

PMR - Chile: Insights and Perspectives

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1 Motivation

2 Challenges for a Low carbon economy

- Strategy approach of a quantitative measures and design
- DSGE - Macroeconomic Model
- Integrated model
- Iterative DSGE - Model Structure

3 Complementary approach and following efforts

4 To do list ...

Outline

1 Motivation

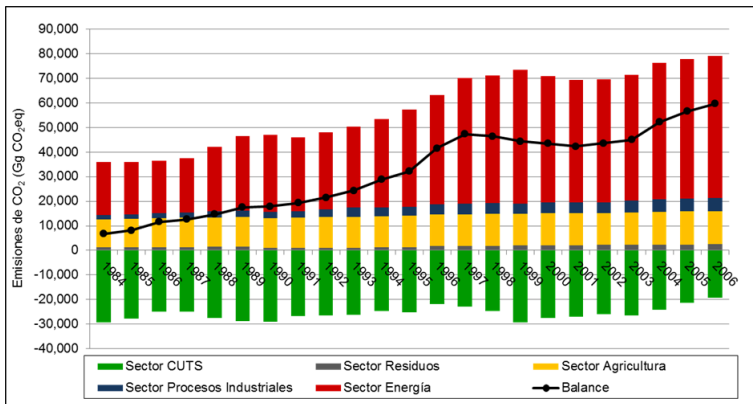
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Emission Profile in Chile - 2006



Economic Profile

- Emerging economy, GDP growth av. 5.9% last 4 years
- Open market oriented economy
- Anti cyclical Fiscal Policy Rule associated to the trend GDP 5%
- Inflation Targeting 3% in two years horizon.
- Flexible Exchange Rate
- Strong Institutional capabilities
- The main economic activity: Mining - Copper

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Looking for integration mechanism

- Is there any impact in GDP growth rates?
- How carbon pricing instruments would affect sectoral investment expectations?
- How much is the fiscal impact of carbon pricing?
- Is there any requirement on price stabilization?
- What are the net benefits of total and sectoral productivity gains?
- Is there some complementary options with tax instruments?
- How is the dynamic of the economy in the mid term?

Currently work related to MAPS project

- Complementary tool for some modeling experience
DSGE-Chile
- Constructing some iterative interaction between energy models and macro models
- Understanding dynamic of sectoral main drivers.
- Internalizing co benefits from Total Factor Productivity
- Looking for some exogenous random shocks in terms of trade



DSGE-Model Structure

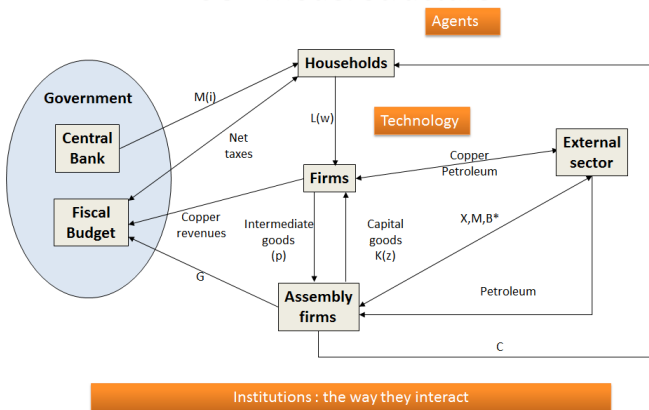
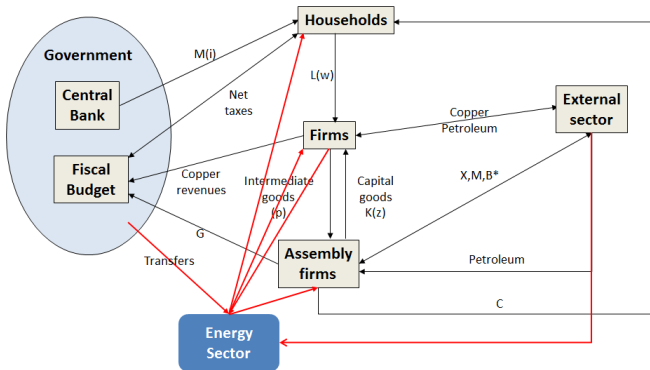


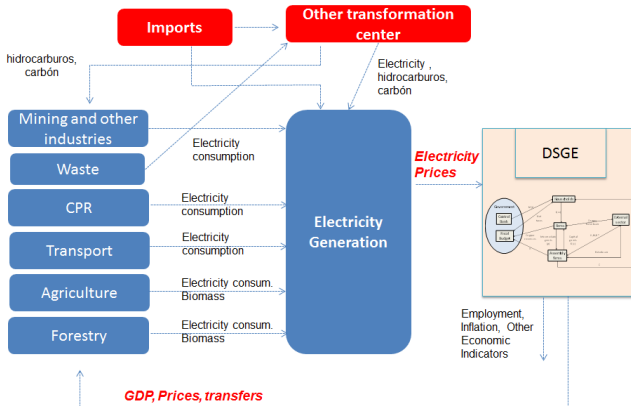
Figure: Own interpretation following Medina and Soto 2006

Extended DSGE-Model Structure





Iterative DSGE-Model Structure



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Sectoral data and economic structure requirements

- MRV system implementation
- Industrial survey data collection
- Diagnostic and market structure in three main activities;
Electric generation, Industries and others

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Sectoral Modeling complementation

- 1 Estimation of price elasticity of GHG emission and carbon price
- 2 Dynamics of investment of new technologies
- 3 Preliminary analysis for core elements:
 - 1 Goals and market structure
 - 2 Sector coverage and gases
 - 3 Linking with international GHG markets
- 4 Acknowledge sectoral heterogeneity

Thank you very much ...