

Energy R&D in Australia

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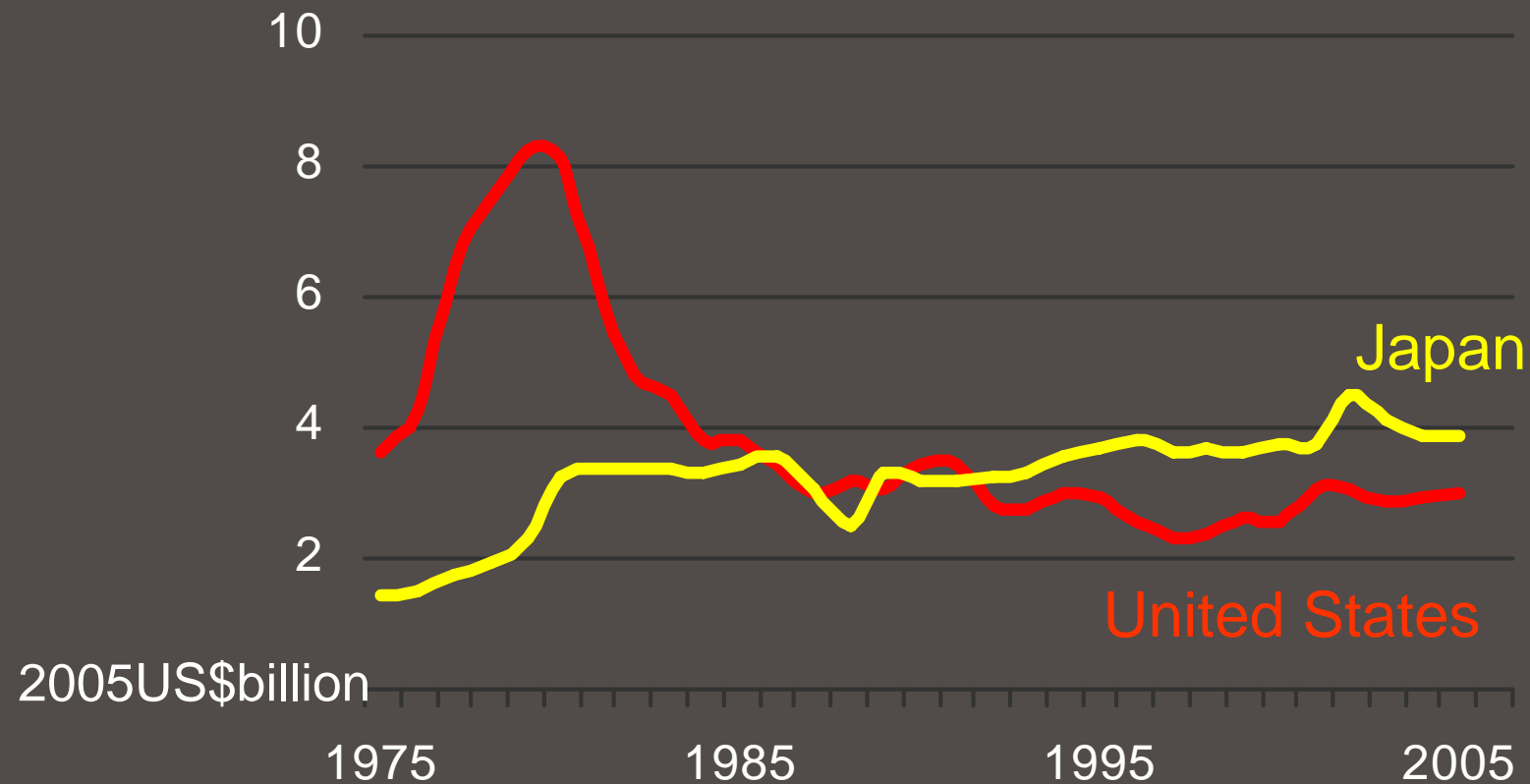
Chief Economist

abare

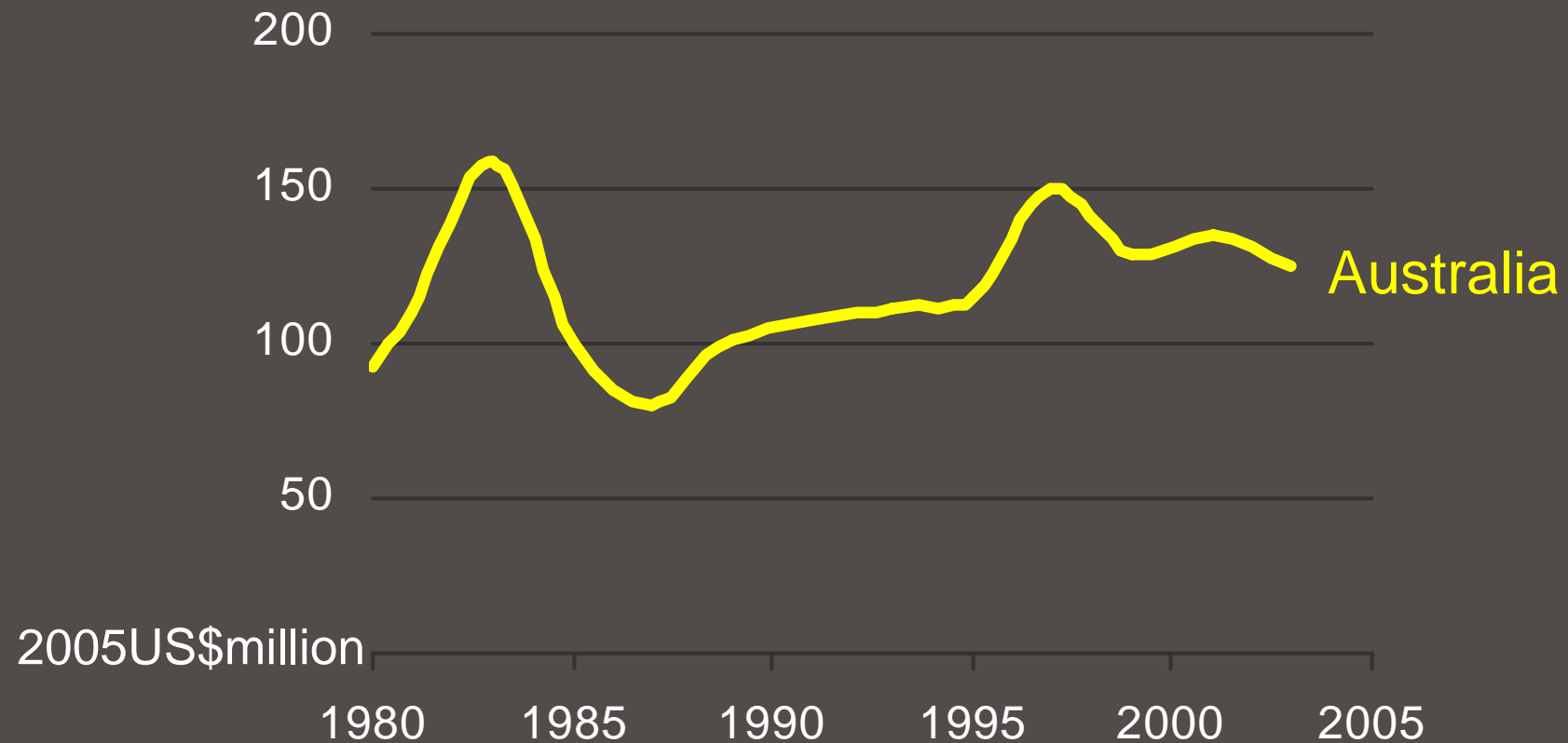
Current Australian policies

- Renewable energy target
 - 20% of electricity generation by 2020 (45,000 GWh)
- Greenhouse Gas Reduction Scheme (GGAS)
 - Emissions trading scheme for electricity suppliers in NSW and ACT
 - 5% below 1990 levels by 2007
- Emissions Trading by 2010

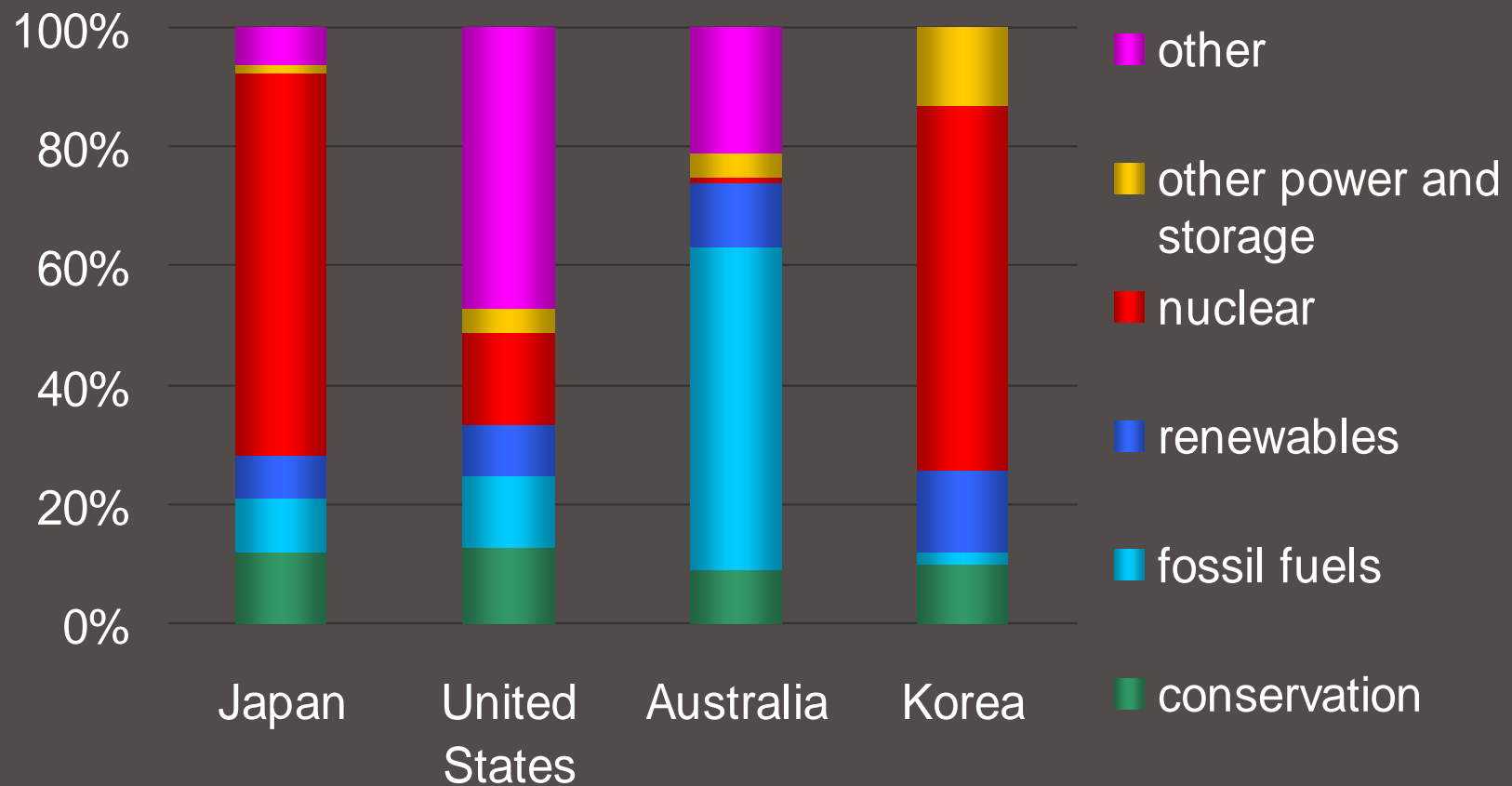
Government spending on energy R&D



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Composition of energy R&D



Barriers

- To technology development
 - Public good nature of research and development
 - Short term time preference
 - Uncertain markets
- To technology uptake
 - Technology lock-in
 - Regulation/distortion of energy prices
 - Imperfect information
 - Split incentives
 - Limited technical expertise
 - Lack of purchasing power
 - Inseparability

Full range of measures needed

- carbon pricing
- RD&D funding
- regulatory arrangements
- technology partnerships
- international collaboration
- adaptation strategies

Key messages

- R&D funding has fallen since the 1970's oil shocks
- There are market barriers to achieving a low carbon economy
- Carbon pricing alone will not be enough
 - Need other policies to increase technology R&D and global and economy wide technology uptake