



Implications of China's oil market on refinery industry

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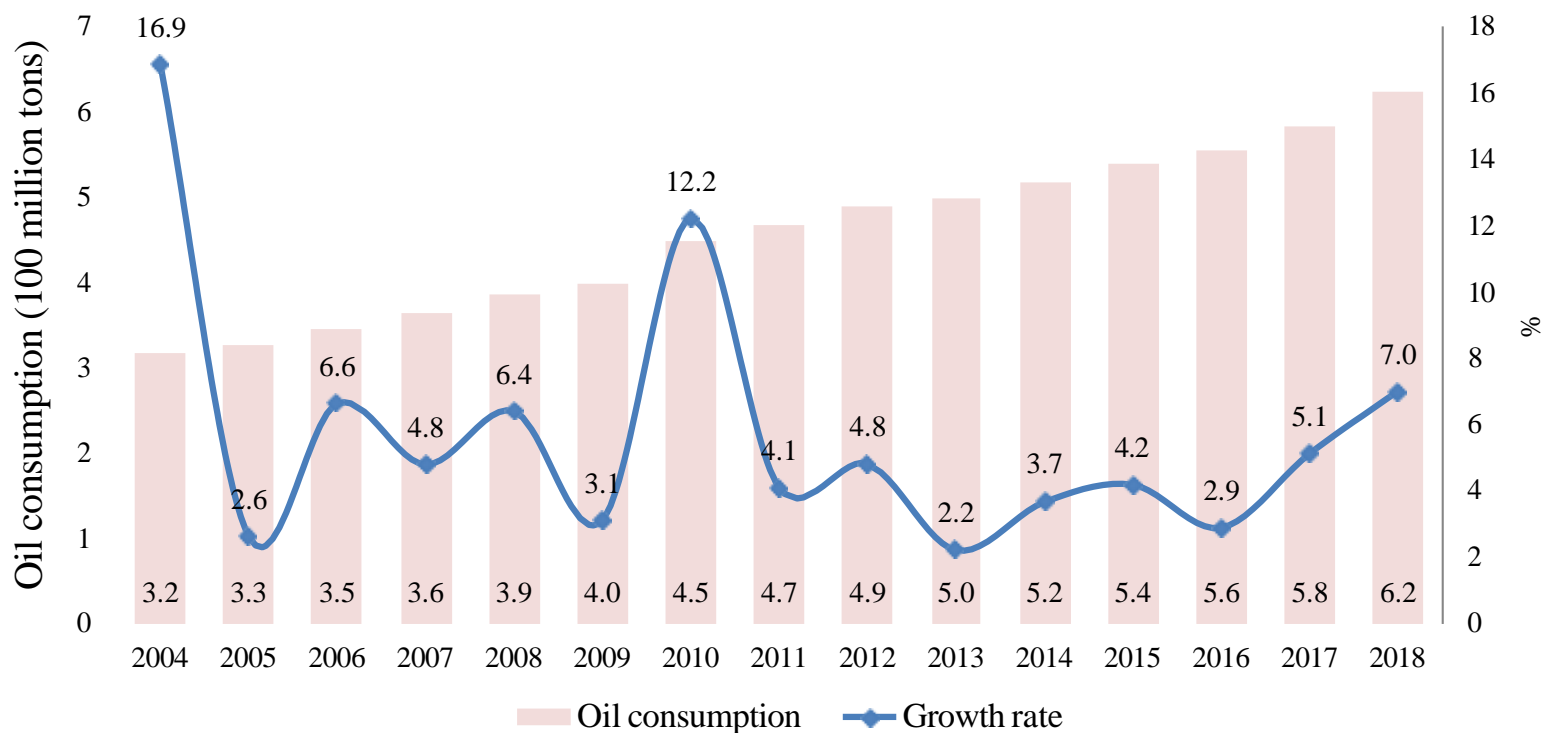




1. Growth rate of China's oil consumption rebounded in 2018

- Driven by economic development and people's living standard improvement, China's oil consumption kept increasing for last two decades.
- The oil consumption in 2018 reached over 620 million tons, increasing by 7% compared to 2017.

Oil consumption and its growth rates in China

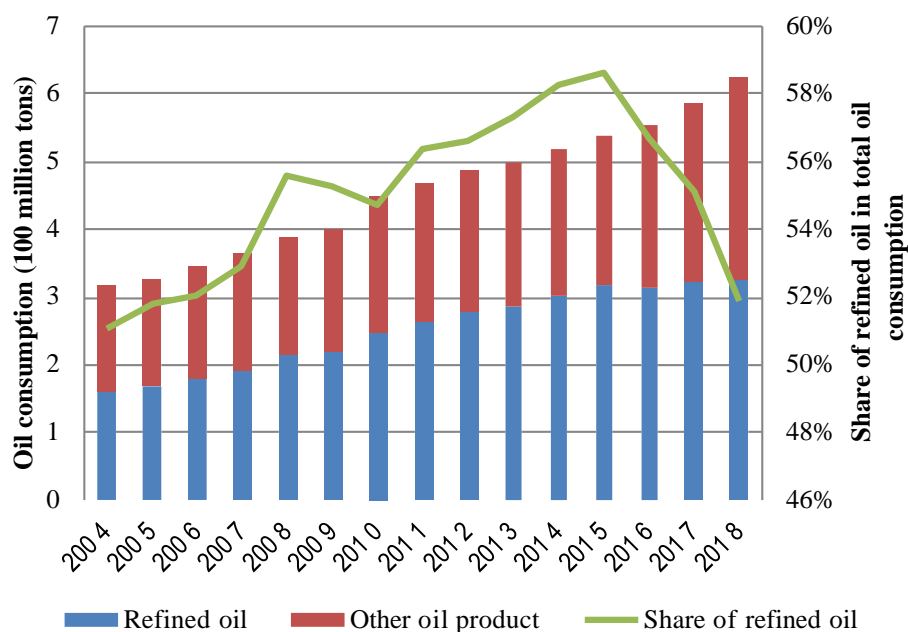




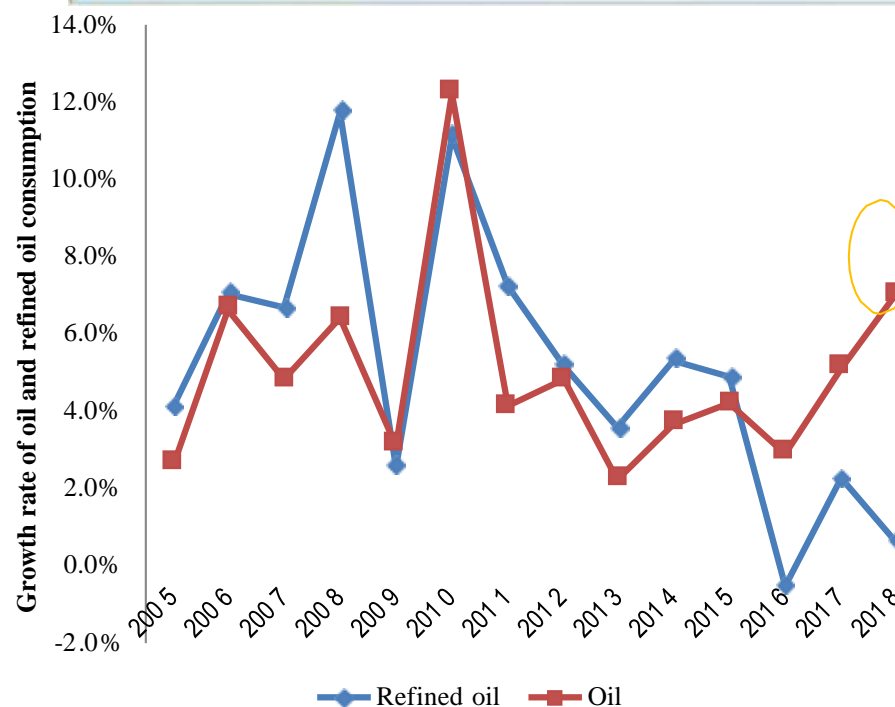
2. Growth rates of refined oil and oil consumption started to deviate in 2018

- The ratio of refined oil in total oil consumption was larger than 50% after 2000. However, the ratio has been dropping down since 2015.
- Growth rates of refined oil and oil consumption started to deviate in 2018, which indicated that the refined oil might be no longer the main driver of the growth of oil consumption.

Ratio of refined oil in oil consumption



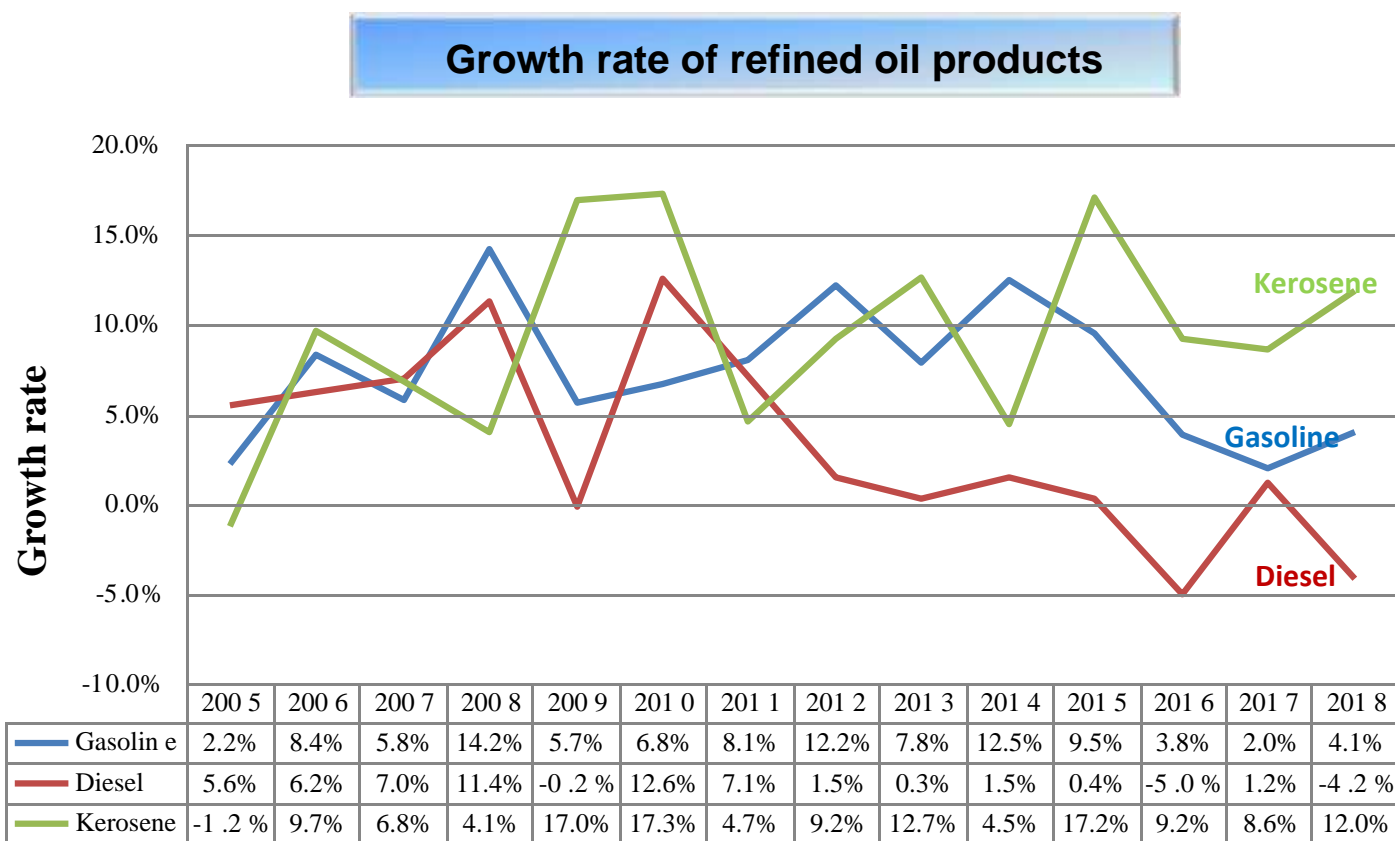
Growth rates of refined oil and oil consumption





3. The refined oil's growth rate is much lower

- The annual consumption of refined oil products in 2018 was 324 million tons, an increase of 0.6% from 2017, and the growth rate fell by 1.7 percentage points.
- The diesel and gasoline was no longer the main drive force of the growth of refined oil product.

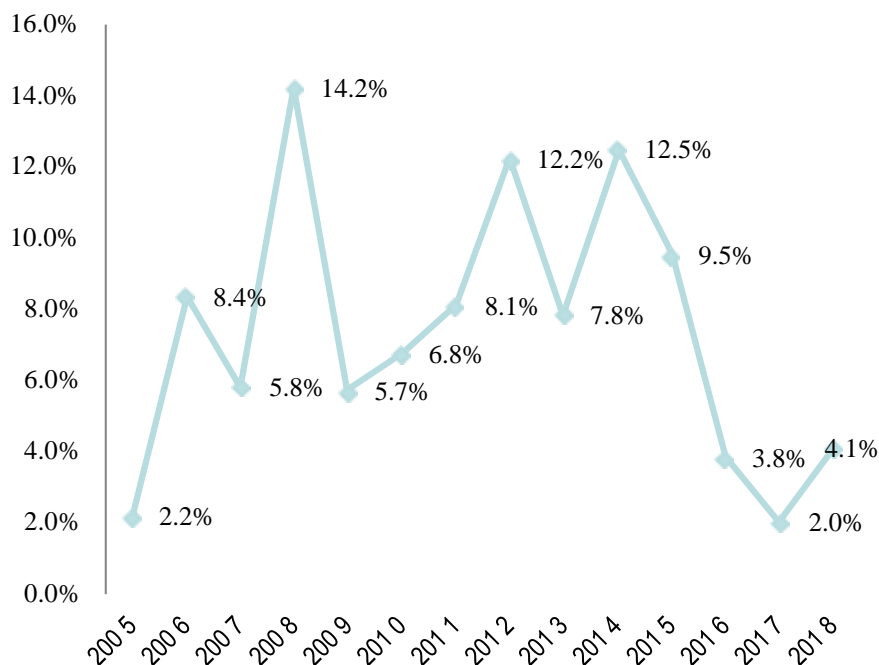




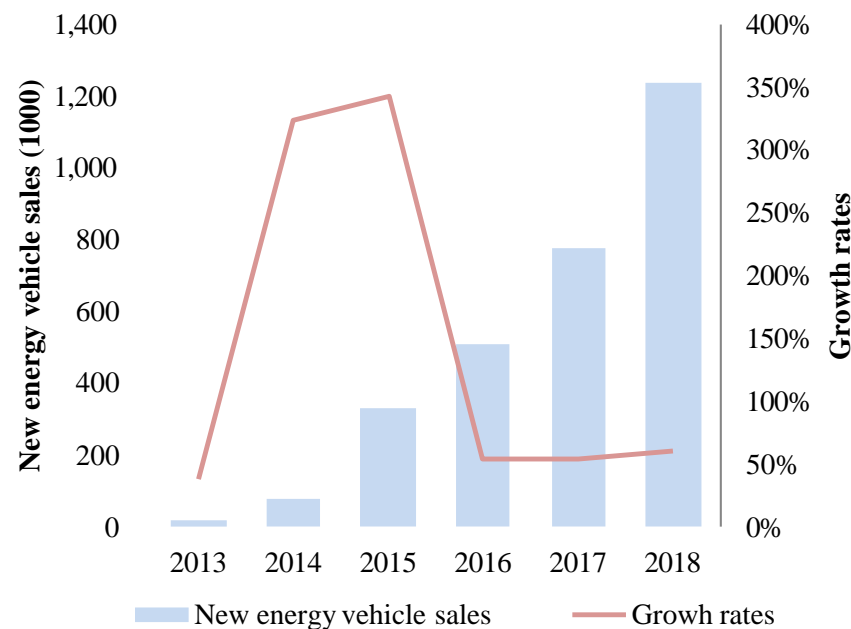
4. The growth rate of gasoline consumption has stepped down for three consecutive years

- As the automobile market developing into a mature period, gasoline demand has been shifted from high-speed growth to medium-low speed growth, coupled with the improvement of fuel efficiency, the rapid development of alternative energy sources and the change of travel modes such as sharing bicycles.
- The gasoline consumption in 2018 was around 127.3 million tons, an increase of 4.1% year-on-year.

Growth rate of gasoline consumption



New energy vehicle sales in China

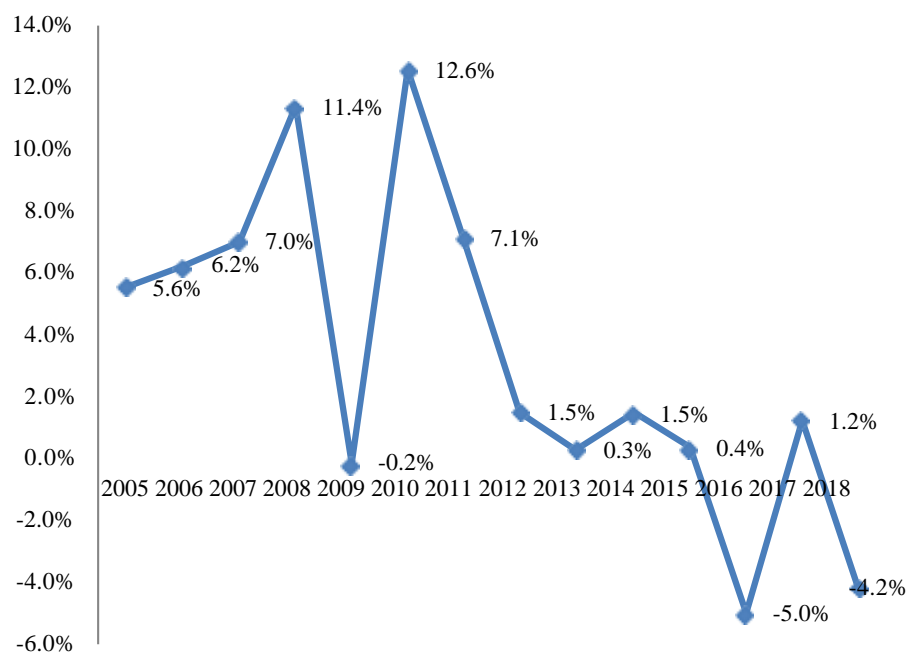




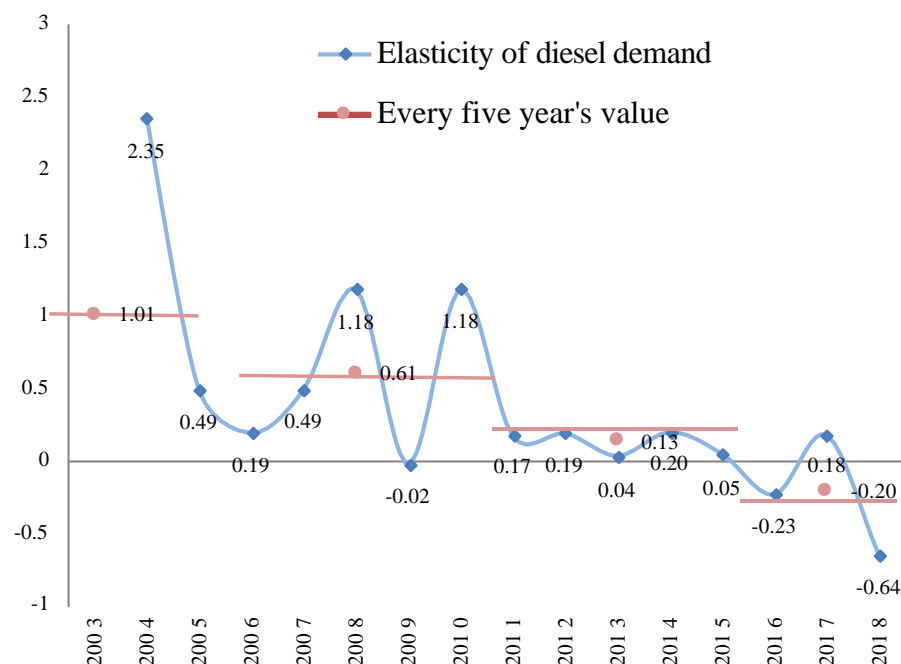
5. Diesel demand has already entered the peak platform

- As an industrial material, diesel demand closely relates to economic growth and industrial structure. Recently, the diesel demand has already entered the peak platform due to the economic transformation, industrial upgrading, and the continuous development of alternative energy.
- The diesel consumption in 2018 was around 159.8 million tons, a decrease by 4.3% year-on-year.

Growth rate of diesel consumption



Elasticity of diesel demand

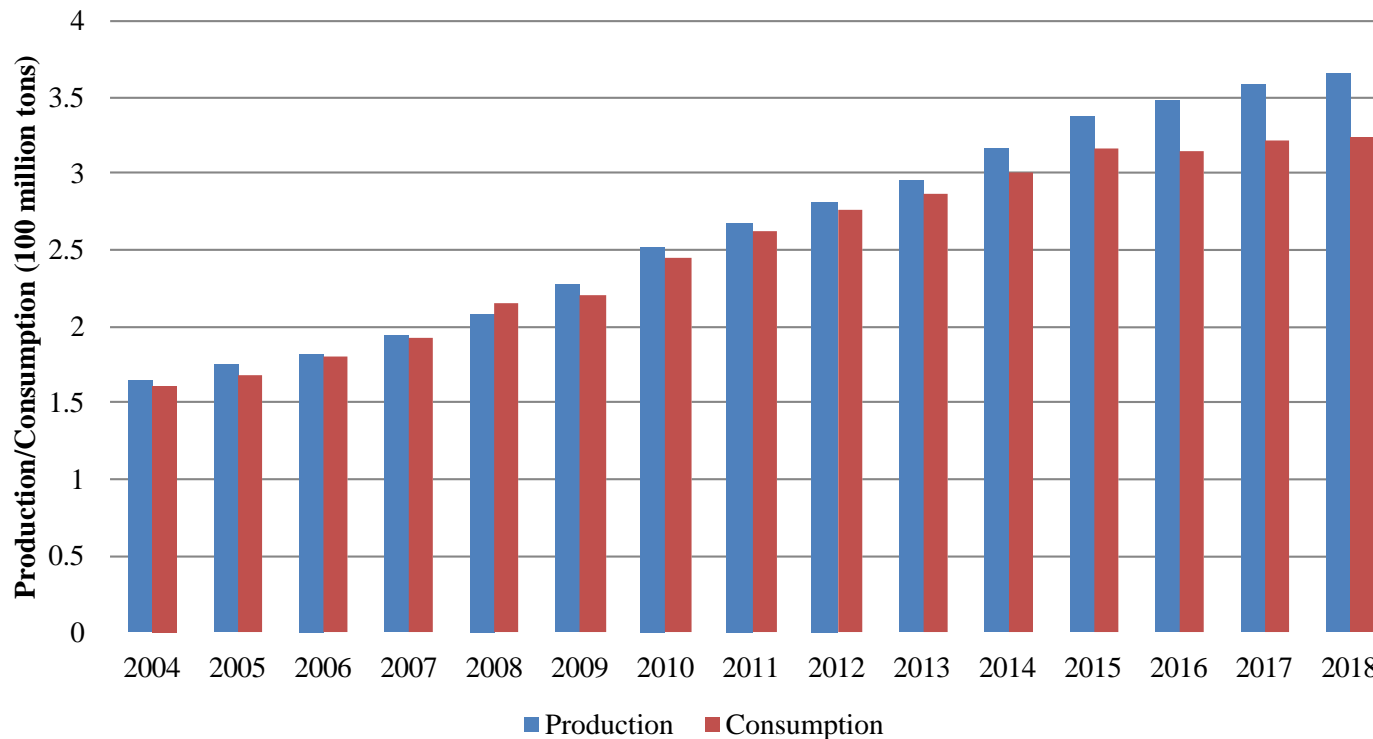


6. On the other hand, production of refined oil products increased much faster



- The production of refined oil products in China increased much faster than their consumptions.
- In 2018, the production of China's refined oil products was around 365 million tons, whereas the consumption is around 320 million tons.

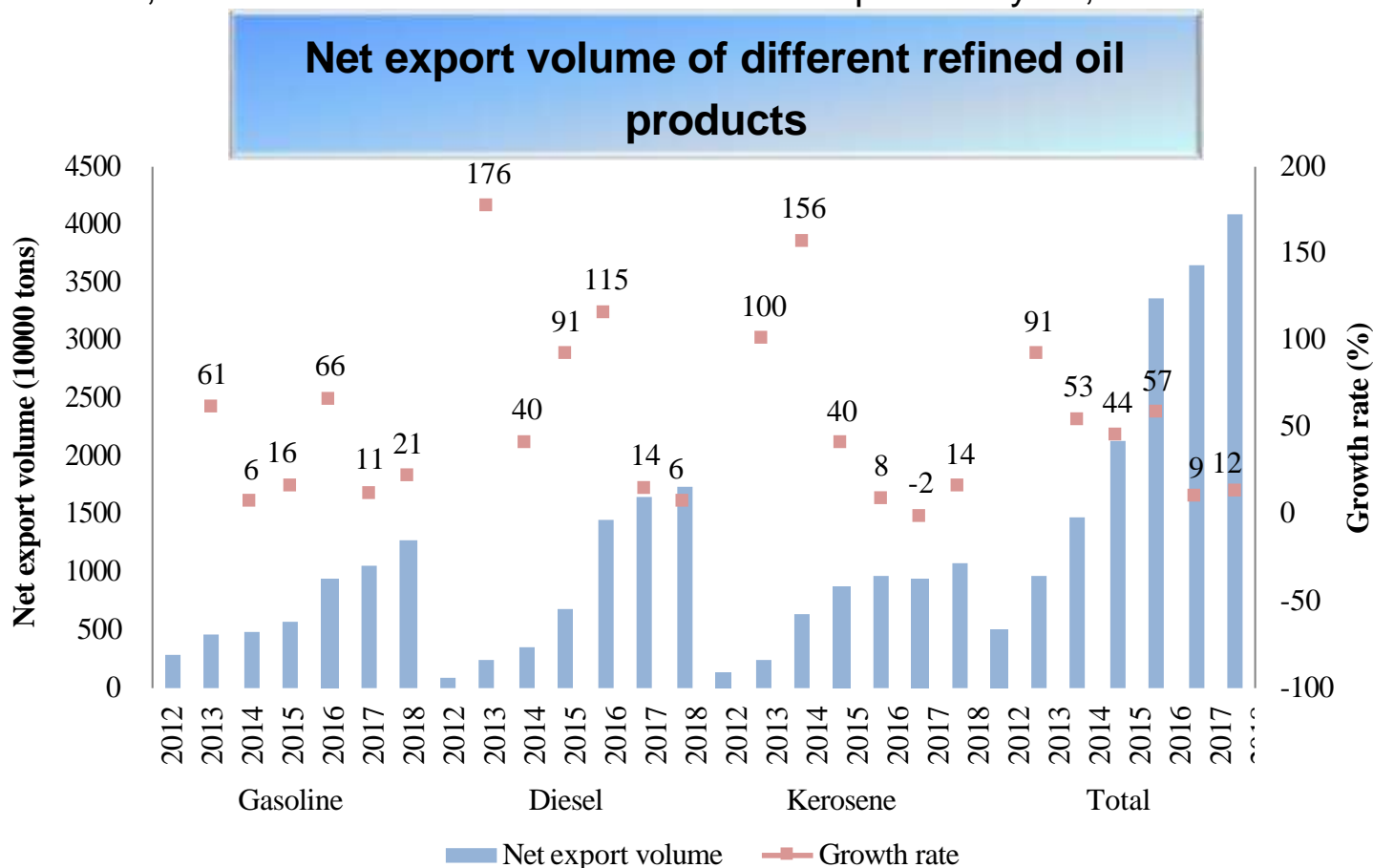
The production and consumption of China's refined oil products





7. Exports of refined oil products exceeded 40 million tons in 2018

- Net exports of refined oil in 2018 were approximately 40.9 million tons, an increase of 12.4% compared to 2017. Among them, the net export of gasoline was 12.7 million tons, an increase of 2.2 million tons from the previous year, or 21%; the net export of diesel was 17.4 million tons, an increase of 0.96 million tons over the previous year, or 5.8%; the net export of kerosene was 10.8 million tons, an increase of 1.36 million tons from the previous year, or 14.4%.





8. China's refining capacity has reached 830 million tons

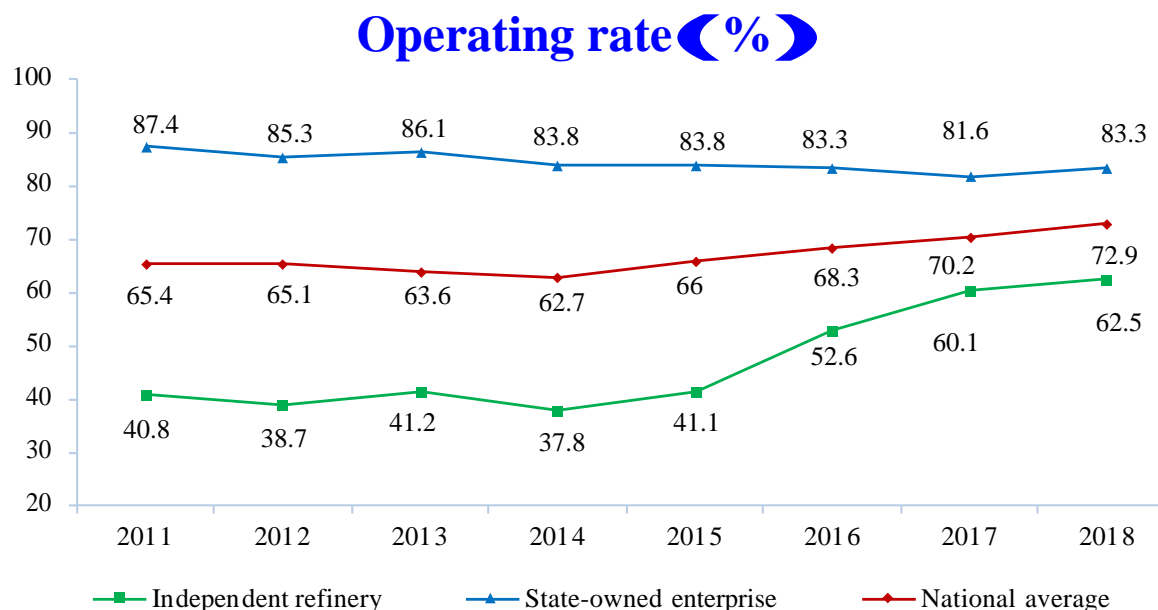
- The oversupply of refined oil products is largely resulted from the increasing refining capacity.
- By the end of 2018, China's refining capacity was 831 million tons/year, a net increase of 22.25 million tons/year from 2017. Among them, the incremental capacity was 33.9 million tons/year, and the backward capacity was 11.65 million tons/year.





9. There is a large room for refining industry to improve

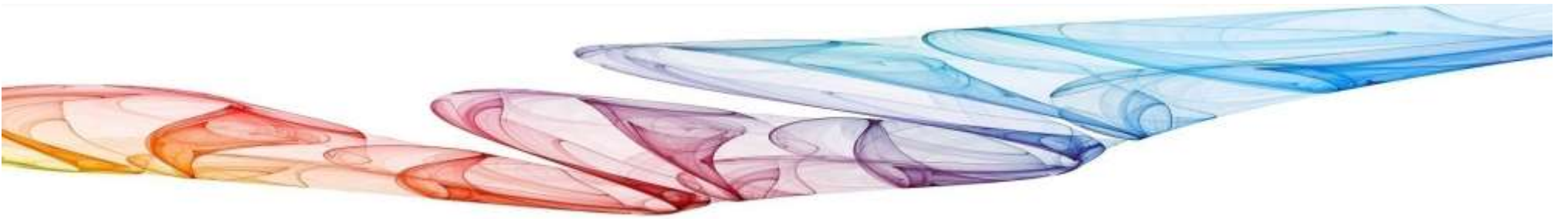
- The refining industry in China is currently at the stage of structural surplus. Judging from the comprehensive scale, product quality, energy consumption and integration level, the surplus of China's refining capacity was at least 0.9 billion tons/year.
- The operating rate of China's refinery industry was only 72.9%, which was much lower than global average of 85.4%.
- The average size of domestic refineries was only 4.12 million tons/year, which was still far from the global average size of 7.59 million tons.
- The development level of refinery-petrochemical integration was not high. There were only 19 petrochemical integration enterprises in China, with a total production capacity of 230 million tons/year.





Highlights

1. With impacts on development of energy-saving technologies, implements of alternative fuels and optimization of transportation mode, China's gasoline consumption will gradually slow down and diesel consumption will decline steadily.
2. The production of China's refined oil has already exceeded consumption, yet chemical products still rely on imports. Thus, the refining and chemicals industry needs further upgrading.
3. China's petrochemical and refining industry still has a large room to improve, with the direction of super-scale, refinery-petrochemical integration, higher efficiency, and intelligent development.
4. As the opening up continuing to increase in China, there are still lots of investment opportunities for foreign companies.



Thank You!

