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Corrupt Contracting: Partisan Favouritism in Public Procurement[3]

Working Paper series: GTI-WP/2016:02

April 2016, Budapest, Hungary

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Abstract

For politicians seeking to use a clientelist approach to achieve political and private gain, i.e., to prolong their hold on power and maximize personal profit, control of government contracting is a key tool. We theorise that politicians wishing to exploit government contracting for such ends will seek to increase their influence over three stages of public procurement - policy formation, implementation and monitoring – but that their efforts can be constrained by institutional controls and checks. We examine these influence strategies and institutional constraints by comparing one young democracy and one mature democracy, Hungary and the United Kingdom. Developing new procedural and outcome indicators of corruption risk in contracting, we use a change of government as a natural experiment to analyse partisan favouritism in procurement. We find that, in Hungary, where political influence is systematic and far-reaching, 50-60% of the market is dominated by favoured companies, compared to only 10% of the UK market.

Introduction

For political elites seeking to corruptly extract resources from the state, government contracting, or public procurement, represents a key instrument (Hansson & Holmgren, 2011; OECD, 2014; Rose-Ackerman, 1999; Schultz & Søreide, 2008). Public procurement accounts for on average 29% of total general government expenditure in OECD countries (2013 data, quoted in OECD, 2015). To control the allocation of these funds is thus to exercise power over a significant resource, either to extract personal gain or to build and maintain relationships with 'clients' in return for their loyalty. However, in democracies, institutions and regulations constrain such opportunities, by requiring the contracting process to be administered by unelected bureaucrats and seeking to ensure open competition for contracts. The capacity of political elites to use public procurement to build and maintain relationships with clients thus depends on their ability to exert political control over the bureaucracy and to subvert institutional checks and balances.

This paper explores - theoretically and empirically - the ways in which political elites exert influence over public procurement to corrupt ends, and the role of the institutional environment in checking such abuses. We are particularly concerned with what we term 'partisan favouritism', whereby government and its agencies award contracts in questionable circumstances to politically allied companies. This kind of favouritism is arguably more of a hindrance to democratization than non-partisan favouritism, undermining political as well as economic competition (Stark & Vedres, 2012).

Our contribution to theory is to delineate three spheres in which political elites can subvert the institutional framework in which public procurement occurs: the formation of the law, its implementation, and post-award monitoring. This discussion furthers our understanding of why clientelism is often associated with younger democracies, where the autonomy of bureaucracies and monitoring institutions is less well established.

Empirically, we illustrate our propositions through a pairwise comparison of two countries – one mature democracy, the United Kingdom, and one young post-communist democracy, Hungary; the latter is of particular interest as recent institutional reforms are indicative of 'democratic backsliding' (Ágh, 2013; Greskovits, 2015; Sedelmeier, 2014). As members of the EU, these two countries ostensibly have similar legal frameworks and formal rules for public procurement, as set out in EU directives[1]. This constrains some types of political influence over contracting, relating to capture of the legislative process. However, political control over the other two spheres varies among the two countries – in the UK, political influence is limited, while in Hungary, it is extensive. This enables us to explore how politicians seek to increase their control over these spheres and what impact that has on procurement outcomes. In the implementation phase, for example, the politicization of appointments to the civil service is the main way for politicians to exercise control. Programmes of constitutional reform, meanwhile, can be employed to disable the institutions charged with monitoring procurement, such that they do not hinder or challenge partisan favouritism.

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[1] The 'classical' directive 2014/24/EU on General Procurement and separate directives for concessions and utilities govern all public procurement of contracts above a certain value threshold within EU member states.

We document the variation in institutional controls in the two countries through qualitative methods, highlighting ways in which political control over public procurement can be exerted or constrained. We assess the autonomy of the bureaucracy and of monitoring institutions through analysis of changes in the institutional framework and interviews with key stakeholders. This allows us to establish how vulnerable the institutions in our two countries are to political control, and to provide an indication of whether such political influence is indeed exercised.

Empirical investigation of the way in which public procurement can be used for clientelist political strategies has historically been constrained by two problems. First, there was a lack of fine-grained data on how government contracts were allocated and the characteristics of the winning and losing bidders. This is now solved, since technological advances and government commitments to transparency have combined to make 'big data' available at the level of contracts. We are able to utilise large datasets of public procurement contracts awarded by central government in our case-study countries.

Second, measuring corruption is fraught with difficulties. Most measures are based on the perceptions of the public or expert witnesses, introducing fundamental biases (Andersson & Heywood, 2009; Kaufmann, Kraay, & Mastruzzi, 2007). They also tend to measure corruption at the country level, making little distinction between corruption in different areas of the public administration. Another problem with measuring corruption in public procurement, is that it is difficult to distinguish malpractice from incompetence. Given the complexity of contracting, and the tendency for public administrations to under-invest in professional expertise, it is often argued that governance irregularities reflect a lack of appropriate skills rather than misconduct. Equally, however, the complexity of contracting means that politicians and public officials who are engaging in corruption can sometimes manipulate procedures successfully so as to 'fake' an open and fair contracting process. These factors have made it difficult to identify corruption in public procurement with any confidence.

Our new methodology provides a proxy for partisan favouritism in the allocation of contracts by using both outcome and process indicators . We make use of a 'natural experiment' that occurs in politics - a change of government - to identify shifts in procurement market outcomes that occur as a result of political change. Both the UK and Hungary experienced a change in government in 2010, following general elections that saw centre-left incumbents defeated and centre-right parties coming to power. Controlling for changes in overall spending priorities resulting from different policy preferences, we can isolate suspicious patterns of contracting suggesting. In addition, we develop and utilize a new methodology for identifying proxy indicators of corruption based on the prevalence of different risks – or 'red flags' – in procurement processes. By cross-checking these two, we arrive at a more robust and sophisticated measure of partisan favouritism.

In terms of the institutional control environments, we find that the potential for political influence over central government contracting decisions is limited in the UK; recent institutional reforms have generally made controls more robust and introduced greater transparency. Nevertheless, we find that around 10% of the market is controlled by companies that win under conditions indicative of partisan favouritism. In Hungary, by contrast, institutional checks and balances are far weaker, and have been unable to withstand systematic efforts to increase political influence over public procurement. The impact on procurement markets is evident in our quantitative analysis of contracts, which

finds that around 50-60% of the market is controlled by companies that win under conditions indicative of partisan favouritism. These companies often have personal and social connections to the political elites. We also show, with reference to a prominent case in Hungary, how the withdrawal of political loyalty by one 'client' leads to an immediate and substantial loss of success in winning government contracts. This too supports our hypothesis that political influence over contracting is used to achieve partisan gain.

Clientelism and government contracting

Partisan favouritism in procurement as a form of clientelism

Clientelism is the particularistic allocation of state resources, by political elites, in exchange for political support (Hicken, 2011). The goods that are distributed vary (Piattoni, 2001), but can include abuse of the privatization process to favour cronies (Ganev, 2005) or politicized appointments to civil service positions (Meyer-Sahling & Veen, 2012), as well as corruption in public procurement (Grødeland & Aasland, 2011; Mungiu-Pippidi, 2015). Clients reciprocate through providing 'loyalty' that helps to sustain those elites in office. Traditionally, this represented promises of electoral support from target constituencies, as with PASOK's strategy of abandoning meritocracy in the Greek civil service so as to appoint its own loyal voters (Mavrogordatos, 1997). With clientelism that distributes public contracts, however, loyalty might more often take the material form of financing for political parties or campaigns, representing a kind of 'kick-back' for corrupt contracts as in Chicago-style 'machine politics' (Hamilton, 2010). Depending on their business, companies might also provide other valuable resources; favouritism towards media companies can be used to buy supportive coverage, for example (Emek & Acar, 2015). The reciprocity of the exchange is likely to be easy to sustain, since companies will have a clear interest in maintaining a relationship that promises to deliver a steady stream of easy business. Indeed, some scholars note how clientelism reverses the conventional relationship of democratic accountability, because politicians start to hold supporters to account for their behavior (Stokes, 2005).

Against this background, partisan favouritism in public procurement represents a particular form of clientelism in which government contracts are traded for financial gain ('kick-backs'), either supporting political parties and their campaigns or serving as private income for politicians. This exchange is made between a political party or coalition of parties on the one hand and companies or groups of companies on the other. Both sides need to exercise considerable collective action capacity such as taking hold of oversight bodies at a large scale, while within-group competition and distinct factions may also exist. Just like clientelism, partisan favouritism is likely to have detrimental long-term consequences for the development of a market economy and the quality of democracy. It is well established that corruption in public procurement can lead to higher prices, reduced value for money, and the provision of low-quality or unsafe works, goods and services. Moreover, systemic favouritism in contracting is likely to deter companies that do not have strong political ties from entering markets, with long-term consequences for economic development (Eurobarometer, 2014; World Bank, 2015). Similar consequences are likely at the political level because, by

distributing resources according to particularistic ties rather than open competition, partisan favouritism is likely to undermine opposition parties and thus weaken political competition.

Institutional controls on clientelism

Principal-agent theory would suggest that political corruption is best controlled by reducing opportunities to abuse the powers of public office and increasing accountability (Klitgaard 1988). However, some scholars have pointed out that this is not helpful in a context of endemic corruption, since there are no 'principled agents' with an interest – at least in the short term – in constraining others (Persson, Rothstein, & Teorell, 2013). This debate is replicated in the literature on clientelism. Several scholars find that bureaucratic autonomy circumscribes clientelism (Anderson, 1988; Gordon, 2011; Piattoni, 2001; Van de Walle, 2007). However, many others note that institutions can, in some circumstances, be co-opted to serve clientelist aims (Chubb, 1982; Eisenstadt & Roniger, 1984). Thus, we have a second-order problem: the institutions designed to control corruption may themselves be corrupted. It is not surprising that Hicken (2011) argues that more research is needed on institutions and their potential role in modifying clientelism. We contribute to this debate by elaborating a theoretical framework for thinking about how political influence can be exercised over public procurement.

The World Bank distinguishes between corruption which occurs during the *formation* of policy, e.g., by influencing the legislative process, and corruption which occurs much later in the policy cycle, during the *implementation* of established laws or procedures (World Bank, 2000). In public procurement, corruption at the stage of policy formation might involve amending legislation to change the thresholds at which contract awards must be published in official journals (Emek & Acar, 2015), or altering the conditions for resorting to a negotiated (non-competitive) tender.

Corruption during the implementation phase of public procurement is common (OECD, 2009; Ware, Moss, Campos, & Noone, 2007). For example, officials might falsely inflate needs, make excessive provision for errors (with a view to inflating costs later), or incorrectly apply criteria for judging bids. Such manipulations of the process might be undertaken by individuals acting in an ad hoc manner, but they might also be more systematic as, for example, when politicians exert pressure on procurement officials to engage in such manipulations. The latter is facilitated where past appointments or future job security are in the gift of politicians (Charron, Dahlström, Fazekas, & Lapuente, 2016).

Of these two types, corruption at the formation stage is arguably more pernicious. It creates a new policy or legal framework which may unfairly benefit a captor group into the long term, but without requiring them to break laws or violate rules each time they benefit. Corruption of policy implementation, by contrast, occurs on a transaction by transaction basis, with each exchange requiring a new violation that is potentially vulnerable to detection. This does not allow one group to entrench its advantage. The implication is that, for corrupt elites trying to influence procurement for partisan gain, exerting influence over the formation of policy may be the preferred channel. However, this type of corruption is curtailed in the EU context, because much of the scope and nature of national laws on public procurement is prescribed by the EU Public Procurement Directive.[2] There is variation in how the Directive is

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[2] The directive determines the types of procedure to be used for contracts of a certain value, sets out the number of quotes that must be solicited, and ensures the competitive nature of the process in other ways.

transposed into national law (Fazekas-Gamir, 2015) but, by and large, national elites have little discretion here and fewer opportunities for corruption.

We argue that corruption in public procurement can also be perpetrated by exerting political influence in a third sphere: by influencing or disabling institutions supposed to monitor and check the integrity of policy formation as well as implementation, including the judiciary, supreme audit offices, the media and civil society organisations. Empirical research suggests that monitoring institutions are critical to ensuring the integrity of the procurement process, not least because procurement is so complex and because public officials, politicians and companies may become expert in gaming the system. Efforts to undermine or control these institutions therefore help to create an environment in which corruption at the implementation stage - which might otherwise be detected and reveal incriminating patterns of influence - can occur unchecked. Political influence over monitoring institutions might therefore be an efficient way for elites to organize systemic corruption of the procurement process, especially where the elite's ability to use other channels is constrained, e.g., where an EU Procurement Directive prescribes the overall legal framework.

Political influence over these monitoring institutions can be achieved in a number of ways. Particularly where the governing party has an overwhelming majority, it can enact constitutional reforms to formally reduce the powers of such institutions or increase political control over appointments, budgets, or mandates. The politicization of appointments to such bodies is not only an end in itself but also allows the building up of structures of loyal subordinates who can be influenced to manipulate particular decisions. These measures can only be achieved in certain political conditions, e.g., where the governing party has the power to change the constitution and engage in wide and deep patronage. They also require considerable investment of time, resources and, depending on the strength of the opposition and civil society, political capital. Such investment promises to pay off handsomely, though, allowing future corruption of the procurement process (implementation stage) to go unsanctioned. Perpetrators can thereafter use public procurement as a tool with which to extract state resources and allocate them to partisan allies or to themselves as long as they are in power. Figure 1 illustrates the main channels of political influence over different stages of procurement and some techniques for manipulating the process.

FIGURE 1: STAGES OF THE PROCUREMENT PROCESS AT WHICH CORRUPTION CAN OCCUR AND MODES OF POLITICAL INFLUENCE OVER PROCESS
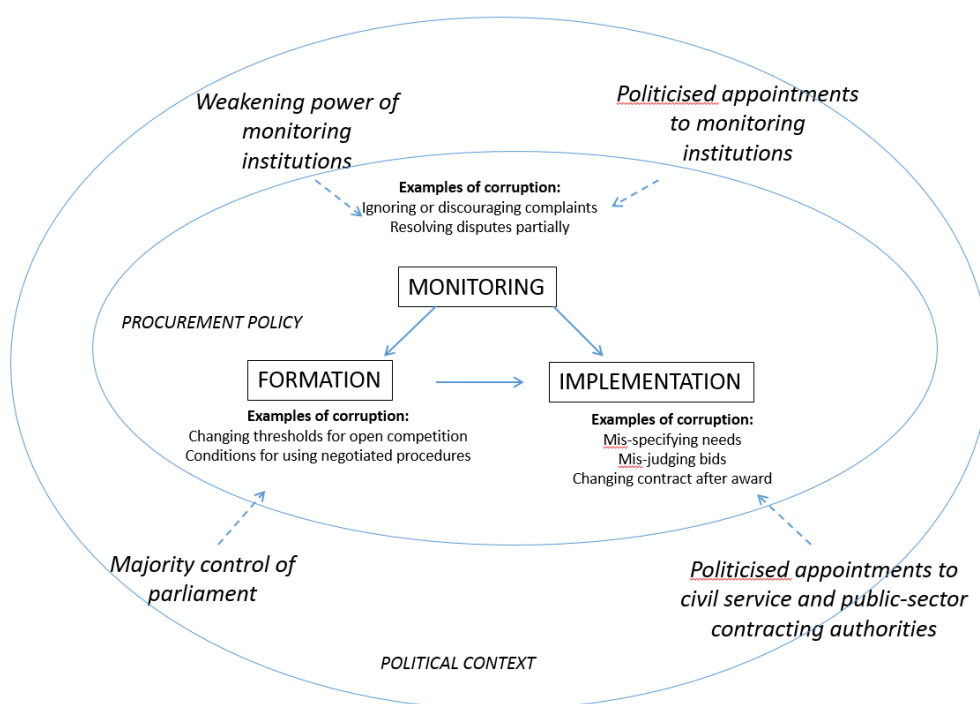
We expect that a change of government will be more disruptive to procurement markets in countries where the opportunities for political influence over public procurement are greater. This leads to our first hypothesis.

H1: Where procurement monitoring institutions are vulnerable to political influence, a change in government will lead to changes in the companies winning tenders.

We have suggested that the disabling of monitoring institutions is important because it weakens scrutiny of the implementation of public procurement, but not of policy formulation. Thus, if the disabling of institutions is part of a systematic attempt to facilitate corruption, we would also expect to see considerable evidence that the implementation process is manipulated for corrupt gain. That is, we expect to see evidence of certain 'red flags' of corruption risk, e.g., very short periods between publishing tenders and deadlines for submission, or use of non-competitive procedures. This leads to our second hypothesis.

H2: Where a change in government leads to changes in the companies winning tenders, the new or 'surprise winners' will be associated with a higher incidence of corruption 'red flags' in the tendering process.

Where both conditions are present – a change in government affects procurement outcomes and the beneficiary companies tend to win under conditions associated with corruption – we suggest that this indicates the presence of 'partisan favouritism'. By contrast, where public procurement is associated with many red flags but no noticeable change in market outcomes following a change in government, this might indicate firms buying influence from both parties or from stable parts of the state apparatus, such as the permanent bureaucracy. When a change in government leads to changes in market outcomes but these are not associated with red flags, this might indicate fine shifts in spending preferences (although we

control for major policy changes) or highly sophisticated forms of corruption typical of environments with strong oversight bodies.

Methods, case selection and data

Methods

Obtaining direct evidence on high-level political corruption, of which partisan favouritism in procurement is one type, is very difficult (Kaufmann, Kraay, & Mastruzzi, 2006; J. G. Lambsdorff, 2006; Sequeira, 2012). We use a combination of qualitative evidence about the state of the institutional environment, and a new methodology for analysing contracts data using proxy indicators of corruption in public procurement (Fazekas & Tóth, 2014). In the qualitative part, we do not seek to provide a measure of levels of corruption as that is done by the quantitative part, but rather to collect information on the extent to which political elites are able to influence aspects of public procurement in line with our theoretical propositions which underlie the quantitative analysis.

The potential for politically corrupt influence over procurement is assessed through collecting and analysing a range of qualitative data in each country. This includes analysis of the reports of institutions charged with monitoring procurement and receiving complaints about the implementation of procedures. These findings are triangulated against interviews with key stakeholders on both the 'demand side' (e.g., procurement officials) and the 'supply side', (e.g., companies that bid for public tenders), as well as with stakeholders in monitoring institutions, including audit institutions, civil society organisations and the media. We conducted 14 interviews in Hungary and 17 interviews in the UK.

In the quantitative part, we analyse big data on government contracts to identify political influence on bidder success. First, we monitor whether, for a given company, the value of contracts won is influenced by a change in government. Second, for those companies that we identify as potential beneficiaries of favouritism, we analyse 'red flags' in the tendering process to gain a deeper understanding of the conditions under which they win contracts, that is whether the implementation process could be corrupted. By cross-checking these two indicators, we construct a more sophisticated indicator of partisan favouritism and aim to exclude cases which exhibit favouritism-type patterns for alternative, non-corrupt, reasons.

Controlling for changes in policy priorities, if procurement contracts are allocated as an outcome of impartial laws and implementation and subjected to independent monitoring, we would not expect a significant change in outcomes as a result of a change in government. In a market characterised by partisan favouritism, however, we expect past performance to become a liability, i.e., company X which is linked to the previous government will no longer be favoured following a change in government (and may even be discriminated against). Thus, for a given company, changes in the value of contracts won following a change in government are a proxy for favouritism.

The quantitative analysis rests on the expectation that the logic of a favouritism-free open market describes the observed market success (i.e., value of contracts won per quarter) of some companies but not others. In particular, there may be some companies which perform

well under government 1, but poorly under government 2 ('surprise losers'). Conversely, there could be companies which win a negligible value of contracts under government 1, but secure large amounts under government 2 ('surprise winners'). The analysis focuses on the value of contracts won while controlling for the overall structure of government spending as well as firm characteristics. We then can denote 'surprise losers' and 'surprise winners' as companies having ties to government 1 and 2 respectively as the indirect regression evidence suggests that they benefit from political change even after controlling for key alternative economic explanations.

The following generic dynamic panel regression models are estimated throughout the whole observation period:

$$CV_{ti} = C + B_1*CV_{t-1i} + B_2*CV_{t-2i} + B_4*CVM_{ti} + B_5*MM_i + U_i + W_{it} \qquad (1)$$

Where C denotes the constant term for the whole sample; CV_{ti} denotes the contract value won by company i in quarter t; CV_{t-1i}, and CV_{t-2i}, denote the contract value won by company i in past periods $t-1$ and $t-2$ respectively; CVM_{ti} indicate the contract value spent in main market of company i in quarter t; MM_i contain the sectoral dummy for the main market for firm i; U_i is the fixed effect component of company i; and W_{it} is the error term for company i in quarter t. We use Arellano-Bond system GMM transformation of the above equation in order to provide unbiased estimation of model parameters (Roodman, 2009).

Because contract values have a very skewed distribution with most companies winning relatively little and very few companies winning exceptionally large amounts, contract values were entered in two versions first as the fourth root, and then also as natural log contract values. The downside of using log as opposed to fourth root contract values is that the companies without any contract in a given quarter show up as missing, decreasing the sample size considerably. Regressions are fitted on a subsample of companies that win contracts in at least two different quarters in order to focus the analysis on companies that benefit substantially from government contracts, even though most companies win only in one quarter[3]. Equation (1) contains all the predictors with considerable predictive power.

The two versions equation (1) can take, i.e., the absolute contract value and the log contract value, allow us to identify two different types of company benefiting from government favouritism. In the first case, companies that have previously won no contracts at all, indeed sometimes had no significant prior business activity at all, enter the government contracting market and win large sums immediately. In the second case, already established companies greatly extend their contract volume using their connections to those coming into office. The first case is explored by the absolute contract value version of the regression as it keeps the many company-quarter observations with zero contract value in the sample. The second case is explored by the log contract value version of the regression as it removes such entrants and estimates the model using only those companies which have a more established track record.

Technically, 'surprise losers' and 'surprise winners' are identified using company-specific error terms after estimating equation (1). Surprise losers are those which have an above period-average regression error under government 1 and below period-average regression error under government 2. Their error term pattern indicates that they win more than predicted under government 1, but less than predicted under government 2. Surprise

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[3] Results of alternative regression specifications containing company financial information and geographical location are available upon request.

winners are identified by exactly the opposite error term profile. Companies without such an error term pattern are simply denoted as 'stable companies', which means that their market success is not affected by which party is in power.

Note that stable market success does not necessarily indicate a lack of favouritism; it may well be that some companies have ties to multiple political parties and hence can rely on different connections depending on who is in power. Strategies for influencing the contracting process differ according to context. Our focus is on collaboration between political and business elites united by a shared partisan identity. Alternative patterns also occur where, for example, companies strategically build strong ties with both incumbent and opposition parties or create links to stable parts of the government (such as the permanent bureaucracy) or key monitoring institutions (e.g., the judiciary) as a way of securing more durable access to corrupt procurement deals.

The main shortcoming of the indirect identification of favoured companies is that highly innovative and competitive market entrants might also appear as favoured companies (i.e., 'surprise winners') since they also deviate from the standard predicted behaviour. Similarly, while we control for overall spending patterns in the regressions, the more fine-grained aspects of changing government spending structure, e.g., within the energy sector, a switch to procuring green technologies over fossil-fuel-based ones cannot be taken into account.

In order to check for alternative explanations not involving corruption, the corruption risks of surprise winners and losers are cross-checked using a Corruption Risk Index (CRI) established by prior research (Charron et al., 2016; Fazekas & Kocsis, 2015). The index builds on work by other scholars using red flags as proxy measures for corruption many of which were also discussed above in the theoretical section (Auriol, Flochel, & Straub, 2011; Klasnja, 2015). A key indicator of corruption risks is the presence of single-bidder contracts awarded on otherwise competitive markets, which may indicate that market access has been deliberately restricted[4]. In addition to single bidding, several process-related indicators of corruption risks are used relating to the ways in which the implementation of the process can be manipulated such as unusually short deadline for submitting bids or convoluted tender specifications suggesting that they are tailored to a particular company. Further details of indicator building and validity tests are in Appendix A.

CRI is constructed to incorporate the average incidence of single bids received and five process-related 'red flags'. CRI varies between 0 and 1, where 0=minimum corruption risk and 1=maximum corruption risk. Such a composite score allows for tracking changes in corruption risks across a country over time or by geographical area. It also allows for identifying individual government suppliers with the highest risk performance within a country.

If both of our indicators point in the same direction for a given company, i.e., the company's pattern of winning contracts changes after a change of government and the conditions in which it wins tenders are associated with numerous red flags, we suggest that this is indicative of a company benefitting from partisan favouritism.

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[4] The quantitative corruption risk methodology is only applied to competitive markets, where a lack of competition is likely to be the result of the tendering process characteristics rather than technology or the underlying market structure. This is not to say that on the other markets there is no corruption, rather, those markets are better approached with qualitative than quantitative methods.

We expect 'surprise losers' to win in the presence of more red flags under government 1 than the rest of the procurement market, while winning in the presence of similar or even lower prevalence of red flags under government 2 (an indication of falling out of grace with the power holders). Our expectations are exactly the opposite for 'surprise winners'. In countries where favouritism is systemic, such patterns would be discernible on the level of company groups; if favouritism were the exception to the norm, only a small number of exceptional companies would display both market success and CRI patterns in line with our expectations.

Case selection

We select two countries for a pairwise comparison of corruption risks in total central government public procurement, with the aim of testing both our theory and our method. Our cases are the United Kingdom and Hungary, which ostensibly operate under the same EU regulatory regime for public procurement. Yet our cases vary considerably in terms of the politicization of the underlying institutional environment, in particular the independence of key institutions which check the power of the executive branch and thus constrain (or not) political corruption.

Hungary is a very young democracy, having only embarked on political and economic transition in 1989 after a long period of communist rule. The institutional framework has been subject to great change in the past 25 years since the country embarked on dual processes of transition to a market economy and democratization. These processes have been shaped considerably by the demands of EU accession, which required Hungary to undertake political and economic reforms to meet the Copenhagen criteria, as well as to transpose into national law the body of EU law, the *acquis communautaire*. Hungary made rapid progress in this regard, but the momentum for reform flagged soon after EU accession in 2004. Transposition of law was not followed up with implementation (Haughton, 2011; Steunenberg & Dimitrova, 2007), perhaps particularly in the area of anti-corruption policies (Batory, 2012). Indeed, in Hungary as in much of Central and Eastern Europe, the post-communist legacy has been associated with a blurred boundary between the public and private sectors, which transition political elites have often used opportunistically to corruptly extract resources from the state (Ganev, 2005, 2013; Wedel, 2003, 2010). The public administration has been associated with high levels of party patronage during and since EU accession (Meyer-Sahling & Veen, 2012), and business organisations also tend to align with one political faction or another (Stark & Vedres, 2012).

Indeed, the weakness of the institutions has been borne out in recent years by significant backsliding on important political freedoms. Securing a two-thirds majority in parliament, the Fidesz government that came to power in 2010 seized the opportunity to reform the constitution. Most of its reforms increased political control and reduced the independence of key institutions supposed to act as checks and balances on executive power, including the judiciary. As well as weakening their powers and independence, the government has made a number of political appointments to such institutions, further ensuring the loyalty of those personnel (Bánkuti, Halmai, & Scheppele, 2012; Scheppele, 2013).

In the United Kingdom, the political context is that of a mature democracy with a relatively stable party system and active civil society. The rule of law is deeply entrenched, and the institutions for checking the power of the executive have a level of independence which allows them to carry out their roles relatively free of influence and unaffected by constitutional change. Moreover, the highly meritocratic and non-political nature of appointments to the civil service in the UK mitigate the risk of political influence, notwithstanding the challenge posed to the public service ethos by recent reforms (Heywood, 2012).

There is also prior evidence that our two cases experience different levels of corruption in public procurement. On Transparency International's Corruption Perceptions Index (2015), the United Kingdom ranks 10th out of 168 countries, while Hungary ranks 50th most corrupt, placing them, respectively, among the least and most corrupt EU member states. However, such measures have many weaknesses (Andersson & Heywood, 2009; J. Lambsdorff, 2007; Olken, 2009), not least – for our purposes - that few respondents have experience of public procurement. Eurobarometer's 2013 survey of businesses, including companies which engage in bidding for public contracts, is therefore more illuminating (Eurobarometer, 2014). When asked the question, "in the last three years, do you think that corruption has prevented you or your company from winning a public tender or a public procurement contract?", in Hungary, 37% of respondents answered yes, compared to 18% in the United Kingdom. In Hungary, 58% of respondents thought that corruption in public procurement managed by national or regional/local authorities was widespread, compared to 35% in the UK. Procurement outcomes also suggest that conditions are more competitive in the UK: the rate of single bidding on competitive markets was merely 4% in the UK over 2009-13, but reached 30% in Hungary, again representing two opposing ends of the spectrum across the EU (Charron et al., 2016).

The Eurobarometer survey also sheds light on perceptions about the 'red flags' indicative of corruption within the procurement process: 64% of Hungarian respondents thought that specifications being tailor-made for certain companies was widespread (35% among UK companies); 48% of Hungarian respondents thought that involvement of bidders in the design of specifications was widespread (34% among UK respondents); and 47% of Hungarian respondents thought that the abuse of negotiated procedures was widespread (compared to 27% of UK respondents.)

In addition, Eurobarometer asked companies that had *not* participated in public tenders or procurement for the past three years about which factors had discouraged them. In Hungary, 22% said that the criteria seem to be tailor-made for certain participants (15% in the UK). This highlights how perceived corruption in procurement can have the long-term effect of reducing competition for tenders because companies refrain from bidding. It may also suggest a lack of confidence in procurement monitoring institutions, since respondents did not appear to trust that corruption would be detected or punished.

Overall, these survey results suggest that there is relevant variation in conditions on our two procurement markets. They motivate our qualitative research into the extent of political control, and allow us to test whether our method of analysing contracts data identifies similar evidence. In addition, the two countries experience a change of government at around the same time; in both cases a centre-left government is replaced with a centre-right one.

Data

Our analysis of government favouritism – i.e., the dependent variable side of the analysis - uses newly collected micro-level public procurement data from the UK and Hungarian central governments. Our database derives from official public procurement announcements in 2009-2012, which appear in Tenders Electronic Daily (TED), an online supplement to the Official Journal of the EU dedicated to public procurement (DG GROWTH, 2015). Both countries' public procurement legislation is within the framework of the EU Public Procurement Directives, hence national data are directly comparable (European Commission, 2014). The data represent a complete database of all public procurement procedures conducted under the EU Public Procurement Directive by these two EU member states regardless of the funding source (i.e., both national and EU-funded procurement).[5] TED contains calls for tenders and contract award notices, and allows us to analyse variables such as contract value, name of winning bidder, number of bids submitted, deadline for submitting bids and assessment criteria.

Our database contains a subset of the total amount of contracts publicly announced in these two countries (

Table 1). We exclude some contracts for the following reasons: (i) contracts awarded by public bodies other than the national central administration; (ii) contracts below mandatory reporting thresholds[6]; and (iii) contracts on non-competitive markets. We focus on central governments because a single change of central government is more tractable and comparable across countries than the multitude of local elections, and because we expect high-level political favouritism – and the power necessary to corrupt the formation of procurement policy and the disabling of institutions - to be driven by national politics. We omit contracts below mandatory reporting thresholds because the EU Public Procurement Directive only regulates contracts above the thresholds, e.g., for services, contracts awarded by central government bodies with value above 134,000 Euro (2015 threshold). Hence, contracts below such thresholds are not directly comparable. We restrict the sample to competitive markets (i.e., markets defined by product group and region with more than nine contracts in the observation period) as on these markets meaningful competition is expected under non-corrupt conditions, allowing us to better identify deviations from competition that might be driven by non-economic considerations. The full dataset is downloadable at digiwhist.eu/resources/data.

TABLE 1. MAIN CHARACTERISTICS OF PUBLIC PROCUREMENT DATASETS

	Number of contracts awarded	Number of suppliers	Contract value awarded (billion eur)	Share in national total procurement value
Hungary	5,549	2,462	5	50%
UK	15,429	7,610	243	68%
Total	20,978	10,072	248	67%

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[5] The database was released by the European Commission - DG GROWTH, which also conducted some data quality checks and enhancements. Source data can be downloaded from: https://open-data.europa.eu/en/data/dataset/ted-csv

[6] http://www.ojec.com/threshholds.aspx

The database covers the 2009-12 period for both countries in order to allow for around 1.5 years before and after the elections. Company-level analysis was done on a half-yearly aggregated database obtained by aggregating the contract-level data using names of winning company and the dates of contract awards. Using half-years as time periods is optimal for retaining a high level of granularity while also taking into account the erratic character of many public procurement markets (i.e., low numbers of larger contracts awarded every few months). To define governments in each of the countries, we used the official date of national elections. Since tendering can last for several months especially in complex and high-value cases, we allowed for a one year-long transitory period in order to capture the differences between two distinct established governments in each country (

Table 2).

TABLE 2. TIME PERIODS USED FOR IDENTIFYING GOVERNMENTS

	Government 1	Transitory period	Government 2
Hungary	2009H1-2010H1	2010H2-2011H1	2011H2-2012H2
UK	2009H1-2010H1	2010H2-2011H1	2011H2-2012H2

RESULTS

Qualitative Analysis: Institutional weakness in Hungary

In both of our cases, as discussed, the scope for corrupting the contracting process by altering the legal framework for public procurement is limited, at least for contracts above a threshold value, since these are regulated by the EU Public Procurement Directive. However, in Hungary, we find that there have been frequent and dubious changes to the law concerning below-threshold procurement. This suggests that, when unconstrained by EU regulation, the government is ready to alter the law so as to reduce transparency and increase the scope for political influence. For example, prior to 2010, the PP law required contracting authorities to publish the final contract value and data about the completion of the contract, making government contracting in Hungary more transparent than required by the EU Directive. In 2010, the incoming government abolished these requirements, while also introducing other changes to the PP law which made less transparent procedure types more widely available. The latter resulted in the proportion of calls for tenders published in the Hungarian Public Procurement Bulletin falling from 62% in 2009 to 22% in 2011 (Lukács and Fazekas 2015). More recently, in 2015, parliament used an 'exceptional process' to change the PP law: whereas the previous law had prohibited the president, prime minister, ministers and any of their relatives from entering public procurement tenders, the new version replaced the word 'relative' with 'living in the same household'.[7]

Political control over the bureaucracy is assured by the extent of political appointments (Meyer-Sahling, 2006; Meyer-Sahling & Veen, 2012; OECD, 2011). Political patronage not

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[7] Budapest Business Journal, 2 December 2015. http://bbj.hu/politics/new-law-lets-relatives-of-government-officials-apply-for-public-tenders_108106

only buys the loyalty of civil servants, but also creates scope for direct political intervention in the implementation of procurement procedures. Our interviews with procurement officers revealed evidence that such political intervention is common. The following case is typical:

"The head of my agency got the instruction from the ministry (political leadership, not professional) on whom exactly the procurement advisor of the agency should be. We quickly realised that this advisor is a man from politics - his selection was not based on professional standards, but political considerations. In fact, my agency had no autonomy in selecting the procurement advisor. Then this advisor crafted the tender specs to fit one company without us realizing it. We only realized what has happened when the contract was awarded. It also happened that this advisor went around in my agency and asked the top managers about which company they would want to win" (Interview).

Even without political appointments, contracting agencies may be incentivized to comply with such instructions because their budgets are controlled by the central government. Interviews revealed a common view that questioning or resisting political pressure would result in budget cuts or a reduction in discretionary power. Other aspects of the implementation process also show evidence of political influence. For example, the law provides for making exceptions to competitive procedures on grounds of national security, but the frequency with which such exceptions are invoked suggests that the rules are abused (Lukács and Fazekas 2015).

Frequent scandals as well as analysis of the outcomes of public procurement suggest that some large companies have long benefited from partial treatment in tenders. For example, a number of construction companies that were highly successful in winning road-building contracts prior to 2010 have since suffered financial difficulties or been liquidated – for example, Betonút Zrt and Colas Hungary, both of which participated in the construction of the infamous M6 highway project, which included the construction of many tunnels and bridges in a predominantly flat area.[8]

Political connections have been very evident in some recent scandals. The EU counter-fraud agency, OLAF, is currently investigating a case relating to the procurement of street lighting by many municipalities around Hungary. The case was opened following investigative journalism reports that a newly founded company, Elios, had won 19 street lighting tenders in a short period and had been the sole bidder on at least eight occasions, despite there being around 10-12 experienced companies in Hungary that were capable of carrying out such public lighting projects.[9] Elios was owned by the son-in-law of Prime Minister Viktor Orbán. The reports found that, in the tenders where Elios was successful, there had been much more narrow specifications of needs than in other tenders for public lighting. Moreover, the wording of the specifications was identical in a number of municipalities. The unusually detailed technical requirements specified, among other things, the colour code of paint to be used for the surface of the lamps, and the precise curvature of the lampshade.

Further evidence of the importance of political connections to the governing elite is also provided by analysing the record of companies owned by individuals close to the ruling elite. For example, major construction company Közgép, owned by Lajos Simicska, a high-school

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[8] See http://hvg.hu/cimke/Beton%C3%BAt_Zrt and
http://vastagbor.blog.hu/2008/08/01/hegyen_volgyon_zakatol_az_m6_os
[9] http://www.direkt36.hu/en/2015/03/11/tiborcz-istvan-es-az-elios-innovativ-zrt-sikerei-ledes-kozvilagitasi-kozbeszerzeseken/

room-mate and long-time ally of Prime Minister Viktor Orbán, quickly became the largest recipient of government contracts after the 2010 change of government. However, the contingency of clientelist relationships has been demonstrated very clearly following a very public personal conflict between Simicska and Orbán in autumn 2014: Közgép's success on procurement markets plummeted as a result (see Figure 2).

FIGURE 2. TOTAL VALUE OF CONTRACTS HELD BY KÖZGÉP PLC, HUNGARY, 2002-15
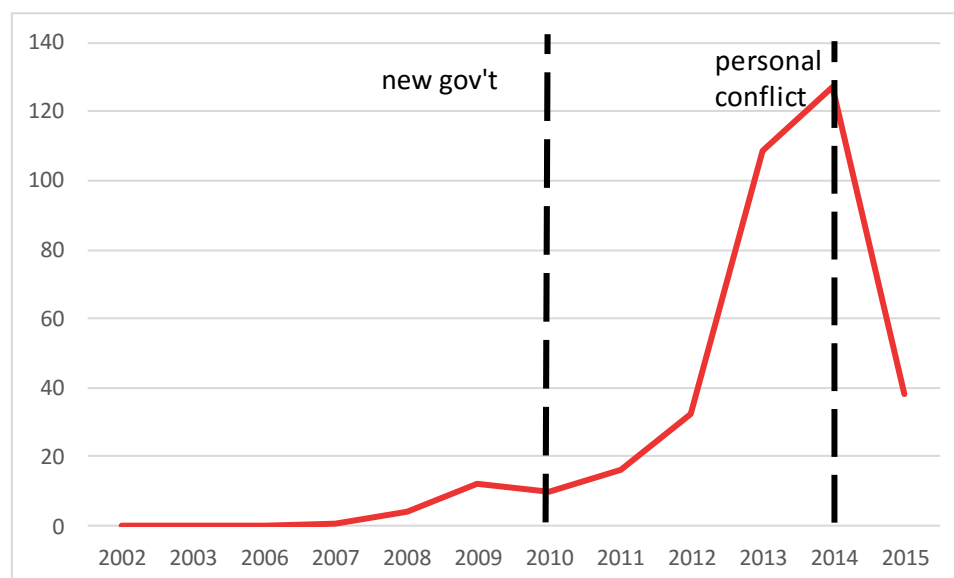
Source: kozbeszerzes.ceu.hu and kozpenzkereso.eu

In addition, many of the company's former clients appear to have become hostile. In March 2015, the government suspended construction of a highway section in eastern Hungary citing suspected cartel activity flagged by the European Commission; Közgép had been among the winning bidders.[10] In July 2015, the Hungarian Public Procurement Board prohibited Közgép from participating in public tenders entirely for a three-year period, charging that the company had submitted "false data" in a bid for the development of a port on the Danube.[11] In autumn 2015, the Budapest municipality cancelled a 25-year contract with another company, Mahir, that has close ties to Simicska, citing failure to comply with conditions on the placement of air pollution gauges.[12] Both the company's former success and its rapid decline are suggestive of political influence over government contracting in the implementation and monitoring stages all across the public sector.

Indeed, the overall environment of checks and balances is weak, as has been demonstrated by the ease with which the Fidesz government has "disabled" a wide range of institutions since coming to power in 2010 (Bánkuti et al., 2012). The institutions affected include the constitutional court, judiciary, and a range of accountability institutions, all of which have been politicized through appointments and measures to reduce their power or

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[10] Budapest Business Journal, 20 July 2015. http://bbj.hu/business/report-kozgep-banned-from-public-procurement-tenders_101146

[11] Reuters 31 March 2015. http://www.reuters.com/article/hungary-probe-idUSL6N0WX3KC20150331

[12] Budapest Business Journal, 22 December 2015. http://bbj.hu/economy/simicska-loses-right-to-operate-poster-kiosks-in-capital_109173

independence. The following excerpt illustrates how such changes have undermined the independence of the judiciary, for example,

> *"Under the new system, the president of the newly created National Judicial Office has the power to select new judges, to promote and demote any judge, to begin disciplinary proceedings, and to select the leaders of each of the courts.[12] The person chosen by parliament with a two-thirds majority to fill this office is both a close friend of Prime Minister Orbán and the wife of József Szájer, the principal drafter of the new constitution.[13] In choosing new judges, the head of the National Judicial Office must pick candidates from a list prepared by local councils of judges, but she sets up the process through which candidates may apply and she may reject the judges' lists and start the process over again if need be"(Bánkuti et al., 2012: 142).*

The government has also appointed one of its former Members of Parliament as the new head of the Hungarian State Audit Office; he was elected to hold the post for twelve years by a two-thirds vote of parliament, despite having no professional auditing experience. Fidesz loyalists have also been appointed to the Constitutional Court, Budget Council, Competition Authority, the Public Prosecutor's Office, and the National Bank.

Quantitative Analysis: Outcomes on Hungary's procurement markets

Our analysis of contracts also reveals strong evidence of partisan favouritism in Hungarian central government procurement around the 2010 change of government. Regressions describing company market success (i.e. value of contracts won per quarter) point at a low to moderate degree of persistence of company performance throughout the whole period. Those company groups which follow a suspicions market success pattern ('surprise winners' and 'surprise losers') are associated with the CRI patterns indicative of favouritism in procurement tenders. These companies dominate the Hungarian public procurement market, controlling 50-60% of contract value awarded.

Using the system GMM estimator of the dynamic panel data model specified in equation (1), we find weak to moderately strong evidence for persistent company performance throughout 2009-2012 (Table 3).[13] For example, in model 4, one unit increase in the past quarter's log contract value won results in about 0.2 unit of increase in the following quarter. Such weak path dependence is particularly disrupted by the 2010 change of government which epitomizes the political influence on a purchasing function otherwise driven by economic considerations. The preferred models which contain the full set of controls are model 2 and 4. The first model has high explanatory power[14]: 0.92 while the second one has only 0.03. As the second model is expected to capture the persistent performance of the most established companies the lack of strong explanatory power is of particular importance.

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[13] Tests of the adequacy of the instruments used to tackle the endogeneity problem between the lagged dependent and dependent variables (Sargan and Hansen tests) show that instrumental variables could to a large extent correct for endogeneity.

[14] In the absence of traditional R-squared statistics for system GMM models, we used the linear correlation coefficient between predicted and observed outcomes.

These regressions[15] allow for the identification of a considerable number of firms with suspicious winning patterns: 'surprise losers' and 'surprise winners' represent 153 and 225 of the total 573 companies, respectively. These company groups follow a CRI pattern consistent with favouritism (Figure 3). 'Surprise losers' have a higher CRI than stable or 'surprise winner companies' under government 1; and 'surprise winners' win in the presence of more red flags than the rest of the market under government 2[16]. The difference in group CRI means is particularly pronounced under the second government. Overall, the evidence suggests that Hungarian central government procurement is characterized by systematic partisan favouritism.

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[15] It was sufficient to display suspicious error term pattern in one of the regressions to be denoted as suspicious firm.

[16] The difference in group means per period is significant in period 1 at 10% level while in period 2 at the 5% level.

TABLE 3. SYSTEM GMM DYNAMIC PANEL REGRESSION ESTIMATIONS EXPLAINING COMPANY MARKET SUCCESS, HUNGARY, 2009-2012

dependent variable	fourth root of contract value		log contract value	
model number	1	2	3	4
independent variables				
fourth root of contract value:1st lag	0.096***	0.05***		
fourth root of contract value: 2nd lag	0.059***	0.011*		
log contract value: 1st lag			-0.002	0.231***
Control variables				
Year	Y	Y	Y	Y
fourth root of contract value awarded on main market	N	Y	N	N
log spending on main market	N	N	N	Y
Main product group (2-digit CPV)	N	Y	N	Y
N (company)	573	573	338	338
N (obs)	3,438	3,438	582	582

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

FIGURE 3. PERCENT DEVIATION IN CRI SCORES OF SURPRISE WINNERS AND LOSERS COMPARED TO STABLE COMPANIES, BY GOVERNMENT PERIOD, HUNGARY, 2009-12[17]
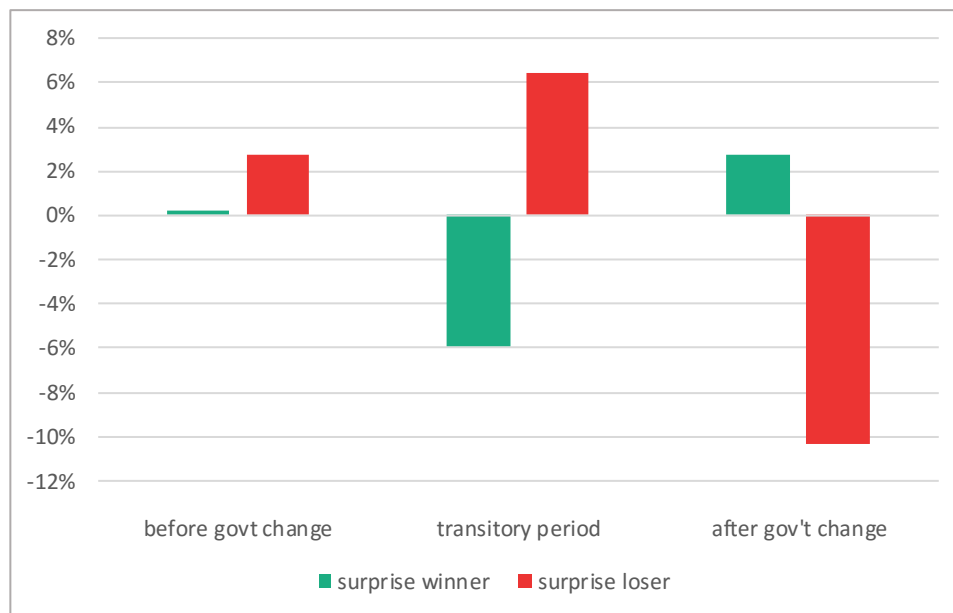

The overall trends of contract values won by the three company groups provide further evidence that the rules of the game in Hungarian public procurement represent partisan intra-elite favouritism (Figure 4). Favoured companies (surprise winners and losers combined) control about 50-60% of the total central government contracting market 2009-2012[18], with a distinct swing in company fortunes around the change of government in 2010.

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[17] Note: the differences between surprise winner and loser group means are significant at 5% level for the before and after government change periods.

[18] Note that the system GMM estimator uses the first observation period (2009 1st half year) for instrumenting latter observations, hence the overall market share estimation is less reliable for the beginning of the time series.

FIGURE 4. COMBINED MARKET SHARES OF COMPANY TYPES, HUNGARY, 2009-12
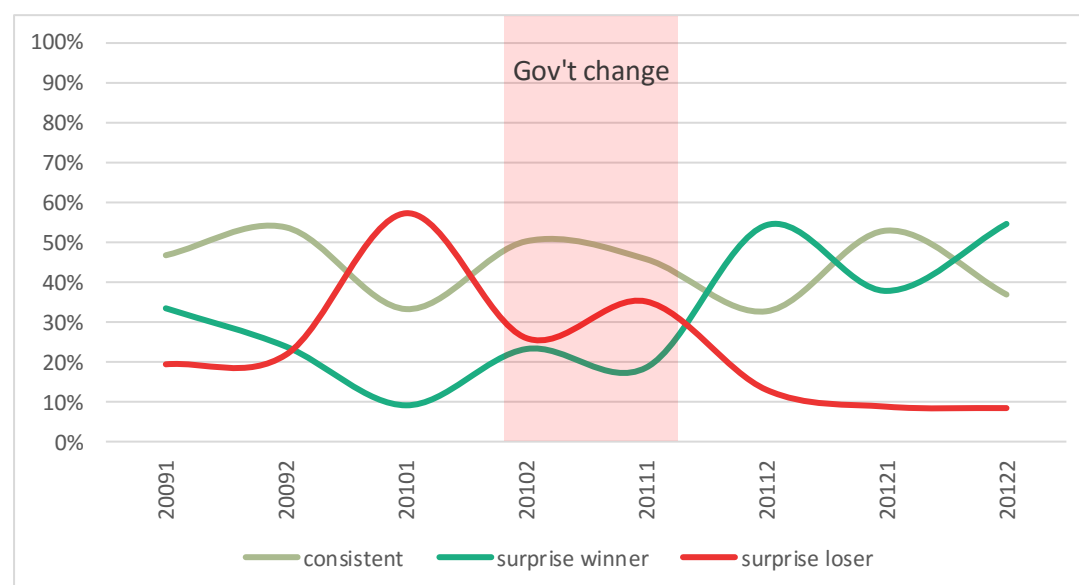
Qualitative Analysis: Institutional Integrity in the United Kingdom

The bureaucracy in the United Kingdom is protected from political influence by a meritocratic appointments system, and by very weak penetration of political appointments. The Conservative-Liberal Democrat government proposed to introduce a US-style system of political appointees to senior civil service roles in 2012, but this met with widespread criticism and was quickly dropped. We found some evidence of politicians seeking to intervene on behalf of individual companies, for example, to improve their ability to meet pre-tender conditions and access the process, but little evidence that this was motivated by partisan or even personal gain.

That is not to say that public procurement in the UK is immune from corruption. The value of reported procurement fraud cases was £3 million in 2009/10, and increased to more than £14 million in 2011/12, according to the National Audit Office.[19] Perhaps a greater cause for concern is that individual bureaucrats responsible for procurement might be influenced not by politicians but by companies. The 'revolving door', whereby individual public officials take employment in private-sector firms that bid for government contracts, is of increasing concern. The media frequently reports alleged conflicts of interest in this regard, and the regulatory body responsible for advising on business appointments has weak powers and tends not to exercise them proactively (David-Barrett, 2011). One recent case which illustrates how the revolving door can prompt concerns about corruption risk is that of Jim Easton. He stepped down both as Department of Health Director of efficiency and improvement and as NHS Commissioning Board Director for transformation in November 2012, starting work three months later in a senior role at Care UK, one of the main contractors

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[19] While fraud does not always involve corruption, many corruption cases in the UK are probably reported as fraud. It is not clear whether the apparently large increase reflects greater fraud or rather an improvement in detection.

providing healthcare and social care services. In his public-office job, one of his last roles had been to encourage local authorities to outsource services in order to help achieve spending cuts.[20] There is no evidence that Easton favoured his future employer whilst in office, but such moves are indicative of potential risks of corruption. Empirical research on the United States has found that firms which hired through the revolving door were more successful in winning government contracts while their future employee was in public office (Canayaz, Martinez, & Ozsoylev, 2014). However, this suggests a risk of ad hoc corruption by individuals, rather than of systemic partisan favouritism.

Further, our research suggests that the post-award contract implementation phase of the procurement process is less well controlled than earlier phases. Problems arise because this phase is often managed by the department which uses the procured works, goods or services, rather than by the central procurement function. The users may be unaware of the precise terms of the contract and may not notice if corners are cut. According to one procurement expert we interviewed, this also creates opportunities for corruption,

> *"The supplier might be able to provide sweeteners to the IT department to re-negotiate the contract without going back through procurement department."*

In addition, analysis of 'Mystery Shopper' reports, whereby concerned suppliers report suspected irregularities in the procurement process, suggest that some red flags indicative of corruption risks are evident in UK public procurement. The reports frequently include complaints that tenders favour certain suppliers, that tender announcements have short deadlines, and that tender specifications are overly specific hence favouring a sole supplier. However, the reports concern only a tiny proportion of the total procurements carried out, and identify only ad hoc irregularities in the conduct of individuals rather than systemic patterns.

Neither our analysis of audit reports nor our interviews revealed evidence of central government seeking to exert control over procurement monitoring institutions or intervening in particular decisions. Rather, recent years have seen the introduction of greater procedural and institutional controls over the procurement process partly in response to high-profile scandals in local government procurement in the 1970s and 1980s, but also as a result of transposing the EU Procurement Directive into national law. These have taken place in an environment of civil service neutrality and overall constitutional stability.

The most recent reforms have focused on increasing transparency and facilitating processes for registering complaints, to improve accountability over contracting by central government departments, executive agencies and Non-Departmental Public Bodies. For example, the Mystery Shopper function, has been extended to permit additional spot checks on the implementation of PP procedures. New guidelines have also been issued that require procuring agencies to proactively disclose contract information, overcoming a previous problem whereby private providers of

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[20] The Advisory Committee on Business Appointments advised that he need only wait three months before taking up the new job, although they did also impose a 12-month cooling-off period on giving contract advice.

outsourced public services used commercial confidentiality clauses to block calls to disclose data.[21]

However, the overall picture is one of increasing transparency and openness within a stable political environment. This suggests that public procurement is not subject to systematic improper political influence. Instances of corruption certainly occur, but the qualitative evidence suggests that these are more likely to be isolated opportunistic acts by individuals able to abuse their position to evade fairly robust control processes, rather than systemic partisan-motivated efforts by elites to subvert control and exercise political influence.

Quantitative Analysis: Outcomes on UK procurement markets

The domination of the outsourcing market in the UK by a few very large firms - G4S, Capita, Serco, Carillion, Babcock and Mitie - has led some to question whether these companies are subject to sufficient competitive pressure. In some areas and for particular contracts, the level of competition is severely limited. However, in our quantitative analysis, we find little evidence of partisan favouritism in UK central government contracting around the 2010 change of government. Regressions describing company market success (i.e., value of contracts won per quarter) indicate a high degree of persistence of company performance throughout the whole period. Those company groups which follow a suspicious market success pattern ('surprise winners' as well as 'surprise losers') are not associated with a CRI pattern of favoured treatment in procurement tenders. There are a few specific companies which have both a suspicious winning pattern and CRI trajectories, but they control only about 10% of the market. This is in line with the qualitative picture of isolated cases of corruption in public procurement only infrequently linked to political favours and national party politics.

Using a system GMM estimator of the dynamic panel data model specified in equation (1), we find strong evidence for persistent company performance throughout 2009-12 (Table 4).[22] For example, in model 4, a one unit increase in the past quarter's log contract value won results in an almost equal amount of increase in the following quarter. Such a strong path dependence captures the persistence of company success in the UK throughout governments. The preferred models, which contain the full set of controls, are models 2 and 4. Both of these have high explanatory power[23]: 0.85 and 0.35 respectively.

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[21] Crown Commercial Service, Procurement Policy Note, Action Note 13/15 31 July 2015.

[22] Tests of the adequacy of the instruments used to tackle the endogeneity problem between the lagged dependent and dependent variables (Sargan and Hansen tests) show that instrumental variables could not fully correct for endogeneity at least partially due to the strong persistence in the time series. 23 In the absence of traditional R-squared statistics for system GMM models, we used the linear correlation coefficient between predicted and observed outcomes.

TABLE 4. SYSTEM GMM DYNAMIC PANEL REGRESSION RESULTS EXPLAINING COMPANY MARKET SUCCESS, UK, 2009-2012

dependent variable	fourth root of contract value		log contract value	
model number	1	2	3	4
independent variables				
fourth root of contract value:1st lag	0.067***	0.016*		
fourth root of contract value: 2nd lag	0.057***	0.015*		
log contract value: 1st lag			0.037	0.949***
Control variables				
Year	Y	Y	Y	Y
fourth root of contract value awarded on main market	N	Y	N	N
Main product group (2-digit CPV)	N	Y	N	Y
N (company)	1,293	1,293	682	682
N (obs)	7,758	7,758	1,203	1,203

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

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These regressions[24] allow for the identification of a considerable number of firms with suspicious winning patterns; 'surprise losers' and 'surprise winners' account for 379 and 343 out of 1,294 companies, respectively. However, these company groups follow a different CRI pattern than a favouritism-driven dynamics would predict (Figure 5). While surprise losers have a higher CRI than stable or 'surprise winner' companies under government 1, there is no evidence of 'turning tides' – i.e., surprise winners winning in the presence of more red flags than the rest of the market under government 2. While we cannot rule out the possibility that it takes longer than 18 months for an incoming government to establish its grip on government contracting and effectively favour its connected firms in the UK, the evidence suggests that there is little systematic partisan favouritism in UK central government procurement.

FIGURE 5. PERCENT DEVIATION IN CRI SCORES OF SURPRISE WINNERS AND LOSERS COMPARED TO STABLE COMPANIES, BY GOVERNMENT PERIOD, UK, 2009-12[25]
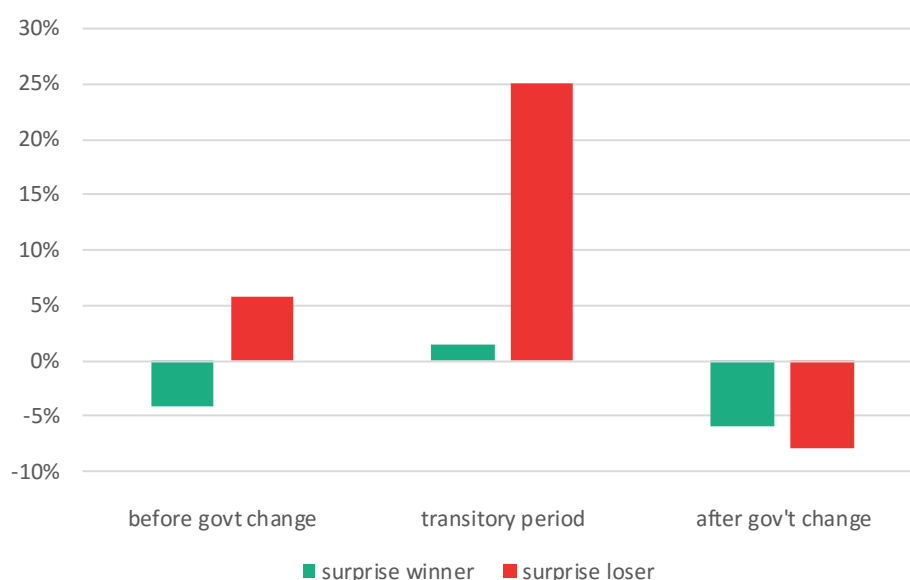

Nevertheless, it is possible to identify individually those companies which have suspicious winning patterns as well as CRI scores that deviate from their respective group averages. Such companies are quite rare, representing deviant cases from an otherwise partisan favouritism-free environment, with their combined market share fluctuating around 10% throughout 2009-12 (Figure 6).

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[24] To be denoted as a suspicious firm, it is sufficient to display a suspicious error term pattern in one of the regressions.

[25] The differences in group means of surprise losers and winners are significant only at the 10% level.

FIGURE 6. COMBINED MARKET SHARES OF COMPANY TYPES, UK, 2009-13
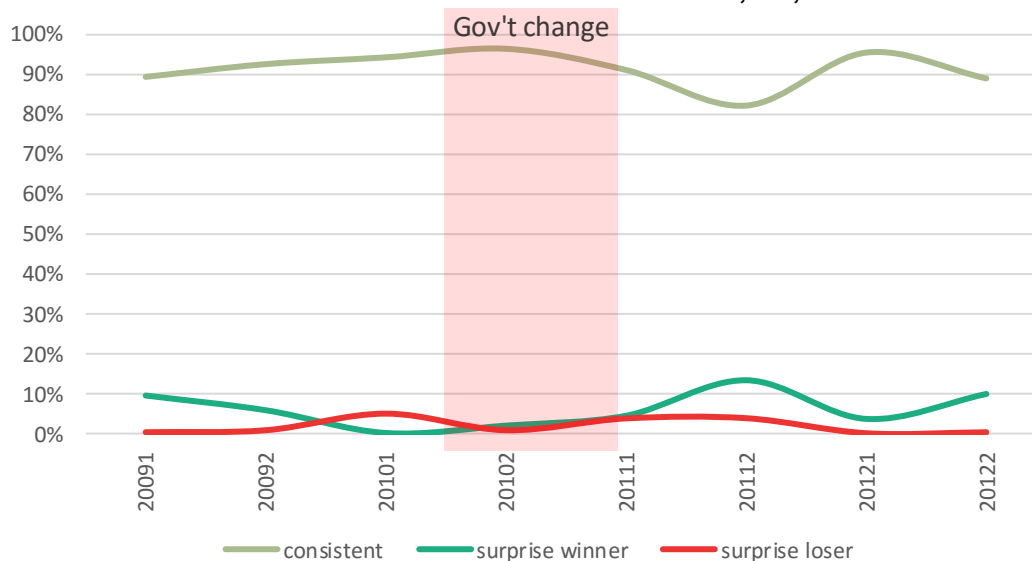
CONCLUSIONS

This paper has examined how political influence over different aspects of public procurement can be used to favour partisan allies in the allocation of contracts. In Hungary, our qualitative research finds that the politicization of the bureaucracy and the weak autonomy of monitoring institutions make procurement highly vulnerable to political influence. This is borne out by our quantitative analysis, which finds that around 50-60% of the market is controlled by companies that win despite a lack of prior success *and* exhibit high corruption risks in their tenders. Surprise winner companies often have personal and social connections to the political elites, and it is only in Hungary that we find companies emerging from nowhere to capture major shares of public procurement markets (and companies that experience rapid declines in contracting success as a result of personal feuds).

Mature democracies should not assume that government contracting is protected from partisan favouritism, however. In the UK, companies that win despite a lack of prior success *and* exhibit a high tendering corruption risks control around 10% of the market. In other words, some companies seem to benefit from the change in government as well as from competing in conditions that are associated with higher corruption risk. Yet our qualitative research did not find evidence that these outcomes are the result of systemic political control; they more likely reflect isolated instances of opportunism, or oligopolistic structure emerging in some markets for government contracts.

Our empirical results suggest that government contracting is best protected from partisan favouritism where law-making, bureaucratic procedure, and monitoring institutions all have a considerable degree of autonomy from ruling political elites. This is in keeping with the results of research on government contracting in the United States, which finds that the potential to politicise bureaucratic behaviour is moderated by such factors as the degree of public scrutiny and the dependence of institutions on actions initiated by other agencies – cross-institutional checks and balances (Sanford 2011).

We also contribute to the literature on democratization, by demonstrating the importance of certain aspects of democratic consolidation. Keefer & Vlaicu suggest that the prevalence of clientelism in young democracies reflects the inability of elites in young democracies to make credible promises to provide public goods, forcing them to make narrower promises to target groups instead. We argue, instead, that elites everywhere face strong incentives to target the provision of goods in this way. However, our results suggest that elites in young democracies are less constrained in pursuing such a strategy, because there are fewer and less robust checks on their power.

Our findings are also relevant to debate about the impact of EU accession in promoting good governance and curbing corruption. They suggest that, even in the context of standardized EU regulation, the public procurement process can be systematically manipulated by political elites that are able and willing to maximize their political control over implementing authorities and monitoring institutions. In the case of Hungary, such conduct has prompted relatively little criticism from the European Commission, despite the fact that it undermines both the rule of law and the single market. Moreover, although recent amendments to the Public Procurement Directive contain a new requirement (Article 24) on contracting authorities to prevent, detect and avoid conflicts of interest, this is likely to be meaningful only in contexts where there are already strong norms of impartiality and robust institutional guards against abuses.

Finally, we have used a new methodology to analyse rich contract-level public procurement data and advanced analytical techniques to reliably identify systemic as well as isolated forms of partisan favoritism in government contracting. Our method can be used to analyse other countries with comparable public procurement datasets as well as sub-national units such as regional governments or municipalities. Future research could explore such applications and further test theories about the conditions in which corruption flourishes. Critically, this methodology allows corruption researchers to break away from their traditional reliance on perceptions indices and expert surveys, to identify types and patterns of political corruption in a major area of public spending.

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Appendix A – Measuring corruption risks at the tender level: the Corruption Risk Index (CRI)

Defining an 'objective' indicator of corruption risk

Corruption risk at the tender level is understood as the allocation and performance of public procurement contracts by bending prior explicit rules and principles of good public procurement in order to benefit a closed network while denying access to all others. The goal of such corruption is to steer the contract to the favoured bidder without detection, often in an institutionalised fashion.

We define a composite indicator for capturing the risk of this type of corruption in the tendering process by including bidding outcomes such as the number of bidders and also the characteristics of the tendering procedure that are in the hands of public officials who conduct the tender and can be abused for deliberate competition restriction (input side) (Fazekas, Tóth, & King, 2013). This composite indicator, which we call the Corruption Risk Index (CRI), is defined as follows:

$$CRI^i = \Sigma_j \, w_j * CI_j^{\;i} \qquad\qquad (1)$$

$$\Sigma_j \, w_j = 1 \qquad\qquad (2)$$

$$0 \leq CRI^i \leq 1 \qquad\qquad (3)$$

$$0 \leq CI_j^i \leq 1 \qquad\qquad (4)$$

where CRI^i stands for the corruption risk index of contract i, $CI_j^{\;i}$ represents the jth elementary corruption indicator observed in the tender of contract i, and w_j represents the weight of elementary corruption indicator j. Elementary corruption indicators can be either corruption inputs or outputs. CRI = 0 indicates minimum corruption risk while CRI=1 denotes maximum corruption risk observed. Based on qualitative interviews of corruption in the public procurement process, a review of the literature (OECD, 2007; Pricewaterhouse Coopers, 2013; World Bank, 2009), and regression analysis, we identified the components of the CRI:

1. The simplest indication of restricted competition in line with our corruption definition is when only one bid was submitted in a tender on an otherwise competitive market which typically allows for awarding contracts above market prices and extracting corrupt rents.

2. A simple way to fix tenders is to avoid the publication of the call for tenders in the official public procurement journal as this would make it harder for competitors to prepare a bid. This is only considered in non-open procedures as in open procedures publication is mandatory.

3. While open competition is relatively hard to avoid in some tendering procedure types such as open tender, others such as invitation tenders are by default much less competitive; hence using less open and transparent procedure types can indicate the deliberate limitation of competition, hence corruption risks.

4. If the advertisement period, i.e. the number of days between publishing a tender and the submission deadline, is too short for preparing an adequate bid, it can serve

corrupt purposes; whereby the issuer informally tells the well-connected company about the opportunity well ahead.

5. Different types of evaluation criteria are prone to fiddling to different degrees, subjective, hard-to-quantify criteria often accompany rigged assessment procedures as it creates room for discretion and limits accountability mechanisms.

6. If the time used for deciding on the submitted bids is excessively short or lengthened by legal challenge, it can also signal corruption risks. Snap decisions may reflect premediated assessment, while legal challenge and the corresponding long decision period suggests outright violation of laws.

For continuous variables above such as the length of advertisement period, thresholds had to be identified in order to reflect the non-linear character of corruption. This is because most values of continuous variables can be considered as reflections of diverse market practices, while some domains of outlier values are more likely associated with corruption. Thresholds were identified using regression analysis, in particular analysing residual distributions (for more on this see (Fazekas et al., 2013)).

We restricted the sample in two ways: 1) Competitive markets: we only examine tenders in markets with at least 10 contracts awarded throughout 2009-2014, where markets are defined by product type (CPV level 3) and location (NUTS level 1) within each country. 2) Regulated tenders: we only used those tenders which are above EU thresholds in order to avoid the noise of too small contracts and voluntary reporting which follows erratic patterns across countries and over time. These together removed 17% of the observations.

TABLE 3. SUMMARY OF ELEMENTARY CORRUPTION RISK INDICATORS

Proc. phase	Indicator name	Indicator values
submission	Call for tenders publication (non-open procedures)	0=call for tender published in official journal 1=NO call for tender published in official journal
	Procedure type	0=open 1=non-open (accelerated, restricted, award without publication, negotiated, tender without competition)
	Length of advertisement period	Number of days between the publication of call for tenders and the submission deadline
assessment	Weight of non-price evaluation criteria	Sum of weights for evaluation criteria which are NOT related to prices
	Length of decision period	number of days between submission deadline and announcing contract award
outcome	Single bidder contract (valid/received)	0=more than 1 bid received 1=1 bid received

In addition to the identification of thresholds in continuous variables, regression analysis was also used to identify 'red flags' which are most likely to signal corruption rather than any other phenomena such as low administrative capacity. Ultimately, those variables and their categories were selected which were large and significant predictors of single bidder contracts. The regression set-up controlled for a number of likely confounders of bidder numbers: (1) institutional endowments measured by type of issuer (e.g. municipal, national), (2) product market and technological specificities measured by CPV division of products

procured, (3) contract size (log contract value in EUR), and (4) regulatory changes as proxied by year of contract award.

The logic of regression analysis is the following: if in a certain country, not publishing the call for tenders in the official journal for open procedures is associated with a higher probability of a single bidder contract award, it is likely that avoiding the transparent and easily accessible publication of a new tender is typically used for limiting competition. This would imply that call for tenders not published in the official journal becomes part of the analysed country's CRI. Taking another example, if we found that leaving only 5 or fewer days for bidders to submit their bids is associated with a higher probability of a single bidder contract compared to periods longer than 20 calendar days (a more or less arbitrary benchmark category), this would indicate that extremely short advertisement periods are often used for limiting competition. Then this would provide sufficient grounds to include the '5 or fewer days' category of the decision period variable in the CRI of the country in question. Following this logic, in addition to the outcome variable in these regressions (single bidder) only those variables and variable categories are included in CRI which are in line with a rent extraction logic and proven to be significant and powerful predictors.

Once the list of elementary corruption risk indicators is determined with the help of the above regressions, each of the variables and their categories receive a component weight. As we lack the detailed knowledge of which elementary corruption technique is a necessary or sufficient condition for corruption to occur, we assign equal weight to each variable and the sizes of regression coefficients are only used to determine the weights of categories within variables. For example, if there are four significant categories of a variable, then they would get weights 1, 0.75, 0.5, and 0.25 reflecting category ranking according to coefficient size. The component weights are normed so that the observed CRI falls between 0 and 1.

The strength of the composite indicator approach (CRI) over using the indicators separately is that while individual strategies of corruption may change as the environment changes, they are likely to be replaced by other techniques. Therefore, the composite indicator is a more robust proxy of corruption over time than a single variable approach. In an international comparative perspective, a further strength of CRI is that it balances national specificities with international comparability by allowing for the exact formulation of the components to vary reflecting differences in local market conditions. The main weakness of CRI is that it can only capture a subset of corruption strategies in public procurement, arguably the simplest ones, hence it misses out on sophisticated types of corruption such as corruption combined with inter-bidder collusion.

Validity of CRI

The validity of CRI stems from their direct fit with the definition of high-level corruption in public procurement and the theoretical model of corrupt rent extraction. Further analysis on its association with widely used survey-based macro-level corruption indicators as well as with micro-level objective indicators of corruption risks underpin validity, i.e. suggest that it proxies corruption rather than any other phenomena such as low administrative capacity.

The CRI (as a 2009-2013 average per country using number of contracts) correlate as expected with widely used perception-based corruption indicators such as the World Governance Indicators' Control of Corruption, Transparency International's Corruption Perception Index, and Global Competitiveness Index's Favoritism in decisions of government officials (Table 4). In addition, a 2013 Eurobarometer survey of bidding

companies' experience of corruption across the EU provides the most directly comparable survey-based indicator of corruption in public procurement, which also co-varies with both single bids and the CRI as expected[26].

TABLE 4. BIVARIATE PEARSON CORRELATIONS OF % SINGLE BIDDER AND THE CRI WITH SURVEY-BASED CORRUPTION INDICATORS, ON THE COUNTRY LEVEL, 2009-2013

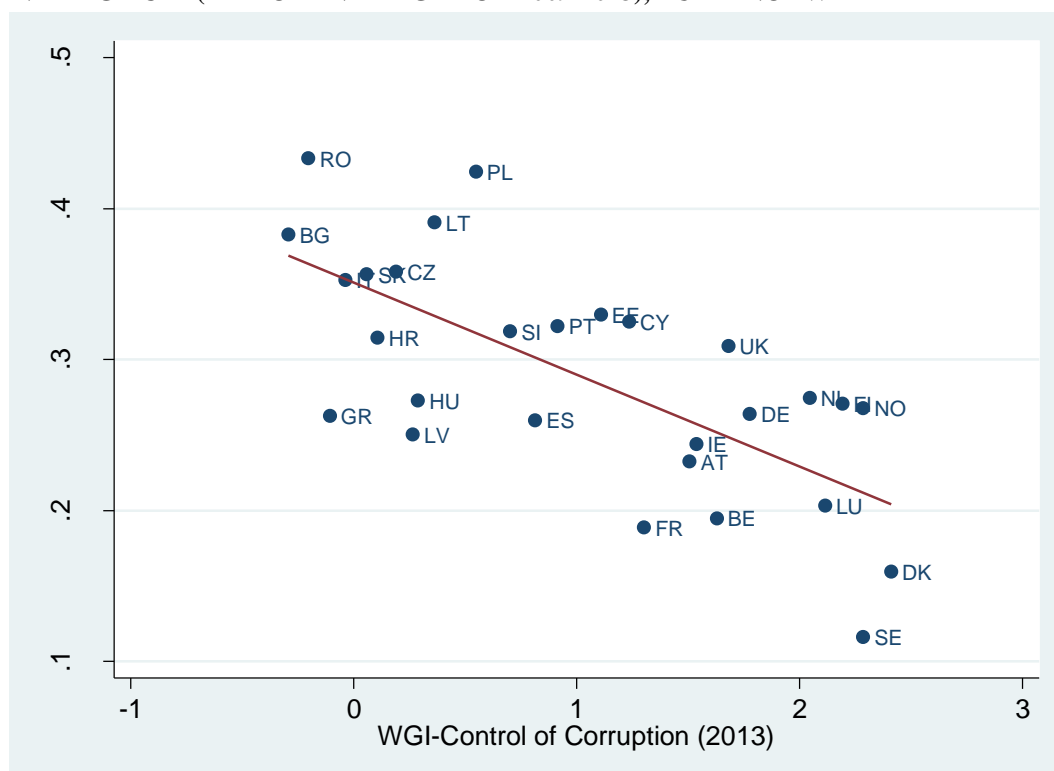| Indicator	CRI	N
WGI - Control of Corruption (2013)	-0.6933*	28
TI- Corruption Perceptions Index (2013)	-0.6662*	28
GCI - Favoritism in decisions of government officials (2013)	-0.6342*	28
Eurobarometer company corruption perceptions (2013)	0.6163*	25

Source: TED, (Kaufmann, Kraay, & Mastruzzi, 2009; TNS Opinion and Social, 2013; Transparency International, 2012; World Economic Forum, 2010)
Note: * = significant at the 5% level

In order to visually demonstrate the above described correlations, we depict the average 2009-2013 CRI (

Figure 1) scores of EU27 countries and Norway along with their 2013 WGI Control of Corruption scores.

FIGURE 1. BIVARIATE RELATIONSHIP BETWEEN WGI-CONTROL OF CORRUPTION (2013) AND AVERAGE CRI (PERIOD AVERAGE FOR 2009-2013), EU-27+NORWAY

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[26] While three perception indicators (WGI, TI, and GCI) indicate less corruption with higher values, our indicators and the Eurobarometer indicator are scaled in the opposite direction with higher values implying more corruption.

In order to validate CRI not only on the macro-level, but also on micro-level, we employ two 'objective' risk indicators: procurement suppliers' country of origin and contract prices. It is expected that a contract represents a higher corruption risk if it is awarded to a company registered in a tax haven as its secrecy allows for hiding illicit money flows (Shaxson & Christensen, 2014). In line with our expectations, all across the EU27 plus Norway there is a marked and significant difference in the average CRI scores of contracts won by foreign companies registered in tax havens versus those which are not: 0,34 versus 0,31 respectively (Ncontract=28,642).

We also expect corruption to drive prices up. Although reliable unit prices are not available, we can employ a widely used alternative indicator of price, which is the ratio of actual contract value to initially estimated contract value (Coviello & Mariniello, 2014). As expected, higher CRI is associated with higher prices. Contracts with one additional red flag (i.e. 0.17 CRI points higher) are 2.5-2.7% more pricey even after controlling for major confounding factors.

TABLE 5. LINEAR REGRESSIONS EXPLAINING RELATIVE CONTRACT VALUE, EU27+NO, CH, 2009-2014

Dependent variable	Relative contract value (contract price/estimated price)	
Model	(1)	(2)
Independent variable	CRI	CRI
	0.1484*	0.1607*
	(0.000)	(0.000)
Sector of contracting entity	N	Y
Type of contracting entity	N	Y
Year of contract award	N	Y
Product market	N	Y
Contract value	N	Y
Country	Y	Y
N	524441	501783
R-squared	0.0710	0.1248

Note: p-value in parentheses; *=significant at 0.1% level; each regression contains constant; relative contract values equal or smaller than 1