

Energy and Climate Change Mitigation in China

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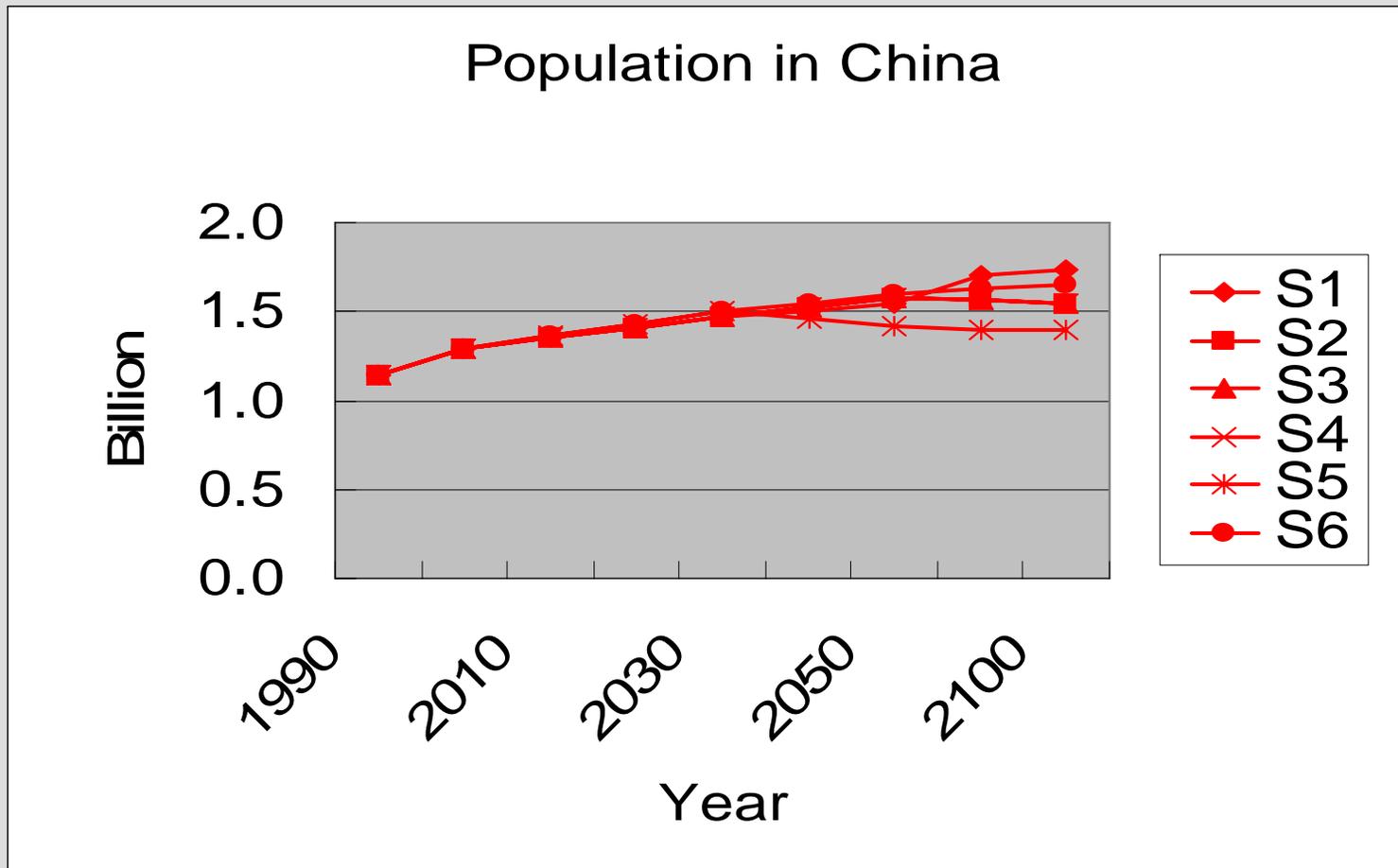
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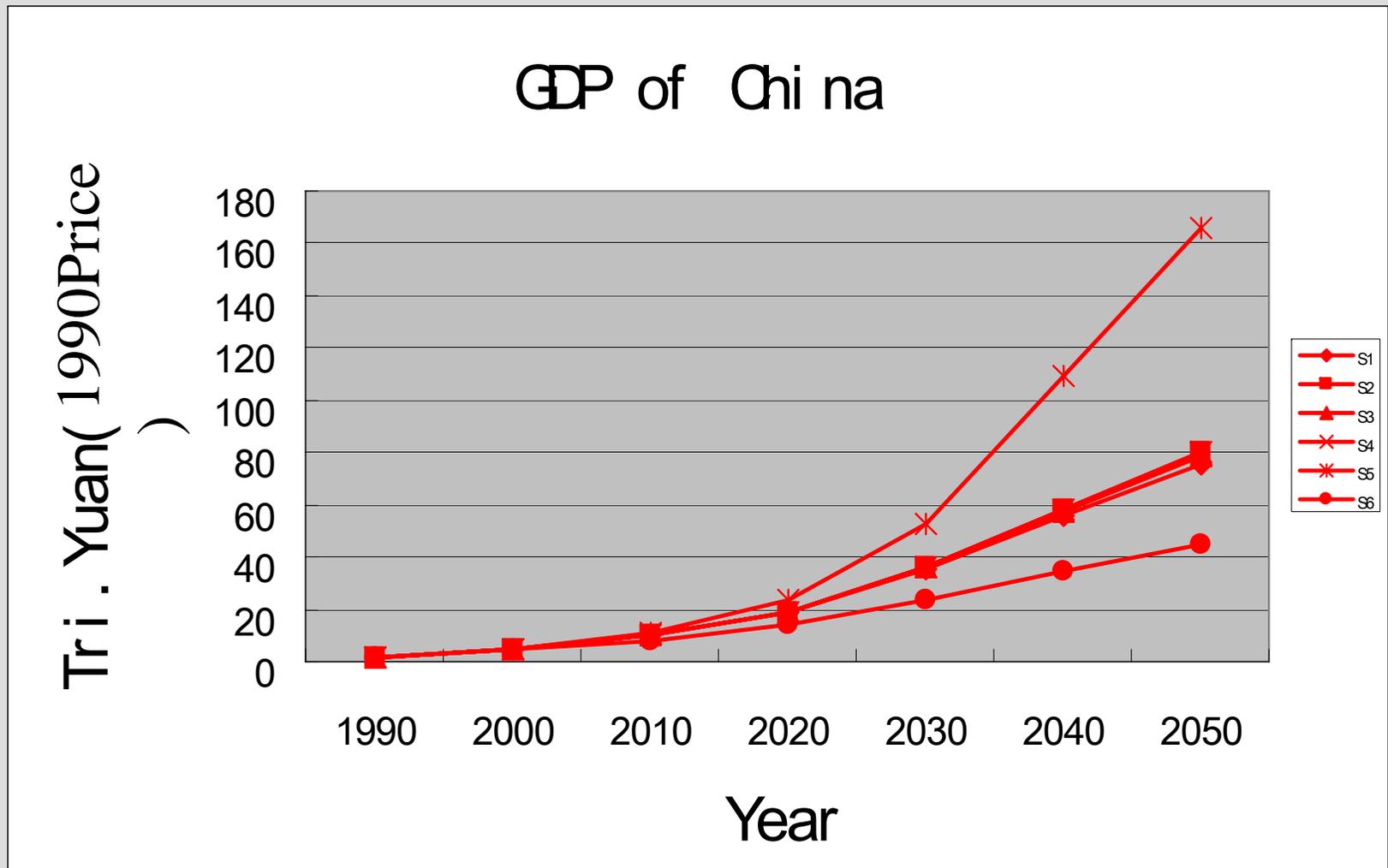
GTSP Technical Review

May 23, 2007

Population and GDP



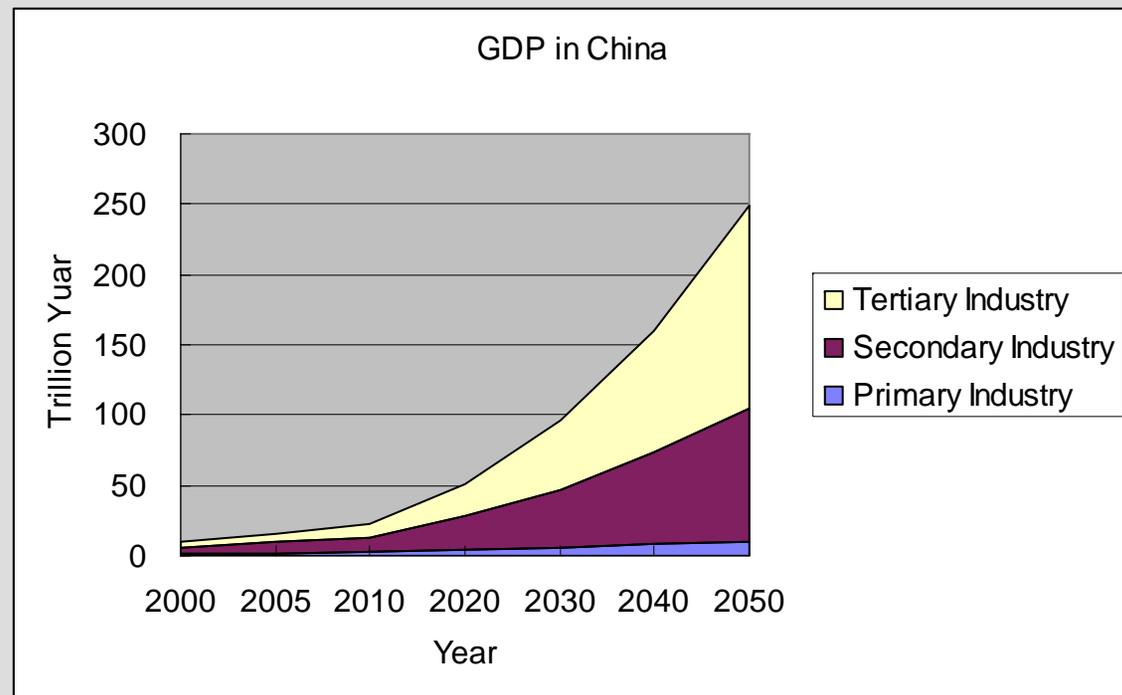
Population and GDP



Population and GDP

Key Driving factors:

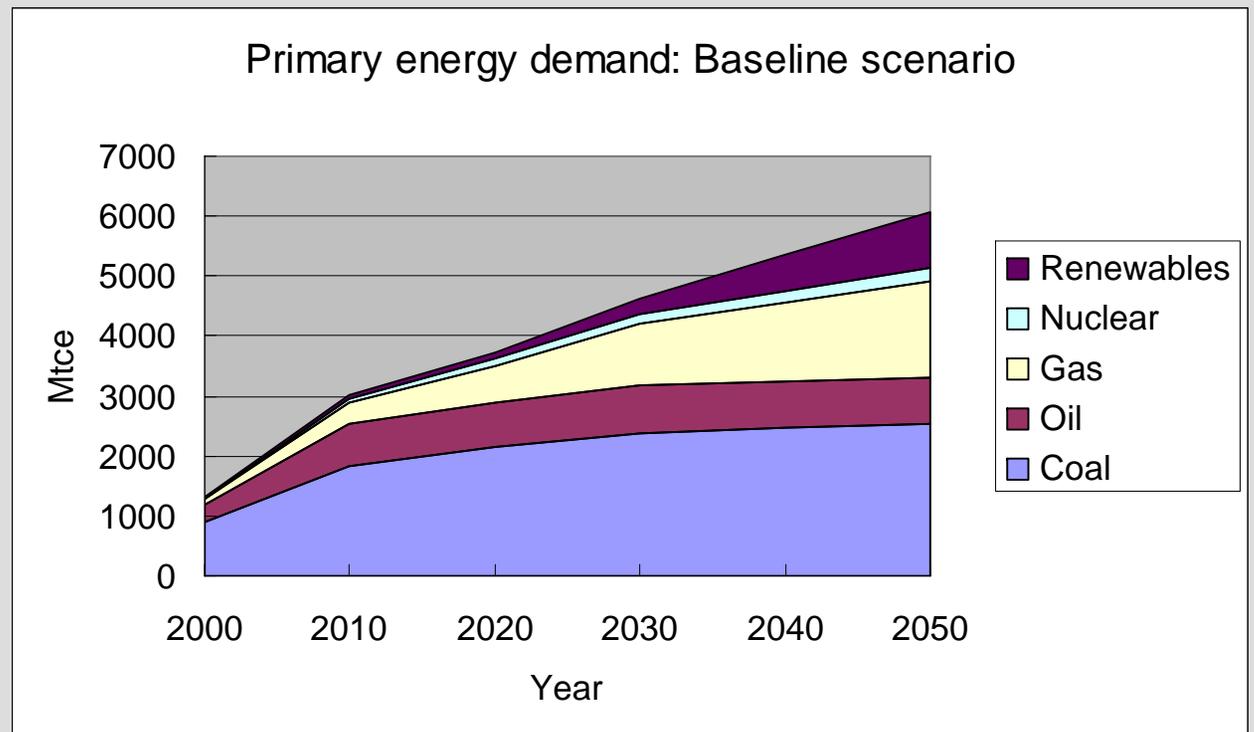
- Domestic demand
- Before 2030 international trade
- Technology innovation



Primary Energy

Key elements:

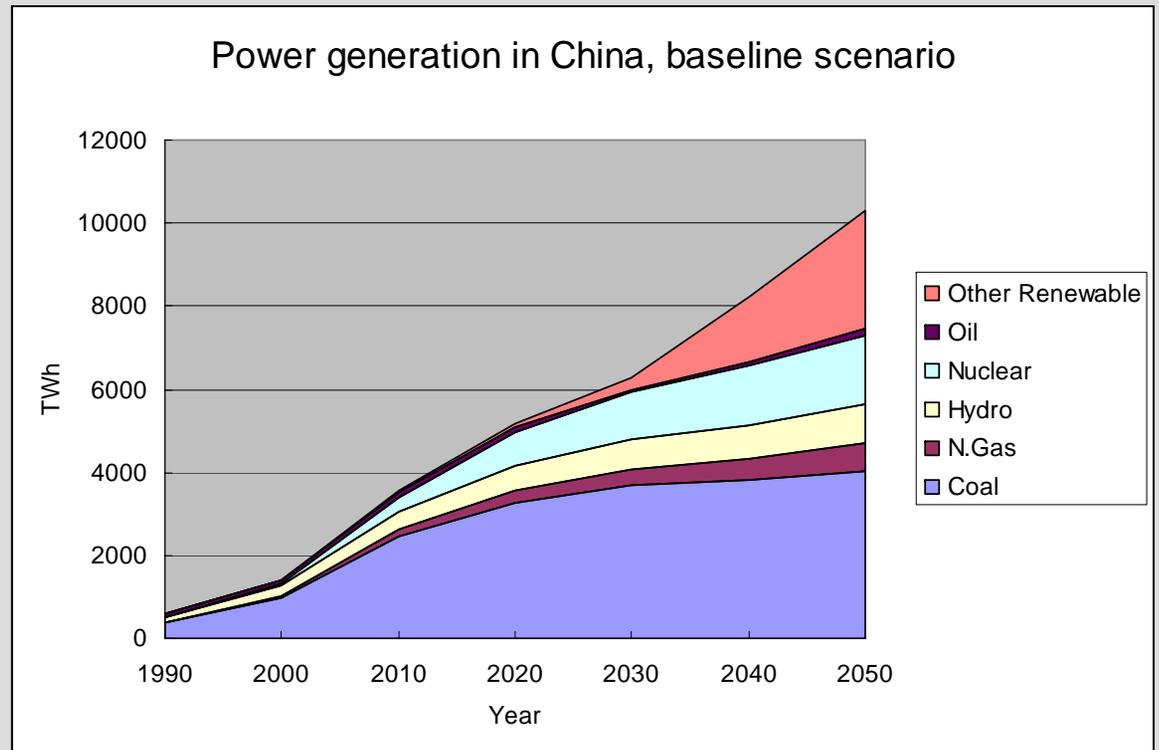
- Local resource based: coal dominate
- Clean coal technology development
- Natural gas import
- Moderate Renewable energy development



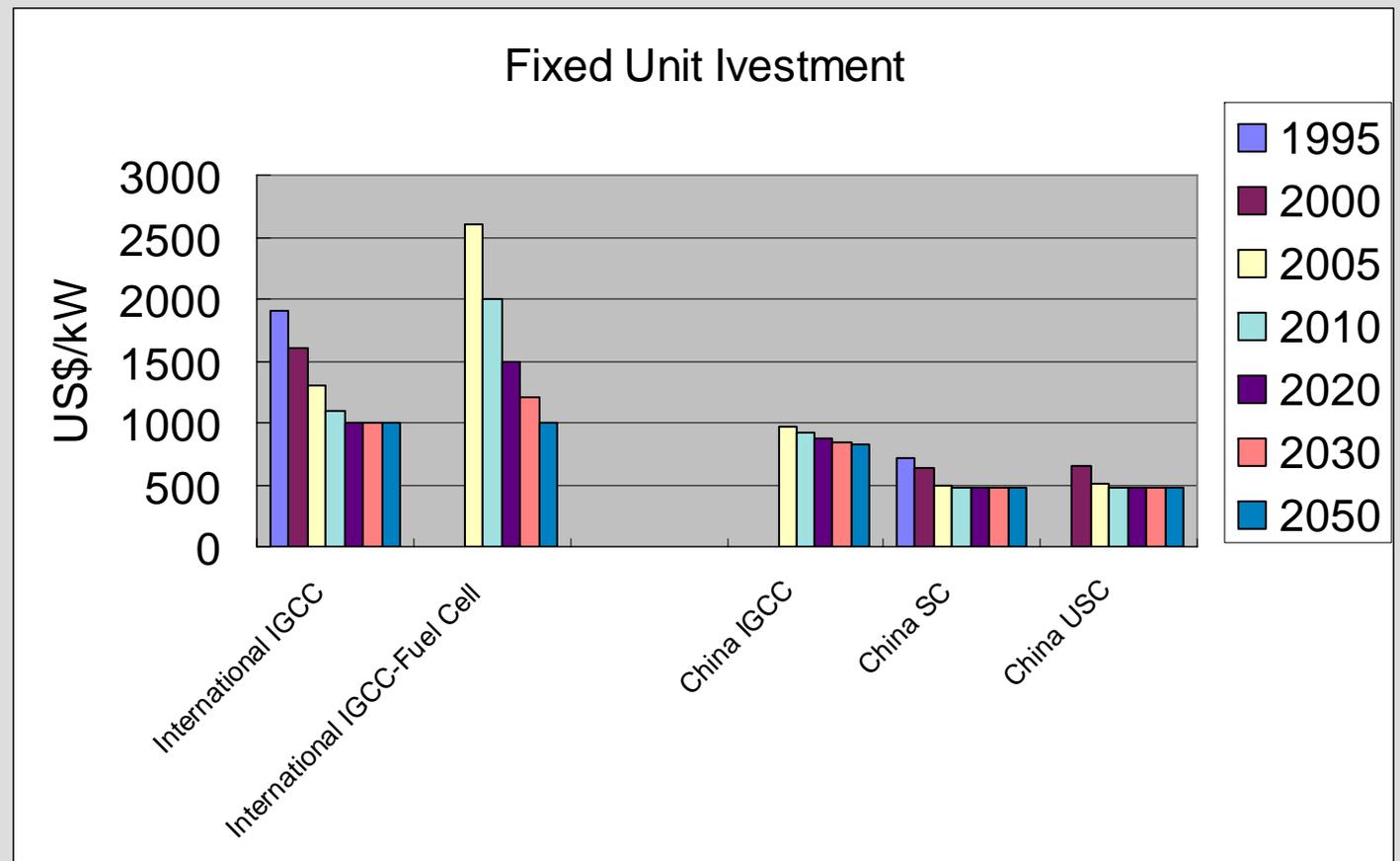
Electricity Generation

Key elements:

- Clean coal power generation growth rapidly before 2030
- Natural gas generation limited due to low ability of competition
- Nuclear develop rapidly due to government support and technology localization



Technology Development and Diffusion



Technology Development and Diffusion

- ▶ In general, newly installed technologies in China are advanced technologies, highest rank of energy efficiency in the world. This happened in coal fired power generators, cement plants, steel making and many other energy intensive sectors. China is now the biggest market for new technologies.
- ▶ New technology development in China also made big progress due to industry competition. Clean coal technologies, nuclear, end use technologies in energy intensive sector, solar heater etc.

Forces Shaping Future Technology Deployment

- ▶ Bright future is seen for new technology development, due to:
 - Increase of GDP and government budget
 - New technology development is regarded by government as one of key factor to promote economic development.
 - Industry is getting much more interested in technology development, after long time involvement in market economy and international market
 - Environment and energy security issues are getting to be a very important concern in China, for government, industry and public, new technology to achieve the target is highly demanded.