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Managing commodity price shocks

by

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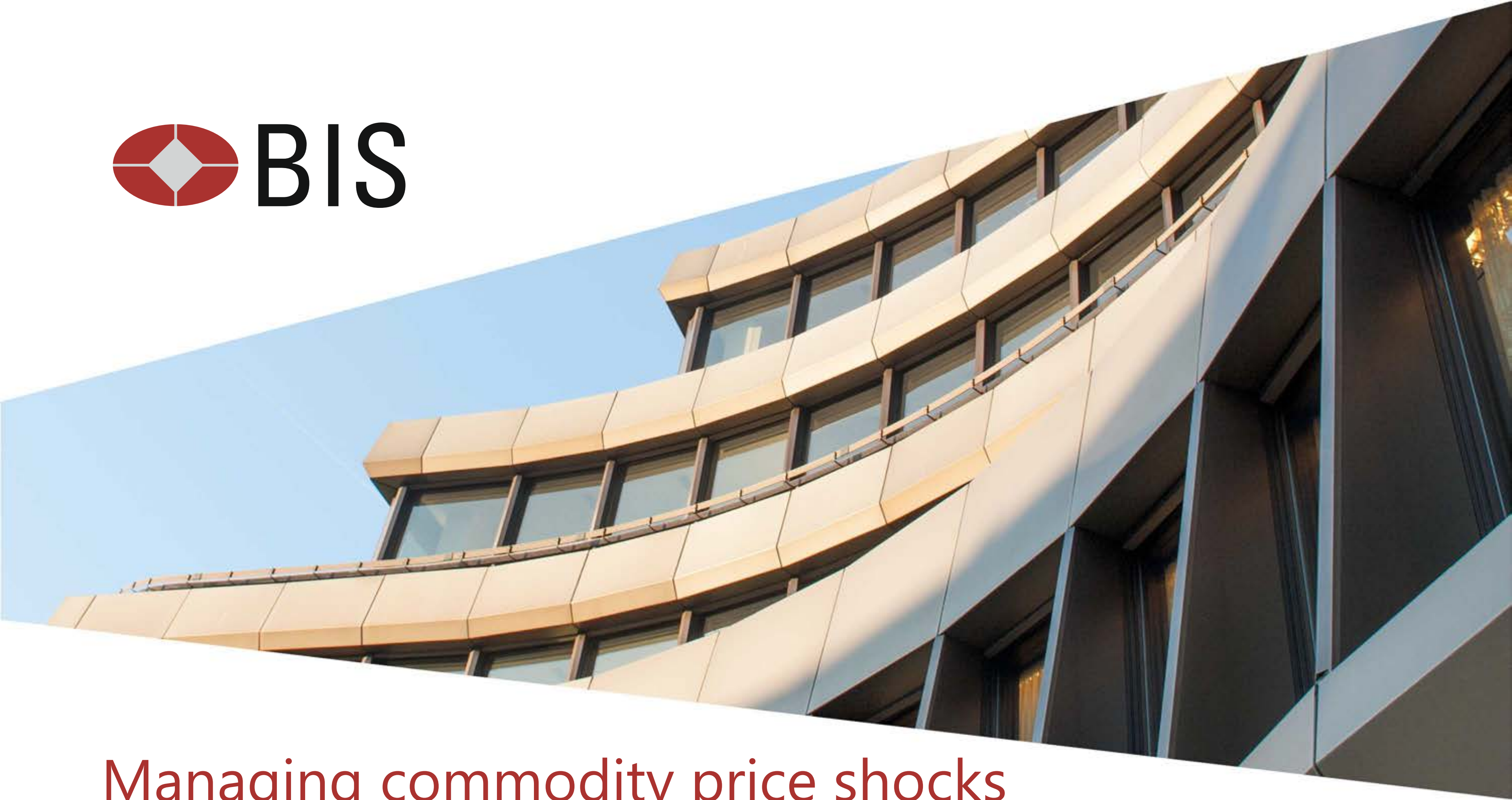

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UNCTAD Seminar: Commodity Dependence and Development

Fernando Avalos

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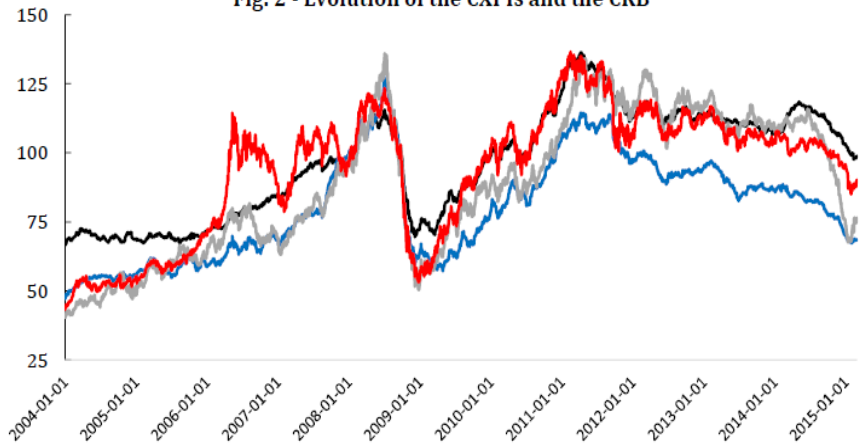
Introduction

- Commodity prices have seen large fluctuations over the last 20 years
- Significant challenges arise for large commodity exporters:
  - re macroeconomic management, both on the fiscal and monetary areas,
  - especially for less developed economies
- There are no “silver bullets” for the problems created by these fluctuations
- It is interesting to review some of the major issues, and how some countries have tried to confront them

Commodity price shocks are large but far from symmetric

- The size and timing of the shock can vary substantially
- Some countries had found ways to cope…

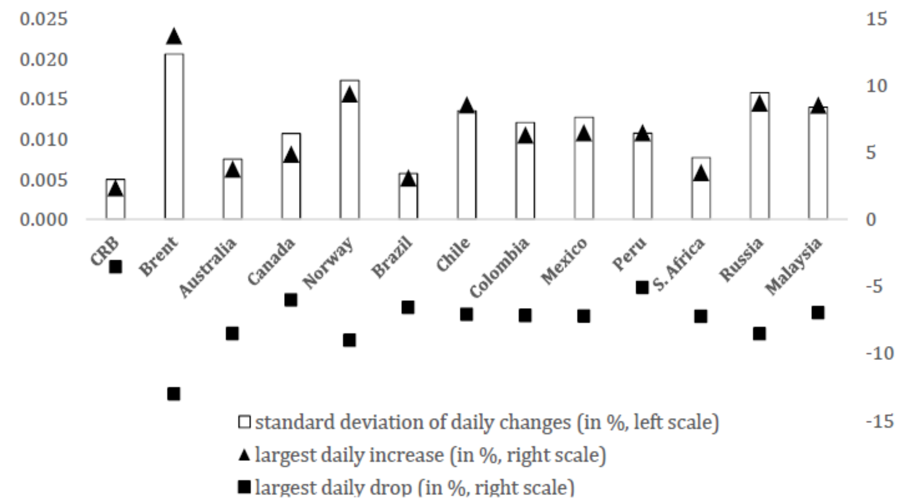
Fig. 2 - Evolution of the CXPIs and the CRB



Note: Average of 2008 = 100. Own computation.

Source: Kohlscheen, Avalos and Schrimpf (2017)

Fig. 1 - Variability of Commodity Export Price Indices (CXPIs)



Source: Kohlscheen, Avalos and Schrimpf (2017)

Shocks may trigger large FX adjustments…

- Correlations vary, sometimes as a result of unrelated and unexpected factors

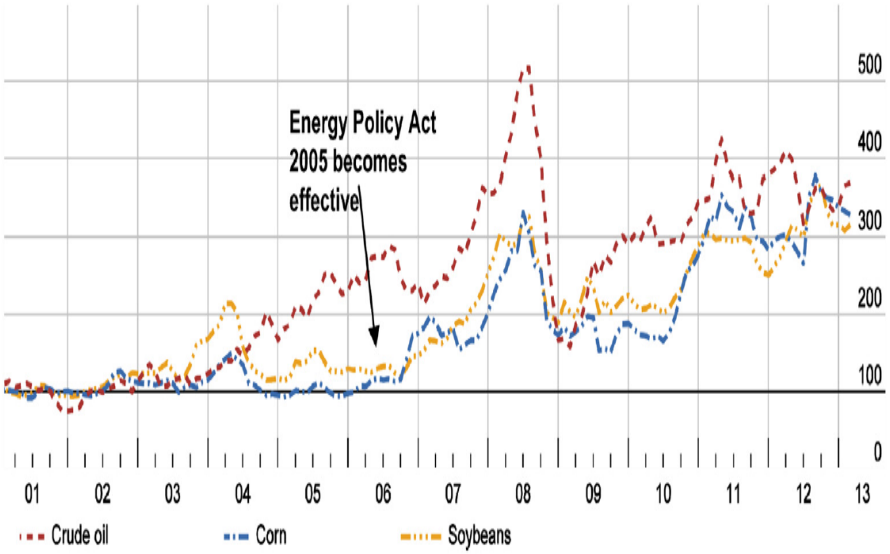
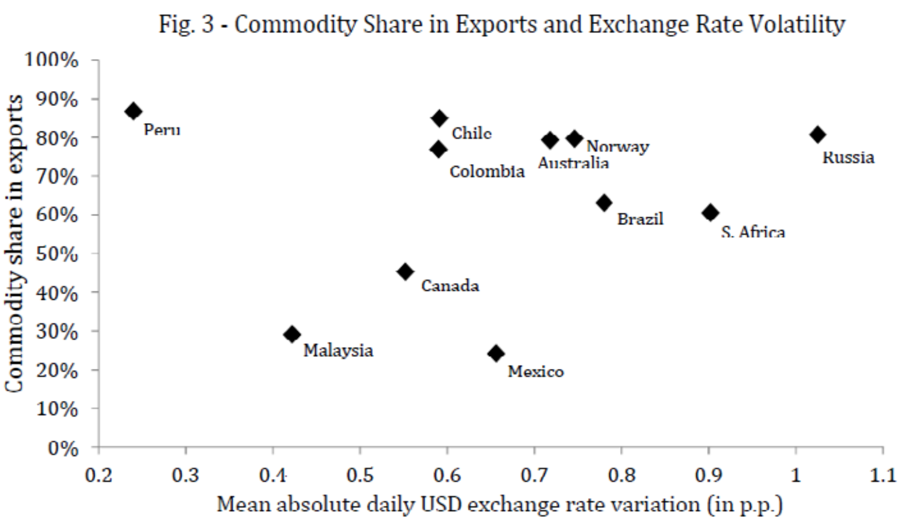


Fig. 3. Index of selected commodity prices (2001 = 100). S&P GSCI spot price indices, monthly average. Sources: Standard & Poor's'; Datastream.

Source: Avalos (2014)

- Exchange rates are more volatile for large commodity exporters



Source: Kohlscheen, Avalos and Schrimpf (2017)

...complicating the management of monetary policy

- Exchange rates shift jointly with commodity prices...

Table 2
Exchange rate predictability (in-sample) in a panel setting

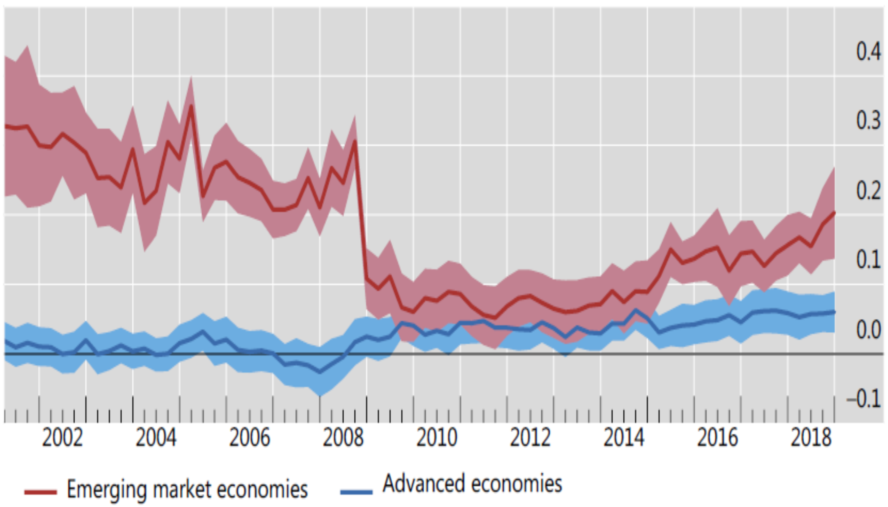
Dependent variable: log change of bilateral exchange rate

	Prediction horizon in days				
	k=1	k=5	k=22	k=44	k=66
CXPI	-0.020***	-0.016*	-0.044***	-0.047***	-0.018
t-stat	3.51	1.89	5.19	2.65	0.88
R2 overall	0.0032	0.0113	0.0540	0.0934	0.1228
R2 within	0.0032	0.0111	0.0530	0.0917	0.1206
R2 between	0.5714	0.5608	0.6062	0.6143	0.6055
Observations	30,294	30,283	30,096	29,854	29,612
Groups	11	11	11	11	11
Fixed effects	yes	yes	yes	yes	yes

Notes: This table shows the results of the panel regression $\Delta s_{i,t+k} = \alpha + \Delta CXPI_{i,t} + \gamma_i + \theta_{t+k} + \varepsilon_{i,t+k}$, where k stands for the length of the prediction horizon. t-statistics are based on clustered standard errors. *, **, *** denote statistical significance at 10%, 5% and 1%, respectively. The estimation is based on information from Jan 2004 to Feb 2015.

Source: Kohlscheen, Avalos and Schrimpf (2017)

- ... and the pass-through to domestic prices may create uncomfortable trade-offs



Source: Carstens (2019)

Discussion

- The exchange rate is a core element of the nominal anchor in SOEs
- The behavior of the exchange rate can fundamentally affect the dynamics of inflation and the working of monetary policy
- Trade channel may not be as important as in the past for some countries (except "Dutch disease")

  → Financial conditions and economic activity
- How to take account of FX fluctuations in monetary policy?
  - FX intervention
  - Foreign reserves accumulation
  - Macroprudential policy
- EMEs and CDDCs are rethinking their macroeconomic frameworks, both for fiscal (sovereign funds?) and monetary policy

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