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Commodities and corruption – How the middle class and democratic institutions lead to less corruption in resource-rich countries

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ABSTRACT

According to a rent-seeking approach to corruption, resource-rich countries are more vulnerable to rent-seeking behavior than resource-poor countries. However, not all resource-rich countries experience widespread corruption. To help explain this puzzle, I propose that the relationship between natural resources (e.g. the depletion of minerals) and corruption is dependent on the composition of the selectorate (through diverse levels of economic development) and the variation of political systems (democracies vs. autocracies). The large-N empirical analysis finds support for the hypotheses: on average, poor, autocratic, resource-rich countries suffer from more corruption than rich, democratic, resource-rich countries. This research contributes to the discussion of resource curses and blessings by suggesting that a closer inspection of a country's political and economic conditions is required to understand the causal link between natural resource wealth and corruption. Whereas the empirical analysis particularly focuses on the validity of the argument for mineral resource wealth and corruption, the overall theoretical and empirical scope of this paper is intentionally broader in nature: The paper also contributes to our collective research understanding of various forms of resource wealth (i.e. mineral depletion, fuel exports, oil wealth or energy depletion) and corruption.

1. Introduction

Commodities can be either a blessing or a curse for resource-rich countries, with some suffering badly from corruption while others manage to prosper without any noteworthy bribery.[1] As far as natural resources are concerned, political scientists have identified mainly oil as a substantial cause of corruption, but they have also shown more generally that countries rich in many different kinds of natural resources experience considerably higher levels of corruption than countries without natural resources (Aslaksen, 2007; Gerring and Thacker, 2004; Montinola and Jackman, 2002; Ades and Di Tella, 1999; Leite and Weidmann, 1999; Zhan, 2017). However, some empirical examples contradict this finding and demand further research: For instance, Norway (Eriksen and Soreide, 2017) and the Netherlands have considerable oil and/or gas fields but are seemingly free from corruption. On the other hand, Sweden and Finland are also corruption-free, have similar societal and economic structures to Norway and the Netherlands but no notable hard commodities.[2]

The controversy among social scientists about whether or not resource abundance encourages corruption is part of the greater inconclusive 'resource curse' literature.[3] Researchers have recently started to look more closely at the conditions that in some countries translate resource wealth into a *gift from nature*, while in others it becomes a *poisonous fruit*. Contemporary explanations for the causal impact of resource abundance on social, economic, or political conditions offer a rich new world of possibilities that condition the effect of resource richness: Natural resource wealth might increase or decrease economic growth depending on a country's learning process, or learning curve (Stijns, 2005), or on its institutions (see e.g. Tsani, 2013). Others look at the importance of benefit-sharing in high-income mining countries to encourage regional development (Soderholm and Svahn, 2015). The growing majority of literature forces the conclusion that corruption research must also consider country-specific conditions when modeling the causal effect of resource wealth on corruption. It is only by looking

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[1] Corruption is defined as the misuse of an official political position for one's private benefit or the benefit of a particular societal group. This definition follows common examples in corruption research (e.g. see Le Billon, 2001).

[2] We also found similar examples outside the OCED: While Trinidad and Tobago (resource-rich) and Uruguay (resource-poor) differ in their resource wealth, they are similar in many respects and both experience middle-range levels of corruption.

[3] Tsani (2015) and Tsani (2013) looks at the effects of resource funds on institutional quality (measured as control of corruption), while others look at the negative or positive consequences of resource endowment on the society (e.g., political trust) (Miller, 2015) or the economy (Stijns, 2005; Sachs and Warner, 2001).

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at conditionalities that we can fully understand the relationship between the two.[4]

In this piece of research, I propose that the inconclusive findings on the relationship between resource endowment and corruption can be partly solved by looking at the economic and political conditions in a country. My argument and empirical testing clearly show that modeling the effect of commodities on corruption alone gives too much credit to the negative relationship between resources and graft, as so often found in past research (Aslaksen, 2007; Gerring and Thacker, 2004; Montinola and Jackman, 2002; Ades and Di Tella, 1999; Leite and Weidmann, 1999). Instead, I provide an explanation that also considers resource-rich countries experiencing low levels of corruption, thus contributing theoretically and empirically to the debate about conditional consequences of natural resource wealth on corruption (and therefore also on the effect resource wealth has on the quality of government).

The first part of my argumentation rests on the assumption that the governments of resource-rich countries have more money to spend (also on corruption) because they have larger budgets than resource-poor countries.[5] Budgets are higher because, compared to resource-poor countries, resource-rich governments have an additional source of money: ownership of or taxes on commodities. Higher government budgets mean there is the potential for a corrupt actor (*bribe payer*) to receive larger benefits from bribing the government compared to countries that have few or no resources and therefore lower government budgets. In the same manner, a political actor (*bribe acceptor*) can demand higher grafts if a *bribe payer*'s profit is larger. Further, government officials can also engage in embezzlement of government funds (obtained through natural resources). In sum, natural resource abundance in a country increases incentives for corrupt behavior.

However, given these incentives and the aforementioned puzzle, the question remains: *What causes some governments to spend their money in the interests of the voters (for the good of the general public) and others for the benefit of interest groups (for the good of corrupt actors)?* I contend that the allocation of government money depends on two primary factors: how many actors are competing for the budget and what they offer in return for government spending. In other words, can they offer to elect the government into office (the legal way for voters), or are they offering government officials (im)material benefits (corruption)?

Among other factors, a country's economic development influences the number of competitors for government money. Economic development needs innovation, which, in turn, requires educated workers (or other factors such as foreign direct investments). As an economy develops, one particular group among voters gains strength: the middle class. This group constitutes an additional competitor in the battle over the government's budget distribution and demands that the government spends more money on public goods (e.g. education), offering the government support in the next elections in return. However, it is only when a government is forced to rely on the support of the people to stay in office, i.e. if the voters can determine governmental decision-making through elections (in democracies) that it will agree to voter demands for public goods. Thus, governments have a greater motivation to spend more money on public goods in democratic countries that are experiencing high levels of economic development, which limits the amount of money available for corruption. However, autocratic governments also cannot survive without the support of the people and must respond to certain demands – albeit to a far lesser extent than in a democracy. In comparison to a democratic country, in an autocracy, an additional competitor such as the middle class reduces the budget available for private interests far less. Thus, the increasing effect of commodities on corruption depends on a country's wealth and on its political situation.

My empirical analysis of time-series cross-sectional data tests the hypotheses against space and time, using data from up to 139 countries over 24 years (1984–2007).[6] Using an ordered logit model and ordinary least squares regression, I find (significant) empirical support that the increasing effect of commodities on corruption depends on a country's wealth and its political conditions.

2. Natural resources, economic development, political rights, and corruption: a review of the literature

Three literature streams are crucial to this research: the effects of natural resources, economic development, and political rights on corruption. The vast majority of previous research on how the availability of natural resources affects corruption appears to focus on individual rent-seeking behavior. There has been little research to date on the relationship between natural resources and corruption (Bhattacharyya and Hodler, 2010). Researchers typically model the interactions between *bribe payers* and *bribe acceptors* to explain that natural resources increase corruption levels by offering incentives for *bribe payers* and opportunities for *bribe acceptors* in government. While these studies contribute to the political economy understanding of the reasons why resource-rich countries often combine poor political governance with slow economic growth, they often neglect the equally important effect of natural resources on the relationship between a government and its selectorate. The rapidly growing amount of literature on patronage also deals with another aspect of a greater effect of natural resources on corruption: how politicians utilize natural resource rents to buy political support. Natural resource rents provide governments with the financial means to offer political supporters material or immaterial benefits in return for their political support. This literature discusses how the existence of natural resources in a country encourages rent-seeking behavior and patronage, thereby increasing that nation's level of corruption.

The literature on economic development and corruption illustrates how an improvement in economic conditions increases voter education and information levels. Voters who are better informed threaten a government's ability to stay in power since they may uncover corrupt behavior by politicians. Research on democracy and corruption discusses how transparency unveils corrupt behavior and how political rights empower voters to oust corrupt politicians.

A large collection of data allows for more in-depth testing than ever before, and researchers are using these data extensively to increase and improve our level of understanding.

2.1. The increasing effect of natural resources on corruption: rent-seeking and patronage

Rent-seeking and patronage both offer explanations for the increasing effect of natural resources on corruption. While patronage provides reasoning for the government's engagement in corruption, rent-seeking behavior analyzes the incentives and opportunities for both government officials and actors outside the political sphere to engage in corruption.

Rent-seeking arguments describe three aspects of the causal mechanism of how natural resources provide inducements and opportunities that can lead to corrupt actions between *bribe payers* and *bribe acceptors*. First, natural resource rents constitute important incentives for corruption. Second, political institutions reduce or add to the opportunities for *bribe payers* to obtain these natural resource rents. Third,

[4] Other researchers came to the same conclusion and stressed the importance of considering conditioning factors. See, for example, Petermann et al. (2007).

[5] For instance, compare Norway and Sweden in 2004: They spent U.S. $7879 and U.S. $7328 per capita respectively (values constant for the year 2000). Another example is the government of Zimbabwe, which spent U.S. $61 per inhabitant compared to Ghana (an otherwise similar country but without commodities), which spent U.S. $23 per person.

[6] To assess robustness, I used alternative measures of corruption: The Corruption Perception Index (CPI) and the World Bank (WB) data on corruption. The empirical analysis using CPI includes between 36 and 126 countries from 1995 to 2012, while the WB data cover between 109 and 128 countries from 1996, 1998, 2000, and 2002.