

# Outlook of Refining Capacities in China



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# Agenda

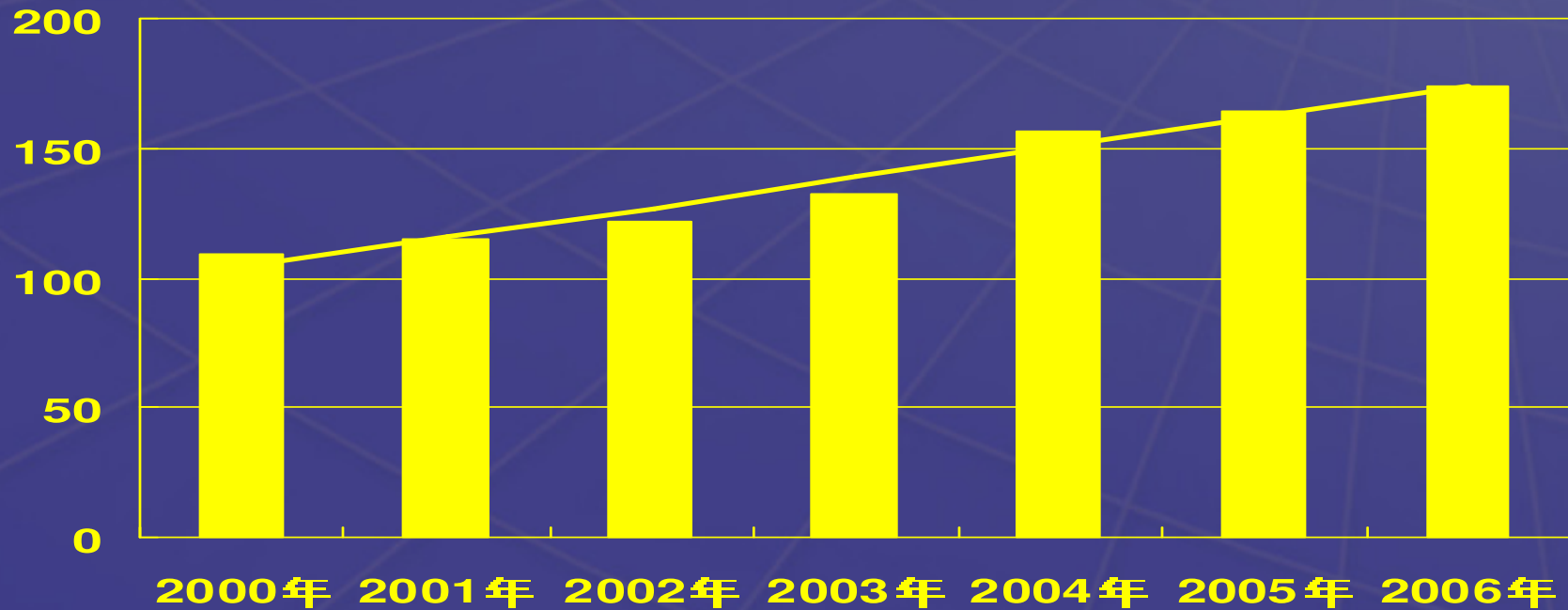
- **Review and update**
- **Challenges and Opportunities**
- **Outlook for 2010**



## Review – Oil products

### *Oil products consumption ...*

Million tons

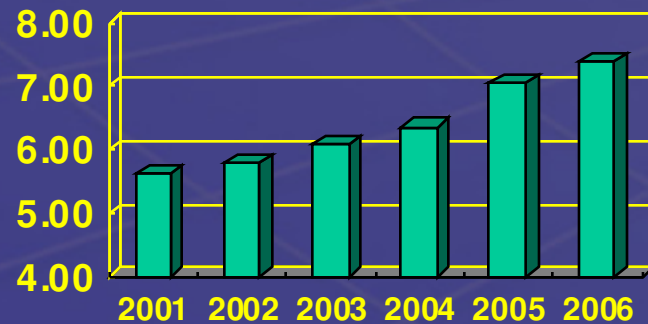


*Annual growth rate 8.2% ( relevant coefficient with GDP growth rate was 0.8 )*

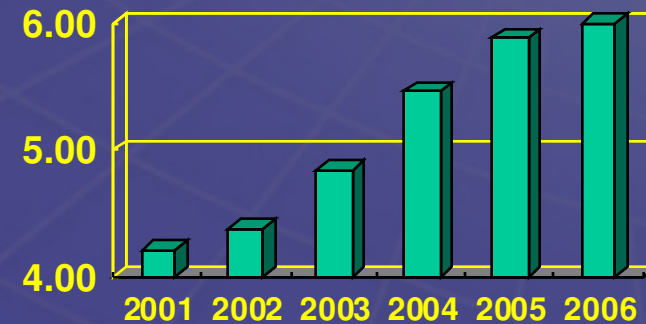


# Review – Oil products

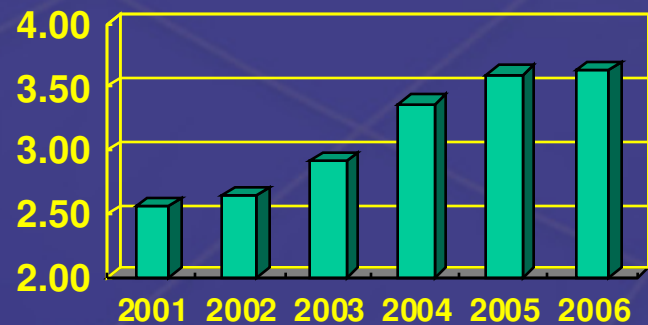
*Refining capacity ( m b/d )*



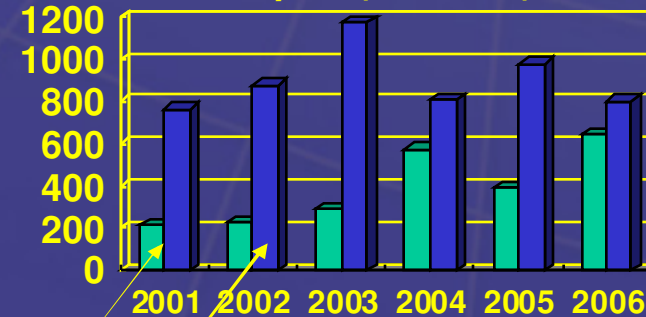
*Crude processing ( m b/d )*



*Oil production ( m b/d )*



*Refining products import / export ( m. tons )*

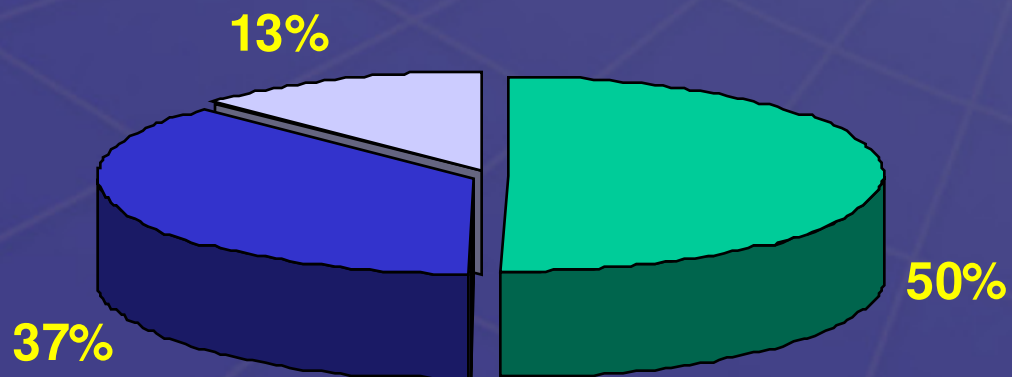


*import export*



## Review – Oil products

### Crude processing



■ Sinopec ■ Petrochina ■ Others



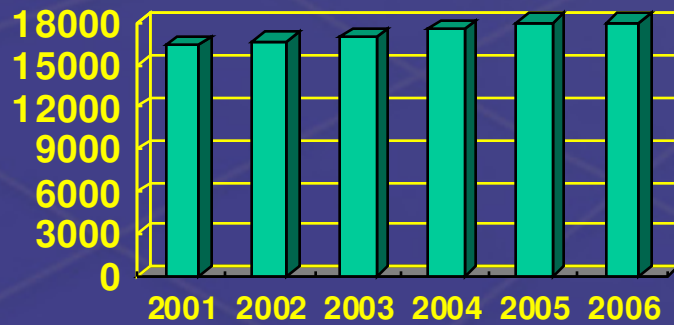
## Challenges

- ***Insufficient Resources Supply: Pressure and Challenges for the Industry***
  - ✓ China is world's 2nd largest crude oil consumer
  - ✓ 2006 crude import accounted for **43%** of the nation's total consumption
  - ✓ China's reliance on crude import will reach **46%** and **60%** in 2010 and 2020, respectively



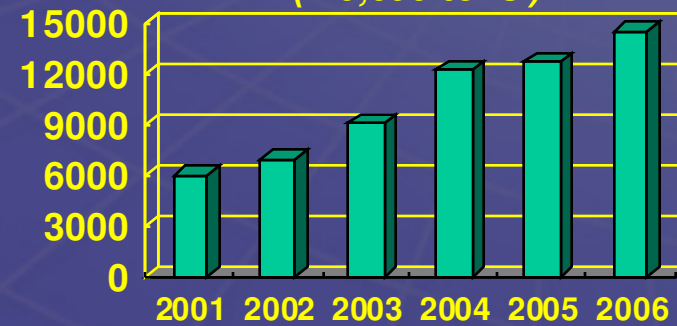
# Challenges

*China's crude production  
( 10,000 tons )*



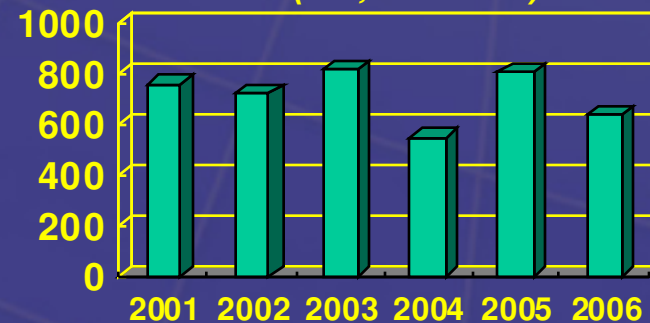
**AAGR 2.1%**

*China's crude import  
( 10,000 tons )*



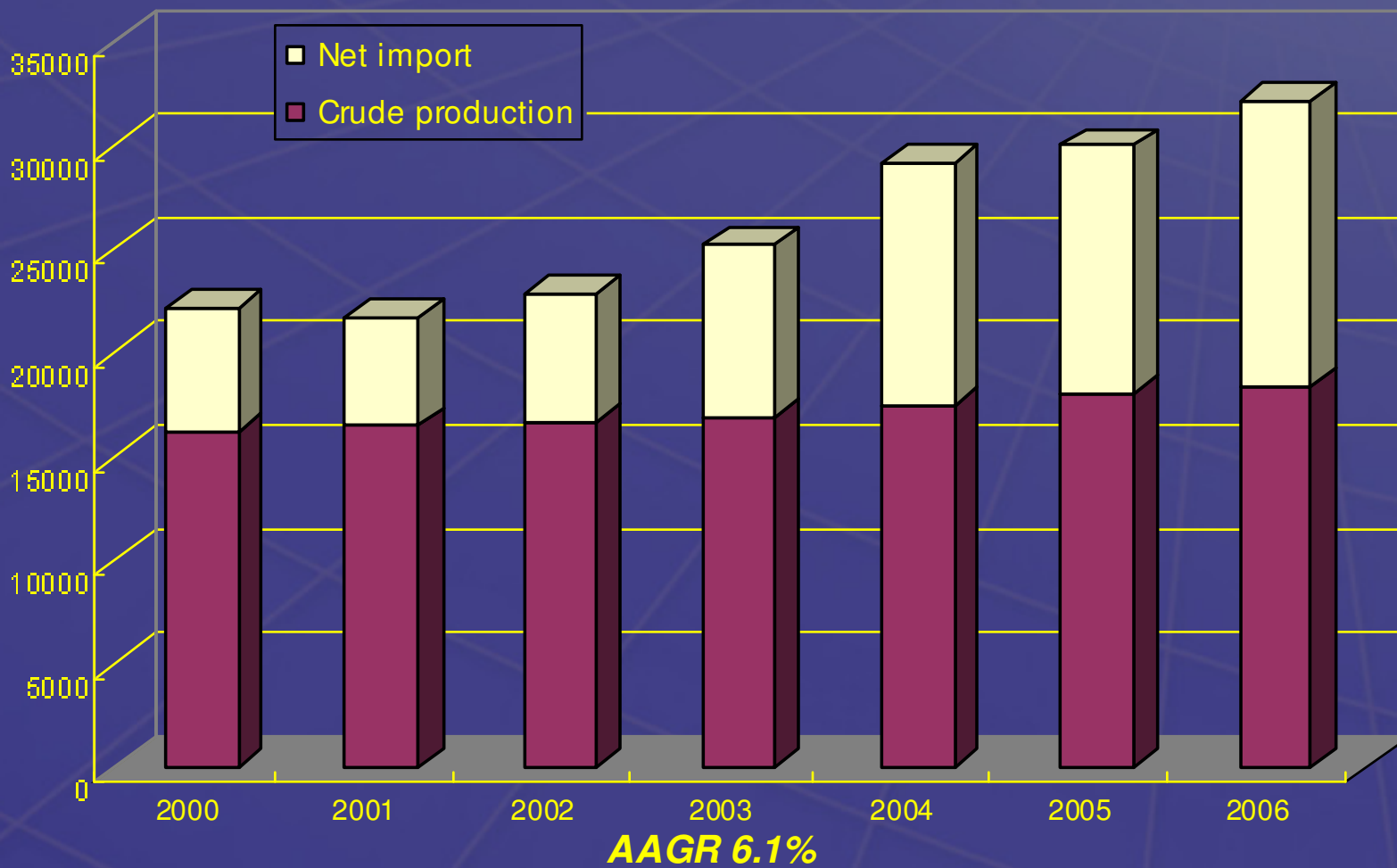
**AAGR 12.6%**

*China's crude export  
( 10,000 tons )*



# Challenges

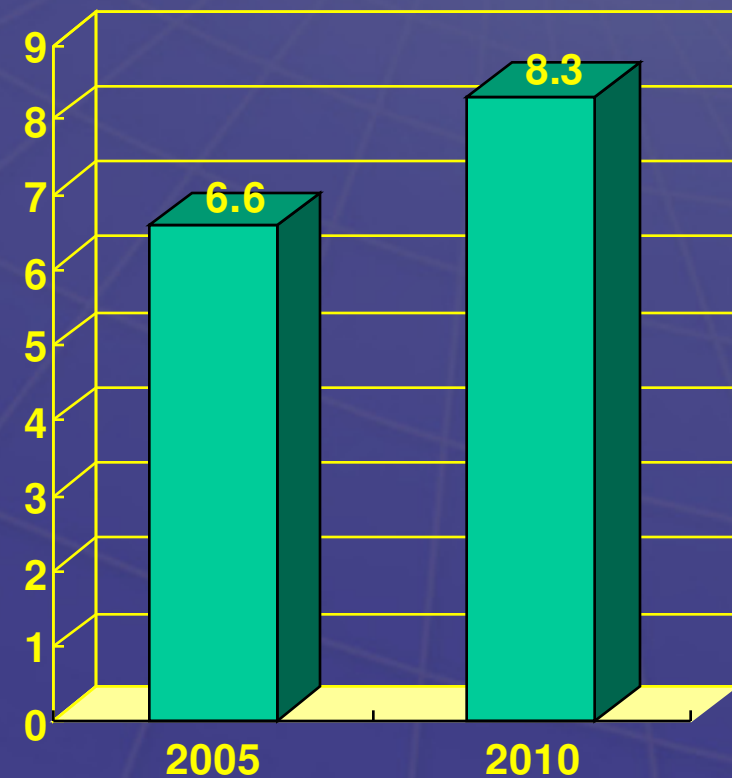
*China's crude oil consumption ( 10,000 tons )*





- ***Refining Industry of Middle East developing fastly ...***

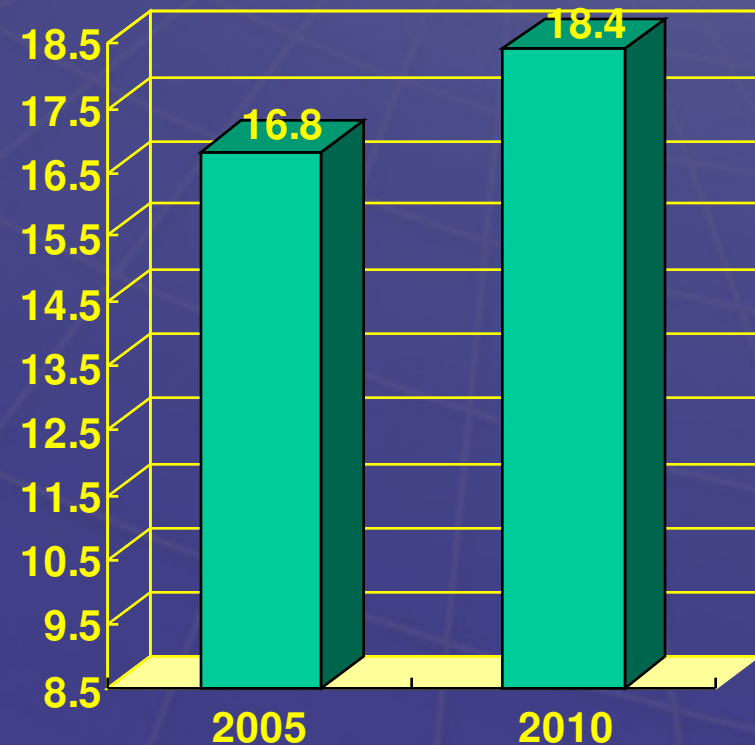
- ✓ 2005~2010, Middle East will add 1.7 m b/d refining capacity.
- ✓ Major refining capacity growth in Iran, Saudi and Iraq.





## Challenges

- ***Refining Industry of Indian also developing rapidly ...***
  - ✓ 2005~2010 , Asia-Pacific ( excl. China ) adds new refining capacity of 1.6 m b/d to hit 18.4 m b/d.
  - ✓ The highest capacity growth is India, rising by 1.0 m b/d ( 62% in area ).





## Challenges

- ***China's WTO commitment — fastening market liberalization for products***
  - ✓ **Step-by-step open in wholesale market for refined oil products**
  - ✓ **Continued increase and non-state trading import quota for crude oil and refined products**



## Challenges

- ***High oil price will influence refining industry for long-term view.***
  - ✓ **Super active investment and R&D in alternative energy, e.g. nuclear, coal, GTL, bio-ethanol, etc.**



## Opportunities

- ***Huge market demand and top-line growth rate***
  - ✓ **2020 China's GDP will be four times compared with 2000.**
  - ✓ **Upgrade of social consumption will promote refining and petrochemical industry**
  - ✓ **Stimulization from downstream industry, e.g. transportation, automobile, textile & costume, chemical building materials, electronics , etc.**



## Opportunities

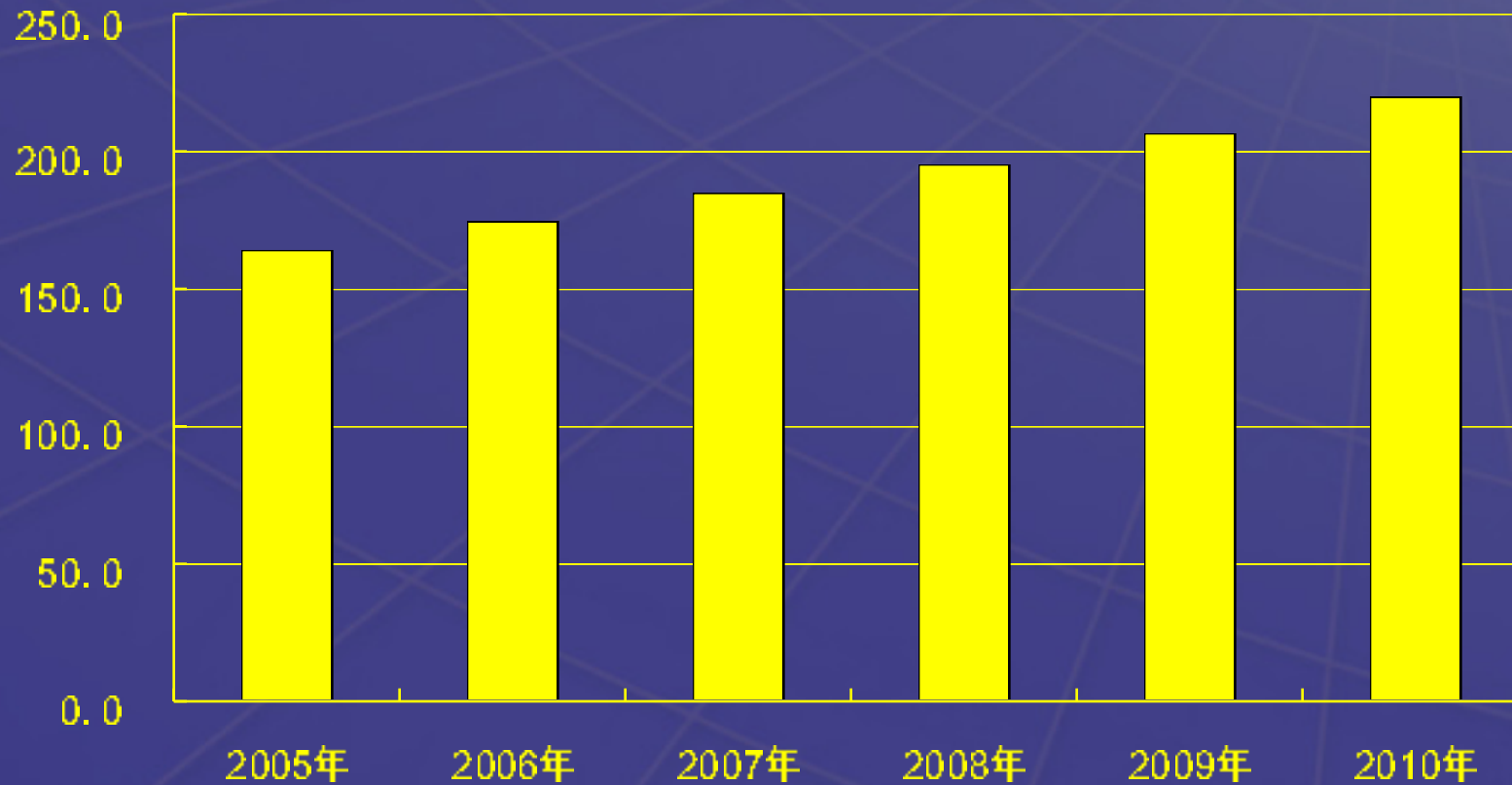
- ***Huge market demand and top-line growth rate***
  - ✓ **Growth rate of oil products consumption : GDP growth rate \* ( 0.5 ~ 0.6 )**



## Industry Outlook – oil products ...

Million tons

### *Forecast of oil products consumption ...*



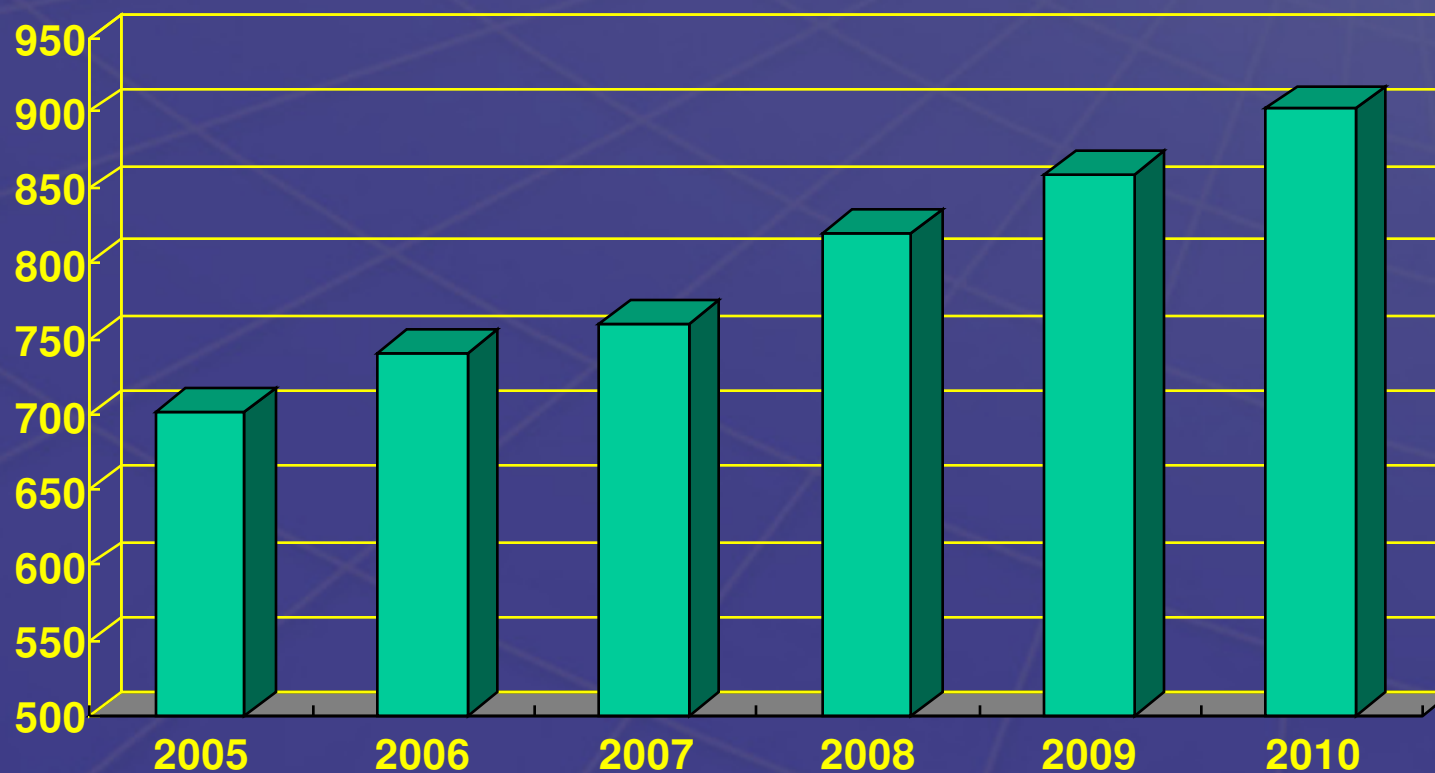
***Annual growth rate 6.0%***



## Industry Outlook – oil products ...

### *Forecast of refinery capacity ...*

m b/d

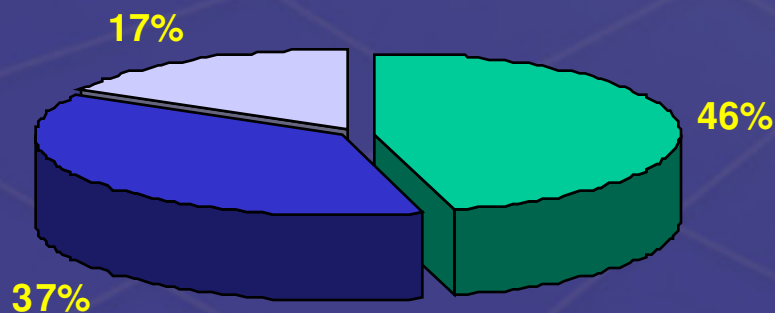






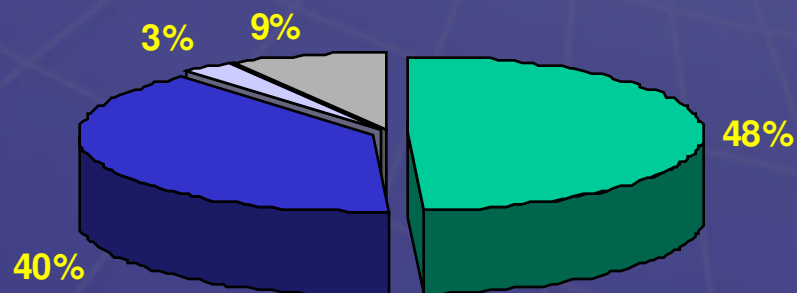
# Industry Outlook – oil products ...

2005 refining capacity



■ SINOPEC    ■ PetroChina  
■ Others

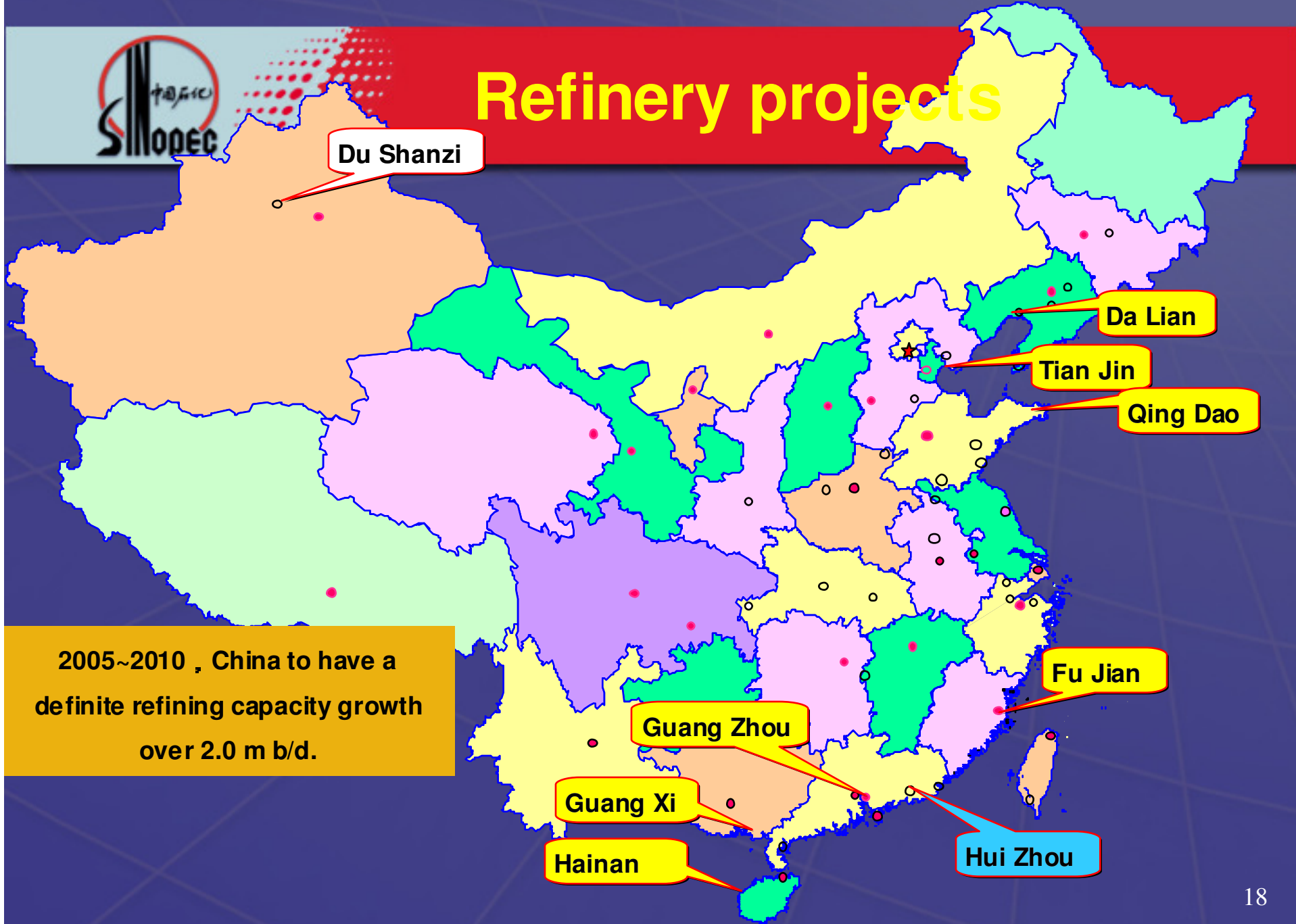
2010 refining capacity



■ SINOPEC    ■ PetroChina  
■ CNOOC    ■ Others



# Refinery projects



2005~2010 , China to have a definite refining capacity growth over 2.0 m b/d.



Thank you !