Discussion of "Oil Shocks and U.S. External Adjustment"

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Overview

1. Objectives
2. The model
   – Role of oil
3. Oil price shock
   – Canada
   – Source of the oil price shock

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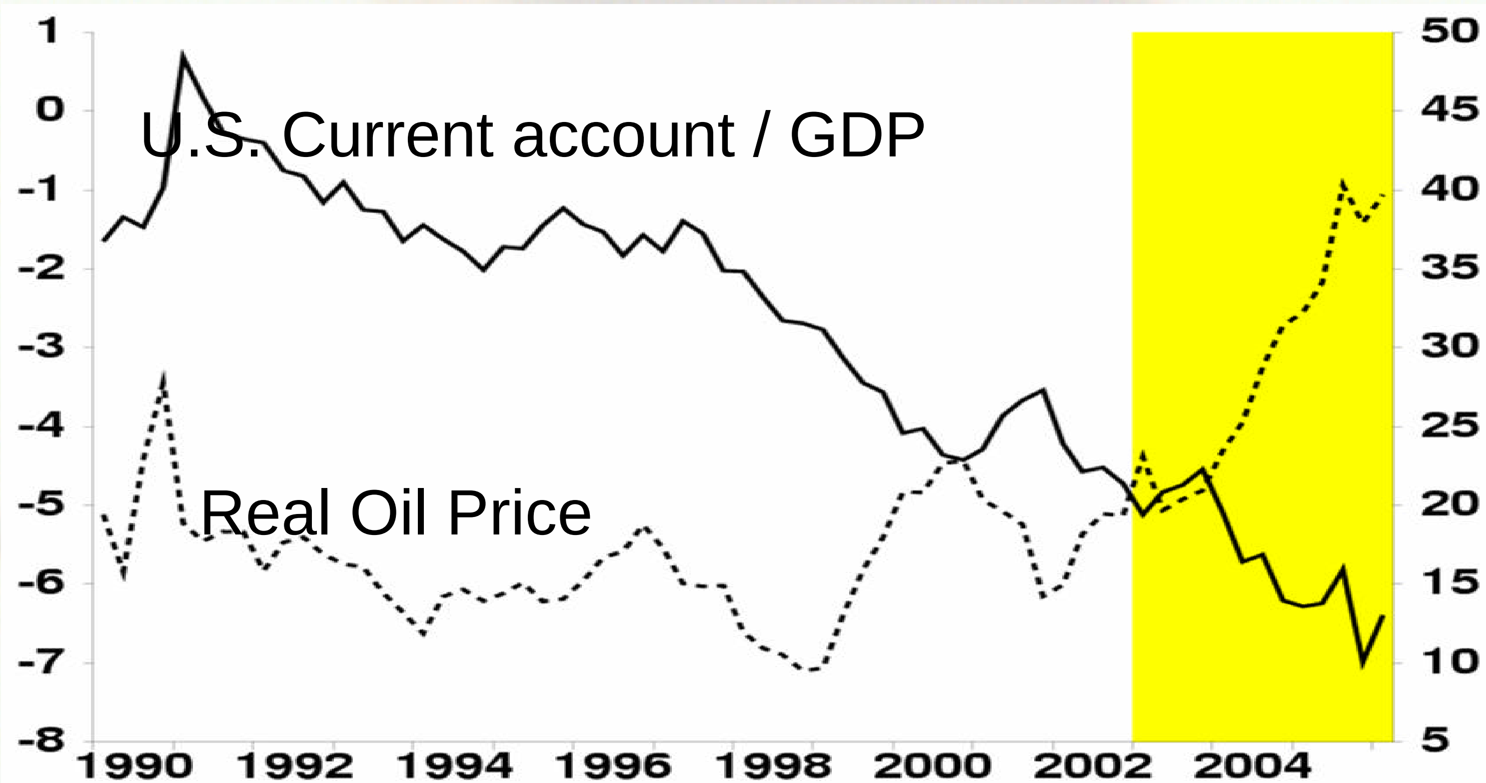
Objectives



Objectives

- How oil price shocks affect the economy
  - Degree of substitutability between oil and the other factors of production
  - The size of the energy endowment

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Model

- Multi-country version of the SIGMA model (Erceg, Guerrieri and Gust 2006)
- Oil:
  - Factor of production
  - Consumption good
  - Production of oil

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Model

- Oil production
  - (Canada, U.S. Europe) is fixed
    - No K or L required $Y_O^k,$
  - ROW block
    - Profit maximizing producer $Y_{Ot}^{ROW} = Z_{Ot}K_{Ot}$
    - World residual supplier of oil

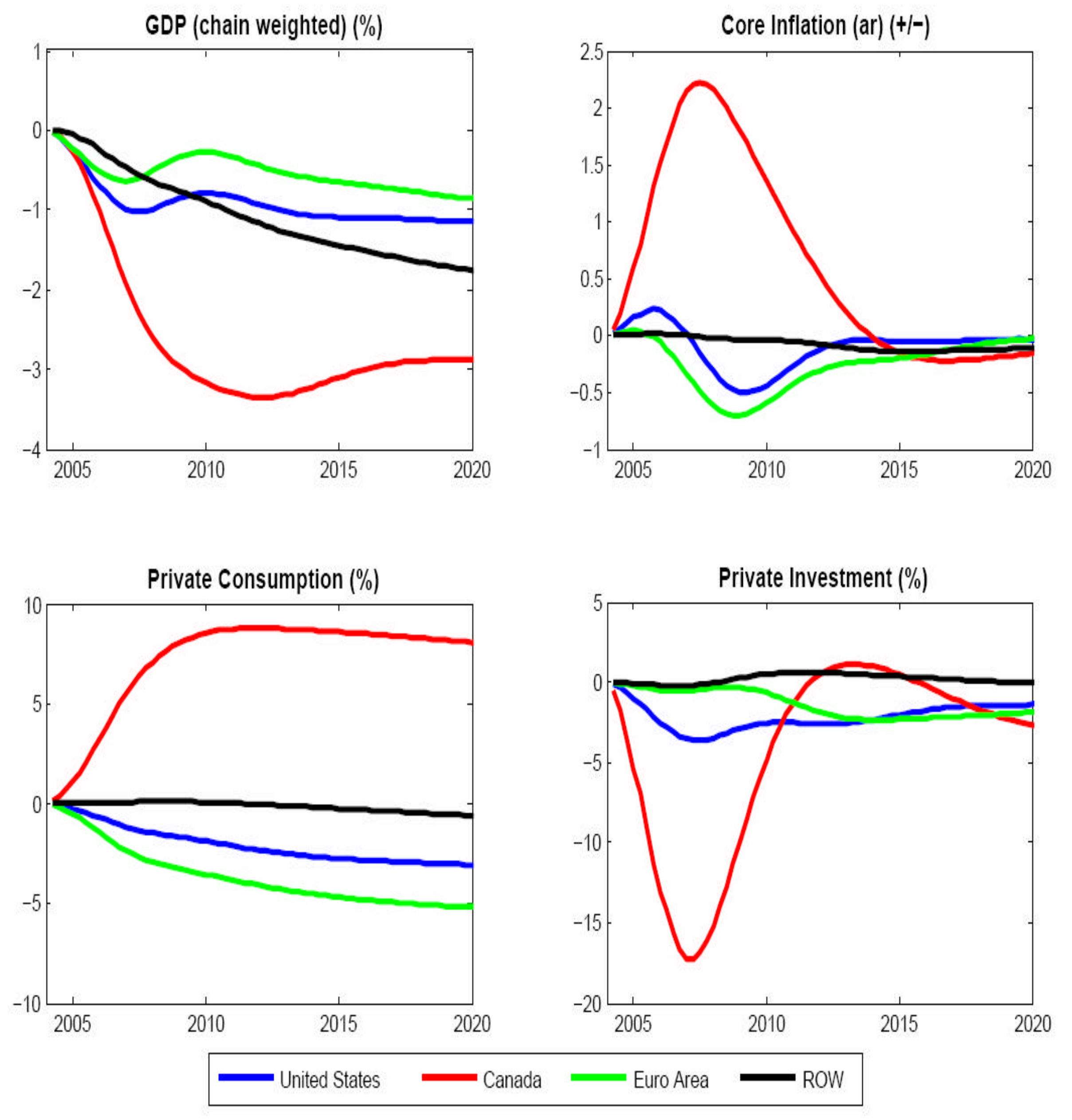
Oil price shock

- Oil price rise is supply-induced in ROW
  - World oil prices rise by 100% over time and demand gradually falls
  - Oil production unchanged everywhere except in ROW

- Positive wealth shock for Canada

- Big rise in C

- Large fall in investment as labour supplied falls and oil inputs become more expensive

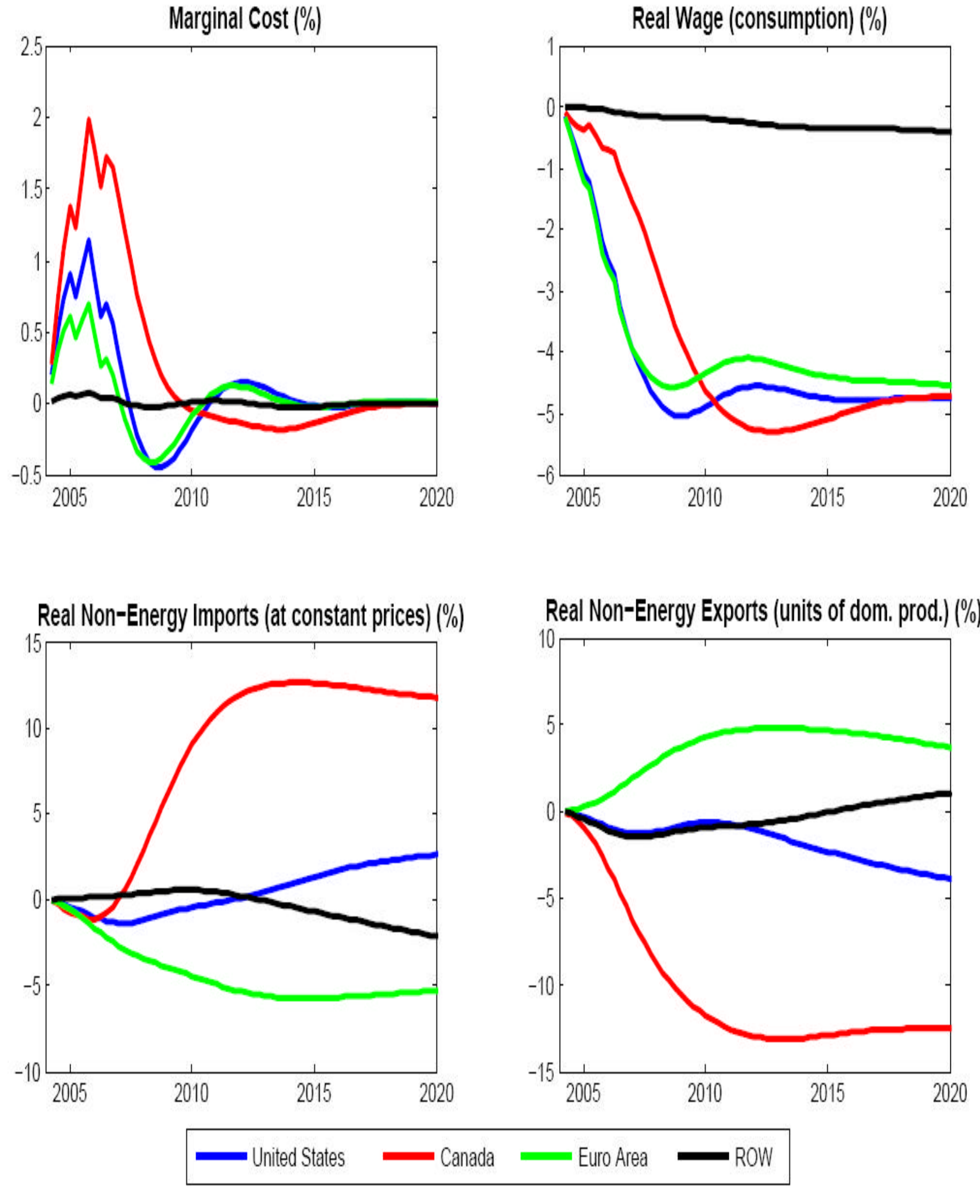


•Workers want more leisure

•Real wages adjust more sluggishly than in U.S.

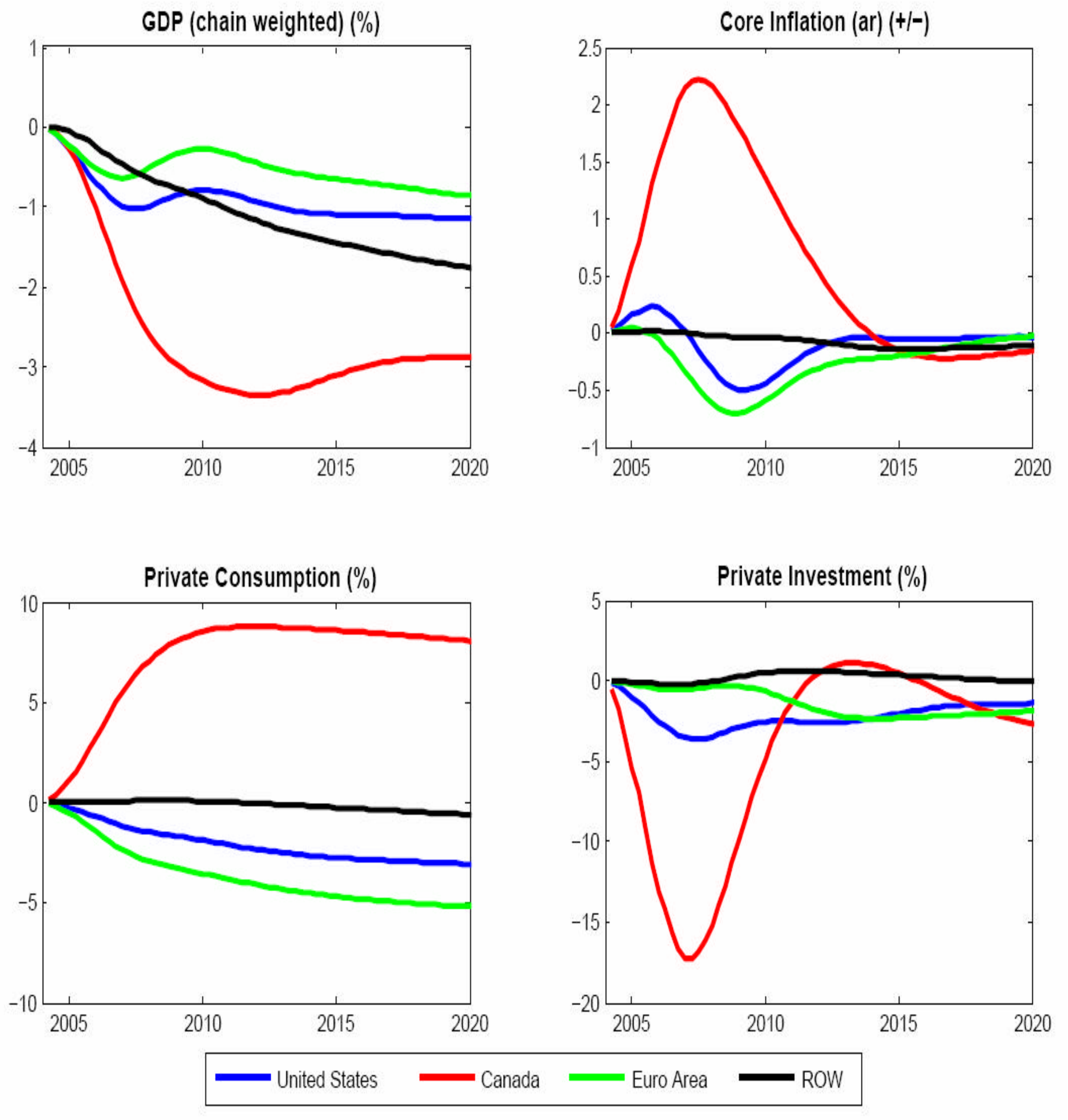
•Strong rise in non-oil imports

•Contraction in non-oil exports



•Much stronger rise in core inflation than in U.S.

•Large contraction in domestic output



Exogenous Oil price shock

- Lack of oil supply response in Canada (and other “small” producers)

  - Medium-term increase in oil supply (e.g. oil sands)
  - Short-to medium-term rise in investment in oil-producing sector

- Investment in Canada is 50%+ imported
  - Positive terms-of-trade effect should support investment

Oil price shock

- Wealth channel may be overdone
- Representative agent framework and stationarity of net foreign asset position
  - Intermediation cost for purchases of foreign bonds
- Blanchard-Weil OLG framework: Macklem (1993)

An alternative shock

- positive productivity shock in tradeable and non-tradeables in emerging Asia

  - higher oil prices, higher oil demand
  - higher non-oil global demand
  - fall in the price of tradeables

  - Bebee and Hunt (2006) ; Elekdag et al. (2006)
  - Guerrieri (2005)

Conclusion

- Thought provoking, high-quality paper
  - variations in elasticity of substitution of oil
- Model responses for Canada
- Source of the oil price shock….does it matter?