The Impact of the Global Financial Crisis on China's Oil Industry

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[ABSTRACT] In a backdrop when the global financial crisis is moving toward the real economy, the oil industry is one of the industries that suffer from a direct impact and witness a fast spread of it. Previous experience has taught us that in an integrated global market, no single economy can hide behind the financial turmoil. The financial crisis originated from America has just triggered a breeding crisis of overproduction in China, but we must be aware of that the problems of China are not necessarily the same as the problems of America. China’s oil industry has its own specific traits and is bound up with the country’s economic progress. This article tries to analyze the transmission mechanisms of global financial crisis and investigate factors that have influence on China’s oil industry, thus giving targeted suggestions for the future plan and development of oil industry in China.

[KEY WORDS] Financial crisis, Transmission mechanism, Oil industry, SWOT Analysis

China’s oil industry as the pillar industry of the national economy will face unprecedented challenge in 2009 due to the global financial crisis.

Different from previous, the plight of today’s oil industry is not caused by geopolitical or pure man-made factors. The financial crisis is one of the culprits which induced a global real economy recession and triggered a shrink of global oil industry and market. Looking internationally, the fluctuating oil price in the international market, the increased cost of oil prospecting, the opening of the refined oil market to the outside, and the intense competition both at home and abroad have increased the fluctuation and uncertainty of the oil market and the oil industry in China.

Nevertheless China’s oil industry has its own specific problems differentiate from other countries because of China’s special market systems and international status. Hence it is a necessity to learn how the financial crisis influence the oil industry in China and what is the transmission mechanism, by so doing we can give more effective advices and provide empirical foundation to the reform and development of our oil industry.

1. The general situation of China’s oil industry under the financial crisis

1.1 The behavior of oil industry after the outbreak of financial crisis

The economic situation of oil industry is fluctuating with the sharp change of oversea and domestic
economic operation and is behaving as two obvious trends: a high-speed development period between January and August, then a sharp depressing period after September with production’s slip and lower operating rate. The speed of industrial output value growth decreased from thirty-five percent in August to minus six point eight percent in December. What’s more the dilemma in which the price of refined oil is lower than the price of crude oil was especially prominent in 2008, oil refineries suffered serious losses, and the supply in domestic market is relatively surplus, even leading to a minus increment speed of petroleum processing. See Fig.1.

Currently, the market of petrochemical products fluctuates a lot due to the financial crisis, the shrink of real estate and the restructure of industry, thus cumbering the developing space of upstream oil industry. The demand for polyethylene, polypropylene, synthetic resin, synthetic rubber and other petrochemical products all decrease considerably, plus the financing difficulty of oil stocks becomes much tougher.

![Increment speed of Petrochemical Industry from June to December in 2008](image)

**Fig. 1** Monthly increment speed of oil Industry in 2008(The original data is attached in appendix, Table 2)

Source: The author collected the data from National Bureau of Statistics and drew the graph

The import growth of oil and petrochemical products also dropped about eight point two percent (8.2%, see Fig.2) in the fourth quarter, the lowest quarterly import figure in 2008. Moreover, domestic crude oil processing recorded its first year-on-year drop in eight years in the fourth quarter.

![The change of trade amount in oil and chemical industry](image)

**Fig. 2** The trade growth of oil and chemical industry in 2008(The original data is attached in appendix,
Table 3

Source: The author collected the data from General Administration of Customs of PRC

On the whole, our petrochemical industry is surging from the wave crest to the wave trough. Although the production is still increasing, the import and export are still active and the increase of industry investment is stable, the development of oil industry is facing against the downturn of economic benefits (See Table 1 in Appendix).

As some relevant experts (Che, 2009) concluded, the oil market is facing against a dilemma that has never encountered before: weak demand, low prices, high management cost, surplus of refining capacity and oil production.

1.2 The situation of China’s oil companies under the financial crisis

The market environment of the three major oil companies changed dramatically and had a huge influence on the economy benefit of oil-related enterprises.

According to the oil companies’ annual reports in 2008, the net profit of both CNPC and Sinopec dropped a lot compared with last year.

Referring to International Financial Reporting Standards (IFRS), the net profit of CNPC in 2008 was 91.65 billion RMB, which declined 38.8%, compared with 2007. But the profit (before tax) of National Offshore Oil Corp. (CNOOC) increased 20% to 67.8 billion thanks to its smaller refining scale and the fast growth of oil and gas production. See Fig.3, it seems that the financial crisis put fewer burdens on CNOOC than other two oil giants.

![Fig. 3 Profitability of oil companies from 2006 to 2008](image)

Source: The Author collected the data from annual reports of CNPC, CNOOC and Sinopec.

In addition, the stock prices of CNPC, Sinopec and CNOOC hiked to a historic high point in November, 2007, but plunged heavily to the lowest point in November the next year, especially
Sinopec. The relevant stock prices are shown in Fig. 4.

Fig. 4 The stock price of China's three major oil companies from 2007 up till now


China’s Petroleum and Petrochemical companies were faced against depression because of the high oil price, levy upon special revenue payments of oil, high costs and limited price of refined oil. Although the oil price goes down now, it is a finality that the profit of oil industry will decrease, some refining departments and chemical companies are even on the edge of loss.

In a word, oil companies have experienced “both fire and ice” in less than one year, this tough 2008 has brought about great loss of economic revenue and state of flux in oil companies.

2. Transmission mechanism of the financial crisis

As a crucial link in the nation’s energy supply, the oil industry makes many significant contributions to China’s development by providing an economical energy source for transportation and the production of other goods. In addition to the important products made available by the oil and natural gas industry, the industry also makes important economic contributions as an employer and purchaser of goods and services.

Undoubtedly, oil industry is not an island. As a core industry in China, it has close relationship with other industries and economic entity. Once the crisis happened, there will be series of chain reactions. We can draw a simple flow chart of transmission mechanism to illustrate how the global financial crisis influences on oil industry. See Fig. 5.
The mechanism of financial crisis and its impact on oil industry can be divided into three stages:

**The first stage:** The transmission from global financial crisis to global economic crisis, which lead to a global week demand.

As for evolution from the financial crisis to the economic crisis factors, the most important reason is the failure to operating the financial system normally which to a fracture of the financial chain.

China's problems are significantly different. If we say that the crisis in the United States is endogenous, then China's problems are exogenous. China's economic problems were not caused by China's financial system itself, but by the America's financial crisis. Moreover, the impact of the economic downturn on the real economy is much serious in China.

**The second stage:** The transmission from oil-related industry to oil industry, and other factors such as oil price, currency appreciation, etc.

For instance, the slow growth in energy-intensive industries and oil-related industries, including steel and iron, would no doubt drag down energy consumption. China's demand for oil slipped for once due to the global week demand for diesel. The net imports of diesel surpassed 2 million tons in both the second and third quarters of 2008, but in the fourth quarter last year China became a net diesel exporter with net exports of 130,000 tons.

The fluctuations in international crude oil markets have a far-reaching impact on Chinese oil markets, forcing domestic refined oil prices to be integrated into global markets.
Furthermore, the profits of petrochemical companies shrink and the international trade amount deteriorates due to the appreciation of RMB. In addition, Non-performing loans of energy investment is a problem to most of the oil companies, thus petroleum companies began to reevaluate their future investment projects.

For the downstream industry, the rate of operation has slumped from 85% to 55%. What’s worse, the overproduction of other petrochemical products and the lower consumption of oil products incurred the loss of refining industry (The loss has reached to 149.3 billion RMB).

**The third stage**: The transmission from economic crisis to social crisis, and the endeavor of China’s government.

Social crisis mainly reflects in the labor market of oil engineering, which has atrophied both at home and abroad.

It is a great challenge that the lower international demand for petroleum leads to a lower investment of petroleum and a lower demand for employees, especially for China, which occupies a large share in the world’s labor market of oil engineering, not to mention that the oil industry is one of the largest employers in China, employing millions of Chinese in exploring, transporting, processing, producing, and marketing. Plus, Millions of other jobs are supported by oil companies’ purchases of goods and services from other producers, tying more people’s welfare to it.

But unlike other countries, Chinese government always tries to participate in the economic market to boost the domestic demand and invest large amount of money to guarantee the steady supply of petroleum and stable price of oil. Since December last year, China has adopted a new refined oil pricing mechanism as part of its efforts to bring domestic oil prices in line with world prices. In this way, the demand for oil will remain robust for the foreseeable future, according to the Energy Research Institute under the National Development and Reform Commission (NDRC).

Recently the NDRC has published May’s operational situation of oil and gas Industry. The statistic data denoted that although the production of oil declined compared to last month, the demand for Refined Petroleum Products becomes better, and the inventory of China National Petroleum Corporation (CNPC) and China petroleum and chemical corporation (Sinopec) decreased continuously, which is a pretty good start thanks to the government's effort.

To sum up, the transmission of financial crisis in China’s oil industry is very unique and has its own characteristics. The market, the price, the government and the macro economy form a complicated and volatile environment that can change the whole oil industry.

3. Suggested countermeasures to deal with the current crisis

3.1 SWOT Analysis of China’s oil industry

In order to make a clear targeted comparison, we can draw a graph to show the Strengths, weaknesses, opportunities and threatens of the oil industry. The SWOT Analysis of oil industry is shown below.

Opportunities exist in crises. The financial crisis has provided necessary pressure for our country to carry out significant revolution, and has also offered impetus for the petroleum and petrochemical industry to speed up their pace to optimize the structural adjustments and change the mode of development (Qian, 2009).
According to the SWOT Analysis above, the oil industry should grab the opportunities and utilize its strengths to face against the financial crisis and increase the competitive power. Thereby a strategic combination of SO strategy (Take advantage of the Strengths and Opportunities) is appropriate for oil industry’s future development.

1) The "nose dive" of world oil price has provided a good timing for China to launch its fuel tax reform that has been in deliberation for more than 10 years.

2) The state oil companies are becoming more aggressive bidders, willing to pay a high premium in order to grasp a deal, as they have access to low-interest loans from Chinese state banks to fund their investments.

3) Meanwhile, chances began to open up for the Chinese Companies in fields those were once unattainable. As credit has drained since the financial crisis, many cash-strapped oil companies became more open to foreign investors, forging China’s oil investment joint ventures, or borrowing money in exchange for oil supplies.

3.2 Countermeasures of dealing with financial crisis.

On the basis of SWOT Analysis, there are some recommended measures for our oil industry: First, the oil companies should strengthen their internal management, perfect the growth mode, and realize the improvement of operational efficiency.

Second, pay attention to structural adjustment. The industrial structure, organizational structure and ownership structure are the focus of the adjustment and optimization.

Third, establish a correct concept of competition. Competition has been a primary rule of market economy, a competitive mechanism helps to pave the way for the achievement of an effective means of coping with redundancy and improve corporate efficiency.

Forth, reinforce the cooperation with foreign countries of exploration overseas. Co-invest through a variety of ways to participate in offshore oil and gas exploration and development, and gradually increase the share of overseas oil, and steadily open up the downstream market.

Last but not least, construct our Strategic Petroleum Reserve and enhance the import of multi-source and diversification of imports to reduce the price risk, to make full use of both international and domestic markets.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backed up by Chinese government, with Solid financial strength.</td>
<td>Downstream investment and joint ventures</td>
</tr>
<tr>
<td>Sufficient labor market for oil industry</td>
<td>Lower pain threshold when it comes to risk</td>
</tr>
<tr>
<td></td>
<td>Building oil strategic reserve</td>
</tr>
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<table>
<thead>
<tr>
<th>Weaknesses</th>
<th>Threatens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil price mechanism is not perfect</td>
<td>Overproduction is still serious</td>
</tr>
<tr>
<td>The cost of production still keeps in a high level, and lack high value-added products.</td>
<td>The extent of reliance on petroleum will be higher, but China has little power to enter in the price decision of petroleum.</td>
</tr>
</tbody>
</table>
4. Conclusion

What China is up against now is characterized of an crisis of overproduction caused by the unstable market prices and the global weak demand, which is the prerequisite for analyzing China’s problems and discussing the transmission mechanism of this economic crisis. As a pillar industry in China, oil industry is a signal of the whole country’s development.

After a discussion of transmission mechanism and the SWOT Analysis, we suggest that oil companies swiftly adjust the production and operational strategy of refining business to cope with market changes and utilize the advantages fully offered by the integration of refining and chemical businesses to optimize resource allocation, meanwhile boost international oil and gas investment, oilfield services and international trade to maintain competitive power.

Depending on all of the analysis above, there is sufficient reason to believe that China's demand for oil will remain robust for the foreseeable future and our oil industry will usher a brighter future.
Reference

Annual reports of CNPC, Sinopec, CNOOC from 2006 to 2008

Sun. The Logic of the Financial Crisis and its Social Consequences. SOCIETY. Vol. 29 No. 2. 2009 (03)


Chinese oil companies cash in on global economic crisis from Hongkong (Platts)--13Jul2009
Platts Energy <http://www.platts.com/>
Appendix

Table 1  The major operational indices of Petroleum and Petrochemical Industry in 2008

<table>
<thead>
<tr>
<th>Index</th>
<th>Oil Industry</th>
<th>Unit: 10 million USD value</th>
<th>Change(%)</th>
<th>The proportion of oil industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>current Industrial output value</td>
<td>65842.9</td>
<td></td>
<td>24.0</td>
<td></td>
</tr>
<tr>
<td>Prime operating revenue</td>
<td>60042.6</td>
<td></td>
<td>26.1</td>
<td>13.3</td>
</tr>
<tr>
<td>Profit</td>
<td>4666.6</td>
<td></td>
<td>-7.1</td>
<td>13.7</td>
</tr>
<tr>
<td>Tax value</td>
<td>3044.1</td>
<td></td>
<td>25.4</td>
<td>19.4</td>
</tr>
<tr>
<td>Total value of trade</td>
<td>4261.2</td>
<td></td>
<td>33.3</td>
<td>16.6</td>
</tr>
<tr>
<td>value of export</td>
<td>1312.0</td>
<td></td>
<td>29.0</td>
<td>9.2</td>
</tr>
<tr>
<td>value of import</td>
<td>2948.3</td>
<td></td>
<td>35.2</td>
<td>26.0</td>
</tr>
</tbody>
</table>

Source: General Administration of Customs of the PRC and Xia (2009)

Table 2 Increment speed of oil Industry from June to December in 2008

<table>
<thead>
<tr>
<th>Item</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraction of Petroleum and Natural Gas</td>
<td>7.4</td>
<td>7.1</td>
<td>6.8</td>
<td>5.1</td>
<td>9.7</td>
<td>7</td>
<td>10.7</td>
</tr>
<tr>
<td>Petroleum Processing, Coking and Nuclear Fuel Processing</td>
<td>15.5</td>
<td>10</td>
<td>9.9</td>
<td>-2.2</td>
<td>-4.3</td>
<td>-8.3</td>
<td>-15.1</td>
</tr>
</tbody>
</table>

Source: General Administration of Customs of the PRC

Table 3  The trade amount of industry in 2008

<table>
<thead>
<tr>
<th>Item</th>
<th>Sum ( 10 thousand dollars )</th>
<th>Quarter-on quarter growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
<td>2007</td>
</tr>
<tr>
<td>Total trade amount</td>
<td>42611831</td>
<td>31978697</td>
</tr>
<tr>
<td>Import</td>
<td>29482808</td>
<td>21800819</td>
</tr>
<tr>
<td>Export</td>
<td>13129023</td>
<td>10177878</td>
</tr>
</tbody>
</table>

Source: General Administration of Customs of the PRC and Xia (2009)
Fig. 6 The FOB price change of oil

Source: IEA website (The author drew the figure by using the data from IEA)