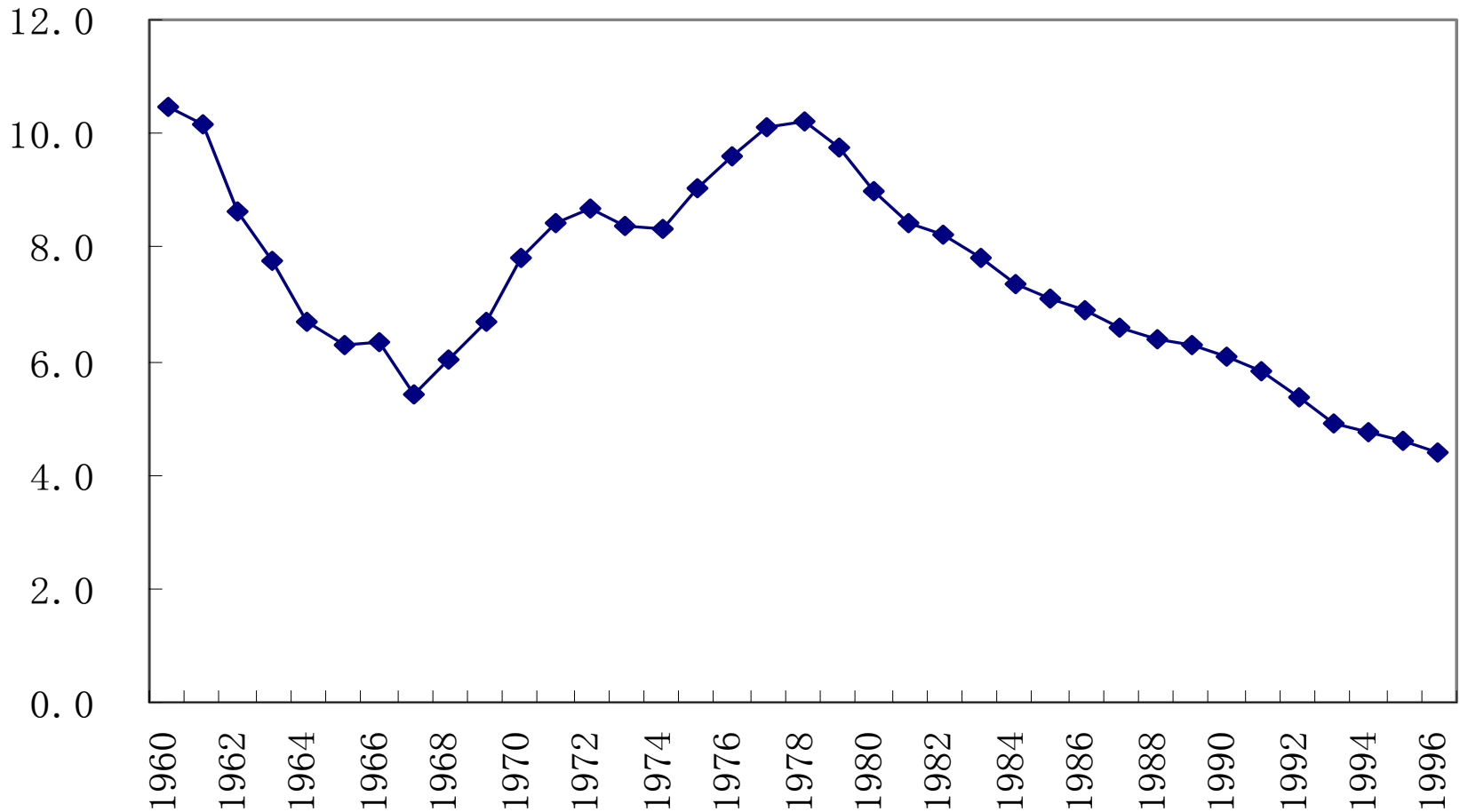


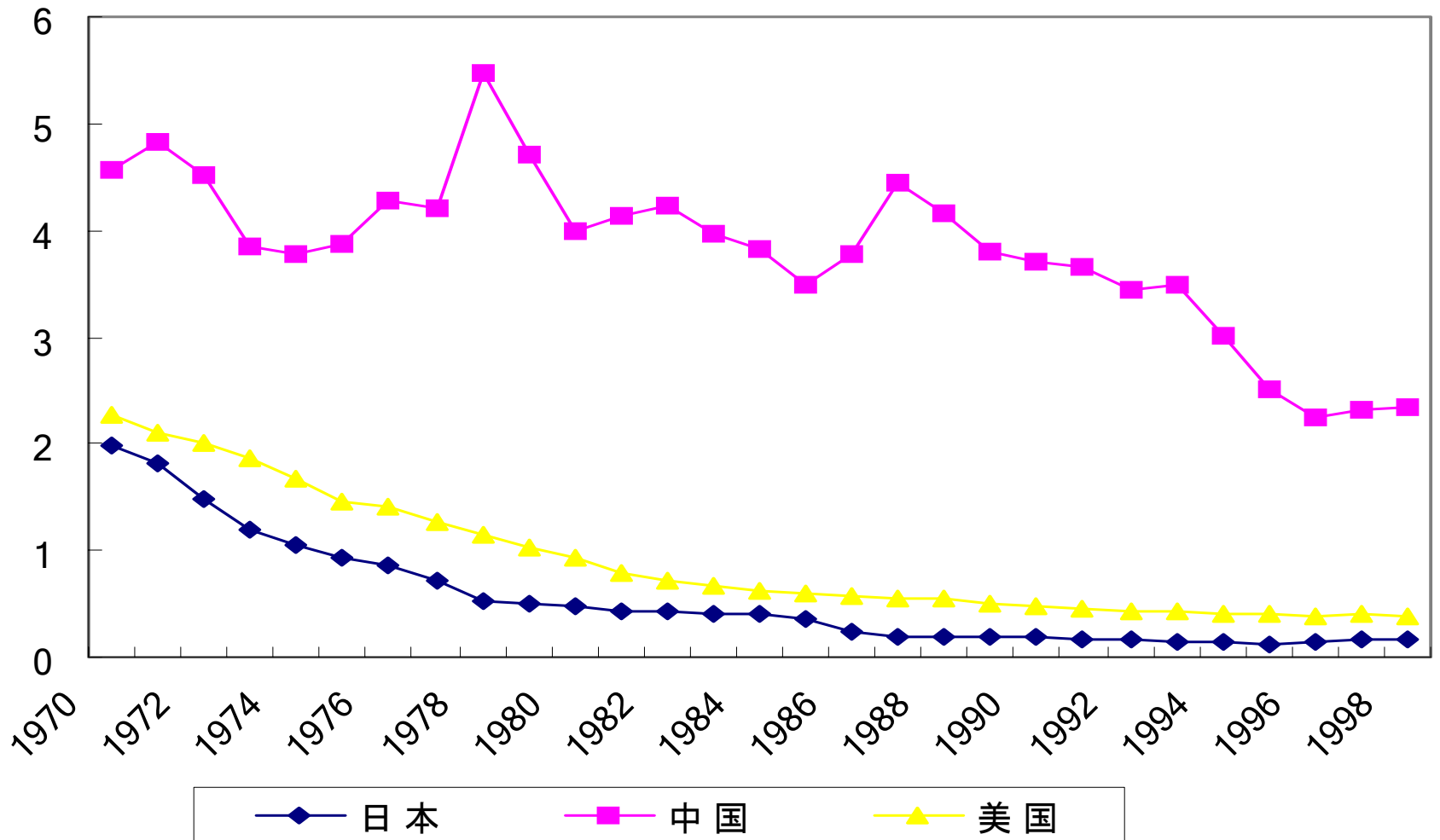
Trends in China's CO₂ Emission Density, 1960—98



International Comparison in CO₂ Emissions

- China is the secondary biggest emission country all the world.
- Emission per capita is under world average level, but the trend is rising.
- Emission density obviously declines. In fact China's emission density per unit economic output has less than America measured by PPP GDP.
- The level of Emission losses relative to GDP is still very high, but is continuously declining.

CO₂ Emission Losses relative to GDP (%)



Five Major Country's Share relative to World Aggregate , 1998

Indicates	China	USA	Russia	Japan	India
Population	21.3	4.6	2.5	2.2	16.8
GDP (PPP)	12.8	20.9	2.0	7.7	4.4
Energy Production	10.5	17.5	9.6	1.1	4.3
Primary Energy Supply	11.0	22.8	6.1	5.3	5.0
CO ₂ Emission	12.8	24.0	6.3	5.0	4.0

Energy and Environment Indicators Comparison Among Five major Countries , 1998

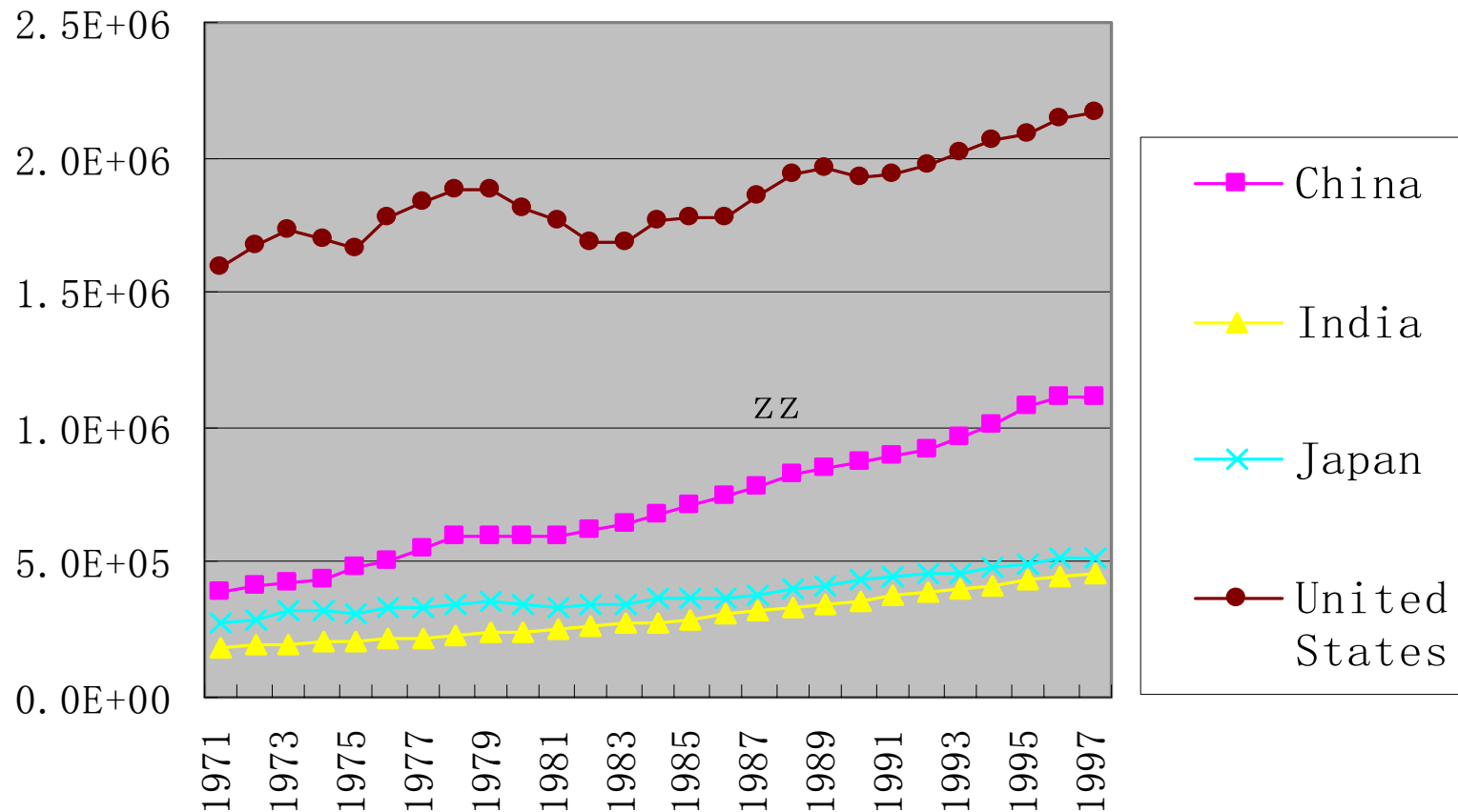
Indicates	China	USA	Russia	Japan	India	World AV.
Per Energy Supply (toe/pop)	0.84	8.11	3.96	4.03	0.49	1.64
Per GDP Energy Supply (toe/1000US\$, 1990PPP)	0.24	0.31	0.87	0.20	0.32	0.28
Electric Power Consumption Per capita (kwh/pop)	895	13388	4873	8008	416	2252
CO ₂ Emission per Energy Supply (tCO ₂ /toe)	2.76	2.48	2.43	2.21	1.91	2.36
Per Capita CO ₂ Emissions (tCO ₂ /pop)	2.32	20.10	9.64	8.92	0.93	3.86
Per GDP CO ₂ Emissions (kgCO ₂ /90US\$, PPP)	0.67	0.77	2.13	0.44	0.61	6.67
Energy Net Import (%)	2.4	25.1	-59.3	78.6	14.1	

- Report issued by The Natural Resources Defense Council (NRDC) says China has reduced its carbon dioxide emissions by switching from coal to cleaner energy sources, initiating energy efficiency programs and restructuring its economy.
- The report also states that over the last decade, China's carbon dioxide emissions grew 8.4 percent, while US emissions grew 14 percent. During this period, however, China's economy grew four times faster than the US economy.

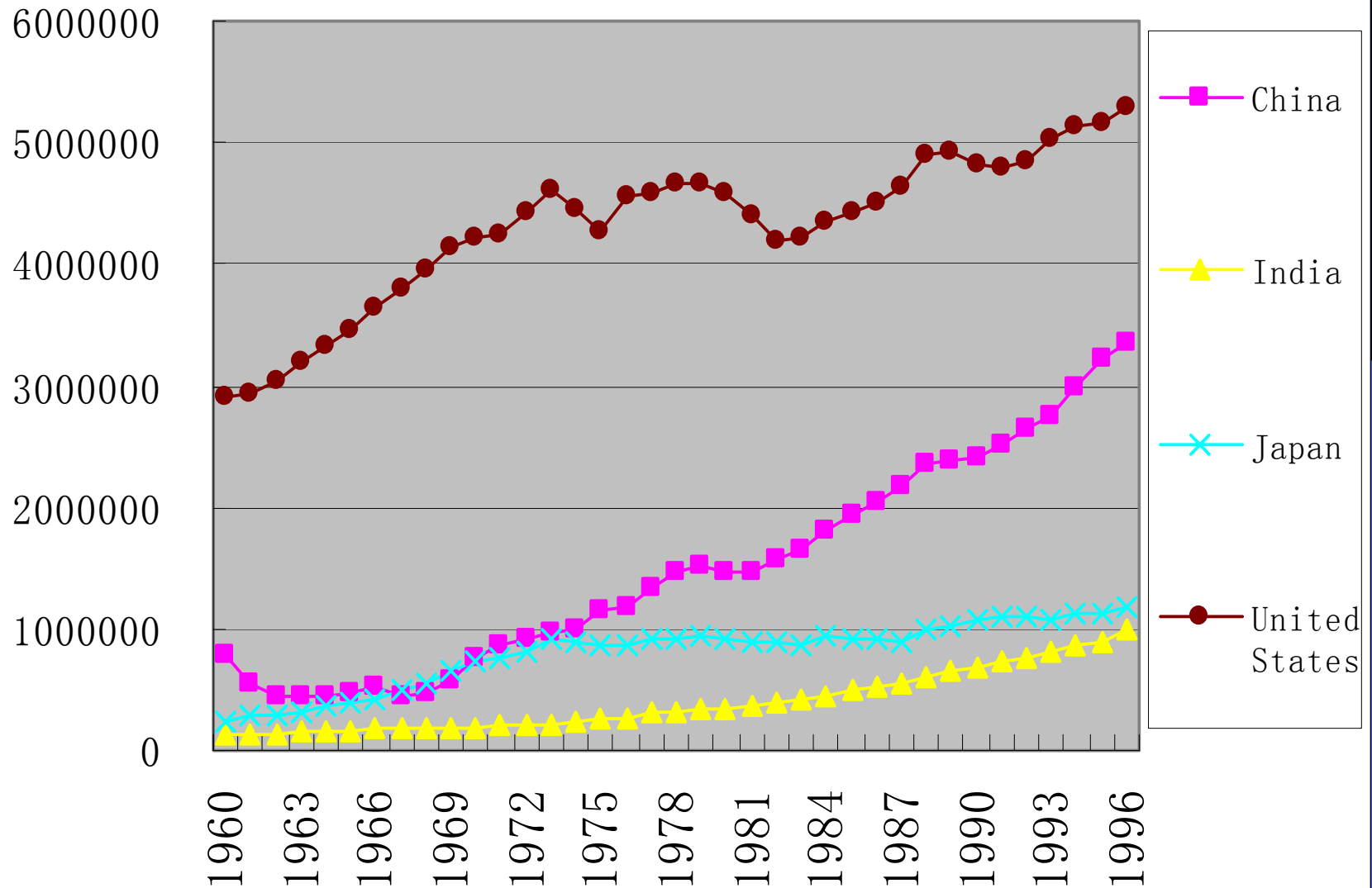
- Citing US Department of Energy statistics, the report says China's coal consumption has declined by 411 million short tons since 1996, while US coal consumption increased by 40 million short tons over the same period.

Commercial Energy Use

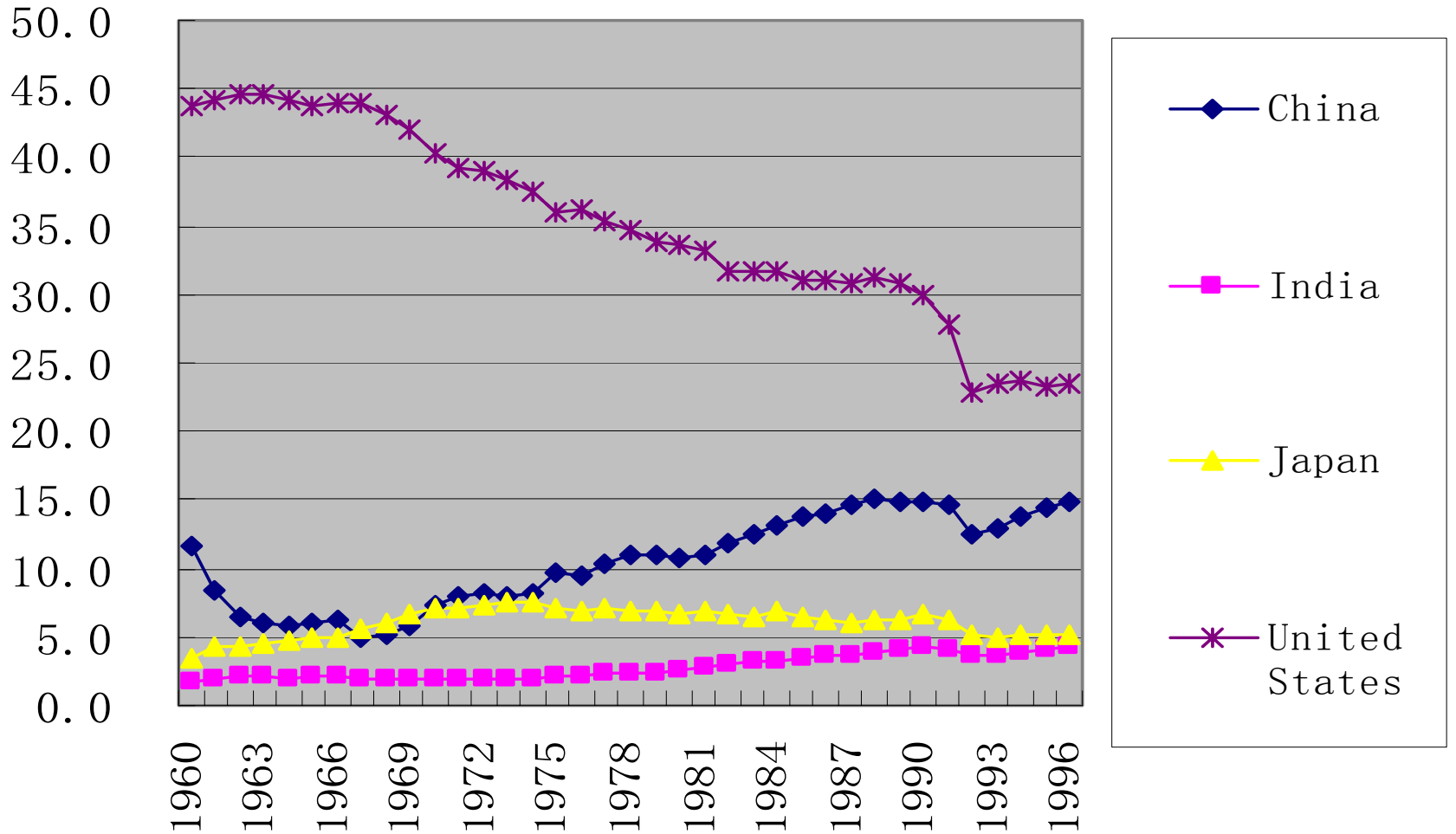
Commercial Energy Use (kt, Oil Equivalent)



CO₂ Emission Growth, 1960-98



Ratio of CO₂ in World, 1960-98



IV. Implications

Perspective

- China will continually cut carbon dioxide emissions in the future. Central government has pronounced that China will cut several kind pollutants by 5-10 percent in the 10th FYP, include carbon dioxide emissions. In order to achieve such a goal, energy policy is the most important aspect.

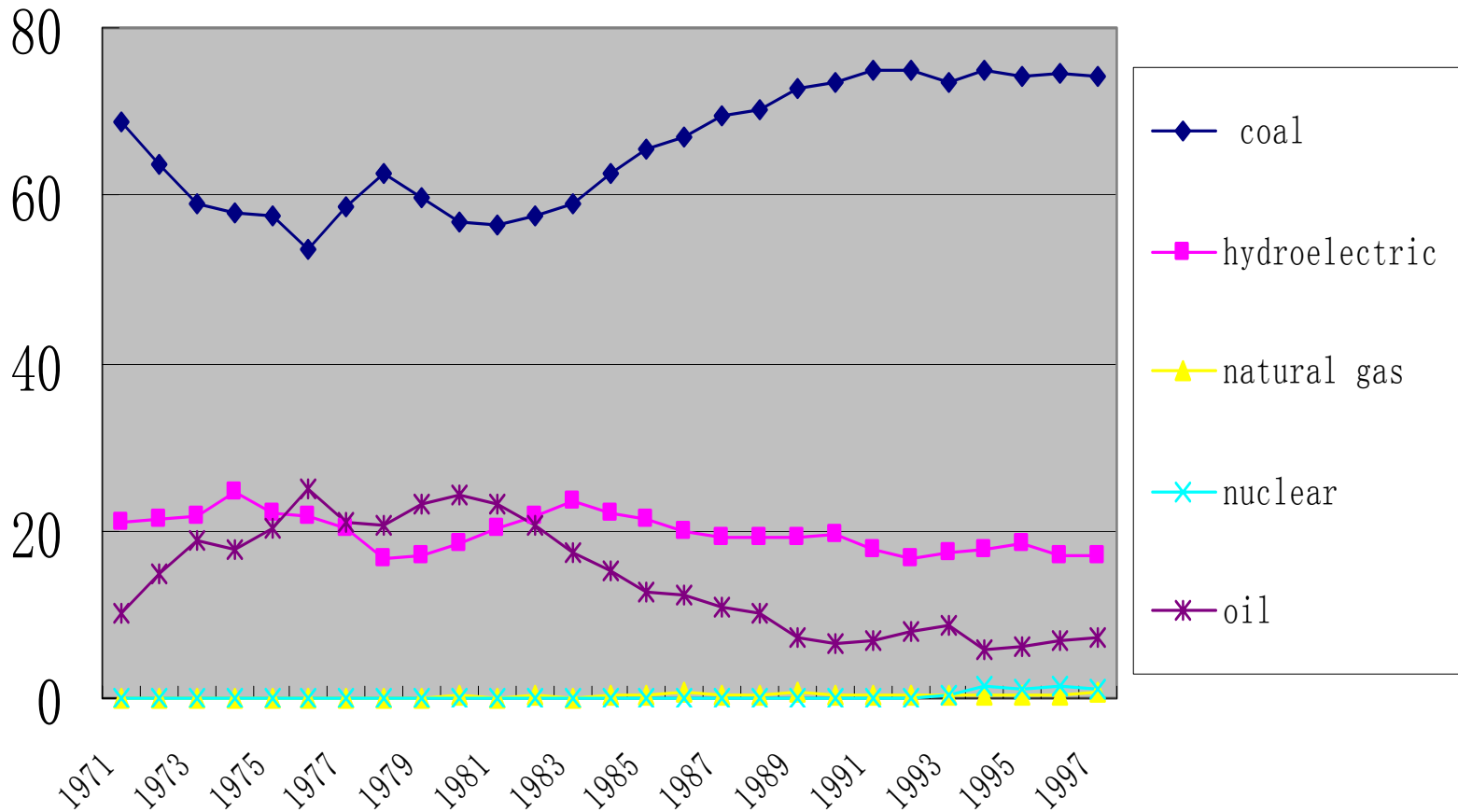
China's Energy Strategy

- Go on energy restructure, substantial reductions in coal consumption, more clean energy usage. Import more petroleum and natural gas and open domestic energy market.

Implement Environment-Friendly Energy Policies

- Place zero-customs policy to oil and gas products. Break the monopoly of oil import, abolish oil import quota restrict, permit major consumer to buy oil from the world market.
- Use global technology of energy-saving and environment protection; place low-customs or zero-customs of technology and equipment import.

% of Different Sources in Electricity Production



Actions to Reduce Air Pollution

- Shift emphasis from command and control to market-based instruments and from end of pipe treatment to prevention at source.
- Adopt a Clean Production Law.
- Improve pollution levy and strengthen enforcement.
- Introduce an environmental tax on coal.
- An emission trading system could provide another instrument to reduce pollution.

Participate in More International Environmental Cooperation

- In order to accelerate emission abatement, we suggest China initiate CO₂ emissions trading, especially develop bilateral trading with Asian countries, include Japan. Since China need more international assistance, Japan can transfer more energy saving and environmental protection technologies, develop more investment in China important areas.

Thanks !