

Extractive Industries and Development: An Investigation into the Resource Curse Impact on Happiness, Growth, Export Diversification, and Institutions

Abstract

Despite the expansion in its literature, the discussion on the natural resource curse and its transmission mechanisms is far from conclusive. The underperformance of the majority of resource-rich countries especially in Africa, the Middle East, and Latin America, justifies the need for more investigation of the phenomenon. The heterogeneity in countries' experiences and the variety of the curse transmission mechanisms emphasize the need for introducing a new perspective that can provide new conceptual and theoretical frameworks and possibly new suggested transmission mechanisms. This thesis is an attempt to probe into a new perspective as well as assessing the traditional transmission mechanisms using different conceptual frameworks. The thesis reaches these objectives in four articles. As a contribution to the theoretical discussion on the resource curse, the thesis brings together the nascent literature on economic growth and happiness, and the well-established literature on the natural resources curse. It tries to see the extent to which and the mechanism through which natural resources rent can affect happiness and subjective well-being in resource-rich economies. The thesis also contributes to the resource curse literature by presenting the unique case of Sudan. Sudan exploited oil between 1999 and 2011 when the country suddenly lost more than 70% of its oil reserves and revenues due to the separation of the oil rich-region of South Sudan. The thesis provides insights into the impact of oil rents on Sudan's economic growth through its impact on a country's economic diversification and growth. Moreover, the thesis will discuss in a descriptive approach how oil rents affect economic growth, unemployment, and economic diversification and institutions in Sudan and South Sudan. Finally, a synthetic control method will be applied to evaluate the trajectory of Sudan's economic growth, export diversification, unemployment, and corruption in the post oil loss era. The objective of this analysis is to examine whether the evolution of these variables in the post-oil loss era can be attributed to the 2011 oil-loss shock.

This thesis comes in seven chapters:

Chapter 1- Introduction. This chapter also presents the objectives, questions and expected findings of the included research articles. In this chapter, different experiences of different resource-rich countries are also discussed to provide insights into the different policy choices that each country adopted and their long-term implications on economic growth and development. The chapter also provides an outline of the experience of Sudan and the impact of oil production on the long-term performance of Sudan's economy

Chapter 2- Theoretical Framework on the transmission mechanism of the Natural resource curse: this chapter discusses the conceptual, theoretical and empirical framework of the natural resource thesis. It begins with a review of the theoretical explanations of the resource curse and then challenges these explanations with an intensive review of the empirical literature on the resource curse.

Chapter 3- Happiness and the resource curse: one of the main objectives of this thesis is to highlight other aspects that can contribute to our understanding of the natural resource curse. In doing so, this chapter investigates the relationship between natural resources and happiness. It represents an attempt to see whether natural resource abundance/dependence affect the subjective well-being of resource-rich citizens and, hence can introduce another perspective to our understanding of the resource curse phenomenon. Consistent with the thesis of the resource curse, the findings of this chapter show that citizens of resource-rich countries tend to be less happy than their counterparts in resource-poor countries. Furthermore, the analysis provides empirical evidence for the negative relationship between oil rents and level of happiness over time. This happiness 'resource curse' curse

appears to be oil-specific and holds both for the levels of happiness as well as for the changes in happiness.

Chapter 4- Post-Secession Sudan and South Sudan, a comparative Study of Economic Performance, Export Diversification and Institutions: This chapter uses recent secondary data of both counties to analyse and compare the impact of oil revenue transfers on Sudan and South Sudan economies in the post-secession period. The Chapter will address the impact on export diversification, economic stability and institutions. Based on the outcome of the discussion in this paper, Oil loss has created incentives for export diversification, sound macroeconomic policy as well as institutional improvement in Sudan. Reciprocally, the data of south Sudan's economy reflect a premature oil dependence that led to export concentration, institutional degradation and macroeconomic instability. Accordingly, Sudan has greater likelihood of achieving export diversification, macroeconomic stability and institutional reforms compared to South Sudan.

Chapter 5- Oil, export diversification and economic growth in Sudan, Evidence from a VAR model: This Chapter contributes to the literature of the resource curse by empirically investigating the interaction of oil rents, export diversification, institutional quality and economic growth in the short run in Sudan. Consistent with other resource curse literature, this study shows that oil rents appear to have significant negative impact on export diversification measured by the Herfindahl- Hirschman Index (HHI) in Sudan in the short run. Nonetheless, the study also shows that export diversification has a negative but insignificant impact on economic growth in the short run. Thus, this study reached the conclusion that the poor performance of the Sudanese economy between 1960 and 2018 cannot be blamed on the lack of exports diversification. Accordingly, the assumption that the lack of export diversification is a potential mechanism for the so-called resource curse lacks statistical significance in the case of Sudan. Furthermore, although the study shows a significant positive effect of the rule of law on growth in the short run; it also shows that the institutional decadence during the oil exploitation period was not oil motivated. These results are valid even in the Vector Autoregressive Analysis (VAR) analysis after South Sudan secession.

Chapter 6 – An Evaluation of the impact of oil reserve loss on Sudan's growth Export Diversification, unemployment and corruption; a synthetic Control Method: when South Sudan separated in 2011 oil was representing 92% of Sudan's total merchandise exports. Today, more than 10 years after South Sudan seceded, the economy is still suffering from the aftermath of the oil loss turmoil. However, although Sudan's exports mix was highly concentrated in 2011, this Chapter argues that the loss of oil reserves has triggered export diversification in Sudan. Using a case-comparison approach called the synthetic control method (SCM), we find that the loss of oil reserve followed the separation of the oil-rich South Sudan in 2011 provoked a significant decrease in the Sudan Herfindahl- Hirschman Index (HHI) and hence reflecting a more diversified export mix in comparison to the period before 2011.

Chapter 7- Findings and Policy Recommendations: this chapter brings together the main conclusion of the different topics discussed in the thesis in an attempt to provide a number of policy recommendations on the optimal management of natural resources in achieving long-term economic growth and sustainable development.