

1990-2000 Greenhouse Gas Emissions in the Hong Kong Special Administrative Region

Alfred Yu & K H Cheung
EPD, HKSAR



Hong Kong SAR

Land Area :
1098 sq. km

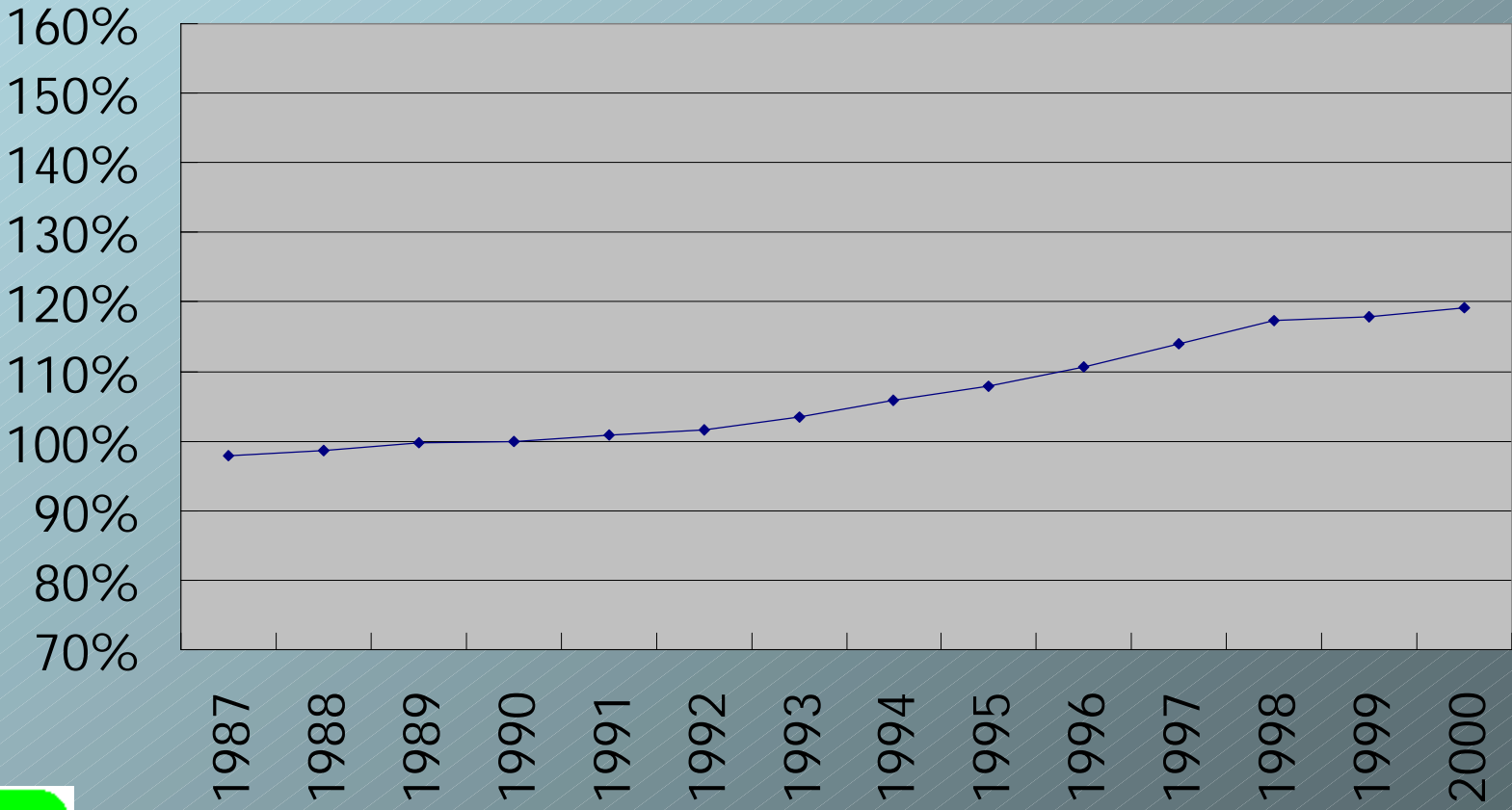
Population :
6.8 million

Density :
6,200/sq. km



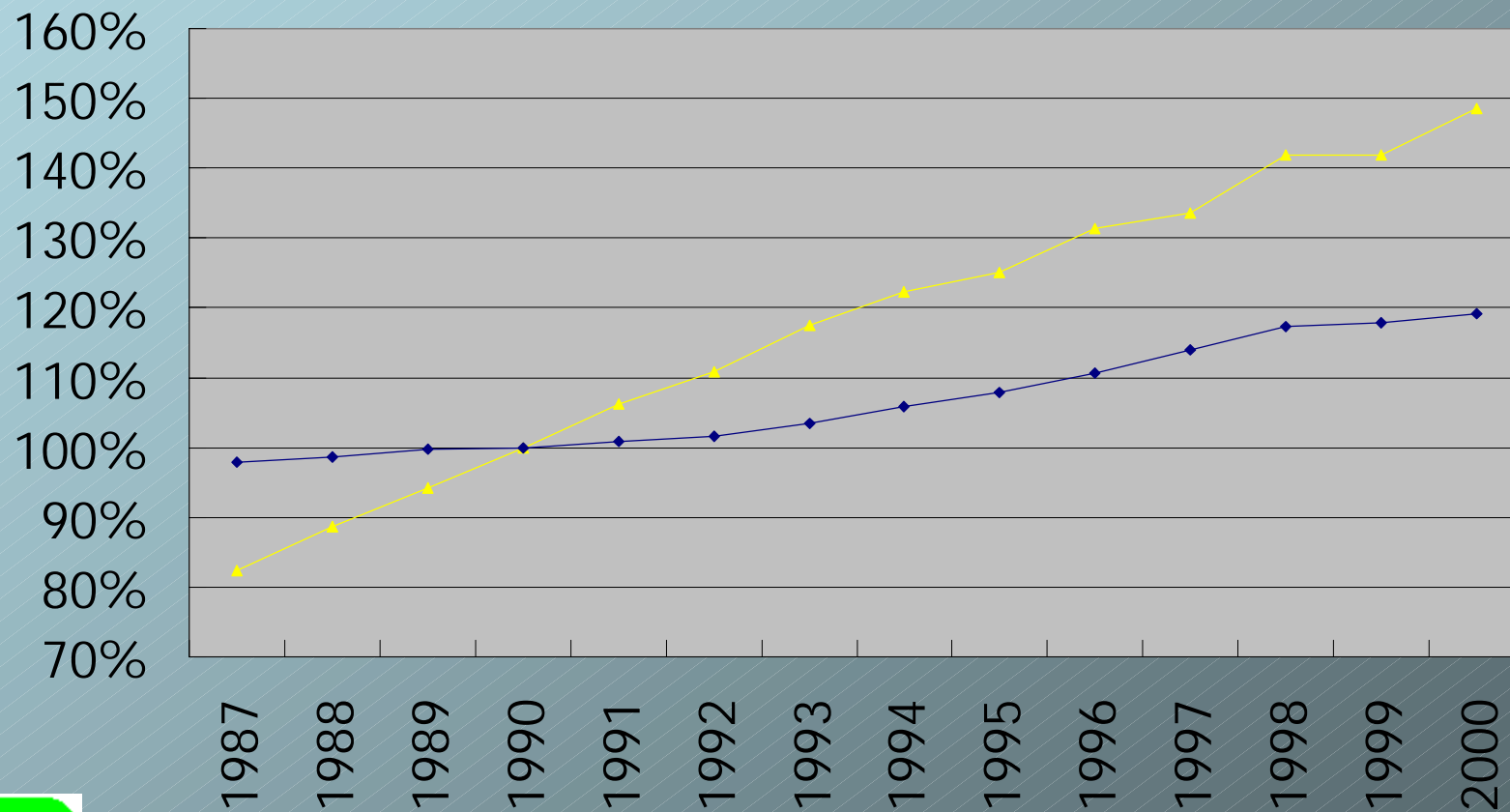
Growing Pressure

Population



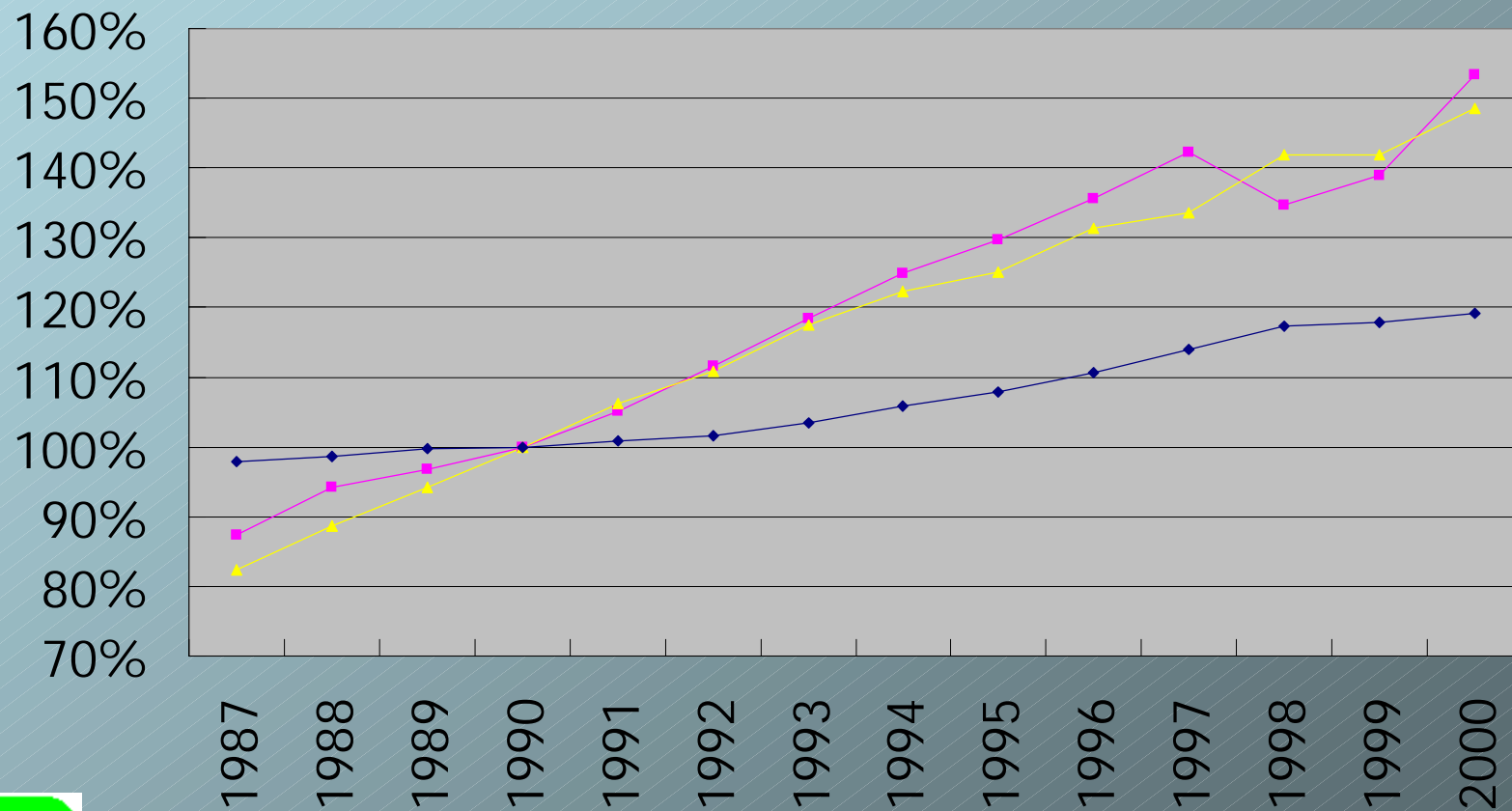
Growing Pressure

—▲— Power Demand —◆— Population



Growing Pressure

■ GDP at 1990 Prices ▲ Power Demand ◆ Population

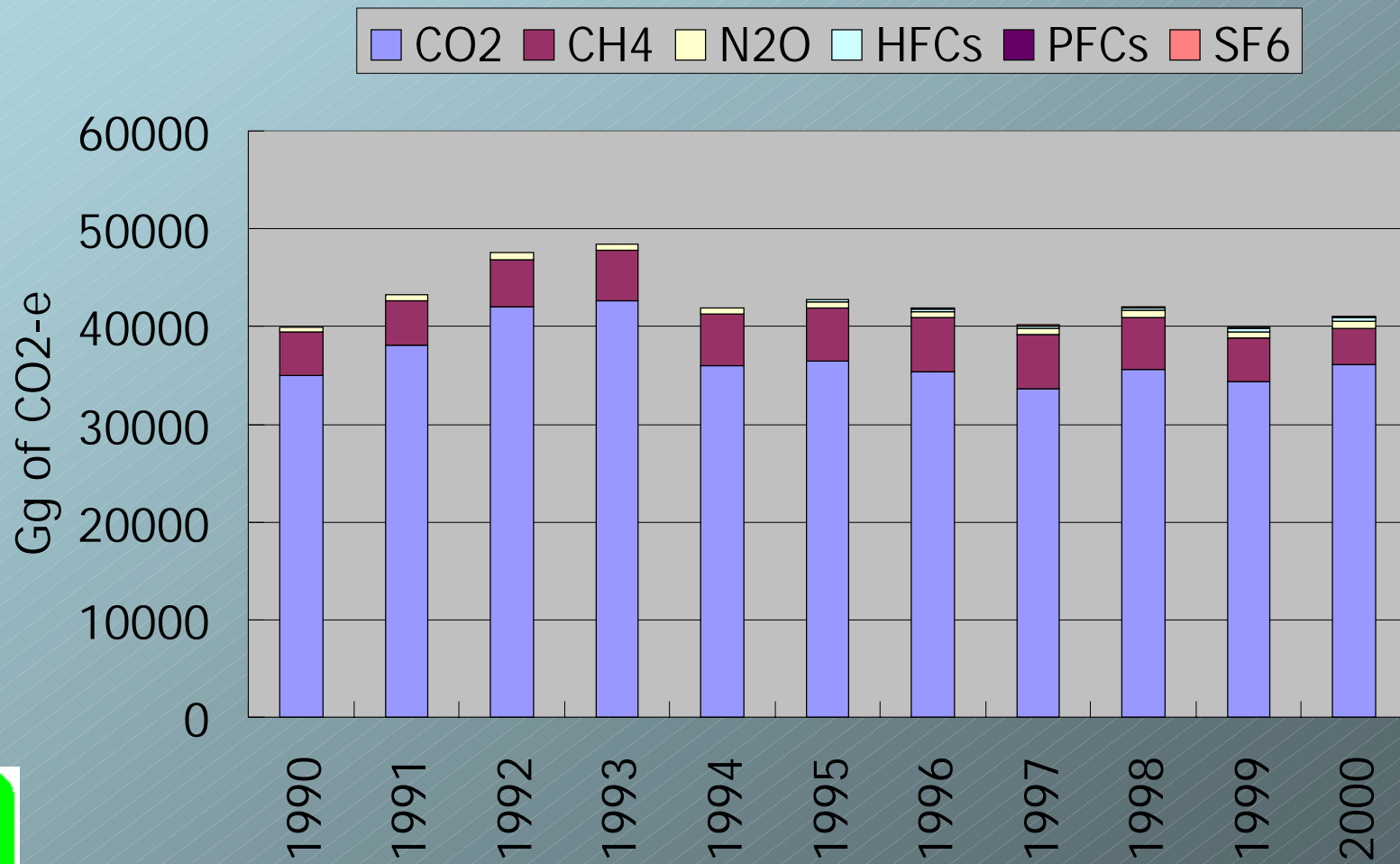


Compare HK with USA

- Land $1/9,000$
- Population $1/40$
- Electricity Consumption $1/100$
- GDP per capita $2/3$



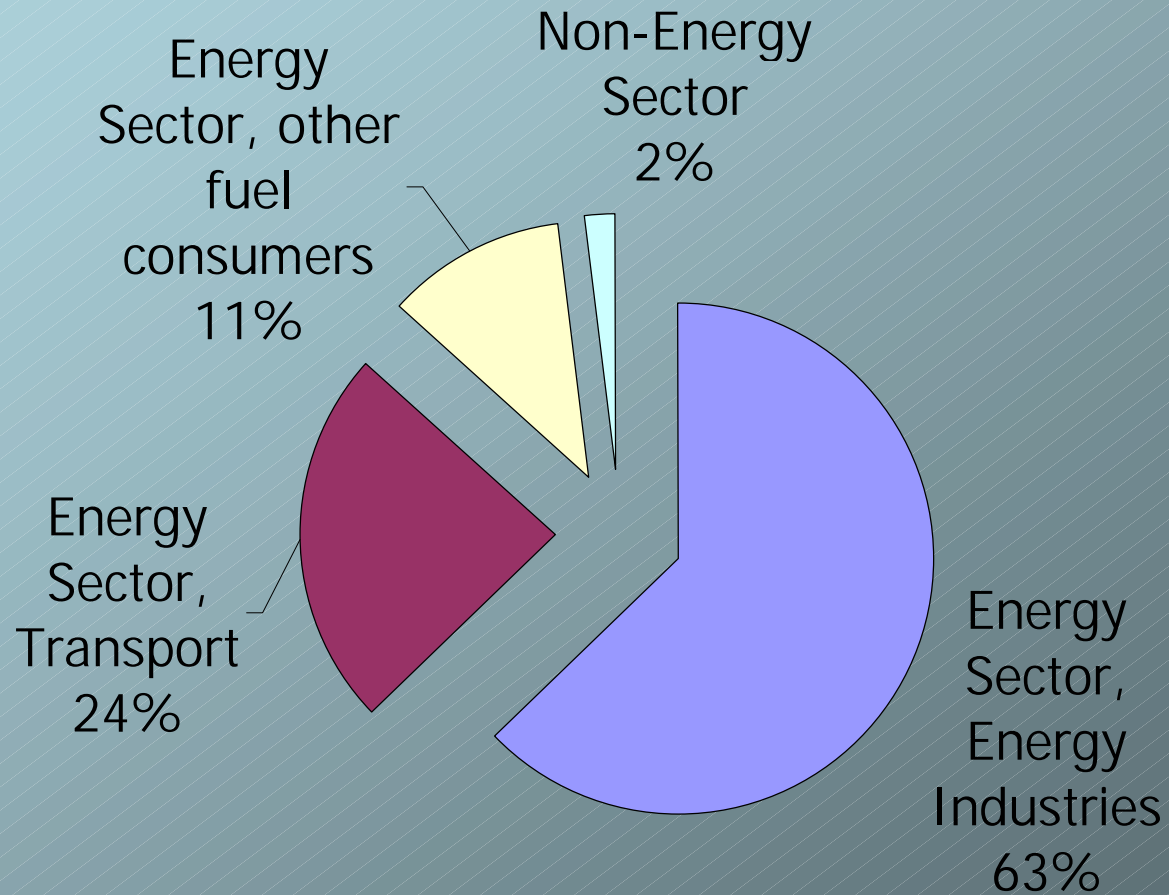
GWP Weighted GHG Emissions



Major Sources



CO₂ Emissions in 2000

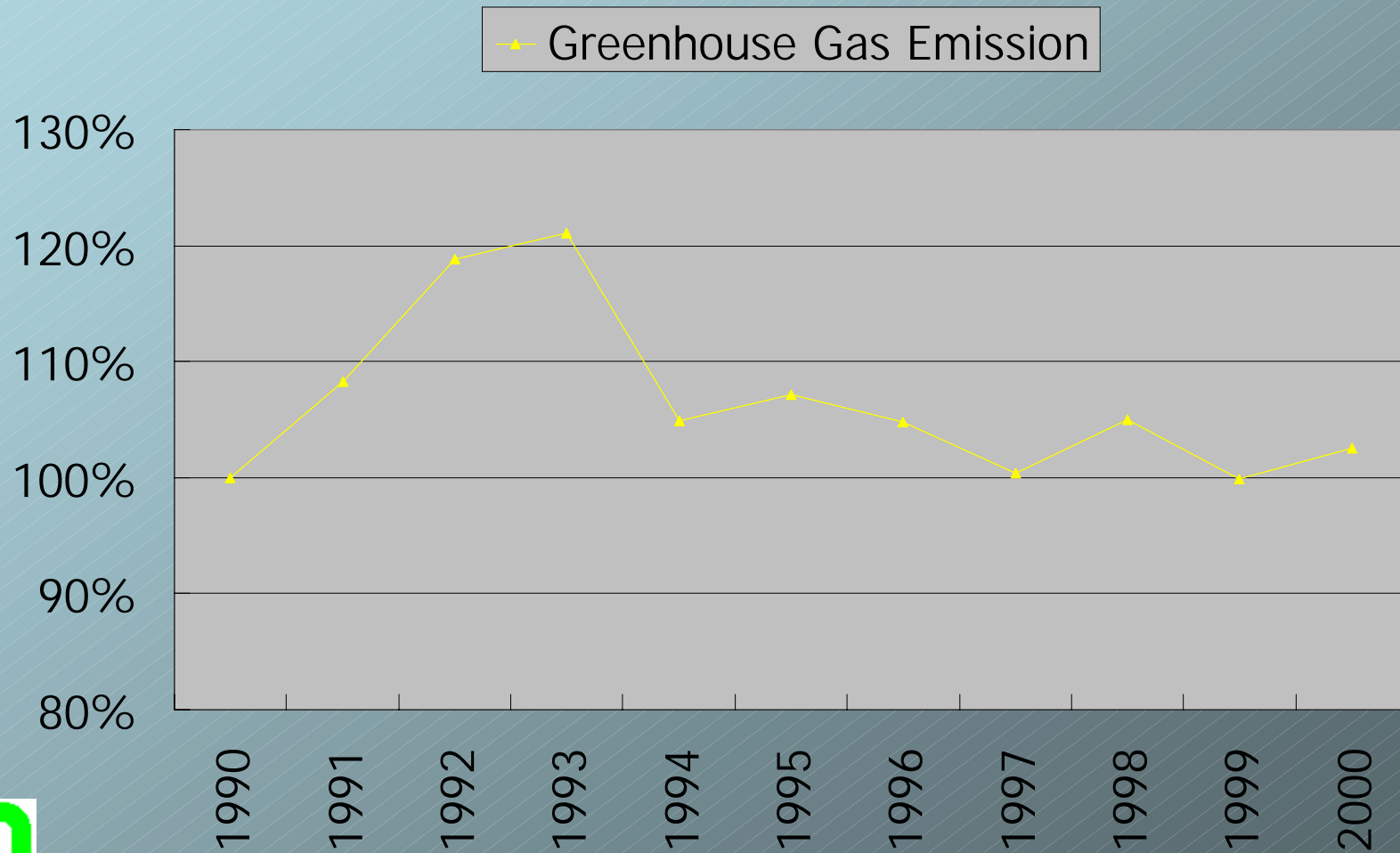


Other Emissions & Their Sources

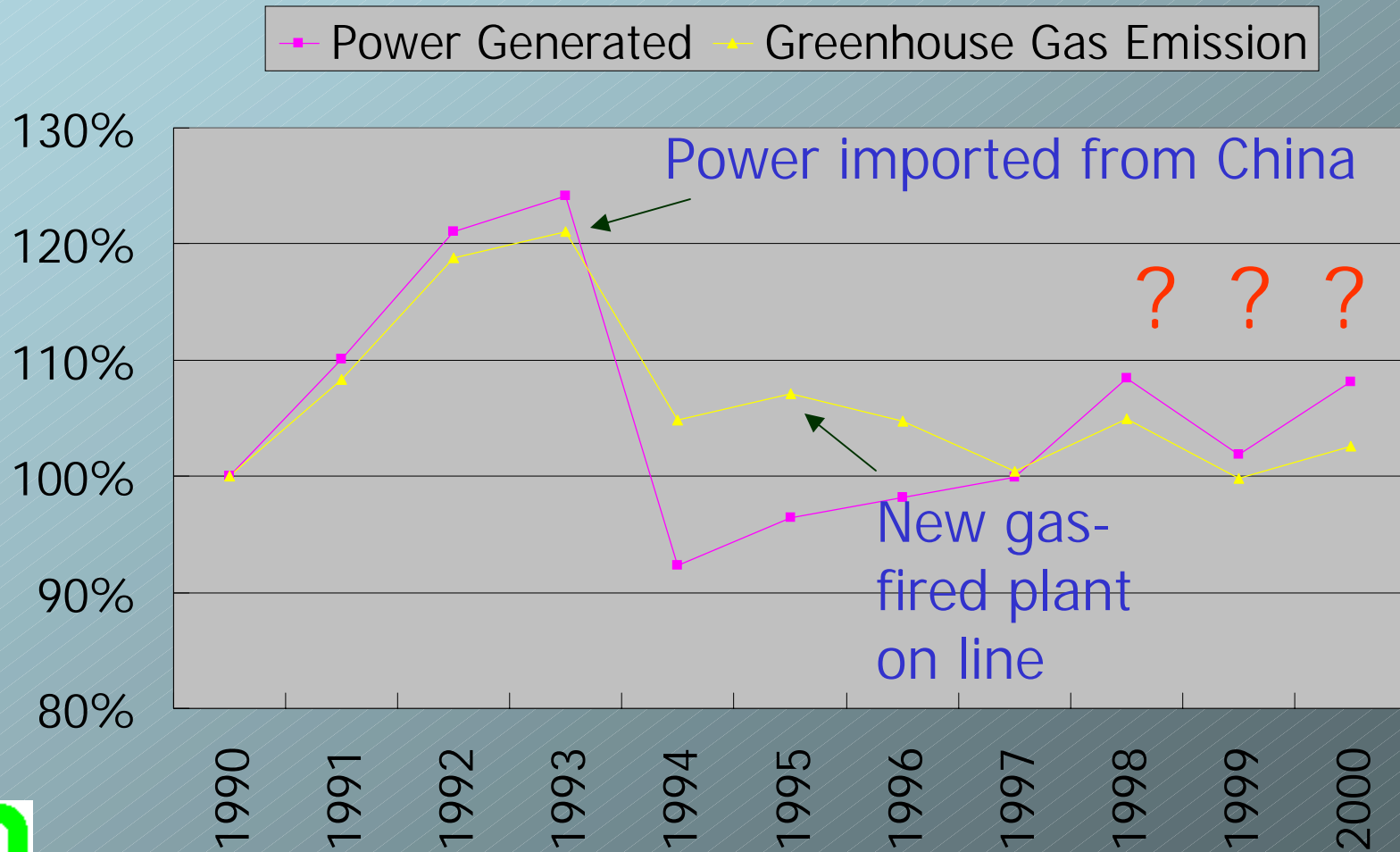
- CH_4 : landfill
- N_2O : transport combustion
- HFCs & PFCs : air-conditioning & refrigeration appliances
- SF_6 : power transmission & distribution equipment



Main Emission Driving Force

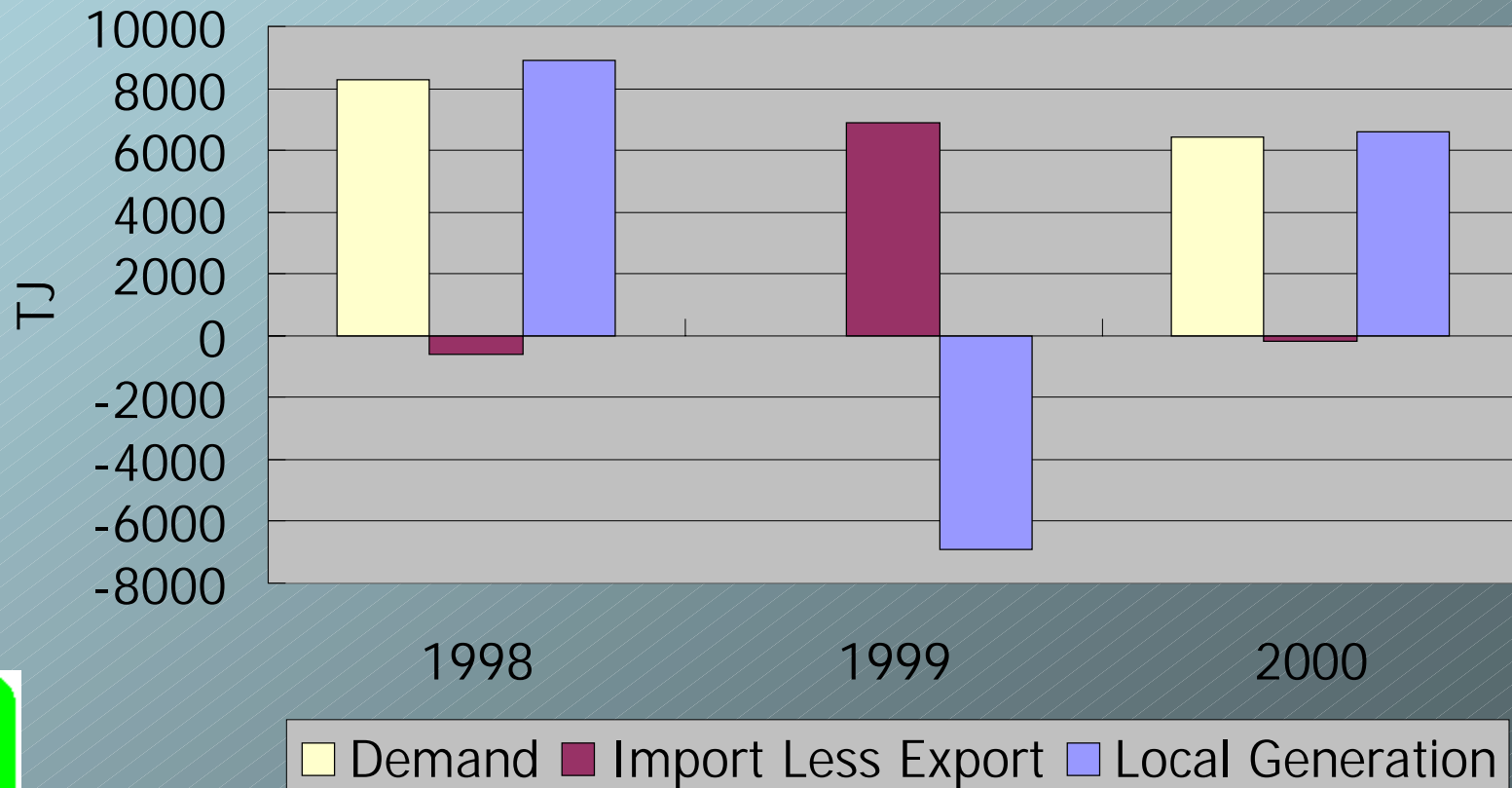


Main Emission Driving Force

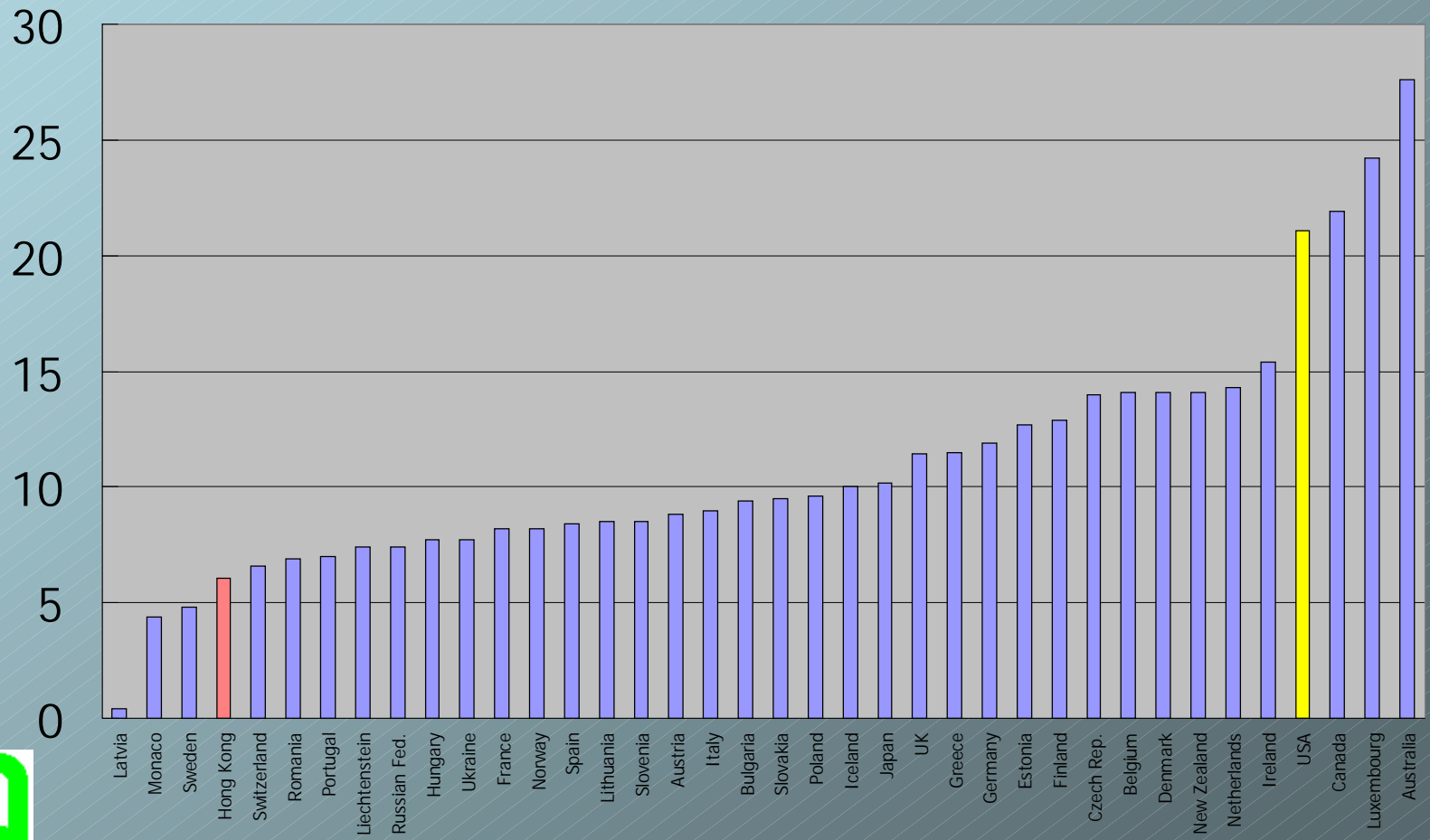


Reasons for Post-1997 Emission Fluctuations

Year-on-Year Changes in Power Supply and Demand



Per Capita Emission tonnes of CO₂-e



Summary

- HKSAR economy & population grew but 2000 GHG emissions \cong 1990 level
- Reduction: mainly energy import & new gas-fired plant
- GHG mostly fuel combustion CO_2 , some landfill CH_4
- Emissions reflected local power generation level, affected by demand & net import



Thank You!

