Innovative financial solutions for implementing debt and risk management strategies: The case of Uruguay

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Outline

1. Context and Motivation
2. Criteria used and political and institutional constraints
3. Characteristics of the oil price hedging program with the WB
4. Political-economy considerations and concluding remarks
Context and Motivation

- A large number of emerging market economies have high fiscal exposure to fluctuations in oil prices.

- Oil price volatility is the highest among commodities and do not exhibit a natural long term average, so fiscal risks can be acute:
  - Increased vulnerability of governments balance sheets (impinges on sovereign creditworthiness)
  - Puts pressure on the government to divert resources away from priority areas
The case of Uruguay

- Despite progress in diversifying the energy matrix, Uruguay continues to be net importer of crude oil.
- Significant hikes in oil prices can have a negative impact on the country’s economic activity and public sector finances and public enterprise.
Need to protect the economy from abrupt changes in oil prices: criteria used

1. Use of financial markets to hedge risk
2. Conservative and not speculative ("plain vanilla")
3. Transparent and cost of the program known since inception (no downside or contingent liabilities)
4. Built capacity and accumulate cross-country experience to execute
5. Sustain it over time (recurrence)
6. Optimize given scarce budgetary resources
2. Oil hedging program with World Bank (WB)

- During 2016, the Ministry of Finance of Uruguay and the WB worked together to design and execute an oil hedging program to reduce exposure to oil price volatility.

- The program was established as a way to “buy certainty”, i.e., paying for protection to moderate the negative impact of significant oil price increases on Uruguay’s fiscal budget and the overall economy.

- The first-ever commodity hedge transaction where the WB is the direct counterparty to the sovereign
Hedging transaction: buying an option call

- The option call gives us the right (but not the obligation) to buy oil at a predetermined price

Parameters we needed to evaluate:
- Underlying Asset (type of oil)
- Volume hedged
- Strike Price
- Horizon
- Settlement

- Disbursement in premium: **USD 15,7 million**
Design and contract characteristics

- Instrument: **Asian Call Option**
- Underlying Asset: **Dated Brent Crude**
- Volume hedged: **6 million barrels**
- Strike Price: **USD 55 per barrel**
- Term: **12 months (Period: June 2016 - June 2017)**
- Settlement: **Asian** (at end of period, based on average oil price)

→ Disbursement in premium: **USD 15,7 million**
Evolution of oil prices and timing of execution

If Payoff = (Average Price – 55) * (Volume Hedged)

→ Implied volatility in oil price is the main driver of insurance premia
Mechanics of the operation: innovative features

The World Bank is the financial intermediary in the transaction:

- Pay a relatively low fee for intermediation services
- Passes thorough the pricing based on fiduciary responsibility
Why did we partner with the WB?

1. **Collaboration and Capacity Building**
   - Technical expertise and advisory services

2. **Financial Intermediation**
   - Market access and competitive pricing
   - Reduced documentation and speed of execution
   - Reduced counterparty risk
   - Small fee and does not use-up credit line
   - Aligned incentives (WB takes no open position)

3. **Institutional Support**
   - Following best practices
Additional pillar of the government`s risk-management framework

The Oil Hedging program is part of a broader strategy to manage fiscal risks, which includes:

- **Energy Stabilization Fund**
- **Weather & Oil Price Insurance with the World Banj (2013)**
- **Diversification of energy matrix towards renewable resources (insurance)**

→ Protecting the economy against global volatility by underpinning macro-financial resilience and reducing fiscal risks is a key pillar of the government`s strategy
4. Political economy considerations

- During 2016, the Ministry of Finance of Uruguay and the WB worked together to design an execute an oil hedging program to reduce exposure to oil price volatility.

- The program was established as a way to “buy certainty”, i.e. paying for protection to offset an exogenous negative outcome.

- This will help moderate the negative impact of significant oil price increases on Uruguay’s fiscal budget and the overall economy.
Concluding remarks

- The oil hedging program (and the weather derivative before that) is an example of how the WB can put together needs and solutions.

- Political economy considerations: the role of multilateral agencies, private insurance institutions and credit rating agencies.

- What explains the little extent of financial commodity hedging by governments (a survey?)

- Risk-pooling across countries with opposite exposures.

- Coordination with sub-sovereign: robust governance rules
Summary

- Oil Hedge Program will help to reduce the impact of a potential high increase in oil price over the financial result of the Overall Public Sector, mitigating its effect on the Uruguayan economy.

- Protecting the economy from external volatility is a key part of a prudent framework of political economy, giving macroeconomic and financial robustness and reducing fiscal risk from potential external events.

- Inter-institutional coordination within the Government in the design of the hedging program, and the participation of the World Bank in the execution are the innovative features of this program.
Weather & Oil Price Insurance

- On December 2013 the World Bank executed a USD 450 million weather and oil price insurance transaction for Uruguay’s state-owned public electric company (UTE).

- Pay-out was structured on a sliding scale, depending on the severity of the drought, and on oil price levels.

- UTE would receive a payout from the World Bank if the weather index is below the pre-determined trigger.

- The amount of the payout depends on the level of the rainfall index and market oil prices at that time.
How does this transaction works?

- The World Bank entered into a mirroring agreement with Nephila/Allianz and Swiss Re and effectively transferred the risk onto these entities.

- This insurance—the largest of its kind at that moment—was arranged for 18 months, time needed for other projects of renewable energy to join the matrix (mostly wind power).
Moving from Hedging to Insurance: significant change in the energy matrix of Uruguay

Global Primary Energy Matrix

- Oil: 40%
- Renewables: 43%
- Other non-renewable: 17%

Sources of Electric Generation

- Hydroelectric: 51%
- Wind Power: 25%
- Biomass: 18%
- Gas: 4%
- Oil: 1%

RENEWABLE SOURCES MAKES UP 43% OF ENERGY MIX (FROM 35% IN 2008)

95% OF ELECTRICITY IS GENERATED WITH RENEWABLE SOURCES

(*) Renewable sources include Wind Power (5%); Biomass (27%); Hydroelectric (10%); Solar (1%)
Strong increase in windpower capacity and generation

- Uruguay expects to surpass 1,300 MW of wind power installed capacity by the end of 2016.
- For 2017, Uruguay aspires to have a 35% of wind-generated electricity, close to Denmark (42%), the global leader.

Source: Ministry of Industry, Energy and Minery