



# Grand corruption and government change: an analysis of partisan favoritism in public procurement

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## Abstract

Incoming governments sometimes abuse their power to manipulate the allocation of government contracts so as to buy loyalty from cronies. While scandals suggest such practices are relatively widespread, the extent of such partisan favoritism is difficult to measure and the conditions under which it flourishes under-theorized. Drawing on theory regarding the role of institutions as constraints on corruption, we identify three spheres of political influence over government contracting and show how elites can manipulate two of those spheres to increase their opportunities to influence the procurement process and minimize external accountability, facilitating the corrupt allocation of contracts to partisan allies. Using an innovative big data methodology, we then identify the effects of a change in government on procurement markets in two countries, Hungary and the United Kingdom, which differ in terms of political influence over these institutions. We find that politically-favored companies secure 50–60% of the central government contracting market in Hungary but only 10% in the UK.

**Keywords** Grand corruption · Public procurement · Clientelism · Governance · Corruption measurement

## Introduction

An important form of grand corruption occurs when political elites allocate state resources in exchange for political support, a practice traditionally known as clientelism (Hicken 2011). Politicians distribute a variety of resources in this way (Piattoni 2001): they abuse their patronage power to appoint allies to civil service positions (Meyer-Sahling and Veen 2012);

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they design privatization programs so as to ensure that state assets are sold to cronies (Ganev 2005); and they manipulate the public procurement process to grant friends or relatives preferential access to public contracts for goods, works, and services (Grodland 2010; Hamilton 2010). This last type of corrupt exchange, where politicians use their control over individuals and institutions involved in the procurement process to steer contracts toward favored companies, is our focus here.

Politicians are motivated to corrupt the procurement process partly to channel private gains to themselves and their families but also because the strategic allocation of state resources buys loyalty which in turn helps them to consolidate their power and gain an advantage over their political competitors. This ‘loyalty’ also comes in many forms, including donations to political parties or individual campaigns, direct bribes or ‘kickbacks’ on contracts, and sometimes in-kind provision of services — as in Turkey, where media companies that benefit from government contracts provide supportive coverage of the government in return (Emek and Acar 2015). These relationships also benefit the companies, which secure a steady stream of easy business and see their competitors kept out of the market (Faccio 2006; Fisman 2001; Goldman et al. 2013). Therefore, such practices can quickly become systemic. Rather than being ad hoc corrupt acts by individual politicians or businesses, the entire public procurement process may be captured by a closely knit political-business elite, which becomes increasingly interested in (ab)using its power to further protect the market.

Given that public procurement accounts for on average 29% of total general government expenditure in OECD countries (2013 data) (OECD 2015), and closer to 50% of public spending in developing countries, these practices can cause serious damage to the economy and to public confidence in institutions. Favoritism in the allocation of public contracts can lead to higher prices, reduced value for money, the provision of low-quality or unsafe works, goods and services, and reduced competition (Bank 2016; Dastidar and Mukherjee 2014; Hessami 2014). It is also likely to harm democracy since, by distributing resources according to particularistic ties, partisan favoritism disadvantages parties that lack connections and thus weakens political competition (Stark and Vedres 2012). Clientelism may even reverse the conventional relationship of democratic accountability, with *politicians holding supporters to account* for their behavior (Stokes 2005).

Some governments are more constrained than others in their ability to allocate contracts in a partisan manner. Theories of corruption control explain this in terms of the balance of opportunities and constraints in a country (Klitgaard 1991; Mungiu-Pippidi 2013, 2015). The opportunities depend on factors such as how many resources the state has at its disposal, with natural resources and development aid boosting the opportunities considerably (Fazekas and King 2018; Tavares 2003). The constraints relate partly to international commitments but very largely to domestic institutions — specifically, the extent to which a country’s ‘accountability ecosystem’ comprises capable and autonomous institutions, including civil society organizations, able to scrutinize the exercise of power and hold misconduct to account (Bauhr and Grimes 2014; Lindstedt and Naurin 2010; Mungiu-Pippidi and Dadašov 2017). Yet this accountability ecosystem is not an exogenous factor. Rather, political elites in power also have some scope — depending on the constitution and political culture — to influence and change the institutions that are supposed to hold them to account, and may seek to do so in ways that disable those constraints, further increasing their opportunities to engage in corruption.

We draw on two country case studies — the United Kingdom and Hungary — to illustrate how political elites in certain institutional contexts can exploit and create opportunities to manipulate government contracting, specifically for partisan (as well as private) gain. We then

showcase a new method for measuring the extent to which public procurement markets are captured. Both the UK and Hungary experienced a change of government in 2010, following general elections that saw centre-left parties defeated and centre-right parties come to power. They also experienced similar macroeconomic shocks, leading governments to respond with stimulus packages and austerity programs. Both countries are members of the European Union, and hence public procurement is conducted under ostensibly similar rules, as set out in the EU Public Procurement Directive, at least for contracts above a threshold value.<sup>1</sup>

However, the accountability ecosystems of the two cases vary considerably. This is illustrated by aggregate governance indicators: on the Index of Public Integrity (<https://integrity-index.org>), the UK scores 9.10, while Hungary, scoring 7.43, is the fourth-worst performer in the European Union (2017 figures). The divergence between the two is even more pronounced in a few key areas. On judicial independence, the UK scores 9.29 while Hungary's score is only 4.24. On freedom of the press, another critical check on executive power, the UK scores 8.20 and Hungary 6.51. For a more qualitative understanding of institutional quality, we conducted interviews with key informants (14 in Hungary and 17 in the UK), including procurement officials, companies that bid for public tenders, and professionals from audit institutions, civil society organizations and the media, to better understand how these differences in institutional controls create opportunities to influence or capture the procurement process.

The political parties in power at this time also differed in their capacity to control the executive. In the United Kingdom, the new government was a coalition of Conservatives and Liberal Democrats; the incoming government in Hungary comprised one party, Fidesz, with a two-thirds majority in parliament, sufficient to change the constitution. In the UK, the institutional framework limited political influence over central government procurement and the new government did not seek, by and large, to disable the institutional checks and balances. In Hungary, the institutional framework was already weaker, but the incoming government also used its power to make extensive political appointments to key institutions and to undertake a program of far-reaching constitutional reforms — which have been characterized as ‘democratic backsliding’ (Greskovits 2015; Sedelmeier 2014). These steps expanded the government's opportunities to politically influence the allocation of state resources through procurement while also making it easier to evade accountability, i.e., reducing constraints on the exercise of power.

Having established that the two incoming governments differed in terms of their opportunities to exert partisan influence over procurement, we use a new method to assess whether they did in fact steer public contracts to partisan allies. We adopt a ‘follow the money’ approach that focuses on monitoring change in how resources are allocated among companies *following a change of government*. We measure the proportion of contracts distributed to partisan allies by analyzing shifts in procurement market outcomes that occur as a result of government change. Controlling for changes in overall spending priorities, we isolate suspicious changes in contracting success at the company level and cross-check these against the prevalence of selected corruption risks — or ‘red flags’ — in procurement processes. Where both conditions are present — i.e., a change in government affects procurement outcomes *and* the beneficiary companies win under conditions associated with corruption red flags — we argue that this is indicative of partisan favoritism.

<sup>1</sup> The ‘classical’ directive 2014/24/EU on General Procurement and separate directives for concessions and utilities govern all public procurement of contracts above certain value thresholds within EU member states.

Analyzing a complete database of regulated central government purchases in the two countries in 2009–12, containing 21,000 contract awards, we find that, in Hungary, around 50–60% of public procurement is awarded to companies that win under such conditions. In the UK, where institutional controls are more robust, only around 10% of the market is associated with partisan favoritism.

## Capturing the procurement process

### Theoretical framework

We propose a framework for assessing the extent to which public procurement may be subject to capture by a political elite. We contend that politicians seeking to engage in partisan favoritism aim to control three spheres of the procurement process: the *formation* of public procurement law; the *implementation* of procurement by the bureaucracy; and the *monitoring* of implementation, which includes audits, complaint mechanisms, and scrutiny by civil society organizations and the media. It is not necessary to control *all* of these stages in order to steer contracts to partisan allies, but control over more aspects will mean that partisan goals can be achieved more efficiently and with less risk of challenge.

Elites seeking to control these different spheres have a range of techniques at their disposal (see Table 1). At the stage of policy *formation*, for example, they may shape the procurement law, e.g., by changing the thresholds at which contract awards must be published in official journals (Emek and Acar 2015) or altering the conditions for permitting a negotiated (non-competitive) tender, in an effort to increase the scope for conducting procurement beyond the reaches of scrutiny. In the *implementation* phase (OECD 2009; Ware et al. 2007), corrupt elites might seek to persuade public officials to falsely inflate needs (buying goods that are not necessary), narrowly specify the tender criteria (so as to favor a certain bidder), make excessive provision for errors (with a view to inflating costs later), or incorrectly apply criteria for judging bids. Corrupt political influence in the third sphere may occur when politicians seek to deliberately ‘disable’ institutions that are supposed to *monitor* and check the integrity of the procurement process, such as the judiciary, supreme audit institutions, the media, and civil society organizations.

Corruption at the formation stage is arguably the most 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; arguably, corruption at this stage does not enable one group to entrench its advantage to such an extent. The World Bank refers to corruption during policy formation as state capture, and corruption in the implementation phase as ‘administrative corruption’ (World Bank 2000).

However, while capture of policy formation may be the most efficient channel, this 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.<sup>2</sup> There is variation in how the Directive is transposed into national law (Fazekas et al. 2015) but, by and large, national

<sup>2</sup> 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.

**Table 1** Techniques for political capture of public procurement

| Sphere of influence   | Objective of corrupt elite   | Example techniques   |
|---|--|--|
| Policy Formation  |  |  |
| Drafting of Public Procurement Act and secondary regulation   | Ensure that law provides opportunities for procurement to occur with minimal scrutiny (e.g., high thresholds for transparency, weak controls over use of non-competitive procedures) | Use executive power to draft a favorable bill<br>Use parliamentary majority to secure passage of bill<br>Use control of parliamentary timetable to assure swift passage of bill without scrutiny   |
| Implementation  |  |  |
| Public procurement process, comprising: needs assessment, tender design, evaluation of bids, contract award | Ensure that process favors certain bidders, rather than being competitive  | Use patronage power to appoint loyal officials to key roles implementing procurement process<br>Intervene in process to recommend certain courses of action, e.g., appointing certain advisers, including specific clauses in contract<br>Threaten to fire individuals that do not bow to pressure |
| Accountability  |  |  |
| Audits, judicial review, scrutiny by civil society groups and the media                                     | Disable checks and balances, so that favoritism in procurement goes undetected or unchallenged   | Use constitutional reform to change procedures for appointments to these institutions<br>Appoint allies as heads of institutions<br>Appoint individuals only as 'acting' heads, to increase their insecurity (and loyalty)<br>Exert pressure over media by withdrawing state advertising           |

political elites in the EU have little discretion here and few opportunities for corruption. Their best alternative for controlling procurement is to systematically influence the implementation process. Politicians are better able to influence the implementation of procurement where they have greater control over the bureaucrats charged with implementation, e.g., where the power to hire and fire bureaucrats is in their gift (Charron et al. 2017). They also have greater control where there is less bureaucratic autonomy, and where implementing institutions are less dependent on actions initiated by other agencies (Anderson 1988; Gordon 2011; Piattoni 2001; Van de Walle 2007).

We argue that influence over the third sphere — monitoring institutions — is an important way for elites to consolidate and protect corrupt gains. Accountability institutions are critical to ensuring the integrity of public procurement (Knack et al. 2017; Lederman et al. 2005; Mungiu-Pippidi 2015; Mungiu-Pippidi and Dadašov 2017). This is because procurement is complex, meaning that proper accountability requires thorough scrutiny by well-resourced and independent oversight institutions, also because public officials, politicians, and companies often become expert in gaming the system (Hudon and Garzón 2016).

Political influence over accountability institutions can be achieved in a number of ways. Where the governing party has an overwhelming majority, it can enact constitutional reforms to reduce the powers of such institutions, or simply increase its political control over their

appointments, budgets, or mandates, thereby fostering loyalty or insecurity, and priming channels for informal influence. This requires considerable investment of time, resources and political capital, but the investment promises to pay off handsomely if perpetrators are thus able to use public procurement to allocate state resources to partisan allies (and themselves) as long as they are in power.

In the next two sections, we briefly review qualitative evidence about the scope for partisan influence over procurement in our two case-study countries, focusing on the spheres of implementation and accountability (since policy formation is constrained by the EU Directive).

### **Institutional controls in Hungary**

In Hungary, conditions are ripe for political influence over policy implementation. The boundary between the public and private sectors is blurred (Ganev 2005; Wedel 2003), the public administration is characterized by extensive party patronage with deep and far-reaching changes in personnel when the government changes (Meyer-Sahling and Veen 2012), and business organizations tend to align with political factions (Jancsics and Jávör 2012; Stark and Vedres 2012). Procuring entities in Hungary are incentivized to comply with political instructions because their budgets are controlled by the central government. Our interviews with procurement officers revealed that political patronage is sometimes accompanied by direct political intervention in the implementation of procurement procedures. One interview respondent explained:

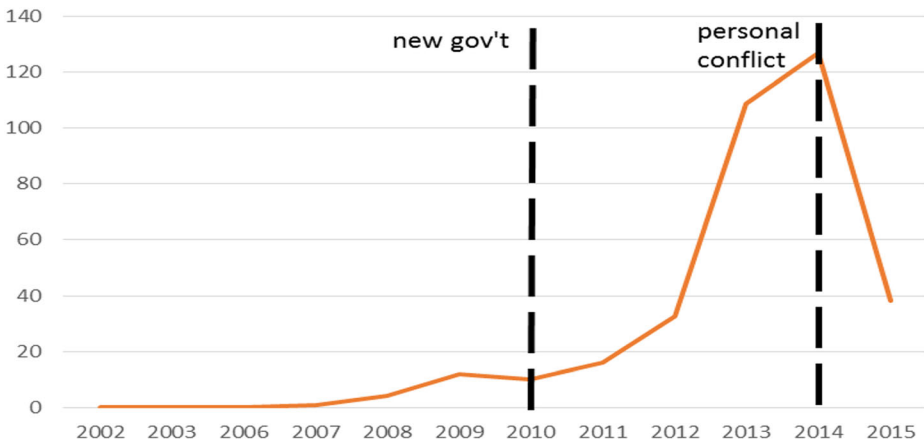
The head of my agency got the instruction from the ministry (political leadership, not professional) on whom exactly the procurement advisor of the agency should be. We quickly realized that this advisor is a man from politics — his selection was not based on professional standards, but political considerations. 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.

In other cases, spurious grounds are used to rule out competition altogether. Non-competitive procedures — allowed on grounds of national security — are invoked with suspicious frequency (Fazekas et al. 2016).

Political connections have also been evident in scandals. The EU counter-fraud agency, OLAF, opened an investigation into the procurement of street lighting by municipalities after investigative journalists reported that a newly founded company, Elios, owned by the son-in-law of Prime Minister Viktor Orbán, had won 19 tenders in a short period and been the sole bidder on at least eight occasions, despite there being 10–12 experienced suppliers.<sup>3</sup> In tenders where Elios was successful, the needs had often been specified very narrowly. Sometimes three companies had submitted bids, but all written by employees of Elios (OCCRP, 27 August 2018) and the lamps were as much as 56% more expensive than usual (The Guardian, 12 February 2018).

Further evidence of the importance of political connections emerges from the record of companies owned by individuals close to the ruling elite. Major construction company

<sup>3</sup> <http://www.direkt36.hu/en/2015/03/11/tiborc-istvan-es-az-elios-innovativ-zrt-sikerei-ledes-kozvilagitasi-kozbeszerzeseken/>



**Fig. 1** Total value of contracts held by KözgéP Plc, Hungary, 2002–15

KözgéP, owned by Lajos Simicska, a high-school 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, after a public personal conflict between Simicska and Orbán in autumn 2014, KözgéP's success on procurement markets plummeted (see Fig. 1).

Following the dispute, many irregularities were suddenly found in contracts won by Simicska's companies, leading to contract cancellations and a three-year debarment.<sup>4</sup>

The Fidesz government has used its extensive executive power to systematically weaken the accountability sphere. It has reduced the autonomy of the constitutional court and judiciary by politicizing appointments and introducing measures to reduce the power and independence of judges, moves which have been characterized as “disabling” the checks on government power (Bánkuti et al. 2012). The president of the newly created National Judicial Office has the power to select, promote and demote judges, begin disciplinary proceedings, and to select the leaders of every court. The person chosen to fill this office was a close friend of Orbán and the wife of a Fidesz MEP who was the principal drafter of the new constitution. Bánkuti et al. (2012) note that the president of the National Judicial Office's used her power to reassign specific cases to different courts, in February 2012, to move a high-profile corruption case against officials of the former government as well as an appeal by a Fidesz party member from a criminal conviction for corruption.

The individual appointed to head the Hungarian State Audit Office, meanwhile, to hold the post for 12 years, was also a former Fidesz Member of Parliament, and had no prior professional auditing experience. The government also appointed loyalists to the Constitutional Court, Budget Council, Competition Authority, the Public Prosecutor's Office, and the National Bank. These moves considerably weakened the independence of these monitoring institutions and, arguably, their ability to hold the government to account.

<sup>4</sup> See Budapest Business Journal, 20 July 2015, [http://bbj.hu/business/report-kozgep-banned-from-public-procurement-tenders\\_101146](http://bbj.hu/business/report-kozgep-banned-from-public-procurement-tenders_101146); Budapest Business Journal, 22 December 2015, [http://bbj.hu/economy/simicska-loses-right-to-operate-poster-kiosks-in-capital\\_109173](http://bbj.hu/economy/simicska-loses-right-to-operate-poster-kiosks-in-capital_109173); and Reuters, 31 March 2015, <http://www.reuters.com/article/hungary-probe-idUSL6N0WX3KC2015033>.



## Institutional controls in the United Kingdom

In the United Kingdom, the capacity of political elites to control the implementation phase through patronage is much weaker. Appointments to the civil service are meritocratic and mainly non-political (Heywood 2012), with the exception of special advisers (Yong and Hazell 2014). There is little change in personnel when governments change, and our interviews suggested that the institutional structures for implementing and monitoring public procurement are much less prone to political influence. Nor did our research reveal evidence of political favoritism in practice.

The market for outsourced public services is, however, dominated by very few firms — in the period studied, these were G4S, Capita, Serco, Carillion, Babcock, and Mitie. This means that, especially for some contracts, the level of competition may be severely limited. This raises questions as to whether the efficiency benefits that were the rationale for such extensive outsourcing are being achieved. Questions about the government's ability to hold these companies to account intensified following the bankruptcy of Carillion in early 2018. There is also some evidence that the post-award contract implementation stage of the procurement process is less well controlled than earlier phases (Fazekas and Dávid-Barrett 2015). This stage is often managed by the department that uses the procured works, goods or services, rather than by the more technically expert central procurement function, leading to reduced scrutiny.

However, a greater concern for our respondents was that individual bureaucrats responsible for procurement might favor companies because of future career considerations. The media frequently reports alleged conflicts of interest relating to the 'revolving door', whereby public officials leave office to take jobs in private-sector firms that bid for government contracts. Empirical research in the United States has found that firms that hire through the revolving door are indeed more successful in winning government contracts (Canayaz et al. 2014). Moreover, the regulatory body responsible for advising on business appointments in the UK has no statutory authority and is rather passive (David-Barrett 2011).

Yet overall, the period studied was one of increasing transparency and openness within a stable institutional framework. There is no evidence of systemic efforts to subvert controls and exercise political influence.

## Measuring partisan favoritism

Around the world, a growing commitment to transparency among governments has often resulted in 'big data' on public procurement becoming available at the level of contracts, while advances in computing capacity have made it easier to collect and analyze such data. We take advantage of these developments to design a method for testing our hypothesis — about the impact of government change on the award of contracts in different institutional conditions — by analyzing administrative data on government contracts for indicators of 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 favoritism, we analyze '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 favoritism and aim to exclude cases that exhibit favoritism-type patterns for alternative, non-corrupt reasons.



Controlling for changes in policy priorities, we would not expect a significant change in outcomes as a result of a change in government. In a market characterized by partisan favoritism, however, we expect past performance to become a liability, i.e., company X which is linked to the previous government will no longer be favored 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 favoritism.

The quantitative analysis rests on the expectation that the logic of a favoritism-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. Contract value is the outcome we seek to explain as it represents the primary source of rent extraction with larger contracts allowing for higher rents. Using regression analysis, we can denote 'surprise losers' and 'surprise winners' as companies having ties to government 1 and 2 respectively; the indirect regression evidence suggests that they benefit from political change even after controlling for key alternative economic explanations.<sup>5</sup>

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

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

where  $C$  denotes the constant term for the whole sample;  $CV_{it}$  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;  $CVM_{it}$  indicates the contract value spent in the main market of company  $i$  in quarter  $t$ ;  $MM_i$  contains 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 the Arellano-Bond system GMM transformation of the above equation which is a widely used solution to the estimation biases from using past values of the dependent variable as predictor providing 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 large amounts, we had to transform them to achieve an approximate normal distribution of the dependent variable. We opted for two versions: using the fourth root<sup>6</sup> and the 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.<sup>7</sup> Equation (1) contains all the predictors with considerable predictive power.

<sup>5</sup> While companies may act collectively in systematically corrupt environments, as long as on average one group benefits from government change while another loses out, our methodology is robust to identify market-level favoritism because distributional effects within loser and winner groups cancel out on average.

<sup>6</sup> The more widely used square root transformation did not lead to sufficiently normally distributed dependent variable, and hence the fourth root transformation was applied.

<sup>7</sup> Results of alternative regression specifications containing company financial information and geographical location are available upon request.

The two versions Eq. (1) can take, i.e., the dependent variable being the 4th root contract value or the log contract value, enable us to identify two different types of companies benefiting from government favoritism. In the first case, companies that have previously won no contracts at all, and sometimes have had no significant prior business activity at all, enter the government contracting market and win large sums immediately. This may indicate that companies have been set up by government cronies who have received advance warning of upcoming opportunities, often specifically tailored to their companies (as in the case of Elios mentioned in "Capturing the procurement process"). The situation is captured by the 4th root contract value version of the regression as it keeps the company-quarter observations with zero contract value in the sample. In the second case, established companies greatly extend their contract volume using their connections to those coming into office (as in the case of Közég mentioned in "Capturing the procurement process"). This situation is best captured by the log contract value version of the regression as it removes brand new companies that enter the procurement market 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 Eq. (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 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. This matching between regression error terms and company categories represents the closest alignment between theory and empirics.

Note that stable market success does not necessarily indicate a lack of favoritism per se. Grand corruption tends to take different forms depending on the political and social structure of a country, characterized by Michael Johnston as different "syndromes" of political corruption (Johnston 2005). In some contexts, private-sector actors seek to corrupt multiple political parties, rather than having partisan links to just one party. In others, companies strategically build strong ties with both incumbent and opposition parties, so that they benefit whoever is in power; or create links to stable parts of the government (such as the permanent bureaucracy) to insulate themselves from the shock of a shift in power within a corrupt elite. This paper focuses on collaboration between political and business elites united by a *shared* partisan identity, where grand corruption based on procurement is characterized more by an 'our turn to eat' approach, with an incoming government abusing their office to reward their 'own' side, at the expense of allies of their predecessor (Burgess et al. 2011).

The main shortcoming of the indirect identification of favored companies is that highly innovative and competitive market entrants might also appear as favored companies (i.e., 'surprise winners') since they also deviate from the standard predicted behavior. Similarly, while we control for overall spending patterns in the regressions, more fine-grained aspects of changing government spending structure — e.g., a switch to procuring green energy over fossil-fuel-based energy — 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. 2017; Fazekas and Kocsis 2017). The index builds on work by other scholars using red flags as proxy measures for corruption (Auriol et al. 2011; Klasnja 2016). 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.<sup>8</sup> 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 an 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 provided in the Supplementary Material.

The CRI is constructed to incorporate the average incidence of single bids received and five process-related 'red flags'. The 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, and crucially also for identifying individual government suppliers with the highest risk performance within a country. While governments changed in both the UK and Hungary in 2010, conveniently for our measurement framework, the overall level of corruption risks remained largely stable over time within each country, with the UK having generally lower risks than Hungary (Fig. 2).

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 favoritism. 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 favoritism is systemic, such patterns would be discernible on the level of company groups; if favoritism 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.<sup>9</sup>

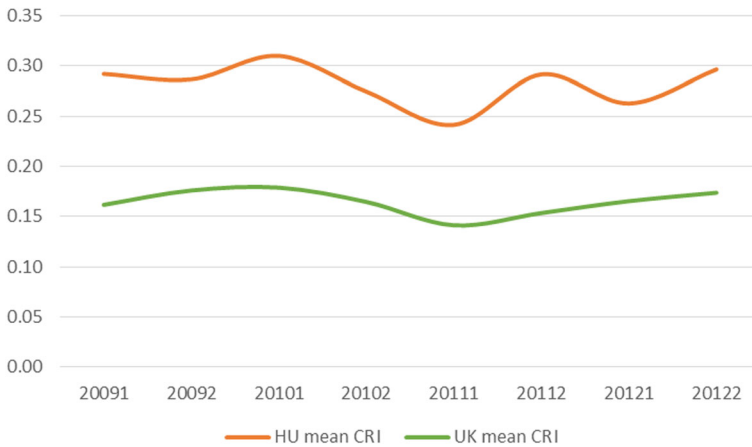
## Data

For the quantitative analysis, we use newly collected micro-level public procurement data from the UK and Hungarian governments. Our database derives from official public procurement announcements in 2009–12, 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, and 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).<sup>10</sup> The EU Directives regulate purchases by every public body and state-owned

<sup>8</sup> 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.

<sup>9</sup> Please note that our expectation is complex, first we expect a company's winning pattern fit a favoritist trajectory (categorical risk) while also having higher than average CRI (continuous risk).

<sup>10</sup> 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>



**Fig. 2** Average Corruption Risk Index (CRI) per half-years in the UK and Hungary,  $n = 4403$

enterprises in every economic sector ranging from construction to legal services (some exceptions apply to defence and specialized legal services) (Charron et al. 2017). TED contains calls for tenders and contract award notices, and enables us to analyze variables, such as contract value, name of winning bidder, number of bids submitted, deadline for submitting bids, and assessment criteria. As company unique identifiers are not mandatory to report in TED, we automatically as well as manually matched company names and addresses to company registry database obtained from Bureau van Dijk, a commercial company data provider.

The analyzed database contains a subset of all the contracts publicly announced in these two countries (Table 2). We exclude contracts for the following reasons: (i) contracts awarded by public bodies other than the national central administration; (ii) contracts below mandatory reporting thresholds<sup>11</sup>; and (iii) contracts on non-competitive markets. First, 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 favoritism — and the power necessary to corrupt the formation of procurement policy and the disabling of institutions — to be driven by national politics. Second, we omit contracts below mandatory reporting thresholds because the EU Public Procurement Directive only regulates contracts above these thresholds, e.g., for services, contracts awarded by central government bodies with value above €134,000 in 2015. Contracts below such thresholds are not directly comparable across countries because national regulations are somewhat different and may be shaped by national favoritist politics. Importantly, below-threshold nationally regulated public procurement tenders must still be advertised and follow tightly defined procedural rules.<sup>12</sup> Nevertheless, some gaming around reporting thresholds is likely, but evidence from other countries (Bobilev et al. 2015; Coviello and Mariniello 2014; Tóth and Fazekas 2017) suggests it is likely to be limited. Thus, our data are a near-complete, unbiased sample of total procurement activities in the two countries for high-value procurement tenders, which are of utmost importance for partisan favoritism. Third, we restrict the sample to competitive markets (i.e., markets defined by product group and region with more than nine

<sup>11</sup> <http://www.ojec.com/thresholds.aspx>

<sup>12</sup> For a full mapping of national procurement regulations, below EU thresholds see: <http://europam.eu/>

**Table 2** Main characteristics of public procurement datasets

|         | Number of contracts awarded | Number of suppliers | Contract value awarded (£billion) | Share of national total procurement value |
|---------|-----------------------------|---------------------|-----------------------------------|---|
| Hungary | 5549                        | 2462                | 5                                 | 50%                                       |
| UK      | 15,429                      | 7610                | 243                               | 68%                                       |
| Total   | 20,978                      | 10,072              | 248                               | 67%                                       |

contracts in the observation period) as on these markets meaningful competition is expected under non-corrupt conditions, enabling 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](http://digiwhist.eu/resources/data).

The database covers the 2009–12 period for both countries in order to allow for around 1.5 years before and after the elections (May 2010). 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 (2010H2–2011H1).

## Results

Our quantitative analysis of contracting data reveals strong evidence of partisan favoritism 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 to a low-to-moderate degree of persistence of company performance throughout the whole period (Table 3). Those company groups that follow a suspicious market success pattern ('surprise winners' and 'surprise losers') are associated with the CRI patterns indicative of favoritism in procurement tenders (Fig. 3). These companies dominate the Hungarian public procurement market, controlling 50–60% of the total contract value awarded.

Using the system GMM estimator of the dynamic panel data model specified in Eq. (1), we find weak-to-moderately-strong evidence of persistent company performance throughout 2009–12 (Table 3).<sup>13</sup> For example, in model 2, a 1 unit increase in the log contract value won in the past quarter results in a 0.2 unit increase in the following quarter. Such weak path dependence is particularly disrupted by the 2010 change of government, which suggests political influence on a purchasing function otherwise driven by economic considerations. Model 1 has high explanatory power<sup>14</sup>: 0.92, while Model 2 has only 0.03. As Model 2 is designed to capture the persistent performance of the most established companies, the lack of

<sup>13</sup> 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.

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

**Table 3** System GMM linear dynamic panel regression estimations explaining company market success, Hungary, 2009–12

| Dependent variable                                   | Fourth root of contract value | Log contract value |
|--|-------------------------------|--------------------|
| Model number   | 1                             | 2                  |
| Independent variables                                |                               |                    |
| Fourth root of contract value: 1st lag               | 0.035***                      |                    |
| Fourth root of contract value: 2nd lag               | 0.011*                        |                    |
| log contract value: 1st lag                          |                               | 0.231***           |
| Control variables                                    |                               |                    |
| Year   | Y                             | Y                  |
| Fourth root of contract value awarded on main market | Y                             | N                  |
| Log spending on main market                          | N                             | Y                  |
| Main product group (2-digit CPV)                     | Y                             | Y                  |
| N (company)  | 573                           | 338                |
| N (obs)  | 3438                          | 582                |

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

Estimations performed using Stata 14.2, fitting a standard Arellano-Bover/Blundell-Bond system estimator, with 1 or 2 lagged dependent variables. It uses the default variance-covariance matrix and the two-step standard error correction algorithm. For full description see (Roodman 2009)

strong explanatory power is particular telling. Importantly, none of the regression models is driven by dynamics in a single market, rather, each of them represents a balanced average result across all major markets (the largest market's share in the sample is 6.5%).

The two regressions<sup>15</sup> in Table 3 enable us to identify many firms with suspicious winning patterns: 'surprise losers' and 'surprise winners' represent 153 and 225 of the total 573 companies, respectively. Recall, companies are denoted as 'surprise losers' when they have an above period-average regression error under government 1 and below period-average regression error under government 2. The opposite pattern is used to identify 'surprise winners' (for a visual representation of group identification see Appendix, Figs. A1 and A2). These company groups follow a CRI pattern consistent with favoritism (Fig. 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.<sup>16</sup> The difference in group CRI averages is particularly pronounced under the second government. Overall, the evidence suggests that Hungarian central government procurement is characterized by systematic partisan favoritism. The favored companies, surprise winners and losers combined, control about 50–60% of the total central government contracting market 2009–12, with a distinct swing in company fortunes around the change of government in 2010, underlining the systemic nature of corruption in Hungary.

In the UK, by contrast, we find little evidence of systemic partisan favoritism 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 highly consistent company performance throughout both governments (Table 4). Those company groups with a suspicious market success pattern are not associated with favoritist CRI patterns (Fig. 4). The few companies that simultaneously have suspicious winning patterns and CRI trajectories

<sup>15</sup> It was sufficient to display suspicious error term patterns in one of the regressions to be denoted as a suspicious firm.

<sup>16</sup> The difference in group means per period is significant in period 1 at 10% level and in period 2 at the 5% level.



**Fig. 3** Percentage deviation in CRI scores of surprise winners and losers compared to stable companies, by government period, Hungary, 2009–12 (Note: the differences between surprise winner and loser group means are significant at 5% level for the before and after government change periods)

control only about 10% of the market. This is in line with the qualitative findings — it suggests isolated cases of corruption in public procurement, rather than systemic partisan favoritism.

Using a system GMM estimator of the dynamic panel data model specified in Eq. (1), we find strong evidence for persistent company performance throughout 2009–12 (Table 4).<sup>17</sup> For example, in model 2, a 1 unit increase in the past quarter’s log contract value won results in an almost equal amount of increase in the following quarter. Such strong path dependence captures the consistency of company success in the UK from government to government. Both regression models have high explanatory power<sup>18</sup>: 0.85 and 0.35 respectively; and none of them is driven by dynamics in a single market, rather, they represent a balanced average result across all major markets (the largest market’s share in the sample is 2.4%).

These regressions<sup>19</sup> 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 1294 companies, respectively. Once again, companies are denoted as ‘surprise losers’ or ‘surprise winners’ using their regression error compared to the period-average regression error under different governments (for a visual representation of group identification see Appendix, Figs. A3 and A4). However, the identified company groups follow a different CRI pattern than a favoritism-driven dynamics would predict (Fig. 4). 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

<sup>17</sup> 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.

<sup>18</sup> In the absence of traditional R-squared statistics for system GMM models, we used the linear correlation coefficient between predicted and observed outcomes.

<sup>19</sup> To be denoted as a suspicious firm, it is sufficient to display a suspicious error term pattern in one of the regressions.



**Table 4** System GMM linear dynamic panel regression results explaining company market success, UK, 2009–12

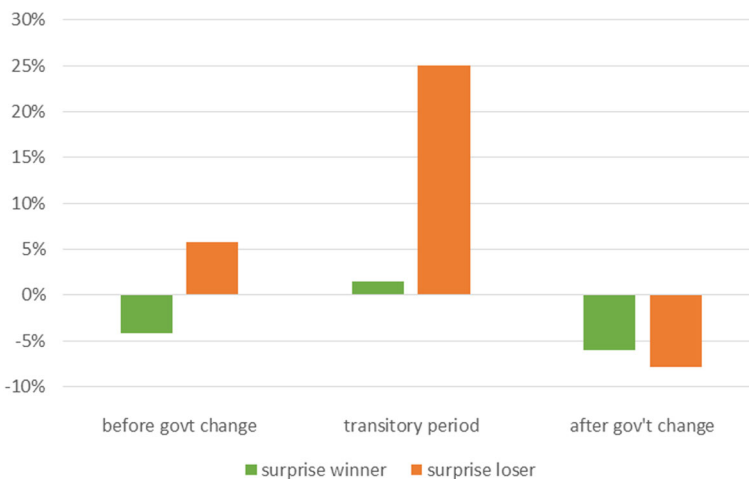
| Dependent variable                                   | Fourth root of contract value | Log contract value |
|--|-------------------------------|--------------------|
| Model number   | 1                             | 2                  |
| Independent variables                                |                               |                    |
| Fourth root of contract value: 1st lag               | 0.016*                        |                    |
| Fourth root of contract value: 2nd lag               | 0.015*                        |                    |
| Log contract value: 1st lag                          |                               | 0.949***           |
| Control variables                                    |                               |                    |
| Year   | Y                             | Y                  |
| Fourth root of contract value awarded on main market | Y                             | N                  |
| Main product group (2-digit CPV)                     | Y                             | Y                  |
| N (company)  | 1293                          | 682                |
| N (obs)  | 7758                          | 1203               |

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

Estimations performed using Stata 14.2, fitting a standard Arellano-Bover/Blundell-Bond system estimator, with 1 or 2 lagged dependent variables. It uses the default variance-covariance matrix and the two-step standard error correction algorithm. For full description see (Roodman 2009)

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 favor its connected firms in the UK, overall there is little evidence of systematic partisan favoritism in UK central government procurement.

Nevertheless, it is possible to identify some companies that 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 favoritism-free environment, with their combined market share fluctuating around 10% throughout 2009–12.



**Fig. 4** Percentage deviation in CRI scores of surprise winners and losers compared to stable companies, by government period, UK, 2009–12 (The differences in group means of surprise losers and winners are significant only at the 10% level)

## Discussion and conclusions

This article examines how political elites use influence over the public procurement process to allocate government contracts to partisan allies. We elaborate on the institutional conditions that enable politicians to influence different aspects of the procurement environment so as to best achieve partisan and favoritist aims. We identify three phases where political influence can be effected: by shaping the formation of procurement laws; through patronage power and direct influence over bureaucrats administering the implementation of procurement; and by the use of appointments and constitutional changes to disable the institutional controls — or checks and balances — that are supposed to hold political and bureaucratic power to account. By analyzing the institutional framework and conducting interviews with public and private-sector stakeholders, we arrive at a richer understanding of the opportunities and constraints on partisan favoritism in two stages of public administration — the implementation of tender processes and the checks provided by the accountability ecosystem — and in two country cases.

In Hungary, extensive politicization of the bureaucracy and deliberate efforts to reduce the autonomy of monitoring institutions make procurement highly vulnerable to partisan favoritism. This is borne out by our quantitative analysis: we find 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. The ‘surprise winner’ companies often have personal connections to the political elites, and some of them are entirely new companies with no prior relevant experience, yet quickly capture major shares of public procurement markets. In Hungary, favoritism appears to be the rule of the game, unconstrained by the extensive EU legislative framework, which is insufficiently equipped to control policy implementation and monitoring (Fazekas and King 2018).

In the UK, the bureaucracy is considerably more autonomous and the institutional monitoring environment fairly sound. Nevertheless, companies that win despite a lack of prior success *and* exhibit high corruption risks during tendering control around 10% of the market. While much lower than in Hungary, the fact that some companies benefit from the change in government and from competing in conditions that are associated with higher corruption risk suggests that UK government contracting is not fully open and impartial. However, our qualitative research did not find evidence of systemic political influence. Rather, these outcomes might reflect isolated instances of opportunism, or result from the oligopolistic structure that has emerged in some markets for government contracts.

Our methodology provides a way of analyzing rich contract-level public procurement data to reliably identify systemic forms of partisan favoritism in government contracting. This allows corruption researchers to break away from their traditional reliance on perceptions indices and expert surveys and introduces objective proxy measures of types and patterns of political corruption in a major area of public spending. It can be used to analyze other countries with comparable public procurement datasets as well as sub-national data, to enhance our understanding of this form of clientelism and to further test theories about the conditions in which such grand corruption flourishes.

Our results are relevant to debates about the role of the EU 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

remain 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. If the EU is to strengthen the functioning of the single market in government contracts, it cannot rely as heavily on the integrity of domestic implementation as it currently does.

More broadly, our results point to the importance of a robust institutional ecosystem in which the autonomy of the bureaucracy and accountability institutions is secured by meritocratic appointments and an extensive web of checks and balances running throughout the three spheres of procurement's regulatory context. This means that success in constraining partisan favoritism is, in keeping with recent theory on anti-corruption reforms, likely to require a comprehensive, 'Big Bang' approach (Mungiu-Pippidi 2015; Rothstein 2011) rather than one-off technical tweaks. Namely, institutional controls that apply to only one sphere are likely to be inadequate to ensure the integrity of government contracting, as long as political elites can respond by increasing their control over other spheres.

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