

AIM/CGE: CHINA MODEL

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- I. Main Features**
 - II. Data Sources**
 - III. Model Overview**
 - IV. Some Results of Application**
 - V. Future Activities**

I. Main Features

- **One country CGE model: health**
- **Economic activities and environment**
- **Economic activities and health effects**

II. Data Sources

- **Latest China Input-output Table (1997)**
- **China Energy Balance Tables**
- **Other sources**
 - **China Investment Statistics**
 - **China Rural Statistics: rural energy**
 - **Energy society of China**

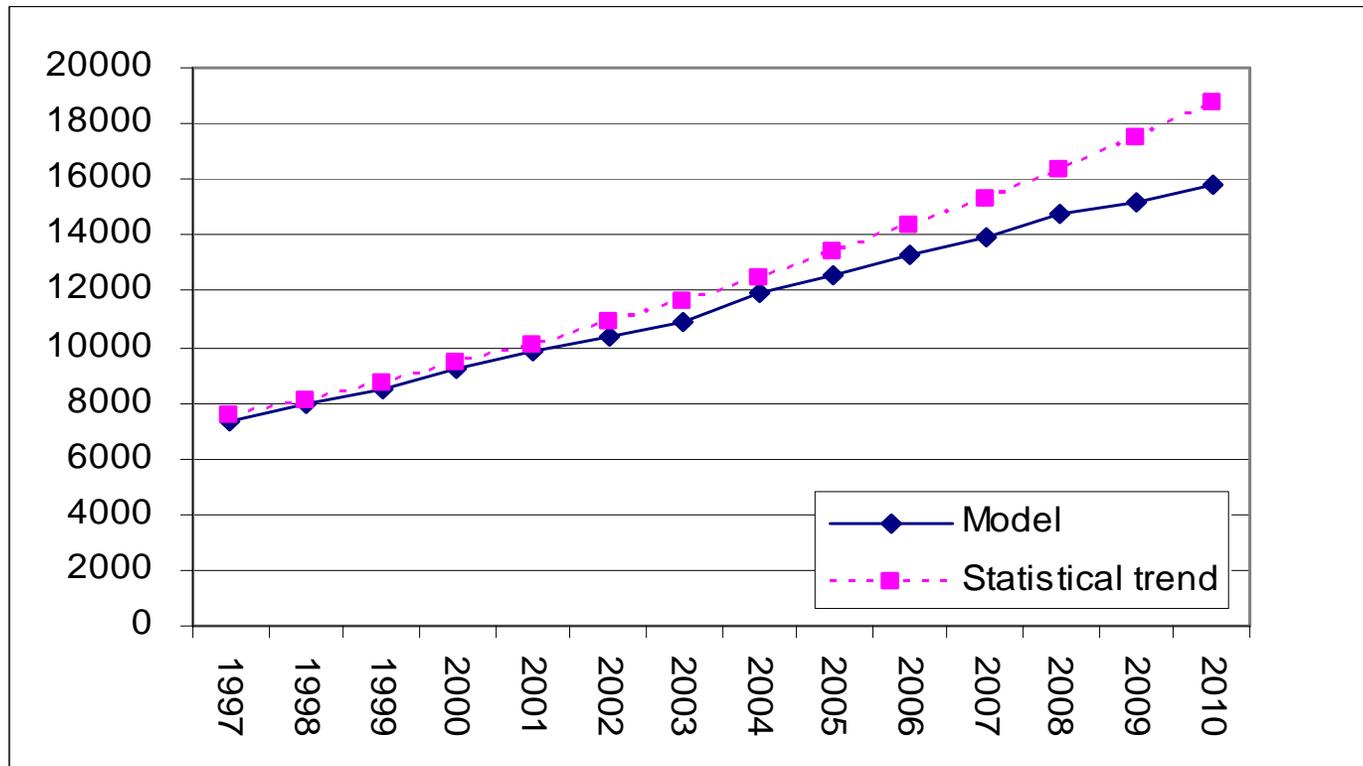
III. Model Overview

- **124 Sectors → 37 Sectors × 30 Commodities**
- **7 Energy related sectors**
 - Coal mining, Oil mining, Natural gas mining, Coal products, Oil products, Electricity, Town gas
 - Electricity disaggregated into 8 sub-sectors: coal, oil, gas, hydro, nuclear, wind, biomass, photovoltaic
- **7 Energy-intensive sectors**
 - Iron & steel, Pulp & paper, Non-metal mineral products, Non-ferrous, Chemical, Heat supply, Transportation
- **Health sector**
- **By-product of energy: CO₂**

IV. Some Results of Application

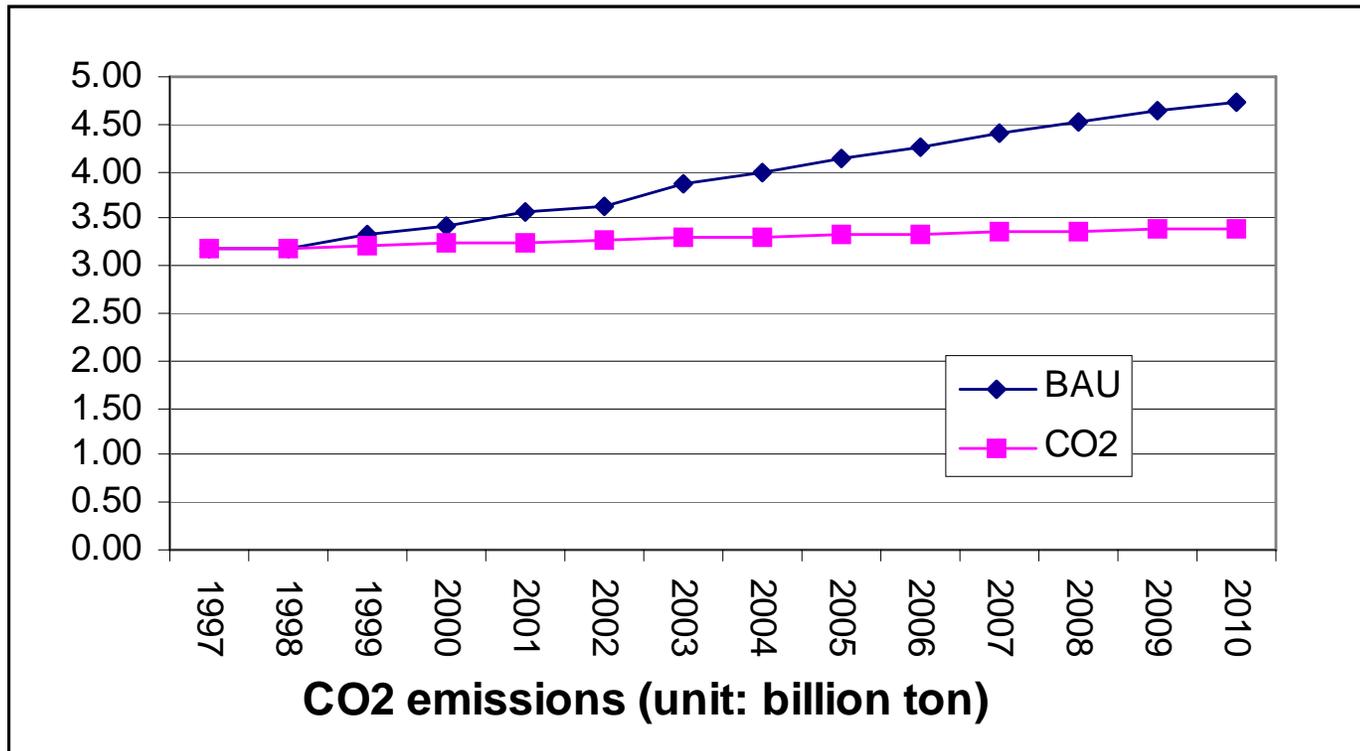
Reference scenario

GDP (billion yuan)

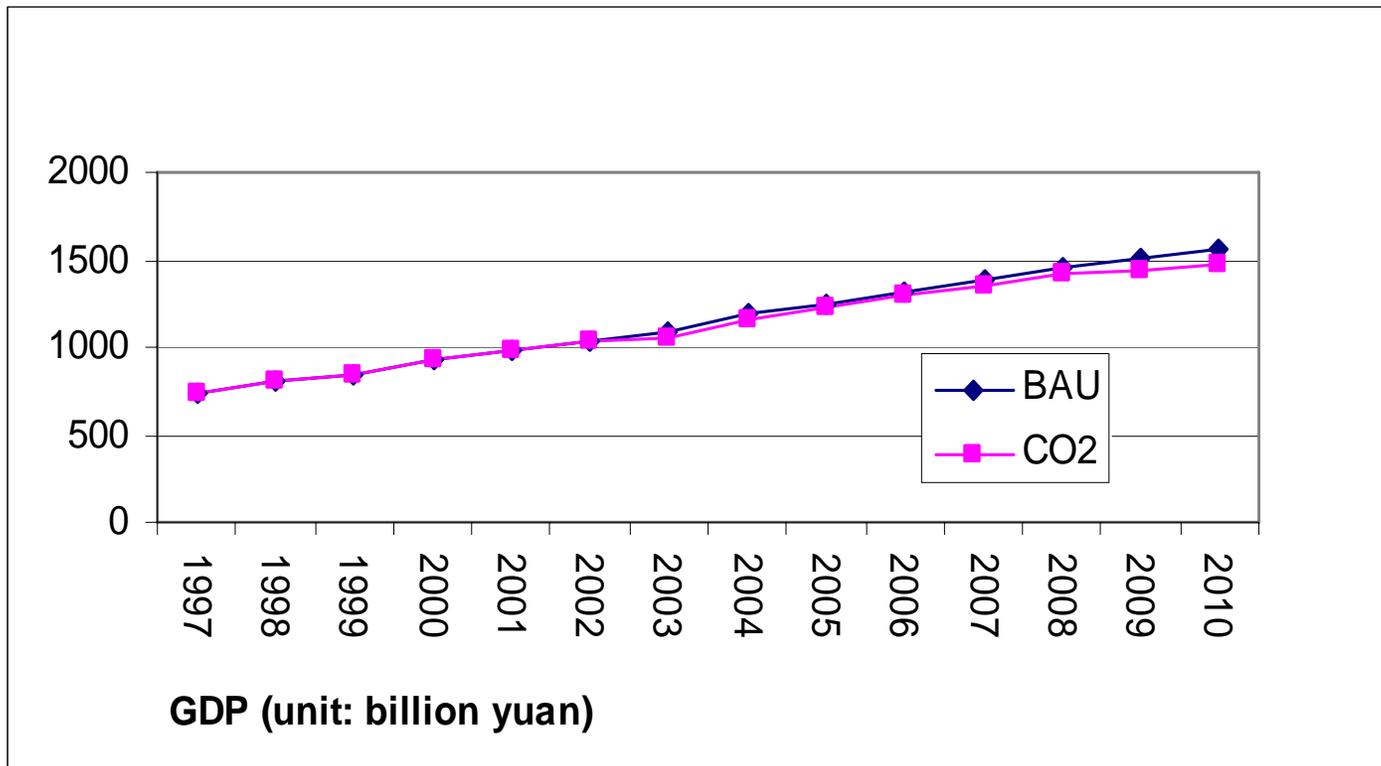


Source of statistics: China Statistical Yearbook 2001

CO2 Emission Constraint Scenario: 1.05→1.005

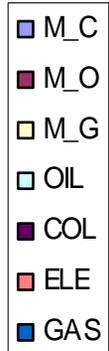
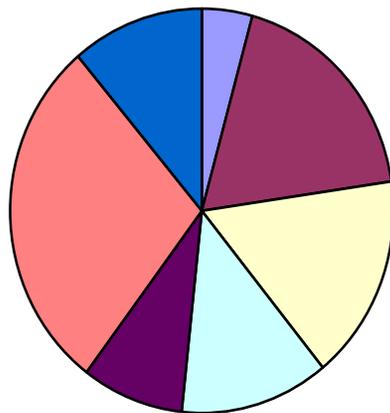


CO2 Emission Constraint Scenario: 1.05→1.005

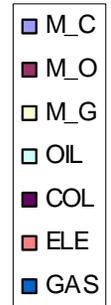
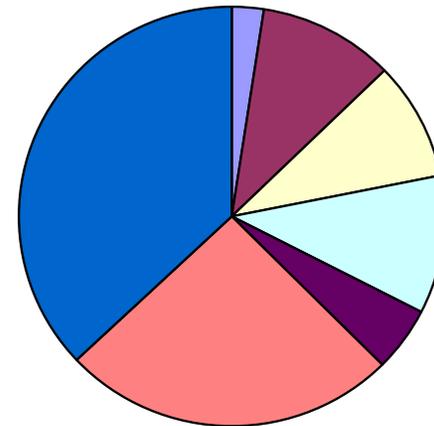


CO2 Emission Constraint Scenario: 1.05→1.005

BAU: 2010



CO2: 2010



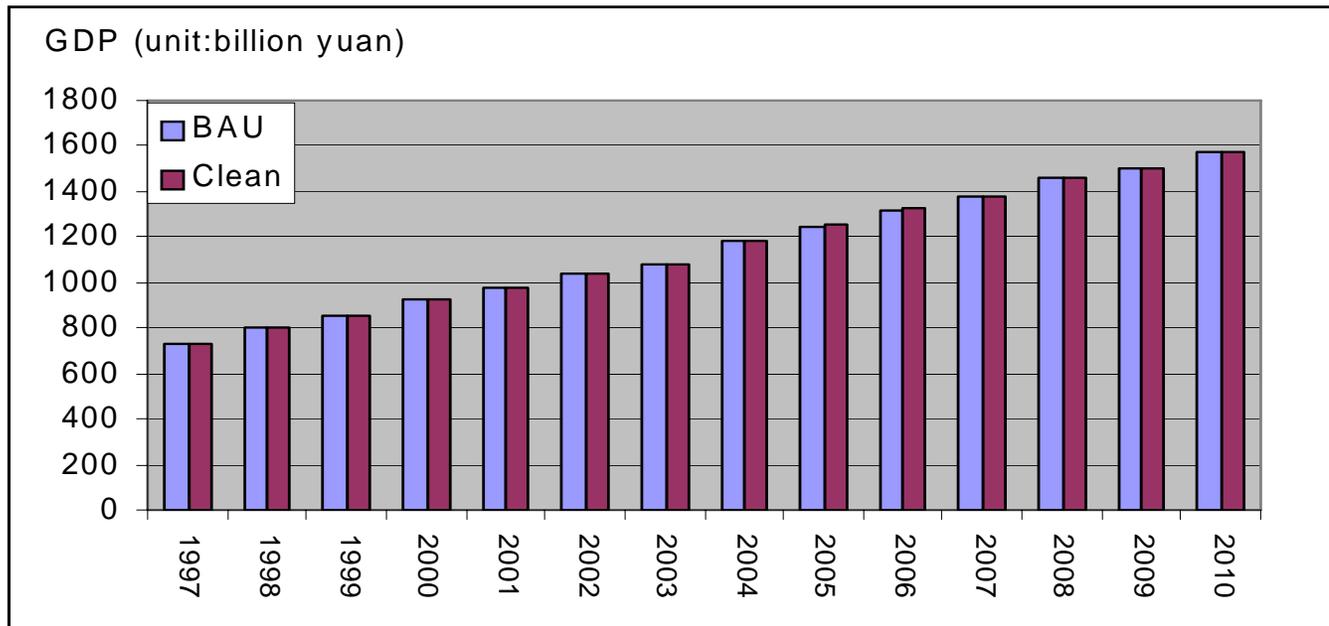
Clean energy scenario

- **Background for this scenario**

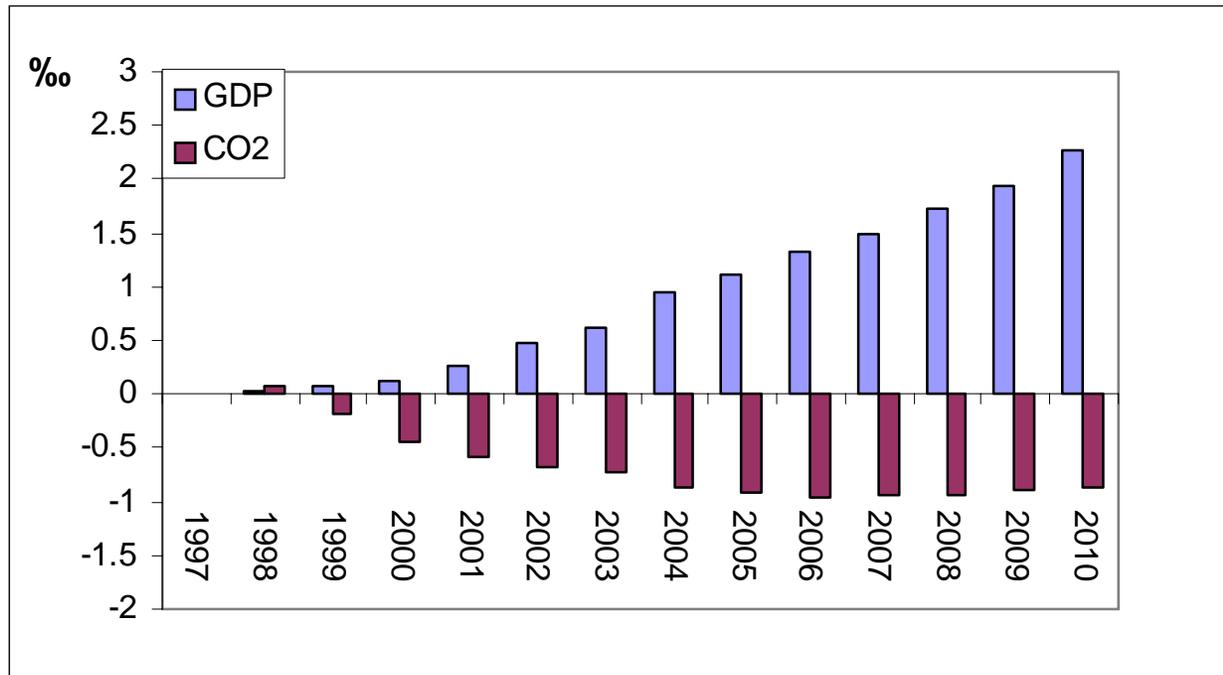
- “West-to-east gas pipeline project”: from Xinjiang to Shanghai; Major users: Hennan, Anhui, Jiansu, Zhejiang, Shanhai
- Strengthening natural gas import: LNG (liquified natural gas) from Australia and Mid-East
- Abundant wind and water resource
- Biomass not utilized efficiently

Investment on oil power, hydropower, nuclear power, and renewable energy, natural gas is increased 10% by years

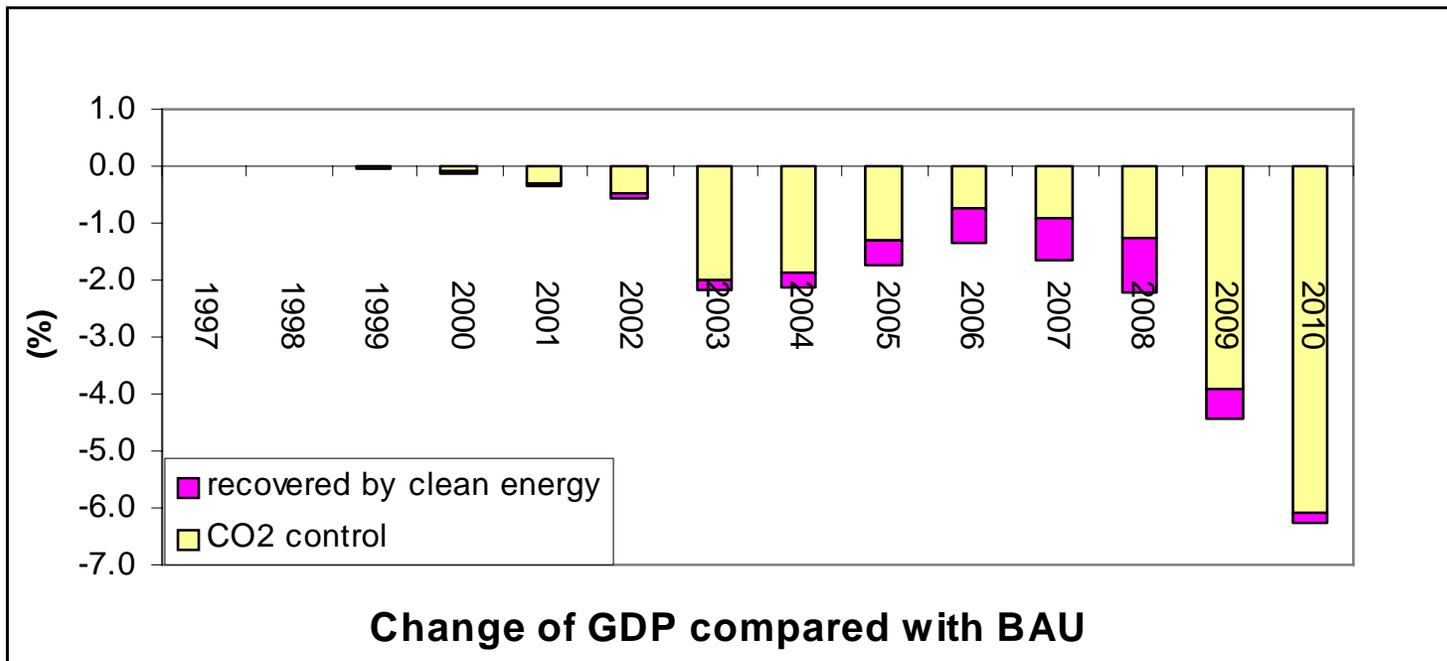
Clean energy scenario



Clean energy scenario



CO2 constraint + clean energy



V. Future Activities

- In China, local environmental pollution control has a higher priority than global environmental issues. Mitigation of the primary air pollutants, SO₂ and SPM requires immediate attention. Mitigation of these pollutants requires capital, labor and other intermediate inputs that should be considered in CGE model.
- Health is an important co-benefit of environmental conservation that should be considered in CGE model.