



Country Risk Management in Low-Income Countries

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Strategies for Country Risk Management in LICs

- Growth in Low-Income Countries is twice as volatile as in other countries
- About half of the volatility comes from exogenous sources (Koren and Tenreyro, 2007)
- How can countries manage the main risks that affect their economies?

Sources of Volatility in LICs

- Natural disasters, including droughts and volatility in agricultural production
- Commodity price risk
- Global financial markets volatility and business cycle
- Aid Flows
- Idiosyncratic risk, including political turmoil and home-grown crises

Strategies to Manage Risk

- Self-insurance (sovereign wealth funds, international borrowing, international reserves)
- Facilities from multilateral institutions (with some reforms)
- Market instruments such as weather parametric insurance contracts, derivatives on commodities.

Natural Disasters

- Natural disasters can have devastating costs: 2000/01 hurricanes in Belize cost 30% of GDP each. Haiti 2010 earthquake maybe more than 100% of GDP
- Indirect costs: droughts cause civil wars (Miguel, Satyanath and Sergenti, 2004)
- Indirect costs: hurricanes a factor in Belize's debt crisis of 2006 and in high spreads on Belize's debt. (Borensztein, Cavallo and Valenzuela, 2009)

Natural Disasters. What Instruments?

- Foreign aid may be unreliable and late. Depends on exposure in media (Eisensee and Strömberg, 2007).
- Self-insurance expensive and difficult to manage. Borrowing would be difficult after a disaster
- Parametric insurance is an option. Lower implementation costs and no moral hazard. Can be done through REs or markets (“CAT Bonds”)
 - At government level (Mexico, Caribbean hurricane facility)
 - At farmers level (Ethiopia)

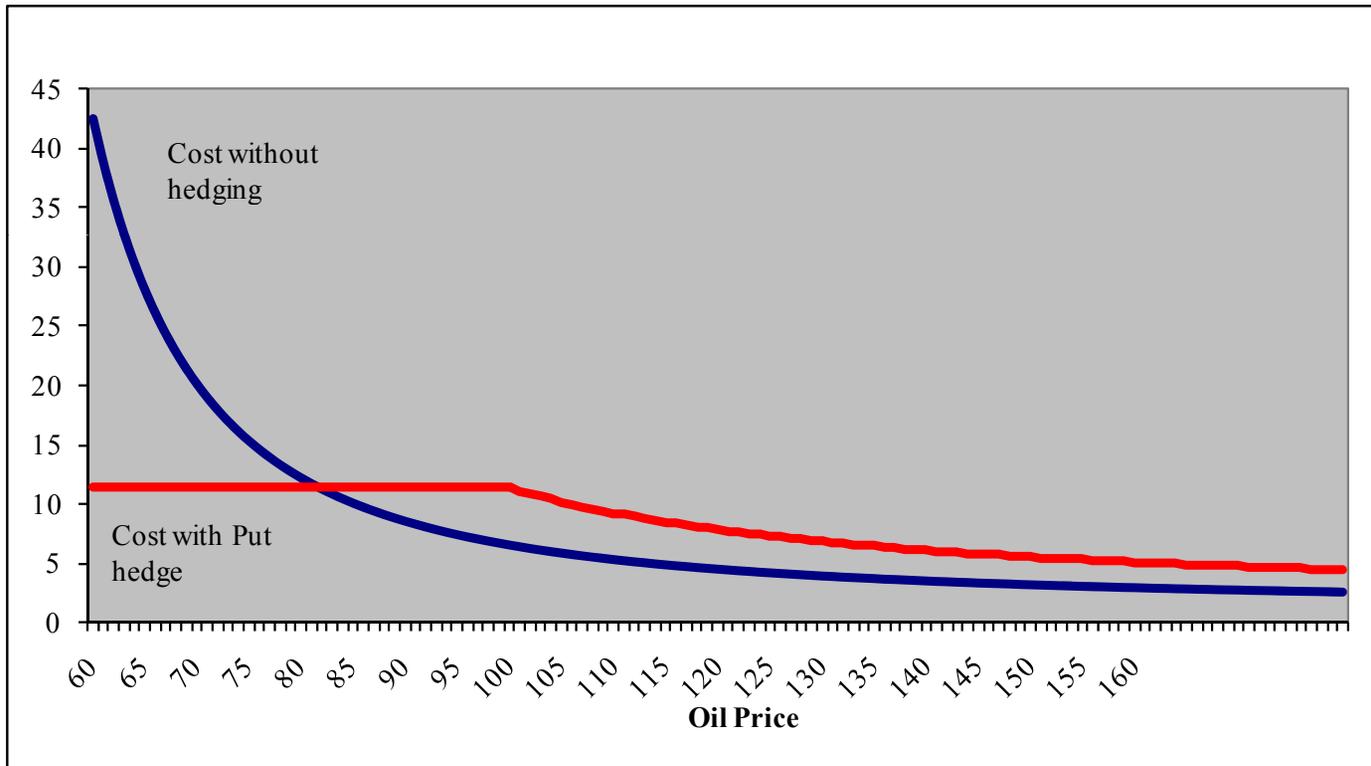
Commodity Price Risk

- Commodity producing sector represents a large fraction of the economy in many LICs.
- Commodity sector is usually 2-3 times as volatile as the non-commodity sector of GDP.
- Welfare gains from hedging commodity price risk could be substantial (equivalent to 4-5% higher annual consumption, Borensztein, Jeanne and Sandri, 2009)
- Very little hedging, despite availability of instruments. More widespread use of “stabilization funds” (less efficient, governance problems, easier to justify and result in less exchange rate appreciation)

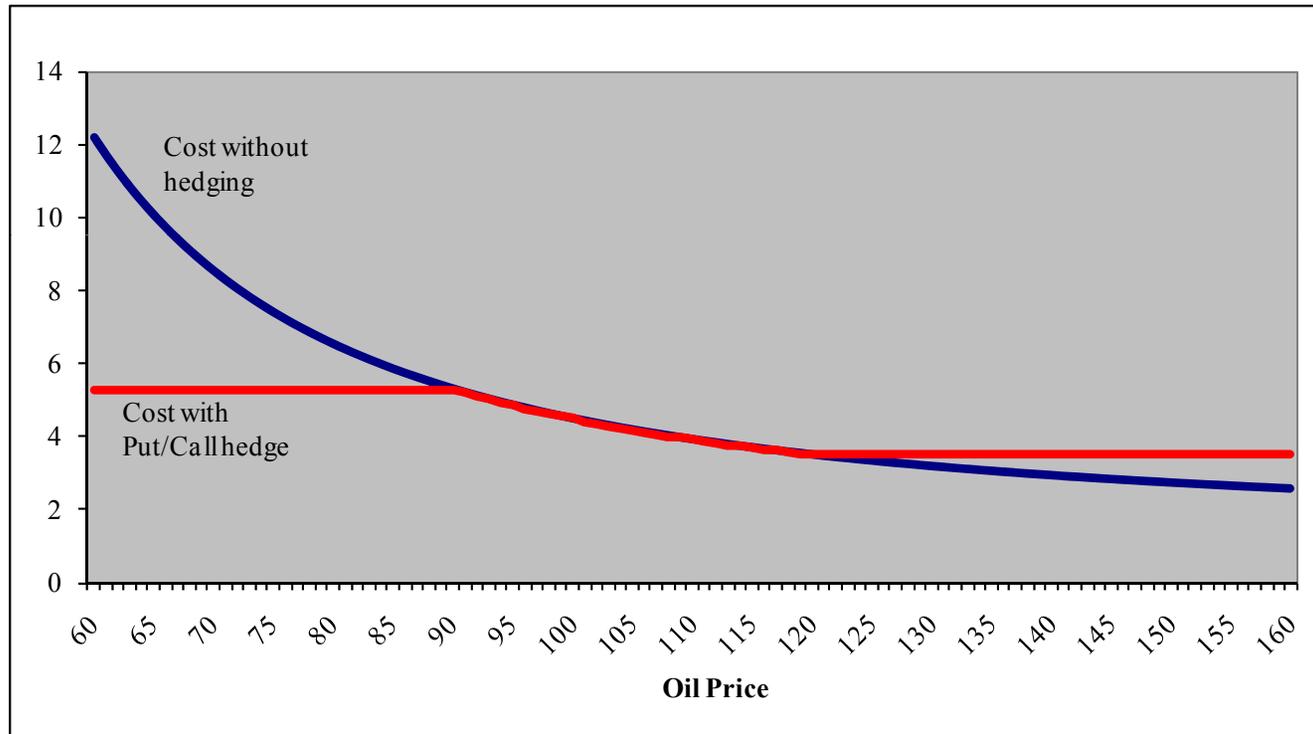
Example: Hedging Commodity Price Risk

- Small oil exporter that faces an increasing economic cost as oil prices fall
- One strategy is to buy a put option and be partially protected if the oil price falls below the strike price
- Country could use a “collar” and sell the upside to finance the cost of protecting the downside

Hedging Risk with a Put Option



Hedging Risk with a “Collar”



Other Risks

- Official facilities could be designed more flexibly. AFD “floating grace period”, for example. Contingent, shocks facilities make more financing available after a shock.
- For commercial borrowing, contingencies don’t work too well. Links to growth or commodity prices could work.
- GDP-linked debt means country makes higher payments in good times and lower or no payments in bad times. Investor appetite is there (Argentina). Government appetite maybe not.



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