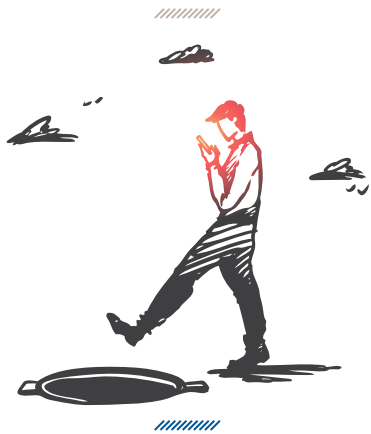
Riding on Oil, Slipping on Oil



In 1973, the world witnessed an oil-price shock which took origin in the October War. As a result, supplies to the United States, and its allies in Western Europe were stopped. By the time the embargo was lifted in 1974, OPEC had quadrupled the price of oil in the West from $3 per barrel to $12.

The consumers faced a 300 percent rise in one year. Six years later, in 1979, the second oil crisis engulfed the world. This time too, it had its genesis in geopolitical tension in the Middle East. The Iranian Revolution that ran for a year beginning 1978 saw the country's oil production decline by 4.8 million barrels per day. At that time, this fall was the equivalent of seven percent of the world production, and the disruption pushed the oil price up from $14.02 per barrel to $31.61, marking a 125% flare up in just one year.

While the oil importers suffered, it was boom times for the exporters. The GCC experienced an impressive increase in GDP (at 1986 prices), from USD 53bn in 1974 to a peak of USD 190bn in 1980.

In 1986, oil- producing countries faced an unprecedented situation. Oil prices crashed: down from $28 per barrel, a year earlier, to $14.43 per barrel, the rate that prevailed seven years ago in 1979. The accusing finger was pointed at the Kingdom of Saudi Arabia (KSA), and it was faulted for increasing oil production.

KSA was only trying to correct what it perceived was wrong responses to the first two crises. At that point, they had cut down production to manage price.

During the first two crises, crude prices rose ten-fold in ten years to touch $35 per barrel in Jan 81, before stabilizing. There were unintended consequences. Some importing countries opted for fuel-efficient vehicles as a means to reduce oil consumption. Others looked to coal, gas and nuclear power for electricity generation. It resulted in fall of global oil consumption by 20%.

Although the demand for oil was falling, the producers outside OPEC, excited by high prices, initiated expensive projects. From 1980 to 1986, non-OPEC production increased by 6 million barrels per day (BPD). The high cost of crude oil stimulated exploration and production operations in non-OPEC countries and made Enhanced Oil Recovery (EOR) production techniques profitable.

OPEC had dominated the global oil supply in 1973- 1974. But by 1985, its market share was reduced to a fourth of the total market share. Faced with lower demand and higher supply, OPEC set production quotas low enough to stabilize prices during 1982 to 1985 periods.

But these failed as other members of OPEC refused to cooperate, and produced beyond their quotas. The rapid increase in non-OPEC production caused OPEC, led by Saudi Arabia, to defend its official price of $34 per barrel by cutting output further. Between 1978 and 1985, OPEC production halved from 29.9 million BPD to 16.6 million BPD. Saudi Arabia produced 10.3mn BPD in 1980, but by 1985 it was down to 3.6mn BPD.

By then, non-OPEC production comprised 70 percent of total world production. OPEC's share of U.S crude oil imports crashed from 82 percent to 41 percent. So, in Sep 1985, KSA increased its production. The objective was to cause a price crash that would hurt KSA's OPEC rivals forcing them to curb output.

Oil daily production (million barrels)

Region	1979	1980	1981	1982	1983	1984	1985	1986
Soviet Union	11.8	12.1	12.3	12.3	12.4	12.3	12.0	12.4
US	10.1	10.2	10.2	10.2	10.2	10.5	10.6	10.2
Saudi Arabia	9.8	10.3	10.3	7.0	5.0	4.5	3.6	5.2
Mexico	1.6	2.1	2.6	3.0	2.9	2.9	2.9	2.8
UK	1.6	1.7	1.9	2.2	2.4	2.7	2.7	2.7
China	2.1	2.1	2.0	2.1	2.1	2.3	2.5	2.6
Iran	3.2	1.5	1.3	2.4	2.5	2.0	2.2	2.1
Canada	1.8	1.8	1.6	1.6	1.7	1.8	1.8	1.8
Venezuela	2.4	2.2	2.2	2.0	1.9	1.9	1.7	1.9
Nigeria	2.3	2.1	1.4	1.3	1.2	1.4	1.5	1.5
Iraq	3.5	2.7	0.9	1.0	1.1	1.2	1.4	1.9
UAE	1.8	1.7	1.5	1.4	1.3	1.3	1.3	1.6
Algeria	1.3	1.1	1.0	1.1	1.0	1.1	1.2	1.2
Kuwait	2.6	1.8	1.2	0.9	1.1	1.2	1.1	1.2
Libya	2.1	1.9	1.3	1.2	1.2	1.0	1.0	1.1

Source: BP Statistical Review

The strategy to flood the global markets with oil worked. Prices fell from USD 30 a barrel in Nov 1985 to USD 10 by July 1986.

The drop in oil prices lead to a decline in real GDP growth rate for all the GCC countries during 1986 and 1987. Bahrain and Oman even ran into current

account deficits during 1986, and other GCC nations saw their surplus fall. The oil price fell 66%, due to increased supply from non-OPEC countries. This time, OPEC tried to protect its market share, instead of fixing the target price.

In 1998, the Asian Tigers came unstuck. It was the year oil prices began declining, causing concern amongst oil exporters. The global oil price fell from a $25 a barrel in early 1997 to below $10 a barrel.

Shrinking demand

The demand for oil from North America and East Asia was rising, and OPEC decided to increase production. But they had not accounted for the severity of the financial crisis that began in July 1997 with the devaluation of the Thai Baht. Other Asian currencies too tumbled.

As oil prices were fixed in dollars and as the dollar appreciated dramatically in value, the cost of oil for these countries skyrocketed in local currency terms. This led to fall in Asia's demand for oil by 350,000 BPD.

While the Asian recession was a primary factor, several other incidents that coincided, exerted more downward pressure.

Increased supply

Historically, oil-exporting countries produced oil in excessive quantity. Saudi Arabia, Kuwait, and the UAE were the only three OPEC members that had voluntarily restricted their production to the quotas agreed within OPEC in 1993. Consequently, Saudi Arabia had high levels of idle capacity. In December 1997, OPEC increased its quota by 2.5 million BPD effective January 1, 1998.

In 1991, in the immediate aftermath of the Gulf War, the United Nations had imposed sanctions on Iraq and forbidden it from exporting oil. However, in the late 1990s, it relaxed and allowed it to export oil up to limits set in dollar terms. This increased the supply in the global markets. As the limit was set in dollar value, Iraq could increase its export quantity, as the oil price fell.

In Aug 1998, Russia defaulted on its debt leading to the devaluation of the Rouble. The recession resulted in lower demand for fuel in the domestic market. The currency was devalued, and this incentivized the producers to flood the global market with the fuel, resulting in increased supply.

As oil prices declined, production levels were cut to avoid a further downward spiral of prices. This hurt the economy and led to lower GDP growth in

1999, for oil-producing countries. Qatar was the sole exception since it was a gas, not oil, exporter.

Saudi was running a fiscal deficit between 1996 and 1999, due to its policy of lower oil production to support the oil prices in the global market. However, post the change in its strategy to increase output, the deficit gap reduced in 1999. Kuwait reported a deficit of USD 0.33bn. UAE's surplus contracted in 1998 to USD 8.28bn, as against an excess of USD 12.60bn in 1997.

The market index of Gulf nations, except Qatar, saw sharp falls with Oman's 52% drop leading the pack.

The high reliance on the regional economy on oil revenue and dependence of non-oil sectors on government spending saw market capitalization for Kuwait, Oman, and Saudi Arabia erode by 36%, 32%, and 28%, respectively.

It is not surprising that states except Kuwait, had to scale down their spending.

The four crises

The oil price reaction to the first two recessions was not immediate, as the oil price declined gradually. However, during the subsequent two recessions (1991-93, and 1998), the sharp oil price decline was quick.

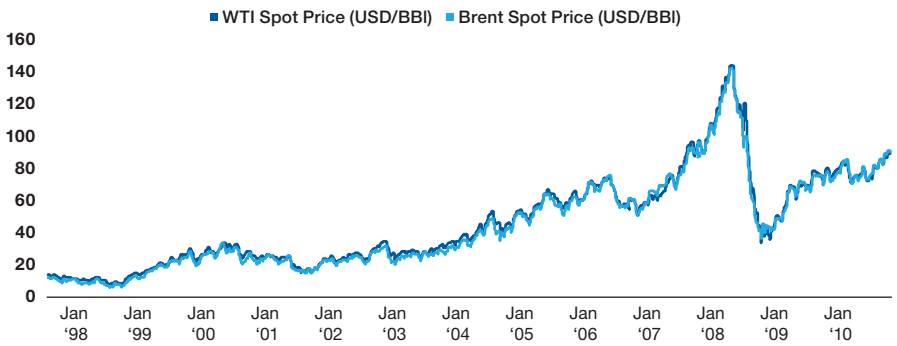
There were three reasons. First, was the shift from contract pricing in the 1970s to spot selling in 1990s. The contract, locking the higher prices for the respective duration, reduced the phase of responsiveness.

Two, the significant market share of OPEC during the 1970s and 1980s complimented their ability to manipulate supply to control the prices fall. However, as OPEC lost its market share, it also lost its ability to control the price.

Three, the well-developed futures markets in the 1990s meant one could take speculative positions on the future oil prices. As the speculative long positions were closed due to expected bear run, oil prices spiralled more rapidly.

Oil price steadily increased from mid-2003 until end-2007, and sharply until mid-2008. The demand came from emerging markets, in particular, China and India. The global oil consumption rose by 1.9% per annum, which is almost twice the CAGR of 1.1% clocked between 1980 and 2007. This increased demand, and later a series of events that occurred during the first half of 2008 led to a sharp increase in oil price.

Historic oil price



Source: E/A

There were many fortuitous events. Individually they didn't mean much. But collectively they led to ballooning up of the oil price.

First, Venezuela stopped selling crude to Exxon Mobil. Then saboteurs blew up a major oil pipeline in Iraq leading to drop in oil flow from 1.2 million BPD to 300,000 BDP. At the same time, Scottish oil workers walked off their jobs, which meant a loss of 50% of United Kingdom's the North Sea oil production.

In the same month, Exxon Mobil stopped its oil production in Nigeria due to union workers strike, giving the average output of 800,000 BDP in 2007. Later, close to 1.36mn BPD of oil was shut, due to militant attacks, sabotage, and workers' strike. Next, armed attacks in Nigeria caused Shell to lock in an additional 225,000 BPD. Finally, Nigerian protesters blew up a pipeline that forced Chevron to shut down production, a loss of a further 125,000 BPD.

Arriving in quick succession, these events lowered supply of oil and contributed heavily to the rapid acceleration of the oil spot price.

The phase 2003 to 2008 saw an unprecedented surge in global demand. However, OPEC did not have sufficient capacity, as for many years they were busy lowering production, and hadn't made the necessary investment to ramp up when the time called for it.

The world crude oil production had mostly kept pace with world consumption throughout the 1980-2005 period but fell short by about 1.5mn barrels between 2005 and 2007. The extraordinary increases in the price of crude oil continued through to the first half of 2008.

When the global financial crisis was unfolding in 2008, the demand for the oil plummeted. To keep the market in balance, OPEC, which controlled 40 percent of world oil output, cut the quotas to 4.2m BPD. But the free fall in prices continued, in part due to global economy falling deeper into recession, and partly due to uncertainty over OPEC members complying with the production cuts.

The 2008 financial crisis, which originated with the housing bubble in the US, had a contagion effect across the globe. The crash in oil prices, due to subdued demand and the subsequent impact on the oil exporting countries, lead to fall in GDP growth levels in the Gulf. KSA lost 38.6% export revenues in 2009, while for Kuwait and the UAE it dropped by 37.4% and 19.7%, respectively.

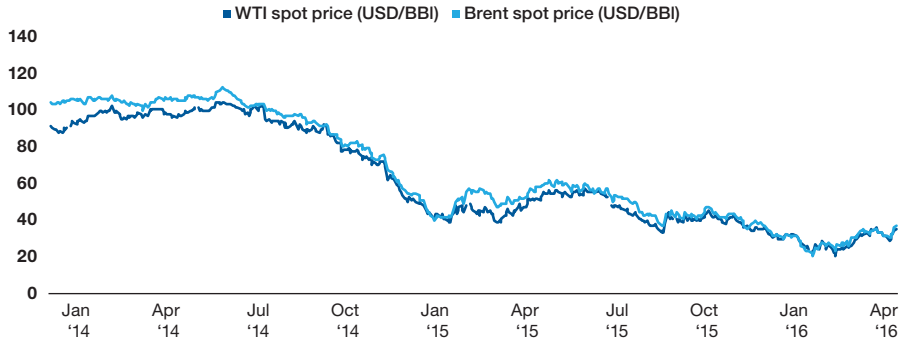
So, what was the impact on the market?

After reporting a surplus of USD 157bn in 2008, Saudi Arabia reported a deficit of USD 23.4bn in 2009. Kuwait had an excess of USD 29.3bn that was significantly lower compared to its surplus of USD 44.6bn in 2007. Meanwhile, UAE reported a fiscal deficit of USD 10.75bn in 2009.

The equity indices of all GCC countries declined as a consequence of the global financial crisis. However, the subsequent drop in oil price, due to lower demand in the aftermath of the crisis, didn't impact the performance of the equity indices in the GCC region. Export and fiscal revenues dropped sharply in 2009 for the GCC countries, but government spending mostly continued, as a countercyclical measure, to restrain the impact of the lower oil price and financial crisis on their respective economies. While credit and money growth slowed down, and fiscal and external balances declined substantially, the GCC had had a strong starting financial position, which aided in maintaining spending levels.

Ever since Jun 2014, oil prices have been on a free fall. They have lost 70% of their value, and the Bull Run that began in 2010, is now over. Several years of production of unconventional oil, weak global demand, and a strong dollar, have taken the toll. As the fall began in June 2014 and ran till 2016, it should be one of the most extended periods of continuous decline.

Oil price performance



This is what happened

First, the global oil demand was downgraded ever since 2012, due to disappointing global economic growth. As if that wasn't bad enough the US shale revolution turned out to be transformational. The scale of the revolution was unexpected and sensational.

It caused the pendulum to swing, from fears of energy scarcity and high prices in the U.S. to abundance and talks of energy independence. In hindsight, pricing oil high was a self-inflicted harm. Consequently, the advantage of going for shale gas became immense.

Here's a background on the supply of shale. The total shale reserves (tight oil) stood at 13.4 billion barrels at the end of 2014, almost twice the consumption of 5.5 billion barrels in 2013.

With the advent of the shale age in the U.S. in 2005, American net oil imports fell every year after that, from 12.4 million barrels a day in 2005 to 9.4 Mb/d in 2010. The drop was mainly due to the policy of driving down oil imports, by boosting domestic production.

Also, OPEC's policy played a crucial role in this.

In the previous oil slumps, OPEC had cut down on supply to support oil prices. For instance, in 2008 it cut down 4.2 million barrels a day from their overall production quota.

OPEC's preferred crude oil price range slowly increased from USD 25- 35 per barrel in early 2000 to USD 100-110 per barrel in 2010. That resulted in a fall in OPEC's market share. Consequently, several OPEC members began

offering discounts to Asian oil importers from the third quarter of 2014. Finally, OPEC in Nov 2014, decided to maintain the production level of 30mn barrels per day, as agreed in December 2011. This change in policy implied that OPEC was not willing to change its supply to control the price decline.

The geopolitical tension had tremendous impact in the market.

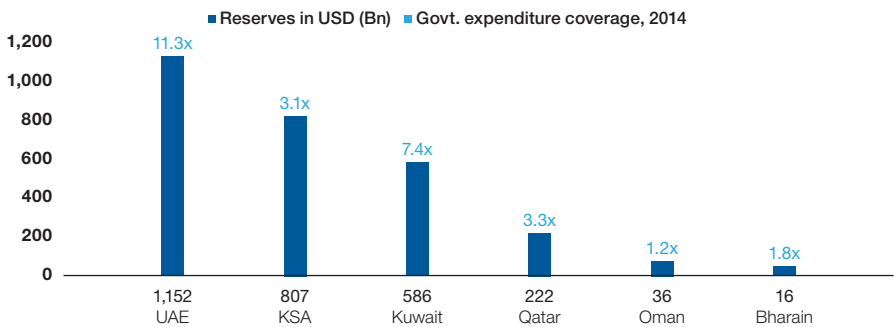
The rivalries amongst major oil producers, such as Russia and Iran, whose budgets require oil prices at over USD 100 per barrel to break-even, increased the woes. KSA can weather lower prices for a sustained time frame, due to its high fiscal reserves.

Despite diversification efforts, the GCC states were excessively reliant on hydrocarbon revenues to fund their expenditures on infrastructure and social programs. On an average, hydrocarbon revenues contributed 80% of budget receipts, during 2010 and 2013.

As a consequence of lower oil prices, the income for all the GCC countries contracted during 2014 and 2015, with declines of 41%, 44%, and 33%, respectively, for KSA, Kuwait, and UAE during 2013- 15.

With GCC reserves totalling over USD 2.8trillion, the key economies commanded an expenditure coverage ratio of over 3x, based on 2014-estimated expenditure figures. These provided sufficient cover for future government spending programs and curb investor fears about regional prospects, which were predominantly fuelled by government spending programs.

Reserves (USD bn) & government expenditure coverage, 2014

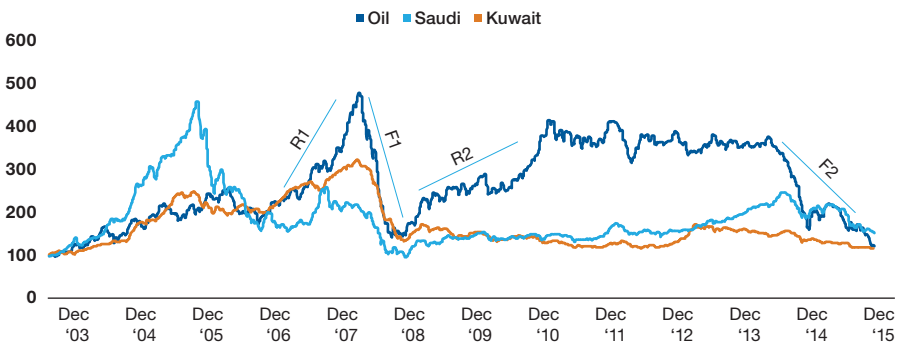


Source: MF, SWF Institute, Markaz Research
Note: Reserves include SWF assets, gold and officially declared reserves.

In addition to the significant reserves, the low debt levels and stable credit profiles offered plenty of support to the GCC government during the weakness in oil markets.

Lower oil prices, however, drove the markets, with GCC equities shedding USD 200bn in 2015. Oil prices and GCC equities have moved mostly in tandem since oil prices started retreating in the second half of 2014, implying the direct correlation between the GCC equities and the oil price. However, the correlation and volatility have increased in the recent times, with GCC equities responding forcefully to fluctuations in the oil price.

A figure that captures Brent Oil price with both TASI and Kuwait Price Index for the period 2003-14 sings a tale of its own.



Source: Reuters

The above graph discusses the rebased index values of Saudi's TASI index, Kuwait's Price index, and the Brent crude values from 2003 till Nov 2014. Looking at the movement of the prices, it can be seen that prior to 2008, the index values approximately followed the movement in oil prices.

The dramatic fall in oil price (F1, -68%) was due to an easing of tensions between the US and Iran, and the US lifting a ban on offshore drilling. Buoyant economic activity, rising consumer and investor confidence, and abundant liquidity during the oil boom spurred excessive credit growth, inflation, and asset price increases. The GCC economies were affected by both corporate and sovereign leverage, which were directly hit by the fall in oil prices. All this led to a tightening of liquidity in the markets, which was amplified by the onset of the global financial crisis. The effect of the subprime crisis was also felt both

in the oil and equity markets, as Brent crude price declined by USD 100 per barrel during the period to USD 46 per barrel.

After 2008, the relationship changed slightly. The gradual increase in oil price (R2, 168%) had little effect on the index values. Supply concerns, due to geopolitical issues, and a rise in demand, with the emergence of the primary consumers in China and India, were the main reasons for the increase in oil price. Political turmoil in Egypt, Libya, Yemen, and Bahrain drove up oil prices in February 2011. The crisis soon spread across the MENA region, driving up oil prices to record highs. The Arab Spring uprising affected investor confidence in the area, and also increased volatility in the stock markets. Saudi improved its infrastructure to assist in the growth of non-hydrocarbon sectors.

Finally, the sharp fall in prices in the second half of 2014 (F2, -39%) affected both the indices after a lag. The reasons for the drop in oil prices have been addressed in previous sections, while the markets were wary of medium to the long-term effect of lower oil prices in government spending.

The change in the relationship, post-2008, between oil price movements and the Saudi index movement could be attributed to the government's increasing efforts to diversify the economy away from the hydrocarbon sector. With the growth in the number of companies in the non-oil sectors, corporate profits determined the movement of the markets. In the case of Kuwait, higher oil prices gave the government the necessary cushion for increasing investments. However, the stakes had little effect on corporate profits, and this resulted in a change in the relationship between oil price and Kuwaiti index.

In the case of Saudi and other GCC countries, oil surpluses were accumulated and invested, mostly in foreign markets, either directly by central banks or through Sovereign Wealth Funds. Hence, there was little to no effect on oil prices climbing on index values.

But lower oil prices affect investor sentiments, as fears of government curtailing spending, impact the markets. While countries such as Saudi Arabia and Kuwait had surpluses to fall back on, sustained low oil prices over the long term would hurt the markets due to slowing down of economic expansion. This would impact corporate profits, which in turn affected the stock markets.

The low oil prices do raise concerns about fiscal sustainability and growth in regional economies. However, GCC governments have mostly stuck to their development spending plans, maintaining massive deficits in the medium term.

The issuance of USD 28bn in bonds by the Saudi government in 2015, to finance the fiscal deficit, substantiates the GCC states stand to raise debt, to plug the gap. However, a prolonged period of low oil prices could force governments to reduce capital spending and benefits and could put pressure on liquidity.

The following are some of the lessons learnt from the crises:

First is the demand-supply sensitivity. The most impressive fact of the oil rout is how a little amount of excess capacity and supply can tip this market. All the oil routs can be attributed to an imbalance in supply and demand. The 2014 oil price rout was set in motion by about 4 million barrels per day of new capacity, mostly from North America, and mainly from an unconventional source. And OPEC refused to correct this oversupply by reducing its production, to preserve high oil prices.

The second point to note is that oil price is no longer under OPEC's control. Non-conventional oil, such as shale, has reduced OPEC's ability to control the price. During the 2014 crisis, even if OPEC had frozen production and induced a rebound in prices, there were plenty of producers that the OPEC coalition couldn't control.

Finally, there is the concept of the commodity super cycle. The 2014 fall in oil prices, signals a potential downward phase of the super cycle, similar to the oil price crash that took place from 1981 to 1986. Both these crashes share uncanny similarities, such as both occurred within the context of a recession that weakened oil demand. And both took place after nearly a decade of high, fast-growing energy prices that led to aggressive investments in upstream exploration and development. Today, the trends point to oil heading for a low-price phase of the commodity super-cycle, with hydrocarbon prices remaining flat for several years to come.