Symposium Introduction

Managing Natural Resource Wealth for Development

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The extractives industry has become an integral part of a growing number of industrialized and developed economies. In recent years, the growth of this industry has been supported by several factors, including on the supply side such as through improved technology (eg, the economic feasibility to extract in deep sea areas), as well as on the demand side including the rapid industrialization of large emerging market economies like China, India, Indonesia and the Philippines. Whether this growth, in turn, is fueled by manufactured exports, or itself buoys domestic consumption of goods and services, the demand for natural resources has increased and is expected to grow further.

In the last decade or so, countries driven by the extractives industry have increased from about 60 to over 80, with more countries seeking to expand and initiate stronger investments in this area. Almost 70% of the world's poorest people reside in these economies. And despite the promise of greater wealth, about 80% of these resource-driven economies remain below the global average in terms of per capita income. Half of these economies are failing to close that gap (see Dobbs *et al.*, 2013, pp. 6–7).

Countries with large extractives industries have demonstrated varying degrees of success in leveraging their mineral and hydrocarbon wealth to produce stronger inclusive growth and development. For some countries,

natural resource wealth brings boom-bust economic episodes and much more volatile public and private spending and investments. Often, mining bonanzas are unsustainable and followed by increasing public debt, and eventually severe economic austerity measures. Slower and/or more volatile growth, corruption scandals, and economic mismanagement are also typical where rent seeking activities in the industry trigger a spiral of bad governance and corruption (see, among others, Collier and Venables, 2011; Frankel, 2010).

On the other hand, there are also those countries that successfully managed their natural resource wealth and transformed this into other forms of investment, paying higher returns to the country. Typically, such a strategy would entail channeling natural resource wealth into human capital and infrastructure investments, boosting the education and health of the population while also improving economic diversification and competitiveness.

Using a development lens, the main challenges in managing natural resource wealth could be summarized by the following. First, the so-called ‘Dutch disease’ could take place, because of the large inflows of foreign currency from resource exports, resulting in increased demand for the domestic currency, and its subsequent appreciation. Countries with fixed or rigid exchange rate regimes face this risk, often triggering a hollowing out of other export industries that depend on competitive exchange rates. What results is a crowding out of the manufacturing sector, and at its worst, stunts diversification and development of the rest of the economy (eg, Heuty and Aristi, 2010; Frankel, 2010).

Furthermore, over dependence on the extractives industry opens the economy to volatile swings in prices (and also output) because of international transmission of demand and supply side factors. For example, a major slowdown in major export markets could temper the demand for oil and mineral exports, depressing prices and diminishing export revenues. Boom-bust cycles could cripple efforts to promote high and inclusive growth by increasing the volatility in social sector spending and investments, and by subjecting household incomes to shocks that could strain social protection and insurance efforts. Ultimately, a more volatile and less predictable economy could disincentivize investments – both foreign and domestic – because of higher risk. At least one empirical study finds that economic volatility due to commodity boom and bust patterns is negatively associated with physical capital accumulation and factor productivity.

In addition, some countries with large natural resource based industries also tend to suffer from challenges related to poor governance and weak institutions. The literature suggests that natural resource dependence could be associated with corruption and poor governance (eg, Leite and Weidman, 1999; Gylfason and Zoega, 2002). Some analysts contend that countries with

already good institutions will be able to more effectively leverage natural resource wealth for development (Collier and Goderis, 2012; Robinson *et al.*, 2006). In addition, Aleexeev and Conrad (2009) find little empirical evidence that that oil or mineral wealth interacts positively with institutional quality. This in turn could lead to weak public and private sector investments in children and youth, due in part to weaker household incomes as well as unresponsive and bad governance. Even weaker long term economic and human development prospects typically ensues, in some cases introducing a low level development trap of weak institutions and inadequate human development.

How then can policymakers manage these risks and forge extractive industries as a force for development? This symposium as part of *Comparative Economic Studies* brings together a collection of studies borne out of policy research and management projects, drawing on work by the United Nations Children's Fund (UNICEF) and the United Nations Development Programme (UNDP) with partner institutions in government, NGOs and civil society. The goal of the symposium draws from the objectives of these projects: to provide technical assistance to policymakers in the developing world, relating to best practices in natural resource management.

The symposium is based on a panel titled 'Managing Natural Resource Wealth for Development: What Works and What Does Not Work?', which was held at the AEA/ASSA 2013 meetings of the *Association for Comparative Economic Studies (ACES)* in San Diego, California. The program for the conference session can be found at: www.aeaweb.org/aea/2013conference/program/preliminary.php?search_string=doytch&search_type=last_name&search=Search.

The papers presented were: 'Capturing Mineral Revenues in Zambia: Past Trends and Future Prospects' by Anthony Simpasa, Degol Hailu, Sebastian Levine and Roberto Julio Tibanal (UNDP); 'An Analysis of the Challenges and Opportunities Relating to Different Policy Options for State Equity Participation in Natural Resources Projects in Sub Saharan Africa' by Nicolás M. Depetris Chauvin (African Center for Economic Transformation); 'Natural Resource Management in the Context of Increasing Commodity Price Volatility' by Yanchun Zhang, Viridiana Garcia and Nina Thelen (UNDP); 'Extractive Industries, Children and Inclusive Growth: An Analysis of Mongolia, Papua New Guinea and Timor-Leste' by Ronald U Mendoza, Harold J. McArthur and Anne Ong Lopez (Asian Institute of Management and UNICEF) and 'Does mining FDI crowd in or crowd out other investments? An empirical analysis across 70 countries from 1985–2010' by Nadia Doytch and Ronald Mendoza and Charles Siriban (CUNY Brooklyn College and Graduate Center; and Asian Institute of Management).

In addition to the three papers of the symposium presented here, several other studies were considered for this symposium. Notably, we would like to

thank Christopher A. Hartwell and Don L. Coursey (Institute of Emerging Market Studies, Skolkovo) and Ronald U Mendoza and John Lyndon (Asian Institute of Management) for contributing work that is not in the symposium. We would like to also thank the contributors of the third symposium article 'Papua New Guinea and the Natural Resource Curse' by Nayda Avalos, Veronica Gonzales Stuva, Adam Heal, Kaoru Lida and Naohito Okazoe (UN ESCAP and University of Michigan), which was not part of the ACES 2013 Program.

We would also like to thank the discussants at the symposium for their comments helping to improve the models and add more empirical evidence in the two conference papers also accepted in the symposium. Namely, we thank Sebastian Levine, Nico Depetris Chauvin and Yanchun Zhang for their contribution to the discussion. All the papers published here were reviewed by CES referees and extensively revised for publication. We thank the Editors of CES, Professors Josef Brada and Paul Wachtel for selecting our conference panel for the current symposium and assisting us with editorial comments.

With this symposium, we also like to commemorate the work and life of Sebastian Levine, a wonderful colleague and researcher of Development Economics, who was a presenter at the ACES 2013 panel and passed away shortly after. This was one of Sebastian's last presentations and the unfinished paper - one of his final works. Even though his paper is not part of this symposium, each and every paper of ours have benefited tremendously from Sebastian's tireless review and thoughtful comments. We cannot appreciate more the thoroughness of his knowledge, his absolute passion for development and his highest standard of collegiality. We dedicate this symposium to the memory Sebastian Levine.

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REFERENCES

- Alexeev, M and Conrad, R. 2009: The elusive curse of oil. *The Review of Economics and Statistics* 91(3): 586–598.
- Collier, P and Venables, AJ (Eds) 2011: *Plundered nations? Successes and failures in natural resource extraction*. Palgrave Macmillan: Basingstoke.
- Collier, P and Goderis, B. 2012: Commodity prices and growth: An empirical investigation. *European Economic Review* 56(6): 1241–1260.
- Dobbs, R, Oppenheim, J, Kendall, A, Thompson, F, Bratt, M and Van der Marel, F. 2013: 'Reverse the Curse: Maximizing the Potential of Resource-Driven Economies.' McKinsey Global Institute, http://www.mckinsey.com/insights/energy_resources_materials/reverse_the_curse_maximizing_the_potential_of_resource_driven_economies, accessed December 2013.

- Frankel, J. 2010: *The natural resource curse: a survey* (No. w15836). National Bureau of Economic Research.
- Gylfason, T and Zoega, G. 2002: *Inequality and economic growth: Do natural resources matter?* CESinfo Working Paper 712, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=316620.
- Heuty, A and Aristi, J. 2010: 'Boom, Bust and Better Policy: Crises Lessons for Resource Rich Countries. Fool's Gold: Assessing the Performance of Alternative Fiscal Instruments During the Commodities Boom and Global Crisis. Revenue Watch Institute, http://archive-2011.revenue-watch.org/files/RWI_Fools_Gold_Heuty_Aristi_FINAL.pdf, accessed 31 March 2010.
- Leite, C.A and Weidman, J. 1999: Does mother nature corrupt? Natural resources, corruption, and economic growth. *Natural Resources, Corruption, and Economic Growth (June 1999)*. IMF Working Paper, (99/85).
- Robinson, J.A, Torvik, R and Verdier, T. 2006: Political foundations of the resource curse. *Journal of Development Economics* 79(2): 447–468.