China Oil Products Market Outlook

Li, Zhenguang
Economics & Development Research Institute, SINOPEC

September 2016, Singapore
Content

I. Current situation of China's oil products market

II. Medium-term evolution of oil products market

III. Long-term prospect of oil products market
I. Current Situation of China's Oil Products Market

1. Oil products consumption growth is slowing

- China’s Oil products apparent consumption growth slowed to 0.4% in the H1 2016 from average annual growth of 4.9% between 2010 and 2015.
- The actual consumption growth was at 5%.
- The gap between apparent and actual consumption came from off-spec gasoline. The actual consumption growth of gasoline reached 15% in the H1 2016, and kerosene up by 10%, but diesel down by 3%.
I. Current Situation of China's Oil Products Market

2. Refining capacity becomes more diversified

- Share of Sinopec and CNPC dropped from 78% to 64% in the last 10 years, while the independent refineries’ share rose from 12% to 21%.

![Pie charts comparing refining capacity in 2005 and 2015]
I. Current Situation of China's Oil Products Market

3. Independent refiners’ output share is rising

- Since the independent ones are allowed to crack imported crude oil, production share of the independent sector grows rapidly, up to 22.8% in the H1 2016 from 19.8% over 2015.
4. Fierce competition extended to sales sector

- There are about 100,000 oil stations in China, 50% of which belong to Sinopec and CNPC, while the rest belong to a dispersion of small business. As the market remains surplus, small business oil stations become competitive.
Ⅱ. Medium-term Evolution of Oil Products Market

1. Government will continue to promote market-oriented reform

- **Marketization Phase Markers**
  - **Early Phase:** Start the price reform and open the market.
  - **Middle Phase:** Open the wholesale market and allow foreign companies to participate.
  - **Late Phase:** Form a market price discovery mechanism.

- **Marketization Progress**
  - **1998**
    - Start the price reform.
    - Release retail market.
    - Open wholesale market.
  - **2004**
    - Finish price reform.
    - Start tax-reform.
  - **2006**
    - Start tax-reform.
    - Open price adjustment cycle.
    - Allow imports.
  - **2009**
    - Start tax-reform.
    - Formulate market adjustment cycle.
    - Allow imports.
  - **2012.12**
    - Start tax-reform.
    - Formulate market adjustment cycle.
    - Allow imports.
  - **2013.3**
    - Control price.
    - Start tax-reform.
    - Formulate market adjustment cycle.
  - **2015.2**
    - Control price.
    - Start tax-reform.
    - Formulate market adjustment cycle.
  - **2015.7**
    - Control price.
    - Start tax-reform.
    - Formulate market adjustment cycle.
  - **2016.1**
    - Control price.
    - Start tax-reform.
    - Formulate market adjustment cycle.
  - **2017**
    - Control price.
    - Start tax-reform.
    - Formulate market adjustment cycle.
  - **2017.2**
    - Control price.
    - Start tax-reform.
    - Formulate market adjustment cycle.
  - **2017.2016.12017**
    - Control price.
    - Start tax-reform.
    - Formulate market adjustment cycle.
  - **2020**
    - Control price.
    - Start tax-reform.
    - Formulate market adjustment cycle.
Ⅱ. Medium-term Evolution of Oil Products Market

2. Independent refineries to further upgrade their units
3. Big companies will export more

- The net export of oil products reached 16.8 million tons in the H1 2016. Net export of gasoline in the H1 of 2016 reached 74% of that throughout 2015, while diesel hit 89%. The net export in 2016 is estimated at over 30 million tons.
- Large enterprises have to export more but not independent refineries in the next 5 years.
4. Trade flow to change

- Currently the proportion of gasoline exports to end-user countries is lower than those go to trading hubs like Singapore. This situation is expected to change due to the growing exports volume, Chinese barrels would find more destinations to go.
Ⅱ. Medium-term Evolution of Oil Products Market

4. Trade flow to change

- Diesel exports flow is expected to change as well

*中国出口扣除香港
Ⅲ. Long-term Prospect of Oil Products Market

1. The growth of vehicles fleet is the main drive of the demand for gasoline and diesel

- China's vehicle fleet is expected to reach 260 million by 2020, and respectively 400 million and 500 million by 2030 and 2050.
III. Long-term Prospect of Oil Products Market

2. The EV development depends on policy support

- If government subsidies are cancelled after 2020, the electric cars will only be more cost efficient when crude oil price exceeds US$100/barrel.
III. Long-term Prospect of Oil Products Market

3. The fuel demand growth to be slower than fleet increase due to enhancing fuel efficiency and EV development

- The goal of EV sales reach 20% of total vehicle sales needs constant policy support, and fuel efficiency improvement by 2.5% each year is also a challenge.
III. Long-term Prospect of Oil Products Market

4. Diesel demand curve have been plateau and gasoline is expected to peak in 2025.
   - The demand of both diesel and gasoline will peak at 180 million tons.
5. Kerosene demand have substantial room to grow

- The flight number per thousand person was 350 in 2015, well below the level of developed countries.
- Growing international travels will increase the average mileage, and kerosene consumed per million ton-kilometers will continue to reduce.

### Flights per 1,000 Persons

<table>
<thead>
<tr>
<th>Year</th>
<th>Flights per 1,000 Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>351</td>
</tr>
<tr>
<td>2030</td>
<td>872</td>
</tr>
</tbody>
</table>

### Average Mileage

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Mileage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1669</td>
</tr>
<tr>
<td>2030</td>
<td>1764</td>
</tr>
</tbody>
</table>

### Unit Kerosene Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>Unit Kerosene Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>3.02</td>
</tr>
<tr>
<td>2030</td>
<td>2.37</td>
</tr>
</tbody>
</table>
6. Kerosene demand is expected to rise up to 2030 at least.

- Kerosene demand will peak at 70 million tons.
Ⅲ. Long-term Prospect of Oil Products Market

7. The demand plateau is expected to occur every 10 years
III. Long-term Prospect of Oil Products Market

8. Oil consumption shifts to chemical feedstock
Ⅲ. Long-term Prospect of Oil Products Market

9. Ratio of refined oil product to oil consumption will decline
### III. Long-term Prospect of Oil Products Market

10. The planning refining capacity has been able to meet the growth of oil consumption in the next 10 years

- If the planned projects would complete, China’s refining capacity will exceed 900 million tons/year, and the utilization rate would be less than 80% by 2025.
Thank you!