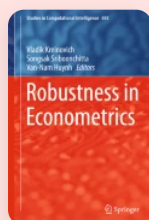


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Natural Resources, Financial Development and Sectoral Value Added in a Resource Based Economy

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Robustness in Econometrics

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Abstract

This chapter investigates the effects of natural resource dependence and financial development on the sectoral value added in a resource based economy, Yemen. We allow the effect of these two factors to be different for the growth of agricultural, manufacturing and service sectors respectively. We remark on one hand that natural resource curse hypothesis is strongly supported. The agricultural and manufacturing sectors are affected by this phenomenon which implies the existence of Dutch disease symptoms in Yemen. On the other hand, financial

sector development does not play an important role in fostering real sectors activities. The service sector is the only sector that benefit from the financial sector development in Yemen. This finding opens up a new insight for Yemeni economy to sustain sectoral growth by controlling the level of natural resource dependence and proactiveness sectoral strategy for financial sector development.

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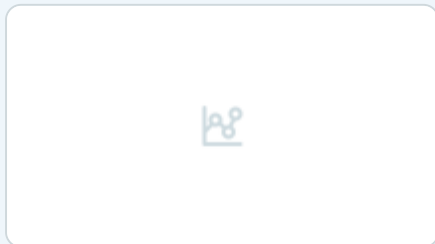
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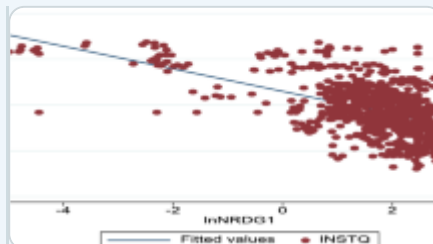
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Notes

1. Other regional countries such as Saudi Arabia, Oman and Kuwait do not have other important real sectors in their economy besides oil
2. The first bank was established in the north of Yemen in 1962

3. The Dutch disease phenomena works when natural resources booms increase domestic income and, consequently the demand for goods, which generate inflation and appreciation of the real exchange rate making much of the manufacturing industry uncompetitive in the world market
4. See [[6](#), [9](#)] for recent literature survey of the curse of natural resources
5. Manufacturing is a subsector of industry sector; however, we focus on its separate contribution due to its importance in our study
6. According to the Central Statistical Organization of Yemen, there were eighteen Yemeni and international commercial and Islamic banks, thirty exchange companies, and nineteen insurance corporations and pension funds operating in Yemen in 2012
7. Oil revenues in Yemen include the concession commissions that the government receives from oil production companies, tax charges on foreign oil companies that operate in Yemen, and grants that the government receives from oil companies after signing contracts (Yemeni Ministry of Finance)
8. We focus on financial intermediaries due to the absence of stock market in Yemen
9. Yemeni unification took place on May 22, 1990, when the People's Democratic Republic of Yemen (also known as South Yemen) was united with the Yemen Arab Republic (also known as North Yemen), forming the Republic of Yemen (known as simply Yemen)
10. Angelini and Marcellino [[4](#)] argued that this simple treatment of the unification problem has been used widely in empirical macroeconomic

analyses in Europe. It is based on the economic reasoning that East Germany's economy represented very small portion of the unified Germany economy in real GDP terms in 1991

11. Evidence of the validity of this treatment comes from the fact that the economy of former Southern Yemen accounted for only 17.3% of real GDP of united Yemen. Additionally, the economy of united Yemen is largely based on the market system which was followed by the Northern part before unification
12. The same approach is applied to Eqs. (5) and (6) respectively
13. Figures of CUSUM and CUSUMQ are available upon request
14. A simple univariate regression applied by IMF (2013) of the real effective exchange rate on real oil prices for the period 1995–2012 suggested that a 1% increase in oil prices leads to a real appreciation of Yemeni Rial about 0.3%
15. This measure is considered to be the broadest measure of financial intermediation and includes three types of financial institutions: the central bank, deposit money banks and other financial institutions. Although this measure does not represent the effectiveness of the financial system, but by assuming that the size of the financial intermediary system is positively correlated with the financial system activities, this can be used for constructing PCA as a measure of financial development for robustness check

References

1. Abu-Bader S, Abu-Qarn AS (2008) Financial development and economic growth: the Egyptian experience. *J Policy Model* 30(5):887–898

2. Albatuly A, Al-Hawri M, Cicowicz M, Lofgren H, Pournik M (2011) Assessing development strategies to achieve the MDGs in the Republic of Yemen. Country study, July 2011

[Google Scholar](#)

3. Ang JB, McKibbin WJ (2007) Financial liberalization, financial sector development and growth: evidence from Malaysia. *J Dev Econ* 84(1):215-233

[Article](#) [Google Scholar](#)

4. Angelini E, Marcellino M (2011) Econometric analyses with backdated data: unified Germany and the Euro area. *Econ Model* 28(3):1405-1414

[Article](#) [Google Scholar](#)

5. Apergis N, Payne JE (2014) The oil curse, institutional quality, and growth in MENA countries: evidence from time-varying cointegration. *Energy Econ* 46:1-9

[Article](#) [Google Scholar](#)

6. Arezki R, van der Ploeg F (2011) Do natural resources depress income per capita? *Rev Dev Econ* 15(3):504-521

[Article](#) [Google Scholar](#)

7. Auty R (2002) Sustaining development in mineral economies: the resource curse thesis. Taylor & Francis, New York. ISBN: 9781134867905

[Google Scholar](#)

8. Badeeb RA, Lean HH (2016) Financial development, oil dependence and economic growth: evidence from Republic of Yemen. *Studies in economics and finance* (to appear). Forthcoming

9. Badeeb RA, Lean HH, Clark J (2017) The evolution of the natural resource curse thesis: a critical literature survey. *Resour Policy* 51:123-134

[Google Scholar](#)

10. Badeeb RA, Lean HH, Smyth R (2016) Oil curse and finance-growth nexus in Malaysia. *Energy Econ* 57:154-165

[Google Scholar](#)

11. Barro RJ, Sala-i Martin X (2004) *Economic growth*. Advanced series in economics. McGraw-Hill, New York. ISBN: 9780262025539

[Google Scholar](#)

12. Barro RJ (1989) A cross-country study of growth, saving, and government. Working paper 2855, National Bureau of Economic Research, February 1989

[Google Scholar](#)

13. Bittencourt M (2012) Financial development and economic growth in Latin America: is Schumpeter right? *J Policy Model* 34(3):341-355

[Article](#) [Google Scholar](#)

14. Burrowes RD (2010) *Historical dictionary of Yemen*. Asian/Oceanian historical dictionaries. Scarecrow Press, Lanham

[Google Scholar](#)

15. Chang R, Kaltani L, Loayza N (2005) Openness can be good for growth: the role of policy complementarities. Working paper 11787, National Bureau of Economic Research, November 2005

16. Demetriades PO, Hussein KA (1996) Does financial development cause economic growth? Time-series evidence from 16 countries. *J Dev Econ* 51(2):387-411

[Article](#) [Google Scholar](#)

17. Gylfason T (2001) Natural resources, education, and economic development. *Eur Econ Rev* 45(46):847-859 ISSN: 0014-2921. 15th annual congress of the European Economic Association

[Article](#) [Google Scholar](#)

18. Gylfason T (2006) Natural resources and economic growth: from dependence to diversification. Springer, Berlin, pp 201-231

[Google Scholar](#)

19. Hassan MK, Sanchez B, Yu J-S (2011) Financial development and economic growth: new evidence from panel data. *Q Rev Econ Finan* 51(1):88-104 ISSN: 1062-9769

[Article](#) [Google Scholar](#)

20. Huchet-Bourdon M, Le Mouël CLM, VIJIL M (2011) The relationship between trade openness and economic growth: some new insights on the openness measurement issue. In: XIIIème Congrès de l'Association Européenne des Economistes Agricoles (EAAE), Zurich, August 2011

[Google Scholar](#)

21. Kim D-H, Lin S-C (2015) Natural resources and economic development: new panel evidence. *Environ Resour Econ* 1-29. ISSN: 1573-1502

[Google Scholar](#)

22. King RG, Levine R (1993) Finance and growth: Schumpeter might be right. Q J Econ 108:717-737

[Article](#) [Google Scholar](#)

23. Kremers JJM, Ericsson NR, Dolado JJ (1992) The power of cointegration tests. Oxf Bull Econ Stat 54(3):325-348 ISSN: 1468-0084

[Google Scholar](#)

24. Levine R (1997) Financial development and economic growth: views and agenda. J Econ Lit. 35(2):688-726

[Google Scholar](#)

25. Levine R, Loayza N, Beck T (2000) Financial intermediation and growth: causality and causes. J Monet Econ 46(1):31-77 ISSN: 0304-3932

[Google Scholar](#)

26. Lucas RE (1988) On the mechanics of economic development. J Monet Econ 22(1):3-42 ISSN: 0304-3932

[Article](#) [Google Scholar](#)

27. McKinnon RI (1973) Money and capital in economic development. Brookings Institution, Washington, DC

[Google Scholar](#)

28. Mehlum H, Moene K, Torvik R (2006) Institutions and the resource curse*. Econ J 116(508):1-20 ISSN: 1468-0297

[Article](#) [Google Scholar](#)

29. Narayan PK (2005) The saving and investment nexus for China: evidence from cointegration tests. *Appl Econ* 37(17):1979–1990

[Article](#) [Google Scholar](#)

30. Nili M, Rastad M (2007) Addressing the growth failure of the oil economies: the role of financial development. *Q Rev Econ Finan* 46(5):726–740 ISSN: 1062-9769

[Article](#) [Google Scholar](#)

31. Pagano M (1993) Financial markets and growth. *Eur Econ Rev* 37(2):613–622 ISSN: 0014-2921

[Article](#) [Google Scholar](#)

32. Patrick HT (1966) Financial development and economic growth in underdeveloped countries. *Econ Dev Cult Change* 14(2):174–189 ISSN: 00130079, 15392988

[Article](#) [Google Scholar](#)

33. Pesaran MH, Shin Y, Smith RJ (2001) Bounds testing approaches to the analysis of level relationships. *J Appl Econ* 16(3):289–326 ISSN: 1099-1255

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34. Robinson J (1952) The rate of interest and other essays. *Am Econ Rev* 43(4):636–641 ISSN: 00028282

[Google Scholar](#)

35. Romer P (1990) Endogenous technological change. *J Polit Econ* 98:71102

[Article](#) [Google Scholar](#)

36. Sachs JD, Warner A (1999) The big push, natural resource booms and growth. J Dev Econ 59(1):43-76

[Article](#) [Google Scholar](#)

37. Sachs JD, Warner A (2001) The curse of natural resources. Eur Econ Rev 45(4-6):827-838

[Article](#) [Google Scholar](#)

38. Sachs JD, Warner AM (1995) Natural resource abundance and economic growth. Working paper 5398, National Bureau of Economic Research, December 1995

[Google Scholar](#)

39. Schumpeter JA (1934) The theory of economic development: an inquiry into profits, capital, credit, interest, and the business cycle. Economics third world studies. Transaction Books, New Brunswick

[Google Scholar](#)

40. Shao S, Yang L (2014) Natural resource dependence, human capital accumulation, and economic growth: a combined explanation for the resource curse and the resource blessing. Energy Policy 74:632-642 ISSN: 0301-4215

[Article](#) [Google Scholar](#)

41. Shaw ES (1974) Financial deepening in economic development. J Finan 29(4):1345-1348 ISSN: 00221082, 15406261

[Article](#) [Google Scholar](#)

42. Singh T (2008) Financial development and economic growth nexus: a time-

[Article](#) [Google Scholar](#)

43. Torvik R (2009) Why do some resource-abundant countries succeed while others do not? Oxf Rev Econ Policy 25(2):241-256

[Article](#) [Google Scholar](#)

44. United Nation Development Programme UNDP (2006) Macroeconomic policies for growth, employment and poverty reduction. Technical report, Sub-regional Resource Facility for Arab States (SURF-AS), Beirut

[Google Scholar](#)

45. Vetlov I, Warmedinger T (2006) The German block of the ESCB multi-country model. Working paper 654, European Central Bank, Frankfurt am Main, Germany

[Google Scholar](#)

46. World Bank (2013) Project appraisal document on a proposed grant to the Republic of Yemen. Working paper 78624YE, Finance and Private Sector Development Department Middle East and North Africa Region

[Google Scholar](#)

47. Wurgler J (2000) Financial markets and the allocation of capital. J Financ Econ 58(1):187-214

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