ECONOMIC REVIEW (A Monthly Issue) January, 2015

BANK OF CHINA (HONG KONG) LIMITED Economics & Strategic Planning Department http://www.bochk.com

The Wealth Transfer from the Oil Price Plunge and Its Impacts

Dai Daohua, Senior Economist

Within six months in 2014, oil price plunged by more than half, triggering the Rubble crisis in Russia, who relies heavily on crude oil and natural gas exports. As wary as market participant may be, they still believe the contagion risk is minor. IMF and World Bank both publish reports arguing that the oil price decline is a positive development to the global economy. The wealth transfer as a result of the oil price plunge (from oil producers to consumers and other end users, and from oil exporters to importers, etc.) is thus positive in general. During the 48 months ending at mid-2014, oil price averaged about $105 a barrel, propelling the petrodollar and sovereign wealth funds from oil export receipts to become significant investors in global financial markets. But the script will have to be rewritten with the recent plunge.

Demand driven price decline

Whether impacts from the oil price decline are favorable or not will to a large extend depend on whether it is the result of a demand shock or supply shock. In this case, factors from both demand and supply contribute to the cause, with the supply shock being the main culprit. Moreover, the expectation change and the dollar's strength also play a role.

On the demand side, it can be argued that oil price movement has been in close synchronization with the global economic preformance in recent years. The record high price of $147 a barrel for the NYMEX futures was recorded in July 2008 right before Lehman Brothers went busted and triggered the financial tsunami. From then on till December, oil price plunged to $32 a barrel, a decline of more than 70% in mere six months, which outdid the current decline. But then nobody was discussing how beneficial the plunging oil price could be for the global economy because it was the result of the alarming contraction of the global economy under stress. Afterwards, it began to recover when major central banks in the world went on an easing spree simultaneously, which saw its price going back up to $115 in May 2011, a rally of a whopping 360%. Then it seesawed between $80 and $110 for the next three years, before dropping precipitately by 60% in six months from $108 recorded in June 2014, which rivaled the plunge during the financial tsunami.

According to IMF, the global economy completely stalled in 2009. The recovery in 2010 saw growth surging to 5.4%, compatible to the rapid growth of 5.6% and 5.7% recorded in 2006 and 2007. However, growth momentum was lost in the following years, with real growth moderating to 4.1%, 3.4%, 3.3% and 3.3% between 2011 and 2014. It was the emerging markets spearheaded by China that saw greater loss of growth momentum, as evidenced by their average growth slowing from 7.5% to 4.4%. The majority of them are oil importers, with China being the largest one. Hence, it can be argued that slump in demand

did contribute to the oil price decline. The International Energy Agency (IEA) estimates that the decline in demand for oil amounts to 0.80 million barrels per day in 2015. Nonetheless, the slowdown in the emerging markets and the world economies is much less severe than during the financial tsunami, and they certainly have not deteriorated much in the past six months when oil price plunged by half. Moreover, importers like China even expedited its oil imports to build up its strategic oil reserves. These considerations lead to the argument that supply shock plays a bigger role in the oil price slump.

During the course of 2014, geopolitics flared up in places like Syria, Iraq, Ukraine, etc. But their disruption to supply failed to materialize. Oil production in Syria, Iraq and Russia remained normal. On top of that, the US shale oil and gas revolution did three things at the same time, increasing supply, decreasing the US' demand for foreign oil, and changing market expectations on oil price. According to the US Energy Information Administration (EIA), the so-called energy revolution resulted in its domestic oil production up 3.40 million barrels per day or 68% from 2008 to 2014. Meanwhile, the US oil imports have been down by 2.40 million barrels per day or 24%. Imports nowadays account for 47% instead of 67% of US oil demand. And the proportion of net imports in the US oil consumption drops to 26%. In 2015, oil production in the US is projected to hit 9.42 million barrels per day, closing in on the old record of 9.60 million barrels made in 1970.

By the same token, the US energy revolution did not take place overnight, and itself alone can hardly explain the oil price plunge in 2H14. However, it did shift the supply and demand curves. With no response from OPEC, especially after OPEC's November meeting that failed to reach output cuts decision, oil price capitulated from $75, as market participants concluded that the oversupply in the oil market will get worse. Market expectations turned sour towards oil. Combined with a stronger dollar, the oil's fate was sealed.

Impacts on the US economy

Saudi Arabia is an ally of the US and OPEC's largest swing producer. Its objection to production cuts gives the market the impression that it is willing to go to price war to protect its market share, because oil price at less than $50 will force some high margin and heavily indebted US shale oil producers to exit, reducing supply and stabilizing price. As long as the US remains a net oil importer, lower oil price should be beneficial to it. The key question is how painful the industrial restructuring in the US shale oil is, and whether the US economy can emerge stronger.

The key to the answer lies in how competitive the US shale oil industry remains assuming oil price hovering below $50 for a considerable period of time, which in turn depends on the production costs and the debt burdens of individual shale oil producers. On the industry as a whole, according to various researches, production costs range from $40 to $80 a barrel, with major producers concentrating at the lower end. This means it is the small, independent and highly indebted producers that are much more vulnerable. But for the whole shale oil industry, production is likely to remain more or less steady, even before taking into consideration of further technological breakthroughs and cost reductions. On the other hand, lower oil price causes more pain to OPEC members because their fiscal health relies more on oil exports even

though their production costs are very competitive. According to market estimates, Saudi Arabia needs oil price above $100 a barrel to balance its budget, and UAE above $70. Qatar and Kuwait need oil price to be between $55 and $60 a barrel fiscally. Under the low price scenario, they will have to draw on the reserves built up before, while the US shale oil industry undergoing consolidation, both survival games. But for the US, the consolidation is unlikely to turn into systematic risks.

According to American Petroleum Institute (API), the US oil and gas industry employs directly and indirectly some 9.80 million employees. It pays out direct salaries at the amount of $200 billion per annum, and indirect salaries at $300 billion. Since 2000, it has cumulatively invested $2 trillion, and the industry accounts for about 7.7% of the US economy. Compared to the annual gross domestic product of $17.6 trillion, private consumption expenditure of $12.0 trillion, private investment of $2.9 trillion, government consumption and investment of $3.2 trillion, and total employment of 147 million, if the shale oil industry stops short of collapsing, the US economy will likely come out a winner because consumption and other industries will benefit more than the shale oil industry loses. Moreover, be it import substitution or lower import value, the US current account and the dollar will also come out as winners. The IMF's study projects that lower oil price alone will contribute extra 0.2-0.5 percentage points to the US economic growth in 2015.

Impacts on the Chinese economy

Now that China is one of the world's largest oil importers, lower oil price is a favorable development. In 2013, China consumed some 488 million tons of oil, 57.4% of which were imported. And in recent years, many Chinese energy enterprises venture abroad in order to secure oil supplies. However, as to how much China will benefit from low oil price, even the IMF and World Bank fail to agree.

According to IMF's estimates, the extra boost to China's GDP in 2015 will amount to 0.4-0.7 percentage points, greater than the US on the fact that China simply consumes more energy to produce a unit of GDP. Its oil consumption equals 5.4% of its GDP, whilst for the US, the ratio is 3.8%. World Bank puts the estimate lower at 0.1-0.2 percentage points, arguing that oil only accounts for 18% of China's energy consumption (coal's share is at 68%). And amongst main oil consuming industries, domestic oil accounts for half of the consumption. It is difficult to declare who is right and who is wrong because such estimates are based on a lot of assumptions, making it more academic than factual. But the general conclusion is that China should benefit as a whole as lower oil price will reduce relevant costs for consumers and corporates alike. Moreover, lower inflationary pressure creates room for interest rate cuts, which is also deemed favorable.

According to China's General Administration of Customs, China imported 308 million tons of oil in 2014 despite the price plunge, an increase of 9.5% to a new record. Its import value was $228.3 billion, up only 3.9% and accounting for 11.7% of total imports. This development suggests that oil price decline did help China reduce its import costs. But its import volume bucked the trend of economic slowdown hence reduced demand and made another new high. It is believed that China was taking advantage of the oil price decline to

build up its strategic oil reserves. The target is set at 90 days of net imports by 2020. And at the end of 2014 when the first stage of storage facility construction was completed, China has accumulated 30 days' worth of net oil imports. The oil price plunge helped expedite the process. Therefore, in terms of trade, it does not necessarily mean that China will record less import values. But the importance of strategic oil reserves clearly outweighs short term net exports and GDP figures.

Now that the world's two largest economies are deemed to benefit from lower oil price, its global effects should be favorable as well. The IMF's study puts it at 0.3-0.7 percentage points of extra boost, while World Bank putting it at 0.5 percentage points. However, it does not mean growth projection will be revised upward. In fact, World Bank recently revises downwards its world economic forecasts to 3.0% from 3.4%, arguing that the positive feedback from lower oil price cannot sufficiently offset problems in Europe, Japan and other emerging markets that are not related to oil.

Restructuring of petrodollar sovereign wealth funds

Petrodollar saw its status elevated in the past several years when oil price hovered at high levels. Sovereign wealth funds established by oil exporters became important players in the global financial markets and are actively sought after by major international financial centers. It is believed that the first sovereign wealth fund was Kuwait Investment Authority, founded in 1953 and funded by Kuwait's oil export receipts. At the end of 2014, the fund grew to $548 billion. Between 2003 and 2008 when oil and natural gas prices exploded, so did sovereign wealth funds funded by them. More than twenty such funds were established since 2005.

The sources of fund of sovereign wealth funds are generally divided into commodities and non-commodities, with the former consisted of export receipts from oil, natural gas, ore, etc. According to the statistics compiled by Sovereign Wealth Fund Institute, by the end of 2014, excluding the investments of China and Hong Kong's forex reserves, seven out of the top ten sovereign wealth funds are funded by oil and natural gas export receipts. They are founded in oil exporters such as Norway, UAE, Saudi Arabia, Kuwait, Qatar and Russia. Amongst the total assets of $7057.4 billion of global sovereign wealth funds, oil and natural gas funds account for 60.8% or $4291.7 billion of the total.

In 2014 even when oil price plunged late in the year, total assets of global sovereign wealth funds continued to grow, suggesting little impacts on those oil funded funds yet. However, if oil price continues to hover around $50 a barrel in 2015, the script will have to be rewritten. Oil producers such as Russia, Iran, Libya, Nigeria, Venezuela will have to draw on their dollar reserves accumulated before to stabilize their currencies and fund their fiscal deficits. They are unlikely to add substantially to their sovereign wealth fund investments any time soon. As for major OPEC members who have deeper pockets, though safe from a major crisis, reduced oil export receipts and oil price lower than the fiscal breakeven level imply lack of expansion momentum as well. Sovereign wealth funds invest around the globe in assets such as government bonds, corporate bonds, equities, real estates, etc. In the worst case scenario, if they have to liquidate their positions, it will add another uncertainty to the fragile global financial markets.

主要經濟指標 (Key Economic Indicators)

一. 本地生產總值 GDP	2012	2013	2014/Q2	2014/Q3
總量 (億元) GDP($100 Million)	19,644	20,372	5,179	5,765
升幅 (%) Change(%)	1.5	2.9	1.8	2.7
二. 對外貿易 External Trade	**2012**	**2013**	**2014/11**	**2014/1-11**
外貿總值 (億元) Total trade($100 Million)				
港產品出口 Domestic exports	588	544	47	512
轉口 Re-exports	33,755	35,053	3,221	33,901
總出口 Total exports	34,343	35,597	3,268	33,604
進口 Total imports	39,122	40,607	3,789	38,476
貿易差額 Trade balance	-4,778	-5,010	-522	-4,873
年增長率 (%) YOY Growth(%)				
港產品出口 Domestic exports	-10.4	-7.6	2.5	3
轉口 Re-exports	3.2	3.8	0.4	3.4
總出口 Total exports	2.9	3.6	0.4	3.4
進口 Imports	3.9	3.8	2.4	4.1
三. 消費物價 Consumer Price				
綜合消費物價升幅 (%) Change in Composite CPI(%)	4.1	4.3	5.1	4.4
四. 樓宇買賣 Sale & Purchase of Building Units			**2014/12**	**2014/1-12**
合約宗數 (宗) No. of agreements	115,533	70,503	7,578	81,489
年升幅 (%) Change(%)	6.2	-29.9	26.2	15.6
五. 勞動就業 Employment	**2012**	**2013**	**2014/9-2014/11**	**2014/10-2014/12**
失業人數 (萬人) Unemployed(ten thousands)	12.45	11.84	12.6	12.2
失業率 (%) Unemployment rate(%)	3.2	3.2	3.3	3.3
就業不足率 (%) Underemployment rate(%)	1.5	1.4	1.6	1.6
六. 零售市場 Retail Market	**2012**	**2013**	**2014/11**	**2014/1-11**
零售額升幅 (%) Change in value of total sales(%)	9.8	11.0	4.1	0.2
零售量升幅 (%) Change in volume of total sales(%)	7.2	10.6	7.5	0.8
七. 訪港遊客 Visitors				
總人數 (萬人次) arrivals (ten thousands)	4,862	5,430	530	5,517
年升幅 (%) Change(%)	16	11.7	15.7	12.4
八. 金融市場 Financial Market	**2012**	**2013**	**2014/10**	**2014/11**
港幣匯價 (US$100=HK$) H.K. Dollar Exchange Rate (US$100 = HK$)	775.05	775.4	775	775.3
貨幣供應量升幅 (%) change in Money Supply(%)				
M1	22.2	9.7	16.5	12.7
M2	11.1	12.3	12.1	11.2
M3	11	12.4	12.2	11.2
存款升幅 (%) Change in deposits(%)				
總存款 Total deposits	9.3	10.6	11.9	11.1
港元存款 In HK$	11.7	5.1	10.7	8.9
外幣存款 In foreign currency	7	16.2	12.9	13.2
放款升幅 (%) in loans & advances(%)				
總放款 Total loans & advances	9.6	16.0	13.7	12.8
當地放款 use in HK	7.1	13.8	13.7	12.6
海外放款 use outside HK	16.5	21.4	13.5	13.3
貿易有關放款 Trade financing	10.2	43.8	3.8	1.7
最優惠貸款利率 (%) Best lending rate (%)	5.0000	5.0000	5.0000	5.0000
恆生指數 Hang Seng index	22,657	23,306	23,998	23,987