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# CORRUPTION PRESSURE ON BUSINESS REVISITED: BRIBERY INCIDENCE IN EUROPEAN COUNTRIES

## ABSTRACT

**Purpose:** This paper investigates whether within the European countries with a prevalent number of companies in particular sectors the corrupt rent-seeking practice is more likely to contaminate the entire business sector.

**Methodology:** Multiple regression analysis was conducted to investigate the determinants of corruption pressure on the business sector.

**Results:** We found that the share of retail and wholesale trade and public companies in the economy is related to bribery incidence experienced in the domestic business sector as a whole and that the ease of doing business together with EU membership reduces the spread of corruption risk. The transmissible effect of bribery incidence in one sector on the rest of the companies is observed, notwithstanding the post-transition status of a European country.

**Conclusion:** There is a relationship between the share of retail and wholesale trade and public companies in an economy and bribery incidence experienced by the entire business sector indicating that there might be a spillover effect of bribing in one sector on the rest of the companies.

**Keywords:** Bribery incidence, doing business, retail and wholesale trade, public companies, spillover effect

## 1. Introduction

The existing literature on corruption causes and consequences is abundant (for a review, see Jain, 2001; Treisman, 2007; Dimant & Tosato, 2018). The negative effects of corruption, no matter whether they are measured by corruption perception or experience, are explored in different contexts and institutional settings. Despite some evidence of bribes helping firms and citizens to alleviate

bureaucratic burdens, there is a consensus on the contagious nature of corruption that leads to systemic (endemic) corruption in all segments of society. Combined petty (administrative) and grand (political) corruption have multiple detrimental effects, and hindering business activity is one of them.

Bribery incidence analyses are available for different economic sectors within which the firms fac-

ing bribery requests operate. They tell us about the exposure to corruption risk of a particular business sector. Given much less is known about the characteristics of national economies of countries where firms are more or less exposed to corruption pressures, we fill the gap in this paper by empirically assessing the corruption risk imposed on the business sector in a unique way. We investigate if in countries with a prevalent number of companies in a particular sector(s) the corrupt rent-seeking practice is more likely to contaminate the entire business sector. The literature suggests that corruption is widespread in countries with strong state influence on the economy (e.g. via public procurement, Grødeland & Aasland, 2011) and/or with a larger share of public companies.

This research aims to provide plausible answers if the size and the role of the state affect the general business exposure to corruption. Are there differences between EU and non-EU member countries or is it the transition legacy that matters? Finally, would a favourable doing business environment mitigate these spillover effects? We posit that the share of retail and wholesale trade and public companies in the economy is related to bribery incidence experienced in the business sector. We also hypothesise that the ease of doing business together with EU membership reduces the spread of corruption risk. Our research takes into consideration the gap in the literature related to the lack of empirical research on antecedents of bribery incidents experienced by firms in European countries.

The paper is structured as follows: the next section gives a brief overview of the literature dealing with firms' exposure to corruption. Section 3 that deals with methodology describes the sampling procedure, variables and data used in the model, and the analytical procedure. The results are presented and discussed in the subsequent sections. The conclusion section offers policy recommendations, and lines of future research, mainly based on the recognised limitations of this study.

## 2. Literature review

### 2.1 Corruption as an obstacle to doing business

Corruption as an obstacle to doing business has been extensively studied in the last two decades. Early studies showed multiple negative impacts of corruption on business development

and entrepreneurship (Kaufmann & Wei, 2000; Hellman et al., 2000). The most widely used definition of corruption as a misuse of public power for private gain (The World Bank, 2021) supposes that corruption occurs between public and private sectors or within the public sector. However, there is increased evidence of business-to-business corruption when a company employee bribes for his/her personal benefit to the detriment of the whole organisation (Castro et al., 2020; Ashforth & Anand, 2003; Argandoña, 2003).

Corruption works as an arbitrary extra cost to firms. Since corruption rent increases the costs of doing business (Sullivan & Shkolnikov, 2004; Anokhin & Schulze, 2009), corruption extortion risk demands additional resources to fulfil bribery requests (Huang & Yuan, 2021). The findings of Campos et al. (2010) for Brazilian firms showed that about 70 percent of the businesses declared corruption as a major obstacle to firm entry and about one-third of firms identified corruption as a major obstacle to growth. A study of corruption as an obstacle to doing business in seven Western Balkans countries found that 42 percent of companies considered corruption as a big or enormous obstacle to their business (Budak & Rajh, 2014).

Although the growing literature deals with the adverse impact of corruption on business and economic development (Rose-Ackerman, 2017), there is some evidence of the greasing effect of corruption in mitigating the overburdening regulations and/or ineffective institutions (e.g. Leff 1964; Méon & Sekkat, 2005; Méon & Weill, 2010; Dreher & Gassebner, 2013; Budak & Rajh, 2014; Freund et al., 2016; Zeume, 2017; Aghazada & Ashyrov, 2021). The regulation might be intentionally complex and bureaucratic procedures slow and inefficient so that corrupt officials could misuse public office and seek corruption rent in exchange for public service. Firms and citizens mitigate complex and costly procedures by bribing public servants and officials, feeding the vicious circle of growing corruption and deteriorating institutions (Aidt, 2009).

Studies at the micro-level elaborate on the positive but often indirect effects of corruption on firm performance (Sahakyan & Stiegert, 2012; Blagojević & Damijan, 2013; Williams et al., 2016; Hanousek & Kochanova, 2016), productivity (De Rosa et al., 2015; Ashyrov & Akuffo, 2020), investment (Uhlenbruck et al., 2006; Hakkala et al., 2008; Eren

& Jimenez, 2015; Pinto & Zhu, 2016), innovation capacity (Paunov, 2016; Bukari & Anaman, 2020; Ellis et al., 2020; Chadee et al., 2021), and other outcomes of business activity.

Corruption is a complex phenomenon and therefore needs to be studied from various angles and perspectives (Cuervo-Cazurra, 2015). There is extensive research on a firm's exposure to corruption assessed empirically by both perceived corruption (e.g. Budak & Rajh, 2014, for Western Balkan countries; Botrić, 2020, for SEE countries) and experienced corruption (e.g. Wu, 2009, for Asian firms; UNODC, 2013, and Budak & Rajh, 2014, for the Western Balkans countries; Blagojević & Damijan, 2013, for transition countries; Alm et al., 2016, for large cross-country analyses). As for the measures of corruption employed, the perception of corruption may significantly differ from the real experience where bribery incidence is usually underreported (Treisman, 2007), and perceptions might be formed under the biased assumptions and impressions of exogenous agents (for a review of the issues related to corruption measures, see Charron, 2016).

The negative effect of corruption on doing business could be mitigated by a favorable business environment that supports entrepreneurship and business activities. Past research confirms a strong correlation between the ease of doing business and corruption (Monray & Filipescu, 2012). Chen et al. (2008) found that a doing business environment affects bribery incidence reported by firms in over 50 countries. Other studies reported a significant effect but in the opposite causal direction. The negative effect of corruption on the quality of business regulation and other business environment indicators (Breen & Gillanders, 2012; Nageri & Gunu, 2020) confirmed that widespread corruption deteriorates the ease of doing business (e.g. Shokouhifard et al., 2020, for Islamic countries). Including doing business indicators and corruption in research models was strongly suggested in the early 2000s (Robson et al., 2009), hence the literature exploring the multidimensional effects is still inconclusive. In this study, we posit the following:

*The ease of doing business in a country lowers bribery incidence experienced by the business sector of a country.*

## 2.2 Corruption in public and business sectors

Further studies have explored corruption in particular areas such as government and public sector corruption (for a literature review, see Tanzi, 1998; Rose-Ackerman & Palifka, 2016; see Monteduro et al., 2016), and corruption in different business sectors (e.g. Pyman et al., 2009, for defence; Campos et al., 2010, for manufacturing in Brazil, and Kalaj, 2015, for manufacturing in Albania; Shan et al., 2020, for the construction sector). There is evidence of construction, trade, and government as the sectors most prone to corruption.

Construction often covers large infrastructure projects and here corruption is often exported and occurs in complex forms, such as lobbying and embezzlement of public funds. The construction sector might be exposed to corruption risk within the public procurement process, that is, in business engagements with government agencies and public organisations. Public procurement is predisposed to corruption because of a large volume of contracts and public sources of funds (Søreide, 2002). Corruption in public procurement is extensively studied in developing and transition countries (Grødeland & Aasland, 2011; Ateljević & Budak, 2010). Research on European post-transition countries confirmed that corruption is endangering a fair and competitive public procurement process. Slijepčević et al. (2018) illustrate well the scale of the problem for firms as around 90 percent of firms in Croatia and Bosnia and Herzegovina believe that there is a risk of corruption in public procurement. The importance of public procurement in the national economy goes hand in hand with large government expenditures and the size of the state sector, which causes an expected increase in the risk of corruption. Their findings are twofold and seem to depend on the institutional set-up and the country's level of development. Goel and Budak (2006) found that in transition countries, larger governments reduced corruption prevalence, as opposed to the case of developed OECD countries (Arvate et al., 2010). The UNODC report on bribery in the Western Balkans countries suggests that the distribution of bribe incidence among sectors varies among both sectors and countries. Furthermore, their findings show that trade and construction are the sectors most involved in bribery acts (UNODC, 2013). Likewise, variations of bribery in the manufacturing and service sector were observed

in Central and Eastern European (CEE) countries (Hanousek & Kochanova, 2016).

Small bribes were paid rather often, enabling firms to gain a competitive advantage over the so-called “clean” competitors, which is in line with previous findings on corruption distorting private sector competition (Bennett et al., 2013; Calder, 2020). In their cross-country study, Martin et al. (2007) found that competitive intensity and financial constraints increase firm-level bribery activity, while state ownership decreases it.

Accordingly, the following hypotheses are proposed:

*Larger government expenditures increase bribery incidence experienced by the business sector of a country.*

*The number of public companies increases bribery incidence experienced by the business sector of a country.*

### 2.3 Trade and corruption

Corruption as an obstacle in trade works in several ways. Specifically, bribery-like payments in retail trade were studied in past studies (Aalberts & Jennings, 1999). Aßländer and Storchevov (2017) claim that trade is prone to corruption and describe corrupt practices typical of retail chains in developing countries where retailers apply slotting fees to manufacturers. In business environments where trade is facing bureaucratic obstacles and high administrative costs, corruption may have a greasing effect, like the one Mendoza et al. (2015) found for commerce in Philippine SMEs. In their study of bureaucratic corruption and firm performance in CEE countries, Hanousek and Kochanova (2016) found that construction and wholesale firms are more likely to pay bribes compared to firms in the service sector and retail trade. They also found that the negative spillover effect varies among sectors.

The OECD (2017) identified corruption as one of the most costly non-tariff barriers in global trade. Firms paying entry costs by bribes have fewer resources available to invest in their new market activity. Firms engaged in trade, domestic or international, could act on the supply side as active or passive bribe givers. Active bribery originates on the supply side when firms offer bribes to get contracts/permits, preferential treatment by customers, and other privileges. Passive bribery is initiated by corrupt rent-seekers (usually from the public sector) demanding bribes to ensure special treatment and an unfair advantage to

victims of corruption (Wu, 2005). Drivers of bribery determining the firm’s propensity to bribe might work similarly across sectors and countries. Based on past research, the following hypothesis is proposed:

*The number of trade companies increases bribery incidence experienced by the business sector of a country.*

### 2.4 EU membership and corruption

Favourable conditions for doing business arise within a wider institutional framework granting political stability, rule of law, professional standards, quality of life, and other soft indicators of prosperity. Poor institutional environment nourishes corruption (e.g. Aidt, 2009; Rojas, 2020), and corruption further erodes institutions (e.g. Rose-Ackerman & Palifka, 2016). As shown before, corruption undermines fair trade and public sector efficiency and specifically threatens business in transition countries with a weak institutional set-up. A survey of private businesses in the seven Western Balkans countries observed (UNODC, 2013) revealed that corruption was the third biggest obstacle to business. Bribery incidence that firms experienced in contact with public officials and servants was mostly for administrative purposes (e.g. to speed up procedures, receive better treatment, etc.). It is reasonable to assume that the transition past affects the prevalence of corruption in a country.

As far as European countries are concerned, the institutional changes that ex-socialist countries have gone through in the transition period and the efforts undertaken within the accession process to the EU could make a difference. However, the availability of EU funds to the new EU member states increases corruption risk (Pashev, 2011; Fazekas & King, 2019), at least in the early stage of accession (Alfano et al., 2021). European Union membership provides such favourable institutional set-up. Old EU member states have established good governance standards and public service integrity<sup>1</sup>. Therefore, the following hypotheses are proposed:

*Transition legacy increases bribery incidence experienced by the business sector in ex-transition and transition economies.*

*European Union membership reduces bribery incidence experienced by the business sector of a country.*

1 World Governance Indicators. <https://info.worldbank.org/governance/wgi/Home/Documents#wgiDataCrossCtry>

### 3. Methodology

#### 3.1 Sampling

The study is focused on a set of 39 countries in the European geographical region, as this gives us the right amount of heterogeneity among countries to explore the relationships between different variables. It also shows enough homogeneity in terms of geographical effects, and somewhat on the general level of development. The sample therefore consists of the European continent countries, covering the European Union and its periphery. Only a few European countries were not included in the analysis due to missing data (a list of countries with their EU membership and/or 'post-transition' status in the appendix).

#### 3.2 Variable description

Bribery incidence (BribInc) is measured by the percentage of firms experiencing bribery payment requests. According to the World Bank Enterprise Survey data, seven out of ten firms in the analysed set of European countries experienced bribery requests (Table 1). Zero-level bribery incidence is observed in Estonia, Luxembourg, and Sweden, while in Ukraine, every third firm experienced at least one bribery payment request. To explain these large variations among countries, a set of independent variables is included in the regression models (Table 1).

**Table 1** Descriptive statistics,  $n=39$

Variable	Mean	Minimum	Maximum	Std. Dev.
BribInc	7.06	0.00	37.4	9.26
Trade	20.59	1.00	39.40	8.33
Public	0.75	0.00	2.80	0.80
EaseDB	75.60	65.44	85.29	4.62
GovExp	33.75	16.06	46.65	7.03
EU	0.62	0.00	1.00	0.49
PT	0.64	0.00	1.00	0.49

Source: Authors

As trade and public sectors are very prone to corruption, the share of trade companies (Trade) and public sector companies (Public) in the economy are taken as a proxy of the corruption risk that these sectors might bring to the national economy. The percentage of registered companies involved in wholesale and retail trade in our sample oscillates between 1 percent in Belarus and 39.4 percent in Montenegro. The share of registered companies in the public sector is the lowest in Belarus, Cyprus, Estonia and Romania, while the highest share is registered in Ukraine. Moreover, the mean value for central government expenses in GDP amounts to 33.8 percent, with the smallest and the largest values recorded in Kazakhstan and Greece, respectively.

Further, the share of central government expenses in the GDP (GovExp) is included to capture the corruption risk stemming from the government's influence on the national economy. The literature gives different results of the relationship between

the size of the public sector and corruption (e.g. Goel and Nelson, 1998). A large public sector might create opportunities for corruption in public procurement, and generate nepotism, favouritism, and other forms of public power abuse which can, in turn, affect a private sector business. The size of the public sector varies across European countries ranging from central government expenditures share in GDP of 16 percent in Kazakhstan to almost 47 percent in Greece.

A possible negative effect of the size of the public sector on corruption pressure in business in a particular country might be alleviated by a favourable business environment (e.g. Vu et al., 2021). Therefore, the ease of doing business score (EaseDB) is included in the model to delineate regulatory performance of the countries included in the analysis and compare the regulatory environment for local entrepreneurs across countries. However, variations of the EaseDB score between the worst-per-

forming Bosnia and Herzegovina and the best-performing Denmark indicate this might explain the different levels of bribery incidence. If regulations in a country are unfair, non-transparent, and too restrictive, informal practices and corruption might serve as grease on the wheels.

From descriptive analysis of the variables listed above, it is evident that there are some differences between non-EU and post-transition countries compared to the EU member states and non-transition countries. To examine the influence of European Union membership and the transition past, we

included dummy variables as additional regressors in the models. Here it is worth clarifying that ‘post-transition’ (PT) is used to denote countries whose economies completed the process of transformation from centrally planned to market economies, and/or countries still going through this process. The term ‘post-transition’ is used here to differentiate ex-socialist and socialist countries from old, established market economies.

A detailed description of all variables and sources is presented in Table 2.

**Table 2** Variable definitions and data sources

Variable	Definition	Source
BribInc	Bribery incidence is measured by the percentage of firms experiencing at least one bribe payment request (2019 or 2020)	The World Bank. Enterprise Surveys. Available at: <a href="https://www.enterprisesurveys.org/en/custom-query">https://www.enterprisesurveys.org/en/custom-query</a>
Trade	Percentage of registered companies that engage in wholesale and retail trade in an economy in comparison to other industries (2021 or the latest year available)	Hithorizons. Available at: <a href="https://www.hithorizons.com/eu/analyses/country-statistics">https://www.hithorizons.com/eu/analyses/country-statistics</a>
Public	Percentage of registered companies in the public sector in an economy in comparison to other industries (2021 or the latest year available)	Hithorizons. Available at: <a href="https://www.hithorizons.com/eu/analyses/country-statistics">https://www.hithorizons.com/eu/analyses/country-statistics</a>
EaseDB	The ease of doing business scores benchmark economies with respect to regulatory best practices, showing the proximity to the best regulatory performance on each Doing Business indicator. An economy's score is indicated on a scale from 0 to 100, where 0 represents the worst regulatory performance and 100 the best regulatory performance (2019)	The World Bank. Available at: <a href="https://data.worldbank.org/indicator/LC.BUS.DFRN.XQ">https://data.worldbank.org/indicator/LC.BUS.DFRN.XQ</a>
GovExp	Total central government expenditures (payments for operating activities of the government in providing goods and services), as a share of GDP (2020 or the latest year available)	Our World in Data. Available at: <a href="https://ourworldindata.org/government-spending#total-government-spending">https://ourworldindata.org/government-spending#total-government-spending</a>
EU	Dummy variable denoting European Union membership (0=non-EU member country; 1=EU member country)	European Union. Available at: <a href="https://european-union.europa.eu/principles-countries-history/country-profiles_en">https://european-union.europa.eu/principles-countries-history/country-profiles_en</a>
PT	Dummy variable denoting a post-transition country (0=non post-transition country; 1=post-transition country)	International Monetary Fund. Available at: <a href="https://www.imf.org/external/np/exr/ib/2000/110300.htm">https://www.imf.org/external/np/exr/ib/2000/110300.htm</a>

Source: Authors

### 3.3 Analytical procedure

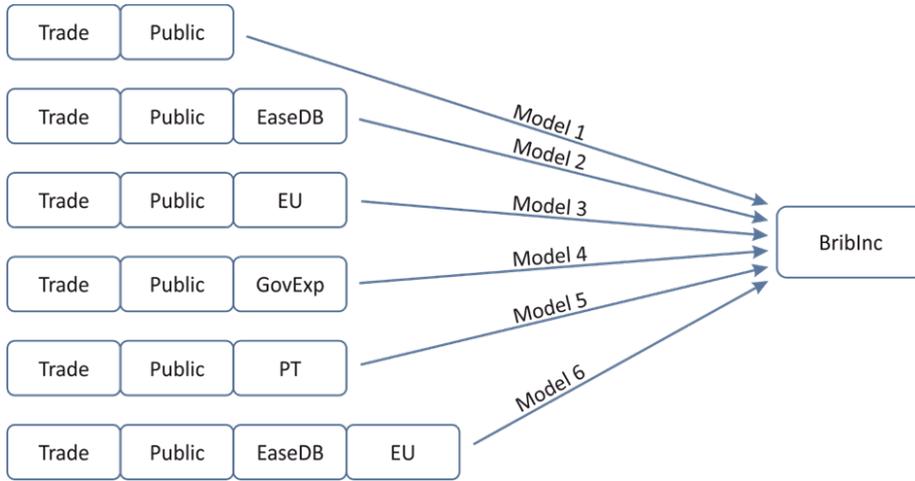
A multiple regression analysis method was applied to investigate the determinants of corruption pres-

sure on business. The analytical approach is based on the use of the indicators explained in the previous section in 39 countries. Six separate regres-

sion analyses were conducted to test hypotheses (Figure 1). In each model, the dependent variable was BribInc, while independent variables were as follows: Trade, Public (Model 1), Trade, Public, EaseDB (Model 2), Trade, Public, EU (Model 3), Trade, Public, GovExp (Model 4), Trade, Public, PT (Model 5), and Trade, Public, EaseDB, EU (Model 6)

6). The variance inflation factors were checked to detect possible multicollinearity. Since the highest variance inflation factor (VIF) was 1.32, it was safe to conclude that multicollinearity did not exist. Data analysis was conducted with the Statistica 13 software package.

Figure 1 Regression models



Source: Authors

4. Results

A total of six regression analyses were conducted (Table 3). Variance inflation factor (VIF) values

were calculated to check for multicollinearity in data. The calculated VIF values range between 1.05 and 1.32, indicating no multicollinearity.

Table 3 Regression analysis – dependent variable: BribInc

Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Trade	0.39***	0.32**	0.28*	0.32**	0.35**	0.22
Public	0.32**	0.34**	0.22	0.32*	0.28*	0.25*
EaseDB		-0.33**				-0.32**
GovExp				-0.13		
EU			-0.36**			-0.34**
PT					0.15	
Model fit	R <sup>2</sup> = 0.317; F-value = 8.35; p = 0.001	R <sup>2</sup> = 0.424; F-value = 8.58; p = 0.000	R <sup>2</sup> = 0.416; F-value = 8.33; p = 0.000	R <sup>2</sup> = 0.319; F-value = 5.15; p = 0.005	R <sup>2</sup> = 0.334; F-value = 5.85; p = 0.002	R <sup>2</sup> = 0.513; F-value = 8.97; p = 0.000

\*\*\* significant at p<0.01 level; \*\* significant at p<0.05 level; \* significant at p<0.1 level  
Note: Standardised coefficients (β), n=39 (for Model 4, n=37).

Source: Authors' calculations

The results indicate that bribery incidents in the business sector are positively and significantly affected by the share of trade and public companies in the economy. The results also show that bribery incidents in the business sector are negatively and significantly affected by the ease of doing business in a country and EU membership. The size of the government in the national economy and the country's post-transition status are not significantly related to bribery incidents in the business sector.

## 5. Discussion

Our findings suggest that in the European countries with a larger share of companies in the trade sector, the entire business sector is exposed to higher corruption pressure, which implies a spillover of the negative effect of bribery practices from trade to the entire business sector. Adding the same effect of a large share of public companies in the country's company structure, it looks like national economies have problems with endemic corruption due to persisting corruption rent-seeking in trade and public sectors. Public companies may act here as bribe-seekers in their business operations with the private sector, but may as well be exposed to bribery requests coming from private firms. Public companies, as well as the whole public sector, are particularly vulnerable to corruption because control mechanisms in public companies are considered weak in comparison to those in private firms. Management of public companies might be selected on the basis of political affiliation instead of merit-based criteria.

Most studies claim that corruption negatively affects a business environment and only a few studies examined the interdependency of variables "corruption" and the "ease of doing business". Monray and Filipescu (2012) showed that a favourable business environment goes hand in hand with less corruption, but apart from a high degree of interdependency. As research into the impact of a business environment on corruption is scarce, results are worthy of further discussion. Our analysis showed that a favourable doing business environment successfully mitigates corruption risks because there is no need for bribery to grease the wheels. Lash and Batavia (2019) found that out of all components of the World Bank Doing Business, (bad) regulation indicators increased the level of corruption, while (poor) legal doing business indicators contributed

to corruption to a much lesser extent. This suggests that appropriate by-laws and implementation of regulations matter more in terms of tackling corruption than formally adopted laws, which is often the issue in countries with transition experience. On the contrary, in the EU member states, incentives for bribery are lower, probably due to stronger control mechanisms in public procurement, higher business professional standards, efficient administration services for business, and the rule of law.

Due to the endemic nature of corruption, its contagious effect has been evidenced in the studies. Becker et al. (2009) identified contagious effects of corruption among regions and countries, while Cheng (2011) elaborated that corporate governance failures that lead to corruption in one firm spill over to other firms. Therefore, it is reasonable to assume that such contagious effects could be observed in the national economy due to the spillover of bribery practices from one sector to another.

## 6. Concluding remarks, limitations, and lines of future research

The main contribution of this paper is an examination of the relationship between the structure of the economy and bribery incidents in selected European countries.

Motivated by the high corruption risk evidenced in retail and wholesale trade and public sectors, we explored whether bribery incidence reported by all companies is higher within the European economies with a larger share of companies in these two sectors. The findings indicate that the share of retail and wholesale trade and public companies is indeed related to bribery incidence experienced in the national business sector as a whole. Still, it remains unknown if the share of wholesale vs. retail within the trade sector makes a difference and in what timespan the changes occur. Furthermore, since institutions change slowly, it is hard to estimate how long it would take for corruption pressure to diminish once a country becomes an EU member state. The contagious effect of corruption is underexplored, thus leaving many open questions and room for further research.

Our results are in line with the previous findings on trade and public sectors that are very susceptible to corruption. However, in accessing a new group of determinants of bribery incidence, we have re-

alised that its spillover from the most corrupt business sectors (trade and public sectors) to the entire business sector of a country is possible. Perhaps the higher rates of corruption are due to corruption in respective retail and public sectors. Nevertheless, the findings on the relationship between the share of retail and wholesale trade and public companies in an economy and bribery incidence experienced by the entire business sector further indicate that there might exist a transmissible effect of bribery that spills over from one sector to the rest of the companies. This novel finding needs more evidence-based confirmation. We believe that our research would trace the way for further research into this spillover phenomenon.

As far as policy recommendations are concerned, improving the ease of doing business and speeding up the process of EU accession seem to improve good governance in the new EU member states and prevent corruption in the long run, which could further reduce the spread of corruption risk.

#### *6.1 Limitations and further research*

This study is not without limitations. First, it is conducted by using secondary macro-level data.

Hence, future research might include survey-based micro-level data to better capture the observed effects. Second, this study has been conducted on a group of European countries; however, the lack of available data prevented us from including all countries of the European continent. To improve the generalisability of results, further studies should be conducted for other regions and on a larger, global scale, include non-European countries as well.

Our study has been conducted at a single point in time. Future research studies might be conducted over a period of time, by using a longitudinal research approach. In that way, the observed effects and possible changes in the relationship between variables could be determined and further explained. This study paves the way for further research into the corruption transmission effect across business sectors. The mechanisms and the size of spillover effects should be empirically validated to provide a sound basis for the theoretical contributions in the field of the economics of corruption.

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**Appendix 1 Countries in the sample**

No.	Country	EU member and/or post-transition country (EU/PT)
1	Albania	PT
2	Armenia	PT
3	Austria	EU
4	Azerbaijan	PT
5	Belarus	PT
6	Belgium	EU
7	Bosnia and Herzegovina	PT
8	Bulgaria	EU/PT
9	Croatia	EU/PT
10	Cyprus	EU
11	Czech Republic	EU/PT
12	Denmark	EU
13	Estonia	EU/PT
14	Finland	EU
15	Georgia	PT
16	Greece	EU
17	Hungary	EU/PT
18	Ireland	EU
19	Italy	EU
20	Kazakhstan	PT
21	Kosovo	PT
22	Latvia	EU/PT
23	Lithuania	EU/PT
24	Luxembourg	EU
25	Malta	EU
26	Moldova	PT
27	Montenegro	PT
28	Netherlands	EU
29	North Macedonia	PT
30	Poland	EU/PT

No.	Country	EU member and/or post-transition country (EU/PT)
31	Portugal	EU
32	Romania	EU/PT
33	Russia	PT
34	Serbia	PT
35	Slovakia	EU/PT
36	Slovenia	EU/PT
37	Sweden	EU
38	Turkey	EU
39	Ukraine	PT