



# Energy and Environmental Challenges in the New Global Economy

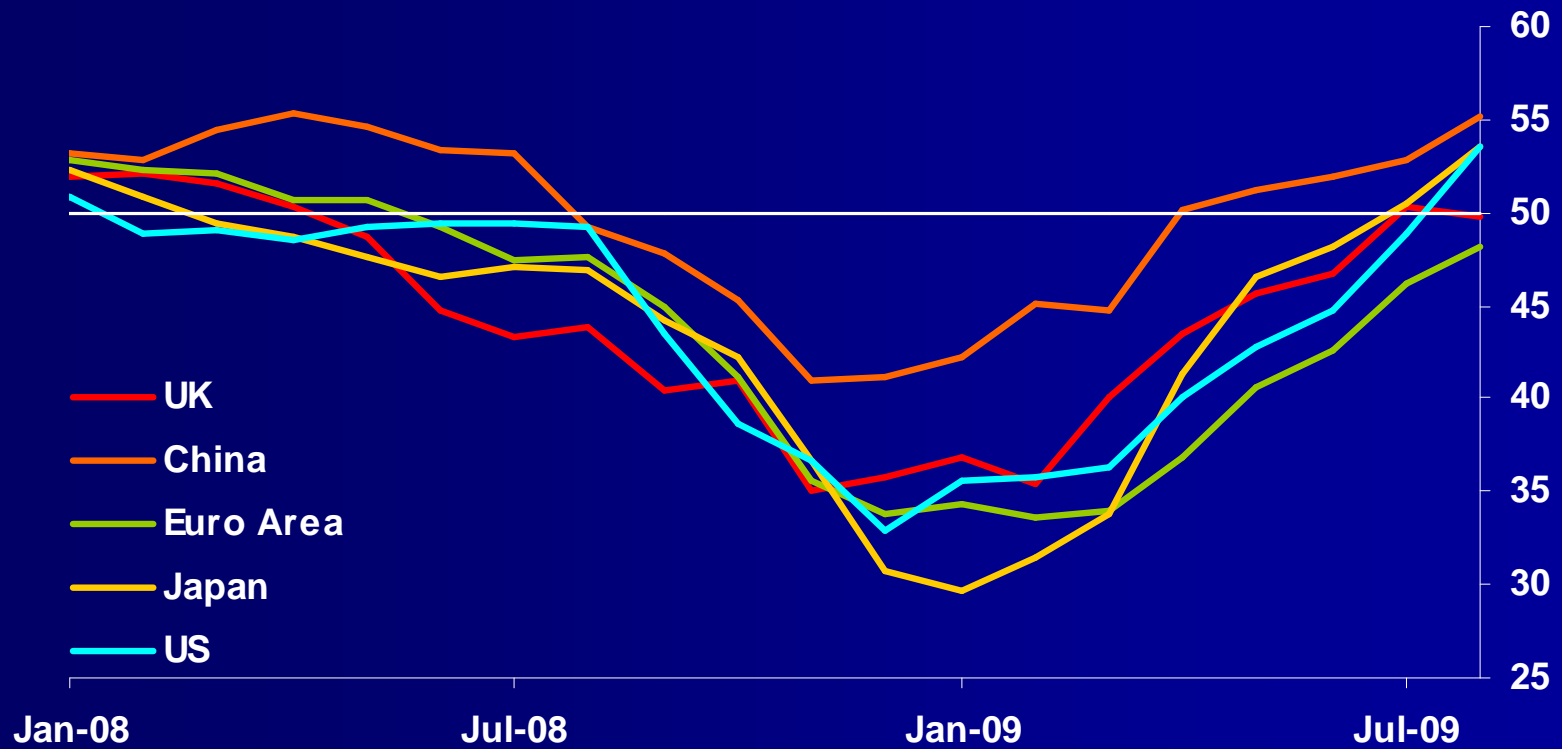
Andrew Sentance  
External Member  
Monetary Policy Committee

Presentation to British Institute of Energy Economics, BIS Conference Centre, London

21 September 2009

# World manufacturing activity

Purchasing managers' indices, seasonally adjusted

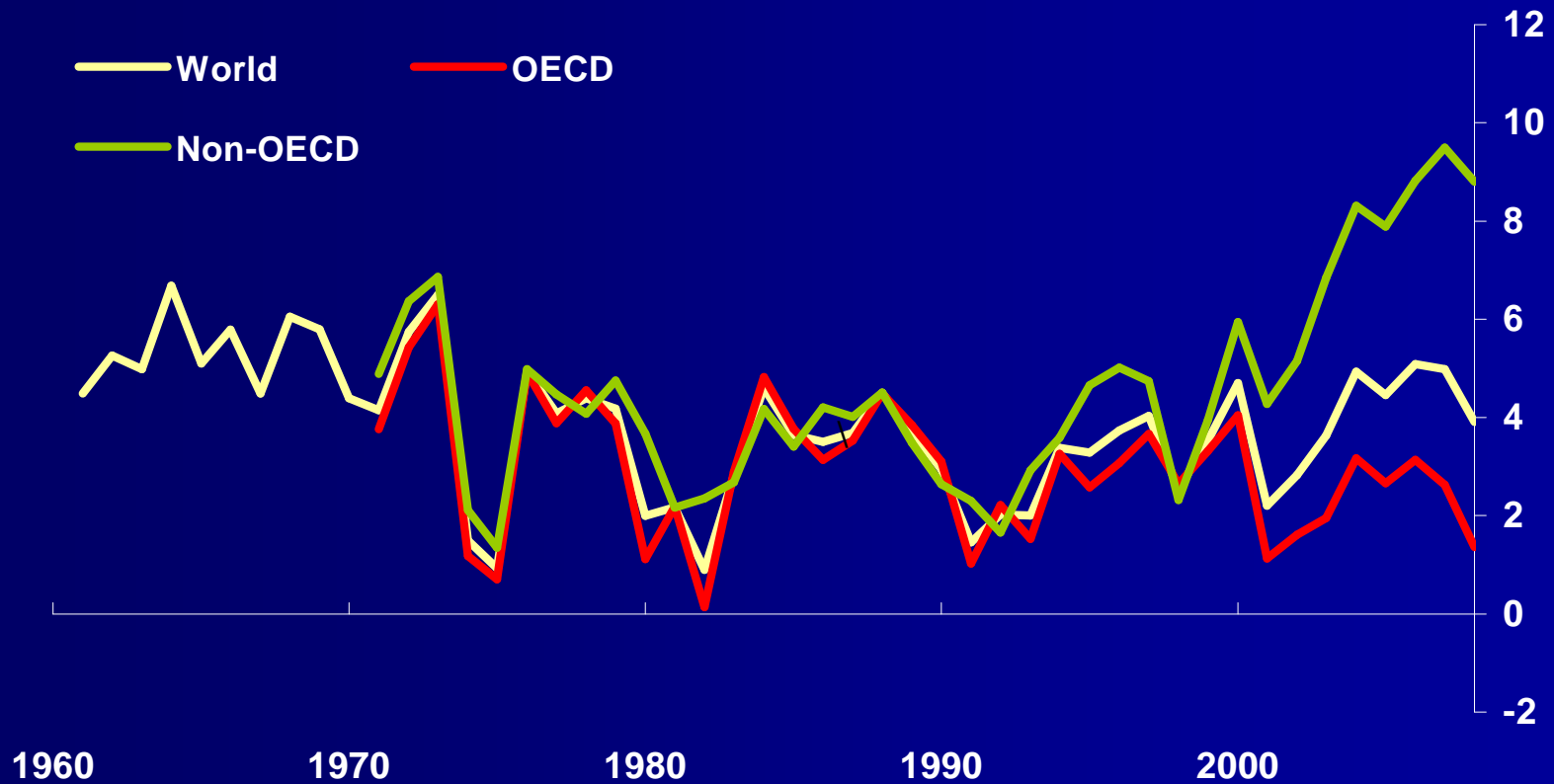


Note: Index number over 50 indicates expansion; below 50 indicates contraction

Source: Thomson Datastream, CLSA

# World economic growth, 1960 - 2008

Real GDP, year on year percentage change

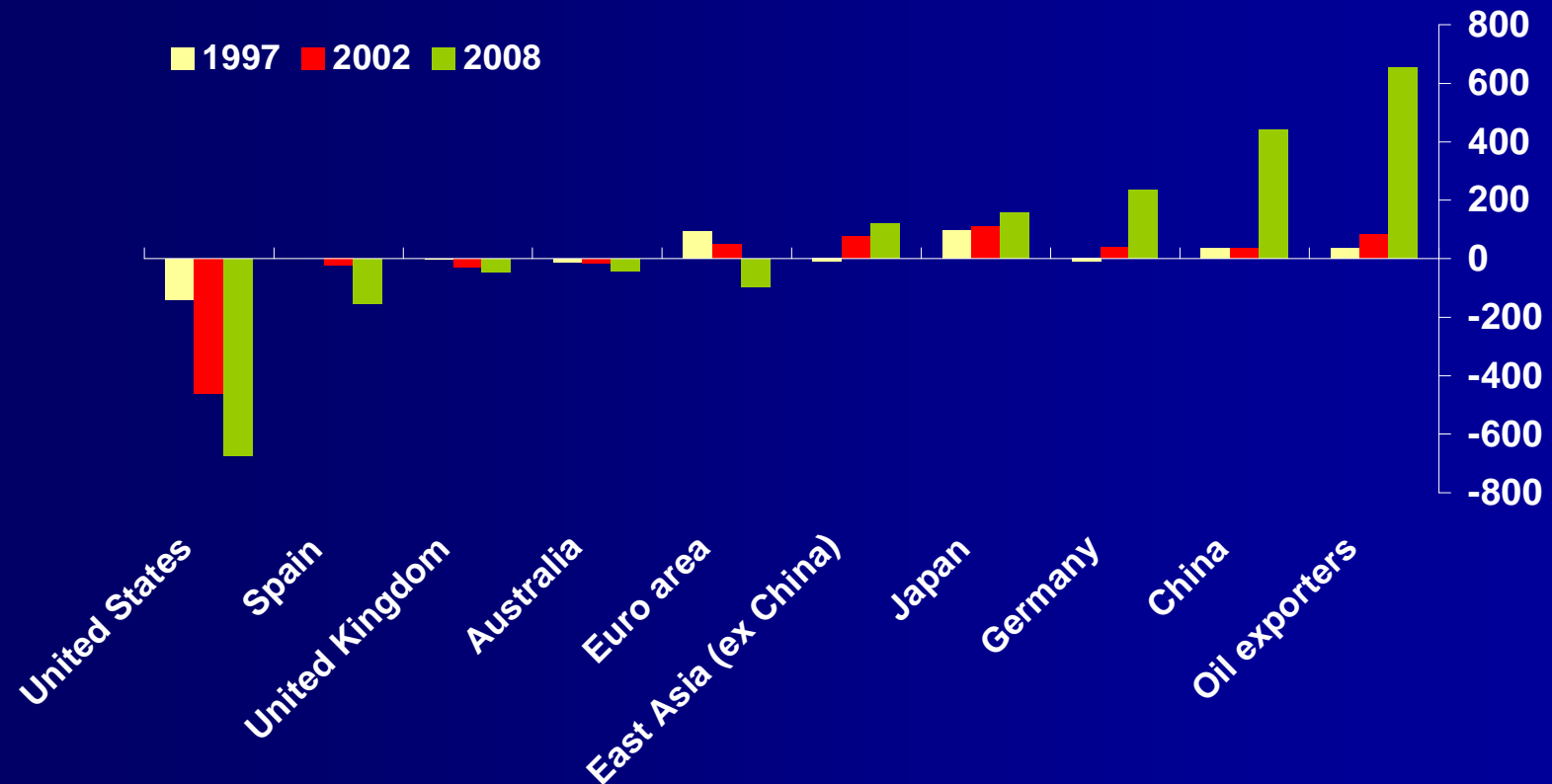


Note: GDP measured at market exchange rates

Source: IMF, OECD, Bank Calculations

# Selected current account imbalances

US \$, billion

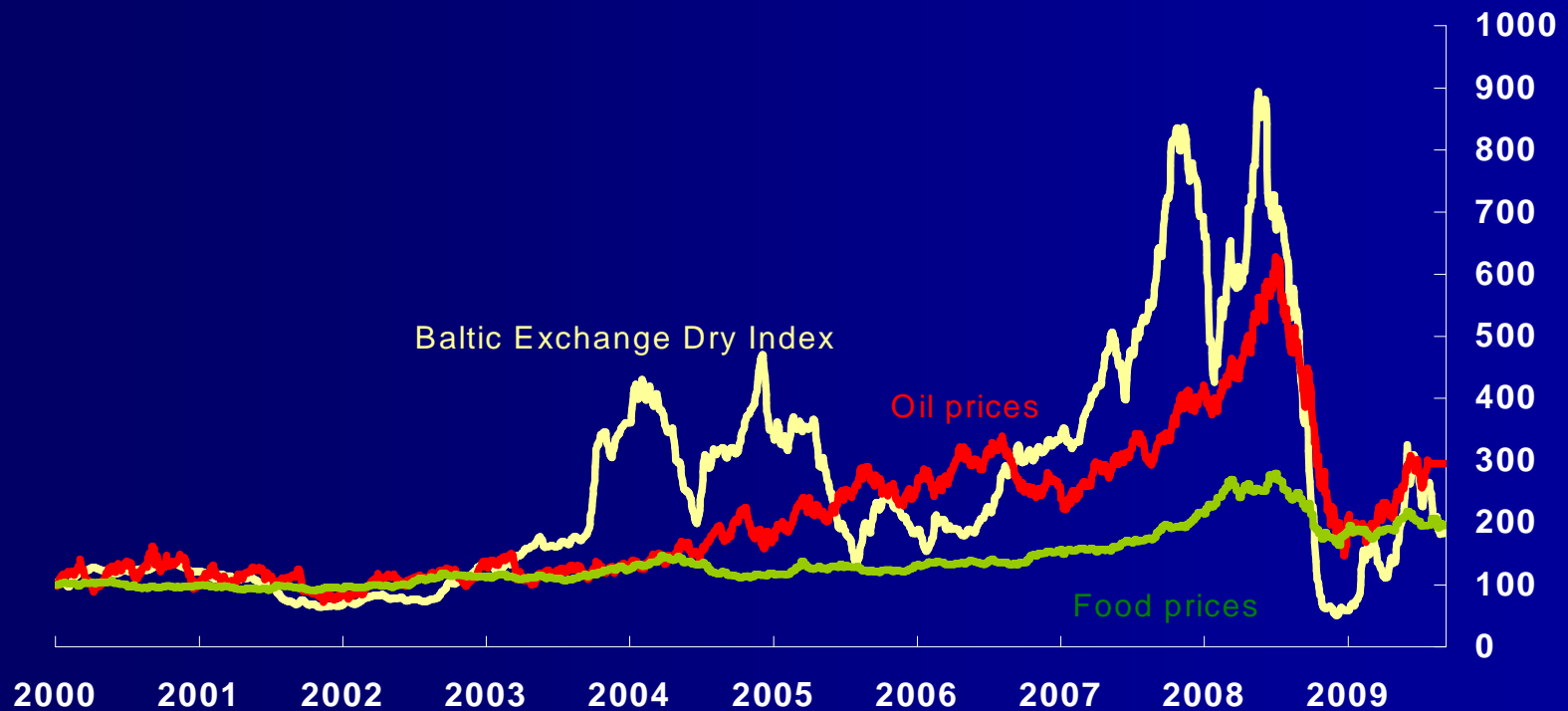


Note: 'Oil exporters' includes OPEC countries, Russia and Norway; 'East Asia ex China' includes Hong Kong, Indonesia, Malaysia, Korea, Philippines, Singapore, Taiwan and Thailand

Source: IMF April 2009 WEO

# Oil and commodities prices

Exchange traded commodities, index 1 Jan 2000 = 100

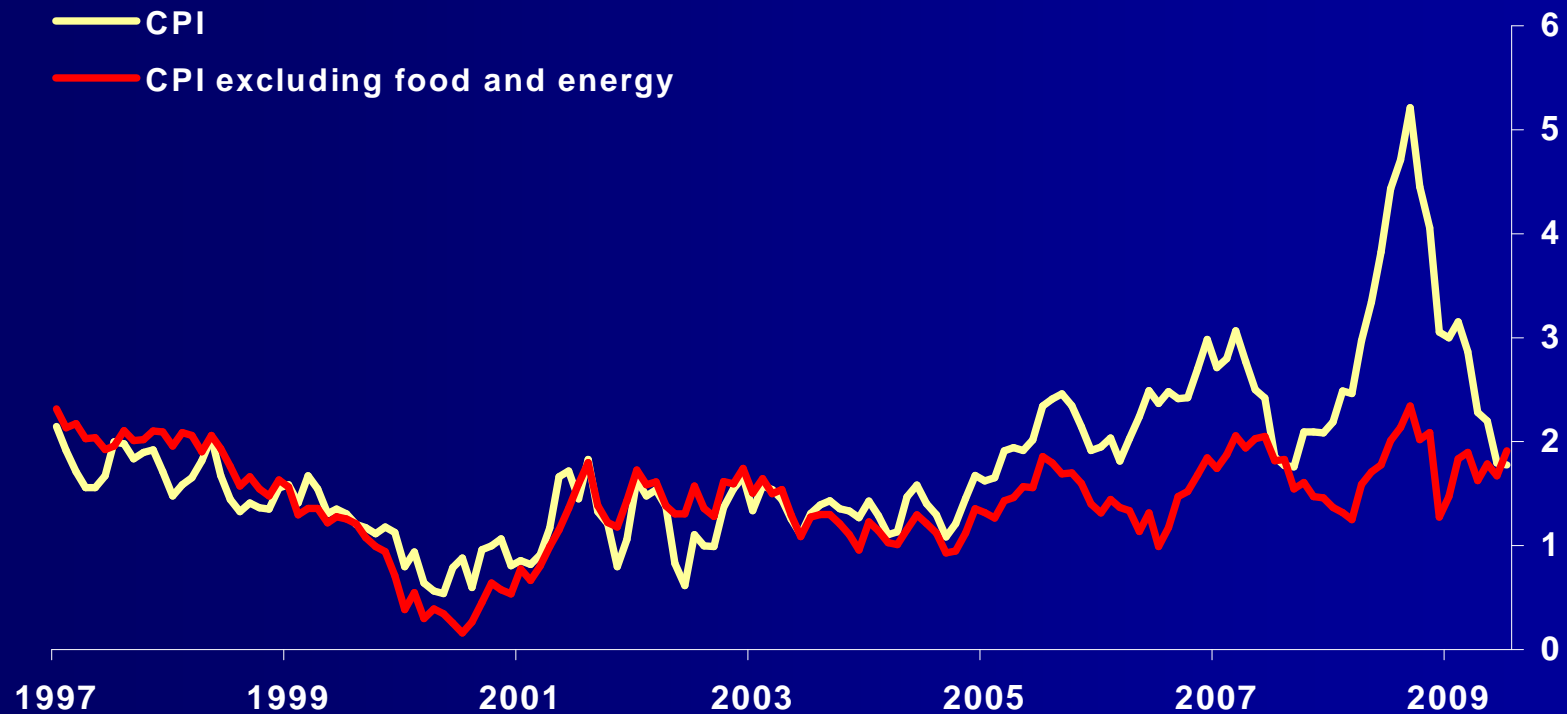


Note: Oil price is Brent forward price for delivery in 10-21 days time

Source: Thomson Datastream

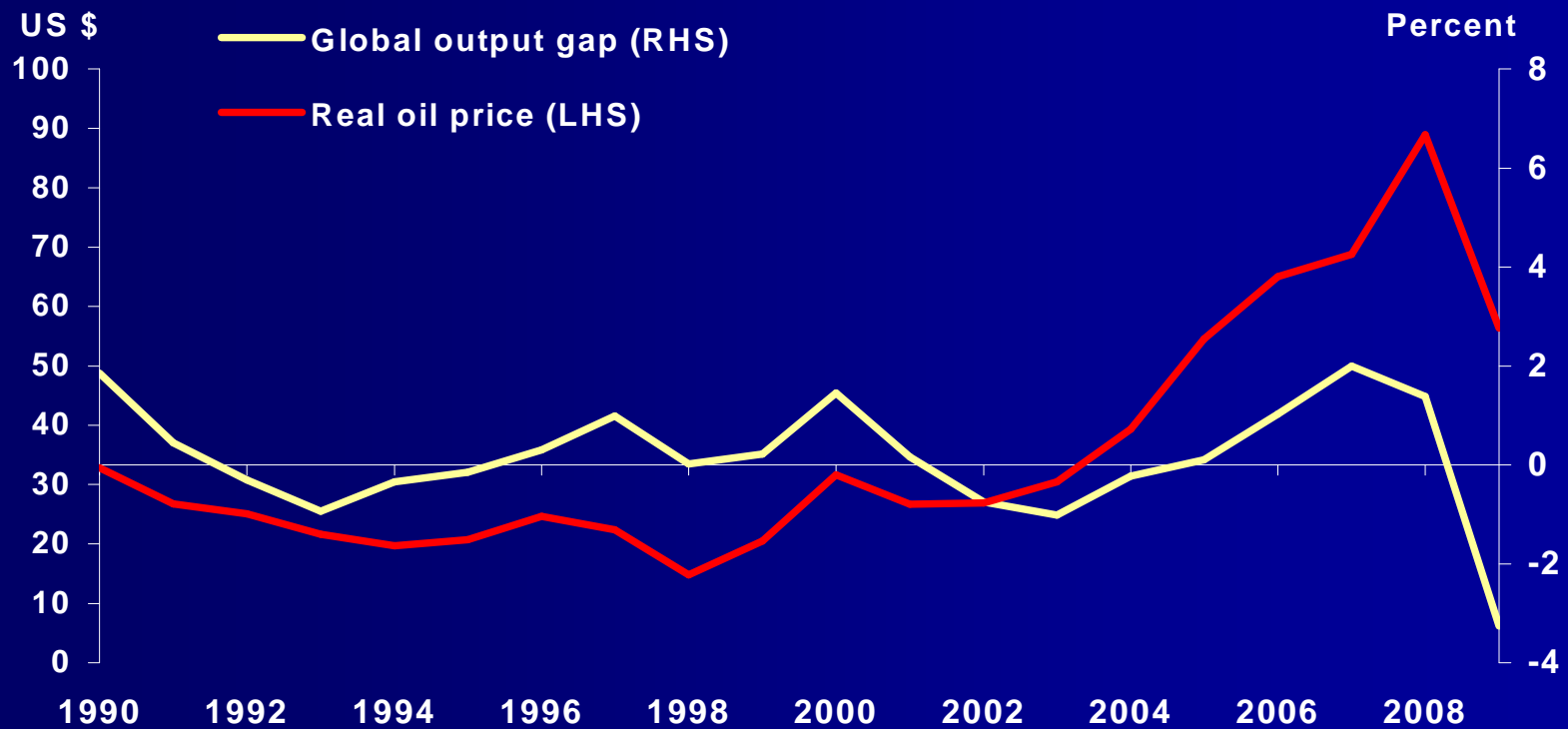
# UK consumer price inflation, 1997 - 2009

Percentage change on a year earlier



Source: Office for National Statistics

# Real oil price and global output gap

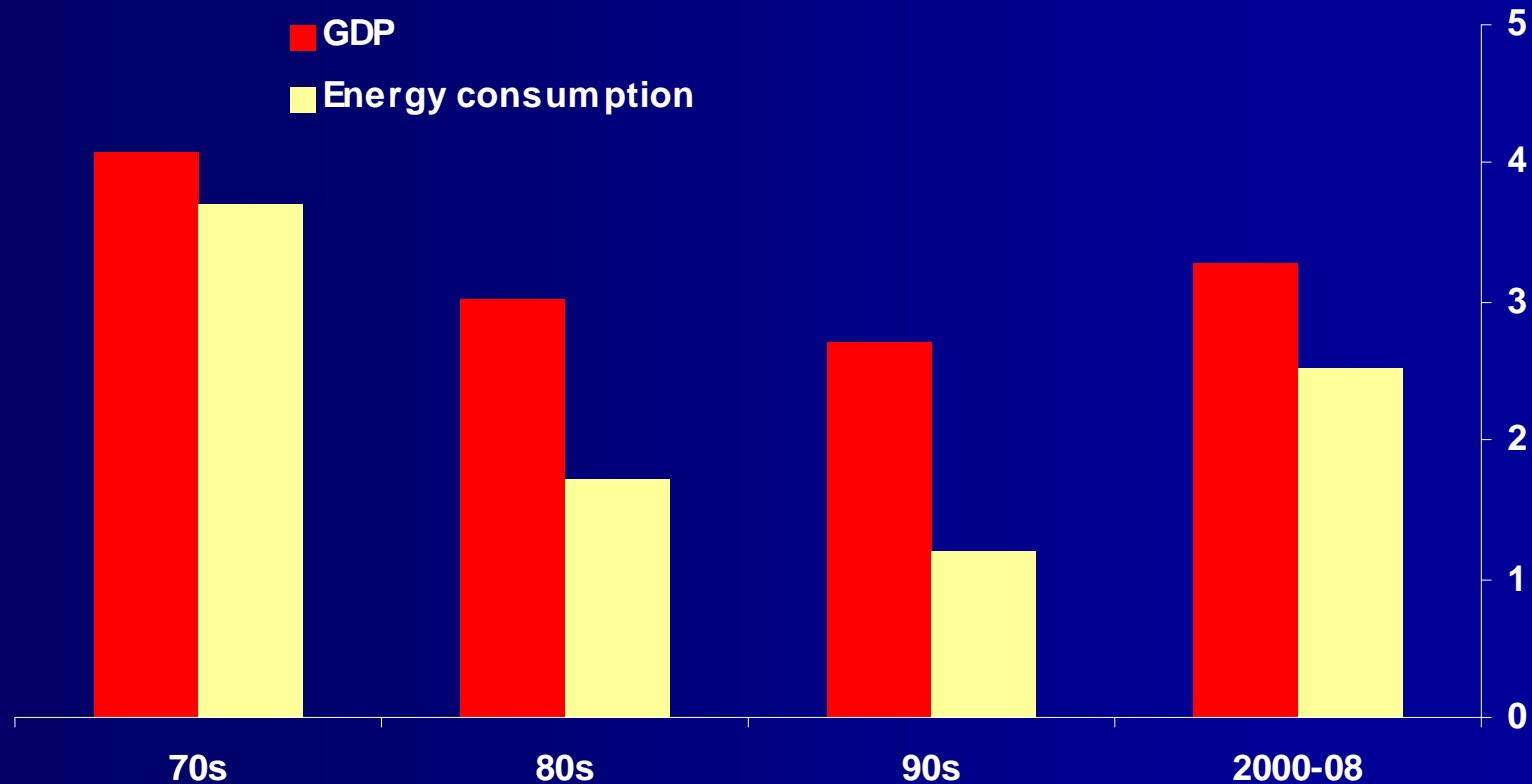


Note: 2009 is an average of daily series to 9<sup>th</sup> Sept 2009; Oil Prices are deflated by US consumption deflator

Source: IMF, Thomson Datastream, August Consensus forecast and Bank calculations

# World GDP growth and energy consumption

Average annual growth rates, percent



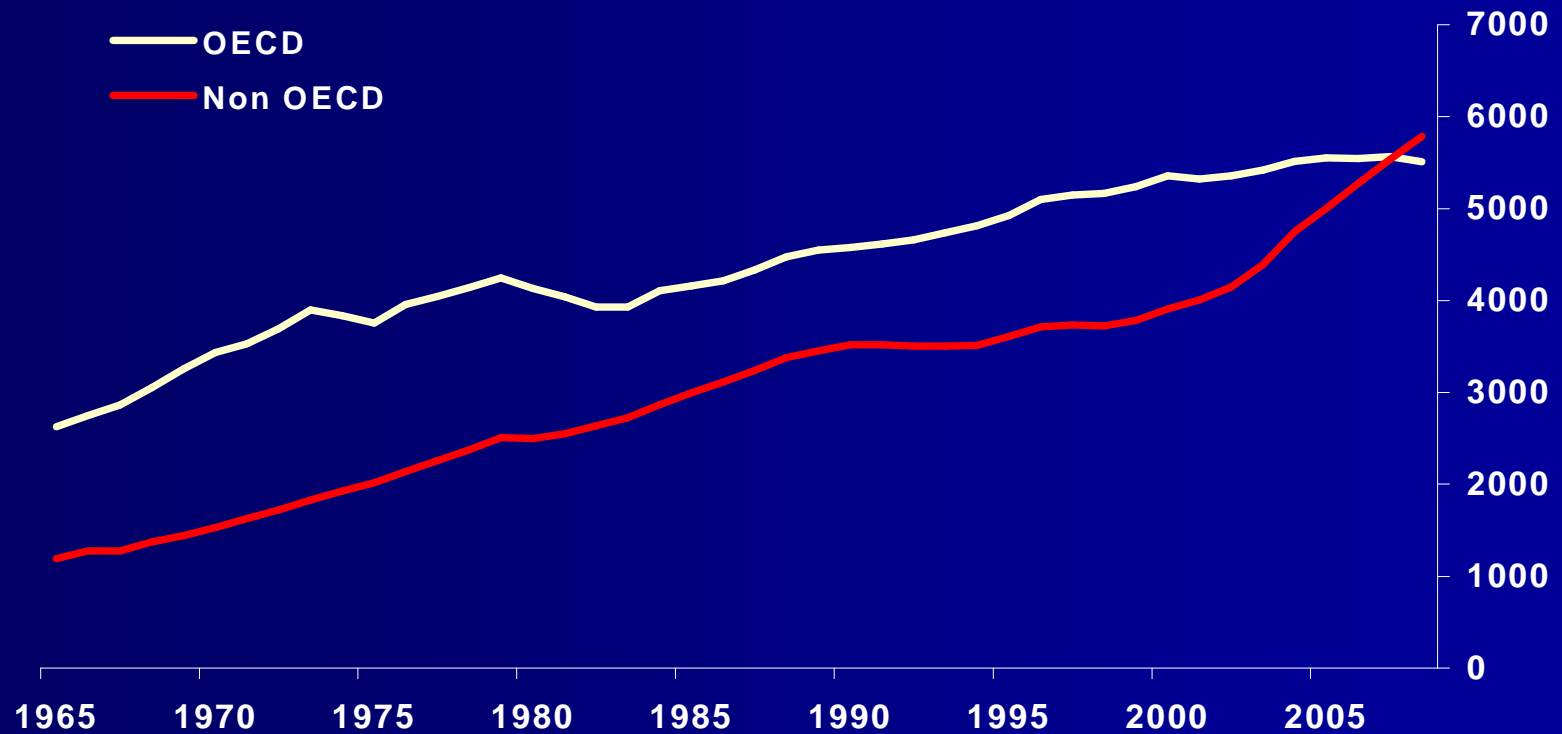
Note: Oil consumption is measured in million tonnes; other fuels in million tonnes of oil equivalent

Source: World Bank and BP Statistical Review



# World primary energy use

Millions tonnes oil equivalent

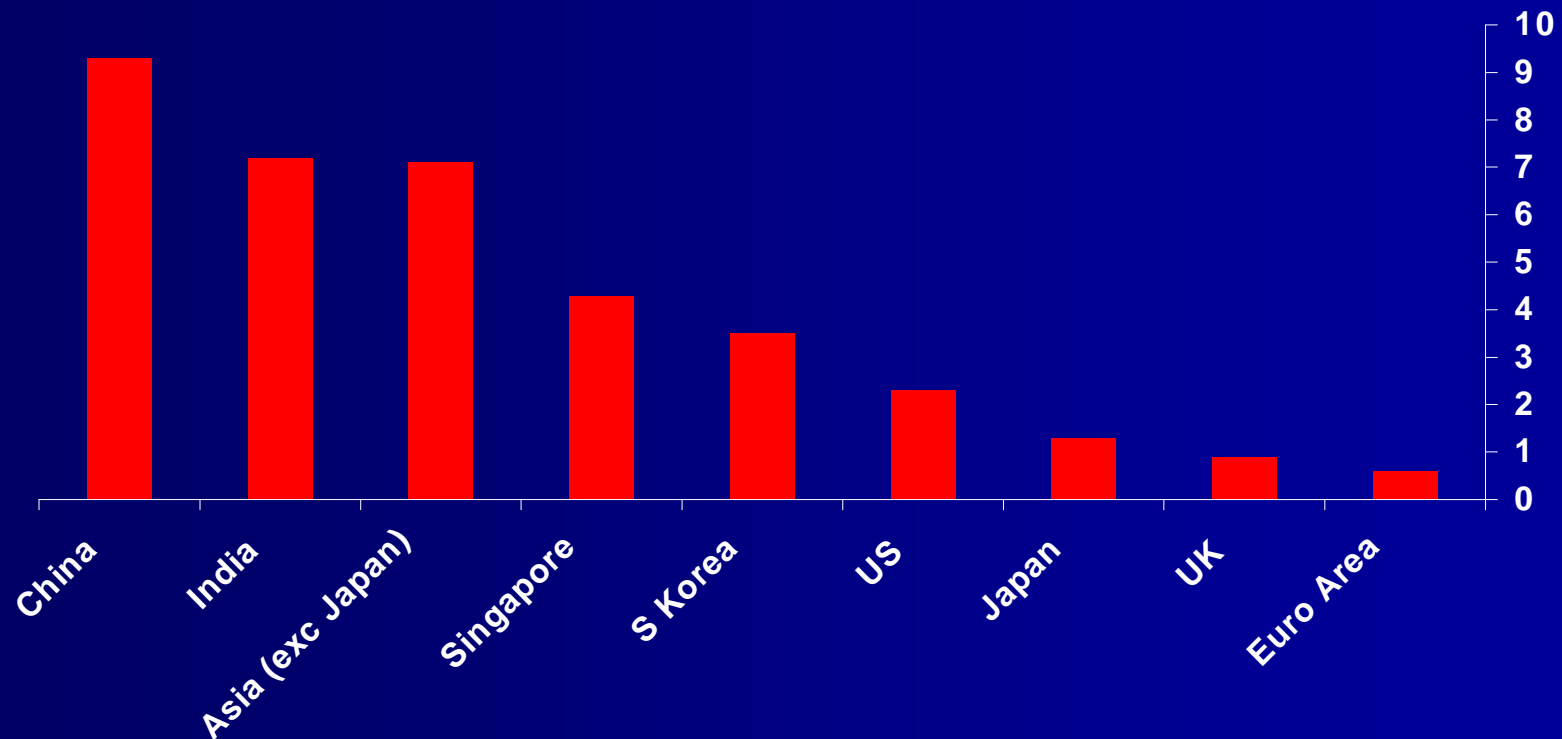


Note: Oil consumption is measured in million tonnes; other fuels in million tonnes of oil equivalent

Source: BP Statistical Review

# Asia leads the global recovery

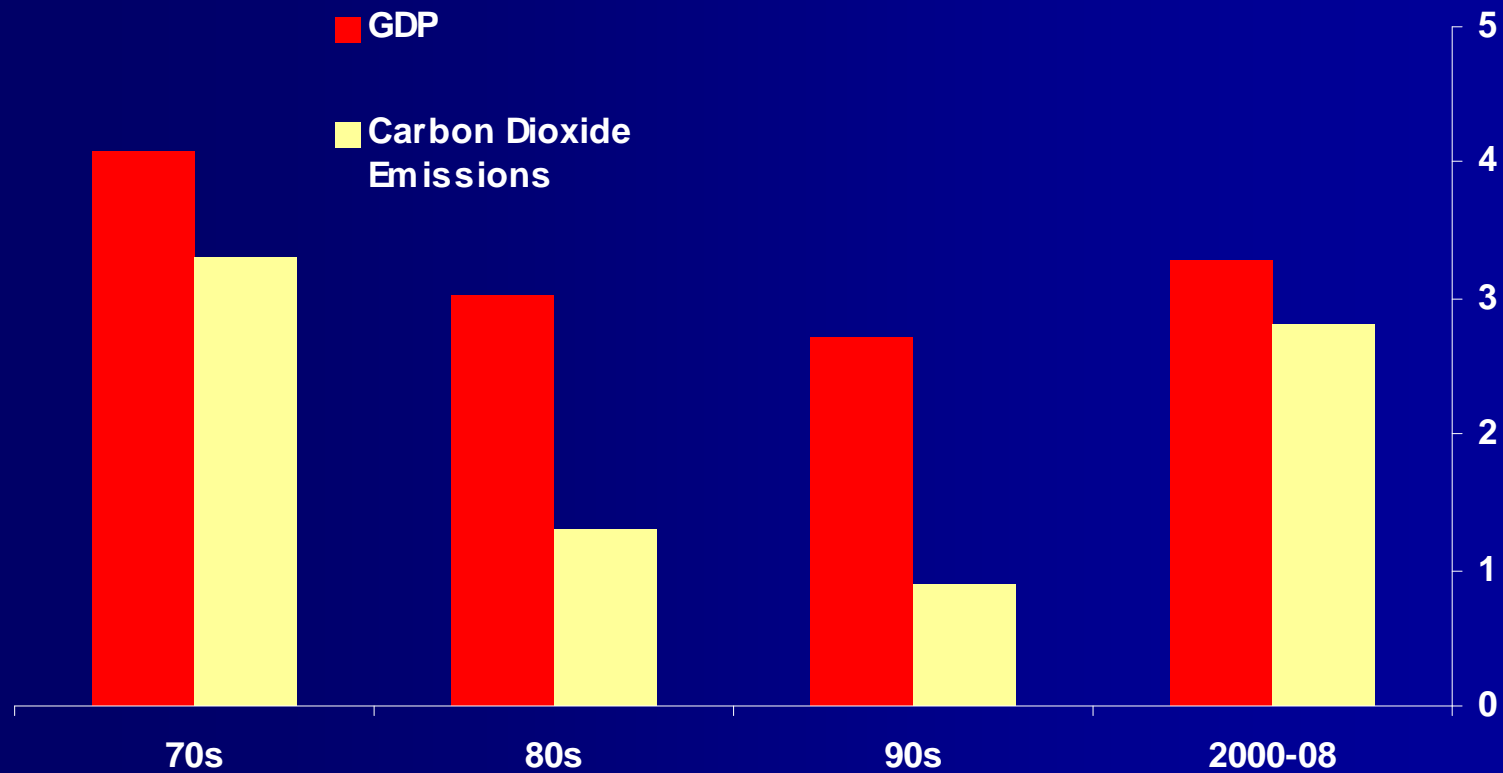
2010 forecast for real GDP growth, percent



Source: August 2009 Consensus forecast

# World GDP growth and CO<sub>2</sub> emissions from energy

Average annual growth rates, percent

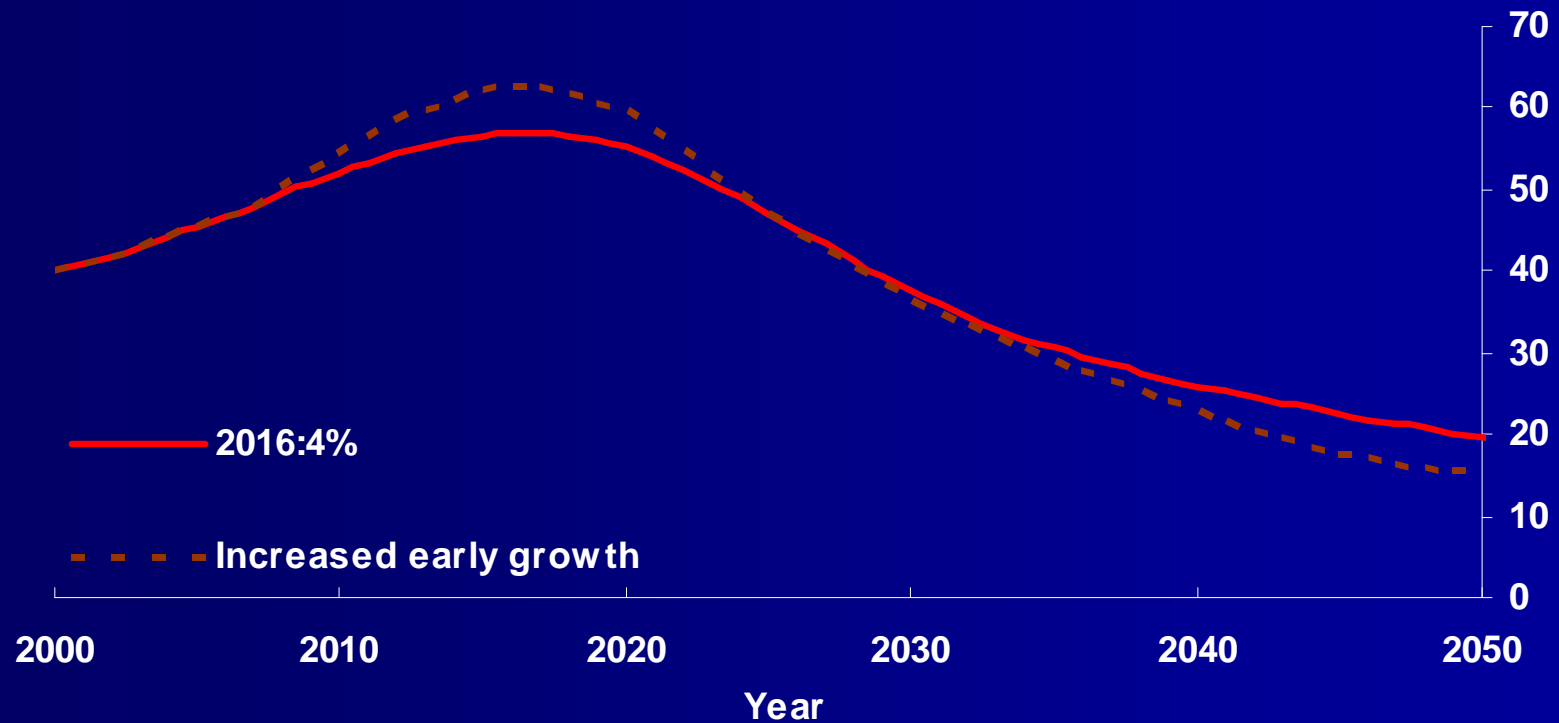


Note: Carbon dioxide is measured in millions of tonnes

Source: World Bank and BP Statistical Review

# Sustainable global emissions scenarios

Annual greenhouse gas emissions (GtCO<sub>2</sub>e)



Note: 2016:4 trajectory with global emissions peaking in 2016 with subsequent reduction in total emissions of 4%

Source: Climate Change Commission

# Key conclusions and policy messages

- Globalisation
- Policy co-ordination
- Global volatility and monetary policy
- The “great stability”?

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