**Oil Price Cycles and The Choice of Private vs Public Schools**

*Abdullah Almansour, KFUPM Business School*

## Overview

Macro-exogenous shocks that adversely affect human capital accumulation may have a lasting impact because investment in human capital takes place at critical stages and cannot be postponed. Economies that rely heavily on income from exacting natural resources are subject to the high volatility that characterizes the natural resources market and are thus subject to negative and frequent macro shocks. Accordingly, investments in human capital in such countries may be adversely affected. In this study, we show how in Saudi Arabia, a country that relies heavily on crude oil exports, negative shocks in crude oil prices can impact households’ decisions to invest in education. There are approximately 14 percent of Saudi students in the country who attend private schools that charge fees to provide educational services. While 14 percent might sound low, the pace of growth in the number of Saudi students attending private schools, especially international schools, is very strong, much stronger than that of public schools. The paper investigate how the growth in private schools enrolment is affected by the oil down cycle of mid 2014.

## Methods

We use the oil down cycle that started in the second half of 2014 to empirically study its impact on the choice of public vs private school by *Saudi patents* who lives in Saudi Arabia, a country that relies much on oil revenues. Public schools in Saudi Arabia are tuition-free schools while private schools charges tuition fees. Private schools can be *national private* schools, which teach national curricula or *international schools*, which teach international curricula and tend to charge relatively higher fees. We collect data on K-12 school enrolment in all three school types across all the Ministry of Education’s offices in Saudi Arabia from 2013-2021. We then run series of regressions to study the impact of the oil down cycle on the dynamic of enrolment. We use the data to examine first what explain the choice of private vs public schools and then we investigate the impact of the oil down cycle on the number of Saudi students in both types of private schools.

## Results

we find that the oil-down cycle that started in the second half of 2014 compelled parents to abstain from sending their children to and, in some cases, de-enroll their children from tuition-based private schools, which are perceived to provide better quality education. Parents enrolled the children in free public schools. The impact of the shock on private school enrolment differs according to the type of school. In national private schools that teach national curricula, the growth rate of Saudi students dropped from 6 percent during the period before the shock to reach -3.8 percent in the academic year of 2018. Whereas, in international private schools that teach international curricula and tend to charge higher fees, the growth rate dropped from 40 percent before the shock to 23.8 percent in the academic year of 2017. We also find that the pace of rebound in national private schools, once the oil prices start to rebound, varies significantly across cities, sex, and educational levels, indicating a heterogeneous impact of the shock.

## Conclusions

The propagation of oil market volatility to the choice of schools by parents the pursuit of better quality education have important implications for both parents and policymakers. Parents may find it very hard to maintain the quality of education under the uncertainty of the income they earn, which may have a permanent impact on the human capital accumulation of their children. The government, with lower level of oil revenues in down cycles, may find itself under greater pressure to allocate more resources to education to accommodate extra students who might switch from private to public schools, affecting the quality of education. Although this study focuses on the adverse impact of oil shocks on education, other government services, particularly health services, are also expected to be impacted by oil shocks in a similar fashion. This emphasizes the importance of shielding the economy from the volatility of the oil market.

## References

1. Alvarez, R. and Vergara, D. (2016). Natural Resources and Education: Evidence from Chile. Work- ing Papers wp433, University of Chile, Department of Economics.
2. Baumeister, C. and Kilian, L. (2016). Understanding the Decline in the Price of Oil since June 2014. Journal of the Association of Environmental and Resource Economists, 3(1):131–158. Publisher: The University of Chicago Press.
3. Bernanke, B. S. (1983). Irreversibility, Uncertainty, and Cyclical Investment\*. The Quarterly Journal of Economics, 98(1):85–106.
4. Blanchard, E. and Olney, W. (2015). Globalization and Human Capital Investment: How Export Composition Drives Educational Attainment. Department of Economics Working Paper 2013-18, Department of Economics, Williams College.
5. Cust, J. and Poelhekke, S. (2015). The Local Economic Impacts of Natural Resource Extraction. Annual Review of Resource Economics, 7(1):251–268. eprint: https://doi.org/10.1146/annurev- resource-100814-125106.
6. Dixit, R. K. and Pindyck, R. S. (1994). Investment under Uncertainty.
7. Douglas, S. and Walker, A. (2017). Coal Mining and the Resource Curse in the Eastern United States. Journal of Regional Science, 57(4):568–590. eprint: <https://onlinelibrary.wiley.com/doi/pdf/10.1111/jors.12310>.
8. Ebeke, C., Omgba, L. D., and Laajaj, R. (2015). Oil, governance and the (mis)allocation of talent in developing countries. Journal of Development Economics, 114:126–141.
9. Flug, K., Spilimbergo, A., and Wachtenheim, E. (1998). Investment in education: do economic volatility and credit constraints matter? Journal of Development Economics, 55(2):465–481.
10. Grigoli, F., Herman, A., and Swiston, A. (2019). A crude shock: Explaining the short-run impact of the 2014–16 oil price decline across exporters. Energy Economics, 78:481–493.
11. Gylfason, T. (2001). Natural resources, education, and economic development. European Economic Review, 45(4):847–859. 15th Annual Congress of the European Economic Association.
12. McGuirk, E. F. (2013). The illusory leader: natural resources, taxation and accountability. Public Choice, 154(3):285–313.
13. Mousavi, A. and Clark, J. (2021). The Effects of Natural Resources on Human Capital Accumulation: A Literature Survey. Journal of Economic Surveys, 35.
14. Papyrakis, E. and Raveh, O. (2014). An Empirical Analysis of a Regional Dutch Disease: The Case of Canada. Environmental and Resource Economics, 58(2):179–198.