

# Discussion of: Fair Weather or Foul? The Macroeconomic Effects of El Niño

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**Disclaimer:** The views expressed in this presentation are my own and should not be interpreted as reflecting the views of the Bank of Canada.

## Why do we care?

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- Extant and rapidly growing literature investigating the relationship between weather events and economic performance
  - ✓ Growing concerns about the effects of El Niño on commodity prices and macroeconomic outcomes
- Climate-economy relationship has implications for effective design of policies and appropriate institutions
  - ✓ Measures to boost agricultural production (e.g., cropping patterns, rainwater conservation, etc.)
  - ✓ Macroeconomic policies: Monetary tightening?

## Summary

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- **Aim:** To analyze the international macroeconomic transmission of El Niño weather shocks
- **Methodology:** Dynamic multi-country framework (GVAR)
  - ✓ Fresh approach
  - ✓ Accounts for economic inter-linkages and spillovers between different regions/countries
  - ✓ Able to **causatively** identify the effects of weather shocks...
  - ✓ .....at a disaggregated country level and for a wider range of macro aggregates

## Summary: Results

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- Economic consequences of El Niño shocks are large, significant and differ across countries
  - ✓ Short-lived fall in economic activity in Australia, Chile, Indonesia, India, Japan, New Zealand and S. Africa;
  - ✓ Growth enhancing effect on U.S and euro area;
  - ✓ Impacts on GDP growth negatively associated with geographical area and degree of diversification; positively associated with primary sector's share in GDP

## Summary: Results

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- El Niño shocks followed by short-run inflationary pressures in most countries, and
- Rise in global energy and non-fuel commodity prices

# Comments and questions

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1. Bilateral trade weights used to construct country-specific foreign variables
  - ✓ Bilateral commodity trade weights?
  - ✓ Trade weights averaged over 2007-09 and 2009-11, a period which saw significant fall in global trade.
    - Could a larger sample be used?
    - Are the results robust to alternate sub-samples?

## Comments and questions

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### 2. Economic significance of the results?

- ✓ How much of the fluctuations in GDP growth and inflation is explained by El Niño?
- ✓ Forecast error variance decomposition exercise
- ✓ Also has implications for policy responses

### 3. What is the role of interest rates and equity prices in the GVAR?

- ✓ Paper is silent on the impact of weather shocks on these variables.

## Comments and questions

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4. How stable are the estimated relationships, especially for inflation?
  - ✓ Sample period covers high and volatile inflation of the 70s; inflation rates were relatively more stable in the remainder of the sample
  
5. What are the appropriate macro policy responses to weather shocks?
  - ✓ “On the macroeconomic policy side, any uptick in inflation arising from El Niño shocks could be accompanied by fiscal consolidation and a tightening of the monetary stance (if second-round effects emerge), to help anchor inflation expectations.



## Comments and questions

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“ Because shocks to commodity price inflation are typically beyond the control of policymakers, hard to predict, and often not sustained, central banks seeking to establish credibility are generally better off setting and communicating their monetary policy in terms of underlying inflation rather than headline inflation.....” (IMF WEO, 2011, Ch. 3)

## Minor points

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1. Historical correlations between ENSO anomalies/shocks and key macroeconomic variables like GDP growth, inflation and commodity prices
2. Unclear on what global variables are finally included in the GVAR