



World
Refining
Association

a **CLARION** company
EVENTS

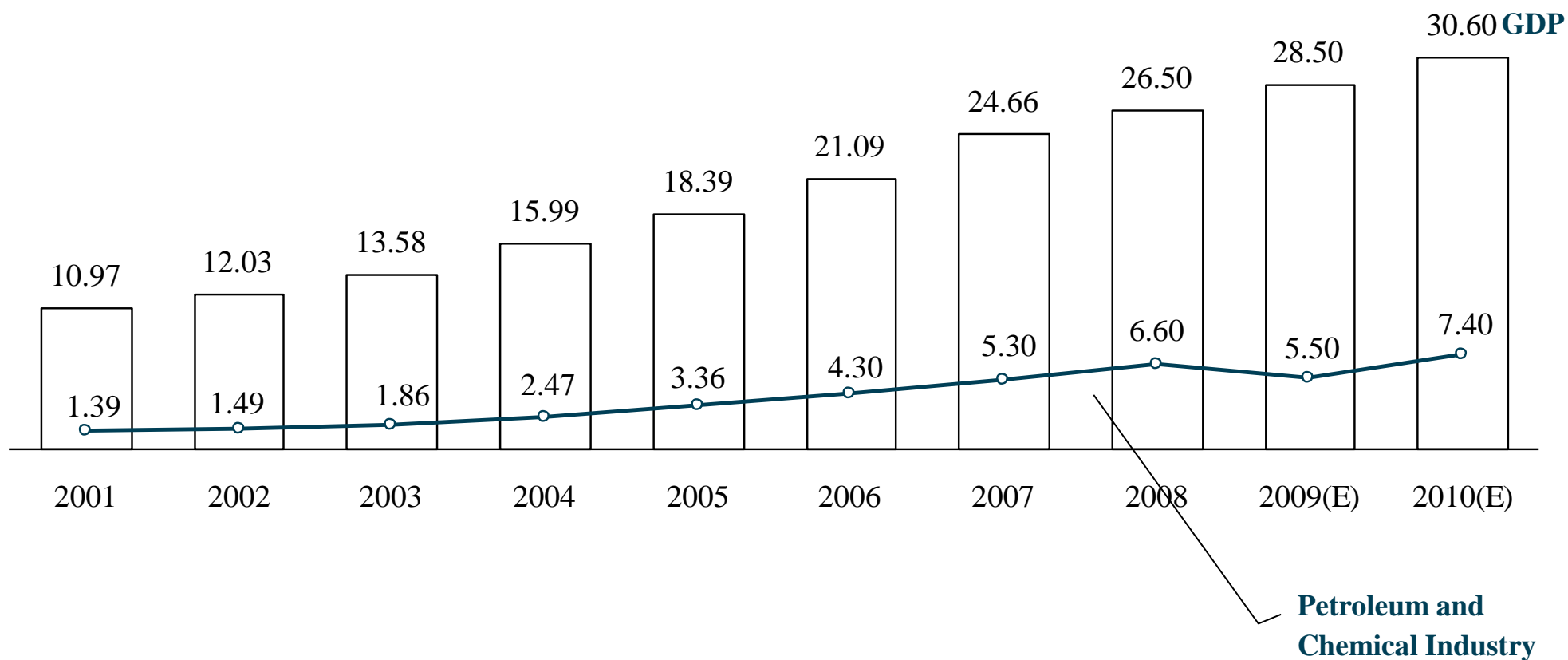
Refinery and downstream market in China

CHEM1

Oct. 2009 Kuala Lumpur

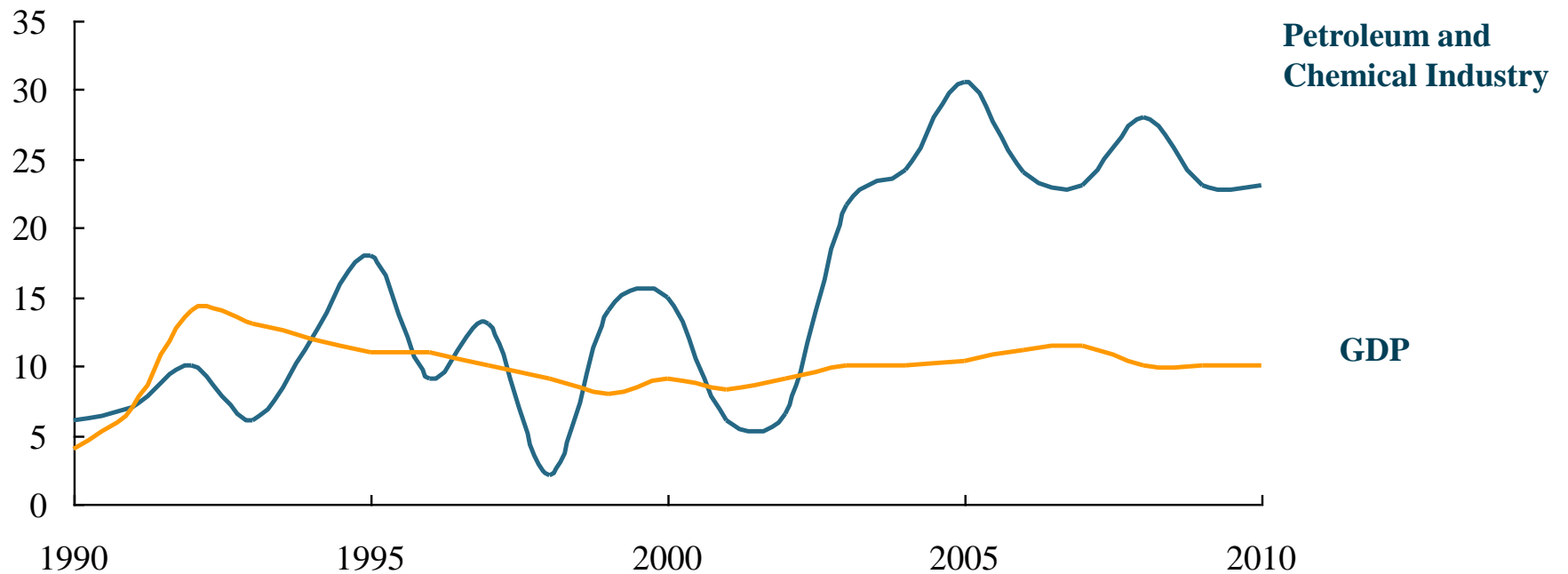
China petroleum and chemical industry has developed rapidly

The comparison of Petroleum and Chemical Industry gross product and GDP in China [Trillion RMB]



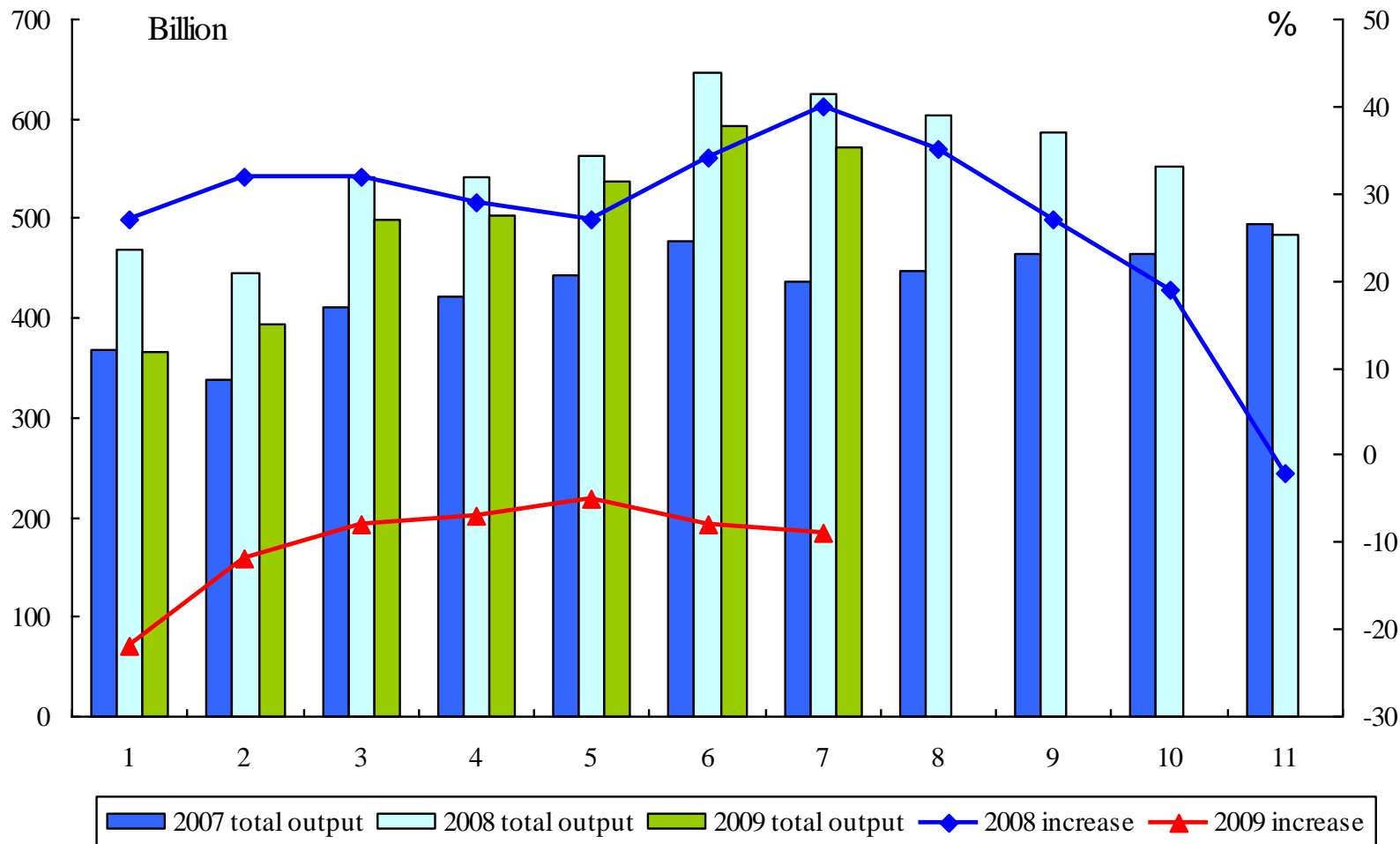
Driven by investment, the annual growth of petroleum and chemical industry is higher than GDP

The comparison of Petroleum and Chemical Industry average annual growth rate and GDP in China [%]



Petroleum and chemical industry decreased quickly since July 2008

Trends of petroleum and chemical industry gross product since 2008



QUESTION:

- **Demand : China concept, still amazing in Asia?**
- **Supply: What is the true situation of Local production and import after Crisis?**
- **Opportunities and threat to foreign players in China?**

A: Demand : China concept, still amazing in Asia?

B : Supply: What is the true situation of local production and import after Crisis?

C : Opportunities and threat to foreign players in China?

Apparent consumption is general analysis methodology of demand

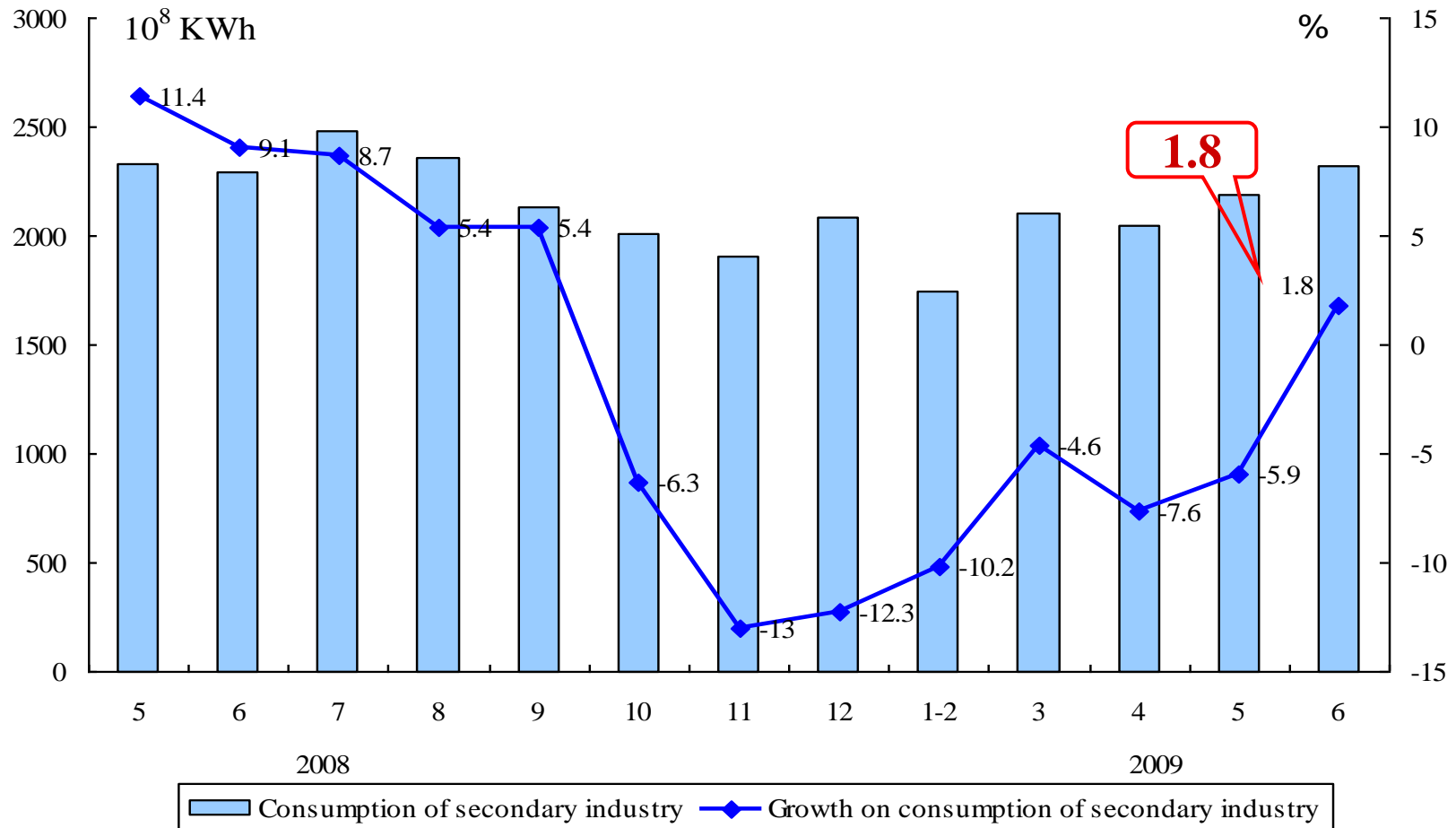
- **Apparent consumption = Local production + Import – Export**
- **But difficult to estimate the real consumption in short term**
- **Because there are too many influence factors, such as feedstock, logistic, distribution etc.**

Three factors can reflect the real demand

- **Consumption of power, especially for the industry usage**
- **Consumption of diesel, especially for industry and transportation usage**
- **Development of end users, such as light industry, textiles, auto mobile, etc.**

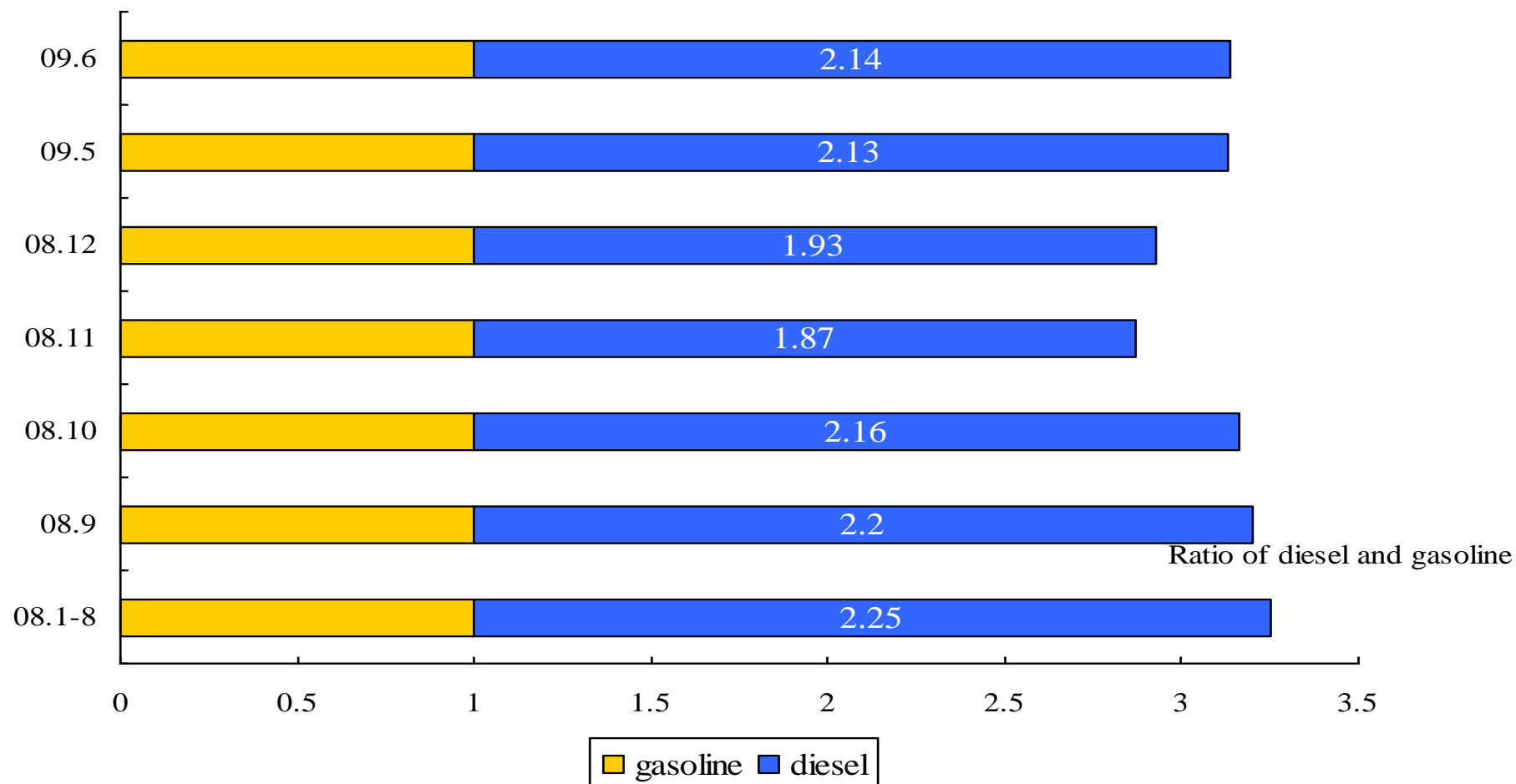
Power consumption for industrial usage has shown positive growth in June 2009, it indicated that China industry has begun to grow

The growth rate and electricity consumption of the secondary industry

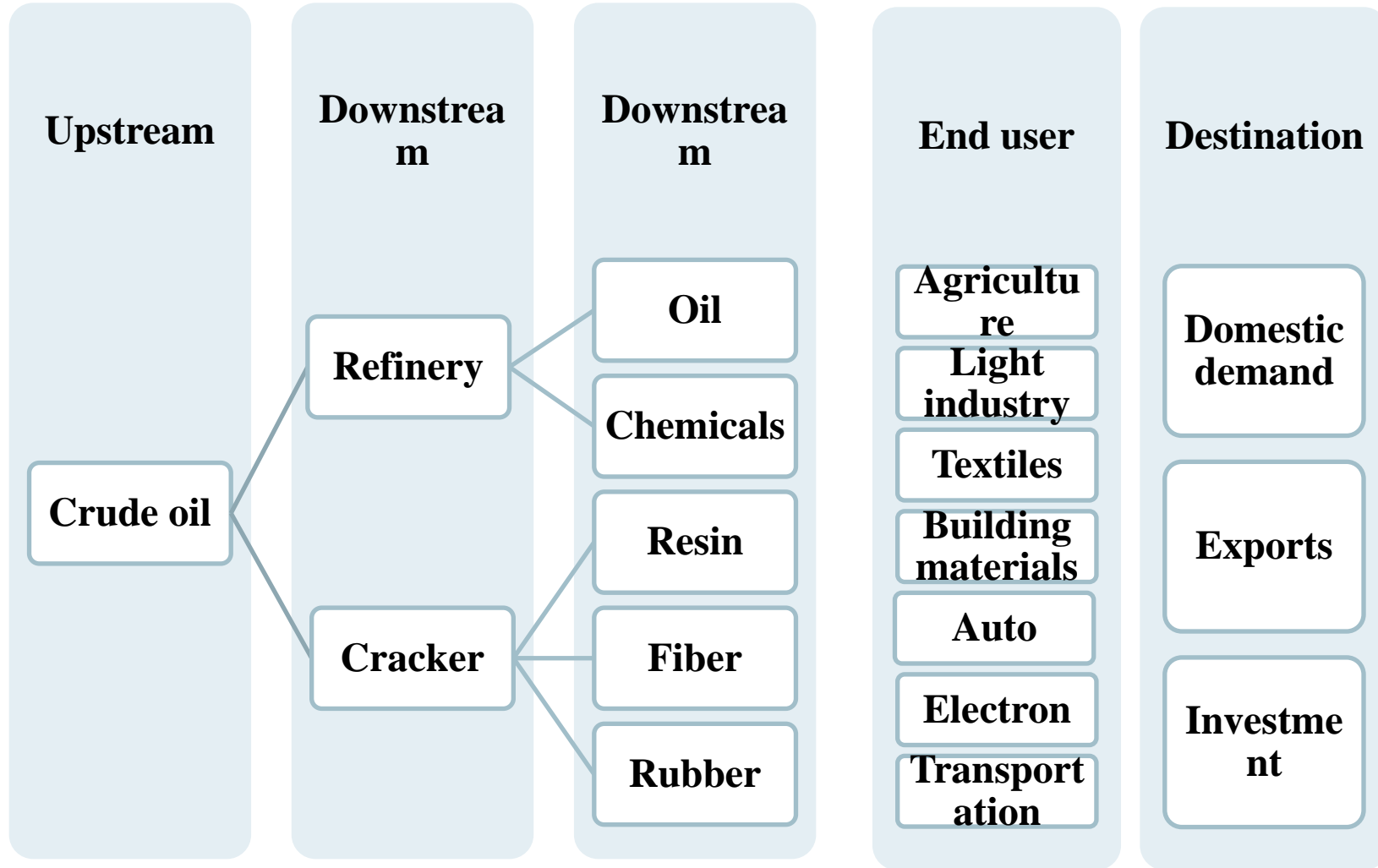


The sales of diesel is 12 MT in June 2009 , increasing 0.7% compare to 2008

The consumption ratio of diesel and gasoline from 2008 to June 2009

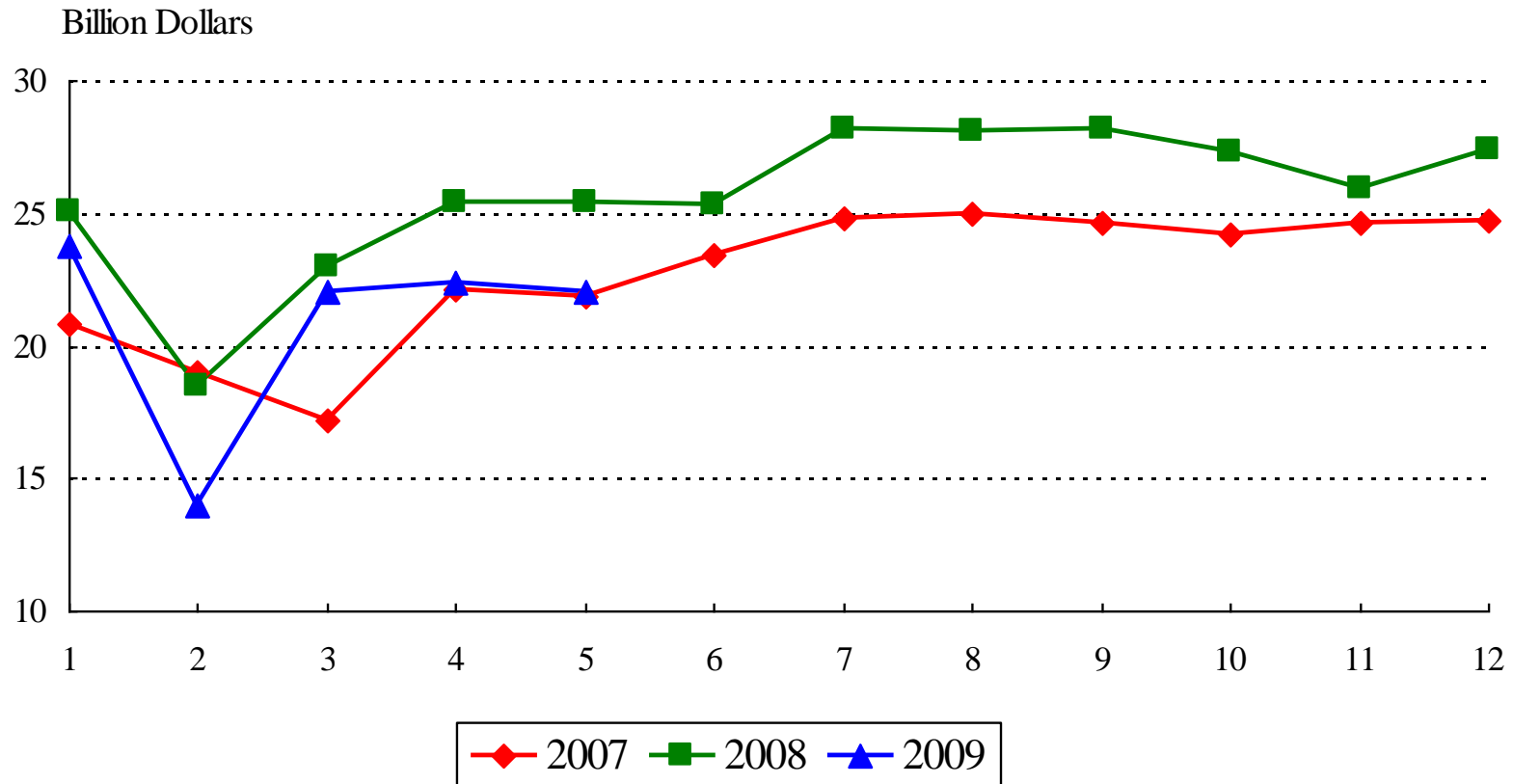


Export and domestic demand is important driving factor of economic



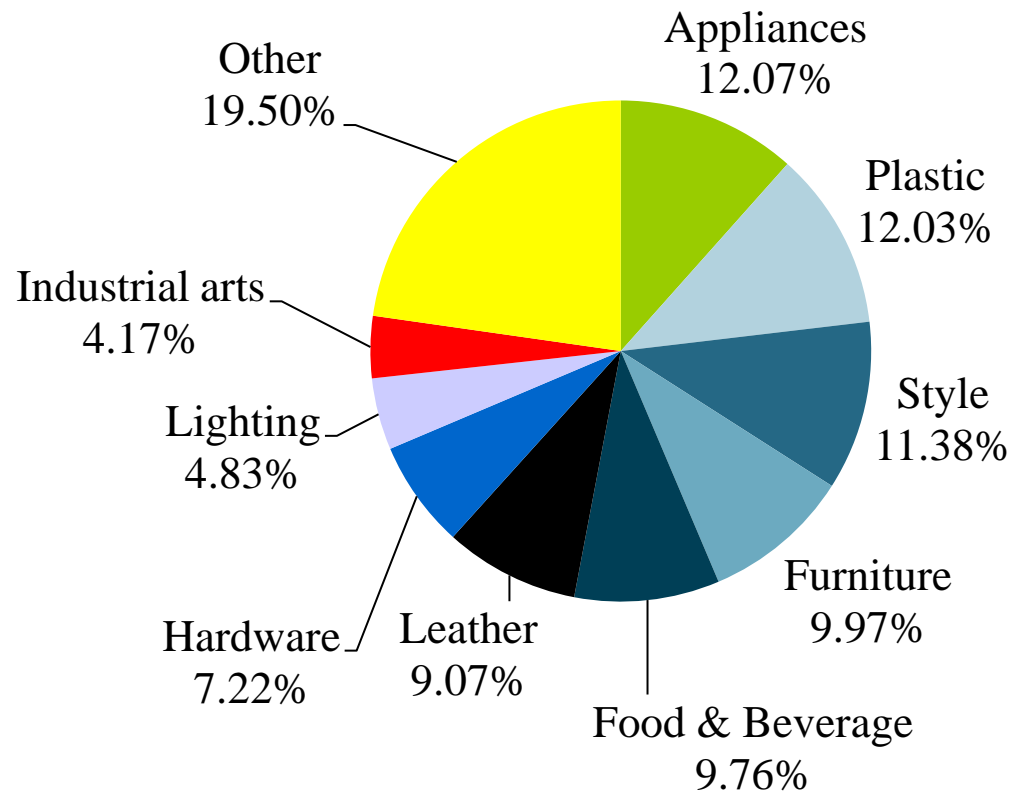
The main export segment, light industry products, decline 10% because of economic crisis, and raise up currently

Export of light industry products from January to May 2009



Appliances, plastic , entertainment , furniture occuppies is the main export products in light industry

Export market segments from January to May 2009



The output of textile and synthetic fiber have increased obviously

Textile output from January to June 2009

Products	2009.1-6	2008.1-6	Growth
Yarn	10960	10020	9%
Cloth	25.8	25.7	0.16%
Dyeing cloth			3 %
Clothing	10.6	10.2	4%
Fiber	12880	11650	10%

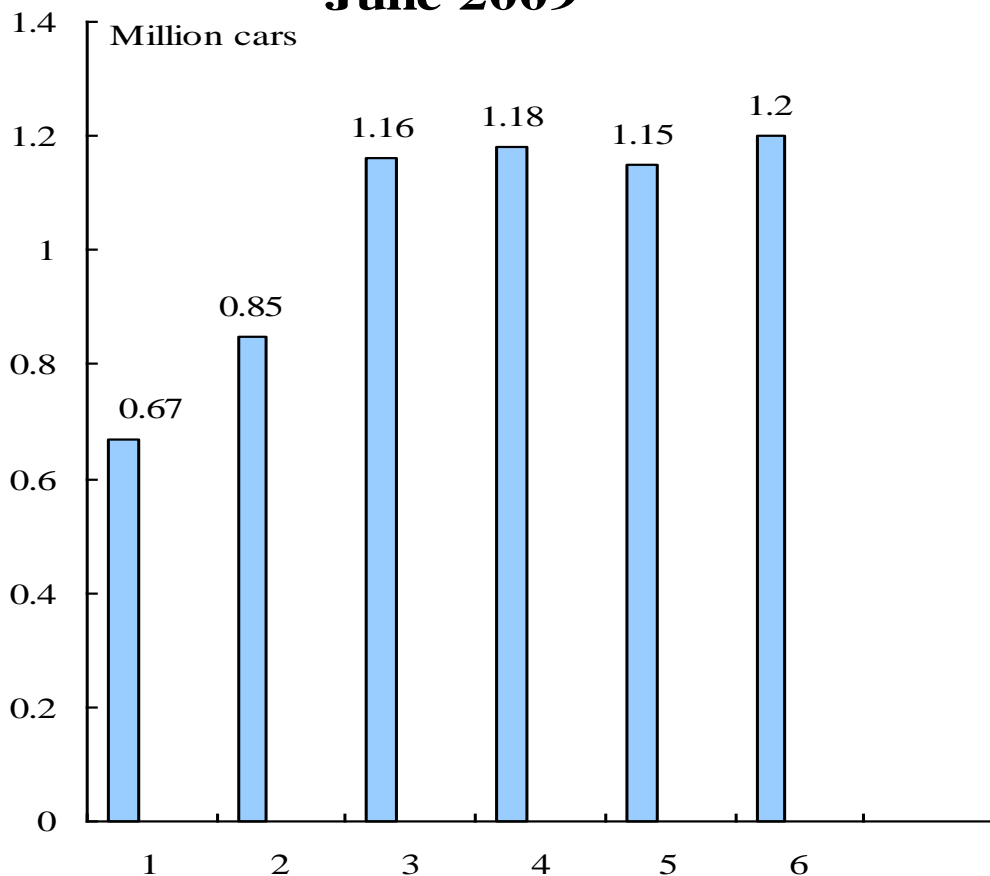
Chemical fiber output from January to June 2009

Unit: KT

Products	2009.1-7	2008.1-7	Growth
Polyester	12160	10780	13%
Nylon	720	640	11%
Acrylic fiber	410	340	18%
PVA fiber	30	30	1%
PP fiber	130	150	-10%

Local demand: A strong increase in automobile

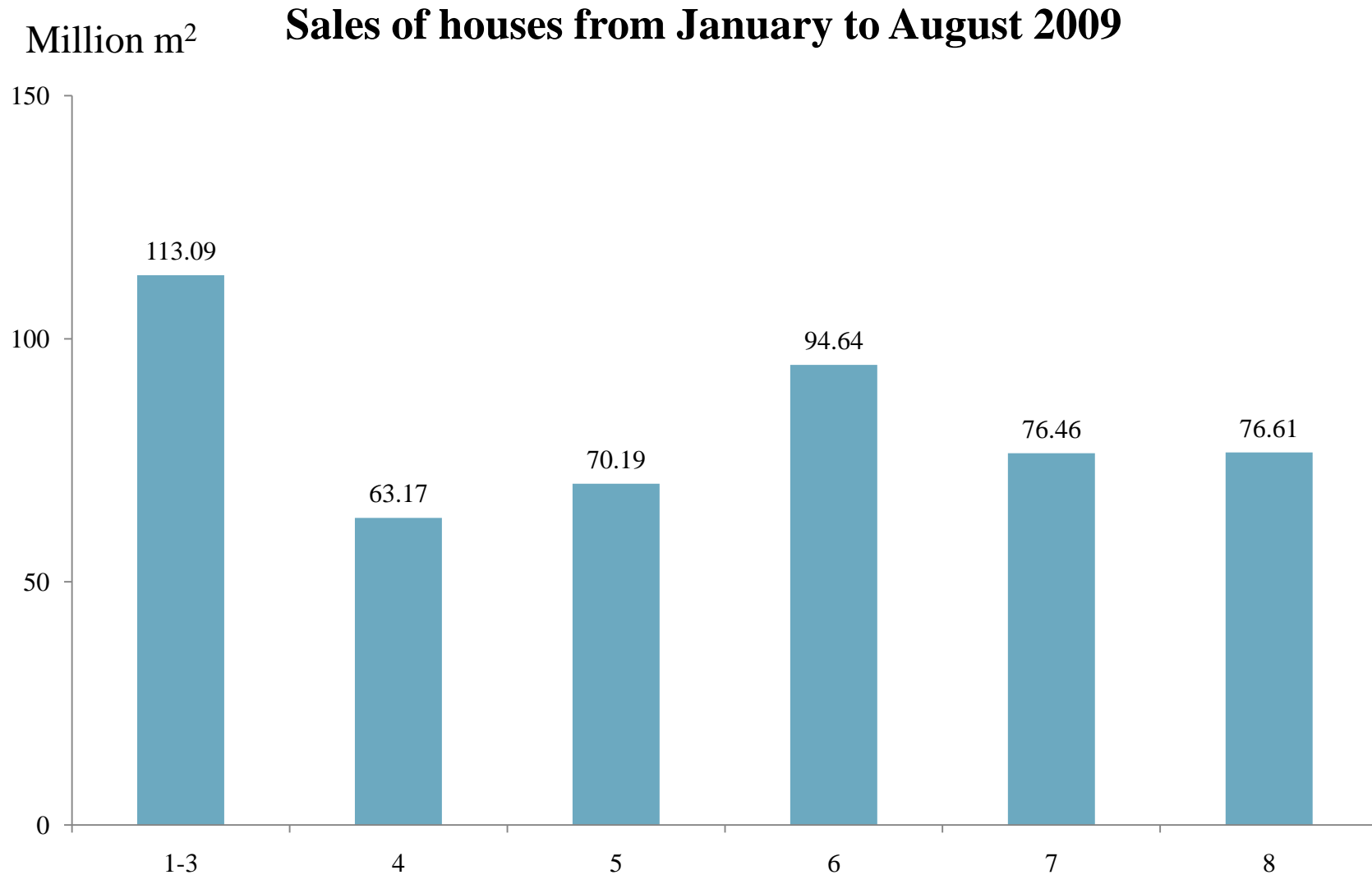
Automobile output from January to June 2009



Automobile output from January to June 2009
Million cars

Item	2009.1-6	2008.1-6	Growth
Cars	3.2	2.7	16%
MPV	1.0	0.1	-7%
SUV	0.3	0.2	7%
Cross-type passenger cars	0.9	0.6	55%
Commercial	1.6	1.6	2%
Total	6.0	5.2	15%

Local demand: A strong increase in sales of houses



Conclusion

- **Export decrease 10% , but domestic demand growing in China**
- **The Demand is still amazing in China**
- **Enjoy it !**

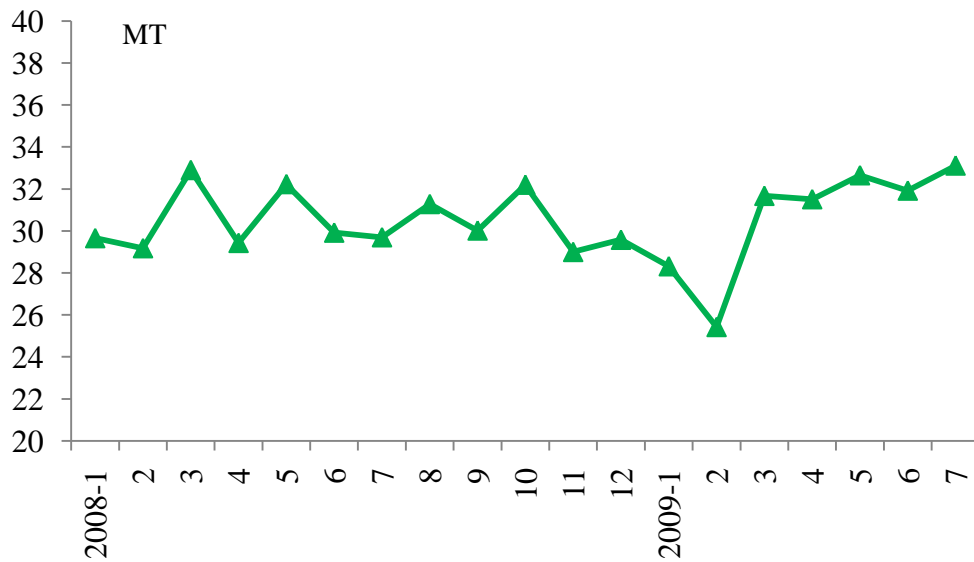
A: Demand : China concept, still amazing in Asia?

B : Supply: What is the true situation of local production and import after Crisis?

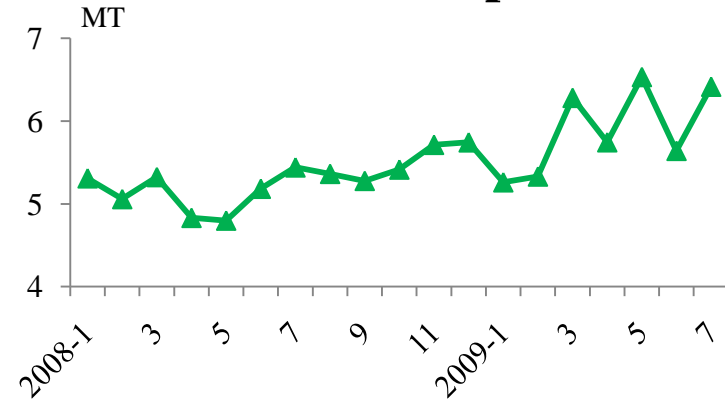
C : Opportunities and threat to foreign players in China?

Local refineries keep high operation rate this year

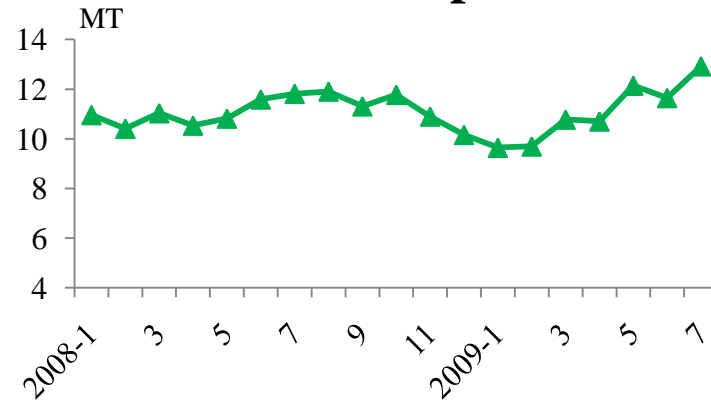
Crude oil processing production



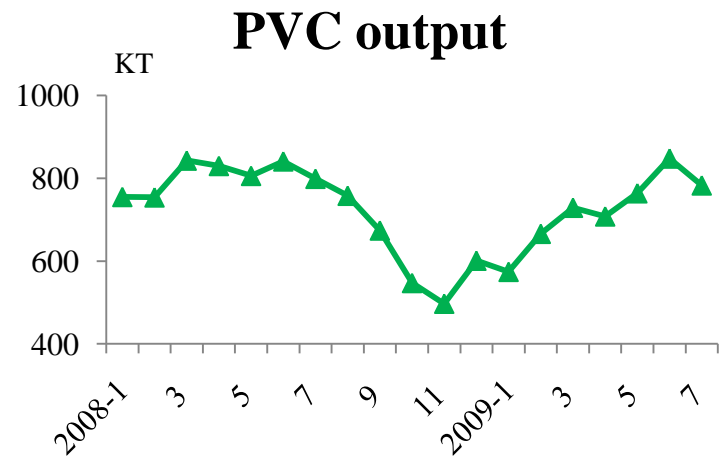
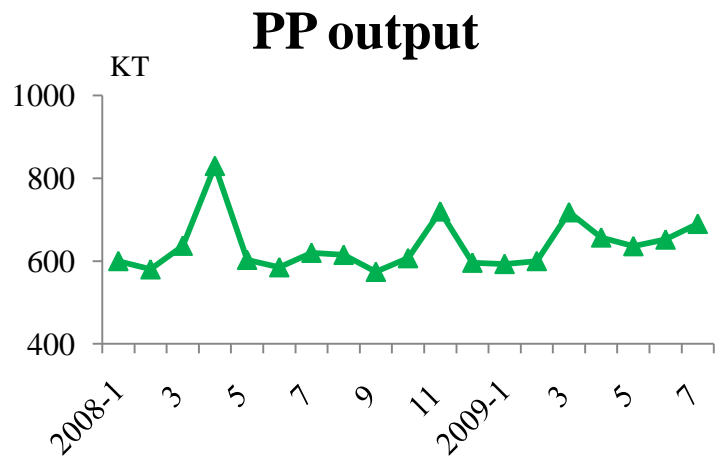
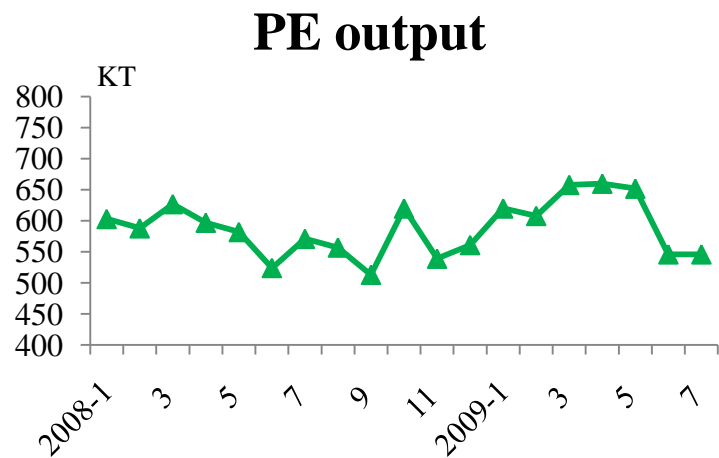
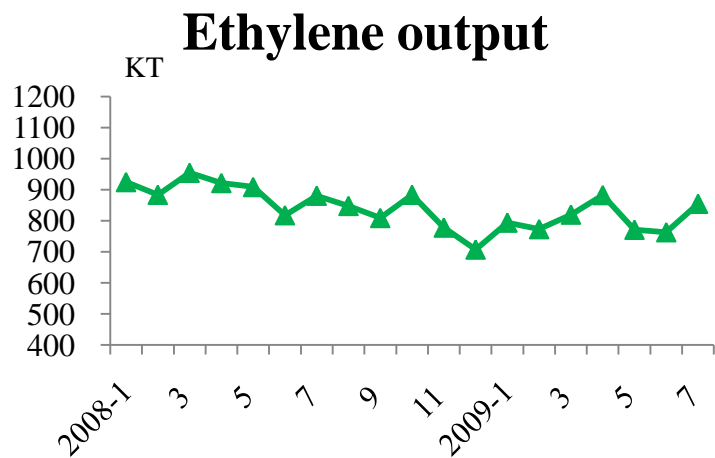
Gasoline output



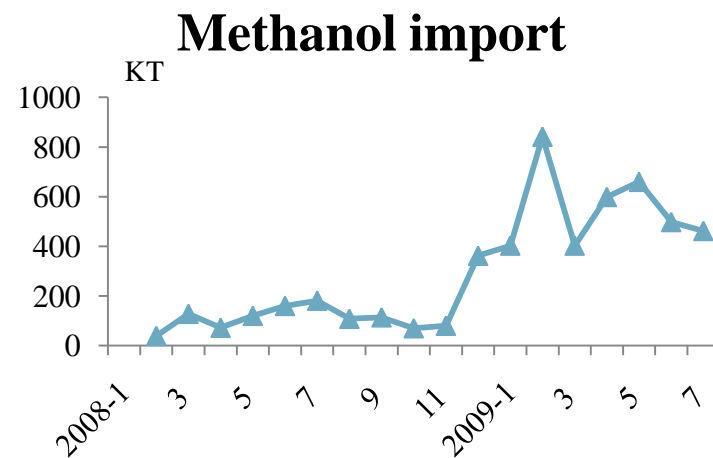
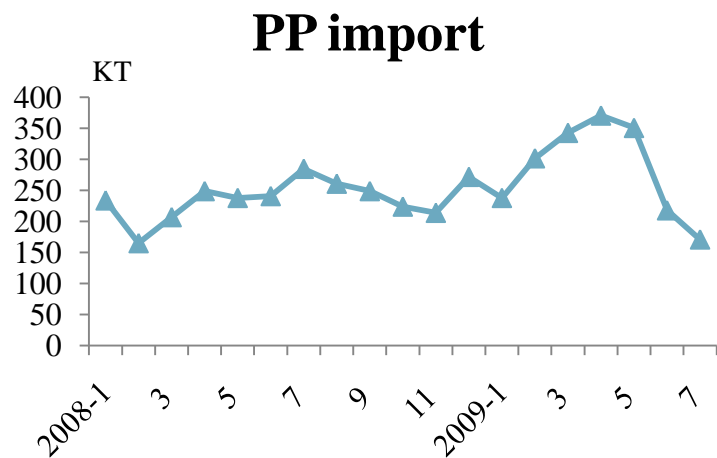
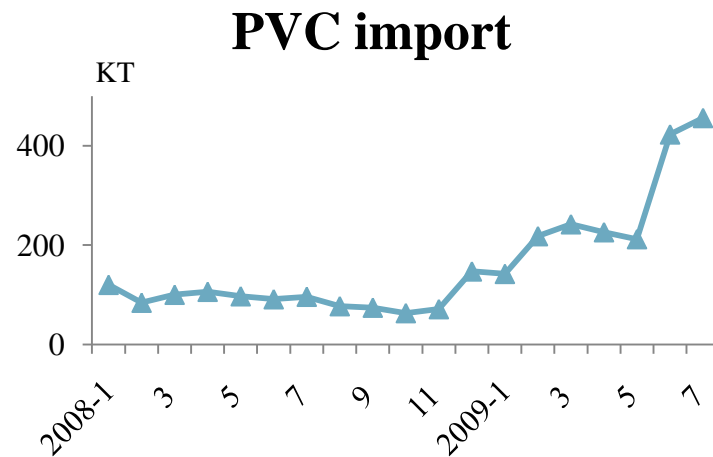
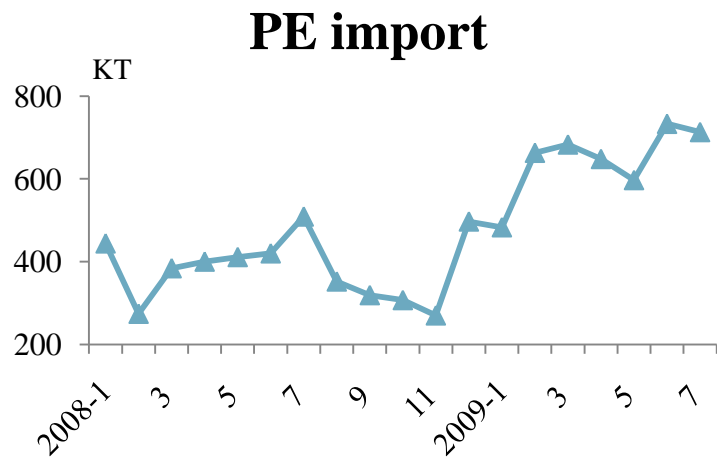
Diesel output



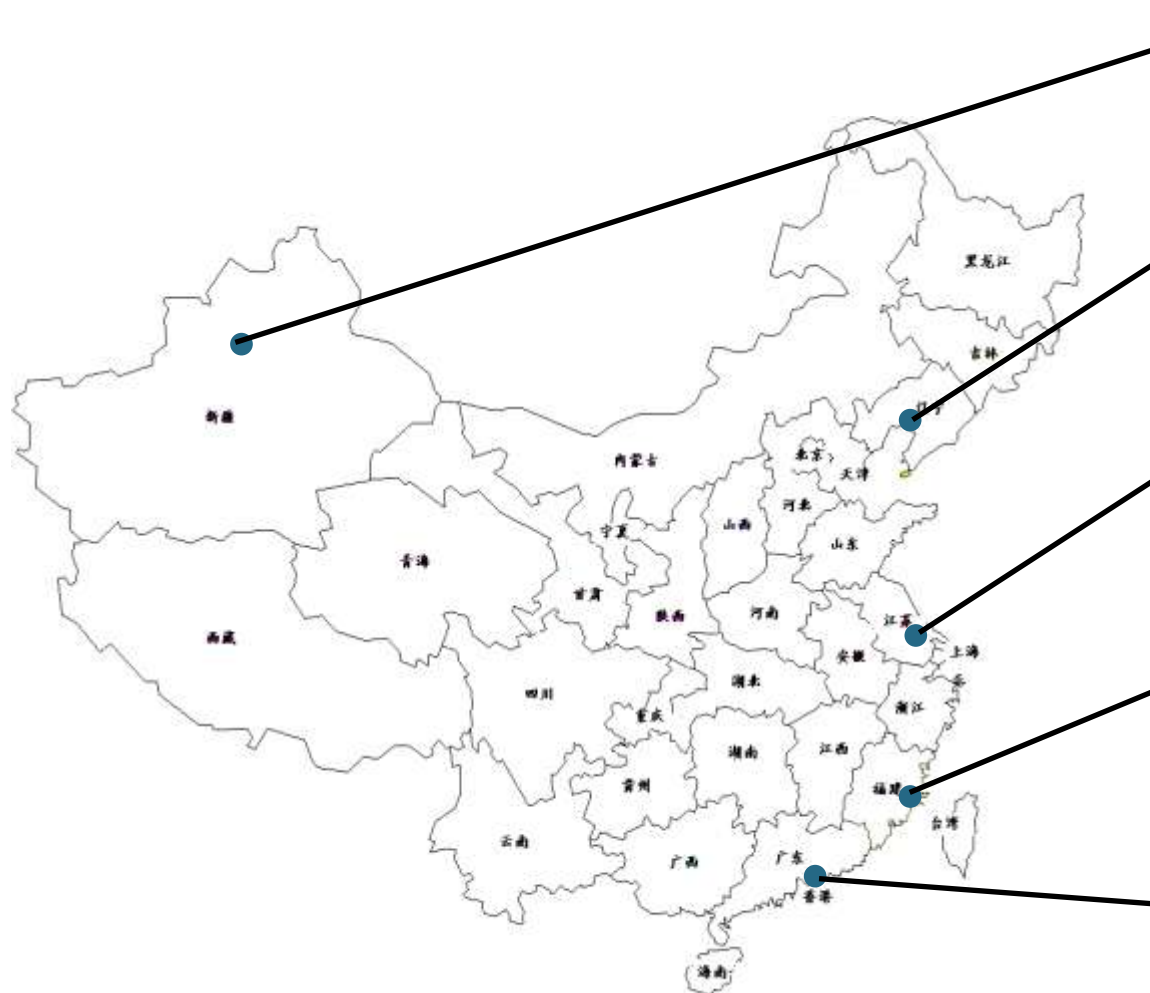
The output of ethylene and derivatives climb back again



But, the import is increased obviously in 2009



Unfortunately, the competition will be more and more intense, 45 MT of refinery and 3.5MT cracker capacity added in 2009



PetroChina Dushanzi

Refinery : 16

Ethylene : 1.2

Time : Sep. , 2009

Liaoning Huajin

Refinery : 5

Ethylene : 0.48

Time : Oct., 2009

Sinopec Zhenhai

Ethylene : 1

Time : Dec., 2009

Sinopec Fujian JV

Refinery : 12

Ethylene : 0.8

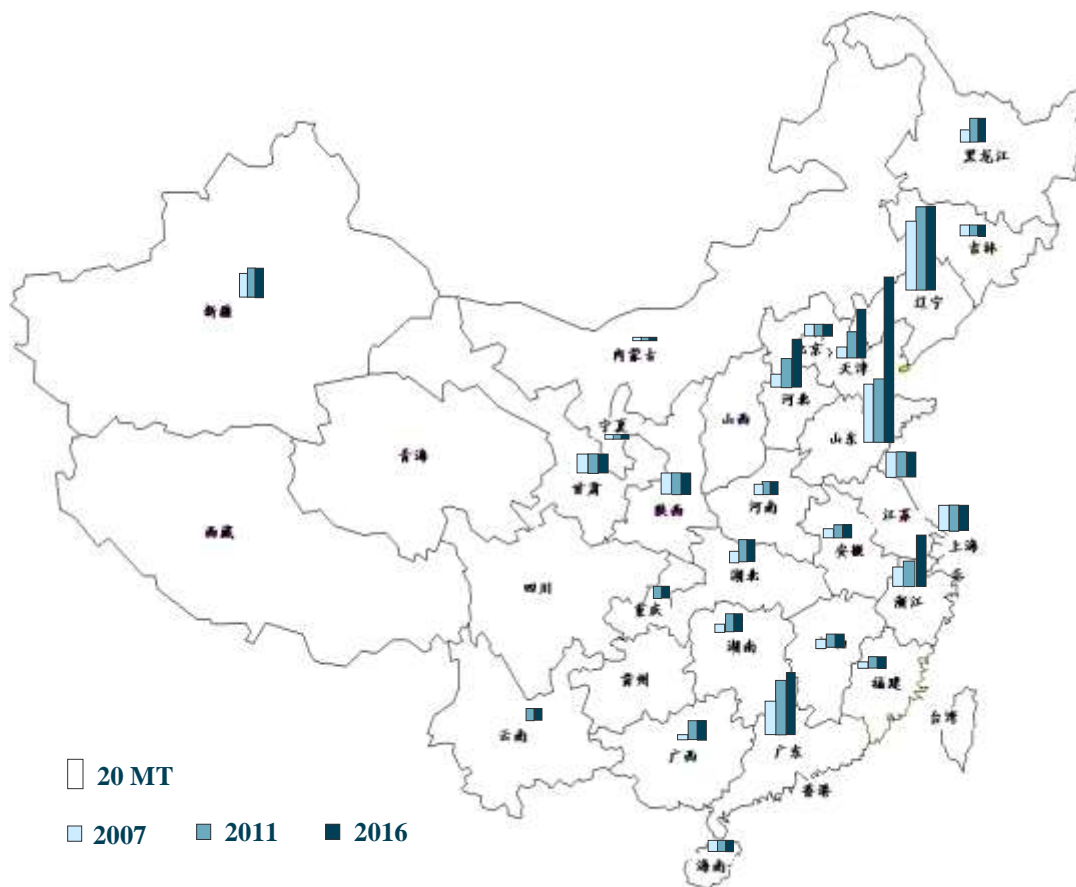
Time : Aug., 2009

CNOOC Huizhou

Refinery : 12

Time : June, 2009

So far 178 MT new refinery capacity planed, China will be oversupply in 2015



Project	Location	New capacity	Schedule
CNOOC	Zhongjie	5	2011
	Huizhou	10	2013
	Bohai	15	2016
SINOCEM	Fujian	5	2011
PetroChina	Sichuan	10	2012
	jiayang	20	2015
	Jinxi	10	2016
	Shandong	10	2016
	Chongqing	10	2016
	Kunming	10	2016
	Tianjin	10	2016
	SINOPEC	Maoming	10
Zhenhai	15	2016	
Shanghai	10	2016	
Zhangjiang	15	2016	
Caofeidian	10	2016	
TOTAL		178	

Conclusion

- **China refinery capacity will not only to fill the gap of local shortage , but also have ability to export.**
- **Competition will become more intense with the Middle East.**
- **Trade disputes will be more and more**

A: Demand : China concept, still amazing in Asia?

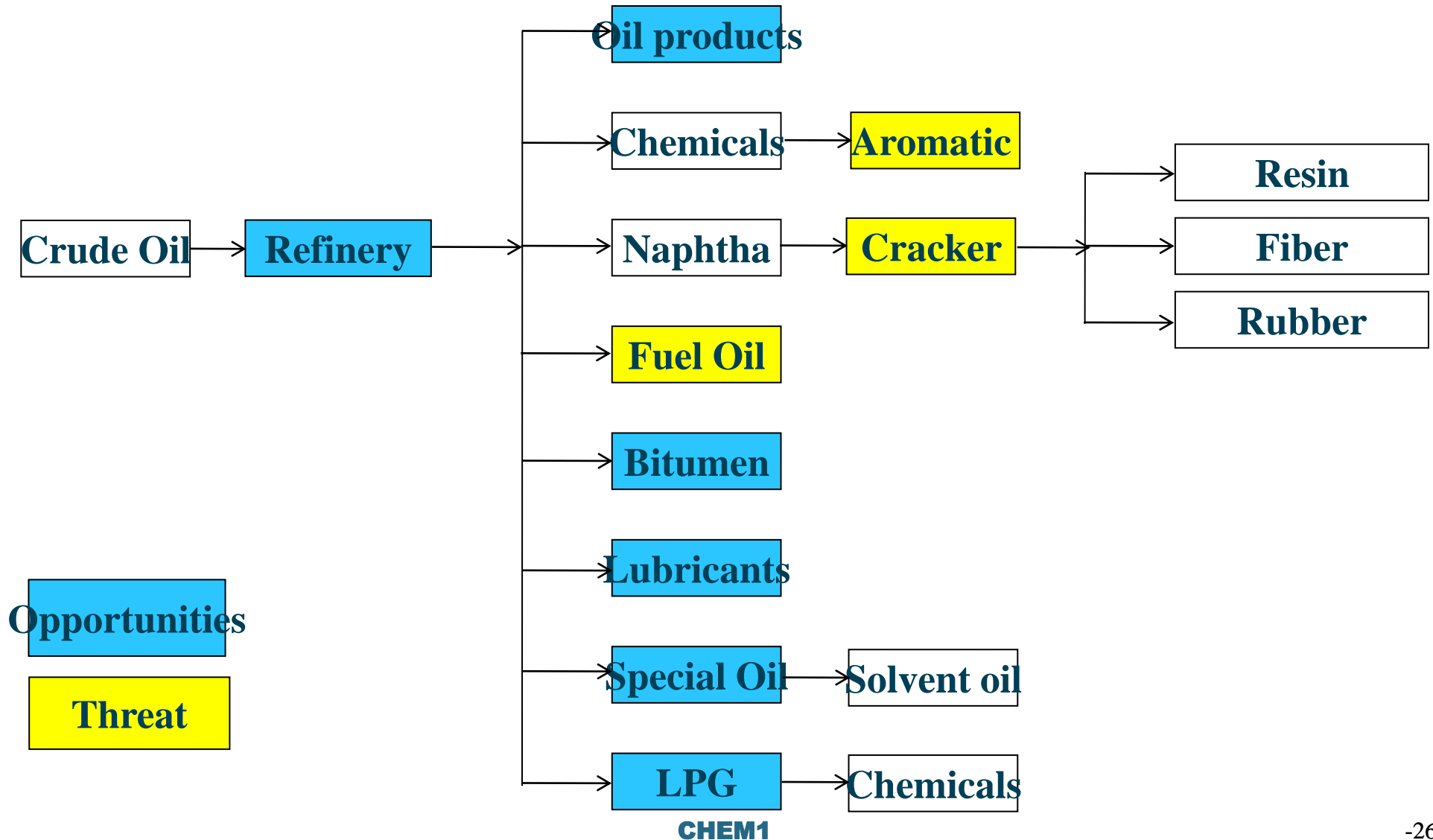
B : Supply: What is the true situation of local production and import after Crisis?

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Key point of China Petroleum and Chemical Industry recover Planning policy effect on May, 2009

- **2011 short term target: Refinery capacity increase to 405 MT , Oil products output to 247 MT , ethylene output to 15.5 MT**
- **Push the construction of announced project, and keep positive attitude to JV project**
- **Close small refineries with capacity blow 1MT /a**
- **Build more terminals and carry out the storage of oil products ASAP**
- **Improve the price formation mechanism of oil products**

Refinery looks more interesting than cracker, because cracker must struggle with ME players



Key driving factors is different

Refinery

- **Strong demand and stable profit**

Cracker

- **Impact by ME low cost products**

Aromatic

- **Refinery capacity expansion**

Fuel oil

- **Teapot have to close because of negative policy and competition of New huge project**

Bitumen

- **Benefit from strong construction invest**

Lubricants

- **Benefit from huge growth of automobile sales**

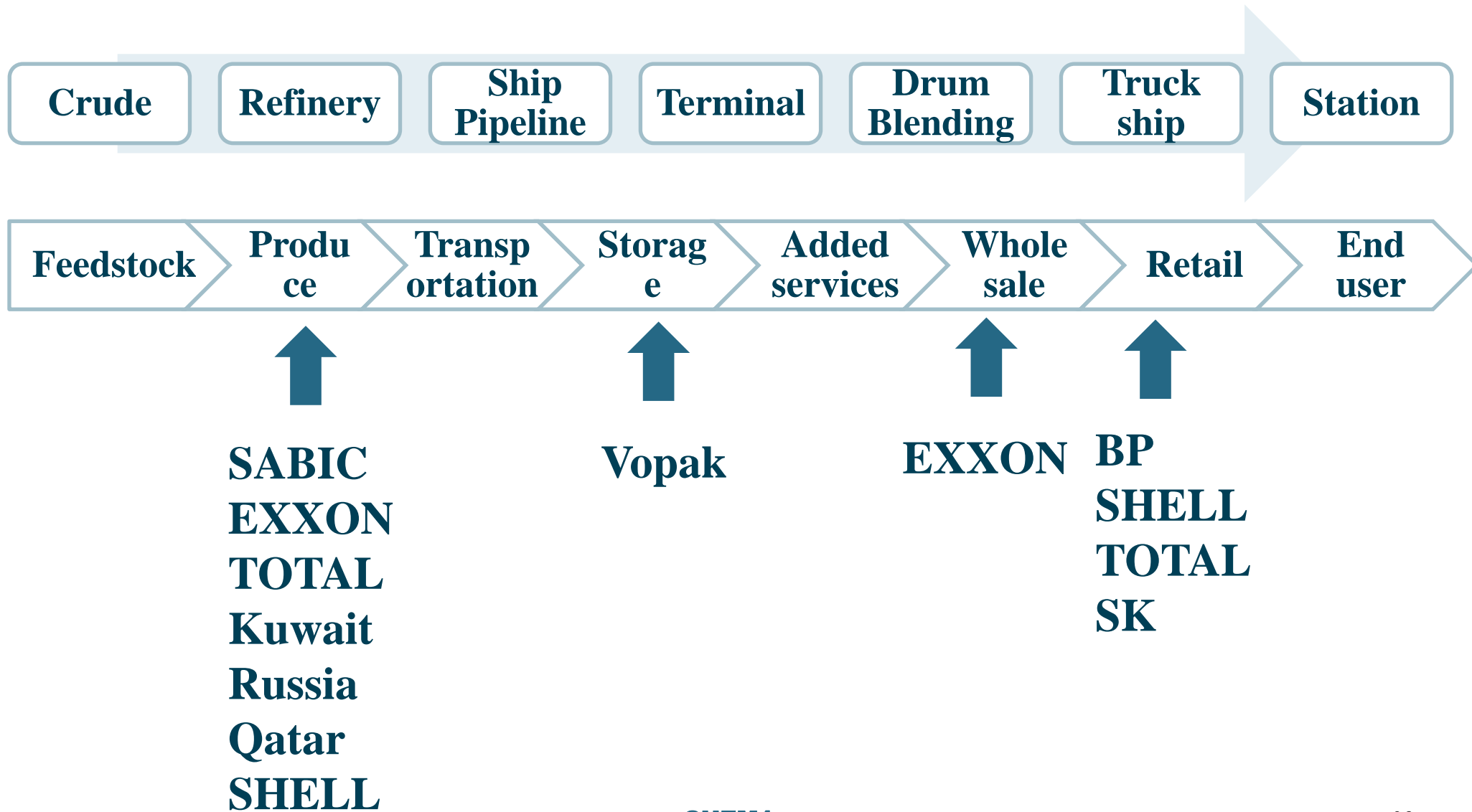
Special oil

- **Add value to refinery byproducts**

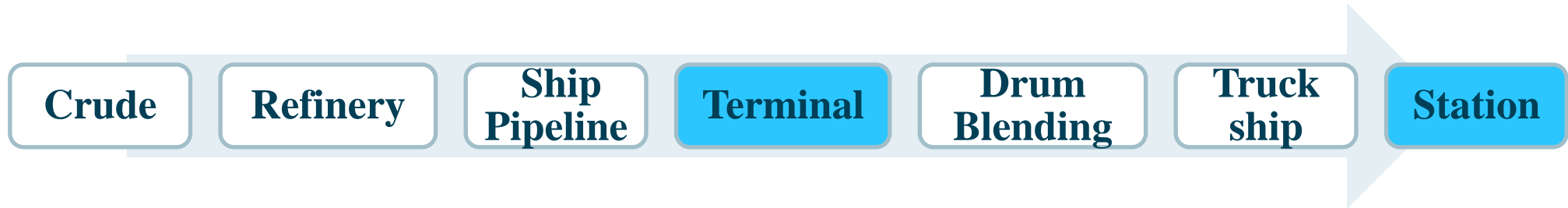
LPG to Chemicals

- **Many refineries located far away from consumption region**

How do foreign players catch opportunities in China?



Distribution business will be more potential in China for foreign players

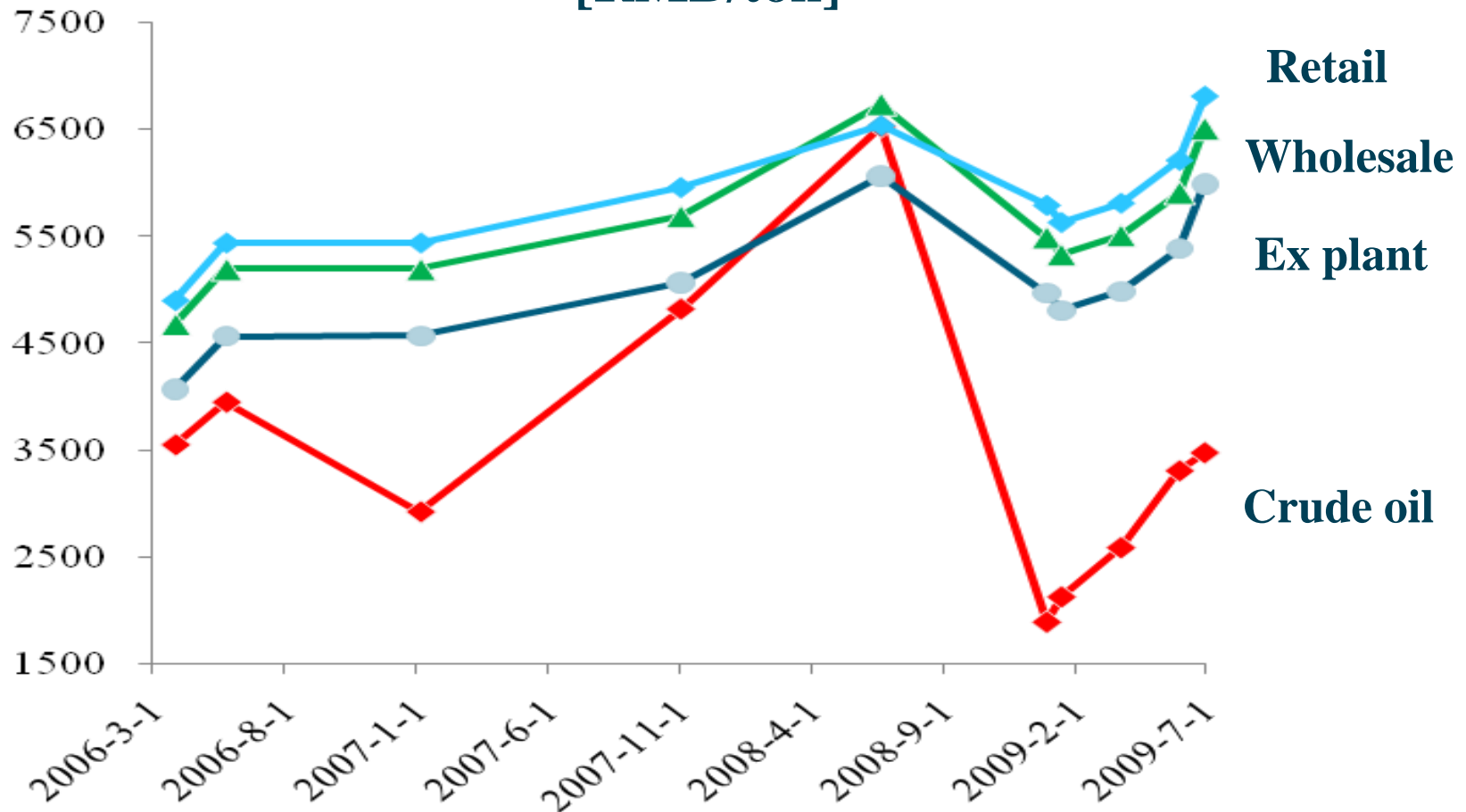


Why distribution business will be more potential in China?

- **It is more easy to get wholesale and retail license than build a JV refinery**
- **Wholesaler and retailer will be easy to get oil products supply in the case of overcapacity**
- **After new price formula com into effect in 2009, distributor and retailer get stable profit**

Why distribution business will be more potential in China?

0 # diesel oil prices formula against crude oil prices [RMB/ton]



THANKS !

Contact Contact



All of the export-oriented industries have growth from January to June 2009 except home appliances.

[backup](#)

Total output value of light industry from January to June 2009

Industry Name	Total industrial output value (Billion)	Cumulative year (%)	Exports / Sale (%)
Light Industry Total	4844	9	16
Plastic	486	8.1	6.9
Home appliances	353	-2.2	28.8
Leather	266	7.2	33
Hardware	214	4.5	25.3
Furniture	153	7.7	31.6
公美	137	3.4	32.7