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Economic Freedom and Productivity Growth in Resource-rich Economies

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Summary. — The focus of this paper is to test whether free market institutions that protect property rights and support freedom of choice and voluntary exchange can change the curse of natural resources into a blessing. To examine the above question, this paper uses the Fraser Institute's economic freedom index and its five sub-indices, namely government size, property rights, access to sound money, freedom to trade, and setting proper regulations. Using data from 99 sample countries over the period 1970–2010, the system GMM estimates suggest that the negative growth effects of resource rents may turn positive in countries with greater economic freedom.

Key words — natural resources, economic freedom, productivity growth

1. INTRODUCTION

The idea that, for some countries, an abundance of natural resources is more detrimental than beneficial has attracted significant attention in the literature and many studies have attempted to shed light on this widely accepted paradox, known as the "natural resource curse". One of the main questions is why some resource-rich economies, such as Chile and Botswana, enjoy high economic growth and prosperity whereas others, such as Nigeria and Venezuela, suffer from low economic growth despite having access to enormous reserves of natural resources. There are several economic and political explanations of the natural resource curse; see Frankel (2010) and van der Ploeg (2011) for comprehensive surveys. The low quality of economic and political institutions is identified as one of the critical factors that explain the growth failure of resource-rich economies. [1] The main finding of these studies is that natural resource revenues are a curse rather than a blessing in countries with low-quality institutions (see among others, Boschini, Pettersson, & Roine, 2007, 2013; Mehlum, Moene, & Torvik, 2006; Robinson, Torvik, & Verdier, 2006; Tornell & Lane, 1999).

This paper contributes to the literature that studies the role of high-quality *economic institutions* in promoting economic growth and prosperity in resource-rich economies. As highlighted by Acemoglu, Johnson, and Robinson (2005, p. 389) "Of primary importance to economic outcomes are the *economic institutions* in society such as the structure of property rights and the presence and perfection of markets". We focus on the relationship between free market institutions and economic performance in resource-rich countries and attempt to demonstrate that the impact of natural resource rents on growth depends on economic institutions, in particular the structure of markets. Specifically, free market institutions that protect property rights (through enforcement of contracts and well-functioning legal systems) and support freedom of choice and voluntary exchange, can reduce the negative effects of natural resource rents on economic growth by increasing efficiency and productivity as well as diverting resources away from less productive activities (e.g., rent-seeking).

We build our theoretical argument on the strand of literature that studies the attractiveness of productive *versus* unproductive activities, e.g., rent-seeking, to entrepreneurs and efficiency in the allocation of resources in the market (see among others, Baumol, 1996; Krueger, 1974; Murphy, Shleifer, & Vishny, 1991). Entrepreneurs (in both private and public sectors) look at the relative payoffs between productive activities with positive social and economic returns, and unproductive ones. Unproductive and rent-seeking activities are more prevalent when law enforcement is weak and bureaucratic barriers are high. Protecting property rights, providing equal opportunity and the presence and perfection of markets reduce transaction costs, encourage individuals to engage in entrepreneurial activities, invest on physical and human capital and choose more efficient technologies. All of these help to allocate resources to their most efficient uses and consequently enhance economic growth; see Acemoglu *et al.* (2005) and references therein. Our theoretical argument is also closely related to the work of Mehlum *et al.* (2006) who show that there is a non-monotonic relationship between resource rents and economic growth in resource-rich economies. They show that resource abundance can be a blessing in an economy with "producer-friendly" institutions while the resource curse occurs when institutions are "grabber-friendly" and encourage unproductive activities.

Empirical studies that look at the association between institutional quality and growth in resource-rich countries mainly consider the rule of law and/or government effectiveness to measure institutions. Among others, Mehlum *et al.* (2006), Boschini *et al.* (2007), and Bulte, Damania, and Deacon

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(2005) use the average of five indexes from Political Risk Services (including rule of law, bureaucratic quality, government corruption, risk of expropriation of private investment and repudiation of contracts). [2] The aim of this paper is to comprehensively study the relationship between different dimensions of free market institutions and economic growth in resource-rich countries. Therefore, we need to use an index for the quality of institutions that captures the freedom to choose, enter, and compete in different markets, or in other words, an index which captures the degree of economic freedom.

In practice, economic freedom is a multi-dimensional phenomenon and different types of intervention and restrictions of market activities may have different impacts on economic performance in countries with natural resources. The link between economic freedom and economic growth receives a great deal of attention in the growth literature (see Carlsson & Lundström, 2002; Dawson, 2003; De Haan & Sturm, 2000; Heckelman, 2000; Justesen, 2008). [3] The main finding of this literature is that engaging in more economically free policies positively impacts growth. Surprisingly, the relationship between economic freedom and growth in resource-rich economies has not received much attention. Notable exceptions are Béland and Tiagi (2009) and Campbell and Snyder (2012a) although their work is substantially different to ours as we use panel data techniques over an extended period of time and across a large number of countries, more comprehensive measures of resource rents and different dimensions of economic freedom. [4]

We use the Fraser Institute's economic freedom index, *EFI* henceforth, that comprehensively quantifies the role of free market institutions and so enables us to analyze the role of economic freedom in promoting productivity growth in resource-rich economies. The *EFI* provides a concise measure of free market activities and captures the extent to which a country relies on free markets to allocate resources. It has five major components, namely: government size, legal system and property rights, access to sound money, freedom to trade, and regulation of business, labor and credit markets. We test the hypothesis that the impact of natural resource rents on growth depends on economic freedom. In order to test this main hypothesis we consider the interaction between the *EFI*, as well as its five sub-indices, and natural resource rents.

This paper applies the system GMM technique that enables us to cope with endogeneity bias while estimating our empirical models for a panel of 99 countries over the period 1970–2010. The interaction terms of natural resource rents with the *EFI* and its components have positive signs, which highlight the fact that the negative effect of natural resources on growth may turn into positive in countries with greater economic freedom and well-functioning and efficient governments. These results might be driven by the resource-rich developed countries in the sample that have competent governments (e.g., Australia and Norway). [5] Hence, we restrict the sample to a panel of 63 developing countries over the period 1970–2010 and find empirical support for our results in this smaller sample. Moreover, to assess the impact of different types of natural resource rents we disaggregate the rents data into three groups: oil, oil and gas, and the combination of oil, gas and minerals. The aim of using different subgroups is to further examine the individual impact of each type of natural resource rents on economic growth across the sample countries.

The rest of the paper is organized as follows. Section 2 presents various channels whereby economic freedom affects economic performance in resource-rich economies along with a literature review associated with that. Sections 3 and 4 discuss the empirical framework, methodology and data, respectively. Section 5 undertakes the empirical estimates, and robustness tests are carried out in Section 6. The last section concludes.

2. ECONOMIC FREEDOM AND PRODUCTIVITY GROWTH

The idea that the presence and perfection of markets matters for economic prosperity and growth goes back to Adam Smith and many scholars, including John Stuart Mill, Arthur Lewis, and Douglass North, have emphasized this concept; see the discussion in Acemoglu *et al.* (2005). The classical approach in economics, based on Adam Smith's invisible hand, highlights that under certain conditions, the presence and perfection of markets increases competition and efficiency. In an economically free society, individuals have the right to freely choose how to produce and consume and control their property, while respecting other's right to do the same. A free economy allows individuals, goods, and capital to move freely inside the domestic market and across the nations under the efficient regulations and well-defined law set by state; see Gwartney and Lawson (2004). This environment increases productivity and encourages investment in both human and physical capital as well as providing greater opportunity for entrepreneurial activities (see among others, De Haan & Sturm, 2000; Justesen, 2008).

It is worth highlighting that the presence of free market institutions does not imply that there is no place for government intervention. Governments may intervene in market activities to correct market failures, provide public goods, and to achieve social efficiency and equity; see for example La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1999). A good public sector organizes a productive environment for the operation of a market economy by providing public goods and services, protecting property rights, enforcing contracts, providing stable monetary regimes, encouraging free trade and imposing less restrictive regulations.

Next we turn to a discussion of how natural resource rents can be a curse rather than a blessing in a less market-oriented economy. Subsection 2(a) discusses to what extent a high-quality (more market-oriented) economic institution can change the curse of resources into a blessing. Subsection 2(b) focuses on the economic freedom index (*EFI*) and discusses five components of this index in resource-rich economies.

(a) *Avoiding the resource curse: the role of economic freedom*

Encouraging entrepreneurs to engage in productive activities, providing a greater opportunity for entrepreneurial activities and increasing efficiency and productivity in both private and public sectors are among the potential channels through which a resource-rich economy with a more market-oriented environment can take full advantage of its resources. This subsection provides a detailed discussion of these channels.

First, potential, would be entrepreneurs compare the relative payoffs between productive and unproductive activities, e.g., rent-seeking. Talented people choose to be entrepreneurs rather than rent-seekers when markets are perfect (see Baumol, 1996; Murphy *et al.*, 1991). As shown by Tornell and Lane (1999) incentives to engage in rent-seeking activities increase when institutions are dysfunctional, i.e., property rights are not well-defined. In a less market-oriented economy, entrepreneurs (in both private and public sectors) may switch to activities that extract rents and steal part of the economic pie from others instead of to wealth-producing activities and