

**Does International Integration Reduce Corruption? Theory And
Evidence From Lithuania**

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Abstract

In the early 2000s, corruption permeated almost every facet of daily life in Lithuania. Yet, by the next decade, Lithuania's successes in combatting corruption were being heralded as a template for other nations. How did this occur? Extensive research has demonstrated that international integration may reduce domestic corruption; this paper examines whether integration had the same impact in Lithuania. We examine two mechanisms associated with international integration, the processes of norm development and economic growth, arguing that, together, they facilitated the rapid decrease of corruption in Lithuania. To explore this relationship, we conduct a document and literature analysis, finding that periods of anti-corruption reform were closely linked to the aspirations for deeper EU integration. We then adapt Bai et al.'s (2013) corruption and inter-regional competition model and apply it to Lithuania. Using survey data collected from over 900 Lithuanian firms between 2002 and 2018 and an Instrumental Variable (IV) strategy based on a Bartik shift-share instrument, we find that economic growth decreased the commonality of bribe extraction in Lithuania. We also find that this effect was greater for more mobile firms and industries that were better prepared to take advantage of increased integration. This paper's results suggest that the normative and economic mechanisms associated with international integration contributed to a reduction in corruption in Lithuania and, more broadly, contribute to a growing subfield of literature on the political economy of corruption.

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1 Introduction

Speaking in 2009 on the state of corruption in Lithuania, ex-MP Algimantas Matulevicius stated, “who would have thought that after twenty years [of independence] we would see legally elected criminals? That morals would become a thing of the Soviet past? That the country would be governed by liars, thieves, and bribers presenting their acts as representative of the values of Western civilization?” (Delfi, 2009). Beyond its superfluity, Matulevicius’ assertion captures the stranglehold that corruption has had on Lithuania, permeating everything from politics to policing, home buying to healthcare, and almost every other facet of daily life. Yet, less than ten years later, Lithuania’s achievements in preventing and combatting corruption were being held up as a template for other nations, both in the European Union (EU) and outside of it (Euam, 2019). Lithuania’s corruption transformation has been less than linear, characterized by continuous setbacks and large triumphs, serving as both a post-Soviet success story and a testament to the shortcomings and limits of international integration in influencing domestic policy.

Lithuania has a long history of exceptionalism. It was the first of the three Baltic states to renounce membership from the Soviet Union. In 1989 the Communist Party of Lithuania broke ties and declared itself autonomous of the Communist Party of the Soviet Union, and on the 11th of March 1990, Lithuania declared independence. However, it was not until a year later, in August of 1991, following a failed Soviet coup d’état in Moscow, that Lithuanian sovereignty was truly actualized. Lithuania underwent a negotiated revolution, rapidly transitioning from a one-party communist state to a multiparty system of democracy while instituting large command-to-market reforms that liberalized the economy (Krupavicius, 1998). Yet, some Soviet mentalities could not be so easily replaced following independence; especially the old system of personal and economic connections called colloquially in Russian, ‘Blat,’ which manifested itself as widespread corruption (Dobryninas, 2005). It was not until after Lithuania acceded to the EU in 2004 that the extent of Blat’s influence on Lithuanian society was fully recognized. As Hohnen (2003) rightly notes, this period’s questionable moral conduct and ambiguous legislation “must be seen as an inevitable result of the climate during the first years of Lithuania’s independence.”

Empirical evidence supports the notion that corruption was widespread in Lithuanian society. Between 1999 and 2010, Lithuania consistently ranked under the ‘passing’ score of 50 on Transparency International’s Corruption Perception Index (CPI) (TI, 2023a). In the same period,

approximately 24% of Lithuanian’s acknowledged having given a bribe at least once, while only 68% provided a negative answer when asked “whether anyone in the country had asked or expected to pay a bribe for services” (Urbonas, 2009). More broadly, corruption was consistently rated as the “single most pressing issue by public servants,” the fourth most pressing issue by firm managers, and in the top three greatest issues facing the country by the general public (Lithuanian Map of Corruption, 2008). Government institutions, in particular, were viewed as highly corrupt. Parliament was ranked as the most corrupt institution according to the general public “(49% of residents saw the Parliament as ‘very corrupt’), while company managers perceived municipalities as the most corrupt institution (60%)” (Velykis, 2010).

Beginning in 2011, by all commonly accepted measures, the incidence of corruption in Lithuania began to decrease. Lithuania’s ranking on Transparency International’s CPI increased from 48 in 2011 to 61 in 2015, the same year Lithuania acceded to the Eurozone. By 2019 it had converged in corruption ranking with the rest of Western Europe, with Prime Minister Saulius Skvernelis noting, “The times of untouchables have ended. Everyone needs to learn this lesson. We have zero tolerance for corruption in the state” (Jegelevičius, 2019). By 2020, out of 28 EU countries, “Lithuania was ranked eighth for corruption being the least pressing issue in business” (LRT, 2020). Thus, by all accounts, Lithuania’s fight against corruption has been an immense success, serving as a preeminent example for other emerging or transitioning states of how to shed institutional traps and effectively combat corruption. This paper examines how this process occurred, building off literature on international integration, the exportation of Western influence in ex-Soviet states, and the incentives for economic agents to engage in corruption.

Sandholtz and Gray (2003) contend that two mechanisms exist through which domestic corruption decreases, both associated with international integration. To them, as integration with international or supranational institutions increases, the prevailing norms present within these institutions “delegitimize and stigmatize corruption domestically,” thereby reducing the incidence of corruption. Increased integration also has a secondary effect, “altering the costs and benefits of engaging in corrupt acts” for economic agents by increasing costs. Any preliminary examination of metrics representative of Lithuania’s international integration, such as GDP growth or FDI, alongside corruption indices as seen Figure (3), indicates that at least one of the mechanisms proposed by Sandholtz and Gray (2003) holds validity as an explanatory instrument. Accordingly, in keeping with current literature, this paper seeks to examine how the mechanisms associated with international

integration, cascaded with an already present domestic and EU desire to change the incentives associated with corruption, decreasing its incidence in Lithuania in a matter of years instead of decades.

More specifically, this paper attempts to address one major question: how did changing incentives associated with Lithuania's international integration facilitate the rapid decrease of corruption in Lithuania? This paper proposes two mechanisms through which this may have occurred; normatively, through international integration that then increased Lithuanian appetite for large-scale anti-corruption reform; and economically, through growth in the form of positive shocks to aggregate productivity that reduced the level of bribery faced by firms. To test the relationship between international integration and corruption, this paper first undertakes a document and literature analysis, before employing a causal identification strategy using a dataset containing information on the levels of corruption faced by Lithuanian firms. In doing so, this paper hopes to build on a small but growing subfield of literature on the political economy of corruption by identifying the factors that affected the level of corruption in Lithuania, and then outlining directions for future research. More broadly, this paper imparts three specific contributions to current literature.

First, this paper documents corruption in Lithuania using time-series cross-sectional survey data on corruption perceptions collected at a firm level between 2002 and 2018. This paper represents one of the first applications of this data to Lithuania. Our results demonstrate that as Lithuania became increasingly integrated, the level of corruption decreased. In particular, we find that the mechanisms of international integration proposed by Sandholtz and Gray (2003) hold significant explanatory value in understanding how corruption may decrease within a nation. More interestingly, our empirical analyses capture a significant relationship between Lithuania's economic growth and its reduction in corruption. This paper's empirical analyses are also conducted at a region-industry-year level, allowing for greater comparison and comprehension of how within-country variation economic in incentives can influence corruption.

Second, this paper contributes to literature on international integration and post-Soviet transitions, by demonstrating that domestic anti-corruption reform was greater during periods of increased international integrative pressure for Lithuania. Specifically, literature on the effects of Lithuania's integration on domestic incentives for anti-corruption reform is scarce. The impact of this paper is therefore derived from its provision of a theoretical framework through which to understand how integration impacted corruption in Lithuania, with potential extensions to other ex-Soviet bloc

countries. More broadly, current literature on institutional transitions suggests that integration and growth positively impact institutional quality, and this paper largely confirms these hypotheses (Rudra, 2005; Acemoglu et al., 2005; Scott & Steele, 2011; Nguyen et al., 2018).

Finally, this paper provides one of the first extensions of the foundational work of Bai et al. (2013), applying their model of firm-level corruption to a new environment. Specifically, this paper serves to buttress their conclusion that economic growth reduces the level of corruption within a nation through the mechanism of inter-regional competition. Furthermore, we provide additional evidence that as firms become more mobile, the level of bribery they face decreases; thereby justifying Bai et al.’s (2013) focus on factors of mobility as a mode through which the level of corruption may be influenced. In doing so, this paper contributes to a small but expanding literature that utilizes micro-empirical evidence to examine the effect of economic growth on corruption.

The rest of this paper is organized as follows. Section 2 reviews relevant literature, taking time to define corruption before examining existing scholarship on the political economy of corruption, European integration, and the incidence of corruption in Lithuania and other Central and Eastern European states. Section 3 specifies our theoretical argument. Section 4 outlines the data and methodological approaches taken by this paper. Section 5 explores how the norms associated with international integration increased Lithuanian appetite for anti-corruption reform. Section 6 examines the role of Lithuania’s economic growth in decreasing corruption. The last section offers a conclusion and directions for future research.

2 Literature Review

This section provides a definition of corruption before transitioning to an overview of relevant literature across three key fields of study, the political economy of corruption, European integration, and post-Soviet transitions. Broadly, the purpose of this section is not to provide a comprehensive review but rather to frame the context of this paper’s later empirical analyses.

2.1 Defining Corruption

Before engaging in a literature review, it is prudent to comment on corruption definitions. Corruption as a very concept is hard to define. The existing definitions reflect the multiplicity of views on the topic, often varying temporally and by organizational affiliation or discipline. Some definitions of

corruption, especially those used in an economic setting, focus on its illegality, such as “an illegal payment to a public agent to obtain a benefit for a private individual or firm” (Rose-Ackerman, 1999). Others focus more explicitly on the nature of the economic relationship, such as side payments to economic agents “to induce them to ignore the interests of their principals and to favor the private interests of the bribers instead” (Rose-Ackerman, 2006). Conversely, some definitions focus on how corruption warps conventional outcomes, such as “acts in which the power of public office is used for personal gain in a manner that contravenes the rules of the game” (Jain, 2001).

For consistency, as well as breadth, this paper will take a stance aligned with current literature on the political economy of corruption, defining corruption as “an illegal or unauthorized transfer of money or an in-kind substitute” (Rose-Ackerman, 1975). This is supplemented with a secondary definition of corruption as “the abuse of an entrusted power for private gain” (Transparency International, 2023b; Rose-Ackerman and Palifka, 2016). In defining corruption so broadly, corruption can be taken to encompass multiple forms of illicit activity, everything from bribery to side payments, influence trading, or graft. Such a definition suits the purposes of this paper, serving as a way to conceptualize corruption across multiple contexts, time periods, and situations.

2.2 Political Economy of Corruption

From an economic perspective, a natural beginning for any examination of corruption is Becker’s (1968) economic framework of crime, a model that was then extended upon by Rose-Ackerman (1975; 1978), Allingham and Sandmo (1972), and Polinsky and Shavell (1979, 1984). Under this model, economic agents perform a cost-benefit analysis of corruption, comparing the benefits to the potential punishments and only going ahead if the net expected gain is positive. Scholars in economics broadly concur that corruption is bad for economic growth; however, there is dissent surrounding the causality of this effect. One argument is that corruption has a negative effect on economic growth by discouraging investment (Krueger, 1974; Shleifer and Vishny, 1993; Mauro, 1995; Tanzi, 1998; Wei, 1999; Campos et al., 2010). Conversely, the reverse relationship may also be true, meaning that as nations grow, the incidence of corruption decreases (Treisman, 2000; Bai et al., 2013). Despite the dissent surrounding the causality of corruption’s effect on economic growth, current literature broadly agrees that a linear relationship exists between corruption and economic growth, with the incidence of corruption following an inverted U-shape.

Regardless of causality, current literature has demonstrated that nations with higher levels

of corruption experience lower levels of economic growth (Mauro, 1995); less domestic public and private sector investment (Lambsdorff, 2003; Mauro, 1998); less foreign direct investment (Wei, 2000); and significantly decreased levels of governmental efficiency (Ades and Di Tella, 1997). In this regard, the macro-level effects of corruption between countries are relatively well understood. However, the effects and implications of firm preferences and decision-making on corruption are less well understood. Broadly, corruption increases firm costs and decreases efficiency while increasing the time spent by managers on dealing with corrupt officials (Kauffman, 1997; Svensson, 2005). Conversely, firms may profit from corruption by avoiding complex regulations (Huntington, 1968) or paying bribes to attain government contracts (Cheung et al., 2012). Notably, depending on the power of government officials to extract bribes from firms, following Becker’s (1968) model, officials will continue their corrupt activities so long as the gains from corruption outweigh any potential costs.

In recent years, scholars in political economy have begun to adapt this economic framework of corruption to examine the relationship between corruption and political and economic preferences, especially in transitioning or emerging markets. On the theoretical side, this paper is informed by the seminal scholars of both comparative and historical political economy, such as Cohen (1977), Strange (1986; 1988), Vogel (1987), and Pauly (1997), who all focused on how firms serve as a hub for political power due to their vast resources, and how this affects the relationship between states and markets. More recently, Culpepper (2007), Balleisen and Moss (2010), and Kwong (2015) have explored how firm ideology and governance structures can restrain or encourage corruption. Scholars in this area have frequently drawn from the conventions of network theory to bolster their assertions. This paper is no different and is influenced by the arguments of Padgett (1993, 1997; 1998) and Padgett and Powell (2012), particularly surrounding the networks that link economic elites, firms, and the government together that enable corruption. More broadly, this paper pushes literature in the direction that Culpepper (2015) proposed, who noted that new research “should place agents – especially firms – in the foreground as political actors.”

Concomitantly, corruption has been examined in formal theory literature for some time, serving as a potential strategy in regulatory bargaining between economic agents and governments. Baron and Myerson (1982), Tirole (1986; 1992), Laffont and Tirole (1990; 1991; 1993), and Carpenter (2001; 2010, 2014) have all sought to examine how corruption can arise due to the government’s principal-agent incentive structure. As Fiocco and Gilli (2016) note, when firms tolerate corruption,

they do so because the gains from trade outweigh the losses associated with corruption. On the empirical side, there has been a small proliferation of electoral accountability corruption literature, most notably by Ferraz and Finan (2008; 2011), Anduiza et al. (2013), and Chong et al. (2015). However, studies on corruption at the firm level are scarce. Svensson (2003) examined firm-level effects of corruption in Uganda, finding “that public officials act as price (bribe) discriminators, with prices of public services being partly designed to extract bribes.” Concomitantly, using an inter-regional competition model, Bai et al. (2013) examined the effect of positive productivity shocks on corruption in Vietnam, finding that the amount of money extracted in bribes from firms decreased as firm employment increased. This paper borrows heavily from the framework employed by Bai et al. (2013) to understand the effects of economic growth on the incidence of corruption.

2.3 European Integration

Literature on European integration has, for over 25 years, emphasized the role of European integration in facilitating institutional transformation, democratization, and the adoption of the rule of law for potential member states. It is theorized that ‘Europeanisation’ influences potential member EU states through three specific instruments: “first, specific institutional requirements are prescribed, second, domestic opportunity structures are changed, third, it modifies domestic preferences and expectations” (Knill and Lehmkuhl, 1999). This Europeanisation has been in large part driven by ‘conditionality,’ being the forced adoption of the cumulative body of EU law, the *acquis communautaire*, as part of the accession process, which has created institutional stability and growth through democratization (Hooghe and Marks, 2019; Moravcsik, 2018; Niemann and Ioannou, 2015; Schimmelfennig and Scholtz, 2008; Schimmelfennig, 2014; 2018). Conditionality was extensively employed during the 2004 and 2007 EU enlargements and has been effective in institutionalizing democracy and the rule of law in ex-Soviet states. However, only when the expected reward for incumbent governments was sufficiently attractive and the promise of membership was credible (Kelley, 2004; Schimmelfennig, 2005; 2007; Vachudova, 2005).

The effect of conditionality and EU accession on the incidence of corruption is a well-defined body of literature that has primarily focused on corruption in ex-Soviet Central and Eastern European nations. By and large, existing literature posits that the EU has been able to use conditionality and the lure of accession to push for anti-corruption reform or prevent governments from adopting corruption-prone policies (Gugiu, 2012; Pridham, 2006). However, the success of conditionality in

combatting corruption has been mixed. Some states have seen increased social linkage and strong compliance with the rule of law, preventing policy reversal (Knill and Tosun, 2009; Levitz and Pop-Eleches, 2010; Sedelmeier, 2012). Conversely, the impact of pre-accession reforms has been limited in other states, with some regressing following accession (Kartal, 2014). Beyond any specific EU policy, Sandholtz and Gray (2003) assert that increased international integration decreases corruption by altering the cost-benefit analysis for engaging in corrupt activities and culturally stigmatizing corruption. Thus, literature on European integration and, explicitly, the arguments of Sandholtz and Gray (2003) provide a crucial framework to conceptualize the incentives of integration and corruption in Lithuania.

2.4 Corruption and Post-Soviet Transitions

Literature on corruption in Lithuania is largely qualitative and has centered primarily on small case studies or comparative examinations between other Baltic states. Early literature on corruption explored how, as Lithuania marketized, the incidence of corruption increased (Samonis, 1990; 1991; 1993; 1995), and firms began to exit the market because of regulatory uncertainty and a high level of rent extraction from officials (Lainela and Sutela, 1994; Rainys, 1997). More recently, the works of Cicinskas and Sadzius (2006), Matonyte (2001), and Cichowlas (2020) have examined how officials and the economic elite shaped legislation in the early 1990s, resulting in the development of institutional structures that frequently “set the legal preconditions for irresponsible and illegal behavior” (Cicinskas and Sadzius, 2006). Later, as Lithuania underwent the EU accession process, the government sought to identify and combat more actively, explicitly focusing on expanding enforcement and creating a new anti-corruption agency (Dobryninas, 2005; Urbonas, 2009; Velykis, 2010). More broadly, scholars have conducted more ethnographic examinations of corruption, focusing on institutional quality and how anti-corruption education programs and proactive laws limited the incidence of corruption (Hohnen, 2003; Kuris, 2012; Gainer, 2015; Pakstaitis, 2019).

More broadly, over the past 35 years, there has been a proliferation of post-Soviet transition literature, especially surrounding corruption and the development of institutions as states underwent democratic transition. A natural beginning is the foundational work of Ledeneva (2001; 2006; 2008), who examined post-Soviet corruption as a function of ‘Blat,’ noting how the engrained Soviet system of personal and economic connections negatively impacted the effectiveness of social and economic reforms during Russia’s marketization. This is furthered by Stark (1996), Rona-Tas (1997), Frye

(2000; 2002a; 2002b; 2010), and McDermott (2002), who all examine post-Soviet market transitions, noting how corruption hampered economic development by forcing economic agents to operate in the informal economy. All these analyses place firms as crucial economic agents affecting the incidence of corruption, and this paper is no different. More broadly, Hough (1969), Kornai (1992), and Earle and Gehlbach (2003), explore how property rights and bureaucracies functioned in communist states, noting the toll that corruption took on institutional development. Similarly, Linz and Stepan (1996), Bernhard (1993), Gel'man (2010), and Duvanova (2014), all assert that the prioritization of economic over democratic reforms led to weak political institutions, higher corruption, and the degradation of the rule of law.

3 Theory

This section outlines our theory of how international integration shaped corruption in Lithuania. We take a stance consistent with the theory of integration proposed by Sandholtz and Gray (2003), who posit that as a country becomes increasingly integrated internationally, the level of national corruption decreases through both normative and economic mechanisms.

The first and normative mechanism through which international integration decreases corruption is through the “transmission of values and norms [by international society to states]... which delegitimize and stigmatize corruption” (Sandholtz and Gray, 2003). In application, we modify Sandholtz and Gray’s (2003) argument. We theorize that the pressure placed on states to meet the standards and norms of international society as they integrate serves to stigmatize corruption domestically, which then induces domestic anti-corruption reform. In particular, international institutions have “adopted explicit anti-corruption norms,” and then sought to impose these norms onto their member states, such as through conditionality (Sandholtz and Gray, 2003). Thus, we theorize that there exists a complementarity between pressure related to integration and increased domestic anti-corruption reforms. Vitally, if integrative forces are driving domestic corruption reform, we would expect to see temporal variation in the efficacy of anti-corruption efforts as the normative forces of international integration are applied and then withdrawn.

There also exists an economic mechanism associated with international integration which reduces corruption. Sandholtz and Gray (2003) posit that as states integrate with international society, “the costs and benefits of engaging in corrupt acts” are altered, increasing costs and decreas-

ing corruption. We nuance Sandholtz and Gray’s (2003) theory by borrowing from the reasoning behind Bai et al.’s (2013) model of corruption and inter-regional competition.¹ We theorize that international integration has an additional effect, increasing economic growth. Economic growth serves as a positive productivity shock, increasing firm productivity. More productive firms see increased profits, and regional officials compete against one another to attract the most profitable firms. Thus, regional officials decrease the amount of bribes they extract to retain firms in their region. It holds that more firms that are more mobile and can relocate to different regions would see a lower level of bribery. It also follows that industries better prepared to capitalize on increased integration, such as those with high pre-integration export orientation, would see greater profits and less bribe extraction.

In the case of Lithuania, we theorize that as Lithuania became increasingly integrated internationally, these two mechanisms acted together to facilitate the rapid decrease of corruption. Accordingly, the rest of this paper utilizes two simple methodological approaches, outlined in section 4, to test this theory.

4 Methodology and Data

This section outlines the methods employed in this paper, separating them into two overarching categories: a qualitative document and literature analysis to examine how pressure related to international integration increased domestic appetite for large-scale anti-corruption reform, and a quantitative examination that employs a causal identification strategy to test the relationship between economic growth and corruption in Lithuania. Finally, this section will outline the data utilized by this paper, specifying its format and the procedures behind how it was collected.

4.1 Methodology

First, this paper engages in a document and literature analysis to explore the normative mechanisms through which Lithuania’s international integration decreased corruption. This mode of inquiry focuses on the history of corruption in Lithuania, the effectiveness of EU conditionality and other integrative forces in promoting anti-corruption reform, and the changing domestic appetite for reform. To implement such an analysis, this paper relies heavily on academic articles to create a well-

¹See section 6 for an overview of Bai et al.’s (2013) model

evidenced theoretical framework to examine the temporal variation in Lithuanian anti-corruption efforts and policies. This paper also utilizes primary and secondary sources, such as news articles, policy memos, and international reports, to explore the intentions and effects of integration and its relationship with anti-corruption reform. A majority of these sources were collected and translated in person at the Lithuanian State Central Archives in Vilnius, Lithuania. This methodological mode of inquiry is integral to our analysis, as current literature on Lithuanian corruption is often dated, meaning that it struggles to provide a clear story of how corruption norms shifted as Lithuania integrated internationally.

However, document and literature analysis is unsuitable for examining the economic mechanisms through which corruption decreased in Lithuania. Accordingly, this paper deploys a causal identification strategy in the form of an instrumental variable (IV) approach to test the relationship between corruption and Lithuania’s economic growth. Specifically, this paper takes an approach similar to literature deploying Bartik shift-share instruments (Bartik, 1991; Svensson, 2003; Bai et al., 2013; Abras and de Paula Rocha, 2020), utilizing employment as a proxy for firm productivity to estimate how positive shocks decrease corruption. Specifically, this paper’s methodology is predicated on the idea that large-scale productivity shocks, such as those associated with economic growth due to increased international integration, are correlated across different geographical regions. In theory, if economic growth decreases the incidence of corruption in Lithuania, we should observe a negative relationship between firm employment and the commonality of bribe extraction faced by firms. This research design builds off successful micro-level studies on corruption in transitioning states, applying the lessons learned in their analyses to a new, previously unexamined context. The empirical strategy, equation specifications, and assumptions underlying our approach are outlined more comprehensively in Section 6.

4.2 Data

Analyzing the extent of corruption is a difficult task, primarily due to issues of accuracy surrounding the collection of such sensitive information. Accordingly, we rely on the method of measuring corruption widely employed in current literature (Frye, 2000; Ledeneva, 2006; Bai et al., 2013), being corruption perception surveys.

For firm corruption perceptions, this paper employs the Business Environment and Enterprise Performance Survey (BEEPS: <https://www.beeeps-ebrd.com/data/>), a joint project between

the EBRD and the World Bank that surveyed the business environment faced by firms in Eastern Europe and Asia. This project will employ the second to the sixth rounds of BEEPS, spanning approximately 15 years and covering (at minimum) over 11,998 enterprises in 29 countries.² This paper makes use of a random representative subsample of firms in Lithuania (at minimum 250 firms per year), weighted by firm size and sector according to their GDP contribution. The data itself was collected and recorded in time-series cross-sectional format. BEEPS contains basic firm-level information, such as location, industry, employment, firm growth, year of establishment, export orientation, and measures of firm mobility. For firm corruption perceptions, the quantitative section of this paper will use a corruption variable based on the following question: “Thinking about officials, on what level is this statement true, It is common for firms in my line of business to have to pay some irregular additional payments/gifts to get things done?” (BEEPS, 2023). See Section 6 for summary statistics for firms in the BEEPS data.

What makes the BEEPS dataset well suited for our purposes is that it contains modules on firm characteristics and the levels of corruption, influence peddling, and regulation faced by firms. Nevertheless, there is an inherent difficulty in analyzing the extent of corruption through survey data, primarily resulting from the accuracy of respondents’ answers and the obtaining of such sensitive information. To address the challenges surrounding the accuracy of getting information on corruption, the EBRD examined ‘informal practices,’ representing how businesses and individuals engaged in ‘grey’ activities. Specifically, respondents held the position of senior manager and above within the firm to ensure that information about the firm and its operations was as factual as possible. Respondents were asked questions in a personal capacity about widespread forms of corruption and were reassured that the data would be de-identified and aggregated. Furthermore, respondents were assured that answering the survey did not in any way imply that the respondent or their company approved of or condoned corruption. Vitally, the survey methodology employed by BEEPS emulates previously successful examinations of sensitive corruption topics in Russia, Turkey, and Ukraine (Amsden et al., 1994; Ledeneva, 2006).

This paper also sparingly utilizes two additional measures of corruption perceptions. First, for individual corruption perceptions, this paper employs the Life in Transition Survey (LITS: <https://www.ebrd.com/what-we-do/economic-research-and-data/data/lits.html>), another joint project between the EBRD and the World Bank, that surveyed individuals and households in transition

²The second to the sixth BEEPS rounds were conducted in 2002, 2005, 2009, 2014, and 2018 respectively.

states to assess public attitudes, trust in state institutions, well-being, and the impact of economic and political change. This paper employs the first to the third rounds of the LITS, covering a minimum of 29,000 individuals across 29 countries to understand how individual perceptions also changed.³ This paper similarly makes use of a random representative subsample of households in Lithuania (at minimum 1000 households), weighted across regions and urban/rural divisions. Respondents were always the head of the household, there could only be up to two respondents per household, and double sampling of households was minimized as much as possible (LITS, 2023).

Second, this paper utilizes Transparency International’s Corruption Perceptions Index (CPI: <https://www.transparency.org/en/cpi/>) as an aggregate national measure of corruption. This composite indicator “ranks nations annually according to their perceived levels of corruption in the public sector” (TI, 2023). Specifically, the CPI is created annually using “numerous distinct surveys of primarily business people and risk analysts who are close enough to actual incidences of corruption and who can adequately recognize corruption when they see or experience it” (Wilhem, 2002). The CPI is widely considered by current literature to be the most comprehensive measure of corruption at both a domestic level and a comparative international level (Wilhem, 2002; Louis, 2007; Iloie, 2015; Baumann, 2019). Thus, the CPI is well suited for our purposes in examining Lithuania’s changing relationship with corruption at a national level over time.

Finally, this paper employs variety of smaller non-survey based data sources. To examine macro-level industry exports and GDP growth, this paper uses publicly available economic data from the Lithuanian Ministry of Statistics (<https://www.lb.lt/en/external-statistics-2>). To examine Lithuanian trade, this paper will employ publicly available data from the European Council on international tariffs, trade, and goods found at (<https://ec.europa.eu/eurostat/web/international-trade-in-goods/>). Valuably, both of these data sources have been extensively utilized within current literature on the political economy of transitions, and their accuracy is easily verifiable using UN trade statistics (<https://comtradeplus.un.org>). Finally, this paper supplements its assertions using corruption case and prosecution rates, sourced from with the Lithuanian Ministry of Statistics publishing annual prosecution data found here (<https://ird.lt/en/indicators/family.NU>).

³The first to the third LITS rounds were conducted in 2006, 2010, and 2016 respectively.

5 The Normative Role of International Integration

Lithuania’s fight against corruption, beyond a static process, has been marked by a remarkable level of dynamism. It serves as a testament to how the momentum for reform is created and how institutions and legal structures can evolve, but also how without proper maintenance, this momentum can be lost, and a culture of corruption can creep back in. Accordingly, this section will argue that periods of anti-corruption reform were closely linked to the aspirations for deeper EU integration, meaning that when integrative pressure increased so too did the stigmatization of corruption domestically. Specifically, this section posits that there have been three key periods in Lithuania’s anti-corruption journey, demarcated by the beginning and ending of three of Lithuania’s National Agendas on the Prevention of Corruption (*Nacionalinė Kovos su Korupcija Programa*, hereby, NAPC). The NAPCs of 2002-07, 2009-10, and 2011-14, were government programs aimed at reducing corruption and increasing transparency in the public and private sectors. We argue that the three NAPCs were closely linked to the aspirations for deeper EU integration, with the implementation of anti-corruption measures stemming from heightened integration efforts playing a pivotal role in influencing normative changes that decreased the incidence of corruption in Lithuania.

5.1 Conditionality and Early Anti-Corruption Efforts

From its inception, the EU, as a supra-national economic and political union, has advocated for the “rule of law, freedom, equality before the law democracy, and increased economic, social and territorial cohesion across EU nations” (EU, 2023a) For the EU, these values serve as the cultural foundations of a Europe that “promotes peace, its values and the well-being of its citizens, whilst offering freedom, security and justice” (ibid.). Thus, it comes as no surprise that corruption is viewed as everything dichotomous with EU values, serving to “erode citizens’ trust in public institutions, and undermine democracy and social justice” (EC, 2023). Accordingly, as part of its promotion of democratization internationally, the EU has historically sought to decrease the level of corruption in member and potential member states through a process called ‘conditionality.’ In essence, conditionality can be seen as a means through which the EU exerts ‘soft power,’ utilizing its economic, cultural, and social influence “to encourage reforms in candidate countries in exchange for some rewards related to countries’ progress on the path to the EU accession” (Vidačak, 2022).

More explicitly, prior to accession, the EU requires candidate states to adopt and implement

the *acquis communautaire*, the cumulative body of EU law, including laws on combatting corruption. Such mechanisms work due to the substantial positive pay-offs associated with accession to the EU, especially for developing or transitioning states. Through accession, states gain access to the European Single Market, the largest trade block in the world, as well as large structural adjustment funds and increased foreign investment. Thus, the EU capitalizes on the benefits of European integration to push for domestic reforms related to institutional quality, rule of law, and anti-corruption measures. This ‘anticipation effect’ surrounding EU accession has been identified as one of the most potent means of mass institutional reforms in the past 30 years. As Vachudova (2009) notes, before its 2004 enlargement, the “EU effectively required candidate states to implement the *acquis*, with an emphasis on the performance of state institutions and economic actors.” Thus, through the mechanism of conditionality, the prevailing norms present within candidate countries were ‘brought in line’ with Western European ‘standards.’

Early anti-corruption efforts occurred in Lithuania in the context of EU conditionality and the large anticipatory institutional reforms that were undertaken in the lead-up to EU accession. Specifically, corruption in Lithuania largely existed as an endemic sub-national phenomenon, centralized within public bureaucracies and within regional administrators and local officials. Thus, following independence Lithuania began the slow process of addressing corruption sub-nationally. As Gainer (2015) rightly asserts, “the nation had strong external incentives to do so: combating corruption was essential to the country’s bids for membership in the EU and NATO.” In particular, as early as 1995, the European Council (EC), which oversaw accession to the EU, deemed that if Lithuania were to accede, it must first take measures to decrease their level of corruption. As Povilas Malakauskas, then Vice Minister of Defence recalled, in 1995 in no uncertain terms “NATO and the EU explicitly asked us to increase our efforts to fight corruption” (Kuris, 2012). In this regard, from the beginning, anti-corruption activity in Lithuania was viewed internationally as “a clear-cut indicator of the willingness and ability of the state [to join the EU]... and as a sign of the seriousness of democratic reform” (Dobryninas, 2005).

Thus, Lithuania embarked on a slow anti-corruption process designed, at least in part, to appease the EC. The *Seimas* (the Lithuanian Parliament), began by agreeing to join the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. Lithuania did not sign the convention until 2017, demonstrating how low corruption was on the policy agenda (LRT, 2022). However, some institutional reform did occur, with the two largest

being the 1996 Act on Drafting Laws, which forced regulations to be assessed in terms of their effect on corruption, and the 1997 Act on Public and Private Interests in the Public Service, which required government officials to declare conflicts of interest. More broadly, mirroring the successes of independent investigative organizations in the West, in 1997, the *Seimas* passed legislation to establish the Special Investigation Service (*Specialioji Tyrimų Tarnyba*, or STT) as an independent enforcement agency. The STT received a broad anti-corruption mandate to “fight against organised crime, corruption and offence in the public service” (STT, 2020). However, these reforms fell short of decreasing the incidence of corruption, as well as convincing the EC, which began to increasingly highlight such failures in its Regular Reports in 1998, 1999, and 2000 (CEC, 1998; 1999; 2000).

5.2 The First NAPC (2002 - 2007)

“If international organizations say that something is wrong, we want to do everything right, in any way, just to please the international organization. We have perhaps it in-born that our own boss is not a good boss but a foreign boss is good.”

(Koncevičiūtė, 2016)

The first NAPC from 2002 to 2007 represented Lithuania’s first concerted anti-corruption effort, reflecting the influence that international integration, especially with the EU, could exert on norm development in potential member states. In many ways, the first NAPC encapsulated the view that “our own boss is not a good boss but a foreign boss is good” (Koncevičiūtė, 2016), representing a period where anti-corruption efforts were directly related to a domestic desire to integrate with the EU. Once integrative pressure resided, so too did the desire to shift norms through continued anti-corruption efforts. Specifically, in 2002, following a poor review in the 2000 EC Regular Report that highlighted Lithuania’s continued struggles with corruption, the *Seimas* sought to emulate the successes of other transitioning states, and implement a consistent national anti-corruption strategy. Accordingly, in May 2002, the *Seimas* passed Law (No. IX-904), creating the first National Agenda on the Prevention of Corruption, establishing “the main principles, goals and tasks of corruption prevention in the public and the private sector” (Law on Prevention of Corruption, 2002).

The first NAPC sought to combine proactive public policy, with a large expansion in enforcement and punishment mechanisms, with the long-term goal of creating “public intolerance toward corruption and promoting a new national mind-set that would influence all areas of Lithuanian life”

(Gainer, 2015). Specifically, the STT was given institutional independence from the government, its own budget, and an expanded mandate to prosecute public sector corruption. Simultaneously, the NAPC mandated the development of state and municipal anti-corruption programs within institutions, streamlined Lithuania’s dated tax system, and implemented more stringent background checks for public officials. However, unlike previous anti-corruption efforts, the first NAPC sought to combine increased enforcement with anti-corruption public education in high schools, explicitly designed to stigmatize and “build public intolerance toward corruption” (Gainer, 2015). To do so, the STT partnered with the Modern Didactics Center (MDC) to create a new anti-corruption curriculum, a plan heralded by Transparency International and other critics as a turning point in Lithuania’s anti-corruption journey (Poisson, 2003).

Yet, from its inception, the first NAPC was also designed to please the EU by demonstrating Lithuania’s willingness to enact institutional reforms. The founding NAPC document explicitly recognizes EU accession as a motivating factor, noting how the NAPC would advance “the fight against corruption... against the backdrop of Lithuania joining the EU” (*Nacionalinė Kovos su Korupcija Programa*, 2002). Markedly, the document also underscores how the program will meet EC criteria, noting how the EC has “highlighted the importance of developing and implementing the Programme” (ibid.). In this regard, the first NAPC was designed to meet EU accession requirements, a fact reflected by the timeframe for the implementation of anti-corruption reforms. The development of a new anti-corruption school curriculum was finished in 2003, ready for deployment just before the decision on EU accession. Similarly, new background checks for public officials were implemented before the last EC regular report on Lithuania’s meeting of accession criteria. Thus, the framing and timeline of the first NAPC indicate that initial anti-corruption efforts in Lithuania were directly related to the desire to appease the EC and meet political accession criteria.

Lithuania’s formal entry into the EU and NATO in 2004 removed the main driving force behind anti-corruption initiatives under the first NAPC, even though corruption was still identified as a significant issue.⁴ As Papakostas (2012) correctly asserts, “the fight against corruption, was a reference for EU’s exercise of normative power... [meaning that] corruption-related challenges were re-aroused after EU pressure on candidate states was lifted.” Following EU accession, the NAPC became hampered by a failure of the *Seimas* to earmark anti-corruption funds. This led to

⁴Notably, the last EC pre-accession monitoring report in 2003 expressed significant concern about corruption levels, noting how Lithuania must “take action” if it were ever to “tackle its systematic corruption problems” (EC Comprehensive Monitoring Report, 2003).

a situation where enforcement was prioritized over normative reforms, seen most explicitly in the scaling back of the school curriculum designed to stigmatize corruption. Specifically, after joining the EU, the Ministry of Education “wanted no major role in developing the education program,” and was instead more focused on “plans for integration into the EU” (Kuris, 2012). Thus, the program was implemented in an experimental capacity in a small number of schools, limiting any potential normative impact. Notably, the overextension of resources and lack of funding was reflected in the decrease of Lithuania’s Transparency International CPI rank in 2004, as seen in Figure (1).

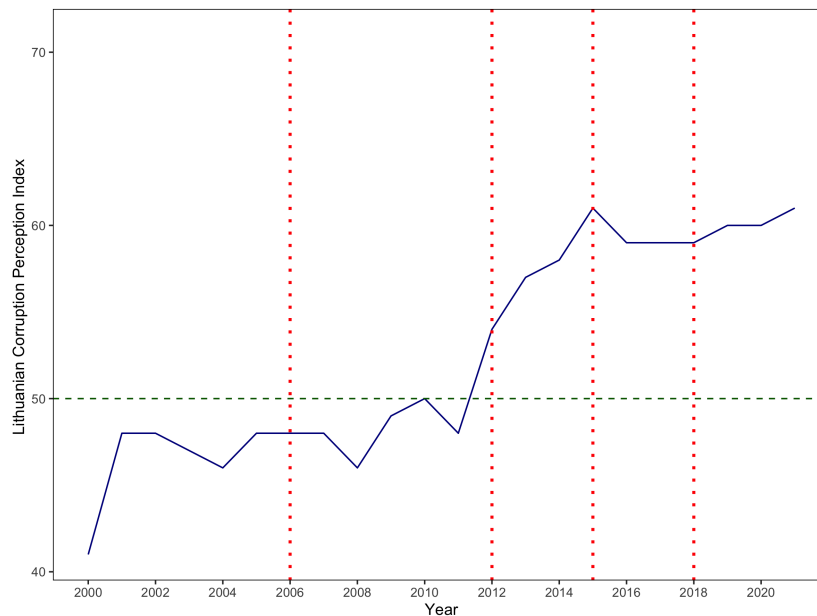
The results of this decreased desire to continue anti-corruption efforts were seen in both 2005 and 2006, which saw an increasing number of indictments for bribery and graft (see Table 7) and several high-profile corruption scandals. In late 2004, three MPs were found to have taken bribes from the Rubicon Group, one of Lithuania’s largest energy conglomerates. Less than a year later, Vilnius Mayor Arturas Zuokas, one of Lithuania’s most high-profile political figures, was also found to have taken bribes from the Rubicon Group (Baltic Times, 2005). Barely six months later, in early 2006, two of President Adamkus’ senior advisors resigned following allegations of bribery (Velykis, 2010). Such high-profile corruption cases pushed attention away from policies aimed at prevention and towards policies aimed at enforcement and punishment. However, “invoking the authority of law enforcement without triggering memories of the Soviet Union’s oppressive secret police” served to be an increasingly impossible task, propagating discontent with the government’s corruption approach (Kuris, 2012). As Transparency International’s Sergejus Muravjovas noted, “you can’t expect anti-corruption [policy] to create long-term impact without buy-in from others around” (Kuris, 2012).

With no integrative force or international organizations to please, by 2007, the proactive aspects of the first NAPC were all but abandoned, as evidenced by an increase in cynicism surrounding anti-corruption efforts. In a 2007 interview, Norwegian Political Scientist Sven Arne Lie empathized with citizens’ discontent surrounding Lithuania’s failing anti-corruption efforts, noting, “your politicians have little clue of what democracy is about... the political system is corrupt... it is Lithuania’s misfortune that people’s opinion has no influence over politicians’ decisions” (Klusas, 2007). This cynicism was reinforced when the Leo LT scandal broke in late 2007. Leo LT was the majority state-owned energy supplier created as part of a public-private partnership. NJX Energija was selected as the state’s private partner in Leo LT and allegedly engaged in large-scale bribery to get the Leo LT contract. For many, the Leo LT represented the epitome of government corruption, with the then President of Lithuania, Dalia Grybauskaite, stating that “the LEO LT deal... singlehandedly

led Lithuania to oligarchy” (Grybauskaitė, 2009). As Velykis (2010) notes, “by 2008, almost all the major Lithuanian political parties had been associated with corruption.”

Thus, the first NAPC was analogous to the notion “that our own boss is not a good boss but a foreign boss is good” (Koncvičiūtė, 2016). Initial anti-corruption efforts succeeded due to the integrative pressure placed on Lithuania to limit corruption through EU conditionality and political accession requirements. However, as the pressure to introduce reforms subsided, so too did the domestic desire to take an active stance in combating corruption, and thus, corruption ‘crept back in.’ As Gainer (2015) rightly asserts, even if the first NAPC had pushed people to be “increasingly inclined to resist corruption, widespread and lasting change required [new] changes in the broader environment.” Following successive high-profile corruption cases, this view became increasingly held by members of the public and, in turn, Ministers in the *Seimas*. Thus, beginning in 2009, the *Seimas* began the slow process of drafting a new period of institutional, normative, and legal reforms in what would become the second NAPC.

Figure 1: Lithuania’s TI CPI Rank (2000 - 2020)



Note: A higher CPI score is better, with the green line representing the minimum passing score of 50. Authors own interpretation of data sourced from Transparency International (2023).

5.3 The Second NAPC (2009 - 2010)

"What they say they say publicly, and that's very important. Let's be realistic. Lithuania is a member of the EU and NATO. We cannot be in those organisations with widespread corruption or some bad practices." (Koncevičiūtė, 2016)

The second NAPC from 2009 to 2010 represented a new style of anti-corruption effort; one focused on developing and implementing legal reform to create parity between Lithuania and the EU. Such a period reflected norm development at the most basic institutional level, focused on creating the legal foundations upon which more comprehensive future reforms could build. Yet, far from existing in a vacuum, these reforms reflected an increasingly futile attempt to change perceptions about corruption in Lithuania as international criticism mounted. Aleknevičienė (2013) rightly coins the period as Lithuania's "desperate stage," noting how the environment devolved into a situation where "nothing work[ed] while the relevance of the corruption problem continued to grow." In this environment, grievances about corruption were aired publicly, increasing the desire to combat it. However, similar to the first NAPC, the second NAPC struggled to meaningfully decrease the incidence of corruption, largely due to the process of 'slowbalization' following the 2008 Global Financial Crisis (GFC), which removed any large international integrative force that domestic anti-corruption efforts could rally behind.

The Baltic states were particularly hard hit by the GFC, with Lithuania undergoing a significant economic contraction. Driven by simultaneous reductions in export and domestic demand, in 2009, GDP fell by 14.8%, and industrial production dropped 14.6% (Kattel and Raudla, 2013). The recession was coupled with 'slowbalization,' characterized by a "prolonged slowdown in the pace of trade, and weakening political support for globalization and integration" (Aiyar and Ilyina, 2023). In such an environment, and with the Greek Debt Crisis mounting, the EU began examining the institutional and economic stability of its member states, assessing, amongst other factors, the level of corruption in Lithuania. Increased international concern was piqued following the release of Transparency International's 2009 Global Corruption Barometer, in which Lithuania was placed in the same category as Iraq, Senegal, Venezuela, and Azerbaijan. In particular, while only on average 5% of Europeans admitted to having engaged in petty bribery, in Lithuania, 30% admitted to it, with the next closest being Greece at 18% (Global Corruption Barometer, 2009). As domestic commentators noted, the report showed the "gap between the public's expectations and the actual

results of the governments anti-corruption efforts” (Urbonas, 2009).

Following the scathing corruption barometer report, Prime Minister Andrius Kubilius created a working group to examine and present recommendations for how corruption could be targeted and combatted (Aleksnevičienė, 2013). That same year, the 15th Government highlighted that anti-corruption efforts were a major priority. In this environment, the second NAPC was introduced in early 2009. Initially, the second NAPC focused on easy reforms designed to appease critics while doing little to affect the incidence of corruption. Specifically, the second NAPC introduced measures of success that future anti-corruption legislation would be examined upon, creating criteria through which to evaluate the impact of new policies by employing the results of international corruption perception surveys. Simultaneously, the revised NAPC included a renewed focus on legislative transparency in the *Seimas* and provided more training for resisting corruption in public bureaucracies and law enforcement. By focusing on transparency and resistance, the new NAPC sought to foster public support in government institutions and limit behind-closed-doors dealings, especially in state asset auctions.

It was not until 2010, when the Council of Europe’s Group of States against Corruption (GRECO) released a report on the high incidence of corruption in Lithuania, that the second NAPC began to focus more on combatting corruption through increased enforcement. Specifically, the GRECO report in 2010 offered a scathing review of Lithuanian anti-corruption efforts, noting that Lithuania must “lower the level of proof required to convict a person for corruption and [provide] more clarity in supervision of party financing,” if it were to meet current EU standards (GRECO, 2010). Following the report, Transparency International CEO to Europe and Central Asia asserted that “Lithuania still has a long way to go before it is able to adopt an environment that would be tough on corruption” while noting how the current “environment is largely favourable for corruption” (The Baltic Times, 2010). Vitally, the heavy media coverage of the GRECO report, alongside Transparency International’s comments, increased pressure on the *Seimas* to implement more significant reform. Thus, as Aleksnevičienė (2013) notes, in Parliament’s 2010 autumn session, “the fight against corruption was identified as a [key] priority, with eleven legislative drafts regarding the reduction of corruption drawn into the earliest stages of the parliamentary program.”

In particular, in the 2010 autumn session, the *Seimas* passed Article 95, which lengthened the statute of limitations on bribery cases to up to 30 years, thereby closing a significant gap that was heavily affecting the ability of prosecutors to indict individuals on corruption charges (STT, 2011).

This was supplemented by the passing of an additional amendment to the Lithuanian Criminal Code (No. 113-5742) that sought to speed up the pre-trial investigation process. In late 2010 the *Seimas* passed Law (No. XI- 1199), which introduced the crime of illicit enrichment to combat individuals who could not prove their source of wealth while extending the limit of asset impounding for those suspected of organized crime or corruption (ibid.). On the same day, the *Seimas* also passed Law (No. XI-1200), which introduced partial anonymity, ensuring the anonymity of witnesses in corruption cases and serving to prevent mistrials (ibid.). Finally, provincial administrators, historically a key source of regional corruption, were abolished with their functions revised and divided between the national and municipal governments. Notably, such reforms helped to raise Lithuania’s CPI rank to a passing grade for the first time ever in 2010, as seen in Figure (1).

The swift passing of legal reforms reflected norm development at the most basic institutional level. However, the burgeoning Eurozone crisis limited the implementation of more complex and substantial normative reforms. Soon after the initial reforms of 2009, the Lithuanian Government was forced to impose significant austerity measures, cutting budgets, especially for the STT, which led to a “curtailing of preventive and educational activities... and an exodus of experienced investigators, which weakened the agency” (Kuris, 2012). In late 2010, the STT estimated that approximately “80% of schools had implemented some form of anti-corruption education.” However, that figure was “overly inflated” and did not reflect the inconsistent education “across different school districts and regions” (ibid.). Furthermore, the lack of any specific goal, aside from appeasing the EU, meant that reforms took on a more ‘performative’ function again, playing into a “law and order narrative” without substantively changing individual perceptions (Juska and Woolfson, 2012). In this regard, it is unsurprising that the second NAPC had little effect on corruption incidence, as exhibited by the decrease of Lithuania’s CPI in 2011 in Figure (1).

Thus, legal reform without more proactive changes in the incentives surrounding corruption meant that the second NAPC failed to meaningfully decrease the incidence of corruption. Thus, in many ways, the anti-corruption efforts between 2009 and 2010 were analogous to the belief that “we cannot be in those organisations with widespread corruption or some bad practices” (Koncevičiūtė, 2016). Following international criticism, reforms took on a more performative role, engaging in a desperate “fight” against “insurmountable” corruption that focused more on increasing enforcement than changing the norms surrounding corruption (Aleksnevičienė, 2013). Despite initial strides in implementing anti-corruption education, the lack of funding and widespread normative reforms

meant that the penetration of anti-corruption values varied significantly. Furthermore, without any international integrative force through which “social integration and the transmission of values and norms” could occur, the incidence of corruption remained high (Sandholtz and Gray, 2003). However, starting in 2011, the prospect of increased integration with the EU in the form of the adoption of the Euro began to slowly increase domestic appetite for large-scale anti-corruption reform, eventually leading to one of the most successful corruption reductions in Lithuanian history in the form of the third NAPC.

5.4 The Third NAPC (2011 - 2014)

“There are more obstacles for persons inclined towards corruption. There are new people with a new strategy. Particularly over the recent five years... there’s been major attention paid to the prevention of corruption.” (Koncėvičiūtė, 2016)

The third NAPC from 2011 to 2014 stands out from its predecessors due to its remarkable success in decreasing the incidence of corruption, reflecting the influence that international integration, in the form of Euro adoption, exerted on norm development in Lithuania. Specifically, following its accession to the EU in 2004, Lithuania became one of the fastest-converging countries in the EU in terms of GDP per capita (Vilpišauskas, 2019). However, in 2007, Lithuania was denied permission to adopt the Euro by the EC and European Central Bank (ECB) on the basis that its inflation rate was too high, as well as concerns surrounding Lithuania’s large informal economy. In early 2011 a renewed domestic effort emerged for Lithuania to adopt the Euro by the 1st of January 2015. Simultaneously, the possibility of adopting the Euro fostered a normative push, compelling the government to prioritize anti-corruption activities and implement a multi-pronged legal and educational campaign to delegitimize and stigmatize corruption domestically. By 2014, the incidence of corruption had decreased dramatically, with Koncėvičiūtė (2016) noting that “a new strategy” shifted the environment so that there were “more obstacles for persons inclined towards corruption.”

In 2011 corruption became increasingly discussed as a prerequisite for further integration with the EU, signaling a new phase in Lithuania’s anti-corruption history in which Lithuania’s adoption of the Euro was conditioned on the successful decrease of corruption. In several interviews in early 2011, the President of Lithuania, Dalia Grybauskaitė, asserted that “corruption was spreading like

cancer” and that Lithuanians were unaware of the extent of, or fight against, corruption (Černiauskas, 2011). In another 2011 speech, Grybauskaitė would state that corruption was “the most deep-rooted and most difficult to cure of our ills” (Aleksnevičienė, 2013). Later, Grybauskaitė would also assert that if Lithuania was to fully integrate with the EU, the activities of “bribe-giving, misconduct in office, and corrupt activities” would have to be abandoned (ibid.). Soon after, Prime Minister Andrius Kubilius argued that what is most important “is meeting the conditions to adopt [the Euro] by 2014”, following new fiscal reforms and a decrease in the size of the informal economy (Adomaitis, 2011). This discussion of corruption and Euro adoption together is notable, indicating that a domestic desire to implement anti-corruption reform was connected to a desire to meet Euro adoption requirements.

Accordingly, in mid-2011, the *Seimas* passed the third and most comprehensive NAPC, designed from the outset to address the failures of the first and second NAPCs. Specifically, the third NAPC sought to disincentivize corruption in two main ways: the elimination of normative conditions that enable corruption and the enforcement of penalties in cases of identified corruption. Later that year, the *Seimas* passed an amendment (XI-1472) that significantly expanded the definition of bribery so that bribery now comprised both pecuniary and non-pecuniary forms (UNCSO, 2011). In doing so, the *Seimas* significantly expanded the prosecutorial toolkit to involve non-monetary bribes, thereby increasing the number of charges and the severity of punishments that could be levied against corrupt individuals. The *Seimas* paired this change in law with new normative policies, such as introducing a rotation system for police personnel and limited terms for police officers, both of which made it harder for police to solicit bribes. This was supplemented by new anti-corruption education and prevention policies in public bureaucracies, implemented to “change the attitudes and actions of a generation” (Gainer, 2015).

In line with the overarching goal of greater international integration, the rhetoric surrounding the adoption of the Euro and decreasing corruption would persist throughout 2012. Specifically, in early 2012 Lithuanian PM Algirdas Butkevicius noted publicly that “Lithuania needed to adopt the euro to stay competitive,” and the “country’s political elite was united behind a plan to join in 2015.” (Lannin, 2012). Just prior to his speech, the *Seimas* passed a number of new bills that funded the development of a new anti-corruption curriculum focused on stigmatizing fraudulent practices and educating students in universities and high schools. Valuably, this effort would lead to a remarkable reduction in corruption within Lithuanian universities (Gainer, 2015). The convergence

of anti-corruption efforts and a desire to pursue further integration reflected a strategic approach to create an environment worthy of Euro adoption by decreasing the size of Lithuania’s informal economy. Yet, it should be noted that it was not until 2014 that the ECB publicly admitted that a decrease in corruption was a ‘requisite’ to Lithuania’s adoption of the Euro (Bloomberg, 2014). Thus, the marked difference between the third NAPC and previous anti-corruption efforts was that both domestic and international anti-corruption rhetoric drove policy advances.

In 2013, Lithuania became the first Baltic state to be granted EU presidency; however, the term of Lithuania’s presidency would be marred by increased domestic scrutiny of anti-corruption efforts and Euro adoption, prompting an even greater focus on reform. Specifically, in August, it came to light that “of some 46 public contracts for work connected to Lithuania’s presidency of the EU, 20 of them were handed to companies without open competition” (100 Reporters, 2013). That same month, opposition MEP Valdemar Tomasevski argued that Lithuania should avoid adopting the Euro as they may become hostages of the Eurozone and suffer from higher prices and a reduction in living standards (15min, 2013). Fearing a loss of public support, several significant anti-corruption reforms were drafted and passed with increasing speed by the *Seimas* majority. By late-2013, 41 anti-corruption measures had “been fully realized, with 34 still being implemented,” representing the largest period of anti-corruption reform in the nation’s history (STT, 2013). These reforms centralized oversight of permits, took control away from corruption-prone localities, and mandated the creation of anti-corruption commissions in every Lithuanian municipality. Notably, these policies had a significant positive effect, with Transparency International highlighting them as a reason for Lithuania’s CPI score increasing from 48 in 2011 to 57 in 2013, as seen in Figure (1).

Reforms continued into 2014, with the *Seimas* passing new anti-corruption education and reporting measures, with a focus on delegitimizing corruption within government institutions. Specifically, links were added to the websites of government ministries, municipalities, and other state institutions, providing STT hotlines and contact details to hasten reporting (ibid.). A new law (No. XII-871) further required state and municipal agencies to publish identified cases of misconduct on their websites. This was paired with more normative measures, such as a new training program to help civil servants recognize potential conflicts of interest and declare them through the correct channels. Vitally, all these reforms were linked by their normative focus on incentivizing individuals to resist corruption and were all completed in early 2014 before the impending EC and ECB decision on Lithuania’s Euro adoption (Gainer, 2015). In June, both the EC and ECB deemed Lithuania ready

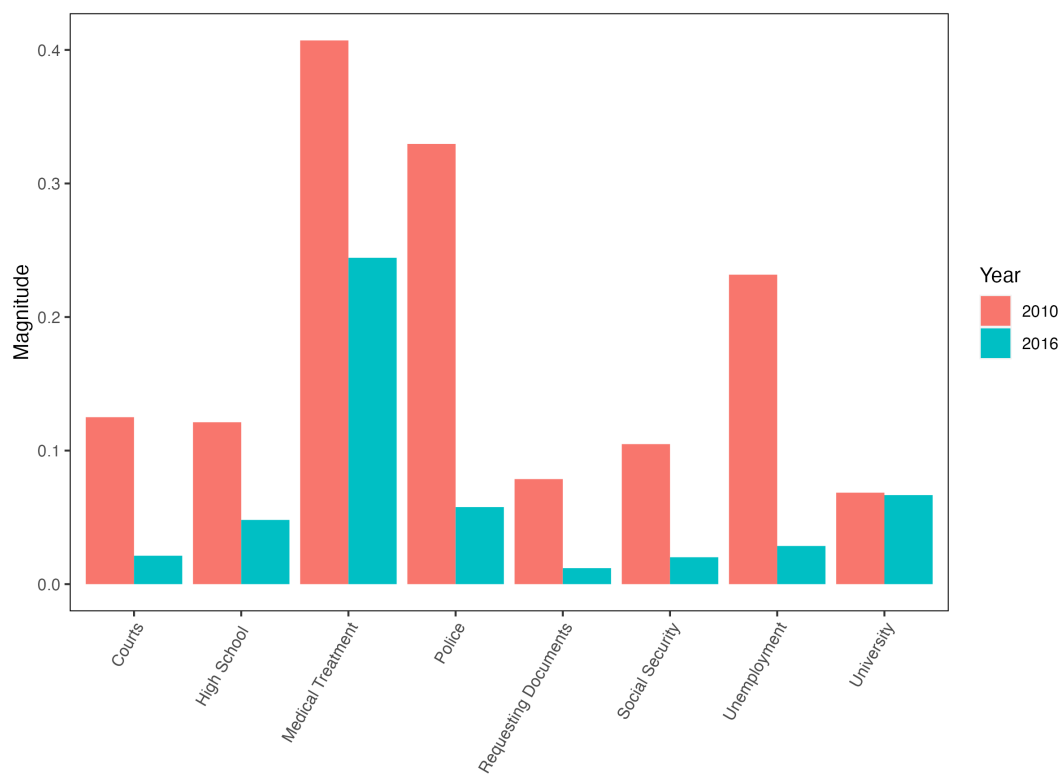
to adopt the Euro, with the ECB noting Lithuania’s performance in fighting corruption (Bloomberg, 2014). By the time Lithuania officially adopted the Euro on the 1st of January 2015, the nation’s CPI score had risen to 61.

In this regard, the third NAPC serves as evidence that anti-corruption efforts were directly related to desires to further integrate with the EU, and as evidence that anti-corruption policies induced a shift in the norms surrounding corruption. Large reforms were undertaken as pressure to meet international standards increased. Notably, as Figure (2) demonstrates, following the implementation of the third NAPC, the level of bribery faced by Lithuanians decreased dramatically. This change is also reflected in public sentiment surrounding corruption, with Koncevičiūtė (2016) noting that “over the recent five years... there’s been major attention paid to the prevention of corruption.” As Beyaert et al. (2023) rightly postulate, the possibility of the “adoption of the euro served to significantly reduce the level of corruption compared to the case in which the country had not adopted the euro.” Vitally, the success of the third NAPC is reflected by the fact that, unlike previous NAPCs, once integrative pressure surrounding Euro adoption resided, the normative reforms undertaken prevented corruption from permeating back into the environment, as evidenced by the plateau in Lithuania’s CPI rank seen in Figure (1) after 2015.

5.5 Concluding Remarks

This section has taken a perspective consistent with Sandholtz and Gray (2003) and argued that as Lithuania became increasingly internationally integrated, specifically with the EU, the prevailing norms of international society stigmatized corruption and induced domestic reform. In particular, we argue that the first three Lithuanian National Agendas on the Prevention of Corruption (NAPCs) demarcate not only different approaches to addressing corruption but also differing degrees of international integration which served to lower levels of corruption domestically. It began with a domestic desire to integrate with the EU, which led to an increased anti-corruption effort driven by EU conditionality in the lead-up to Lithuania’s accession in 2004. However, following the removal of the EU and other international integration forces as an incentive to reduce corruption, progress stagnated, and the incidence of corruption increased. Finally, at the turn of the decade, international integration in the form of Euro adoption requirements increased domestic appetite for large-scale anti-corruption reform. Therefore, it can be concluded that the three NAPCs were closely linked to the aspirations for deeper EU integration, with the implementation of anti-corruption measures

Figure 2: Change in Means: “Did you or your household member bribe in the last 12 months?”



Note: Plots change in means for a dichotomous variable created using the question "Did you or your household member bribe in the last 12 months?" where (=1) is yes and (=0) if not. All variables are calculated using LITS I-III survey data.

stemming from heightened integration efforts playing a pivotal role in influencing normative changes that decreased the incidence of corruption in Lithuania.

6 The Economic Role of International Integration

Lithuania's post-Soviet transition marked a critical turning point for the nation as it embarked on an ambitious journey of both political and economic transformation. Starting in 1991, Lithuania initiated a series of rapid reforms, transitioning from a Soviet-style economy dominated by state-run enterprises to a dynamic market economy. By 2000, Lithuania had, for all intents and purposes, marketized, displaying all the tenets of a small, developing European nation. The previous section of this paper argued that as Lithuania's international integration increased, the influence of international norms began to stigmatize corruption which then prompted domestic reform. This section proposes that international integration also had an additional effect, increasing economic growth, which then decreased corruption. Accordingly, the first half of this section examines Lithuania's economic growth before modifying Bai et al.'s (2013) firm-based model of corruption. The second half of this section applies this model to Lithuania, arguing that increased economic integration created a positive shock to aggregate productivity in the form of increased employment, which then decreased the commonality of bribe extraction. Furthermore, we provide evidence that the magnitude of this reduction in bribe extraction was greater for more mobile firms and industries that were better prepared to capitalize on the gains of increased integration.

6.1 History of Lithuania's Economic Integration

The economic growth caused by Lithuania's international integration positions the nation as a distinctive case through which we can test the relationship between growth and corruption. Yet, before we do so, understanding the history and context of Lithuania's development is crucial. This subsection will briefly examine the history of Lithuania's economic integration, paying attention to how integration drove growth, productivity, and firm profits, which then forms the basis for our research design.

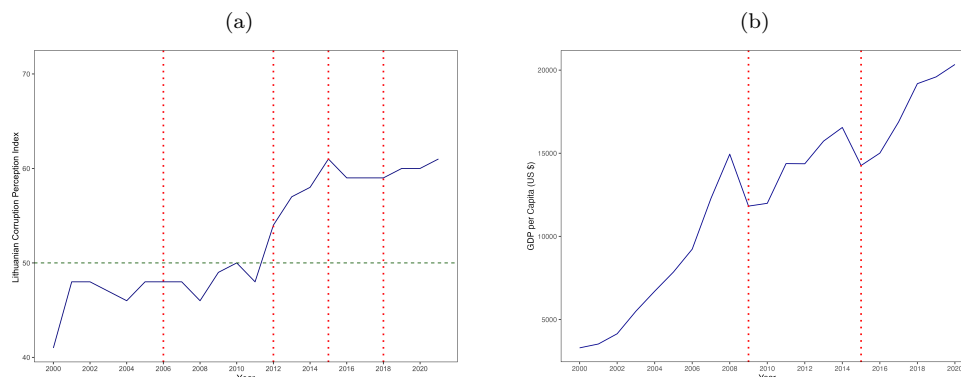
Following its independence in 1990, Lithuania embarked on what would become its first transition stage, introducing market reforms aimed at liberalizing prices, privatizing enterprises, enhancing the quality of goods and services, and transitioning the economy from primarily tradable to

non-tradable goods (Dobravolskas and Černiauskas, 2011). In 1992, a new national currency was introduced, the Litas, and the recently empowered Lithuanian Central Bank was given a mandate to curb inflation and unemployment (Meyers et al., 1999). As Lithuania anticipated its accession to the EU in the late 1990s, it entered a second transition stage, dismantling the last remnants of central planning, opening up to FDI, and establishing market-friendly institutions aligned with EU standards. During this period, bureaucratic oversight decreased, and market-oriented governance was expanded through new ministerial mandates (Samonis, 1990; 1991; 1993). In the early 2000s, the privatization of state-owned financial and industrial firms was finalized, and large infrastructure investments were successively introduced to ensure a smooth accession process with the EU.

Lithuania's accession to the EU in 2004 represented a significant milestone in its economic trajectory, bringing with it all the benefits of being in the largest global trade bloc and propelling the nation into its third transition stage. EU membership stimulated growth in Lithuania's internal market, driven by heightened domestic and international demand for goods and services and the free movement of labor, goods, services, and capital. EU accession provided Lithuanian firms with access to a market of over 450 million consumers while bolstering business confidence, all of which led to a notable inflow of foreign direct investment (FDI). Pegging its currency to the Euro further solidified Lithuania's economic position while gaining access to European Structural and Cohesion Funds facilitated domestic market development. As a result, Lithuania recorded an impressive average annual growth rate of approximately 4.1 percent since 2000, positioning it among the fastest-growing countries in the EU (Statistics Lithuania, 2023a). This extraordinary growth over a short period meant that firms and industries well-prepared to take advantage of increased economic activity reaped significant gains.

Within this, the role of exports in Lithuania's economic growth cannot be overstated. EU membership swiftly increased Lithuania's international orientation, with foreign trade-to-GDP ratios often exceeding 100% from 2004 to 2010 (Statistics Lithuania, 2023b). In particular, well-capitalized sought to take advantage of the EU market, triggering a remarkable export surge, with exports accounting for an average of 57% of its national GDP between 1990 and 2020 (Gylfason and Hochreiter, 2022). Notably, export growth allowed domestic industries to achieve economies of scale previously impossible due to the limited domestic market size while facilitating rapid improvements in living conditions and GDP per capita (Sabonienė, 2009; Zacharevič and Dzemyda, 2015). Lithuania's adoption of the Euro in 2015 only increased the nation's export orientation by reducing transaction

Figure 3: Lithuania's TI CPI Rank (2000 - 2020) and GDP Per Capita (US \$) (2000 - 2020)



Note: A higher CPI score is better, with the green line representing the minimum passing score of 50. Authors own interpretation of data sourced from Transparency International (2023) and Statistics Lithuania (2023).

costs. Specifically, following Euro adoption, a dramatic export boom occurred, with exports almost doubling between 2015 and 2021, from 28.50 to 53.48 billion USD. Notably, exports drove profit at a firm level, with export income amounting to approximately 68% of the combined total revenue of Lithuania's top 10 largest firms in 2020, with some firms as high as 82% (Bloomberg, 2020).

It is no surprise then that between 2000 and 2020, Lithuania saw the largest expansion in private activity in its history. As of 1 January 2020, there were 107,444 private firms in Lithuania operating across multiple sectors, from wholesale and retail trade to manufacturing, IT, and financial services (Statistics Lithuania, 2020c). In this regard, it is no surprise that Lithuania's economic growth has been consistently attributed to its continued international economic integration with Europe (Gylfason and Hochreister, 2022). As this paper has previously noted, between 2000 and 2015, the incidence of corruption in Lithuania dramatically decreased, reflected most notably in the nation's rank on Transparency International's CPI, as seen in Figure (3). Valuably, the time trends between Lithuania's reduction in corruption and increased economic growth provide suggestive evidence of a link between the two elements, and position Lithuania as a notable case for investigating the causal relationship between growth and corruption.

6.2 Bai et al.'s (2013) Corruption and Inter-Regional Competition Model

This subsection scrutinizes and modifies Bai et al.'s (2013) firm-based model of corruption and economic growth in Vietnam, in an effort to examine how economic agents can be disincentivized from engaging in corruption. Rather than providing an exhaustive mathematical review of Bai et

al.’s (2013) model, we instead review the intuition behind its conclusions and establish the contextual framework for the analyses conducted later in this paper.⁵

In their paper, Bai et al. (2013) propose a neoclassical model of corruption and economic growth, wherein government officials determine the optimal amount of bribes to extract from firms, to maximize their personal revenue. Specifically, there are two provinces, each with multiple firms. Through a static game, government officials set bribe rates, while firms choose whether to stay in their current province or relocate to a different province with lower bribe rates. Firms also face a moving cost which increases with firm size. For the firm, then, the extraction of bribes by officials serves as another form of taxation. Within this framework, government officials strategically set bribe rates, seeking to strike a delicate balance between extracting higher bribes and the potential risk of firms relocating to jurisdictions with lower bribe extraction levels. As the authors assert, the threat of the firm relocating to a different region serves to “put a check on bribe extraction.”

Bai et al.’s (2013) model has several predictions, with the main one being that “any exogenous increase in firm productivity reduces the proportion of firm revenue extracted as bribes.” Such a result assumes that moving costs are concave with regard to firm size, meaning that for any given fixed bribe rate, “a firm’s net benefits of moving (reduced bribes minus moving costs) increase as the firm grows.” In response to the incentive for firms to change regions and gain a lower rate, officials decrease the amount of firm profit they extract. Similarly, “if firms are strongly tied to a specific region, the check on bribe levels stemming from inter-regional competition diminishes.” The authors also argue that this model holds in the economy more broadly, with economic growth serving as a positive productivity shock, increasing firm productivity and mobility. As the authors note, “growth reduces corruption by a greater amount if firms are more able to move elsewhere.”

Bai et al.’s (2013) model is useful for our purposes in that it provides a mechanism through which economic agents respond to changes in the cost-benefit analysis of corruption because of regional competition. As the normative section of this paper noted, corruption in Lithuania occurred at a subnational level, with regional officials exercising significant independence in how they interacted with firms; reflected, in part, by the high incidence of local corruption scandals in Lithuania’s largest cities, especially Vilnius and Klaipėda. Accordingly, this paper extends the intuition behind Bai et al.’s (2013) model to a previously unexplored context, utilizing Lithuania’s unique institutional characteristics and its rapid economic development to examine the effect of productivity shocks at a firm

⁵For a comprehensive mathematical review of the model see Bai et al. (2013)

level. Furthermore, where Bai et al.’s (2013) model assumed a homogeneous population of firms, we introduce heterogeneity among firms by considering the effects of industry growth characteristics on firm mobility and between-industry variation in corruption.

6.3 Empirical Strategy

To estimate the causal effect of growth on the incidence of corruption in Lithuania, this paper employs an IV approach supplemented with Probit and Logistic models. In particular, this paper seeks to emulate other successful micro-examinations of corruption that use a derivation of a Bartik shift-share instrument (Bartik, 1991; Blanchard and Katz, 1992; Svensson, 2003; Cai et al., 2011; Bai et al., 2013), to estimate how positive productivity shocks decrease corruption. Specifically, this paper utilizes employment as a proxy for firm productivity (TFP). This is for two reasons; first, in economic literature, there is strong theoretical support for the notion that employment is an accurate predictor of firm productivity (Fukao and Kwon, 2006; Dvouletý and Blažková, 2022). Secondly, the BEEPS survey data does not contain any specific questions relating to more conventional measures of productivity, such as firm revenue, return on equity, or assets. Thus, firm employment serves as the most readily available and widely accepted proxy of firm productivity, asked across all iterations of the BEEPS survey.

Beyond the specific choice of employment as a proxy for productivity, the empirical approach taken by this paper is designed, at least in part, to alleviate endogeneity concerns with the examination of corruption using survey data. In particular, this paper deploys an IV strategy predicated on the idea that large-scale productivity shocks, such as those associated with economic growth due to increased international integration, are correlated across regions. The instrumental variable, in this case, is firm employment at an industry-year level (excluding the firm’s own region). We further alleviate endogeneity concerns by controlling for year and region-industry fixed effects to absorb any bias caused by time-invariant factors and any potential differences in corruption incidence across regions and industries. By utilizing an IV and supplemental Probit/Logit approach in combination with fixed effects, this paper seeks to better identify the causal effects of economic growth on corruption.

Therefore, the main identification assumption of this IV approach is that government officials in each region of Lithuania independently determine bribe extraction for industries in their region. For such an assumption to hold, there can have been no industry-specific anti-corruption campaign

in any of the years that BEEPS was administered or in general across the survey period. In the normative section of this paper, we identified how national level anti-corruption efforts were favored over any industry-specific anti-corruption efforts, meaning that in the context of Lithuania, the identification assumption holds. Accordingly, this paper will estimate four separate equations. First, following Bai et al. (2013), it will estimate the first stage specification of Equation (1) before examining the impact of exogenous productivity shocks on bribes of Equation (2). To examine the impact of firm mobility on bribe extraction, this paper will then estimate Equation (3) and then a final regression including several control variables seen in Equation (4). Accordingly, the first stage specification for estimating our instrument is as follows:

$$\log(\text{Employment})_{rit} = \alpha + \beta_1 \log(\text{Employment})_{r-it} + \theta_{ri} + \eta_t + \epsilon_{rit} \quad (1)$$

Where $\log(\text{Employment})_{rit}$ is the log of firm employment for region r in industry i at time t . $\log(\text{Employment})_{r-it}$ is the log of firm employment for all regions outside of the current region r , for industry i and time t . And θ_{ri} represents region-industry fixed effects. η_t represents year fixed effects for each BEEPS survey. β_1 is the regression coefficient to be estimated. Finally, ϵ_{rit} is the error term. Next, to examine effect of employment shocks on the commonality of bribe extraction, we intend to estimate the following equation:

$$\text{Bribecommon}_{rit} = \alpha + \beta_1 \log(\text{Employment})_{r-it} + \theta_{ri} + \eta_t + \epsilon_{rit} \quad (2)$$

Where Bribecommon_{rit} represents the dependent variable, being, how common it is for firm i to have to pay irregular “additional payments” in year t . $\log(\text{Employment})_{r-it}$ is the log of firm employment for all regions outside of the current region. β_1 is the regression coefficient to be estimated. θ_{ri} represents region-industry fixed effects. η_t represents year fixed effects for each BEEPS survey. Finally, ϵ_{rit} is the error term. Next, to examine the effects of firm mobility, we estimate Equation (3):

$$\begin{aligned} \text{Bribecommon}_{rit} = & \alpha + \beta_1 \log(\text{Employment})_{r-it} \\ & + \phi \text{Mobility}_{rit} + \beta_2 \log(\text{Employment})_{r-it} \times \text{Mobility}_{rit} + \theta_{ri} + \eta_t + \epsilon_{rit} \end{aligned} \quad (3)$$

Where Bribecommon_{rit} represents the dependent variable. $\log(\text{Employment})_{r-it}$ is the log

of firm employment for all regions outside of the current region. β_1, β_2 , and ϕ are the regression coefficients to be estimated. Mobility represents a vector of measures of firm mobility. θ_{ri} represents region-industry fixed effects. This equation includes interaction effects between employment and mobility. η_t represents year fixed effects for each BEEPS survey. ϵ_{rit} is the error term. Finally, we estimate a single regression with all possible variables Equation (4):

$$Bribecommon_{rit} = \alpha + \beta_1 \log(Employment)_{r-it} + X_{rit}\Gamma + \theta_{ri} + \eta_t + \epsilon_{rit} \quad (4)$$

Where $Bribecommon_{rit}$ represents the dependent variable. $\log(Employment)_{r-it}$ is the log of firm employment for all regions outside of the current region. β_1 and Γ are the regression coefficients to be estimated. X_{it} represents a vector of control variables, denoted by X , that capture additional factors that may influence corruption levels, being, senior managers time spent dealing with regulations, years since establishment, former SOE, permits being a business obstacle, and government and private shares of firms. θ_{ri} represents region-industry fixed effects. η_t represents year fixed effects for each BEEPS survey. Finally, ϵ_{rit} is the error term.

6.3.1 Descriptive Statistics

Table (1) presents descriptive statistics for untransformed and transformed variables representing different firm characteristics in Lithuania. The dependent variable, bribe commonality, is a categorical variable constructed from answers to the question, “thinking about officials, is it common for firms in my line of business to have to pay some irregular “additional payments or gifts” to get things done regarding customs, taxes, licenses, regulations, services etc,” within ranges: never (1), seldom (2), sometimes (3), frequently (4), very frequently (5), always (6). The mean value of this variable is 1.88. Note that a decrease in reported bribe commonality in BEEPS (V) in 2014 pulls this mean down. Figure (4) plots the mean bribe commonality over time. We see a spike in bribe commonality in 2005 at a value of just under 3, and then a decreasing trend over time. The mean firm in our sample has been operating for approximately 14.8 years and has 83 employees. The mean log employment at an industry-year-region level for firms in our sample is 7.09. Figure (5) plots the cross-sectional relationship between bribe commonality and firm employment, indicating that larger firms have a lower level of bribe commonality than larger firms.

Concomitantly, Table (1) includes two variables that serve as proxies of firm mobility, number

of establishments, and access to land. Approximately 20 percent of firms have more than one establishment, and 22 percent report that land access is a business obstacle. Finally, Table (1) also presents several control variables: the percentage of Senior management's time spent on dealing with regulations, whether the firm was previously a state-owned enterprise, whether the government or private individuals own a positive share of the firm, and whether licensing and permits are a business obstacle. Valuably, all variable values are meaningfully above zero. While some variables (i.e., Mean Employment and Senior Managers Time Spent Dealing with Regulations) appear skewed due to high-value outliers, their underlying distribution is still relatively normal. Finally, across all variables, the number of observations ranges from 858 to 951. Note that the dependent variable, bribe commonality, and three independent variables have fewer observations due to a small clustering of non-applicable entries in the 2002 BEEPS (II) survey period.

Table 1: Summary Statistics of Firms

	Observations	Median	Mean	Standard Deviation
Common to pay irregular “additional payments”	899	1	1.889	1.242
Years since establishment	945	11	14.877	13.508
Number of employees	949	20	83.349	328.528
Mean employment (mean for industry-year-region)	951	62.806	83.365	74.728
Log total employment (aggregate for industry-year-region)	951	7.275	7.090	1.329
Senior management’s time spent on dealing with regulations (%)	858	5	8.308	12.361
Former SOE (dummy)	951	0	0.154	0.361
More than 1 establishment (dummy)	951	0	0.203	0.404
Government holds positive share (dummy)	951	0	0.061	0.239
Private individuals hold positive share (dummy)	951	1	0.781	0.414
Licensing and permits a business obstacle (dummy)	951	0	0.228	0.420
Access to land a business obstacle (dummy)	951	0	0.223	0.416

Note: Each observation is a firm, and is pooled from each sample of firms over each iteration of the BEEPS from II to V. It is common to have to pay irregular “additional payments” to get things done: This is a 6-point categorical variable drawn from question 39, where respondents answered the question “thinking about officials, it is common for firms in my line of business to have to pay some irregular “additional payments or gifts” to get things done with regard to customs, taxes, licenses, regulations, services etc.” within ranges: never (1), seldom (2), sometimes (3), frequently (4), very frequently (5), always (6). Years since establishment: variable that subtracts year in which the firm was established from the year in which the firm completed the survey. Mean employment (mean for industry-year-region): Continuous measure created from reported employment of each firm at each time. Log total employment (aggregate for industry-year-region): Continuous measure created from reported employment of each firm at each time. Senior management’s time spent on dealing with regulations (%): Continuous measure collected from BEEPS from II to V. Former SOE (dummy): Dichotomous variable based on questions asking whether the firm is a privatized former State Owned Enterprise (SOE), where (=1) is a former SOE and (=0) if not. More than 1 establishment (dummy): Dichotomous variable measuring whether a firm had more than 1 establishment in Lithuania, where (=1) is more than 1 establishment and (=0) if not, collected from questions s10 and s13b for BEEPS II and III, and a7 for BEEPS IV and V. Government holds a positive share (dummy): A question that asks whether shares in the firm are held primarily by government, coded (=1) if government holds more than 50% of company shares. Private individuals hold a positive share (dummy): A question asking whether shares in the firm are held primarily by private individuals, coded (=1) if private individuals hold more than 50% of company shares. Licensing and permits are a business obstacle (dummy): Dichotomous variable based on question that asks whether firm believes licensing and permits, especially for land and construction, are a business obstacle. Access to land a business obstacle (dummy): Dichotomous variable based on question asking whether firm believes access to land is a business obstacle.

6.4 Results

This subsection presents evidence that in Lithuania a positive shock to aggregate productivity, in the form of increased firm employment, decreased the level of corruption faced by firms. This subsection also provides additional evidence that more mobile firms and firms that were better prepared to take advantage of increased international integration, saw the commonality of bribe extraction by government officials decrease at a faster rate than firms which were not.

6.4.1 First Stage Results

The first component of our IV approach is to estimate the first stage regression seen in Equation (1) to construct our log employment instrument. Specifically, the primary purpose of estimating such an equation is to capture the exogenous effects between firm employment at the region-industry-year level and firm employment only at the industry-year level, excluding the firm's own region. Table (2) presents the results of our first stage estimation, including region-industry and year-fixed effects, with standard errors clustered at the region level. Examining log employment at the industry-year level, we see a coefficient estimate of 0.808 which is significant at the 1 percent level. To substantively interpret such a result, note that an estimate of 0.808 indicates that if a 10 percent increase in firm employment occurred in an alternate region and industry, one could expect an employment increase of 8.08 percent in one's own region. These strong first stage results are valuable, indicating that the effects of productivity shocks on firm employment are highly correlated across regions. Due to the large and statistically significant first stage regression results, we have an IV instrument that satisfies the two key IV assumptions, exogeneity and relevance, allowing us to transition to estimating the impact of growth on corruption.

Figure 4: Mean Bribe Commonality Over Time

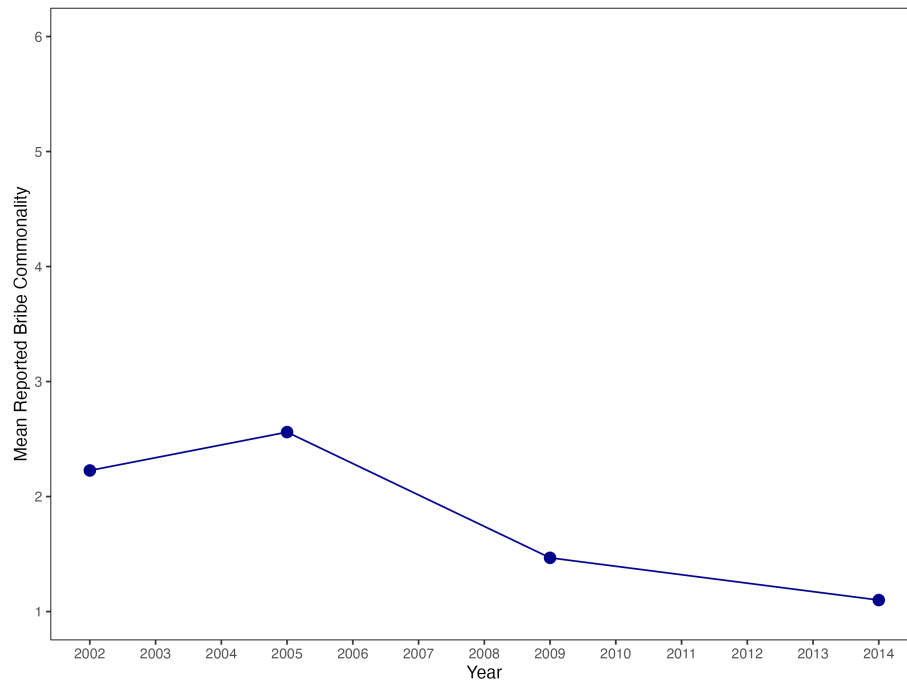


Figure 5: Cross-sectional Relationship between Bribe Commonality and Employment

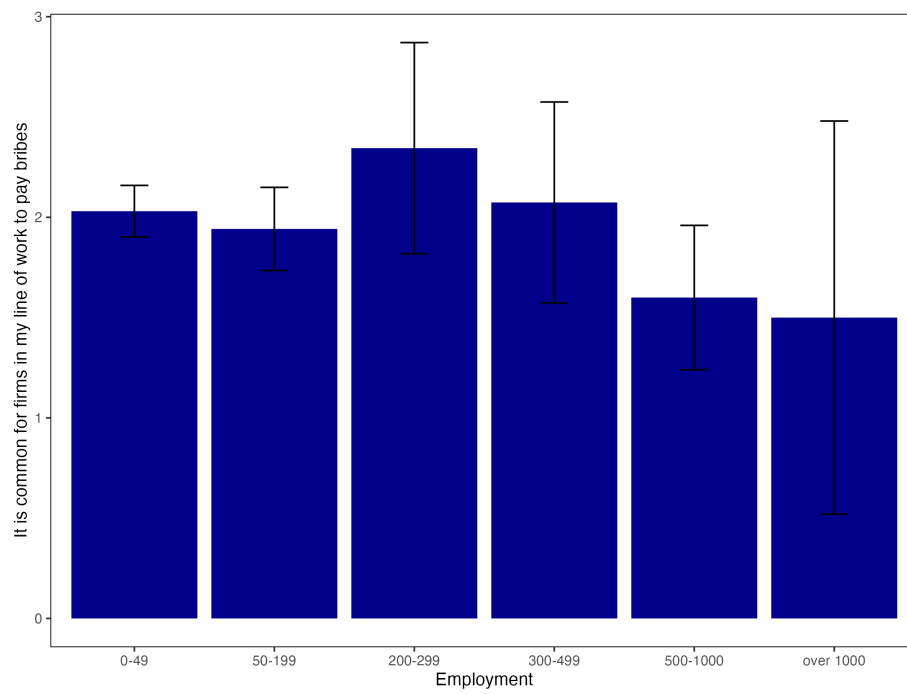


Table 2: First Stage Regression for Employment Instrument

	Log total employment (region-industry-year)
Log total employment (at industry-year level, excluding own region)	0.808*** (0.036)
Observations	880
Region-industry and year fixed effects	x

Note: Each observation is a region-industry-year. The dependent variable is log total employment in the region-industry-year. The independent variable is log total employment of the same region-year in all region other than own. Both variables are calculated using BEEPS II-V data. Industry in this context, refers to the BEEPS industry codes reported at the beginning of each survey. The regression controls for year and region-industry fixed effects. Standard errors are clustered at the region level. **Statistical significance:** *** 0.01, ** 0.05, * 0.1.

6.4.2 The Effect of Growth on Bribe Commonality

Following on from our first stage estimation, we can examine the effect of productivity shocks, in the form of employment growth, on the extraction of bribes in Lithuania. To do so, we estimate the reduced form Equation (2) using multiple model specifications. The dependent variable in this scenario is a categorical measure of the level of corruption firms face and is comprised of firm answers to the question of how common it is to have to pay irregular “additional payments” to get things done. Examining the results presented in Table (3), we find similar results across OLS, Probit, and IV regressions. Working from right to left, in Column (1) we see an OLS estimate of -0.152 at a 5 percent significance level, indicating that employment growth does have a negative effect on bribe extraction. Column (2) reports the ordered Probit estimate of -0.270, significant at a 1 percent level, indicating that the negative OLS estimate is not simply driven by OLS functional form. Finally, in Column (3) we see an IV estimate of -0.330, also at a 1 percent significance level. In this regard, across all three specifications, we see a robust relationship between growth in firm employment and a reduction in the level of bribe commonality faced by firms.

More broadly, we see a reduced sample size between the OLS versus the Probit and IV regressions, representing the greater exclusion restrictions of both specifications. To interpret magnitudes for the ordered Probit regression in Column (2), the predicted Z-score for bribe commonality decreases by a factor of $\exp(-0.270) = 0.7633$ for every one unit increase in log employment. Similarly, interpreting magnitudes for the IV estimate in Column (3) indicates that, ceteris paribus, an increase in firm employment of 10 percent leads to a 0.33 point decrease in bribe commonality (on a six-point scale), or approximately 17 percent of the mean value of bribe commonality. Such an IV

Table 3: Effect of Economic Performance on Bribe Commonality in Lithuania

<i>Dep. Variable:</i> Firms reported Bribe Commonality			
	(1)	(2)	(3)
	OLS	Probit	IV
Log total employment (at industry-year level, excluding own region)	-0.152** (0.049)	-0.270*** (0.038)	
Log total employment (own-region-industry-year)			-0.330*** (0.079)
Observations	899	829	829
Region-industry and year fixed effects	x	x	x

Note: Each observation is a region-industry-year. The dependent variable is variable is a 6-point categorical variable drawn from question 39, where respondents answered the question “thinking about officials, it is common for firms in my line of business to have to pay some irregular “additional payments or gifts” to get things done with regard to customs, taxes, licenses, regulations, services etc,” within ranges 1-6. All variables are calculated using BEEPS II-V data. All three regressions controls for year and region-industry fixed effects. Standard errors are clustered at the region level. **Statistical significance:** *** 0.01, ** 0.05, * 0.1.

result is notable, indicating that growth in the form of aggregate productivity shocks in Lithuania led to a decrease in the level of bribe extraction faced by firms. Table (3)’s results indicate that firms with larger employment levels report that the extraction of bribes is less common than firms with smaller employment levels. Such a relationship between employment and bribe extraction is further confirmed by Figure (5), in which larger firms have a lower mean reported level of bribe commonality.

Notably, the relationship between growth and a reduction in bribe extraction for firms is robust across alternate corruption measures. Figure (6) and Figure (7) present responses to the question, “To what degree is corruption an obstacle for this firm?” Across both figures, we see a temporal trend in which corruption first increases and then decreases as the Lithuanian economy becomes increasingly integrated. At a sector level, we would expect economic growth to be concentrated in industries well prepared to take advantage of increased integration, as indicated by their export orientation. In Figure (7), we see that sectors that reported a share that exports represented in their annual sales saw larger decreases in corruption being an obstacle than sectors that had a lower export orientation. After 2009, we see a substantial decrease in corruption for firms in export-orientated industries that would gain from Eurozone accession. This trend is most pronounced for the two most export-orientated industries, Transport and Vehicle Services and Manufacturing. Both figures demonstrate that the negative relationship between growth and corruption is robust across alternate

corruption measures and that industries with higher export orientation and plausibly greater growth report less corruption.

Overall, our empirical results in Table (3) establish that economic growth, as measured through an increase in firm employment, reduced the commonality of bribe extraction faced by firms in Lithuania. Notably, such a result is robust even with the inclusion of covariates that control for additional firm characteristics, as seen in Table (6). Figures (5), (6), and (7) provide secondary evidence of such a relationship across alternate measures of corruption and across industries, demonstrating that as the Lithuanian economy grew, the incidence of corruption decreased.

Figure 6: Factors that affect Business operations by Industry

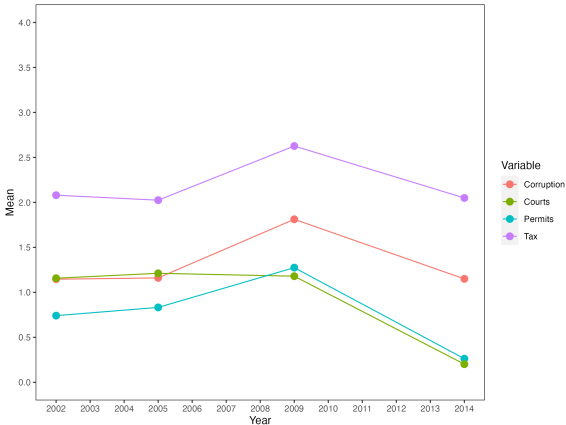
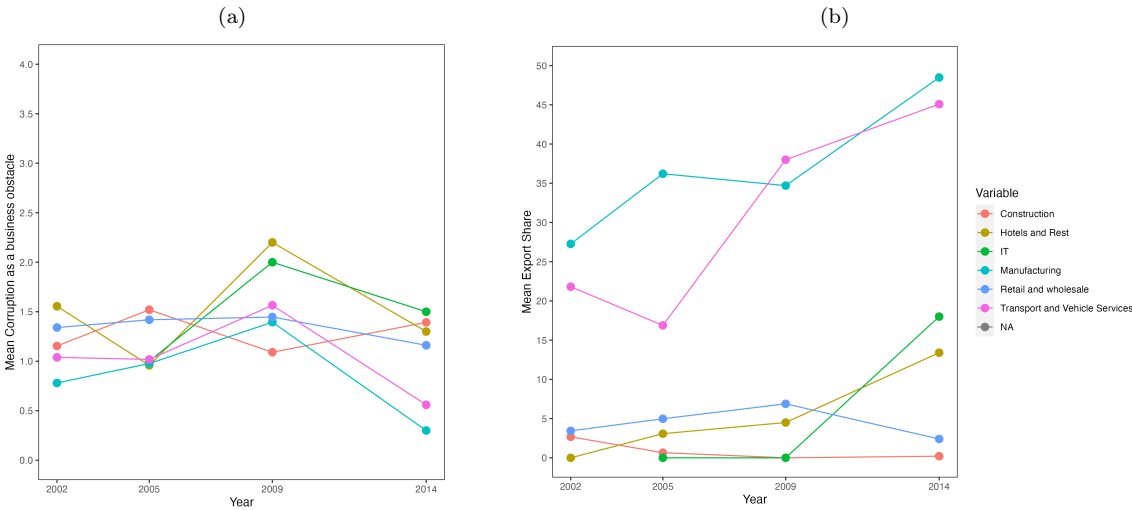


Figure 7: Corruption as a Business Obstacle and Firm Export Orientation by Industry



6.4.3 The Effect of Firm Mobility on Bribe Commonality

While the previous subsection established that economic growth has a negative effect on the commonality of bribe extraction, the second prediction of Bai et al.’s (2013) model is that “the impact of increased employment on the rate of bribes extracted is greater when firms exhibit higher mobility” (Bai et al., 2013). Accordingly, this subsection examines the effect of firm mobility on the commonality of bribe extraction in Lithuania through two proxy measures of firm mobility. The first firm mobility proxy is a dummy variable for having more than one establishment. Specifically, a firm having multiple operating locations would allow the firm to relocate easier between regions, and because officials want to extract bribes without the firm leaving, any firm that can credibly threaten to relocate could decrease its bribe commonality. The second proxy of firm mobility is the extent to which land access is a business obstacle. Specifically, we would expect that firms that reported that access to land was not an issue would be increasingly mobile and, therefore, have decreased bribe commonality, as seen in Figure (8). We demonstrate in Tables (4) and (5) that reported bribe commonality is lower for more mobile firms, a relationship that is robust across multiple regression specifications.

Figure 8: Cross-sectional Relationship between Land Access and Corruption

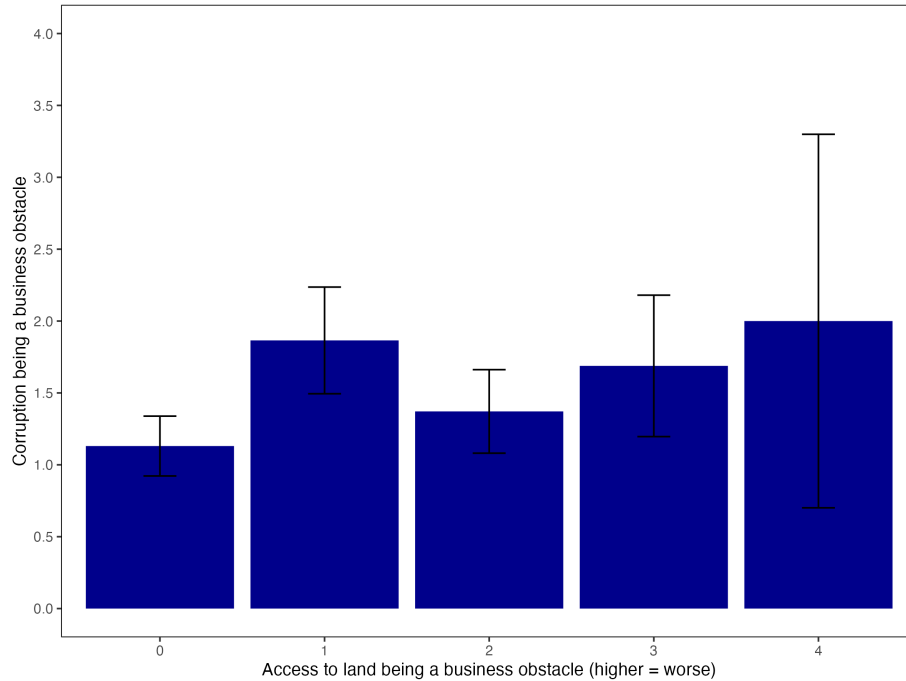


Table (4) displays ordered Probit results that estimate Equation (3). Examining Column (1), we see a negative interaction coefficient of -0.0826, significant at a 1 percent level. To interpret this interaction note that, for every one unit increase in log employment, the predicted Z-score for bribe commonality decreases by a factor of $\exp(-0.2520) = 0.777$. Thus, the main result is that having more than one establishment increases the negative effect of employment growth on bribe extraction. For the land obstacle dummy in Column (2), we see a negative interaction coefficient of -0.0219, but not at a statistically significant level. However, this interaction does influence the log employment coefficient, indicating that land not being an obstacle decreases the level of bribe extraction. Specifically, for every one unit increase in log employment, the predicted Z-score for bribe commonality decreases by a factor of $\exp(-0.2488) = 0.7797$. Finally, Column (3) reports both interaction coefficients, which are both negative, but with only the establishments' dummy interaction being significant. Both interactions increase the negative effect of employment growth on bribe extraction; for every one unit increase in log employment, the predicted Z-score for bribe commonality decreases by a factor of $\exp(-0.2348) = 0.7907$.

To aid in the interpretability of the effect mobility has on the extraction of bribes, we report Logistic regression results in Table (5), which once again estimates Equation (3). Column (1) reports the establishments' interaction coefficient of -0.1574, at a 1 percent level, indicating that for every one-unit increase in log total employment, the log odds of firms reporting bribe commonality decrease by an additional 0.1574 for firms with more than one establishment, compared to firms with a single establishment. Similarly, Column (2) reports a land obstacle interaction coefficient of -0.0636, at a 5 percent level, meaning that for every one-unit increase in log total employment, the log odds of bribe commonality decrease by an additional 0.0636 for firms that report access to land not being an obstacle. In Column (3) both interactions increase the negative log odds effect of employment growth on bribe extraction; for every one unit increase in log employment, the predicted Z-score for bribe commonality decreases by a factor of $\exp(-0.3821) = 0.6824$. Comparing Table (3) to Table (4) and (5), we see that the inclusion of both interaction coefficients for mobility in both regression models increases the negative effect of employment growth on bribe commonality by approximately 5 percent.

Thus, Table (4) and (5) provide evidence that the reduction in corruption associated with employment growth was greater for more mobile firms in Lithuania. Such a result is not only consistent with the predictions of Bai et al.'s (2013) model but is also highly intuitive. In a corrupt

environment, firms that exhibit greater mobility and can credibly threaten to relocate to a different region can force officials to make a choice between decreasing their extraction of bribes or losing the firm and their own revenue to a different region. As this section has shown, in the case of Lithuania, when confronted with such a choice, government officials chose the former. Such a result is notable in that it parallels how economic agents react to increases in bargaining power within regulatory relationships (Baron and Myerson, 1982; Tirole, 1986; 1992; Laffont and Tirole, 1991; 1993; Carpenter, 2001; 2010; Fiocco and Gilli, 2016). More broadly, such a result is indicative of how structurally important firms can gain concessions from government officials for everything from corporate tax rates to sports stadiums (Mugge, 2011; Culpepper, 2015; Pagliari, 2018).

6.5 Concluding Remarks

This section has demonstrated that economic growth, as measured by firm employment, reduced the level of bribe extraction faced by firms in Lithuania. It has also revealed that the magnitude of this reduction in bribe extraction was greater for firms that exhibited greater mobility, as measured by both the firm's reported number of establishments and firms' access to land. We also find that industries which were better prepared to take advantage of increased integration, as measured through export orientation, reported corruption being less common. Although the approach taken by this section has been somewhat simple, our findings are significant, representing, as far as we are aware, the first micro-empirical evidence surrounding the impact of economic growth on corruption in Lithuania. More broadly, this section's findings are notable in that they provide additional evidence for the conclusion that growth may limit corruption at a firm level; thereby buttressing the assertions of a small but increasing body of literature which argues that as nations grow, the incidence of corruption may naturally subside. In the case of Lithuania, we find evidence that as the economy grew due to increased integration with the EU, firms became larger and more mobile, and thus, the level of corruption faced by firms decreased.

Table 4: Effect of Firm Mobility on Bribe Commonality in Lithuania: Ordered Probit Results

<i>Dep. Variable: Firms reported Bribe Commonality</i>			
	(1)	(2)	(3)
Log total employment (at industry-year level, excluding own region)	-0.252*** (0.039)	-0.249*** (0.039)	-0.235*** (0.040)
More than 1 establishment (Dummy)	0.830*** (0.002)		0.937*** (0.002)
More than 1 establishment X log(Employment)	-0.083*** (0.012)		-0.094*** (0.012)
Access to land a business obstacle (dummy)		-0.021*** (0.004)	-0.103*** (0.004)
Access to land a business obstacle X log(Employment)		-0.022 (0.012)	-0.013 (0.011)
Observations	829	829	829
Region–industry and year fixed effects	x	x	x

Note: Ordered Probit regressions results. Each observation is a region-industry-year. All variables are calculated using BEEPS II-V data. All regressions control for year and region-industry fixed effects. Standard errors are clustered at the region level. **Statistical significance:** *** 0.01, ** 0.5, * 0.1.

Table 5: Effect of Firm Mobility on Bribe Commonality in Lithuania: Logistic Results

<i>Dep. Variable: Firms reported Bribe Commonality</i>			
	(1)	(2)	(3)
Log total employment (at industry-year level, excluding own region)	-0.429*** (0.082)	-0.405*** (0.081)	-0.382*** (0.081)
More than 1 establishment (Dummy)	1.556*** (0.005)		1.727*** (0.005)
More than 1 establishment X log(Employment)	-0.157*** (0.020)		-0.175*** (0.020)
Access to land a business obstacle (dummy)		0.165*** (0.014)	0.031* (0.014)
Access to land a business obstacle X log(Employment)		-0.064** (0.019)	-0.050** (0.019)
Observations	829	829	829
Region–industry and year fixed effects	x	x	x

Note: Logistic regressions results. Each observation is a region-industry-year. All variables are calculated using BEEPS II-V data. All regressions control for year and region-industry fixed effects. Standard errors are clustered at the region level. **Statistical significance:** *** 0.01, ** 0.5, * 0.1.

7 Conclusion

This paper has investigated how changing incentives associated with Lithuania’s international integration facilitated the rapid decrease of corruption in Lithuania. Through an extensive document and literature analysis this paper has demonstrated that as Lithuania’s international integration increased, especially with the EU, the prevailing norms present within these institutions began to delegitimize and stigmatize corruption which served to reduce its incidence. In particular, we find that periods of anti-corruption reform were closely linked to the aspirations for deeper EU integration, implying a complementarity between international integrative pressure and decreased domestic corruption. This paper has posited that the boundaries of this normative process have been demarcated by the three of Lithuania’s National Agendas on the Prevention of Corruption (*Nacionalinė Kovos su Korupcija Programa*), 2002-07, 2009-10, and 2011-14 respectively. Concomitantly, this paper deployed an IV empirical approach to test the relationship between corruption and Lithuania’s economic growth, finding that as Lithuania became more integrated, positive productivity shocks decreased the commonality of bribe extraction faced by Lithuanian firms. Furthermore, this paper provided evidence that as the economy grew, more mobile firms and firms in industries well positioned to capitalize on increased integration, saw a greater reduction in the commonality of bribe extraction.

This paper has several important implications for the understanding of the relationship between international integration and corruption, both in Lithuania, and in other transitioning or developing nations. Specifically, this paper differentiates itself from current literature in that it provides, as far as we are aware, the first micro-empirical evidence of a relationship between economic growth and decreased corruption in Lithuania. In doing so, this paper serves as one of the first extensions of Bai et al.’s (2013) firm-level model of corruption, to a previously unexplored context. Our results also serve as additional justification for the focus of scholars in political economy on firm-level interactions, especially surrounding the power firms have in bargaining relationships, thereby pushing future work in the direction suggested by Culpepper (2015). Furthermore, this paper’s results of serve to highlight the complex interplay between corruption and institutions. Specifically, the fact that normative anti-corruption efforts are most successful in reducing corruption when paired with an integrative incentive, such as joining the EU or adopting the Euro, implies a complementarity between policies that tie anti-corruption efforts to integrative rewards.

However, even with a strong theoretical framework and clear empirical strategy, our methods and results are still limited in several ways. In particular, while our results are notable, more granular, year-on-year data in a panel format is necessary to make clearer conclusions on the nuances of the relationship between growth and corruption in Lithuania. More granular data, with a particular focus on firm characteristics and alternate measures of productivity, would also serve to ameliorate concerns surrounding the accuracy of this paper’s chosen measure of firm productivity. Furthermore, while our data on between-industry variation in corruption levels is suggestive, a greater sample size with more geographic variation is necessary to disentangle the relationship between positive productivity shocks and corruption across different industries. Finally, this research question may benefit from the use of a different empirical design, such as a Difference-in-Difference strategy, to understand how specific periods of increased integration affected the incidence of corruption. As Sandholtz and Gray (2003) rightly note, literature that quantitatively tests the relationship between integration and corruption is still relatively undeveloped. Yet, “both economic and normative mechanisms [associated with integration] have strong theoretical foundations and empirical substance” and so future research, especially those which utilize causal identification strategies, should examine “how they interact” (Sandholtz and Gray, 2003).

How did changing incentives associated with Lithuania’s international integration facilitate the rapid decrease of corruption in Lithuania? This paper has utilized two simple methodological approaches to answer this question, however, numerous complexities remain to be explored. Our results do not delineate between what mechanism associated with international integration dominated in reducing corruption, thus, the most immediate extension of this work is to ascertain which mechanism prevailed. More broadly, how do large multinational firms, which face a choice between nations when choosing where to base their operations, affect the incidence of national corruption? From a formal theory perspective, how does the corrupt bargaining between firms and officials change when officials have to answer to a principal? Moreover, how does any equilibrium resulting from this bargaining change in a stochastic setting? Similarly, if economic growth changes firm decision making, does it have comparable effects for individual actions? From a more comparative perspective, how do the normative anti-corruption mechanisms of international integration differ between developing and transitioning states? Indeed, it is difficult to deconstruct these complex issues, yet doing so gives critical insight into the linkages between international integration and corruption, and thus, necessitates further exploration; we leave these investigations for future research.

Appendix

A Robustness Check: Testing Additional Covariates

Table 6: Robustness Check: Testing Additional Covariates

<i>Dep. Variable: Firms reported Bribe Commonality</i>		
	(1)	(2)
	Probit	Logistic
Log total employment (at industry-year level, excluding own region)	-0.243*** (0.039)	-0.429*** (0.082)
Years since establishment	0.001 (0.003)	0.001 (0.006)
Senior management's time spent on dealing with regulations (%)	0.003 (0.003)	0.005 (0.006)
Licensing and permits a business obstacle (dummy)	0.216* (0.098)	0.352* (0.168)
Government holds positive share (dummy)	-0.773*** (0.029)	-1.229*** (0.051)
Private individuals hold positive share (dummy)	-0.086 (0.100)	-0.119 (0.177)
Former SOE (dummy)	0.062 (0.121)	0.095 (0.204)
Observations	816	816
Region–industry and year fixed effects	x	x

Note: Each observation is a region-industry-year. All variables are calculated using BEEPS II-V data. All regressions control for year and region-industry fixed effects. Standard errors are clustered at the region level. **Statistical significance:** *** 0.01, ** 0.05, * 0.1.

B Corruption Prosecution Statistics in Lithuania 2003-2016

Table 7: Corruption Prosecution Statistics in Lithuania 2003-2016

Criminal Code	Case Status	2003*	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BK225 (Bribery)	Prosecuted	-	-	-	21	19	21	30	46	36	43	50	60	52	20
	Registered	62	69	48	75	65	65	106	100	68	118	104	134	96	62
	Investigated	34	35	30	38	44	37	65	88	46	62	53	92	84	46
BK226 (Influence trading)	Prosecuted	-	-	-	1	2	6	4	1	8	13	19	37	37	5
	Registered	4	2	3	1	4	10	16	5	15	38	48	65	29	24
	Investigated	-	-	57	311	344	302	346	432	410	17	21	48	47	12
BK227 (Graft)	Prosecuted	-	-	-	312	342	296	342	400	400	630	830	972	874	488
	Registered	60	51	73	394	383	303	384	449	450	751	949	1103	934	561
	Investigated	50	28	77	111	99	202	209	213	152	663	858	1005	932	560

Note: The marked drop in Influence Trading (BK226) seen between 2011-2012 is a result of a change in anti-corruption focus to prosecuting cases under Graft (BK 227) as it became easier to gain successful convictions using Graft following the beginning of the third NAPC reforms (2011-2014). All data is collected from Statistics Lithuania and adapted by the author. *New records began following a change in reporting in 2003.

C Variable Information and Coding

Across the firm summary statistics presented in Table (1), each observation represents a firm, and is pooled from each sample of firms over each iteration of the BEEPS from II to V. Our main dependent variable is created from the response to the question, “it is common to have to pay irregular “additional payments” to get things done: This is a 6-point categorical variable drawn from question 39, where respondents answered the question “thinking about officials, it is common for firms in my line of business to have to pay some irregular “additional payments or gifts” to get things done with regard to customs, taxes, licenses, regulations, services etc,” within ranges: never (1), seldom (2), sometimes (3), frequently (4), very frequently (5), always (6). Years since establishment: variable that subtracts year in which the firm was established from the year in which the firm completed the survey. Mean employment (mean for industry-year-region): Continuous measure created from reported employment of each firm at each time. Log total employment (aggregate for industry-year-region): Continuous measure created from reported employment of each firm at each time. Senior management’s time spent on dealing with regulations (%): Continuous measure collected from BEEPS from II to V. Former SOE (dummy): Dichotomous variable based on questions asking whether the firm is a privatized former State Owned Enterprise (SOE), where (=1) is a former SOE and (=0) if not. More than 1 establishment (dummy): Dichotomous variable measuring whether a firm had more than 1 establishment in Lithuania, where (=1) is more than 1 establishment and (=0) if not, collected from questions s10 and s13b for BEEPS II and III, and a7 for BEEPS IV and V. Government holds a positive share (dummy): A question that asks whether shares in the firm are held primarily by government, coded (=1) if government holds more than 50% of company shares. Private individuals hold a positive share (dummy): A question asking whether shares in the firm are held primarily by private individuals, coded (=1) if private individuals hold more than 50% of company shares. Licensing and permits are a business obstacle (dummy): Dichotomous variable based on question that asks whether firm believes licensing and permits, especially for land and construction, are a business obstacle. Access to land a business obstacle (dummy): Dichotomous variable based on question asking whether firm believes access to land is a business obstacle. Finally, it should be noted that industry in any context refers to the BEEPS industry codes presented at the start of each survey.

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