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Evidence from a New Democracy**

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# Partisan Alignment and Political Corruption: Evidence from a New Democracy

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## Abstract

*I analyze the link between partisan alignment of local politicians and the incidence of political corruption, using novel hand-collected data on local political corruption in Ghana. In line with political ambition theory, I hypothesize that local politicians aligned with the national government have incentives to control fiscal irregularities within their localities in order to appease their national party leaders and preserve their party's reputation. The empirical analysis, based on 205 districts observed over the period 2013-2018, indeed suggests significantly lower levels of political corruption in aligned districts. Partisan alignment reduces corruption by 2.0 percentage points, equivalent to roughly 50 percent of the 3.9 percent mean-level of non-aligned districts. This effect is more pronounced in districts with (i) less competitive local legislative elections, (ii) better financial endowments, and (iii) female local parliamentarians. It appears that high levels of political polarization and intense party competition, as observed in Ghana, are important explanations for this finding.*

**Keywords:** corruption, political alignment, local public finance, intergovernmental transfers, political career concerns, Africa

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# 1. Introduction

Political corruption, commonly understood as the diversion of public resources for unintended purposes by political actors, is a common occurrence worldwide and has long been identified as a major threat to economic development (Bardhan 1997; Robinson 1998; Tanzi 1998; Kaufmann et al. 2009). Accordingly, major international agencies such as the World Bank or the IMF have started initiatives to combat political corruption across the globe (IMF 1997, World Bank 1997).

Fostering democratic institutions has long been at the center of these initiatives. Democratic institutions tend to induce political competition and electoral accountability, which in turn are believed to diminish incentives to engage in political corruption. Indeed, while there are still many developing countries, especially in Sub-Saharan Africa, that lack credible democratic institutions, there is now also a range of countries with highly competitive elections. In addition, the decentralization of the political system has been identified as another avenue for improving governance and accountability (Albornoz and Cabrales 2013, Fisman and Gatti 2002b, de Mello and Barenstein 2001). At the same time, some scholars are contesting this notion and note an increasing prevalence of political corruption at the local level, particularly in developing countries, as these local political institutions are more prone to ‘elite capture’ (Treisman 2000, Crook 2003). Exploring how political competition takes shape at the local level and how this translates into a more or less conducive environment for political actors to participate or refrain from diverting public resources is of substantial interest, as it can help us gain a better understanding under which conditions democratic institutions may produce the desired outcomes outlined above. The intensity of competition and the level of conflict<sup>1</sup> in the political arena is a crucial determinant of the ability of politicians to cooperate in order to pursue a common good such as economic development and good governance. Therefore, this study contributes to the debate on the merits and disadvantages of political competition and conflict in developing democracies.

In this paper, I analyze empirically how the partisan alignment of local political actors affects the spending of public funds in their respective localities, with the partisan affiliation serving as a determining factor for the shape of the relationship between these political actors. The Republic of Ghana is a particularly interesting setting to explore this question, considering its relatively well-established electoral democracy with sufficiently high political competition and a fairly decentralized political settlement. For the analysis, I first carefully hand-collect information on expenditure irregularities at the local level from annually published audit reports.

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<sup>1</sup> In this context, conflict should not be understood in violent terms, but merely as intense political competition.

In a second step, I match this data with information on electoral outcomes and political representation in the respective local political institutions.

The analysis in this paper adds to the literature that has emerged on the political economy of intergovernmental fiscal transfers (Lindbeck and Weibull 1987, 1993; Dixit and Londregan 1996, 1998). Subsequent papers tried to validate the theoretical predictions from these initial studies on an empirical basis by focusing on electoral incentives as determinants of these transfers, suggesting that central governments use fiscal transfers to win votes by targeting them at municipalities with more swing voters (Dahlberg and Johansson 2002, Johansson 2003). In the following, this strand of the literature focused more on the partisan alignment between different layers of government and its effect on different fiscal and governance outcomes. Scholars have looked extensively at the impact of political alignment on the size of fiscal transfers in the differing contexts of presidential versus parliamentary systems and in more mature versus still developing political systems (Sollé-Ollé and Sorribas-Navarro 2006, 2008; Arumpalam et al. 2008; Brollo and Nannicini 2012; Migueis 2013; Curto-Grau et al. 2012; Baskaran and Hessami 2017). These studies generally find that fiscal transfers are larger for local authorities that are in political alignment with upper-level governments thus supporting the view that fiscal transfers are partially used to safeguard political power at the local level.

Additional studies have linked partisan alignment to fiscal discipline, indicating that municipalities are fiscally more disciplined when they are politically aligned with the central government (Jones, Sanguinetti and Tommasi 2000; Rodden and Wibbels 2002; Benton and Smith 2013; Benton 2019). The latter papers identify two interlinked mechanisms. The first is based on the political ambitions of the local mayors who try to present themselves as less fiscally wasteful to their party leaders to advance their political careers within the party hierarchy. Secondly, the authors stress the overall reputation of the local politician's party as another reason why they try to retain a better fiscal framework, suggesting this will ensure future electoral support for their party and themselves. Even closer related to this work, Borrella-Mas (2015) uses data from Spain to evaluate the impact of (vertical) partisan alignment on the presence of local political corruption. His findings show that political alignment goes along with higher levels of political corruption – measured as a binary dummy, based on news reports – and that this effect is stronger in wealthier municipalities. Furthermore, there seems to be some political heterogeneity, as the reported increase of corruption for aligned municipalities is mainly driven by those municipalities that are ruled by the main right-wing party, whereas the effect is not observable when the main left-wing party is in power.

While this literature only focuses on vertical alignment between different layers of government, I also address partisan alignment between horizontally arranged

political actors. Additionally, as described above, I use more elaborate measures of political corruption than the previous literature.

My findings indicate that public spending in local assemblies with aligned politicians is less afflicted with fiscal irregularities. In the baseline sample, public corruption is reduced by 2.0 percentage points, which vis-à-vis the 3.9 percent average level of corruption in non-aligned districts represents a reduction of about 50 percent. The analysis further shows that this significant reduction only appears existent for public funds that stem from intergovernmental transfers, while the spending of locally-generated funds is unaffected by the partisan alignment in the local assembly. The results are robust to a range of alternative specifications and explanations. These findings need to be interpreted in the specific context of the intense political competition in Ghana at the local level. It appears that the increased polarization reduces the ability of the local political actors to align their intentions and efforts based on their differing partisan affiliation, which creates a more conducive environment for the diversion of public funds. This interpretation is complementary to the in-depth case-study evidence of Ampratwum et al. (2018) that is concerned with the political settlement of two exemplary local district assemblies in Ghana.

The remainder of this paper is structured as follows. Section 2 develops the theoretical framework and provides an overview of the underlying theoretical literature. Section 3 gives an account of the political background and institutional context. Section 4 details the empirical strategy and the employed data, while section 5 first presents the baseline results before providing a range of robustness checks and extensions through a heterogeneity analysis. Ultimately, section 6 puts the results in perspective and concludes.

## **2. Theoretical Framework**

This section provides the theoretical deliberations partisan alignment and how it might affect political actors and governance outcomes. To that effect, many models are based on the “career concerns” model as discussed in Persson and Tabellini (2005), such as the one derived by Borella-Mas (2015). Based on political competition that incentivizes politicians of differing partisan background to monitor and expose each other, his theoretical model predicts that corruption will be higher in aligned municipalities, where this control mechanism is not present.

However, Benton (2019) expands upon a different set of theoretical mechanisms involving vertical partisan alignment and the observed improvement of fiscal discipline with aligned municipalities (Jones, Sanguinetti and Tommasi 2000; Rodden and Wibbels 2002). In her study, local politicians are also motivated by career concerns, but these set off a very different mechanism than in the model

described above. In the first step, the model assumes that the behavior of local politicians is driven by the concerns of their party and its national leaders. These party leaders are concerned with re-election and thus try to avoid activities that would jeopardize their re-election. In the case of Benton (2019) politicians try to maintain macroeconomic stability and fiscal discipline to signal voters their competence to warrant re-election. Subsequently, Benton's model is based on political ambition theory, where politicians act within vertically organized parties and try to build their political careers by rising through the ranks of the party hierarchy. The access to these political opportunities is under the control of the respective party leaders, thus incentivizing politicians at the lower ends to please those party leaders and indicate their competence by staying in line with the concerns of the party leaders and thereby safeguarding their political careers. In addition, retrospective economic voting theory sets off a "party reputation" mechanism, meaning that local politicians are mindful of fiscal profligacy in their municipalities in order not to jeopardize the national reputation of their party. Both mechanisms, party leader and party reputation concerns, urge co-partisan mayors to control fiscal spending, while opposition mayors do not have the same incentives.

These theoretical considerations can be readily applied to the topic of this paper, as controlling corruption can arguably serve the same purpose for politicians. While national party leaders will be concerned with the negative impact of corruption, local politicians will try to keep corruption in check in order to indicate their competence and thus enable them to climb through the party hierarchy. Likewise, run-away political corruption would undermine the national reputation of the party and their support among voters, thus threatening the re-election prospects of national incumbents and ultimately also their local co-partisans. This first part of the theory only describes a politician's incentives and thus their willingness to act a certain way. Actual behavior in a certain way, however, also necessitates the ability to act that way. Thus, local politicians might be willing to reduce the level of corruption in their municipality, but the specific institutional structure and behavior of other local politicians do not allow them to effectively control corruption. Here again, I propose that partisan alignment will positively predict the ability to control corruption, as the described incentives are only in sync for aligned politicians. Additionally, it can be expected that the partisan background is a major determinant of the ability to cooperate among local politicians and that a partisan divide will rather result in divisive behavior which benefits corrupt activities.

Accordingly, I hypothesize that municipalities run by locally aligned co-partisans of the national government are subject to a lower degree of political corruption than those municipalities where local politicians are un-aligned.

### 3. Local Government System of Ghana

The political landscape in Ghana has essentially been a two-party system since 1992, with the two main parties – the National Democratic Congress (NDC) and the New Patriotic Party (NPP) – exchanging power at the national level through highly competitive, democratic elections. While parliamentarians are chosen in single-member constituencies on a first-past-the-post basis, the president is elected based on a direct national vote in a two-round system. Although there had been different efforts to establish local authorities already during colonial times and immediately after independence, the current local government system was only established shortly before Ghana's return to democracy in 1992.<sup>2</sup> Following the provisions made in the newly passed democratic constitution that incorporated decentralized political structures, Ghana was initially partitioned into 110 districts. In subsequent years this number rose in multiple steps through the splitting of the original districts, reaching 216 districts following a comprehensive reform in 2012, which will be the status quo used in this study.<sup>3</sup>

In the local government system of Ghana, the Metropolitan, Municipal and District Assemblies (MMDAs – henceforth referred to as DAs) constitute the prime political bodies. Each Assembly is made up of a local mayor (Metropolitan, Municipal and District Chief Executive or MMDCE – henceforth referred to as DCE or mayor), the member or members of Parliament that fall within the area of the district, one councilor from each electoral area within the district and other councilors mostly representing the local traditional authorities and other interest groups. While 70 percent of the councilors have to be locally elected, the central government appoints the latter group of councilors. Even more importantly, the President also appoints the DCE, who heads the DA and controls all activities of the bureaucratic arm of the local authorities, thus holding almost unrivaled power (Crook and Manor 1998, Crawford 2008).

Appointed DCEs need to be approved with a two-thirds majority of all members of the Assembly and while this theoretically introduces some form of local accountability for the appointed mayors, there is a general understanding that the current system is rather ineffective in this respect. Especially, since the rejection of presidential nominees has in the past rather been the exception than the rule (Crawford 2008, 2009). Moreover, the President has the discretionary power to remove DCEs from office, conveying the firm impression that mayors have a strong loyalty towards the central government (Ferazzi 2006, Crawford 2008). In theory, the Constitution provides for a non-partisan setup at the local level, meaning that local councilors are disallowed from receiving any support from a political party.

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<sup>2</sup> IMANI (2019) provides a comprehensive account on the history of decentralization and the development of the local government system in Ghana.

<sup>3</sup> Following a public referendum in December 2018, a major reform of the regional division of Ghana was initiated that was accompanied by another extension of the number of districts to currently 260.



In reality, most political observers however acknowledge that the political parties are very much active at the local level and all activities of the DAs are perceived as highly politicized (Williams 2017).

Besides the DCEs, the locally elected Member of Parliament (MP) can be identified as an important local political actor. These MPs are elected from 275 parliamentary constituencies that are embedded into the demarcations of the 216 local districts, meaning that the constituencies do not overlap across multiple districts and there are merely some multi-constituency districts.<sup>4</sup> Although the main duty of Parliamentarians is that of a federal legislator and they are only ex-officio members of the respective DA, there are for once obvious electoral incentives for them to remain visibly involved in activities at the local level, since these activities can have considerable effects on the lives of their constituents. Since parliamentarians are usually very well connected within the different layers of government, they are able to deduce considerable power from their political network to affect activities at the local level. In their efforts to ensure re-election, MPs remain very vigilant with regard to the emergence of local politicians that might contest their seats in the following elections. The position of DCE is generally seen as a stepping stone in the political career, with MP being the next level in the party's hierarchy. Thus, DCEs will use their powers at the local level to further their political careers, seeing the local MP as the main political rival to their political ambitions, especially if the MP belongs to the opposition party. In order to influence activities at the local level in their favor, the local DCE and MPs both use the powers instilled in them to build a network of supporters within the administrative staff of the Assemblies that are loyal to them (Ampratwum et al. 2018)

Despite the formal exclusion of partisan politics in the local political system, there is a large body of anecdotal evidence that underlines how much the activities of the local mayors and their respective parliamentarians are politicized and that excessive partisanship is a major driver behind this. Instead of generating a healthy level of political competition, there are countless reports about serious conflicts between DCEs and MPs, which greatly obstruct any meaningful efforts into furthering the development in their respective districts (GNA 2007). Based on their qualitative interview data, Ampratwum et al. (2018) attest to these issues, further reiterating the negative impact the intense political competition within the local authorities has on its activities and likely also its emanating outcomes. Their case study corroborates this anecdotal evidence with a qualitative analysis of the impact of the local political settlement on education outcomes. The study tries to explain the diametrical education outcomes in two otherwise comparable districts

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<sup>4</sup> In total, of the 216 districts studied here there are 183 single-constituency districts, 26 double-constituency districts, 4 triple-constituency districts, in addition to 3 more districts with 5, 10 and 13 constituencies respectively.

in southern Ghana. They attest that intense political competition impedes the capacity of local (political) actors to cooperate and produce positive policy outcomes. The authors identify the relationship between the local mayor and the respective MP as the main determinant for the divergence in education outcomes, as their competition extends far beyond the political arena also affecting the activities of the bureaucracy in their districts. Their main conclusion is that functional coalitions between the local political actors are important drivers of improved performance and accountability. Thus, there is a general understanding that both the local mayor and the respective MP(s) are the main powerbrokers that influence the activities of and the behaviors within their local authorities and that their mutual relationship forms a substantial determinant of the outcomes in their respective locality.

Besides the political context, there is a need to provide an overview of the public finances of the local authorities. The financial revenue streams of the DAs can be roughly divided into three main sources, central government transfers, internally-generated funds, and funding from the donor community. The analysis within this paper will, however, focus on the previous two.

The main central government transfer is called District Assemblies' Common Fund (DACF), which is a grant transfer by the central government to support the local authorities with their development agenda. The creation of the DACF can again be traced back to the 1992 Constitution (Article 252), nevertheless, its first allocations were formally transmitted in 1994 only. Since then, it has continually increased its importance as a funding source for the local authorities. The Constitution stipulates that the DACF should comprise at least 5 percent of the total revenue of the central government and the formula for distribution among all DAs shall be approved by Parliament. The DACF formula is based on a needs assessment for each DA in order to close developmental gaps between districts, by considering the presence of health, education, and water services among other things. About 5 percent of these DACF allocations are set aside for a local development fund at the discretion of the local MP. This MP's Common Fund (MPCF) has to be spent through the DAs, but only on the authorization of the respective MP, in order to help him kick off development initiatives in his constituency. This further emphasizes the involvement of the MP in the business of the DAs and underlines the importance of the relationship between the local mayors and the respective parliamentarians.

Besides the DACF, there are additional central government transfers towards the DAs that are connected to federal programs that are implemented at the local level. These funds are however earmarked for their specific purposes and in comparison to the DACF not very large in scale.

In theory, all DAs are considered fiscally autonomous, as they can generate their own revenues through the collection of fees on licenses, property taxes, and royalties, among others. These internally-generated funds (IGF) constitute another important source of income for most DAs, with the collected funds mainly aimed at financing the recurrent administrative costs of each DA. However, there is a considerable variation in the efforts to collect IGFs across all districts, as many DAs lack the appropriate organization to collect revenues effectively and there is some evidence that these efforts are discouraged by the provision of external grants (Mogues and Benin 2012). In total, the DACF and IGF account for roughly 60 percent of the total revenues for an average district.

## **4. Data and Methodology**

### **4.1. Data Sources and Summary Statistics**

This paper combines administrative data from different sources. The main data source for measuring political corruption at the local level is provided by the Ghana Audit Service (GAS). GAS conducts annual audits of all local authorities and publishes its results in two complementary reports. The first report provides information on the management and utilization of the District Assemblies' Common Fund (DACF), among other statutory funds. While the second publication provides the findings from the audits of the local accounts of the district assemblies, which is mainly based on their internally-generated funds. Both reports contain the total amount of funds that were allocated or collected in the respective DA in addition to a detailed list describing each irregularity and the monetary value involved. This paper uses the reports for the years 2013 through 2018, as the districts underwent reforms in 2012 and a major reform following a popular referendum in December 2018, thus setting a natural limitation for the employable sample size.<sup>5</sup>

Following the reading of the audit publications, the reported irregularities were coded in different categories in order to adequately separate financial malfeasance from simple administrative lapses. This coding is guided by the approach conducted by Ferraz and Finan (2007, 2008, 2011) with comparable data from Brazil. The irregularities of interest have been coded into two categories: those linked to the payment process and those related to the procurement and storage process in connections with the acquisition of goods and services.

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<sup>5</sup> The reform process was already initiated during 2018 with the creation of additional 38 DAs, which only slowly started operating during that year. Since the 2018 audit reports were only published in mid-2019, they already adopted the new number of 254 DAs. A robustness check excluding these separated districts will be carried out in chapter 5.2.

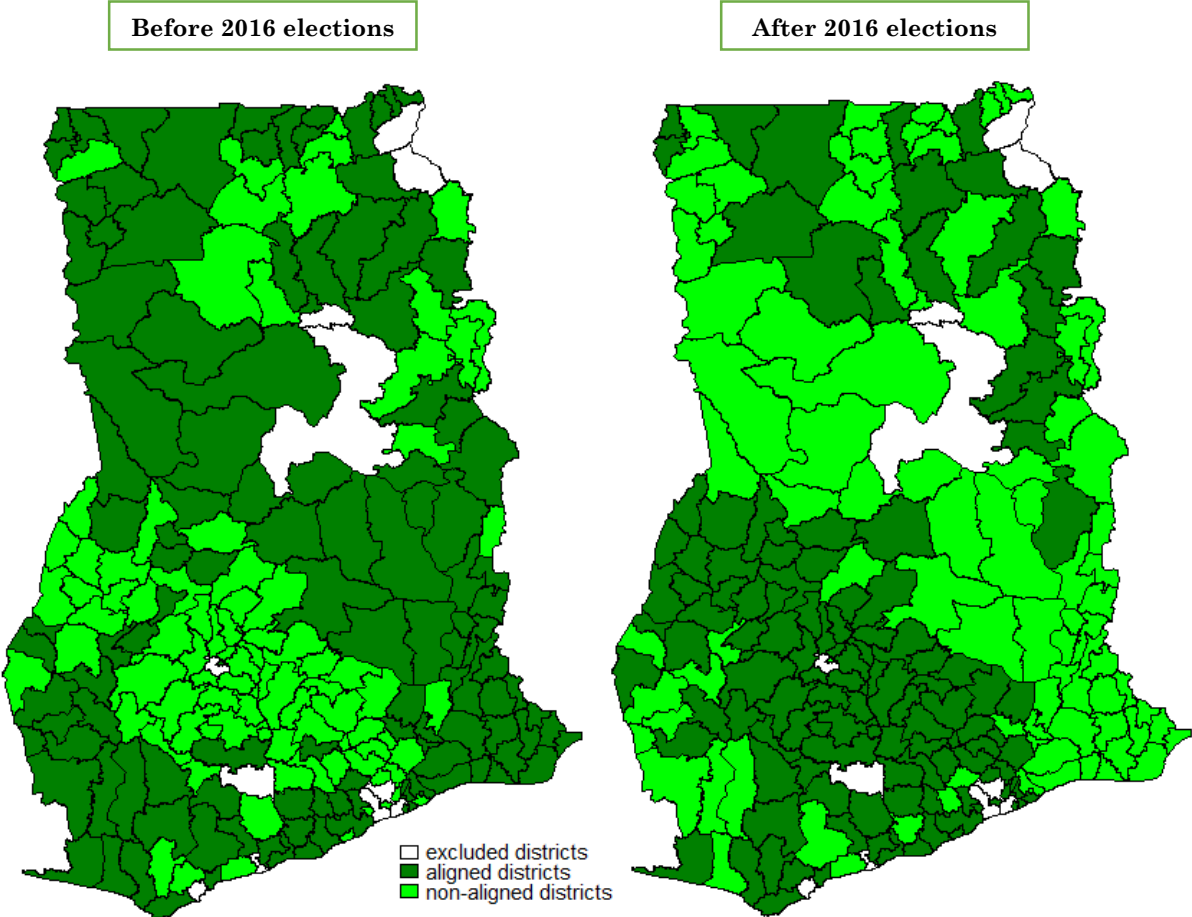
The former category comprises all expenditures that were conducted without appropriate documentation, i.e. missing or faulty invoices and receipts, duplicated payments, or direct misappropriation of funds. The later then subsumes all procurements that were deemed irregular, such as procurements without the necessary number of bids, spurious bids, or when allegedly procured items were not accounted for. These practices are among the most common ways of how political actors divert public funds (Ferraz and Finan 2007). In order to get a better idea of the utilized coding procedure, the appendix includes some specific examples from the audit reports and how they were coded. Based on the coding procedure, I derive the main measure for political corruption as the total amount of funds related to payment or procurement irregularities, normalized by the total funds available in the respective resource stream of each DA. The measure can thus be understood as the share of DACF and IGF revenues that are subject to corrupt activities.

The following summary statistics of the coded audit data are provided to get an idea of the constructed sample. The high prevalence of political corruption in the local authorities can be seen by the fact that 207 of the 216 DAs had at least one incidence of corruption in their DACF account across the 6 years included in the sample, while this number is slightly lower at 195 DAs for IGF irregularities. The data further shows that payment irregularities are much more prevalent than procurement irregularities, as 38 percent of the observations report at least one payment irregularity, while the same is only the case in 22 percent for procurement irregularities. In relation to the respective revenues on average about 3 percent of all DACF allocations are connected to some form of irregularity, with the average irregularity amounting to about 50,000 Ghana Cedis (GHS). While on average 3.5 percent of the generally much smaller IGF revenues are spent irregular, resulting in an average of 14,000 GHS. When calculating the averages for aligned and non-aligned DAs separately a particular pattern emerges, as the share of irregular activities of DACF funds in aligned districts amounts to 2.2 percent on average, while in non-aligned districts this average is 3.9 percent. Although this is just a simple difference in averages it already provides some indication that political corruption might be more unchecked in non-aligned districts. Concerning IGF revenues, however, the difference in the share of irregularities is much smaller with 3.8 percent in aligned DAs and 3.3 percent in non-aligned DAs, respectively.

For the construction of the alignment measure, the paper uses data from the parliamentary elections of 2012 and 2016 which is published by the Electoral Commission of Ghana. This data includes biographical information from each MP and all remaining candidates, especially their party affiliation and the respective electoral outcomes. The main measure of interest is then a simple dummy variable, coded as 1 when both the local DCE and MP are from the same party and 0 otherwise.

Generally, this simple procedure is aided by the two-party structure of the political landscape in Ghana. However, since there are more parliamentary constituencies than districts, the construction of the alignment dummy can be an issue. There are in total 33 multi-constituency districts in Ghana, meaning that these districts have at least two parliamentary constituencies and thus also MPs. For obvious reasons, this can complicate the assignment procedure for the alignment dummy, if these MPs have differing partisan backgrounds. Overall, there are 11 such “mixed” districts, in particular the larger cities of Accra, Kumasi, Sekondi-Takoradi and Tamale, that cannot be assigned conclusively with respect to partisan alignment in their district. For this reason, these districts will be excluded and the main analysis will be conducted on the remaining 205 of 216 districts.<sup>6</sup>

**Figure 1. Partisan alignment by district**



*Notes:* The figure depicts partisan alignment in each district. The left panel covers the period before the 2016 elections, with the right panel presenting the situation in the post-election period. Districts colored white are excluded from the baseline regression due to mixed political alignment.

Figure 1 above depicts the expression of the constructed alignment dummy in the two periods under investigation. The left map shows the alignment status in the

<sup>6</sup> This non-random exclusion of certain districts introduces the possibility of a selection bias. As an alternative I will keep these districts in the sample as non-aligned, as not all of the political actors in these districts are from the same party. This procedure will be part of the robustness checks in chapter 5.1.

“pre”-period of 2013-2016. In this period, the NDC government had appointed all local mayors, meaning that aligned districts (dark green) at that time had MPs from that same party, while non-aligned districts (light green) at that time had parliamentarians from the then opposition party NPP. The right map conversely shows the alignment status in the “post”-period after the power shift of 2016. Here all local mayors were appointed by the new NPP government, such that now aligned districts (dark green) at that time had MPs from the NPP party, while non-aligned districts (light green) indicate that the local MP belongs to the NDC party.

The figure also portrays the four different types of districts that are possible. Some districts shifted from alignment to non-alignment, which means that in these districts the partisan affiliation of the respective MP did not shift and belonged to the NDC party in both periods. Hence, these districts can be considered strongholds of the NDC party, which are mostly located in the eastern and northern parts of Ghana. Then some districts shifted from non-alignment to alignment, which means that here again no MP shift occurred and all MPs were fielded by the NPP party. Accordingly, these districts can be considered strongholds of the NPP party, which are mostly located in the central-western part of the country. Another type of district remained aligned in both periods, indicating that the partisan background of the local MP has shifted in accordance with the electoral shift at the central level from NDC to NPP. These districts can be regarded as swing districts, which are mostly located in the southern part of the country. The last type of districts remained non-aligned in both periods, indicating that the respective MP has shifted contrary to the electoral shift at the central level from NPP to NDC. This type is somehow unexpected and also only comprises 12 districts.

## **4.2. Empirical Strategy**

Considering that the employed dataset provides repeated observations over a considerable amount of subjects, this study will utilize a fixed-effects model. In addition to district fixed effects, which account for all time-invariant unobservables specific to each district, it also includes time fixed effects in the estimation to further control for all unobserved factors that are specific to each year. The inclusion of these fixed effects should account for a wide range of possible confounders, such as differences in size, geography, and status of the districts and also possible budget cycle effects that change across periods.

In order to produce reliable estimates for the relationship under study, certain conditions need to hold. Following Bertrand et al. (2004) and Cameron and Miller (2015), this method is prone to the likely presence of heteroscedasticity and serial correlation, potentially rendering the resulting standard errors inconsistent. To take this into account and following the recommendations of these two studies, the

data will be clustered at the district level. Additionally, to further account for the potential bias from serial-correlation, I will also provide estimates that simply collapse the time-series information into a “pre”- and “post”-period, a recommended procedure by Bertrand et al. (2004). The potential endogeneity of the alignment variable with respect to the dependent variables under study represents another serious problem. As mentioned above, naturally the partisan alignment is partly determined by the partisan backgrounds of the local mayor and parliamentarian. A shift of both, the local mayor and the local parliamentarian, could be reversely connected to the dependent variables. In districts with higher levels of political corruption, voters will potentially give more votes to the opposition, which on the one hand could induce a political shift of the local MP and also result in a political shift at the national level. The result would be non-alignment eventuating in alignment, thus constituting a reversal of the implied relationship above.

However, Ghana has a history of very competitive and closely contested presidential elections. The 2016 election was won by the NPP candidate with 53.7 percent of the votes against 44.5 percent for the NDC candidate. Concerning such competitive elections with the chances of going either way, the election outcome is highly uncertain and can thus be considered exogenous. Additionally, the power shift in 2016 was particularly unexpected as it marked the first time a sitting president was voted out of office, overcoming the usually large incumbency advantage in new democracies. Consequently, I will assume that the shift in alignment following the 2016 elections is plausibly exogenous.

Henceforth, the estimation of the effect of partisan alignment on financial malfeasance is conducted using the following econometric specification,

$$Corruption_{it} = c + \beta * alignment_{it} + \mathbf{X}_{it} + \alpha_i + \gamma_t + \varepsilon_{it}$$

Where the left-hand side variable is the level of political corruption in district  $i$  and year  $t$ , while the alignment variable takes the form of a dummy indicating the partisan alignment of the DCE and MP(s). The vector  $\mathbf{X}_{it}$  includes a range of different control variables, namely characteristics of the local MP, electoral variables, and financial variables of the DAs. The district and time fixed effects are expressed by  $\alpha_i$  and  $\gamma_t$  respectively, with  $\varepsilon_{it}$  being the random error-term that is clustered at the district level.

The main goal of the specification is to estimate the coefficient  $\beta$ , which indicates the link between partisan alignment and the left-hand side measure of political corruption with a negative coefficient indicating that there are fewer irregularities in aligned districts, while a positive coefficient would indicate the opposite.

## 5. Analysis and Results

### 5.1. Baseline Results

Table 1 depicts the first set of results with data from the DACF audit report for the baseline sample of 205 districts in columns 1-3. The first column combines all instances of political corruption for the two coded categories of payment and procurement irregularities, as described in chapter 4.1, while columns 2 and 3 report each category separately.

**Table 1: Baseline Regression Results (205 Districts)**

	<i>DACF irregularities</i>			<i>IGF irregularities</i>		
	(1) Total	(2) Payment	(3) Procurement	(4) Total	(5) Payment	(6) Procurement
Alignment	-.020*** (.007)	-.017*** (.006)	-.003* (.002)	.006 (.009)	.006 (.009)	-.001 (.004)
<b>Controls</b>						
MP Gender	.046 (.029)	.034 (.024)	.012* (.007)	-.042 (.032)	-.023 (.026)	-.019* (.011)
MP Experience	.001 (.001)	0 (.001)	0 (0)	0 (.001)	-.001 (.001)	0 (0)
Total Revenue	-.003 (.002)	-.002 (.002)	-.001 (.001)	.005 (.003)	.004 (.003)	.001 (.001)
Financial Dependency	-.011* (.006)	-.008* (.005)	-.003 (.002)	.017 (.010)	.011 (.009)	.005 (.004)
Electoral Turnout	-.229 (.145)	-.245* (.139)	.015 (.040)	-.327 (.332)	-.115 (.283)	-.212** (.103)
Electoral Competition	-.024 (.037)	-.019 (.030)	-.005 (.020)	-.052 (.063)	-.057 (.058)	.005 (.022)
No. of obs.	1215	1215	1215	1213	1213	1213
R-squared	.066	.054	.030	.074	.053	.044
District FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

*Notes:* (a) Dependent variables: share of irregularities of total available funds in the respective funding source (DACF = District Assemblies Common Fund, IGF = internally generated funds). Irregularities are divided into the two categories of ‘Payment’ and ‘Procurement’, while ‘Total’ combines both categories. (b) Aligned districts are defined as those districts where the local mayor and parliamentarian(s) are from the same party. (c) The estimations include an unreported constant and standard errors in parentheses are robust and clustered at the district level. (d) Significance levels are indicated by stars \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



The results indicate that those districts with politically aligned MPs and DCEs exhibit, on average, less political corruption than those districts where both of them have a diverging partisan affiliation. However, this difference is only highly statistically significant for the combined measure of political corruption and payment irregularities. For procurement irregularities the coefficient of the alignment dummy is still positive but rather small and only significant at the 10%-level. Besides the strong statistical significance of the combined corruption measure, the magnitude of its coefficient also displays economic relevance as corruption is, on average, 2.0 percentage points lower in non-aligned districts compared to a mean level of 3.9 percent in non-aligned DAs, thus representing a reduction by about 50 percent.

On the other hand, columns 4-6 report the results for the IGF audit report. Here the reported coefficients of the alignment dummy are small and fail to be statistically significant at all the conventional significance levels. This illustrates that with respect to internally-generated funds, partisan alignment and financial malfeasance do not appear to be linked with each other. In terms of the proposed theoretical mechanisms, these empirical findings lend support to the “party leader” and “party reputation” theories detailed above. In those districts where the political actors are politically aligned with each other and the central government, both the mayor and MP collaborate to hold public administrators accountable and thus reduce the prevalence of political corruption. The opposite seems to be the case when the main political actors are non-aligned, as the objectives of the involved MPs are naturally not in line with those of the respective mayors and the central government. They are rather exposed to a heightened level of political competition that incentivizes the local politicians to instigate discord among themselves and the administrative arm of the local authority, which seems to enable corrupt activities.

These results also have to be interpreted within the specific context of the political situation in Ghana. As mentioned before, the political competition in Ghana is characterized by a heightened level of political polarization such that most activities of the local authorities are highly politicized, very often culminating in political conflict. The partisan backgrounds of the involved political actors have naturally been identified as a major catalyst for these conflicts. The evidence presented here suggests that such a form of political competition rather obstructs the ability of the political actors to cooperate and align their objectives in order to keep the level of political corruption in check. Besides the affirmative link to the elaborated theoretical mechanism, the empirical evidence is also in line with the anecdotal evidence mentioned above and the case study findings of Ampratwum et al. (2018). The evidence further indicates that the displayed link between alignment and political corruption only extends to funds stemming from the central government transfer and not to funds generated by the districts

themselves. This could potentially be explained by the complementary nature of the government transfers and the extended discretion that is given to the local authorities in their spending, which is in line with evidence presented by Fisman and Gatti (2002a). The internally-generated funds on the other hand are much scarcer for the majority of DAs and the administrative expenses that have to be financed through these funds are predominantly recurrent, giving the local authorities less discretion in their spending. Furthermore, a low level of IGFs might also be indicative of a lacking effectiveness in the organizational structure of the respective DAs. This implies that in those DAs with higher IGF endowments the political leaders are more effectively controlling and steering the administrative branch of the DA.

## **5.2. Robustness checks**

This subsection adds a range of different robustness checks in order to assess how stable the presented results are regarding alternative samples and other possible explanations. To begin with, there is the obvious suspicion that the reported relationship is mainly determined by those DAs that remained aligned in both periods, i.e. those districts where the local MP(s) shifted along with the national power shift. These districts can be considered swing districts and are thus presumably subject to a higher degree of electoral competition. This could be the determining factor for the prevalence of political corruption, as one can argue that electoral competition drives down the opportunities for corrupt activities. To eliminate this possibility, the estimation is conducted on a restricted sample that only includes districts characterized as strongholds for either party. These districts did not witness a shift in the partisan affiliation of the local MP and electoral competition is minuscule. Thus, the shift in political alignment was solely determined by the appointment of a new DCE following the power shift at the national level.

Table 3 ([Appendix](#)) shows the respective results for the same set of dependent variables as above, again reporting those for DACF irregularities in columns 1-3 and those for the IGF irregularities in columns 4-6. Due to the exclusion of swing districts the sample size is reduced to 147 districts. The results are remarkably unaffected by this change, as aligned stronghold districts continue to exhibit fewer irregularities than non-aligned stronghold districts. This seems to suggest that the alleged link between political alignment and public misspending is not merely driven by districts that witnessed a partisan shift of their local MP, implying that electoral competition is not the sole reason for lower corruption.

Another potentially serious problem for the identification of the alleged relationship between political alignment and financial irregularities would be a bias of the auditors undertaking the reviews of the local authorities. This is of

particular concern considering that besides the horizontal relationships between the political actors on the local level there are also obvious vertical relationships with the central government. The hypothesized reduction of irregularities in locally aligned districts could thus merely be a result of the Ghana Audit Service being influenced by the central government to release more favorable reviews for those DAs that are in political alignment with the central government party.

As the independence of the Auditor-General (AG) and his Audit Service is of paramount importance for effectively fulfilling its mandate, the 1992 Constitution makes the respective provisions to minimize opportunities for interference into the work of the Audit Service, especially by the executive branch of government. In this regard, the rather strict rules on the removal of the Auditor-General, which are in line with those of Superior Court Judges need to be mentioned. This ensures that the appointment of the AG is effective until he decides to retire. While the previous Auditor-General was appointed in 2010 by an NDC President, the current AG has been appointed in 2016 by the then outgoing NDC government and has remained in office since, suggesting that there is no clear allegiance of the AG with the current NPP government. Besides, there is a constitutional assurance of the necessary funds in terms of salaries and allowances of the AG and the respective staff of the Audit Service, enabling them to carry out their mandate, as these charges are directly attributed to the main public fund of the country and not subject to the usual budgetary process.

For the purpose of presenting direct evidence of the independence of the Ghana Audit Service, Figure 2 ([Appendix](#)) depicts the average share of irregularities of DACF funds across the whole sample period. The figure only includes those districts that were subject to a shift in the political alignment after 2016. In this respect, the light green line depicts those districts that were non-aligned from 2013 to 2016 and then became aligned in the post-period. The dark green line displays those districts that shifted in the opposite direction from alignment to non-alignment, respectively. In line with the baseline results above, one can observe the light green line generally resting above the dark green line in the pre-period, which then turns around in the post-period, indicating that in all periods non-aligned districts recorded higher shares of irregularities on average. In 2013, the first year of the legislative period, the difference seems much smaller and the graph suggests that there appears to be some form of a political budget cycle among the aligned districts, meaning that irregularities are higher after elections, i.e. in the years 2013 and 2018.<sup>7</sup>

As pointed out above, the audits of the local authorities are regularly performed at the beginning of the subsequent year, meaning that the reviews for the year 2016

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<sup>7</sup> Technically, 2017 would be the first year of the legislative period, but due to the power shift the turnover of all DCEs can take multiple months to be completed, therefore most expenditures will have been already commissioned by the preceding DCEs

were conducted in early 2017. This is of particular interest, as the elections took place in December 2016, marking the point in time of the shift in political alignment. Considering that the auditors at the time of the audits already had knowledge of the districts that shifted from non-alignment to alignment, it can be expected that these districts would receive more favorable reviews if the Audit Service would indeed be under considerable influence of the central government. This implies that those districts still non-aligned in 2016 should receive more favorable reviews with fewer irregularities than those still aligned in 2016, or more precisely the Figure 2 should exhibit the shift in the average share of irregularities between both groups already in 2016. However, this seems not to be the case and the shift in irregularities only manifests in 2017. While it is certainly unlikely that all local auditors are entirely unaffected by corrupt practices, the presented institutional provisions along with the empirical evidence prompt me to assess that the reviews of the Ghana Audit Service are sufficiently independent and not merely a complacency service for the central government, hence the reported irregularities are not systematically biased in favor of one of the political parties.

In the following, I will undertake further checks to demonstrate that the reported baseline results are not merely an artifact of the sample selected. The exclusion of the 11 districts due to their mixed political representation, as described in section 4.1. could potentially lead to a selection bias in the estimation results. The excluded districts are predominantly urban areas and thus might play an important role. As already indicated, instead of excluding these districts, a different strategy would be to code them as non-aligned DAs based on the argument that not all of the relevant political actors (i.e. mayors and MPs) are affiliated with the same party. Table 4 ([Appendix](#)) reports the respective results when including all 216 districts, indicating that the exclusion of these districts does not alter the baseline results. Another sampling error could stem from the aggregation of the audit data for those districts that had started their separation throughout the year of 2018 already. Table 5 ([Appendix](#)) provides results for a sample where these 38 districts are excluded, again showing that the baseline results are robust to this adjustment.

Lastly, when undertaking a panel estimation with multiple years of data, the resulting standard errors are potentially inconsistent due to a serially-correlated outcome variable (cf. Bertrand et al. 2004). The employed outcome variables in my case are most likely serially correlated, but as I adjust the standard errors by clustering on the district level, this should lead to consistent standard errors. Nevertheless, when applying another recommended solution of Bertrand et al. (2004) – collapsing the time-series information into a “pre”- and “post”-period – the results, as reported in Table 6 ([Appendix](#)), remain consistent with the baseline results above.

In summary, the undertaken robustness checks in this subsection provide me with the confidence that the reported baseline results are robust to alternative specifications and explanations.

### **5.3. Heterogeneity Analysis**

While the reported baseline results only describe average effects, there are potential heterogeneous effects hidden underneath this average effect. To analyze these heterogeneous effects, I identified potential moderators of the alignment effect on the central government transfers (DACF) and interacted them with the alignment dummy from the baseline regression. These moderators refer to characteristics of the districts and of the parliamentarians, respectively. The corresponding results are collected in Table 2 below.

The first potential moderator under investigation is the electoral competitiveness of a district. While there are some uncompetitive strongholds for either party, where alignment is solely determined by the replacement of the local mayors with MPs remaining in office, there are districts, where both change in unison, resulting in a complete turnover of the districts political representation. Considering the competitive nature and the substantive amount of swing voters, it can be expected that MPs in such districts display different behaviors due to the heightened electoral pressure and fiercer political competition. To explore this issue, I identified all districts in which the partisan affiliation of the local parliamentarian had shifted in the most recent elections of 2012 and 2016 respectively, where the new MP was elected with a margin of 10 percentage points or less.

Column 1 of Table 2 reports the results for these competitive swing districts. First of all, the coefficient of the alignment dummy is still negative and highly significant, but due to the inclusion of the interaction term its interpretation changes slightly. The negative coefficient indicates that corruption is lower in aligned and uncompetitive, non-swing districts. This indicates that the implied party leader and reputation mechanisms are not necessarily tied to electoral accountability and competitive elections, but are also present in strongholds where local MPs mostly remained in office. In contrast, the coefficient of the interaction term is positive and significant at the 5 percent level, while also being sizeable. The positive coefficient suggests that corruption is higher in aligned districts, where the MP's party affiliation shifted based on a competitive electoral outcome. This seems to be counterintuitive, as more competitive elections suggest stronger electoral accountability, which should limit corrupt behavior. Conversely, electoral accountability does not appear to be a strong predictor of the behavior of politicians in the setting presented here.

**Table 2: Heterogeneous Regression Results (205 Districts)**

	<i>DACF irregularities</i>				
	(1)	(2)	(3)	(4)	(5)
	Total	Total	Total	Total	Total
Alignment	-.023*** (.007)	-.036** (.015)	-.012** (.006)	-.022** (.011)	-.017** (.008)
Competitive Swing Districts	-.033* (.018)				
Alignment X Competitive Swing Districts	.051** (.023)				
Financial Dependency		-.019** (.008)			
Alignment X Financial Dependency		.015* (.009)			
MP Gender			.086* (.044)		
Alignment X MP Gender			-.062* (.035)		
MP Experience				.001 (.002)	
Alignment X MP Experience				.001 (.002)	
MP Minister					-.008 (.019)
Alignment X MP Minister					-.011 (.018)
No. of obs.	1215	1215	1215	1215	1215
R-squared	.070	.070	.077	.066	.068
District FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Controls	YES	YES	YES	YES	YES

*Notes:* (a) Dependent variables: share of irregularities of total available funds in the respective funding source (DACF = District Assemblies Common Fund, IGF = internally generated funds). 'Total' refers to the combination of both categories of irregularities, those being 'Payment' and 'Procurement'. (b) Aligned districts are defined as those districts where the local mayor and parliamentarian(s) are from the same party. (c) The estimations include an unreported constant and standard errors in parentheses are robust and clustered at the district level. (d) Significance levels are indicated by stars \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

However, this observation is compatible with the proposed party leader and reputation mechanisms, as in the former case established MPs in cooperation with the newly installed local mayors from their party might be better able to control their district administration and enforce control of corruption. Furthermore, established parliamentarians might also be more heavily invested in their party

and thus more willing to enforce a stricter control on corrupt behavior within their domain. On the other hand, newly elected MPs might not have the necessary control of the political administration and might also be less invested in their party, therefore resulting in lower corruption control. On the other hand, the higher level of corruption could also result from the increased pressure to compensate local supporters following an intense and thus likely more expensive electoral campaign. Considering that corruption appears to be lower in unaligned and competitive swing districts, as indicated by the negative coefficient of the competitive swing variable, there appears to be no consistent evidence for this interpretation.

Another source of potential heterogeneity is the financial situation of a districts. As discussed above districts differ considerably in their financial endowments, while some districts have a well-established administration for revenue collection, others are much more financially stricken. In order to investigate if the alignment effect differs with respect to the financial endowments, I constructed a measure for a district's financial dependency on the DACF transfer, which is its share of the total revenue. The measure was then coded as a categorical variable of low, medium, and high dependency with the first and third quartile of the sample distribution being the cutoff values between the categories. This measure was already used as a control variable in the baseline regressions, where its coefficient was significantly negative, indicating that on average there is more corruption in less financially dependent districts. This seems plausible, as better financially endowed districts simply have more financial resources that could be diverted for corrupt purposes. However, a more nuanced heterogeneous effect could be hiding under this average effect. The second column of Table 2 report the results with the coefficient of the alignment dummy again being negative and significant and at -0.036 considerably higher in magnitude than those of the baseline regression. The results indicate that corruption is much lower in districts that are aligned and subject to a low level of financial dependency on the DACF transfer. The coefficient of the financial dependency measure is also negative and significant, suggesting that in unaligned districts corruption falls with worse financial endowments. In contrast, the coefficient of the interaction term is positive albeit only being significant at the 10 percent level, indicating that in aligned districts corruption rather increases with a worsening financial situation.

This suggests that the party reputation mechanism is stronger in less financially dependent districts. As mentioned above, financially better-endowed districts have better-organized structures of internal revenue collection, therefore being less dependent on the central government transfer. It seems plausible that this better organization extends beyond just revenue collection and might be a general characteristic of the entire organizational structure in the respective districts,

which might be conducive to more effective enforcement of the party leader and reputation mechanisms.

Moving on to potential heterogeneous effects surrounding the characteristics of the parliamentarians, it is investigated if a MP's gender moderates the negative alignment-corruption link. While women are still markedly underrepresented in Ghanaian politics, their share among MPs in the previous legislative periods has been rising. However, in the sample under study, they make up only about 11 percent of all MPs. Studies investigating the link between a politician's gender and the prevalence of corrupt behavior are manifold, with a considerable amount arguing in support of female politicians being less inclined to engage in corrupt activities (Dollar et al. 2001, Swamy et al. 2001), although more recent studies suggest that this relationship is more complex (Goetz 2007, Sung 2012, Hao et al. 2018)

The third column of Table 2 depicts the results, with the alignment dummy again being negative, but with a coefficient of -0.012 now being smaller in size. The alignment dummy alone indicates the corruption in aligned districts with a male MP, suggesting that the reduction of corruption is to some degree smaller than in the baseline regression. The coefficient of the interaction term between alignment and gender is also negative and at -0.062 quite sizeable, albeit its estimation lacks in precision, leaving it only significant at the 10 percent level. Still, it suggests that aligned districts with a female MP exhibit a much lower incidence of corruption. However, there does not appear to be consistent evidence that female MPs are generally linked to lower levels of corruption as the gender variable itself is positive and significant, indicating that corruption is higher in unaligned districts with a female parliamentarian. Based on the proposed mechanisms of party reputation, one could argue that female MPs might have to try particularly hard to win over the support of their party leaders in order to help their chances of rising through the ranks of the party. Nevertheless, due to the low share of female MPs in the Ghanaian parliament, these result patterns certainly have to be treated with some level of cautiousness, as they are based on fairly few observations.

As already adumbrated above a theoretical argument can be made that the link between alignment and corruption might be moderated by the political experience of parliamentarians, with longer-tenured MPs being presumably more attached to their party and thus more animated to safeguard the party's reputation. Therefore, data was collected on the MP's tenure in parliament to test this hypothesis more directly. The respective results can be obtained from column 4 of Table 2, which shows that there appears to be neither a direct effect of experience on corruption nor a moderating effect on its link to alignment, as both coefficients are essentially zero. This indicates that the alignment effect does not vary with respect to the experience of MPs, at least not in a simple linear way. The substantial turnover among parliamentarians might be a reason for this result, as roughly 50 percent



of MPs in the sample had served for less than one legislative period. Furthermore, one could theorize that long-serving parliamentarians have already lived out their political career to a certain extent and have progressed within the hierarchy of their party in line with their ambition. It is thus not clear how these countering effects might offset each other.

Another peculiar feature of the Ghanaian politics could be exploited to approximate the status of parliamentarians within their party and how close they are to its leaders, which is the fact that a considerable amount of MPs also serves as ministers in the government. Here again, one could hypothesize that those parliamentarians that have doubled as ministers are closer to their party leaders and more invested in their party, thus making them more conscious about the party's reputation and thus more inclined to avoid corruption. I again collected the necessary information on the MPs in the sample to test this hypothesis including both regular cabinet minister and non-cabinet minister, such as regional ministers and ministers of state that are assigned to specific tasks without heading a respective ministry. In the employed sample about 16% of MPs serve or have served previously as a minister. The results can be found in the last column of Table 2. In line with the proposed theory above, the negative coefficient of the interaction term seems to suggest that aligned districts with MPs also serving as ministers are subject to lower levels of corruption. Unfortunately, while the coefficient has some size the employed statistical method is not able to estimate it precisely enough to become significant at any significance level, as the standard error is considerably higher than in the other specifications. Thus, there is no strong evidence that the negative link between alignment and incidence of corruption is stronger in districts, where the MP also serves as minister.

## **6. Conclusion**

This paper studies the link between the partisan alignment of political actors and the prevalence of political corruption in the local government system of Ghana. The results suggest that in settings with aligned politicians the presence of diversion and misappropriation of public funds tends to be held in check compared to settings where these politicians are politically unaligned. This effect is highly significant and robust across several different specifications and proposes an average reduction of the incidence of corruption by about half.

This finding calls into question the generally propagated idea that political competition will ensure control of corruption, as competing parties will be monitoring each other's actions, thereby effectively reducing corrupt behavior. The effectiveness of such a mechanism might depend on a strong presence of electoral accountability, which in the context of a new and developing democracy will likely be less established than in a consolidated democracy.

The presented evidence is rather in line with the proposed theoretical mechanisms outlined above, suggesting that local political actors are motivated by concerns of their party leaders and the national reputation of their party in order to safeguard their political advancement. Therefore, they collaborate in closely monitoring the activities within the local authorities and its administrative arm, to contain political corruption. In contrast, non-aligned politicians are not subject to the same concerns but are rather inclined to create discord within their local institutions, thus making effective monitoring less feasible. The overall political landscape in Ghana enables these mechanisms by fostering an atmosphere of intense political competition and polarization that more often than not results in grave political disputes.

However, in line with the recommendations of Ampratwum et al. (2018), good governance outcomes necessitate a certain degree of cooperation in good faith among the involved political actors, especially at the local level. Besides, the illustrated findings might also help to inform the resurfaced but more recently again abandoned reform of the DCE appointments, considering that the here detailed mechanisms are essentially a result of the incomplete decentralization process of the political system and the still enormous influence of the central government on the local government level. Due to the continued centrality of the political system, political accountability mostly emerges at the central level, almost inevitably leading to a lack of accountability at the local level. A direct policy implication of the presented results thus entails the need to establish stronger coalitions among civil society actors at the local level, which is again in line with the narrative in Ampratwum et al. (2018). Such local coalitions would be particularly helpful to increase accountability in opposition districts that lack the accountability impulse from the central government level.

The undertaken heterogeneity analysis further reveals that the alignment effect is stronger in aligned districts where competition between MPs is less pronounced and those that are less dependent on central government transfers. Additionally, there is evidence that the negative link between alignment and the incidence of corruption is also stronger in aligned districts that are represented by a female parliamentarian and where the MP has also served as minister in the government, while the latter effect lacks statistical significance. The overall parliamentary experience of the MP, however, does not appear to affect the proposed link in any meaningful way. All of these relationships are consistent with the proposed theory of a party leader and reputation mechanism that drives the behavior of local politicians. To the best of my knowledge, there is no previous study that tries to apply these mechanisms to the incidence of corruption at the local level.

The findings in this paper could stimulate further research on the relationship between political alignment and the misapplication of intergovernmental transfers and other public funds. In addition, there is a need for future research to further

the understanding of how political polarization affects the outlined links and mechanisms in this paper, in order to devise possible reforms that could solve these unintended results.

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## Appendix: Coding of Audit Reports

This appendix shall explain how the audit reports were used to code the two types of irregularities by including illustrative examples for the different types.

### Irregularities in the payment process:

1. Missing or faulty documentation:
  - *“Contrary to Regulation 1 of the Financial Administration Regulation, 2004 (LI 1802), the Ga West Municipal Assembly failed to present six payment vouchers amounting to GHS 351,661.12 for audit scrutiny. We could therefore not authenticate the expenditure incurred whether or not they were made in the interest of the Assembly.”*
  - The assessed expenditures were flagged as irregular, as they lacked the necessary documentation. This item was coded as a payment irregularity of GHS 351,661.12 of the respective District Assembly. (Source: DACF Audit Report of 2018)
2. Overpayment/Duplicated payments:
  - *“Management of Amansie West District Assembly paid two contractors a total amount of GHS 293,891.50 instead of GHS 278,469.26 for the construction of a Police Station at Tontokrom and 3 Unit Classroom block at Manso Nkwanta respectively leading to an overpayment of GHS 15,422.24.”*
  - Here the auditors found an overpayment on the original contract sum without any reasonable explanation, which creates an avenue for the diversion of public funds. Hence, this violation was coded as a payment irregularity of GHS 15,422.24 for the respective District Assembly. (Source: DACF Audit Report of 2016)
3. Direct misappropriation of funds:
  - *“We noted that a total amount of GHS 409,873.08 out of a total sum of GHS 556,662.58 granted to 28 officers of two Assemblies were not accounted for by them contrary to Regulations 39 of FAR, 2004 (L.I 1802). At Nandom, the payments were made to Patrick Nakpenaa, a special Assistant to MP for Nandom, Hon Ambrose Derry meant for payment of fees to needy students in the District.”*
  - The expenditure above was found objectionable, as the involved amount could not be accounted for and no explanation was given for how the amount was used. I classified this item as misappropriation and a payment irregularity for the involved District Assemblies. (Source: DACF Audit Report of 2017)



## **Irregularities in the procurement process:**

### 1. Uncompetitive procurement:

- *“We however noted that five Assemblies procured goods and services to the tune of GHS 576,056.13 without alternative quotations from other prospective suppliers or service providers to ensure competitive pricing and value for money. The Assemblies also did not seek approval from the Public Procurement Authority to use single sourcing method.”*
- The audit report assessed the above-mentioned procurement as uncompetitive. The report further included a breakdown for the amount of GHS 576,056.13, which was coded as procurement irregularities in the involved District Assemblies. (Source: DACF Audit Report of 2018)
  
- *“Our review of contract management of Effutu Municipal Assembly disclosed that Management awarded four contracts totaling GHS 827,387.96 to two of Mr. Emmanuel Appiah-Kubi’s four companies which were the only companies that submitted quotations, namely Solid Accord Enterprise and EAK Company Limited.”*
- The procurement process in these cases was also evaluated as uncompetitive, as it included fraudulent bids from companies that have the same ownership. The total amount of GHS 827,056.13 was coded as procurement irregularity for the respective District Assembly. (Source: DACF Audit Report of 2018)

### 2. Unaccounted purchases:

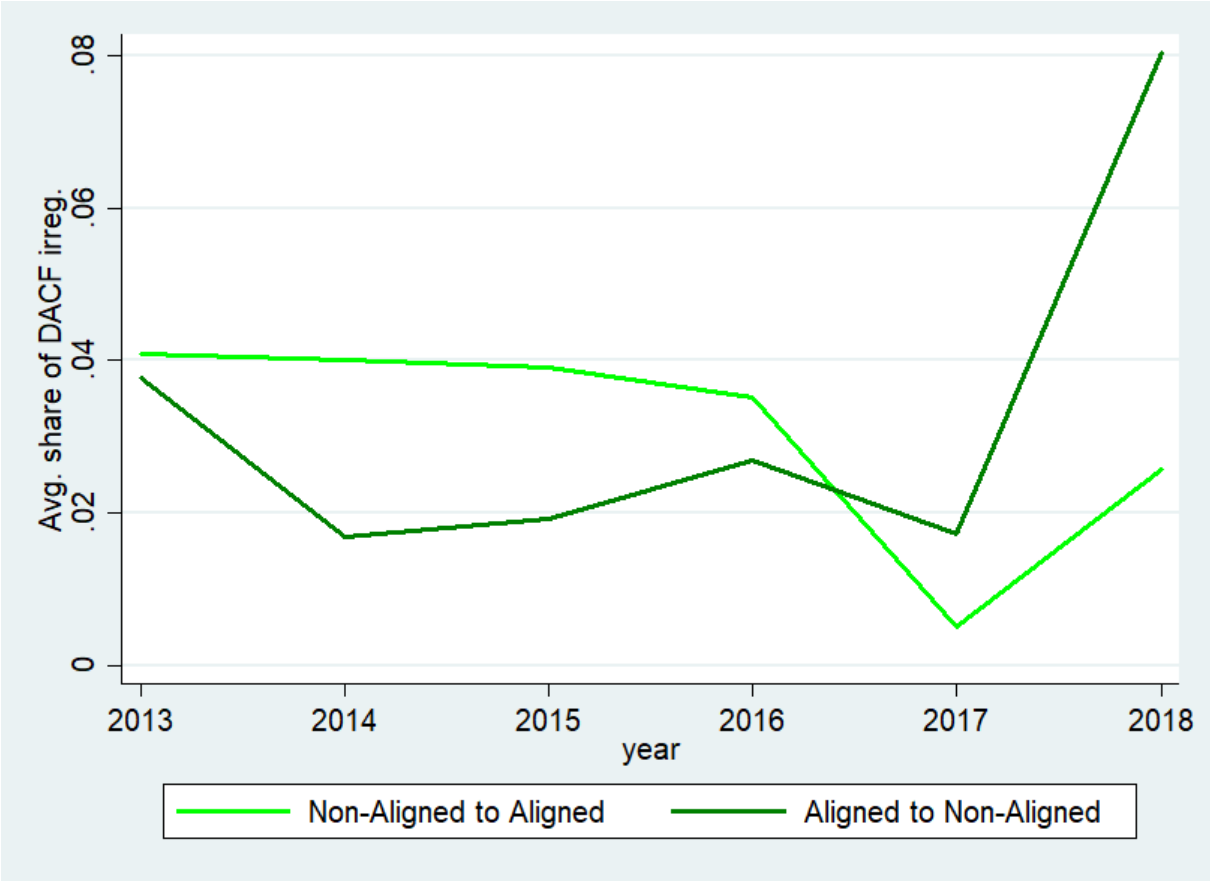
- *“Contrary to Section 52 of the Public Financial Management Act, 2016 (Act 921), four Assemblies purchased store items valued at GHS 69,613.00 but failed to provide records of usage as well as distribution list. Non-maintenance of store records could result in diversion of stores for personal use.”*
- The auditors were unable to ascertain the appropriate use of the purchased items in question. Together with the provided breakdowns of the involved District Assemblies, the amounts combining to GHS 69,613.00 were coded as procurement irregularities. (Source: DACF Audit Report of 2018)

**Table 3: Regression Results in strongholds only (147 Districts)**

	<i>DACF irregularities</i>			<i>IGF irregularities</i>		
	(1)	(2)	(3)	(4)	(5)	(6)
	<b>Total</b>	<b>Payment</b>	<b>Procurement</b>	<b>Total</b>	<b>Payment</b>	<b>Procurement</b>
Alignment	-.019*** (.008)	-.016*** (.006)	-.003 (.002)	.013 (.010)	.013 (.009)	-.001 (.004)
<b>Controls</b>						
MP Gender	.083* (.047)	.064 (.039)	.019* (.011)	-.007 (.027)	.009 (.021)	-.016 (.016)
MP Experience	.001 (.001)	.001 (.001)	.001 (.001)	-.002 (.001)	-.002 (.001)	0 (.001)
Total Revenue	-.004 (.002)	-.003 (.002)	-.001 (.001)	.005 (.004)	.005 (.004)	0 (.001)
Financial Dependency	-.011 (.007)	-.008 (.006)	-.003 (.003)	.009 (.010)	.006 (.009)	.002 (.004)
Electoral Turnout	-.362* (.209)	-.397** (.199)	.036 (.068)	-.062 (.182)	.179 (.221)	-.214* (.131)
Electoral Competition	-.017 (.056)	-.013 (.045)	-.004 (.032)	-.165** (.080)	-.178** (.075)	.013 (.022)
No. of obs.	872	872	872	871	871	871
R-squared	.089	.075	.036	.085	.059	.057
District FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

*Notes:* (a) Dependent variables: share of irregularities of total available funds in the respective funding source (DACF = District Assemblies Common Fund, IGF = internally generated funds). Irregularities are divided into the two categories of 'Payment' and 'Procurement', while 'Total' combines both categories. (b) Aligned districts are defined as those districts where the local mayor and parliamentarian(s) are from the same party. (c) The estimations include an unreported constant and standard errors in parentheses are robust and clustered at the district level. (d) Significance levels are indicated by stars \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Figure 2. Average Share of DACF irregularities in strongholds**



*Notes:* The figure portrays the average share of DACF irregularities (Corruption indicator) across the years of study. It shows the information for those districts moving from non-alignment to alignment (light green) and those moving from alignment to non-alignment (dark green). The figure indicates that corruption is constantly lower in aligned districts compared to non-aligned districts with the shift coinciding with the shift in political power at the national level. The results of 2016 are of particular interest considering that audits are conducted and reported only in the subsequent year. This means the Ghana Audit Service had knowledge of the shift in partisan alignment in 2017 before undertaking the audits for the 2016 financial year. If these audits are considerably biased in favor of the ruling party, one would expect the reported irregularities of those districts that were still unaligned in 2016 (light green) but then shifted to alignment after the election to drop significantly. However, this drop only occurs in 2017, when the political shift was already effectuated. This gives indication that the audits performed by the Ghana Audit Service are not merely a complacency service for the ruling party.

**Table 4: Regression Results with all Districts (216 Districts)**

	<i>DACF irregularities</i>			<i>IGF irregularities</i>		
	(1) Total	(2) Payment	(3) Procurement	(4) Total	(5) Payment	(6) Procurement
Alignment	-.019*** (.007)	-.016*** (.006)	-.003 (.002)	.007 (.009)	.008 (.009)	-.001 (.004)
<b>Controls</b>						
MP Gender	.044 (.028)	.032 (.023)	.012* (.007)	-.040 (.033)	-.021 (.026)	-.019* (.011)
MP Experience	.001 (.001)	0 (.001)	0 (0)	0 (.001)	0 (.001)	0 (0)
Total Revenue	-.002 (.001)	-.001 (.001)	0 (0)	.004** (.002)	.003* (.002)	.001* (0)
Financial Dependency	-.009* (.005)	-.007* (.004)	-.002 (.002)	.020* (.010)	.014 (.009)	.006* (.003)
Electoral Turnout	-.231* (.137)	-.246* (.131)	.015 (.039)	-.276 (.323)	-.080 (.274)	-.196** (.097)
Electoral Competition	-.026 (.035)	-.020 (.029)	-.006 (.019)	-.070 (.065)	-.074 (.060)	.004 (.021)
No. of obs.	1279	1279	1279	1277	1277	1277
R-squared	.062	.051	.028	.068	.049	.043
District FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

*Notes:* (a) Dependent variables: share of irregularities of total available funds in the respective funding source (DACF = District Assemblies Common Fund, IGF = internally generated funds). Irregularities are divided into the two categories of 'Payment' and 'Procurement', while 'Total' combines both categories. (b) Aligned districts are defined as those districts where the local mayor and parliamentarian(s) are from the same party. (c) The estimations include an unreported constant and standard errors in parentheses are robust and clustered at the district level. (d) Significance levels are indicated by stars \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 5: Regression Results without reformed Districts (185 Districts)**

	<i>DACF irregularities</i>			<i>IGF irregularities</i>		
	(1) Total	(2) Payment	(3) Procurement	(4) Total	(5) Payment	(6) Procurement
Alignment	-.021*** (.008)	-.018*** (.007)	-.003 (.002)	.005 (.010)	.006 (.009)	-.001 (.004)
<b>Controls</b>						
MP Gender	.048 (.030)	.035 (.025)	.013* (.007)	-.045 (.033)	-.024 (.026)	-.020* (.011)
MP Experience	.001 (.001)	0 (.001)	0 (0)	-.001 (.001)	-.001 (.001)	0 (0)
Total Revenue	0 (.002)	0 (.002)	-.001 (.001)	.005 (.005)	.006 (.004)	.001 (.001)
Financial Dependency	-.007 (.006)	-.005 (.005)	-.002 (.002)	.018 (.012)	.013 (.010)	.005 (.004)
Electoral Turnout	-.256* (.152)	-.253* (.145)	-.003 (.039)	-.335 (.339)	-.127 (.290)	-.208** (.107)
Electoral Competition	-.016 (.038)	-.015 (.030)	-.001 (.021)	-.053 (.064)	-.057 (.060)	.004 (.022)
No. of obs.	1096	1096	1096	1094	1094	1094
R-squared	.066	.056	.030	.080	.057	.046
District FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

*Notes:* (a) Dependent variables: share of irregularities of total available funds in the respective funding source (DACF = District Assemblies Common Fund, IGF = internally generated funds). Irregularities are divided into the two categories of 'Payment' and 'Procurement', while 'Total' combines both categories. (b) Aligned districts are defined as those districts where the local mayor and parliamentarian(s) are from the same party. (c) The estimations include an unreported constant and standard errors in parentheses are robust and clustered at the district level. (d) Significance levels are indicated by stars \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Table 6: Regression Results with pre-/post-sample (205 Districts)**

	<i>DACF irregularities</i>			<i>IGF irregularities</i>		
	(1) Total	(2) Payment	(3) Procurement	(4) Total	(5) Payment	(6) Procurement
Alignment	-.021*** (.007)	-.018*** (.006)	-.003 (.002)	.004 (.009)	.005 (.008)	-.002 (.004)
<b>Controls</b>						
MP Gender	.047 (.029)	.035 (.024)	.012* (.007)	-.043 (.035)	-.024 (.027)	-.019 (.012)
MP Experience	.001 (.001)	0 (.001)	0 (0)	-.001 (.001)	-.001 (.001)	0 (0)
Total Revenue	-.001 (.004)	0 (.003)	0 (.001)	.005 (.003)	.005 (.003)	.001 (.001)
Financial Dependency	-.018 (.013)	-.012 (.011)	-.006 (.005)	-.023 (.017)	-.018 (.014)	-.005 (.008)
Electoral Turnout	-.039 (.081)	-.043 (.075)	.004 (.021)	.201*** (.074)	.138** (.069)	-.063*** (.022)
Electoral Competition	-.037 (.037)	-.028 (.031)	-.009 (.020)	-.094 (.066)	-.085 (.062)	-0.09 (.021)
No. of obs.	410	410	410	410	410	410
R-squared	.107	.096	.042	.092	.061	.067
District FE	YES	YES	YES	YES	YES	YES
Year FE	NO	NO	NO	NO	NO	NO

*Notes:* (a) Dependent variables: share of irregularities of total available funds in the respective funding source (DACF = District Assemblies Common Fund, IGF = internally generated funds). Irregularities are divided into the two categories of 'Payment' and 'Procurement', while 'Total' combines both categories. (b) Aligned districts are defined as those districts where the local mayor and parliamentarian(s) are from the same party. (c) The estimations include an unreported constant and standard errors in parentheses are robust and clustered at the district level. (d) Significance levels are indicated by stars \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.