Discussion of "How to Spend a Windfall: Dealing with Volatility and Capital Scarcity"

by

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April 6, 2012

The paper in a nutshell

- Two questions
  - How to make good use of oil windfalls
  - How to cope with oil price volatility
- Several alternatives
  - Intergenerational funds for smoothing consumption across generations given that the time varying nature of oil windfalls
  - Liquidity funds to self insure against oil price volatility
  - As hedging with options and other derivative products have high economic and political costs

The paper in a nutshell

- How to manage intergenerational and liquidity funds when there is
  - Uncertainty about asset returns
  - Uncertainty about the returns on domestic investment projects
  - Capital scarcity, under which optimal level of investment depends on the size of the oil windfall

The Model

- Simple two-period model
  - the intergenerational fund depends on how temporary the windfall is
  - the optimal amount of precautionary saving depends on the degree of prudence and the aversion to intergenerational inequality
  - Risky domestic investment projects and capital scarcity
  - Capital scarcity depresses public investment below its socially optimal level and retards economic development.
  - Optimal to spend part of the windfall on investment
- Infinite horizon model to analyze the decision under capital scarcity in three oil exporting countries

Three Cases of Major Oil Exporters

- Norway: Smaller reserves (8.5 years of production) and No capital scarcity.
  - Investing in SWF with a precautionary bend is optimal
  - For CRP=3, liquidity fund is 11.2% of intergenerational fund
  - For CRP=10, liquidity fund is 37.5% of intergenerational fund
- Iraq: Larger reserves and capital scarcity
  - Intergenerational fund is much smaller than the liquidity fund
  - Even for low CRP=1.025, liquidity fund is 68% of I-G fund
  - For higher CRP, liquidity fund exceeds the I-G fund,

Three Cases of Major Oil Exporters

- Ghana: Smaller and short windfall and likely to suffer from capital scarcity
  - Less vulnerable to oil price volatility
  - Larger portion of the windfall to be saved
  - Liquidity fund is smaller relative to the intergenerational fund
  - Due to capital scarcity Ghana should spend a larger portion of its oil windfall on domestic investment

Comments - I

- Transparency and accountability practices for oil funds differ substantially across oil producing countries.
- The use of oil windfall to boost public investments when capital is scarce is an important contribution of this paper
  - The paper considers only public investment
  - What about the private investment expenditures?
  - The return to public investment decreases rapidly unless private investment is boosted along with the public capital

Oil Reserves, Production and Institutional Quality Index for Major Oil Exporters, (2006-08)

Country	Oil Reserves (Bil. Barrels)	Oil Reserve-Production Ratio (years)	Oil Exports (Mil. Barrels per day)	Oil Exports Revenue-GDP Ratio (%)	Polity Index (-10,10)
Indonesia	4.0	11.2	0.3	2.0	8
Iran	138.1	87.7	2.6	25.3	-6
Kuwait	101.5	102.9	1.7	39.7	-7
Libya	43.1	65.0	1.4	55.5	-7
Mexico	12.3	9.8	1.7	4.7	8
Nigeria	37.2	44.9	2.2	35.6	4
Norway	8.1	8.5	2.0	14.3	10
S. Arabia	264.2	67.6	7.1	49.7	-10
Venezuela	119.7	124.7	1.9	23.3	5

- Source: Esfahani, Mohadded and Pesaran (2012)

Comments - II

- The use of oil windfall to get out of the poverty trap.
- Countries in poverty trap lack six major kinds of capital:
  - human capital,
  - business capital,
  - infrastructure,
  - natural capital,
  - public institutional capital,
  - knowledge capital.
- "Policy in developing countries should therefore typically follow a profile of measures to increase public and private sector investment, accompanied by some initial increases in consumption (perhaps achieved through tax reductions or conditional cash transfers)" (van der Ploeg and Venables, 2012).