



# WP2 Presentation

## TSE contributions

**Subtask 2.1.4 Population dynamics and large scale health effects of global change**

**Subtask 2.4.3. Climate policy analysis in a second best world**

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Prague 10-12 October 2012



## **Subtask 2.1.4 Population dynamics and large scale health effects of global change**

- Produce a literature survey on population issues
- To interpret the output from simulation models
- Planned stay in Vienna in spring 2013 to confront with modelers and data



# Main issues

- Linking two global changes: population ageing and climate change
- Dynamic of the age structure of the population
- Health effects and differential morbidity under different CC scenarios
- Migration and population density effects in terms of impact measurement
- Risk aversion and adaptation strategies to changing environmental conditions.

## Subtask 2.4.3. Climate policy analysis in a second best world

- Policy analysis
- Better understanding of the models outputs
- A common framework
  - Most analytical models rely on a damage function
  - Most policy proposals are stabilization targets (+ 2 °C, 450 ppm..)
  - Input explicitly such constraints upon atmospheric carbon concentrations
  - Deal with the exhaustibility of fossil fuels



### **Subtask 2.4.3. Climate policy analysis in a second best world**

- Explore a wide range of policy options in a dynamic context
  - Competition between renewable and fossil energy (taxation, subsidization)
  - Portfolios mandates
  - Local and global air pollution regulations
  - Abatement options (CCS)
  - R&D strategies



### **Subtask 2.4.3. Climate policy analysis in a second best world**

- Assess the dependency of the optimal policies rules to the specification of climate dynamics:
  - Multiple pollutants, multiple carbon reservoirs
  - Switching regimes of carbon accumulation
- Apply a top down IAM approach to give empirical content to the theoretical predictions.