جدوى للإستثمار
Jadwa Investment

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Oil Prices and the Saudi Stock Exchange (Tadawul)

Overview

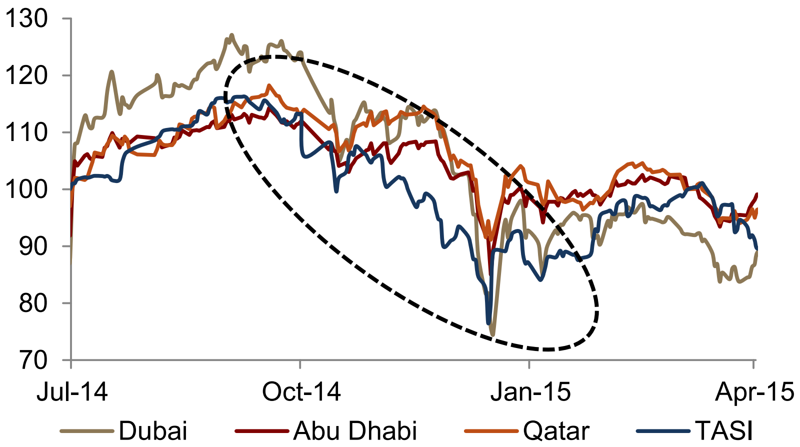
With Saudi Arabia being a predominantly oil-based economy, major changes in the price of oil are likely to be followed by sentimental as well as real changes in the stock market. While sentimental changes often impact the stock market immediately, real changes will take effect over the longer term. If oil prices remain low, this ultimately affects economic policy framework, private sector activity and corporate profitability.

The entry of qualified foreign investors (QFIs) into the Saudi Stock Exchange (Tadawul) and the recent weaker performance of the GCC stock markets, especially in the context of lower oil prices during H2 2014, makes it worth assessing the nature of the Tadawul All Share Index's (TASI's) relationship with global oil prices. An analysis of this relationship can establish a clearer understanding of the type of strategy QFIs may employ in trying to diversify or hedge against changes in oil price.

Sentimental vs. real impact of oil prices

When a major downward movement in international oil prices occurs, this will usually be accompanied by an immediate/short-term impact on the stock market, as a result of change in sentiment. Since retail investors make up around 90 percent of daily traded volumes, sentiment plays a bigger role in investment decisions compared to more developed stock markets. This can be highlighted by recent events following the steep decline in oil prices, by around 50 percent since mid-2014 (Figure 1). In the case of the TASI, the downward trend was not reflective of market fundamentals, since a reduction in oil prices does not have an immediate impact on the growth of the economy or individual corporations. The cause behind the slump was

Figure 1: GCC stock market performance since July 2014



Note: Rebased to 100 at July 2014.

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A major downward movement in oil prices is usually accompanied by an immediate/short term impact on the stock market.

related more to panic selling due to dampened investor sentiment. As oil prices tumbled, many retail investors feared that lower oil prices would prompt the Saudi government to slow or, even worse, cut back on expenditure, squeezing corporate profits in the longer term. However, investors' fears over lower fiscal and business related spending were allayed when the Saudi government pushed through an expansionary fiscal policy at the end of 2014. Since then the TASI's recovery has been helped by a smooth Royal succession, two salary bonuses to public sector employees, and a stabilization in global oil prices.

Longer term effect of changes in oil prices can be broken down into two transmission paths.

The second longer term real effect of oil price fluctuations can be broken down via two distinct but interrelated transmission paths, one through the public and the other through the private sector.

Public sector transmission

A prolonged period of lower prices will impact government expenditure.

Since around 86 percent of government revenues are derived from oil revenue, a prolonged period of lower prices will impact government expenditure.

Looking at the public sector transmission, change in oil prices will affect government revenue. High oil prices sustained for more than year will result in a build-up in fiscal balances resulting in higher government expenditure, which pushes up GDP growth rates and corporate profitability and ultimately translates into a positive effect on the stock market. Sustained low oil prices have the opposite effect. At every stage of the transmission process in the public sector there are direct linkages and knock-on effects to the private sector.

Since 1974, there are three periods where prolonged lower oil prices have resulted in lower government gross fixed capital formation (GFCF).

The first instance was between 1981 and 1986...

...the second instance was between 1992 and 1994

...and the third instance during 1997 and 1998.

Looking back since 1974, there are three periods where prolonged lower oil prices have resulted in lower government gross fixed capital formation (GFCF) (Figure 2). The first instance was between 1981 and 1986, when oil prices declined on a yearly basis over these five years, from an average of $35 per barrel (pb) in 1981 to $14.5 pb in 1986. Over the same period, government GFCF declined on a year-on-year basis, from SR73 billion in 1981 to SR25 billion in 1986. Only from 1988, as oil prices increased year-on-year, did government GFCF increase too.

Figure 2: Oil prices and government gross fixed capital formation (GFCF)

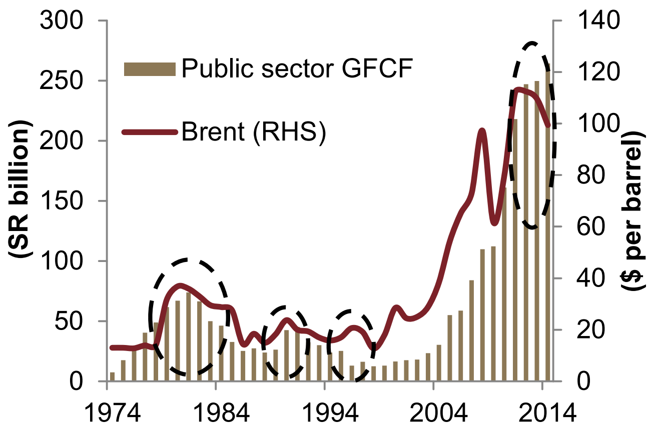
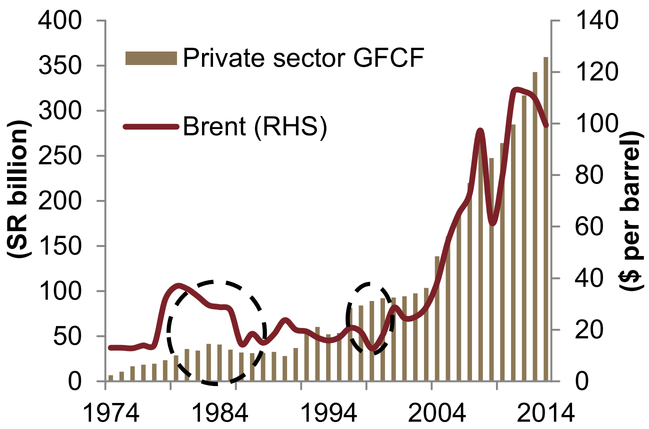


Figure 3: Oil prices and private sector gross fixed capital formation (GFCF)



The second instance was between 1992 to 1994. The decline in oil prices was less severe during this period, dropping from $19 pb to $15 pb. Nevertheless government GFCF dropped from SR45 billion in 1991 to SR23 billion in 1994. In 1995 oil prices recovered slightly, and GFCF rose to SR25 billion. In the third instance, oil prices dropped year-on-year in 1997 and 1998, which saw government GFCF drop in both 1997 and 1999, recovering immediately after.

In the current period of lower oil prices, the reduction in expenditure will not be as extreme as in the 1980s and 1990s…

Since H2 2014 Saudi Arabia is in the midst another period of sustained lower oil prices. In 2014, oil prices averaged $99 pb and we forecast that Brent will average $61 pb in 2015, recovering slightly to $68 pb in 2016. Government GFCF peaked at record levels in 2014 at SR264 billion. Going forward, we forecast that government GFCF will decline, but not dramatically.

...primarily due to large foreign reserves of SR 2.6 trillion ($683 billion) held by SAMA, as the end of April 2015.

In the current period of lower oil prices, the reduction in government GFCF will not be as extreme as in the 1980s and 1990s. The main reason for this is the large foreign reserves of SR 2.6 trillion ($683 billion) held by SAMA, as of end of April 2015, which should provide a sufficient financial cushion for the government to sustain an elevated level of spending during 2015 and beyond. Furthermore, there is plenty of room for the government to raise debt given its strong credit ratings and record low debt levels. In fact we see the government shifting its financing strategy from using only foreign reserves to a combination of foreign reserves and debt to finance its fiscal deficit in 2015. Accordingly, we forecast public debt increasing to 9.6 percent of GDP by the end of this year, compared to 1.6 percent at the end of 2014.

Private sector transmission

As oil prices remain high (or low) beyond the short term, business leaders begin to form opinions on future investment decisions.

Movement in oil prices influences the stock market through the private sector. In the short term a rise or fall in oil prices has an immediate effect on business confidence. As oil prices remain high (or low) beyond the short-term, business leaders begin to form opinions on future investment decisions. Over the medium term these investment decisions are implemented and ultimately have an impact on private sector growth. The higher or lower anticipated growth of listed companies translates into a better or worse performance on the TASI.

Looking over the same periods in which oil prices fall, there is a more varied adjustment in private sector GFCF.

Looking over the same periods in which oil prices declined, as mentioned above (1981-1986, 1992-1994 and 1997-1999), there is a more varied adjustment to private sector GFCF. It seems that, whereas government GFCF usually adjusts to lower or higher oil prices within one to two years, private investment decisions are more lagged. Since private sector GFCF adjustment to oil prices is varied, the impact of the private sector transmission on the stock market will be less immediate.

Whereas government capital expenditure usually adjusts to lower or higher oil prices within one to two years, private investment decisions are more lagged.

During the slump in oil prices between 1981-1986, private sector GFCF declined in each of the years, except 1983, and recovered, with a 1.9 percent increase, year-on-year, only in 1988. As oil prices dropped in each of the years between 1991 and 1994, GCFC declined in only 1994. During the price decline of 1997 and 1998, no cuts in GFCF were made (Figure 3). There is one exception where an immediate drop in oil prices has had an instant impact on GFCF. This was seen in 2009, but due to the global nature of the events unfolding then and the major fluctuations in oil prices during that year the reason for a immediate cut in GFCF is apparent.

Looking at data on net-income of listed companies and oil prices, the relationship is not so apparent.

Looking at data on net-income of listed companies and oil prices, the relationship is not so apparent, although this is based on a shorter span of data going back to 2005. From 2006 to 2008 we saw a year-on-year rise in Brent prices, but average net-income per company dropped in each of the three years. In 2009 the fallout from the global financial crisis affected oil prices and profitability, both of which were down, year-on-year. In 2010 and 2011 oil prices increased, year-on-year, and so did average profitability. In 2012, oil prices were virtually flat, year-on-year, but profits were down slightly. Since 2012, we have seen a year-on-year decline in oil prices but rises in average profitability of listed companies (Figure 4).

The analysis is somewhat hampered by the number of companies being added to the Tadawul since 2006.

Although there seems to be no clear relationship between oil prices and net-income of listed companies, the analysis is somewhat hampered by the number of companies being added to the Tadawul since 2006. There have some large IPOs during this period but also a number of smaller companies have also been included, especially so from sectors such as insurance and media, which has partially distorted average net-income over the period in question.

Correlation analysis

The correlation of the TASI to oil prices over this period is equal to 0.355, which is not very strong given the dependence of the economy on oil, in general.

As noted above, movements in the price of oil will influence investment by both the public and private sector, which will in turn affect the stock market. However, in order determine a more precise nature of relationship between the oil price and the TASI we mapped the correlation of sector share prices with Brent crude oil prices using daily data over the past eight years (Table 1). The correlation of the TASI to oil prices over this period is equal to 0.355, which is not very strong given the dependence of the economy on oil, in general.

There has been a clear divergence between the TASI and oil prices for much of the recent past.

There has been a clear divergence between the TASI and oil prices for much of the recent past, with correlation following a progressively downward trend. In the two years between March 2007 to March 2009 correlation was at 0.811, but decreased to equal 0.355 in the eight years between March 2007 to March 2015 (Figure 5). Correlation between oil prices and the TASI was the highest during

Figure 4: Year-on-year change in average net-income and Brent prices

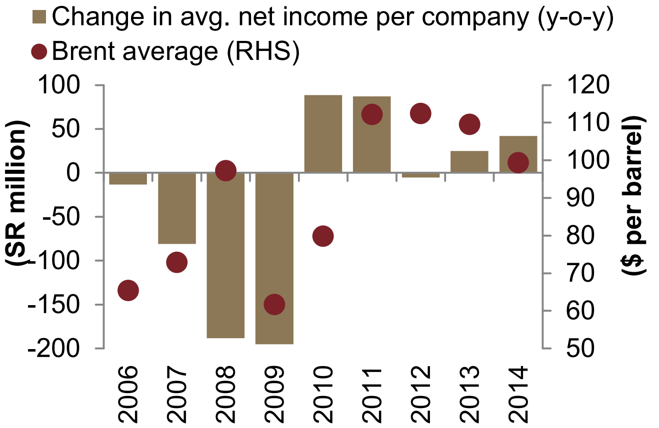
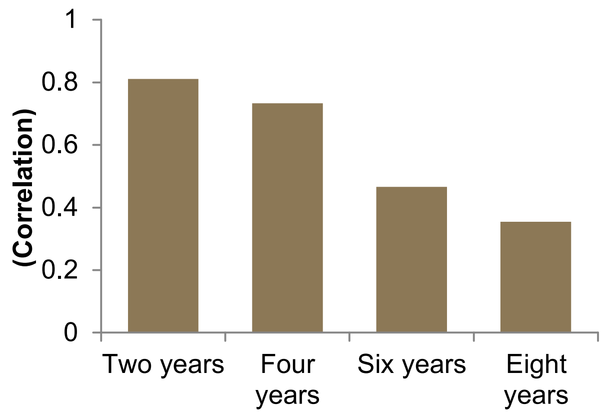


Figure 5: TASI's declining correlation with oil prices since 2007



The period between March 2013 to March 2015 shows negative correlation…

...although it becomes increasingly positive from September 2014.

March 2007 to March 2009 and March 2009 to March 2011, but lower in the two years from March 2011 and March 2013. In fact, the period between March 2013 to March 2015 shows negative correlation (Figure 6), although it becomes increasingly positive from September 2014, as oil prices begin to decline rapidly.

Table 1: Oil prices and stock market correlation by sector

Sector	Correlation
Petrochemicals	0.672
Industrial Investment	0.499
Cement	0.435
TASI	**0.355**
Utilities	0.348
Telecoms	0.270
Agriculture & Food	0.201
Retail	0.199
Transport	0.168
Hotel & Tourism	0.140
Insurance	0.098
Banks	0.080
Media & Publishing	0.074
Multi-Investment	0.058
Building & Construction	0.038
Real Estate	0.026

We see this divergence between oil and the TASI as a result of...

...i) the government's push to diversify the economy...

...ii) less volatile oil prices in more recent years…

...iii) a build up for large foreign reserves and low debt levels over the last decade.

We see this divergence between oil and the TASI as a result of three factors. Firstly, the continued efforts by the government to push through policies to diversify the economy. As these efforts have taken effect, the correlation between the movement of oil prices and the stock market has decreased. Secondly, the divergence can be attributed to generally higher and less volatile prices in more recent years compared to earlier years. Lastly, the build up of large foreign reserves and low debt levels over the last decade has contributed to minimizing correlation. As the Saudi government has amassed reserves to the tune of around $700 billion, this has provided a financial cushion against volatility in oil prices.

Oil prices, petrochemicals and the TASI

Although none of the listed companies are involved in any direct oil business, which is the reserve of Saudi Aramco, there are some

Figure 6: Correlation between TASI and Brent oil prices over two year periods

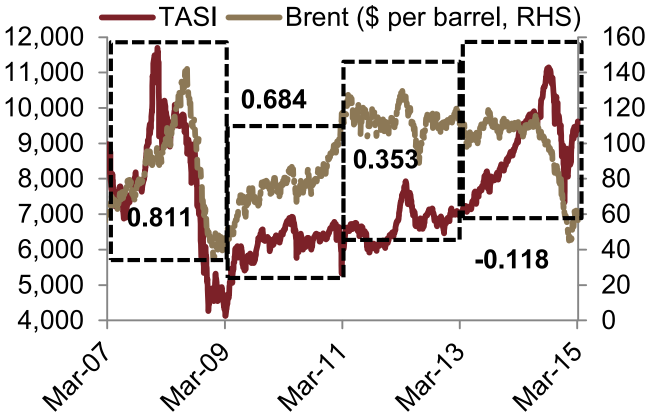
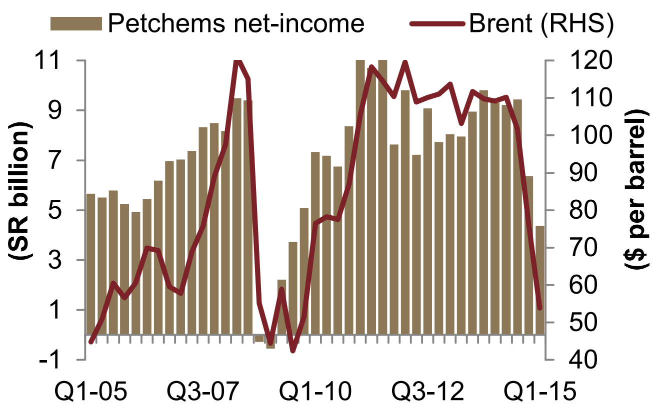


Figure 7: Quarterly petchem net-income and Brent prices



The petrochemical sector's performance is more aligned with short term fluctuations in oil prices.

sectors whose performance is likely to be more closely aligned with short-term fluctuations in oil prices. The petrochemical (petchem) sector is perhaps the most obvious example of this, since changes in the price of oil affect the sector's ability to maintain global competitiveness.

Changes in the price of oil tend to have an immediate impact on the net -income of the Saudi petchem sector.

Quarterly net-income in the petchem sector is closely aligned to the price of oil.

The competitive advantage of Saudi-based petchem companies is due to the usage of natural-gas-derived ethane as feedstock, with the price of natural gas in Saudi Arabia fixed below prevailing international prices. European and Asian petchem companies generally use naphtha, a product of crude oil refinement, as feedstock. Since naphtha is derived from crude oil, the price of the former is determined by the latter. A downward trend in international oil prices results in a reduction in related costs for Asian and European petchem companies, making Saudi ethane-based products comparatively less advantaged. As a result of this, changes in the price of oil tend to have an immediate impact on the net-income of the Saudi petchem sector. Quarterly net-income in the petchem sector is closely aligned to the price of oil (Figure 7). Any changes in the oil price lead to both sentimental and real effects on the performance of Saudi petchem stocks (Figure 8) which is why there is a higher correlation to oil than in other sectors .

Furthermore, the larger weighting of the petchem sector, in terms of market capitalization and net-income, versus all other sectors in the TASI means that any change in petchem stocks will be felt more prominently within the Saudi Stock Exchange as a whole (Figure 9).

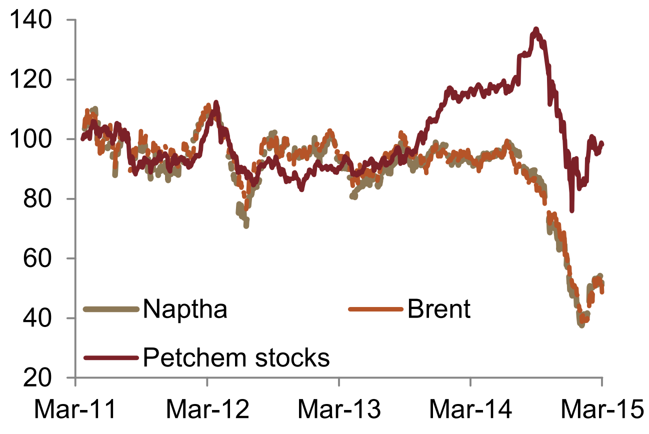
Saudi Aramco and the TASI

Currently, none of the companies listed on the stock market have direct access to the oil industry, which is dominated by Saudi Aramco.

In the last five years, Saudi Aramco has invested heavily in developing infrastructure, especially in the downstream sector.

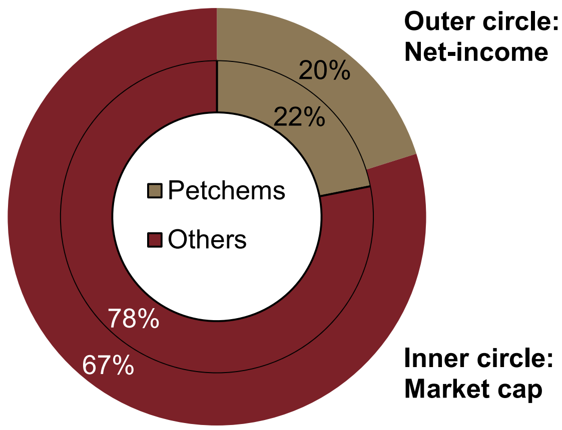
In May 2015, the Kingdom's Council for Economic and Development Affairs approved restructuring plans for Saudi Aramco, outlining the company's separation from the Ministry of Petroleum and Mineral Resources (MoPM). Currently, none of the companies listed on the stock market have direct access to the oil industry, which is dominated by Saudi Aramco. Many companies that supply Aramco directly, or whose work is heavily influenced by Aramco projects, fall into the following sectors: petrochemicals, industrial investment, cement and building and construction. Three out of these four sectors also exhibit higher correlation to oil prices (Table 1).

Figure 8: Naphtha and Brent and petchem stocks*



*Note: rebased to 100 at 30 March 2011.

Figure 9: Net-income and market capitalization petchem weighting vs rest of TASI (Q1 2015)



In 2014, around 86 percent of total procurement spending was allocated to local companies.

In the last five years, Saudi Aramco has invested heavily in developing infrastructure, especially in the downstream sector, including investing in three new refineries. According to Saudi Aramco's Annual Review 2014, between 2010 to 2014 a total of $143 billion was spent on procuring services and materials from local companies (Figure 10). This is also the period in which the TASI exhibited some of its lowest correlations with oil prices. In 2014 around 86 percent of total procurement spending was allocated to local companies, with some sectors in the Tadawul benefiting the most. In the same publication, however, Saudi Aramco has highlighted that it will continue investing significantly over the next decade, but with a greater emphasis on upstream activities.

Over the next decade, Aramco will put greater emphasis on upstream activities…

...but since none of the current companies on the Tadawul are directly involved in any upstream activity…

..this will result in limited additional revenue for listed companies.

We view Saudi Aramco's restructuring as a step towards making it a more commercially-driven organization with increased independence in financial matters. As a result, we see Saudi Aramco becoming more sensitive to movements in international oil prices, with prolonged periods of lower oil prices, as forecasted, affecting spending more sharply, much like other international oil companies (IOCs). Also, since none of the current listed companies on the Tadawul are directly involved in any upstream activity or have much upstream experience, the proportion of expenditure to procure local services for such activity is also likely to be limited. We therefore see the proposed restructuring of Saudi Aramco and the movement towards a focus on upstream investment resulting in limited additional revenue for listed companies, in general, and increasing their overall correlation to oil prices, as a result.

Oil prices, geopolitics and foreign investors

Oil prices and regional geopolitical developments have tended to affect foreign investor sentiment.

With such a strong sentimental link between oil prices and stock market performance, there are obvious implications, perhaps in faster and sharper movements in the TASI, once it is open to foreign investors. More specifically, a key question is how foreign investors' sentiments are likely to react to oil market movements that are dictated by regional geopolitical developments.

In the last five years regional geopolitical developments, and their impact on oil prices, have been the major determinant of foreign investor sentiment. Looking at historical trends we see that in times of either regional instability (during 2011) or sharp oil price declines,

Figure 10: Value of Saudi Aramco's procurement from local companies

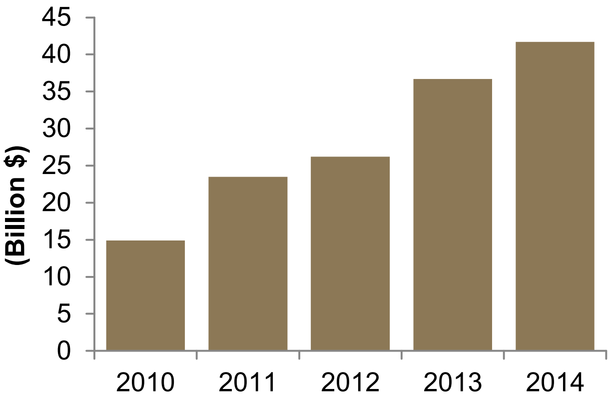
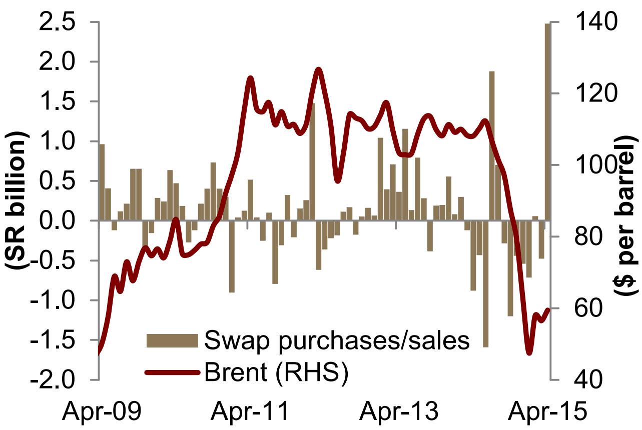


Figure 11: Oil prices and SWAPs



Investors have been provided ample evidence to differentiate Saudi Arabia's outlook from other troubled regional economies.

(in April 2010, March 2012, the second half of 2014 and early 2015), there has been a net sell-off in SWAP arrangements. But when both the price of oil and geopolitical developments stabilized, (in November 2009 to November 2010 and November 2012 to January 2014), SWAP arrangement purchases have increased (Figure 11). This shows that, despite short-term sentimental reactions to oil prices and regional tensions, foreign investors will continue investing in the Kingdom, over the longer term. This is due to the centrality of Saudi Arabia to global energy markets, and the global economy. Indeed, global investors have been provided with ample evidence, through continued stability and sustained economic growth, to be able to differentiate Saudi Arabia's outlook from other troubled regional economies. Indeed, Saudi Arabia's willingness and ability to honor its spending commitments, through massive foreign reserves and debt issuance, in order to deliver economic growth, has become apparent.