was no winner named in a great number of announcements, it is unclear if these are actually invalid announcements or if data is simply missing. As crucial information is often missing, we did not exclude these notices. Fourth, cancellations refer to those announcements which were announced as valid and correct, but subsequently had to be withdrawn or modified due to court decisions or withdrawal of the winner. Finally, framework contracts are awarded in two stage whereby winning the contract at the first stage only implies the possibility of bidding for contracts within the framework leading to actual work and payments. Hence, contract awards referring to the first stage of framework contracts are excluded in order to avoid double counting contract values.

Table 1 Main statistics of the analysed data – contracts

	2005	2006	2007	2008	2009	2010	2011	2012	**Total**
Total number of contracts observed	5413	9455	6888	12696	21130	28630	17443	16882	**118537**
Total number of repeated contracts	0	0	0	3503	6932	5626	995	4786	**21852**
Total number of corrected contracts*	0	0	0	0	4	81	43	0	**128**
Total number of unsuccessful contracts	675	1134	507	1152	2137	3766	1766	1696	**12833**
Total number of cancelled contracts	7	123	101	986	1249	1597	353	183	**4599**
Total number of framework contracts	0	249	501	705	993	687	369	956	**4460**
Total number of non-repeated, correct, valid, non-cancelled, and non-framework contracts	4731	7952	5796	6812	10921	17927	14070	10385	**78594**
Combined value of non-repeated, correct, valid, non-cancelled, and non-framework contracts (million EUR) *	1128	3086	4365	4591	4611	3850	1836	1290	**24756**

2. Data on companies

Our data on firms comes from the so-called Amadeus database supplied by a commercial company data provider Bureau van Dijk[6]. The database consists of 463049 unique, non-repeated firms (each observation is one firm) identified by their tax ID. Apart from data on the firms' structure (legal status, size of company, etc.),

award announcements, we consider this to be of relatively minor importance (there are additional corrections for other types of announcements which we still need to take into account).

[6] https://amadeus.bvdinfo.com/version-20141118/home.serv?product=amadeusneo

activity (primary line of business) or location, the dataset contains information on variables such as profit margin, number of employees, operating turnover and the likes between 2003 and 2011. In total, there are nine time-varying variables and each is supposed to have nine years of data, that is each firm (observation) is supposed to have 81 time-varying entries. However, unfortunately on average 57.8 entries are missing out of the 81 resulting in a 71.35% missing rate. Luckily, the missing rate of the operating turnover variable that we will need the most is slightly lower. Here the number of missing entries (out of the 9) on average is 5.2, meaning a 58.19% missing rate.

3. Data on political connections

In the analysis below, we use information on companies' political connections as political officeholders owning or managing firms which win in public procurement can serve as a proxy for government favouritism. In this context political connection simply refers to a dummy variable (0-1) that indicates weather a firm has or had either an owner or manager who is or was a politician.

In order to obtain the database on political connections we made the following steps: first, we obtained the full list of registered owners and managers of the companies winning in public procurement (we could identify at least one owner or winner for about 85% of winning companies). And we also obtained the full list of elected officials at the national and local levels as well as key appointed officeholders (Table 2).

Table2. List of institutions and positions of the political office holder database, 2010-2011

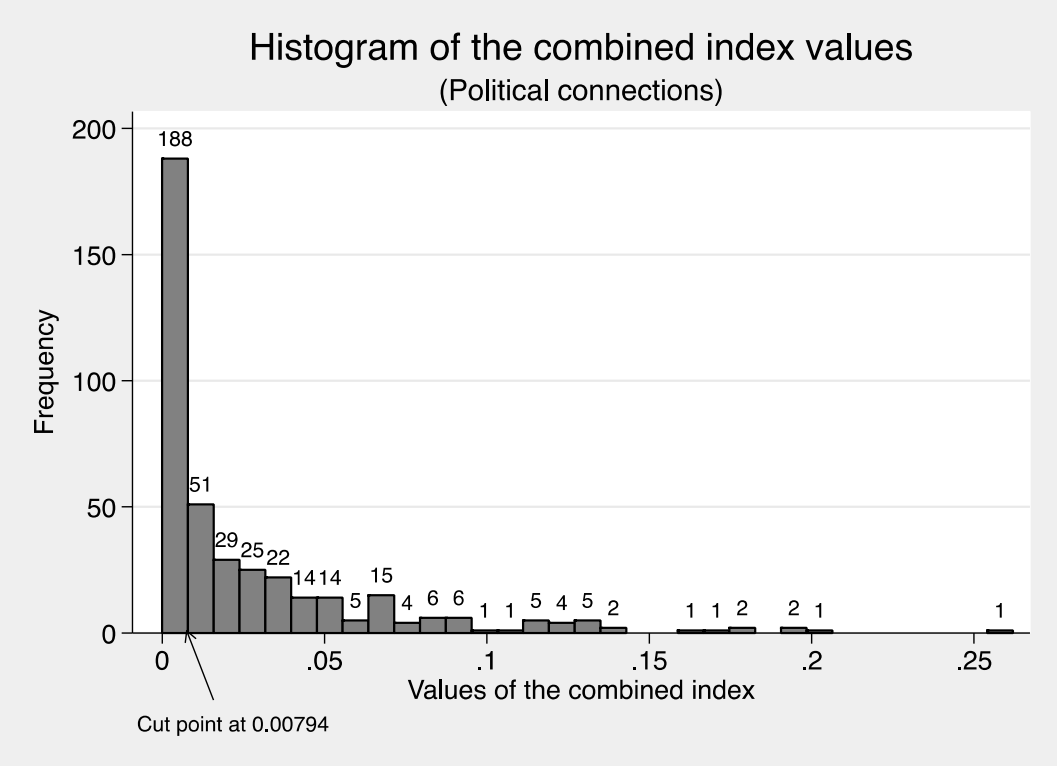
Institution	Position
Ministries	minister, secretary of state, vice-secretary of state, ministerial councilor,
Constitutional court	members and leaders
County courts	president, vice- president
Supreme court	President, vice-president, spokesperson
Prosecutors' Office	Chief prosecutor, vice-chief prosecutor, spokesperson
Municipalities	Major, vice-major, notary
County governments (new "kormányhivatal" too)	president, vice-president, notary
Regional police	Chief
National police headquarters	Chief, vice-chief, spokesperson
Minority governments	president, vice-president, head of office, head of secretary
National medical service	Chief doctor, chief pharmacist
National Healthcare Fund	Director, vice-director
Army headquarters	Marshal, Vice-marshal
Treasury	President, vice-president, head of finances
Tax Administration	President, vice-president, spokesperson
Office of the president	President of the state, heads of every bureau of the office
State Audit Office	President, vice-president, chief director, director of finances

Regional Development Councils	presidents, member of governing committee
Office of the parliament	Head of office, heads of offices
Ombudsmen offices	Ombudsmen, heads of offices
National headquarters of Prisons	National chief, national vice-chief,
Competition Authority	President, vice-president, head of secretary
Central statistical office	president, vice-president
Other regulatory agencies and background institutes	top-management (2-3 positions)

Note: The full list of institutions and positions can be obtained from the data provider; the government owned MTI Hungarian News Agency, which maintains a database of the most significant political office holders of the country for more than 20 years. For more information see: http://mkk.mti.hu/

Second, we matched the names (and other data) of politicians and firm owners and managers. The matching was done between more than 35000 owners/managers of winning firms and more than 10000 political officeholders based on full name. Third, to establish the identity of individuals and validate the matching, we collected further information and carried out further matching procedures. We checked the matched persons' birth date, mother's maiden name, and location of birth. For those names where we lacked data, we checked their photos available from reliable sources such as company websites and political parties' web pages. As there were names left whose matching could not be certainly established with these methods, we executed a statistical matching procedure based on the rarity of the names (calculated from the number of name occurrences from all the available names in the two initial databases) and the geographical distance between the firm and the political institution associated with the names. Then, we normalised the two indices (between 0 and 1) and combined them with simple multiplication, meaning that the final index measuring the goodness of match also ranged between 0 and 1 (0 meaning a most probable match, while 1 indicating the less probable one). A positive consequence of the multiplication in our case is that if one of the indices is 0 (i.e. the two institutions are located in the same settlement or the names occur only once in each database) and the other one is missing, we can still calculate the combined index. Once this combined similarity index was created, we determined a cut point above which name matching is determined only a coincidence rather than indicating truly identical persons. To determine the cut point, we chose a threshold for both normalized indices (name occurrence and settlement distance) separately. For the distance variable we selected 50 kilometres, since that is the longest distance that still classifies as commuting according to the Hungarian Central Statistical Office. (The normalized value of 50000 metres is 0.0794.) We determined the cut point value for the normalized name occurrence at 0.1 under which we can find those names which are highly idiosyncratic. Thus, if the combined index does not exceed $0.0794 \cdot 0.1 = 0.00794$, we declare that a political connection is present in the corresponding company (Figure 1).

Figure 1 Histogram of the combined index values of political connections



The company database used for validating name matching consists of 484 unique firms with judging finally only 273 firms as having reliable political connections. There are 23 companies that had a certain match based on the first two matching procedures, consequently 461 firms that had to be statistically matched in order to determine the existence of political connections. Table 3 summarizes our data on political connections for those 461 cases where statistical matching was necessary. Combined index is only available if either both components are available or if one is missing but the other one is equal to zero (since $0 \cdot missing = 0$). We can deduct from the table that at 88% of the cases the combined index is available and only 3% of these cases have one of the normalized indices missing. Table 4 summarizes the data availability for statistical matching: 41% of the data is below cut point out of all available data from layer 3 matching.

Table 3 Data availability for matching political connections based on the combined index

		Layer 3 type (statistical) matching			Layer 1 and 2 type matching	Total
		Only normalized **distance** data available	Only normalized **name** occurrence data available	**Both** indices available		
Combined index availability	Available	2*	10*	393	0	405
	Not Available	0	56	0	23	79
Total		2	66	393	23	484

**Where only one statistical matching data is available and the combined index is also available, the one available index is necessarily equal to zero.*

Table 4 Data availability for statistical matching

	Only normalized **distance** data available	Only normalized **name** occurrence data available	**Both** indices available	Total
Below cut point	2	10	176	188
Above cut point	0	56	217	273
Total	2	66	393	461

IV. MATERIAL STAKE

This section looks briefly at the resources available for corrupt rent extraction. Increasing the stakes up for grab is one principal means for corrupt groups to increase their wealth. The other major strategy is turning off controls, which is discussed below. These two major determinants of equilibrium corrupt rent extraction are simultaneously modified by corrupt groups, hence they shall be understood in light of each other. We first provide overview of the overall public procurement spending structure then we turn our attention towards the beneficiaries of public procurement contracts.

Total announced public procurement spending in Hungary relative to the GDP between 2005 and 2012 is reported in Figure 2. Average relative public procurement in all sectors was 3.6% of GDP throughout the observation period, however with considerable variability. Public procurement levels were negligible at the beginning of 2005 but started to increase rapidly during the second half of the first MSZP government. The growth reached its peak during the second MSZP government (8.2%) but slowed down notably during the period, maintaining a 5.1% average until the beginning of the Fidesz government. The Fidesz government – starting from the

second quarter of 2010 – cut back public procurement expenditure substantially by 2.2% points of GDP. These varying spending shares result from a wealth of factors among which a few are more dominant: GDP fell substantially in 2009 and it still hasn't reached its pre-crisis peak; total government spending contracted likewise, and an increasing portion of spending avoided transparency regulations and publication in the official public procurement journal.

Figure 2 Total procurement relative to GDP

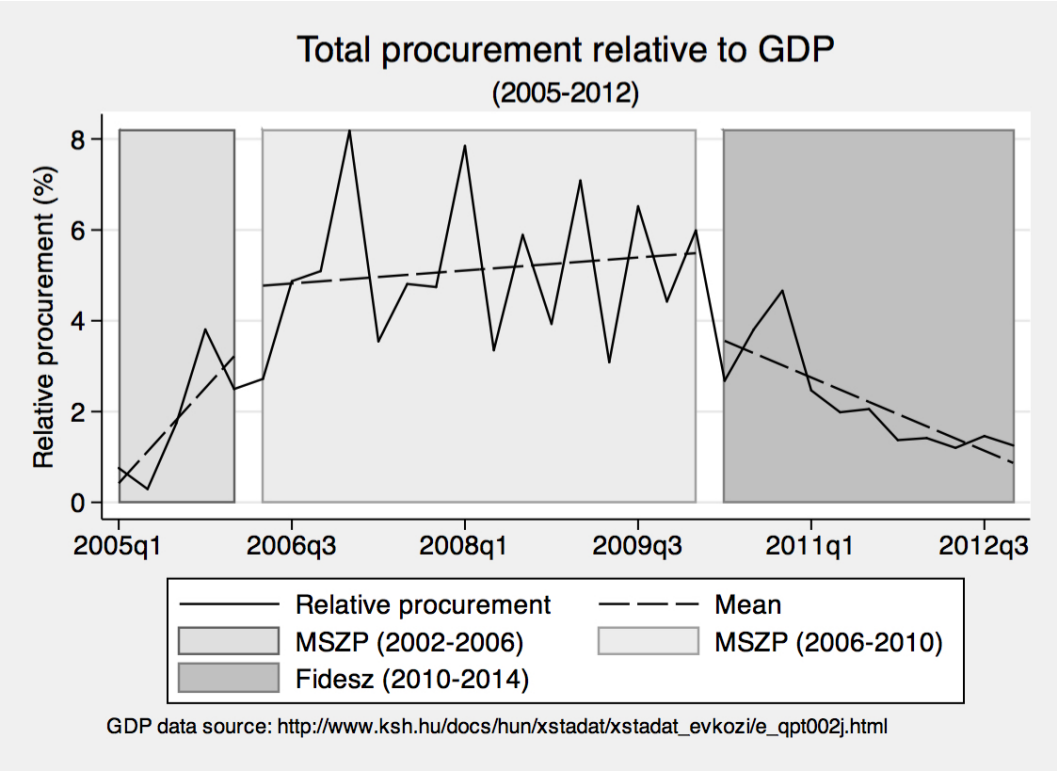


Figure 3 shifts the focus from total public procurement to public procurement construction projects in Hungary during the same seven-year spell. Both the patterns as well as the magnitude of public procurement are very similar to Figure 2 in terms of GDP which implies that construction public procurement tracks other sectors' public procurement.

Figure 3 Construction procurement relative to GDP and public expenditure

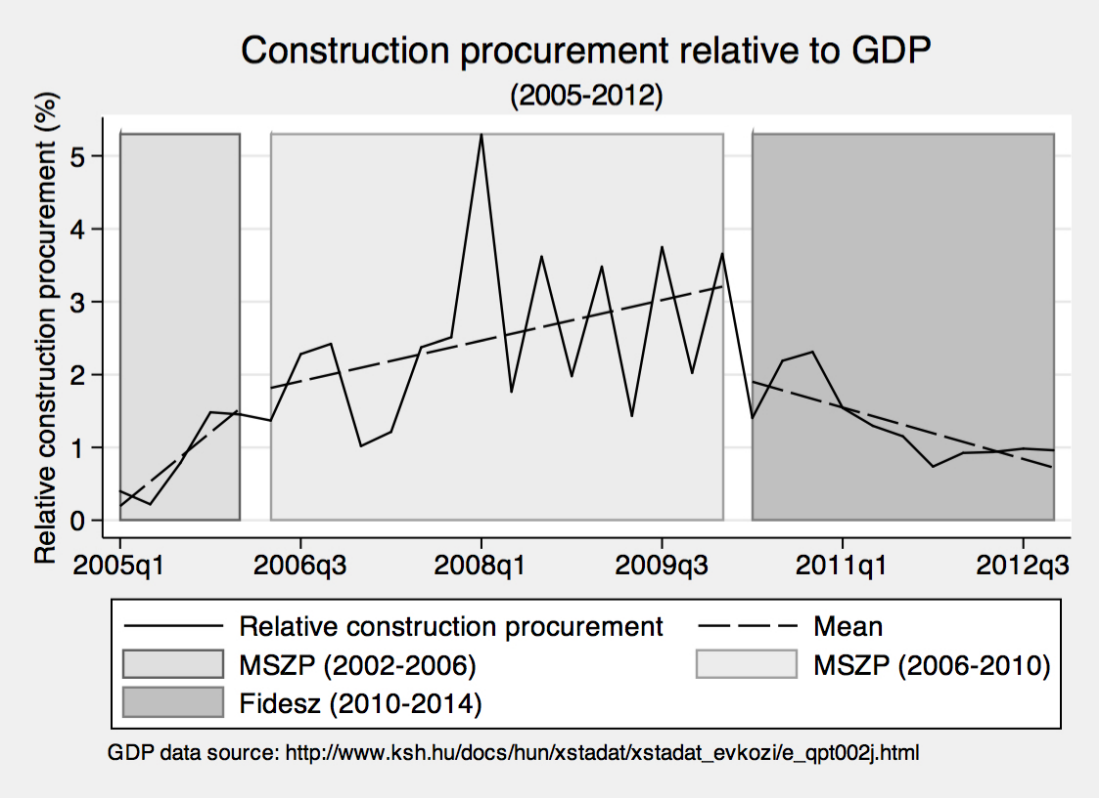


Figure 4 presents construction public procurement volumes relative to total public procurement volumes. The trend seems to be the opposite of what we have seen before: decreasing relative construction public procurement in the first MSZP government, reaching the minimum during the second one and growth during the Fidesz government. Combining this information with the previous Figures, one can conclude that these trends are due to the faster expenditure growth/decrease on public procurement of fields other than construction. On average construction amounted to more than half of the total public procurement (59.1%) with 15.7% standard deviation and a minimum of 7.9% during the second MSZP cycle and the maximum of a 100% during their first cycle, while public procurement in other fields than construction varied 18% over 2005-2012, meaning that procurement spending in construction was more stable than non-construction over time.

Table 5 shows the correlation between types of public procurement (total, construction sector and sectors other than construction) and GDP. We can see that of all the public procurement, aggregates of construction correlates most strongly positively with GDP, while sectors other than construction correlate with GDP negatively.

Table 5 Correlations of types of public procurement and GDP

	Total PP	Construction	Other than construction	GDP
Total	1			
Construction	0.8441	1		
Other than construction	0.8746	0.4783	1	
GDP	0.0386	0.1496	-0.0720	1

Figure 4 Share of construction procurement in total public procurement

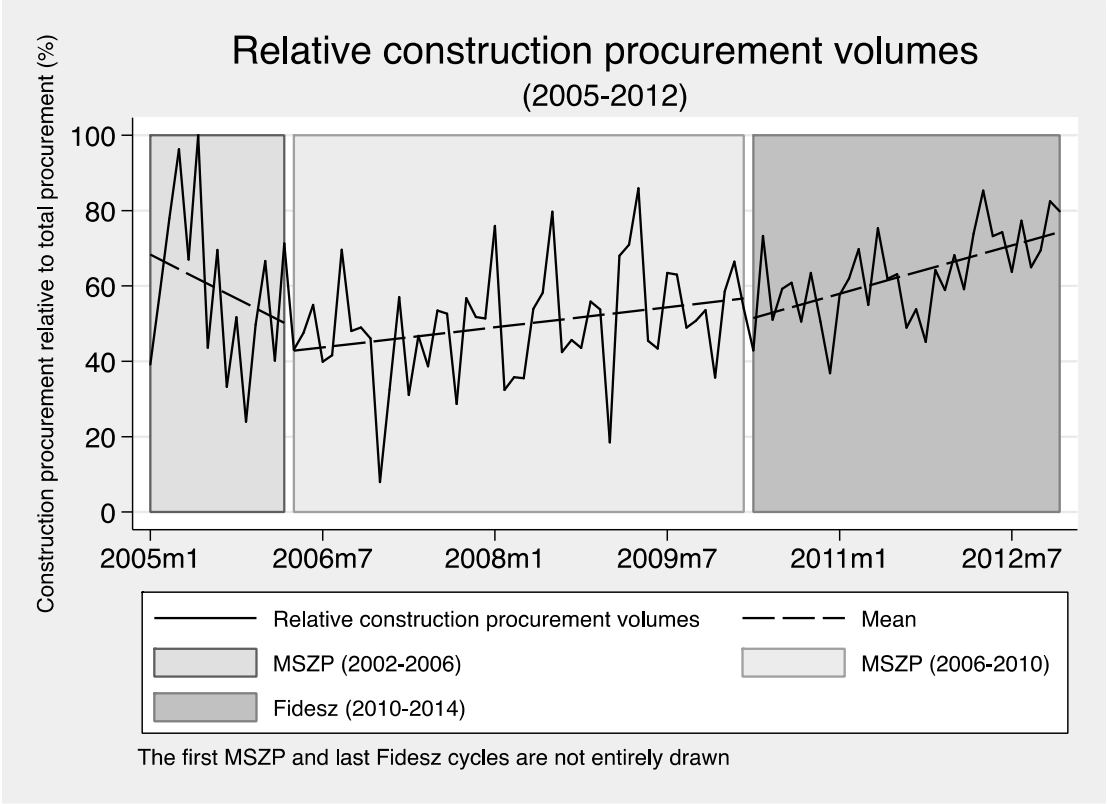
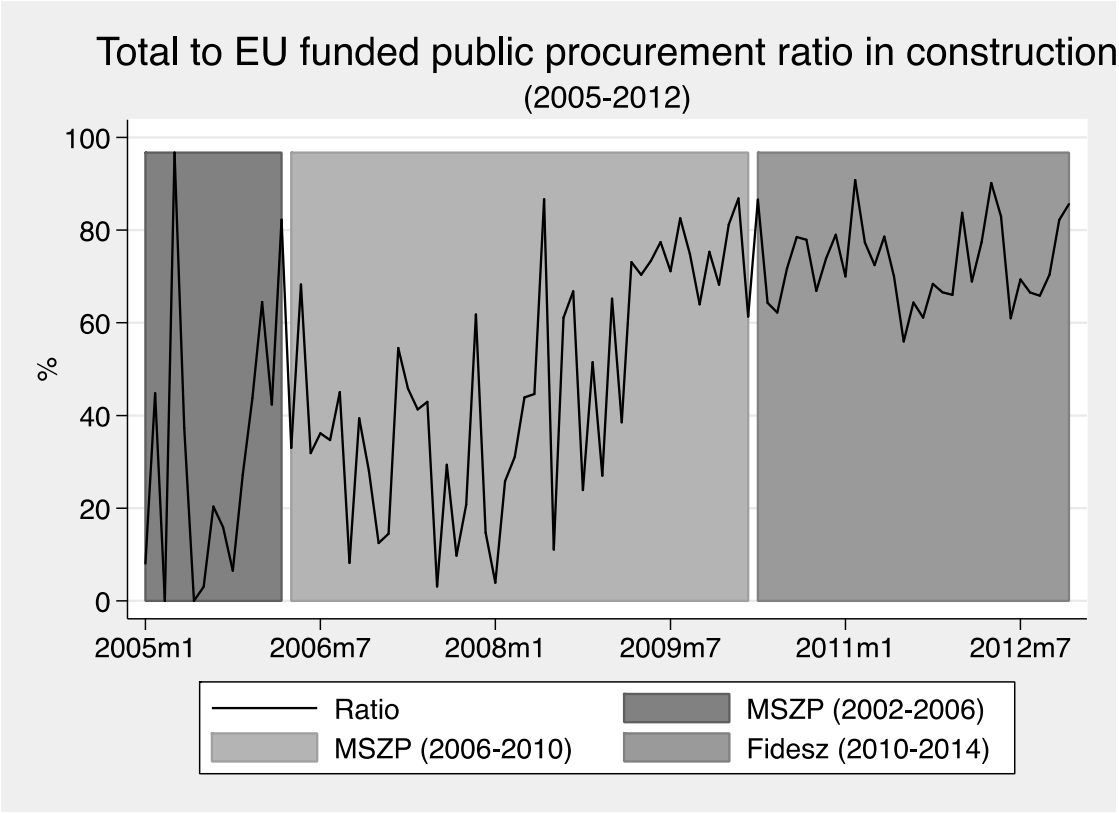


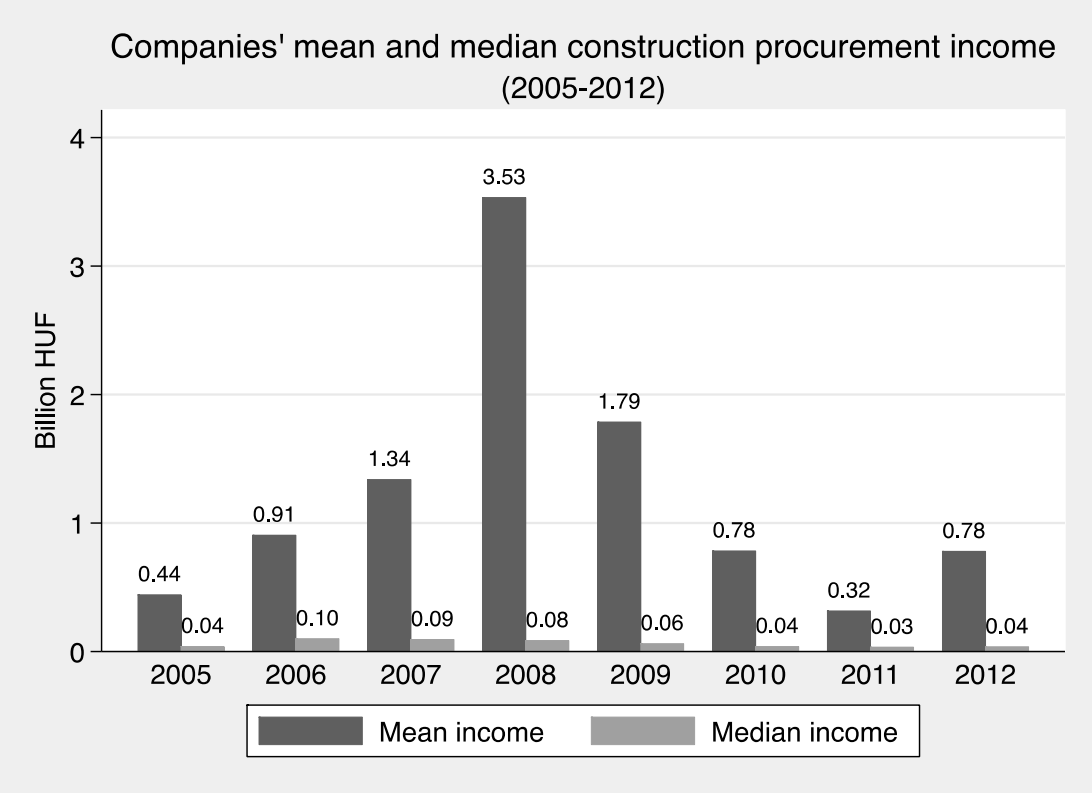
Figure 5 looks at the value of EU funded public procurement tenders in construction relative to the non-EU funded construction public procurement tenders in Hungary. The figure indicates that until the beginning of 2009, the share of EU funded public procurement in construction was much lower and more volatile compared to the following period with a mean of 35.0% and 73.18% and a standard deviation of 23.45% and 8.41% respectively.

Figure 5 Total vs. EU funded construction procurement volumes



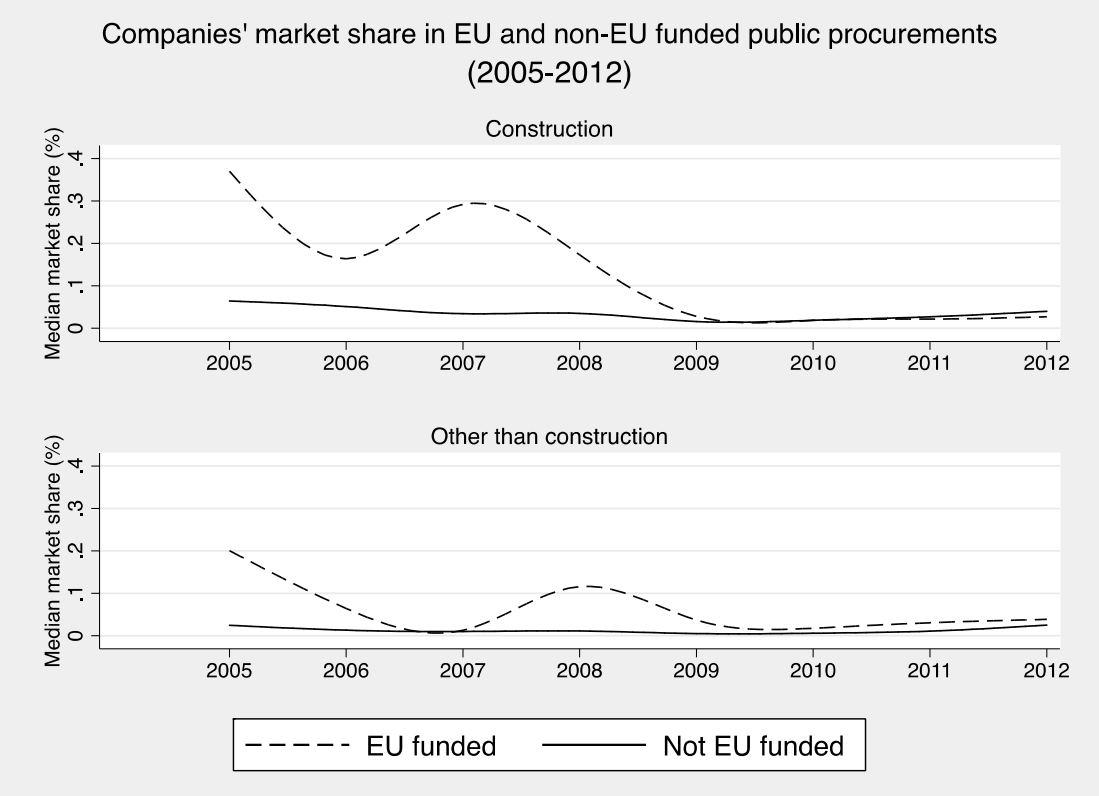
Turning to companies winning public procurement tenders, Figure 6 shows an initially increasing mean of public procurement income of companies in construction, that drops by half after 2008 and keep on decreasing almost until the very end. The initial discrepancy between the mean and median values, suggesting an uneven distribution of companies' public procurement incomes, closes somewhat after 2009. The drastic expansion of the typical procurement income of suppliers coincides with the expansion of overall spending on construction. Under competitive circumstances with low barriers to entry, a sustained and vast expansion of spending in a market increases market entry, hence lowering the average or typical procurement income per company. However, we observe a very different phenomenon in Hungary. Instead of more companies entering the market, it is the already active companies which deliver more public works. Hence, it is likely that there are effective entry barriers which could be technological, administrative or political, i.e., corruption-related. When looking at the effect of political connections and corruption on companies' procurement market success in section VI, we will explore this point in detail.

Figure 6 Mean and median construction procurement incomes



In Figure 7 one can investigate the market shares of winning companies in both the construction sector and in other sectors, where market share for each winning firm is calculated as the ratio between the company's total contract value won and the value of all tenders. The median values are below 0.5%, meaning that an average company wins less than 0.5% of the total public procurements disbursements from 2005 to 2012 if the procurement is EU funded and even less when they are non-EU funded. Despite the slight difference between the medians, the difference is significant (Two-sample Wilcoxon rank-sum test, z = -5.053, p = 0.0000), meaning that EU funded construction procurement market shares are more concentrated than the non-EU funded.

Figure 7 Companies' market share in EU and non-EU funded public procurement (2005-2012)



Because of the distribution of public procurement income to total turnover ratio is highly uneven (see Figure 8), we will use median instead of mean to characterize changes over time. Figure 9 shows a growing share of public procurement income in turnover of a median company over 2005 to 2011. While the share is only 6.9% in 2005, it exceeds one third of the turnover in 2009. The rapid hike in companies' dependence on public procurement and then its slight decline coincide with the rapid growth of public procurement spending after 2006 and the steep drop in spending after 2010. During the same period, total turnover of construction companies observed remained unchanged. This raises a range of hypotheses: first, throughout 2005-2010, EU funded expansion of public procurement spending may have given rise to clientelistic networks predominantly feeding on public money rather than private market competition; Second, these networks may have been capable of maintaining their incomes even in times of spending contraction using connections.

Figure 8 Histogram of procurement income to turnover ratio

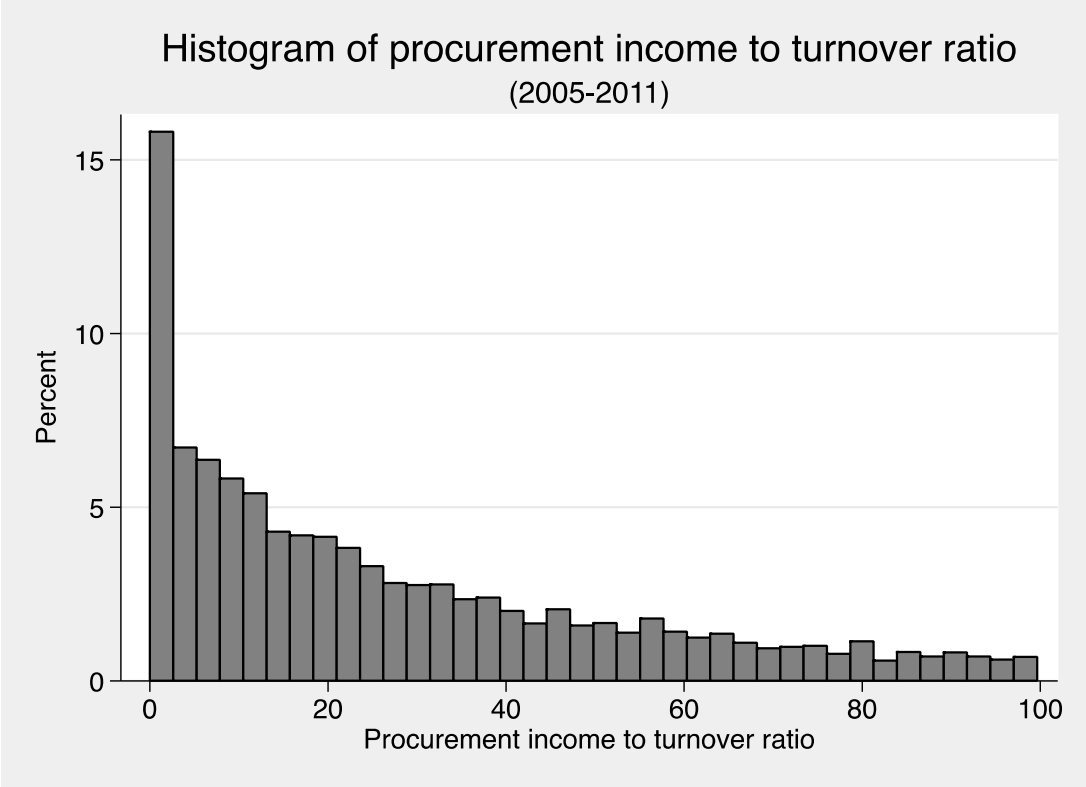
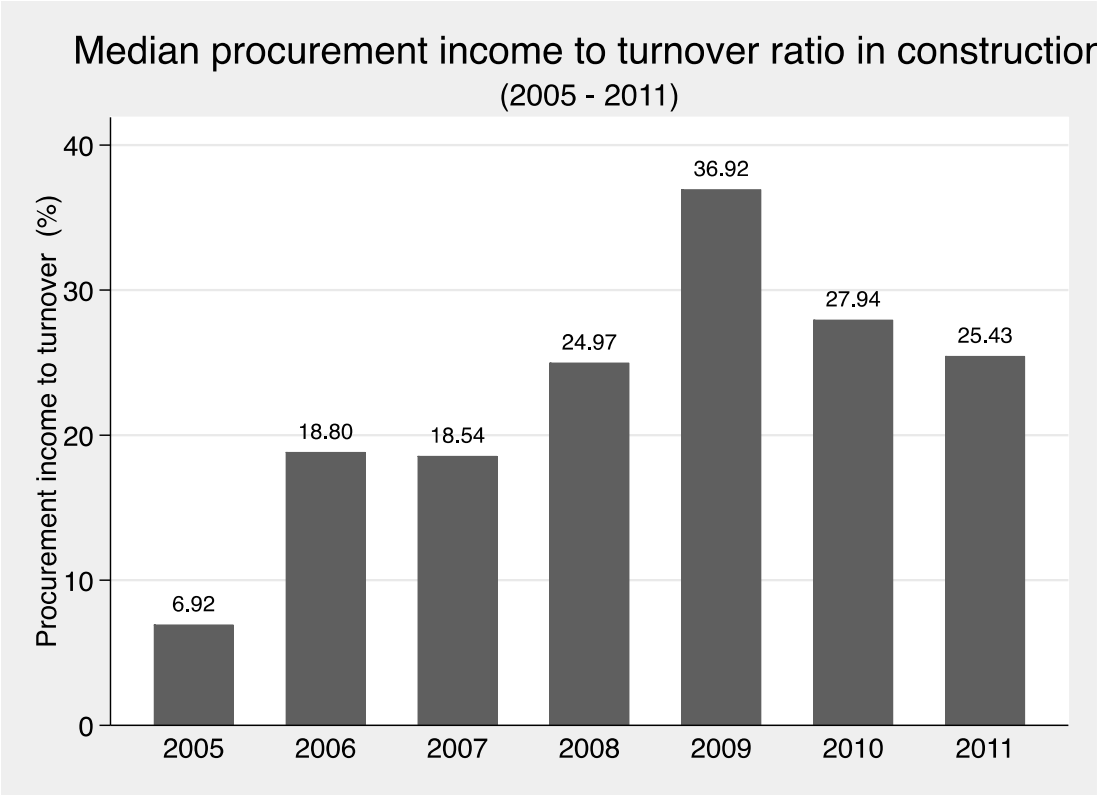
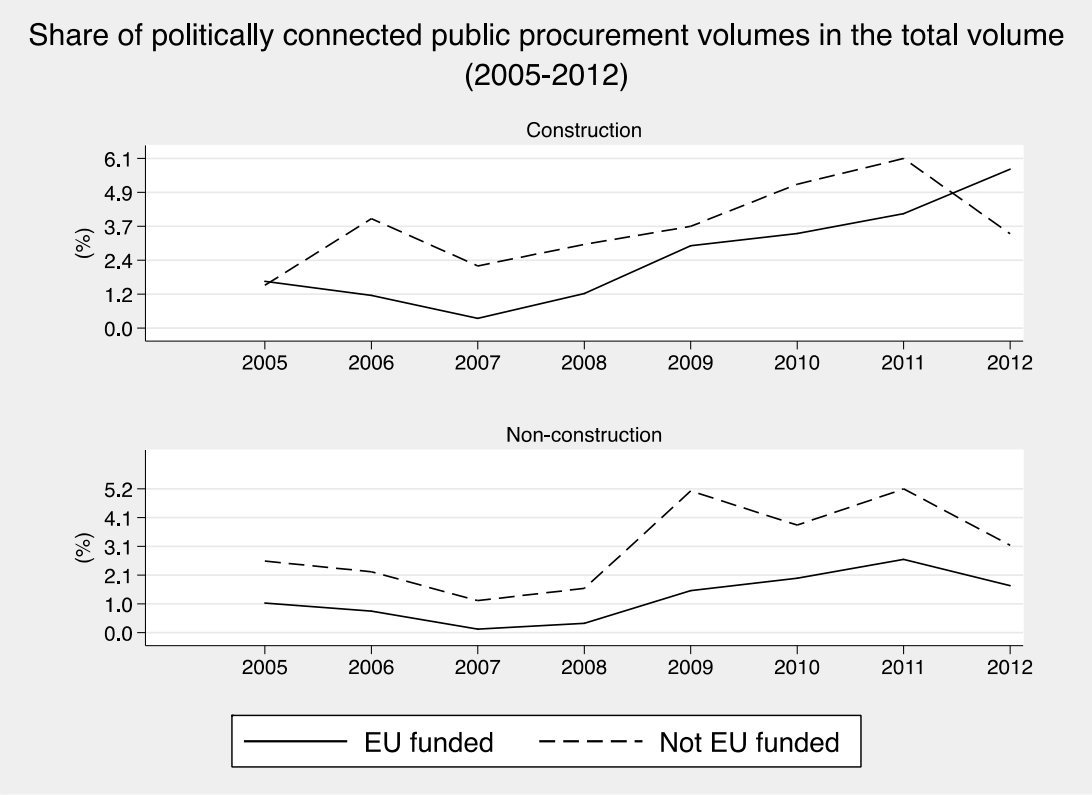


Figure 9 Median procurement income to turnover ratio in construction



The average public procurement tender volume in construction from 2005 to 2012 if a company had a political connection was 77.7 million HUF, while it was 104.6 million HUF if a company did not have a politically affiliated manager, director or owner. In sectors other than construction these numbers are 89.0 and 61.7 million HUF respectively. Figure 10 indicates the share of politically connected public procurement tender volumes compared to the total volume for every year during this spell. The average share in the construction sector for the whole timespan is 3.62 for non-EU funded public procurement compared with 2.57 for EU funded public procurement. The same numbers for sectors other than construction are 3.1 and 1.26 respectively. The ratios over the eight years show that in almost every year the share of politically connected tenders are higher when the tender is non-EU funded. Furthermore, the share of politically connected tenders are generally higher in the construction sector, however the average share of politically connected procurement volumes is higher in the non-EU funded non-construction sector category than in the EU funded construction sector.

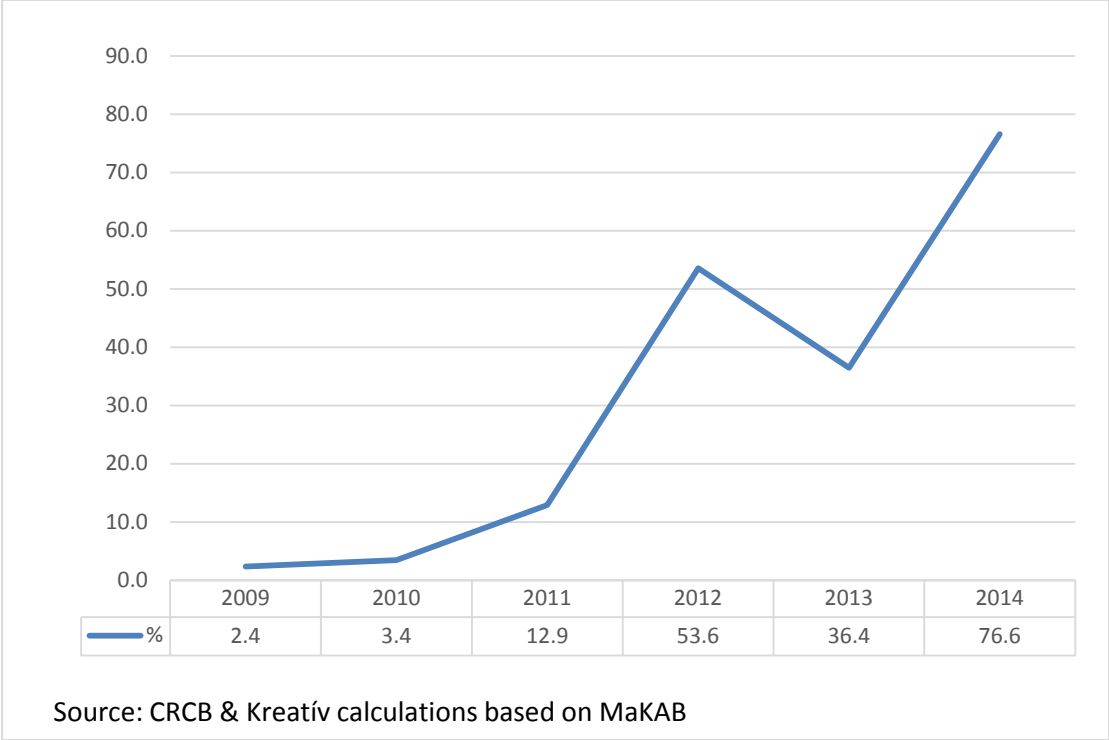
Figure 101 Share of politically connected public procurement volumes in the total volume



The overall low amount of public procurement income controlled by politically connected firms is due to the restricted nature of identifying political connections: considering only direct links (politician owning or managing a company) and defining the identity of persons and the matching of different names in a conservative way. Detailed work focusing on one sector and unearthing the complex web of political connections can reveal a picture of much more substantial political inference into public procurement markets. For example, recent in-depth investigation of political connections in the communications services market revealed that the governing

party's business allies have steadily increased their market share to reach as high as 75% (Figure 11) (Bátorfy – Fazekas – Tóth, 2014).

Figure11. Share in total public procurement income of companies linked to Fidesz, 2009-2014, %, communications services, N=1005



Source: CRCB & Kreatív calculations based on MaKAB

V. CONTROLS: NATIONAL PUBLIC PROCUREMENT LEGISLATION AND PRACTICE

The Hungarian Public Procurement Law (2003. évi CXXIX törvény a közbeszerzésekről [in force before 2012] and 2011. évi CVIII Törvény a közbeszerzésekről [in force after 2012]) have remained in compliance with the Public Procurement Directive (Directive 2004/98/EC, OJ L 134, 30.4.2004, p. 114) by and large. As a crucial aspect of transparency and the scope of the data analysed above is the set of minimum thresholds for the applicability of the Hungarian Public Procurement Law (Table 6). Note that Hungarian thresholds are well below the Public Procurement Directive's thresholds.

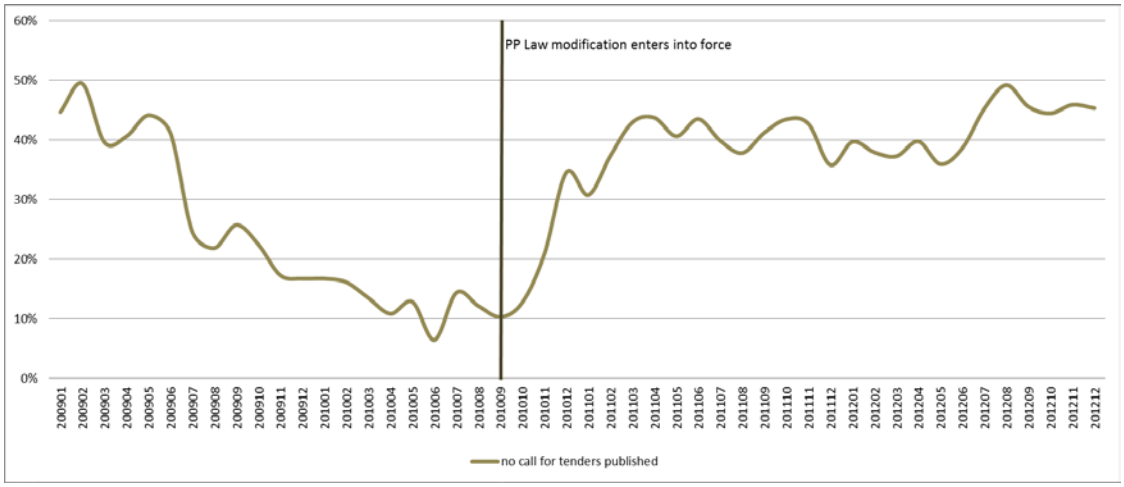
Table 6 Procurement thresholds, million HUF, national Public Procurement Regime

		2009	2010	2011	2012	2013	2014
General Issuers	Goods	8	8	8	8	8	8
	Public Works	15	15	15	15	15	15
	Public works concession	100	100	100	100	100	100
	Services	8	8	8	8	8	8
	Services concession	25	25	25	25	25	25
Utilities	Goods	50	50	50	50	50	50
	Construction	100	100	100	100	100	100
	Services	50	50	50	50	50	50

Underpinning its support for open spending, at least on the surface, the Hungarian government joined the Open Government Partnership in 2012 and concluded an action plan in February 2013 detailing its commitments as part of this partnership (Government of Hungary, 2013). While this action plan reinforces a number of anti-corruption measures already planned or ongoing, it also introduces new commitments bearing consequences to government decision making 1) improving the transparency and accessibility of budget data; 2) enhancing the quality and accessibility of public procurement data; and 3) further advances the public availability of information on the decisions and contracts regarding the use of public assets and funds. While the implementation of some of these actions is still pending, taken together, they represent a chance for significantly moving ahead.

In spite of these positive developments, the Hungarian government has also taken a range of steps towards decreasing transparency and open competition in public procurement both of which considerably contribute to corruption risks. Crucially, changes to the Public Procurement Law made less transparent procedure types more easily available to issuers of tenders (*2010. évi LXXXVIII törvény a közbeszerzésekről szóló 2003. évi CXXIX. törvény módosításáról*, 2010) which drastically decreased the proportion of procedures with call for tenders published in the Hungarian Public Procurement Bulletin (Figure 12). In addition, the requirement, unique in Europe, to publish contract completion announcements which disclose the final contract value and completion data has been removed effective from 1st of January 2012.

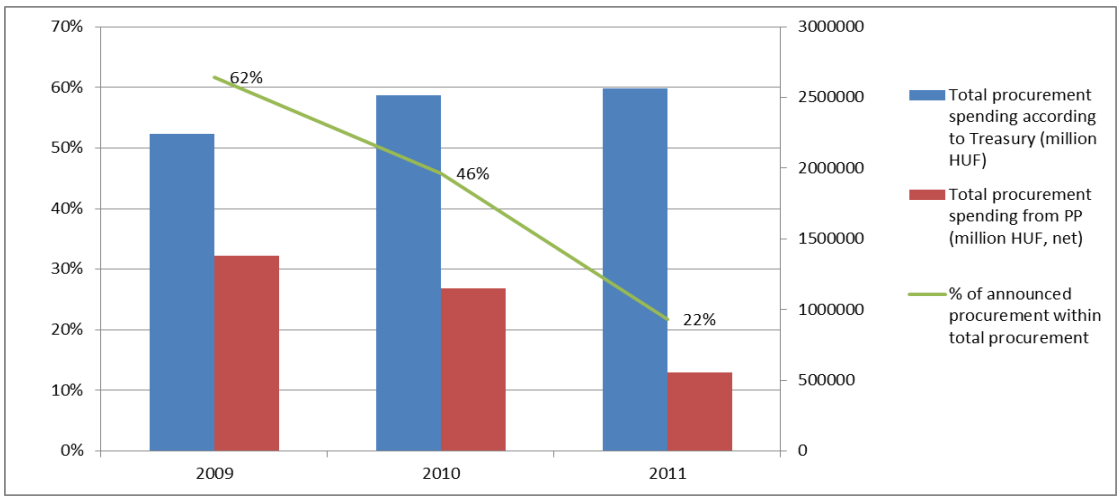
Figure12. Proportion of contracts awarded without a prior publication of a call for tenders in the Hungarian Public Procurement Bulletin, 2009-2012



Source: own calculations using data from Fazekas, Tóth, & King (2013a)

Moreover, the proportion of public procurement spending announced in the Hungarian Public Procurement Bulletin (which also publishes all the Hungarian announcements in the Official Journal of the European Union) within total procurement spending has also decreased since 2010 (Figure 13). Decreasing transparency in public procurement constitutes a considerable risk to integrity across OECD countries (OECD, 2009).

Figure 13. Public procurement spending announced in the Public Procurement Bulletin and total public procurement spending, 2009-2011



Source: (Fazekas, Tóth, & King, 2013b)

Notes: for details of calculating total procurement spending from Treasury annual budget accounts see: (Audet, 2002; European Commission, 2011)*. The ratio reported is only an estimation as spending as announced in PP refers to the total lifetime of the contract while Treasury accounts contain only the spending accrued in a given year. Further reason for imprecision of the ratio is that the set of institutions submitting accounts to the Treasury and those subject to the Public Procurement Law are somewhat different.*

The obligations of contracting authorities – including the appointment of award boards and evaluation committees – are laid down in the Act CVIII of 2011 on Public Procurement. In the relevant sections (Article 22. (1)-(5)) the law states the following: (1) while preparing the contract award procedures, the contracting authorities must

specify all the members who will attend the procedure, meaning the person (or body) of the award board and the body of the evaluation committee as well. (2) The aforementioned members must possess adequate competence in the adequate field of the procurement, in public procurement in general, in law and in finance. (3) The contracting authority must set up an evaluation committee body of at least three competent members who will evaluate the tenders based on prescribed requirements and then provide an expert's opinion and a proposal of decision towards the award board. (4) Finally, the person who makes the ultimate decision (and cannot be part of the evaluating committee) chooses the applicant who shall fulfill the contract. There is very little to no information on the actual composition of award boards making the assessment of these regulations impossible. While a few scandals of apparent conflict of interest in the press serves as a biased guidance, it can by hypothesized that in line with public procurement corruption risks measured, award board compositions carry further risks.

A standard feature of public procurement laws across Europe is the options for applying exceptions on the grounds of national security grounds. While these exceptions are justified in a range of circumstances they carry the potential to decrease the transparency of public procurement spending. In Hungary, the Public Procurement law allows for cases of national security concern to the publication of a call for tenders and give account of how the contract is executed afterwards (9. § (1) a), 2011. évi CVIII. törvény a közbeszerzésekről). Until October 2013 this rule of exception was applied 126 times. (444.hu, 2014, compiled from the original documentation of the Parliamentary Committee on National Security) Between October 2013 and September 2014 there were additional 29 cases. 30.14 billion HUF (~98 million EUR) was spent on these 29 cases.

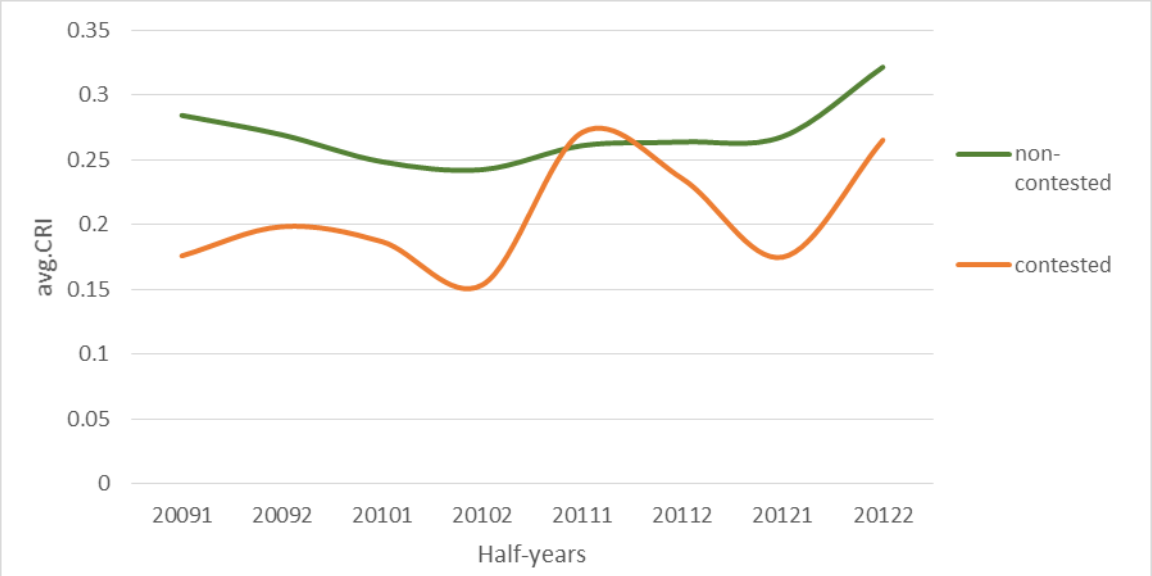
Next, we introduce some of the examples that show a pattern when issuers have seemingly abused this rule of exception.

- First, the Ministry of National Development in 2014 asked for 12 billion HUF (~39 million EUR) to maintain and develop the National Toll System. The reason to apply the law on the procurement tender was that the new system would probably connect to a police database.
- Next, still in 2014 the Prime Minister's Office was able to apply the rule to their procurement tender to *plan* the modifications of their new offices in the Buda Castle for 800 million HUF (~2.6 million EUR).
- Furthermore, the Hungarian Police concealed the details of their energy efficiency development procurement tender of their office building for the value of 4.23 billion HUF (13.76 million EUR).
- Also, the Parliament covered up the procurement procedure for the *planning* of the renovation of the *facade* of the Federation of Technical and Scientific Societies for 200 million HUF (~650000 EUR).
- Finally, the Directorate General of Public Procurements and Sustenance applied the rule in order to conceal the details of their public procurement of the cleaning services of public institutions, a value of 108.5 million HUF (~350500 EUR).

A key curb on corruption in public procurement is the courts, in particular the Public Procurement Arbitration Court which serves as a first instance court and it blocks contract signature by default until a decision is reached. This makes the Arbitration Court highly influential, but also an ideal target for capture. Interview evidence points at direct political pressure on Arbitration Courts at least in high value construction cases. Quite tellingly, the different regional Courts have not managed to agree on even a single synthesis decision making legal practice highly variable. Interviewees quoted exactly the same tendering practice judged as lawful by one Court while as unlawful by another.

One indication of insufficient controls by Arbitration Courts is how government turnover influences their supposedly impartial activities (Figure 14). For tracking signs of partiality, we use the Corruption Risk Index (CRI) which tracks the prevalence of red flags in the contracting process (for more details see below). On the one hand, during normal times - that is without government change - the Arbitration Court tends to deal with lower corruption risk cases meaning that the cases with many red flags are missed. On the other hand, for a few months after the May 2010 government change in the first half of 2011, the Arbitration Court has concentrated on high corruption risk cases which is a distinctly different approach from before or after. While this is no direct evidence of political pressure on courts as companies filing complaints exercise a sizable impact on the functioning of the Arbitration Court, it does underlie the possibility of politically driven judiciary in the field of public procurement.

Figure 142. Average Corruption Risk Index (CRI) of tenders with and without Arbitration Court judgment, 2009-2012, N_{court}=1 386; $N_{no\text{-}court}$=51 858



Taken together, the above evidence demonstrates that Hungarian governments have followed highly variable paths since 2005. The technocratic MSzP government has seen a slight, but steady improvement in transparency of public procurement spending, while the Fidesz government radically decreased spending transparency in a number of key aspects from openness to competition to a reasonable use of security exceptions.

VI. DETECTING GOVERNMENT FAVOURITISM IN PUBLIC PROCUREMENT

Detecting government favouritism is notoriously difficult, especially in environments where corruption is the norm rather than the exception. In such environments, favouritism is not only hidden, but it is also able to use legal means to hide its true nature.

Reflecting the challenges of measurement and the diverse nature of favouritism in government contracting, three main approaches are employed, each of which looks at the same phenomenon from a different angle, using different indicators:

- Using the Corruption Risk Index (CRI) for assessing the prevalence and structure of red flags in the tendering process. CRI is used for tracking corruption risks over time as well as comparing corruption risks across sectors.
- Tracking political connections of tender-winning companies (PCI) and measuring the impact of such connections on the likelihood of winning tenders. Combining PCI with CRI within the same analytical framework validates each of the indicators as well as sheds some light on the corruption techniques used by powerful political elites.
- Identifying public procurement supplier risk indicators (SRI) and tracking the prevalence of such risks over time. Corruption risks present in company structure are suitable guides for understanding the technologies used for corrupt rent extraction by corrupt networks.

1. Tendering process related corruption risks

The Corruption Risk Index (CRI) captures the probability of government favouritism to occur in public procurement tendering using a range of elementary red flags (Fazekas, Tóth, & King, 2013). The list of red flags used in this composite indicator and their weights are reported in Table 7.

Table 2. Component weights of CRI reflecting variable and category impact on corruption outcomes, normed to have an overall sum of 1

variable	component weight
single received/valid bid	0.096
no call for tenders published in official journal	0.096
procedure type	
ref. cat.=open procedure	0.000
1=invitation procedure	0.048
2=negotiation procedure	0.072
3=other procedures	0.096
4=missing/erroneous procedure type	0.024
relative length of eligibility criteria	
ref.cat.=length<-2922.125	0.000
1= -2922.125<length<=520.7038	0.024

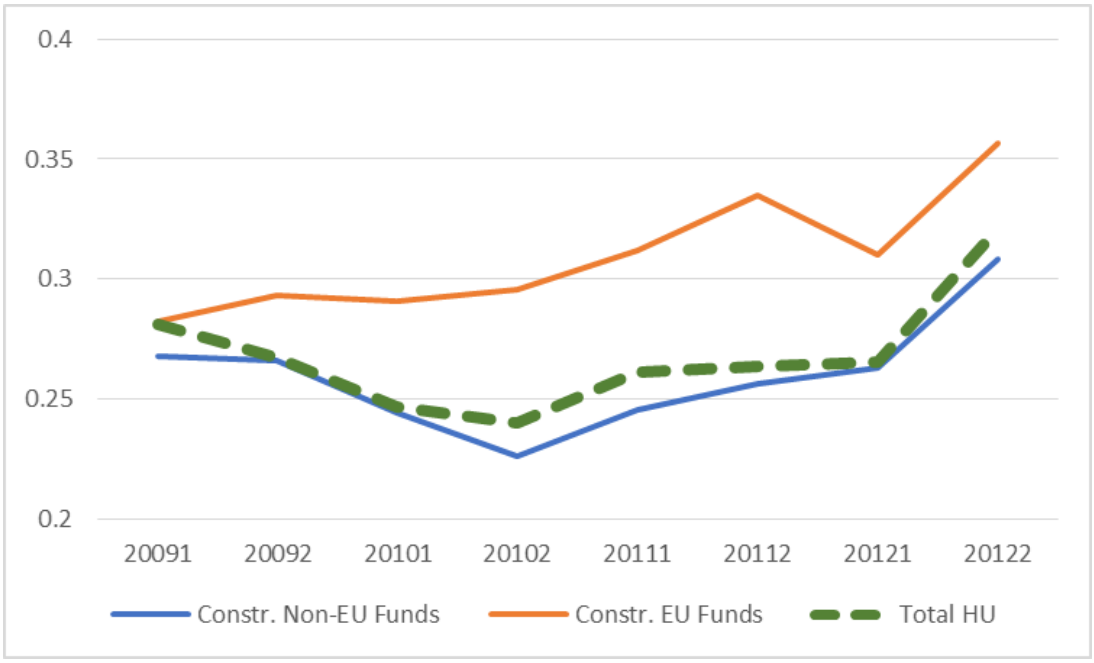
2= 520.7038<length<=2639.729	0.048
3= 2639.729<length	0.072
4= missing length	0.096
short submission period	
ref.cat.=normal submission period	0.000
1=accelerated submission period	0.048
2=exceptional submission period	0.072
3=except. submission per. abusing weekend	0.096
4=missing submission period	0.024
relative price of tender documentation	
ref.cat.= relative price=0	0.000
1= 0<relative price<=0.0004014	0.000
2= 0.0004014<relative price<=0.0009966	0.096
3= 0.0009966<relative price<=0.0021097	0.064
4= 0.0021097<relative price	0.032
5=missing relative price	0.000
call for tenders modification(only before 01/05/2010)	0.096
weight of non-price evaluation criteria	
ref.cat.= only price	0.000
2= 0<non-price criteria weight<=0.4	0.000
3= 0.4<non-price criteria weight<=0.556	0.048
4= 0.556<non-price criteria weight<1	0.096
5=only non-price criteria	0.000
procedure annulled and re-launched subsequently	0.096
length of decision period	
ref.cat.= 44<decision period<=182	0.000
1= decision period<=32	0.064
2= 32<decision period<=44	0.032
4= 182<decision period	0.096
5= missing decision period	0.000
contract modified during delivery	0.096
contract extension(length/value)	
ref.cat.= c.length diff.<=0 AND c.value diff.<=0.001	0.000
2= 0<c. length d.<=0.162 OR 0.001<c.value d.<=0.24	0.096
3= 0.162<c. length diff. OR 0.24<c.value diff.	0.000
4= missing (with contr. completion ann.)	0.048
5= missing (NO contr. completion ann.)	0.000
winner's market share	0.096

Source: PP

Note: If the call for tenders or contract fulfilment announcements are missing, the index is reweighted to only reflect the available variables (i.e. proportionately increasing the weight of observed variables).

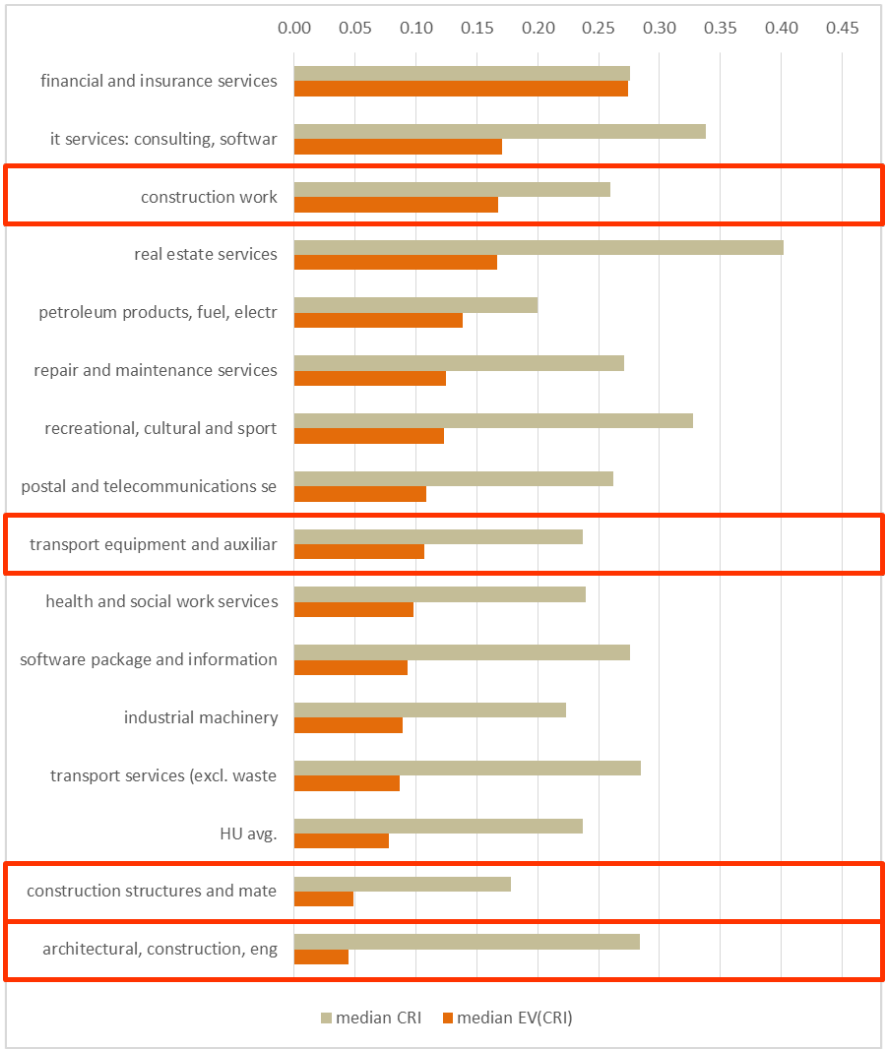
Tracking the trends of corruption risks in the construction sector allows us to understand the relative corruption performance of construction and EU Funding in the sector compared to the country as a whole and to various national governments. Figure 15 highlights that the CRI of construction closely tracked overall trends in CRI in Hungary with gradual improvements under the technocratic Bajnai government, then about half a year of transitory period, while since 2011 constant and occasionally dramatic deterioration of the corruption situation. Most notably, EU funded public procurement in the construction sector has always underperformed both non-EU funded construction the public procurement as a whole.

Figure 15. Average Corruption Risk Indices per half-year in Hungary, 2009-2012, EU Funded and non-EU Funded public procurement of construction



In order to understand corruption risks in construction and especially what their magnitudes mean, we can look at CRI in all the major sectors of public procurement in Hungary throughout 2009-2013 (Figure 16). It is immediately apparent that the construction sector itself is highly diverse in terms of construction risks with construction works displaying one of the highest average risks while construction structures and material, a very standardised market, is one of the lowest risks. In addition, the median CRI in the construction works sector is only towards the average of the country, while the median expected value of particularistic resource allocation (contract value*CRI) is among the top three highest corruption risk areas. This points at the fact that what makes construction really high corruption risk is that there are so many high value contracts awarded.

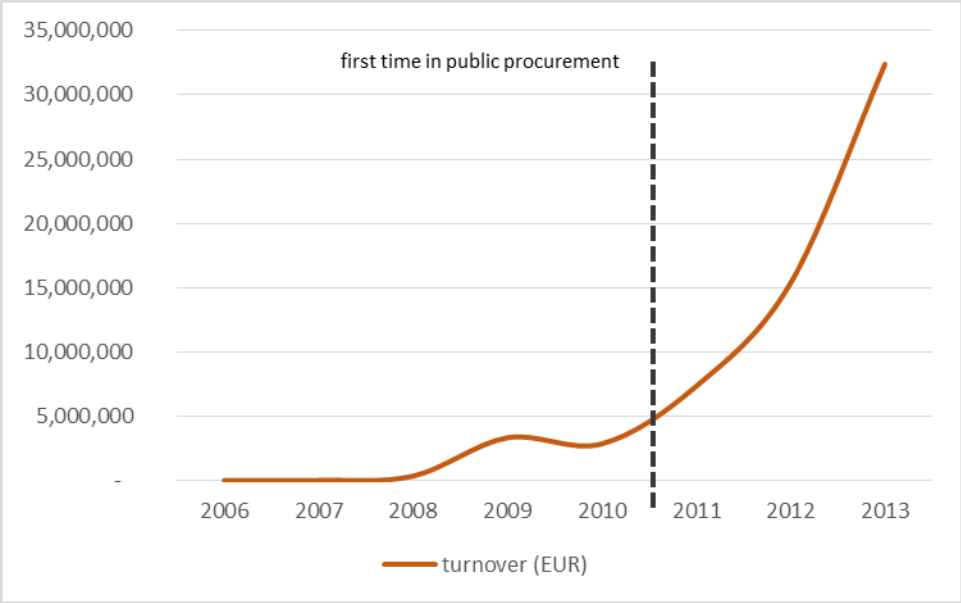
Figure16. Median CRI scores and median expected values of particularistic resource allocation (EV(CRI)), by main markets, 2009-2012, total public procurement, Hungary



2. Exploring the role of political connections in public procurement success

Anecdotal evidence of political connections leading to public procurement success and rapid wealth accumulation are plenty in the Hungarian media. One particular example is the mayor in the home village of Viktor Orbán, the prime minister since 2010. His construction company in operation since 2001, Mészáros és Mészáros ltd., earned very little income until the change of government in 2010 with no public procurement contract whatsoever. However, since 2011 turnover and profitability have skyrocketed, coinciding with the first public procurement successes of the company and the change of government (Figure 17). While such successes of politically connected persons prove nothing on their own, they prompt the analysis below and the patterns to be identified with statistical analysis.

Figure 17. Annual turnover of Mászáros és Mászáros ltd. 2006-2013, EUR



Source: http://atlatszo.hu/2014/06/03/a-joisten-a-szerencse-es-orban-viktor-szemelye-igy-vagyonosodott-meszaros-lorinc/

In order to formally assess the effect of political connections on company success in public procurement, we have run a set of logistic models explaining the winning of a tender. The results are in Table 9 and Table 10. In both tables the independent variable is a binary variable that is equal to one if a firm won the tender and to zero if a firm lost. The overall structure of the two tables is similar except that Table 8 does not consider the Corruption Risk Index (CRI) of the tender while Table 9 does. Regressions were run on the full sample including both the MSzP and Fidesz governments while differentiating between the construction sector and all other sectors. No separate analysis of governments is conducted as further work is needed to track key political officeholders' business assets in both periods to an acceptable quality.

The independent variables are as follows: Our key variable, political connection (as discussed before) is a binary variable that takes the value 1 in case a firm's director, owner or manager is also a politician and 0 if not. The coefficient of the political connection variable is positive throughout the whole set of models in Table 8, meaning that an average firm with political connections has a higher chance of winning a public procurement tender than an identical firm without political affiliation both in construction and sectors other than construction. For example, models (1) and (2) show that over 2008-2011 in the sectors other than construction, an average firm has 16% and 21% higher chance of winning a tender respectively, compared to an identical firm without political connection. Note that the impact of a firm's political connection on its chances of winning is higher in construction than in the other sectors.

The Corruption Risk Index measures tender-wise corruption risk in a continuous scale from 0 to 1. We decided to exclude CRI from the first set of models in Table 8, because we wanted to show that political connections have a sizeable effect already on their own. In the second set of models (Table 9) we run the same set of models for the whole period in the construction, but by three equal quartiles of CRI. The point

of splitting up the sample into three was to determine whether political connections have a uniform impact over winning chances or not. If the impact is not uniform, Hungarian public procurement is only partially captured by high-level political interests. In Table 9, to our surprise, the effect of political connections on company success strongly co-varies with the level of CRI in the tendering process (the share of politically connected winners is by and large the same across the three subsamples). In low CRI tenders, that is in high integrity public organizations, political connections have a negative, albeit insignificant impact on winning chances. While in high CRI tenders, that is in low integrity public organizations, political connections have an overwhelming impact: politically connected firms *are 65% more likely to win than their non-connected counterparts*. This is three times larger than observed on the whole sample. These findings imply that while political connections are pervasive across the whole public procurement sector in Hungary, they are able to corrupt the tendering procedure in selected cases.

Table 8 Logit marginal effect models (without Corruption Risk Index)

	For all years (2008-2011)	
	(1)	(2)
	Other	Construction
Dependent variable: Winning the public procurement tender		
Political connection	0.167	0.212*
	(1.89)	(2.06)
Same location	0.00732	0.340***
	(0.28)	(12.16)
Nr. of applicants	-0.0349***	-0.0566***
	(-16.37)	(-21.95)
Tender market share	-0.0259***	-0.0604***
	(-51.08)	(-35.50)
Firm size		
Medium	0.210***	-0.169***
	(6.34)	(-5.29)
Medium-large	0.0809*	-0.285***
	(2.02)	(-6.64)
Large	0.174**	-0.720***
	(3.03)	(-9.28)
Missing data	0.191***	-0.503***
	(4.00)	(-7.83)
Constant	0.612***	0.464***
	(19.92)	(15.29)
N	34072	32349
R^2	0.227	0.216

t statistics in parentheses, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 9 Logit marginal effect models by tertiers of Corruption Risk Index, all years (2008-2011), construction sector only

	(1) Low CRI	(2) Medium CRI	(3) High CRI
Dependent variable: Winning the public procurement tender			
Political connection	-0.127	0.138	0.647*
	(-0.59)	(-0.6)	(-2.51)
Same location	0.250***	0.515***	0.257***
	(-3.8)	(-7.57)	(-3.58)
Nr. of applicants	-0.0449***	-0.0781***	-0.108***
	(-6.87)	(-11.68)	(-12.69)
Tender market share	-0.0909	-0.167	-0.522***
	(-0.87)	(-1.80)	(-6.68)
Firm size			
Medium	-0.0221	-0.199**	-0.418***
	(-0.31)	(-2.68)	(-5.24)
Medium-large	-0.256*	-0.0702	-0.340***
	(-2.33)	(-0.68)	(-3.31)
Large	-0.499*	-0.697***	-0.481*
	(-2.43)	(-3.50)	(-2.45)
Constant	-0.0935	0.493***	1.511***
	(-1.22)	-6.7	-19.29
N	4047	4059	4484
R^2	0.015	0.043	0.059

t statistics in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

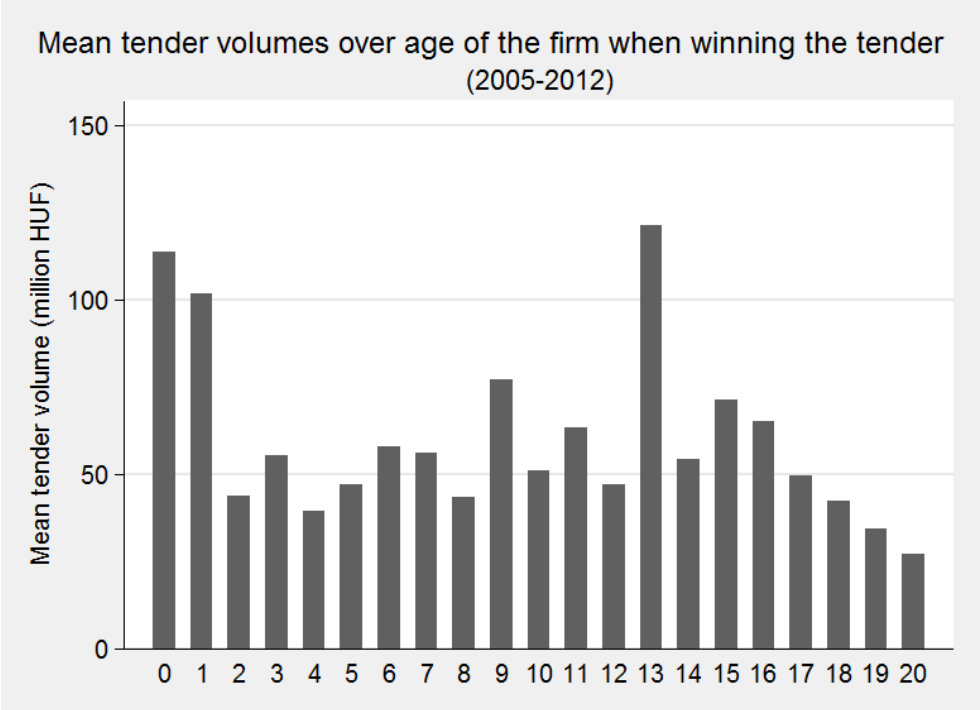
3. Supplier corruption risks

While no comprehensive discussion can be offered, a set of novel corruption risk indices can be demonstrated on Hungarian data which point at the possibility of a Supplier Risk Index (SRI) following a similar logic to CRI, but focusing on winning company characteristics.

A set of risks are associated with company age at the time of winning a tender; that is whether a company is particularly young when it wins a procurement contract or whether the company was founded at a particular time which makes it likely linked to a new government.

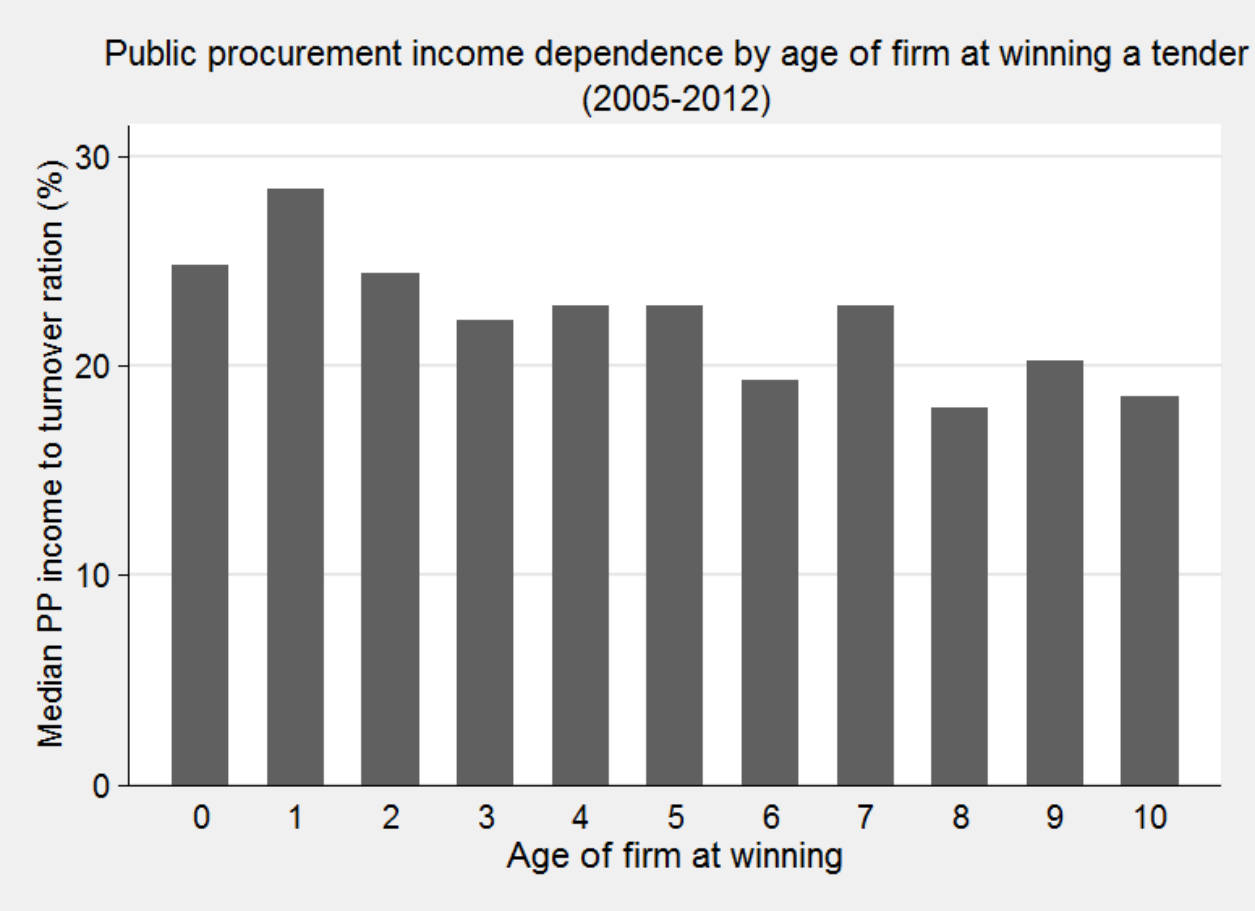
Some companies win more contracts than others which is normal in any well-functioning market with older, more experienced, and larger companies typically winning more. However, what we see in Hungary is a patter distinctively different from this general expectation (Figure 18). First, particularly young companies (existing for 1 or less years) have very high average contract volumes; that is they win a lot more than most other companies. This is surprising predominantly because for fresh companies the administrative burden and the bureaucratic complexities of public procurement are expected to be prohibitive. However, the alternative explanation is that some of these firms have been specifically founded for extracting corrupt rents. Second, one other typical age stands out: 13 years which are quite surprising in a purely economic context. Nevertheless, in a political interpretive frame, they make a lot of sense: 13 years have passed between the first and second Fidesz government entering office (first Fidesz government entering office in 1998; second Fidesz government entering office in 2010).

Figure18. Mean tender volumes over the age of firm at the time of winning, 2005-2012



What makes very young companies have a considerably higher corruption risk is that their dependence on public procurement income is higher implying that they have less alternative income sources to resist corruption if they chose to do so (Figure 19).

Figure 19. Ratio of public procurement income to total annual turnover, 2005-2012



VII. CONCLUSIONS

Public procurement of infrastructure from national or EU Funds is a hotspot for corruption in Hungary just like in the other countries investigated by ANTICORRP Work Package 8. However, corruption is not pervasive in every corner and even high-level political influence has it limits.

While no comprehensive review of public procurement of infrastructure could be offered here, a few selected and intimately intertwined conclusions have emerged:

- Access to public procurement markets, especially EU Funded contracts, is difficult due to administrative as well as political reasons. It is a business limited to a trusted few either due to corruption or capacity to compete.

- While the economic environment has greatly varied, public procurement spending on infrastructure followed a political logic with elections, EU funding cycles, and political power games playing a crucial role.
- Controls of corruption in public procurement in general are weak: not only is effective transparency very limited and declining rapidly since 2010, but also institutional remedies are likely to be controlled by the current governing party.
- As a result of extensive public resources available, weak controls, and a complex regulatory environment facilitating close cooperation between bidders and public bodies, corruption is widespread in infrastructure provision. However, it affects larger contracts much more than smaller contracts making the sector only moderately corrupt in terms of share of corrupt transactions, and highly corrupt in terms of share of corrupt spending.
- Beyond the sheer amount of corruption, the structure of rent extraction, favouritism, and political pressure on spending organisations points at a dynamic landscape. Political connections, far from having a uniform impact, are effective in facilitating rent extraction only when organisational integrity is weak and both the bidders and contracting entities are politically controlled. In micro-cosmoses of high integrity, political connections are ineffective at best, but may even handicap companies.

REFERENCES

2003. évi CXXIX törvény a közbeszerzésekről (2003). Budapest.

2010. évi LXXXVIII törvény a közbeszerzésekről szóló 2003. évi CXXIX. törvény módosításáról (2010). Budapest.

2011. évi CVIII Törvény a közbeszerzésekről (2011). Budapest.

444.hu, (2014). A 8 legidiótább beszerzés, amiről nemzetbiztonsági okból nem tudhatunk. [online] Available at: http://444.hu/2014/09/15/a-8-legidiotabb-beszerzes-amirol-nemzetbiztonsagi-okbol-nem-tudhatunk/ [Accessed 8 Nov. 2014].

Bátorfy Attila – Fazekas Mihály – Tóth István János (2014), Verseny és haveri kapitalizmus a marketing, reklám és pr szolgáltatások piacán 2009-2014, Corruption Research Center Budapest, in press [Competition and crony capitalism in the market of marketing, advertisement, and PR services market 2009-2014]

Becker, S. O., Egger, P. H., & Ehrlich, M. von. (2012). *Absorptive Capacity and the Growth and Investment Effects of Regional Transfers: Regression Discontinuity Design with Heterogeneous Treatment Effects* (No. No. 89). Warwick.

Council Directive (EC) 2004/18 On the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts [2004] OJ L 134/114

Csizmás, K., Fazekas, M., Tóth, I. J., 2014. "Tű a szénakazalban – Az un. “Educatio hiba” és az eset kapcsán felvetődő problémák valamint ezek megoldása." Corruption Research Centre Budapest, Budapest.

Dimulescu, V., Pop, R., & Doroftei, I. M. (2013). Corruption risks with EU funds in Romania. *Romanian Journal of Political Science*, *13*(1), 101–123.

Fazekas, M., & Tóth, I. J., 2012a. "Hibák, javítások és előzetes eredmények - magyarországi közbeszerzések 2010-2011." Corruption Research Centre of the Corvinus University of Budapest, Budapest.

Fazekas, M., & Tóth, I. J. 2012b. "Public Procurement, Corruption and State Capacity in Hungary – objective measures and new insights." Budapest.

Fazekas, M., Chvalkovská, J., Skuhrovec, J., Tóth, I. J., & King, L. P. (2013). *Are EU funds a corruption risk? The impact of EU funds on grand corruption in Central and Eastern Europe* (No. CRC-WP/2013:03). CRC-WP/2013:03, Corruption Research Centre, Budapest.

Fazekas, M., Tóth, I. J., & King, L. P. (2013). *Anatomy of grand corruption: A composite corruption risk index based on objective data* (No. CRC-WP/2013:02). CRC-WP/2013:02, Budapest: Corruption Research Centre.

Fukuyama, F. (2011). *The Origins of Political Order: From Prehuman Times to the French Revolution*. London: Profile Books. Retrieved from http://books.google.co.uk/books?id=CvN0ihQi--wC

Government of Hungary. Magyarországnak a Nyílt Kormányzati Együttműködés (Open Government Partnership) elnevezésű nemzetközi kezdeményezés keretében teendő vállalásairól szóló akcióterv jóváhagyásáról. , Pub. L. No. 1080/2013. (II.25.) (2013). Hungary

Mungiu-Pippidi, A. (2006). Corruption: Diagnosis and Treatment. *Journal of Democracy*, *17*(3), 86–99.

North, D. C., Wallis, J. J., & Weingast, B. R. (2009). *Violence and Social Orders. A Conceptual Framework for Interpreting Recorded Human History*. Cambridge, UK: Cambridge University Press.

OECD. (2009). *OECD Principles for Integrity in Public Procurement*. Paris: OECD.

Piga, G. (2011). A fighting chance against corruption in public procurement? In S. Rose-Ackerman & T. Soreide (Eds.), *International Handbook on the Economics of Corruption, Volume Two* (pp. 141–181). Cheltenham, UK: Edward Elgar.

Public Procurement Directive (Directive 2004/98/EC, OJ L 134, 30.4.2004, p. 114)

Rothstein, B., & Teorell, J. (2008). What Is Quality of Government? A Theory of Impartial Government Institutions. *Governance*, *21*(2), 165–190.

This project is co-funded by the Seventh Framework Programme for Research and Technological Development of the European Union

Project profile

ANTICORRP is a large-scale research project funded by the European Commission's Seventh Framework Programme. The full name of the project is "Anti-corruption Policies Revisited: Global Trends and European Responses to the Challenge of Corruption". The project started in March 2012 and will last for five years. The research is conducted by 20 research groups in fifteen countries.

The fundamental purpose of ANTICORRP is to investigate and explain the factors that promote or hinder the development of effective anti-corruption policies and impartial government institutions. A central issue is how policy responses can be tailored to deal effectively with various forms of corruption. Through this approach ANTICORRP seeks to advance the knowledge on how corruption can be curbed in Europe and elsewhere. Special emphasis is laid on the agency of different state and non-state actors to contribute to building good governance.

Project acronym: ANTICORRP

Project full title: Anti-corruption Policies Revisited: Global Trends and European Responses to the Challenge of Corruption

Project duration: March 2012 – February 2017

EU funding: Approx. 8 million Euros

Theme: FP7-SSH.2011.5.1-1

Grant agreement number: 290529

Project website: http://anticorrp.eu/