مصرف الإمارات العربية المتحدة المركزي

CENTRAL BANK OF THE U.A.E.

Oil Price Fluctuations and the Economies of the GCC

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United Arab Emirates

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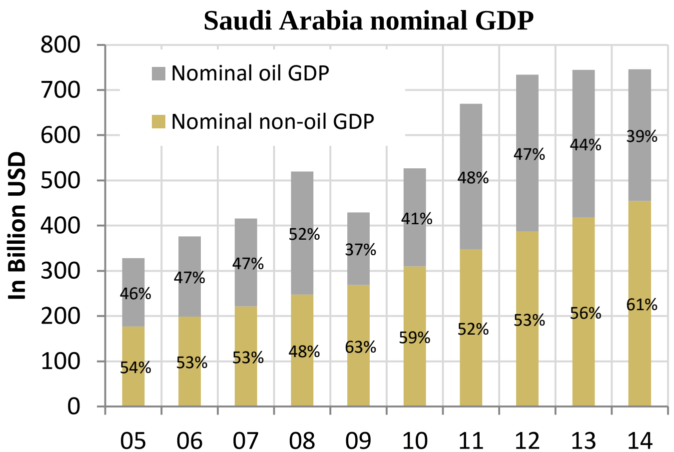
1. *GDP in the GCC countries and the oil price cycle*

Non-oil GDP as a share of total GDP

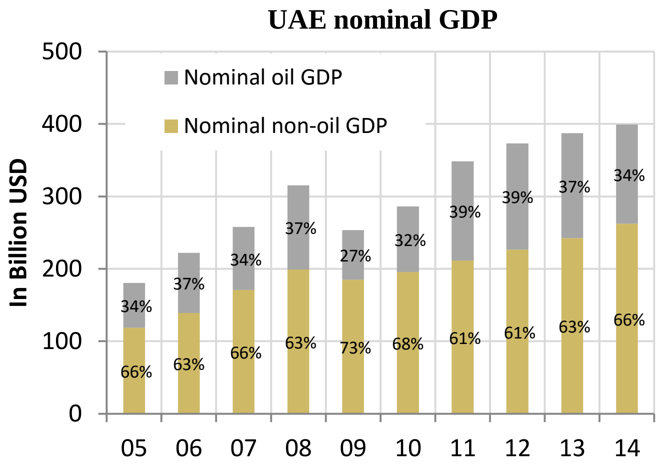
- *For the three biggest economies in the GCC, a strong diversification has been observed in the last decade with exception of the UAE, where the economy has been already well diversified since 2005*

- *Qatar and Saudi Arabia have increased the share of the non-oil sector by almost 10% of GDP*

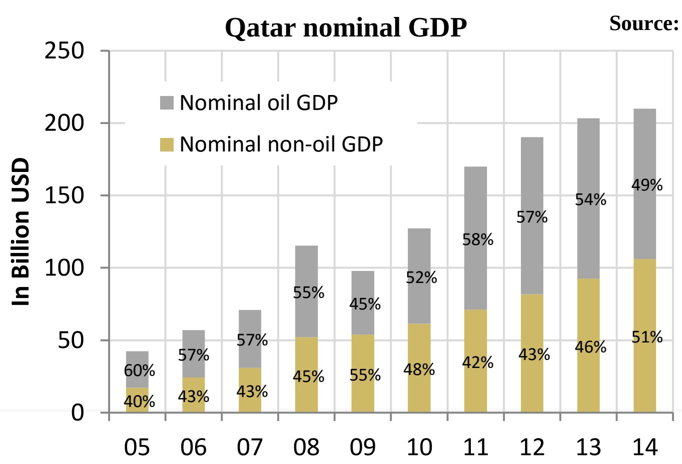
GCC nominal GDP (oil and non oil sectors)



Source: Central Department of Statistics & Information of Saudi Arabia



Source: Federal Competitiveness and Statistics Authority of the UAE



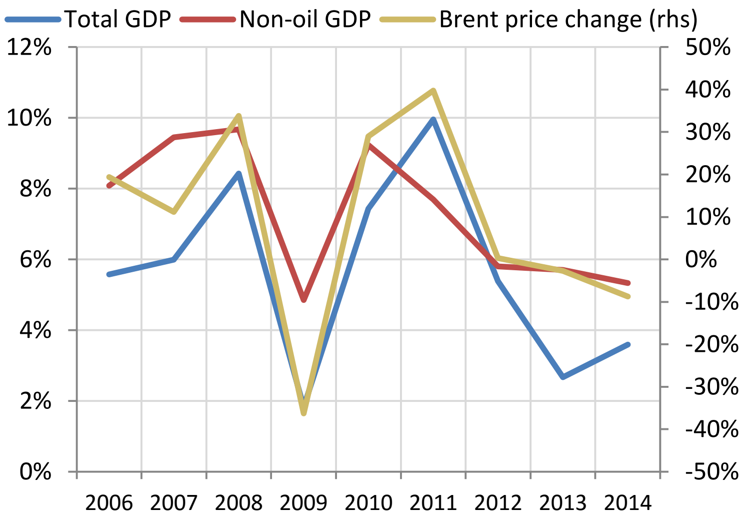
Source: IMF Article 4

Real growth and the oil price cycle

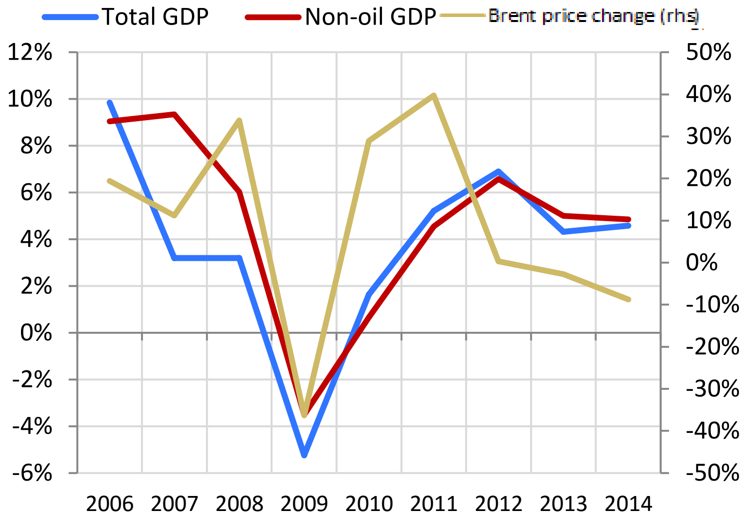
- *GDP growth in Saudi Arabia is very pro-cyclical with the oil price (more than 80% correlation)*
- *UAE shows lesser correlation (~50%) with the oil price, due to more diversification of the economy*

Real GDP growth: Saudi Arabia & UAE

Saudi Arabia
(Y-o-Y percentage change)



UAE
(Y-o-Y percentage change)



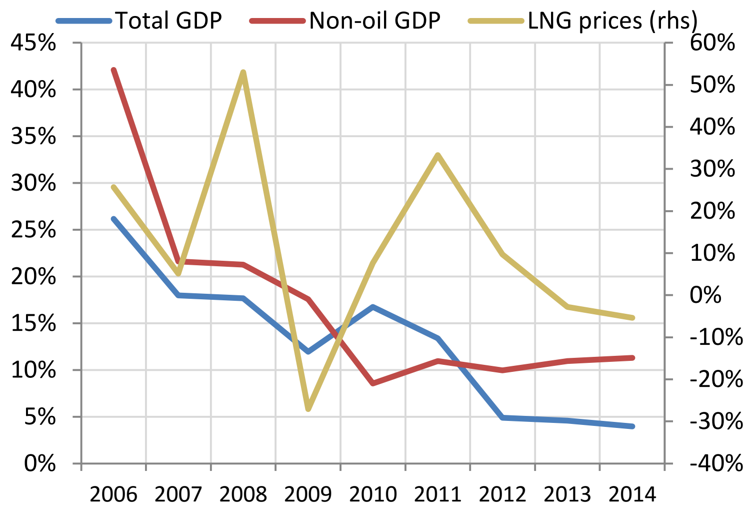
Source: EIA, GCC National Statistical Authorities, IMF

Real growth and the oil price cycle (continued)

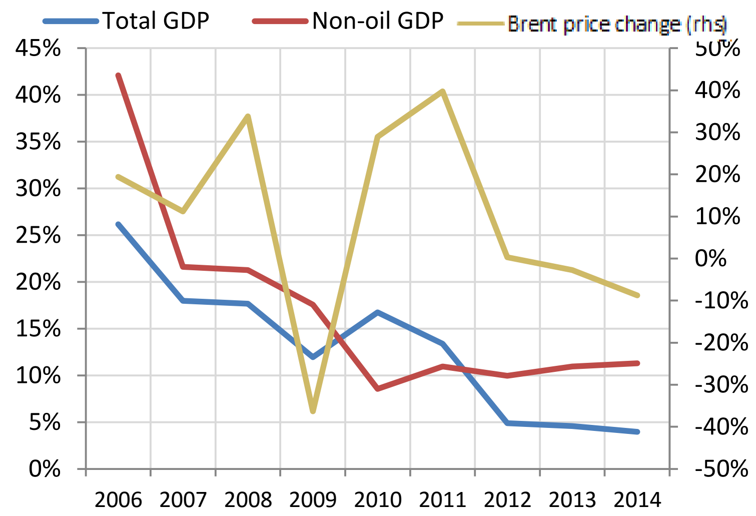
- *Qatar total GDP fluctuates to a lesser extent with the oil cycle (less than 50% correlation); non-oil GDP seems almost independent of the oil cycle (11% correlation) due to the heavy gas dependence of the country (gas prices are mainly long term contracts, the correlation with total GDP growth is of 65% and with non-oil GDP growth is 40%)*

Real GDP growth: Qatar

Qatar
(Y-o-Y percentage change)



Qatar
(Y-o-Y percentage change)



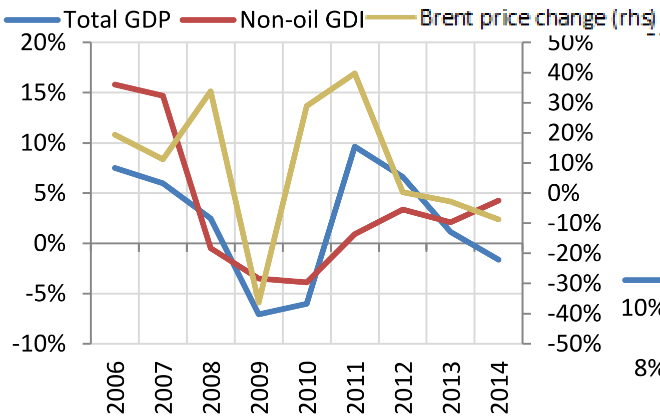
Source: EIA, BP, GCC National Statistical Authorities, IMF

Real growth and the oil price cycle (continued)

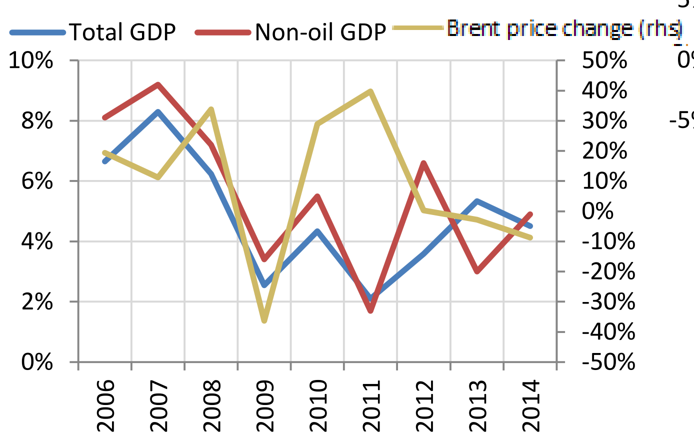
- *Kuwait's total GDP growth is well correlated with the oil price (~50%), reflecting 60% of GDP is constituted by hydrocarbons*
- *Oman's non-hydrocarbon sector growth looks more pro-cyclical than total GDP growth (correlation of 57% with oil price)*
- *Bahrain's GDP growth does not depend on the oil price cycle (less than 20% correlation), reflecting the limited share of oil output in the economy*

Real GDP growth: Kuwait, Oman & Bahrain

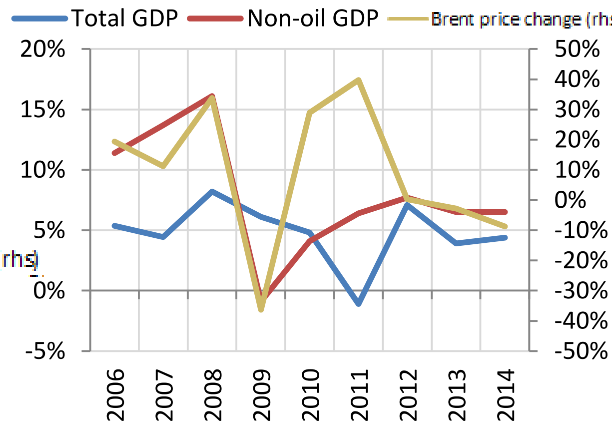
Kuwait



Bahrain



Oman



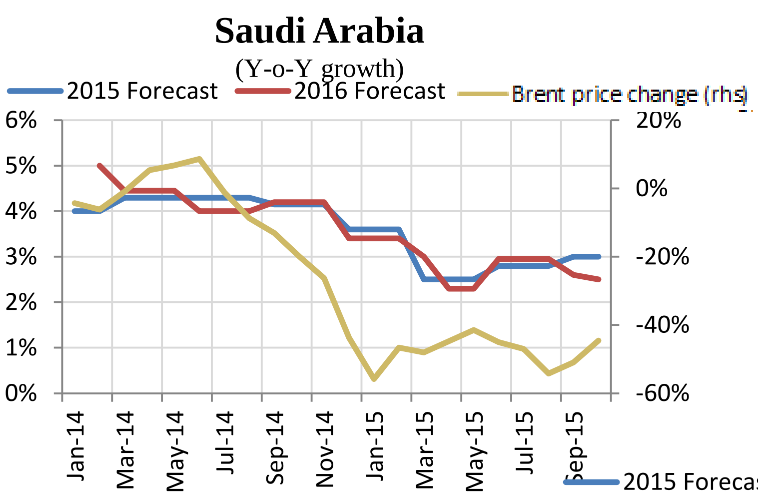
Source: EIA, GCC National Statistical Authorities, IMF

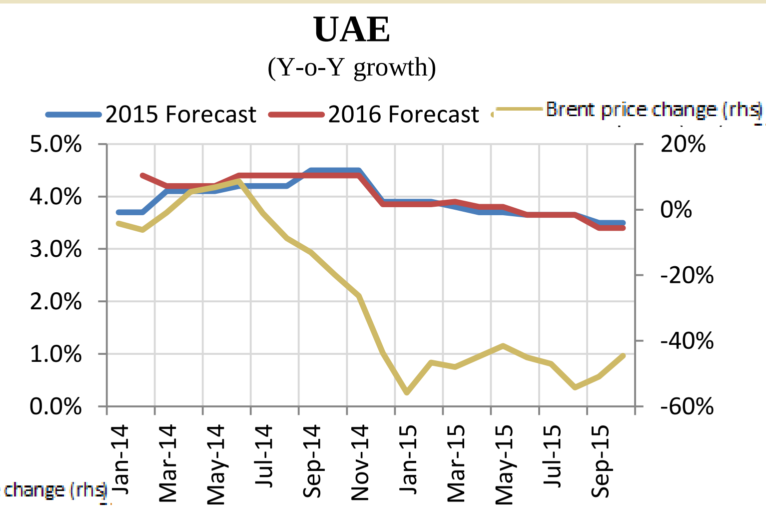
Real Growth Forecast vs. Oil price

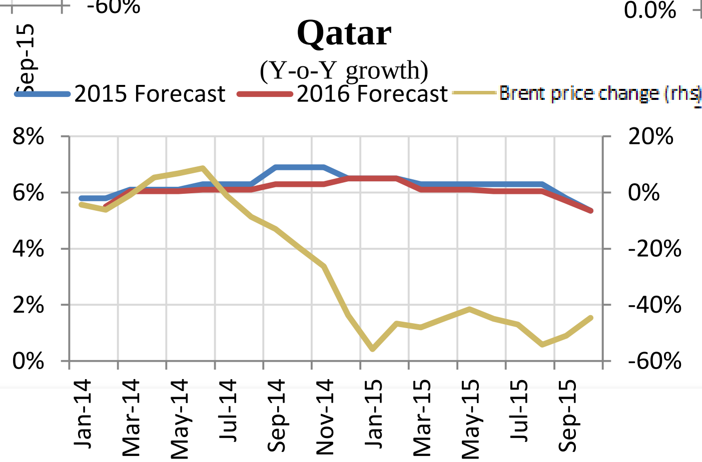
- *Consensus projections for Saudi Arabia and UAE are reacting with 2 lags with a correlation of 93% and 83%, respectively, i.e. analysts are factoring the oil dependence of the two largest GCC economies*

- *For Qatar, the consensus projections are most sensitive with 2 lags, but they are correlated only at 34%, confirming that markets are considering the importance of gas for Qatar*

Real GDP Forecast : Saudi Arabia, UAE & Qatar







Source: EIA, Bloomberg

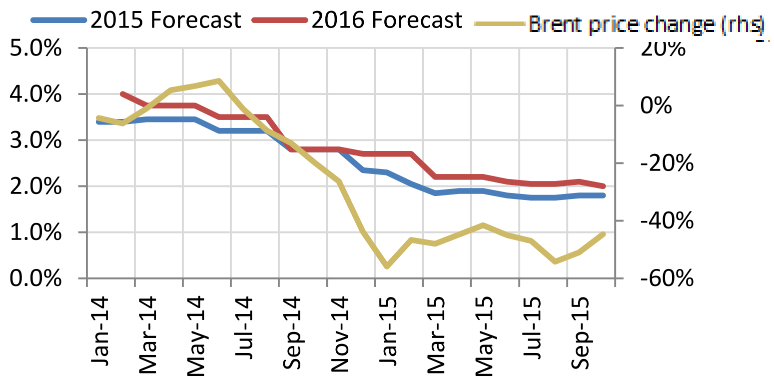
Real Growth Forecast vs. Oil price (continued)

- *Kuwait's GDP growth consensus projections show that analysts' forecasts are mostly reflecting the fluctuation in the oil price with one month lag (95% correlation)*

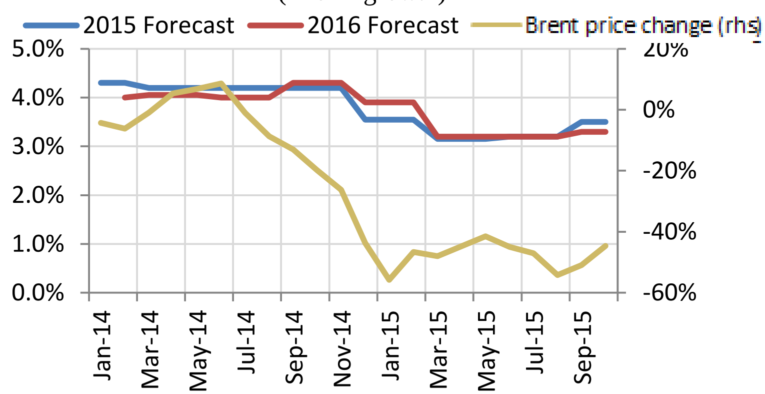
- *Oman and Bahrain reacted significantly on the 3rd month on account of the Brent price changes, which confirms the lesser dependence on hydrocarbon, but they may be indirectly affected by other GCC economies*

Real GDP Forecast : Kuwait, Oman & Bahrain

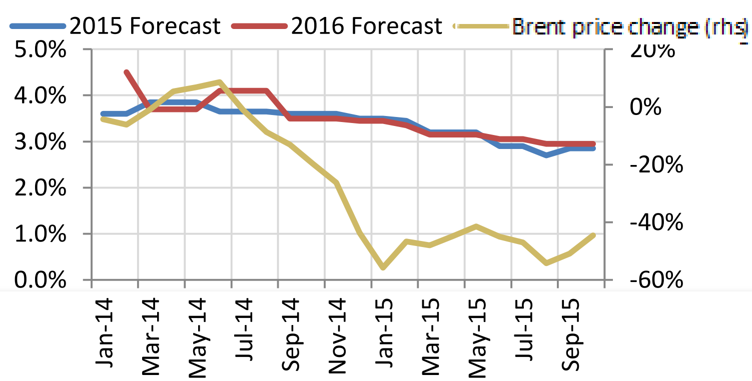
Kuwait
(Y-o-Y growth)



Oman
(Y-o-Y growth)



Bahrain
(Y-o-Y growth)



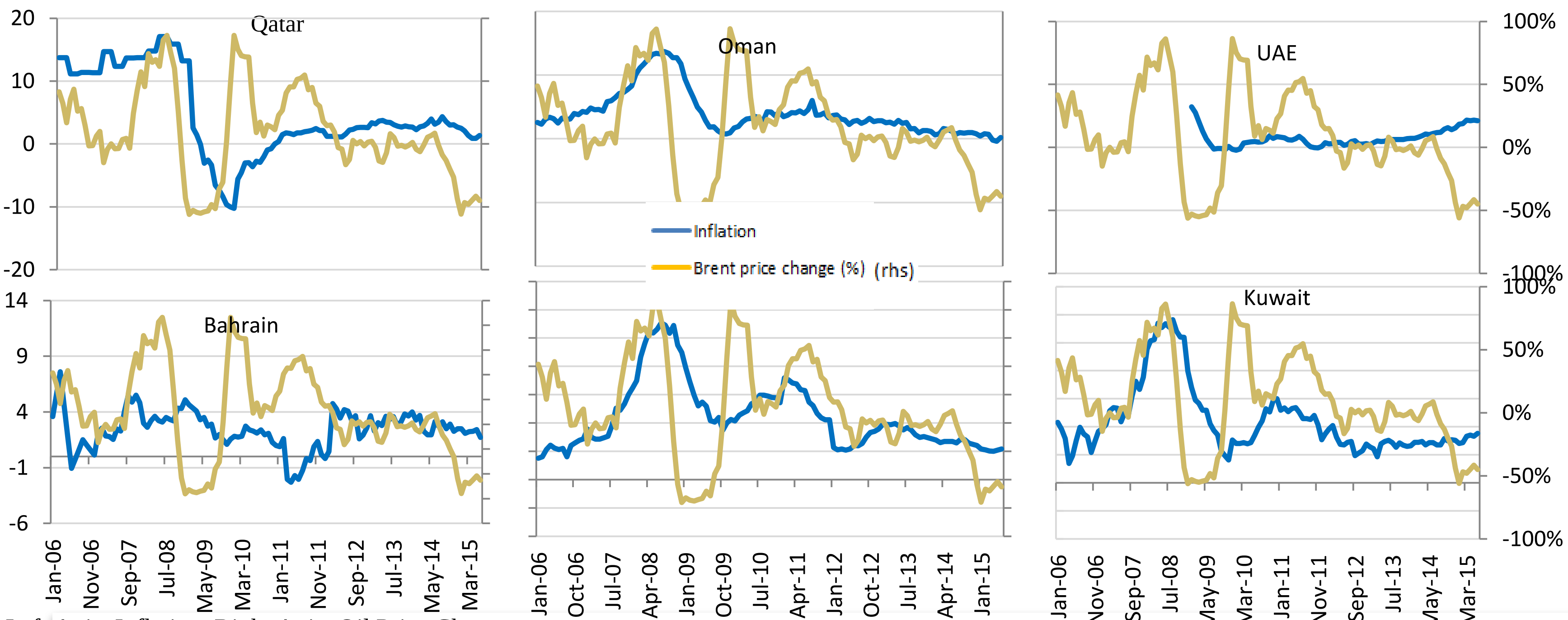
Source: EIA, Bloomberg

2. *Inflation in the GCC countries and the oil price cycle*

Inflation in the GCC countries and the oil price cycle

- ***For the period 2006 – 2009,*** *inflation moves with the oil price cycle (correlation of 70% with monthly data) with exception of Bahrain (correlated only at 12%)*
- ***In the period Jan 2010 to Jun 2014****, characterized with high oil price and recovering economic activity, the relation is not clear between oil price and inflation, with the correlation in Bahrain, Qatar and UAE being negative. For the three other GCC economies the correlation stood at around 50%*
- ***Since July 2014,*** *when oil price started falling and dollar appreciating, inflation in all economies has a very strong correlation with oil price change, with UAE and Kuwait being negative (due mainly to subsidies removal)*

GCC Monthly Inflation (Y-o-Y, %)



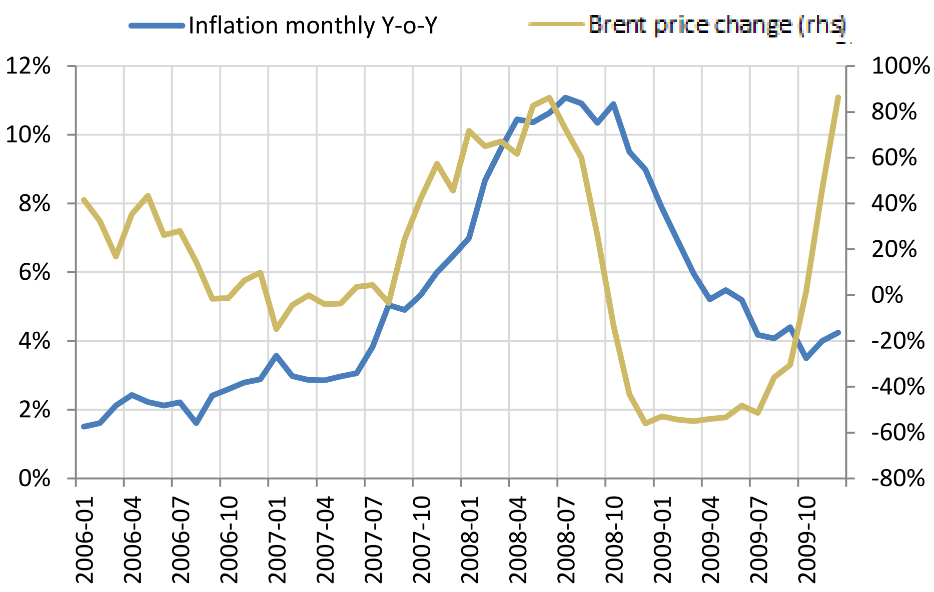
Left Axis: Inflation, Right Axis: Oil Price Change
Source: EIA, GCC National Statistical Authorities, IHS Global Insight

Pre-crisis inflation (2006-09)

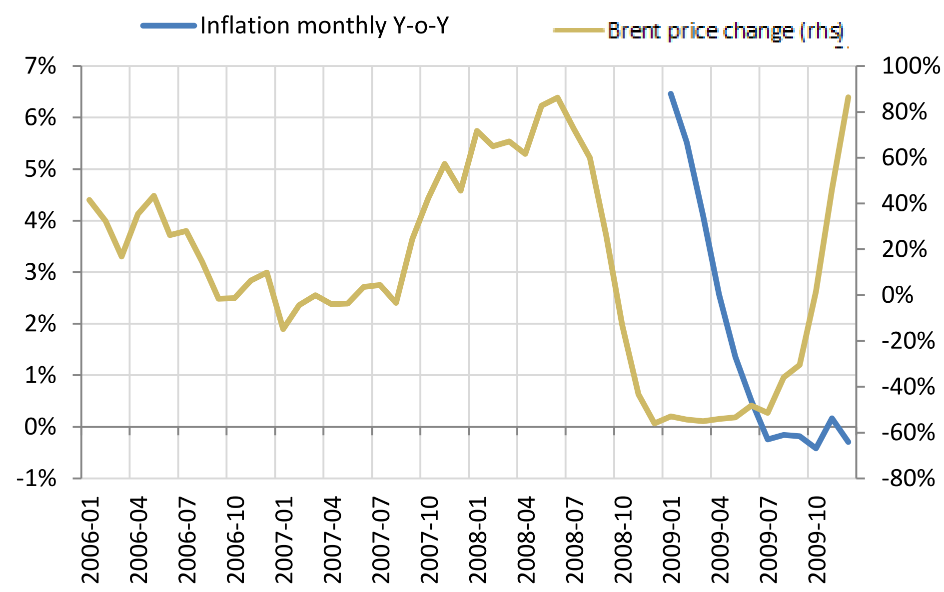
- *During 2006 – 2009, inflation moved with the oil price cycle (correlation of ~70% with monthly data) for Saudi Arabia and the UAE. High oil price is correlated with high government spending and credit growth, reinforced by high food prices and depreciation of the dollar relative to major trading partners*

Monthly Inflation (Y-o-Y, %): Saudi Arabia & UAE

Saudi Arabia



UAE



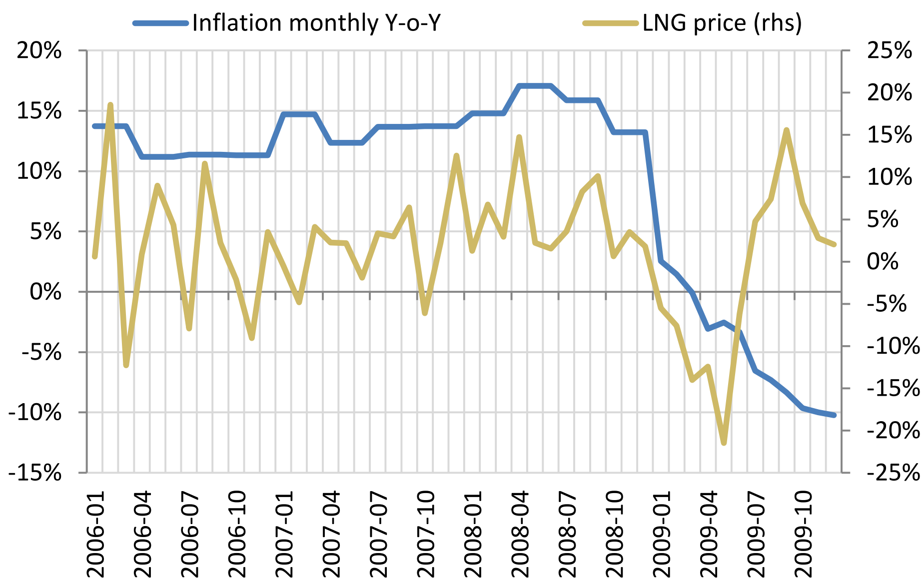
Source: EIA, GCC National Statistical Authorities, IHS Global Insight

Pre-crisis inflation (2006-09) (continued)

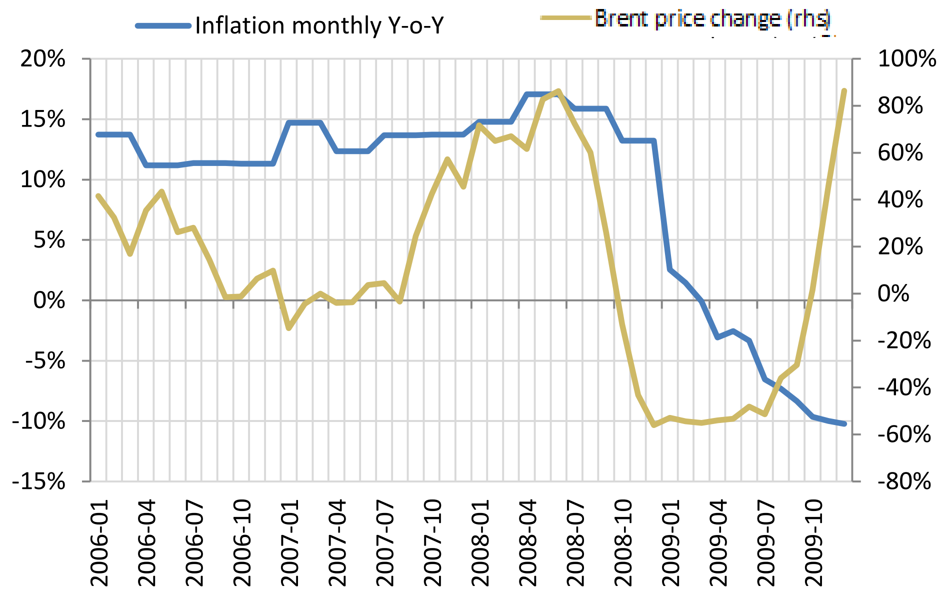
- *In Qatar, the correlation is slightly lower with the oil price (44%), as well with the LNG price (27%). This is the result of more diversified hydrocarbon sector – oil being less important than gas and LNG price being fixed with long term contracts instead of depending on spot price*

Monthly Inflation (Y-o-Y, %): Qatar

LNG in Qatar



Oil in Qatar



Left Axis: Inflation, Right Axis: Oil Price Change/LNG price change
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, BP, Bloomberg

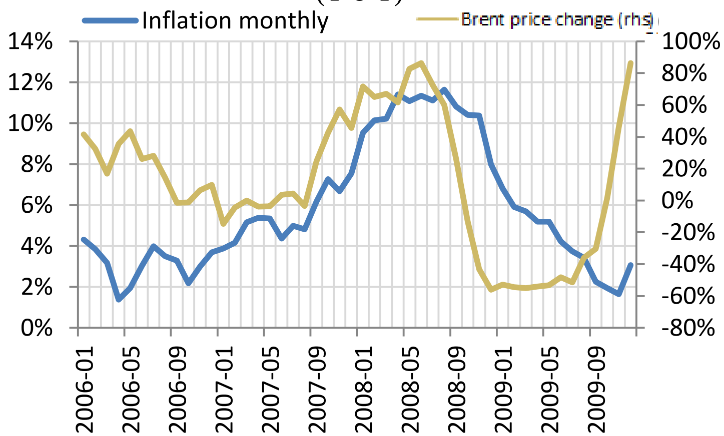
Pre-crisis inflation (2006-09) (continued)

- *The correlations are high in Kuwait and Oman with the oil price (correlation of ~70%). Bahrain is an exception (the correlation is only of 12%) due mainly to the limited oil production*

Monthly Inflation (Y-o-Y, %): Kuwait, Oman & Bahrain

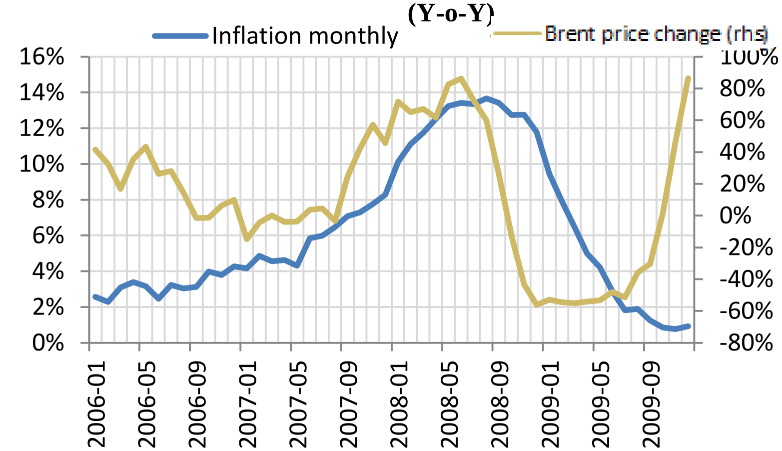
Kuwait

(Y-o-Y)



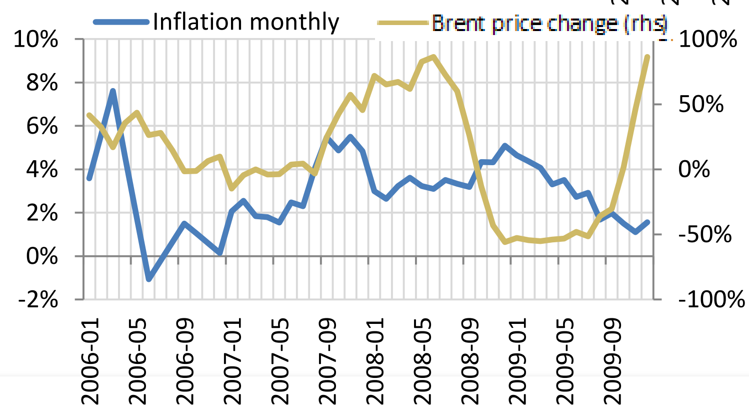
Oman

(Y-o-Y)



Bahrain

(Y-o-Y)



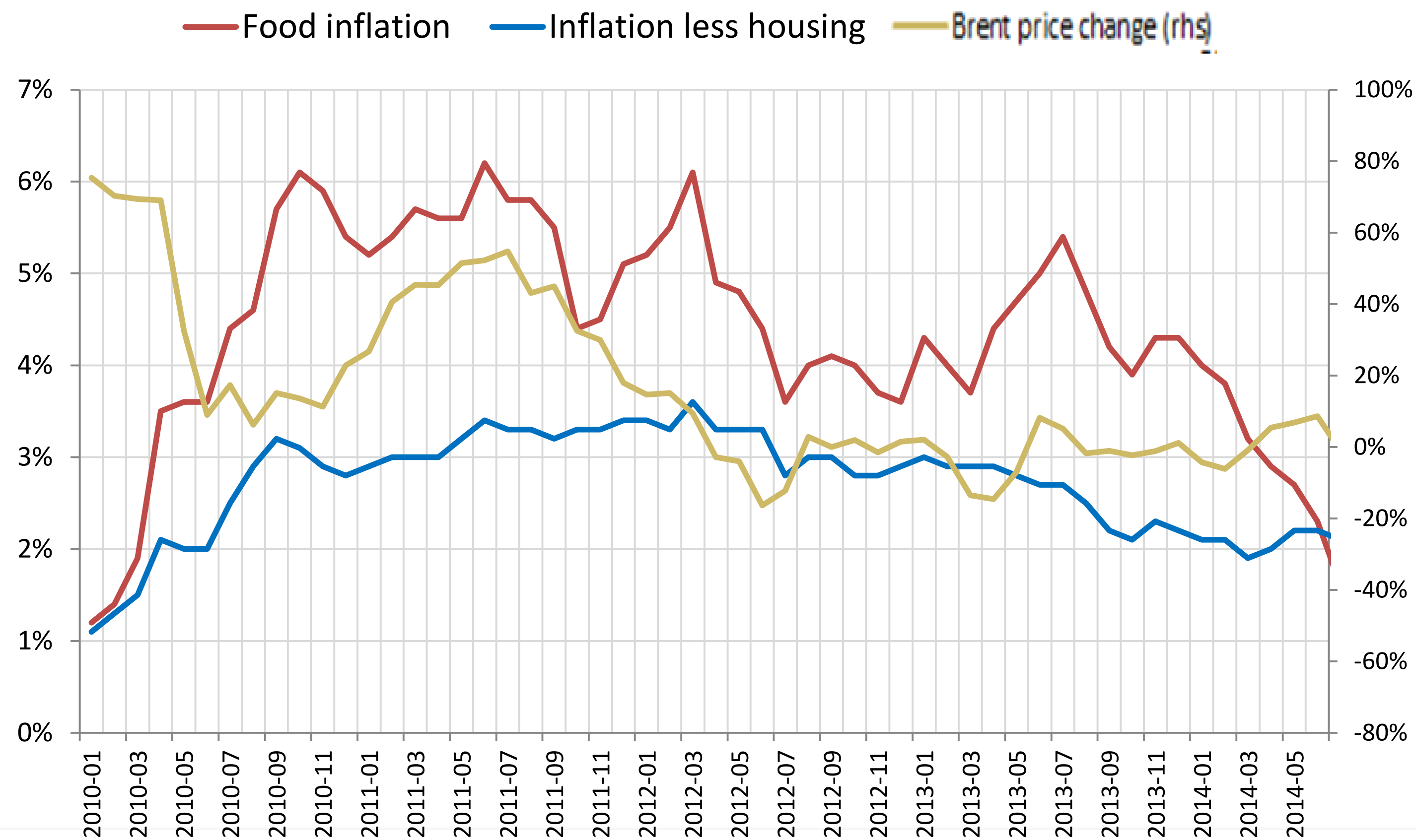
Left Axis: Inflation, Right Axis: Oil Price Change

Source: EIA, GCC National Statistical Authorities, IHS Global Insight

Post-crisis inflation and high oil prices (Jan 2010 - Jun 2014)

- *After the Global Financial Crisis there is no evidence of relationship (correlation of -18%) between the inflation rate and oil price fluctuation in the GCC as a whole, due to the decrease of the food prices combined with the decline in economic activity during the crisis*

GCC Monthly Inflation (Y-o-Y, %)

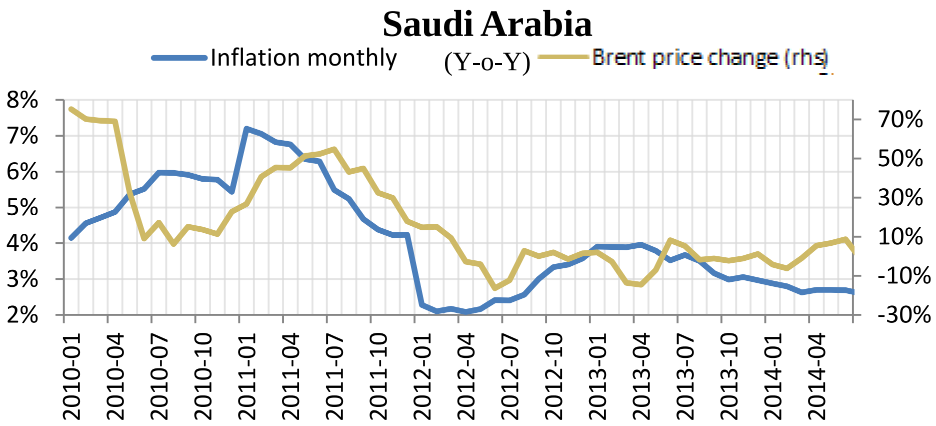


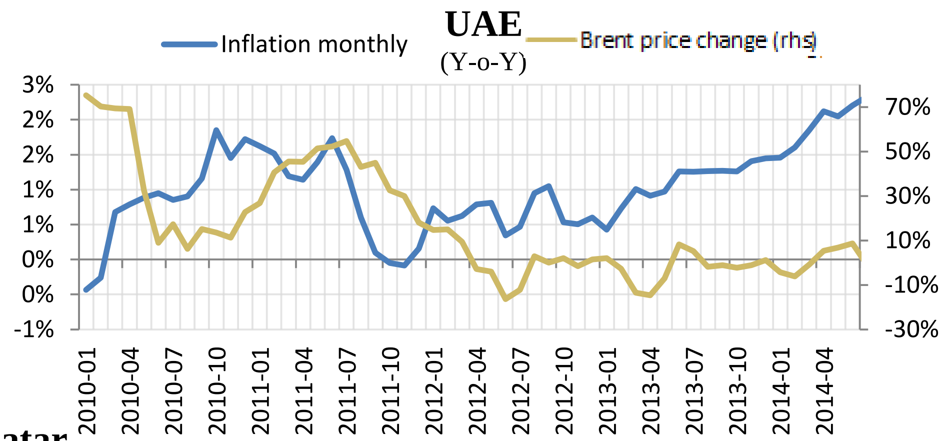
Left Axis: Inflation, Right Axis: Oil Price Change
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, GCCSTAT

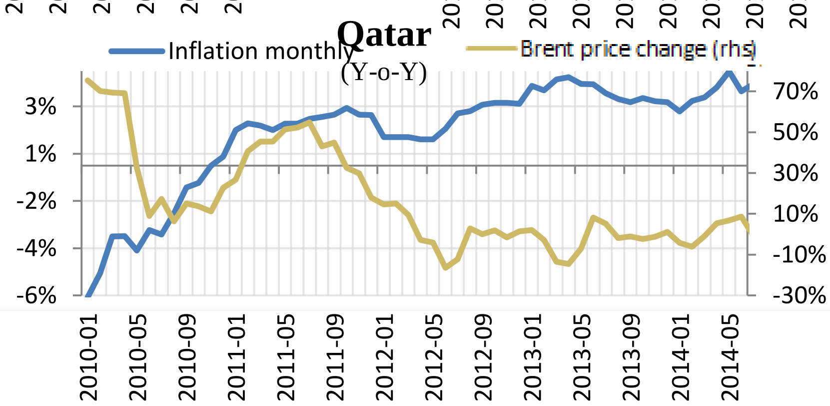
Post-crisis inflation and high oil prices (Jan 2010 - Jun 2014)

- *The oil price change has a different relation for Saudi Arabia, UAE and Qatar*
- *In the UAE and Qatar, inflation is negatively correlated respectively at -25% and -59, suggesting a dominant effect of slow economic activity on inflation*
- *On the other hand, Saudi's inflation is correlated at 59%, meaning that in a period of high oil price, inflation was rising as well in consistency of high share of oil GDP and the dominance of public sector spending*

Monthly Inflation (Y-o-Y, %): Saudi Arabia, UAE and Qatar







Left Axis: Inflation, Right Axis: Oil Price Change
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, GCCSTAT

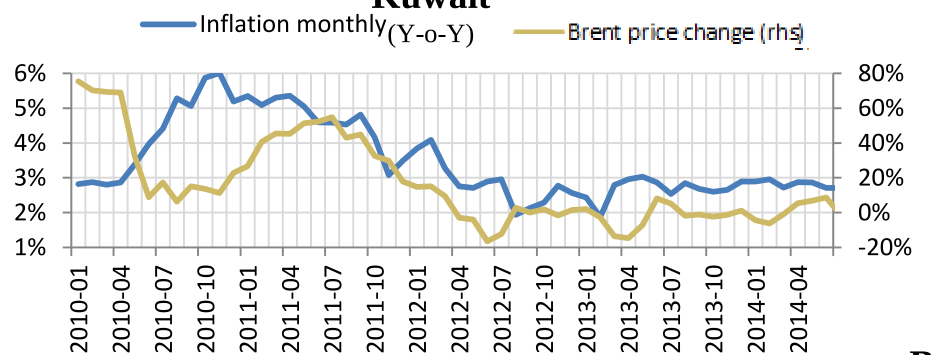
Post-crisis inflation and high oil prices (Jan 2010 - Jun 2014)

- *Similarly to the UAE and Qatar, Bahrain's inflation had a negative correlation with the oil price change of -64%, suggesting a more dominant effect of slow economic activity*

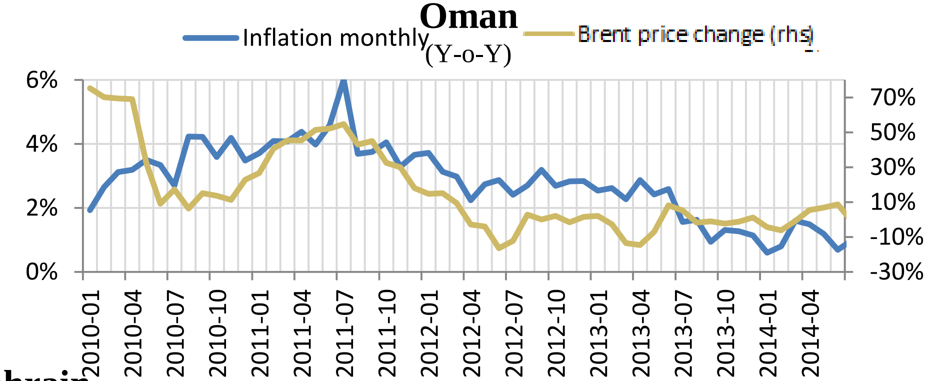
- *Kuwait and Oman, on the other hand, had a positive correlation of respectively 45% and 44%, suggesting a more dominant effect of higher oil price on liquidity and government spending*

Monthly Inflation (Y-o-Y, %): Kuwait, Oman and Bahrain

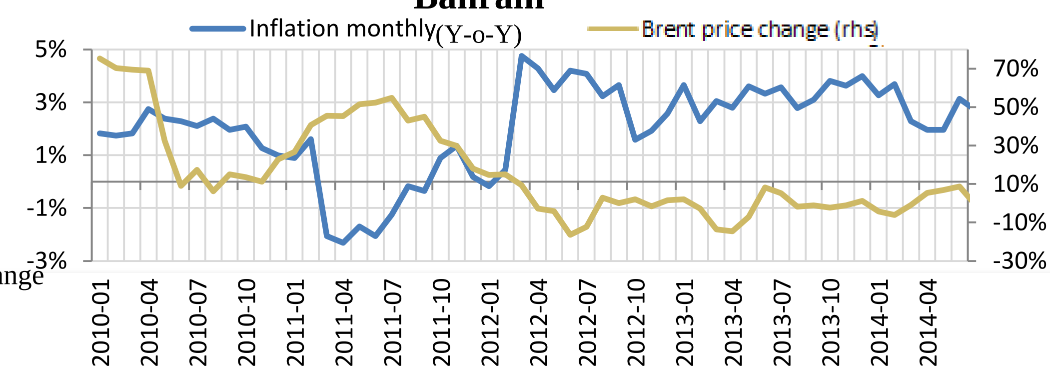
Kuwait



Oman



Bahrain

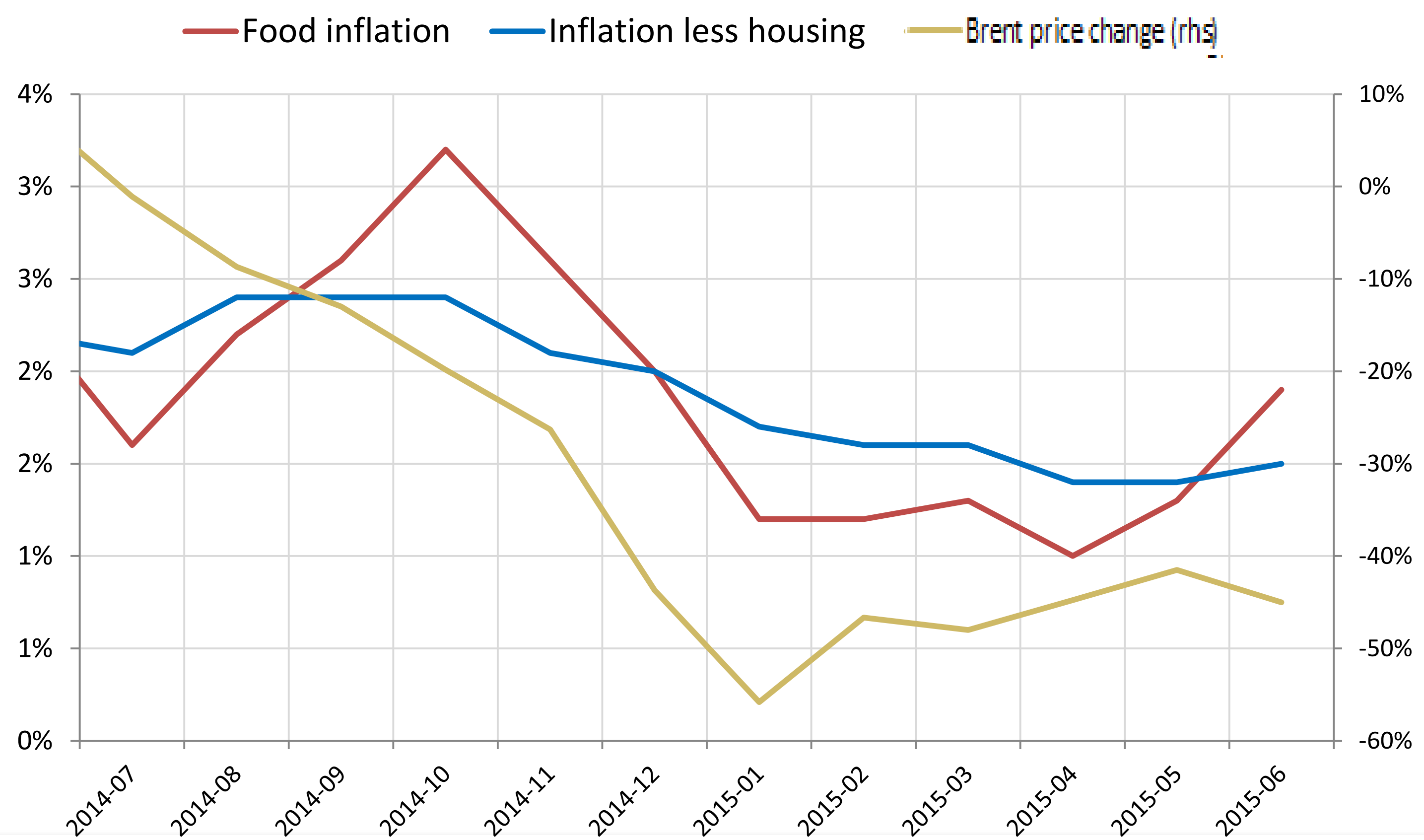


Left Axis: Inflation, Right Axis: Oil Price Change
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, GCCSTAT

Post-crisis inflation and low oil prices (Jul 2014 -present)

- *Since the decline of the oil price in mid-2014, significantly below the USD 100/barrel mark, overall GCC inflation has been moving in line with the oil price change (correlation of 82%)*

GCC Monthly Inflation (Y-o-Y, %)



Left Axis: Inflation, Right Axis: Oil Price Change

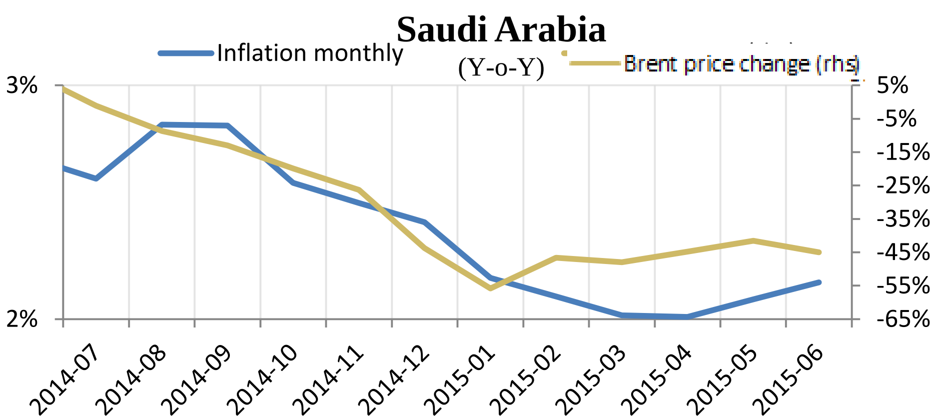
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, GCCSTAT

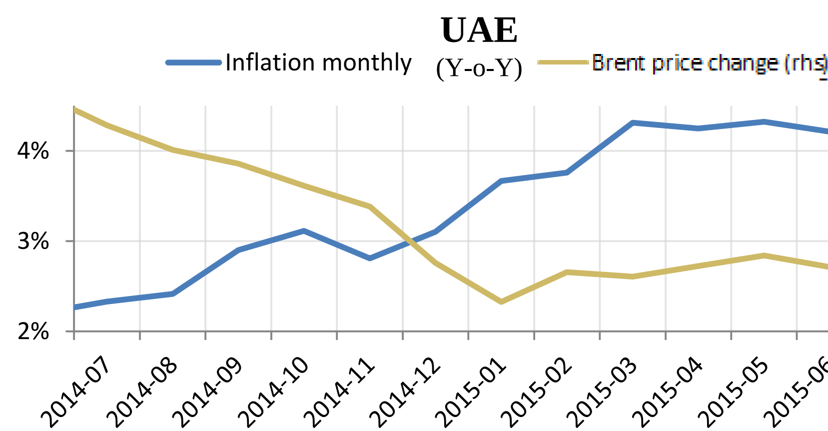
Post-crisis inflation and low oil prices (Jul 2014-present)

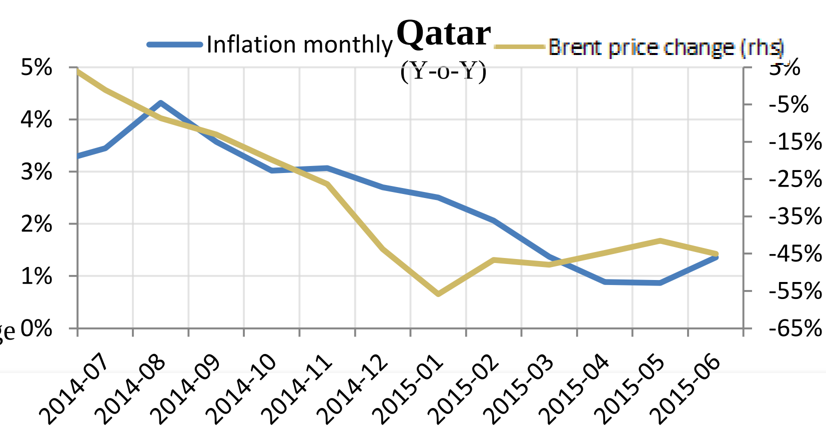
- *In the UAE, inflation has been moving in opposite direction to the oil price change, with a correlation of -84%. This was mainly due to the removal of subsidies and increase in rent prices*

- *For Saudi Arabia and Qatar, the correlations remained positive at 88% and 78% respectively, due to lower government spending and less credit growth in response to lower oil price*

Monthly Inflation (Y-o-Y, %): Saudi Arabia, UAE and Qatar







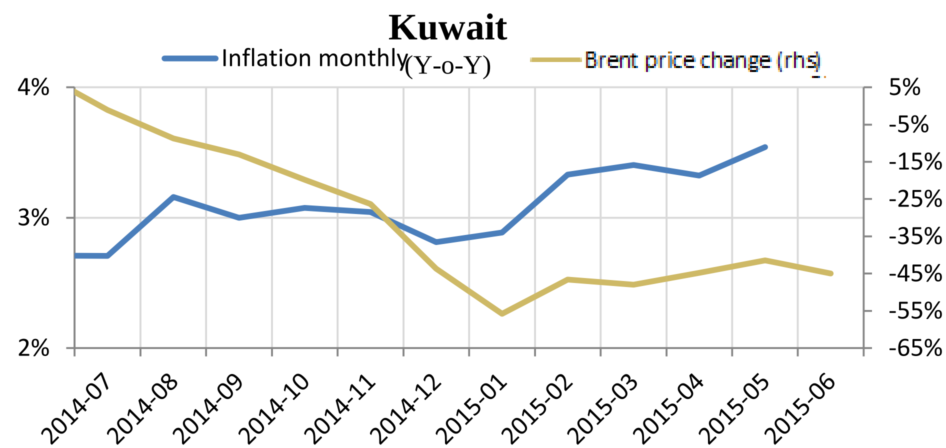
Left Axis: Inflation, Right Axis: Oil Price Change
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, GCCSTAT

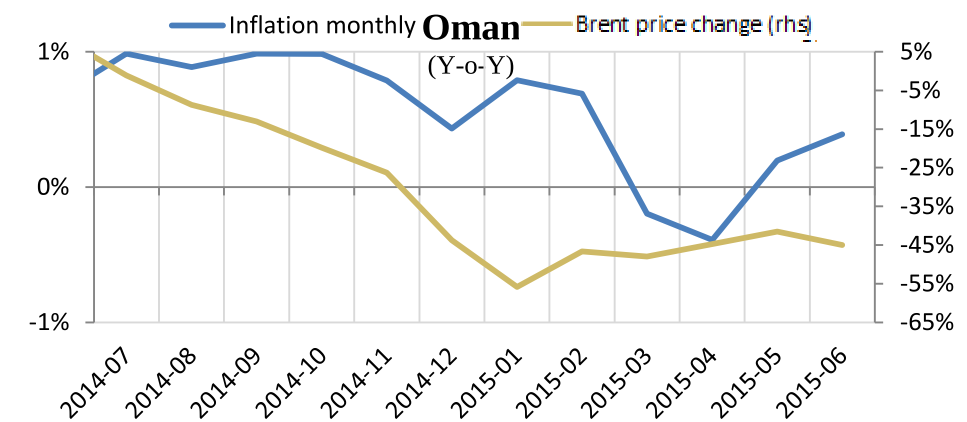
Post-crisis inflation and low oil prices (Jul 2014-present)

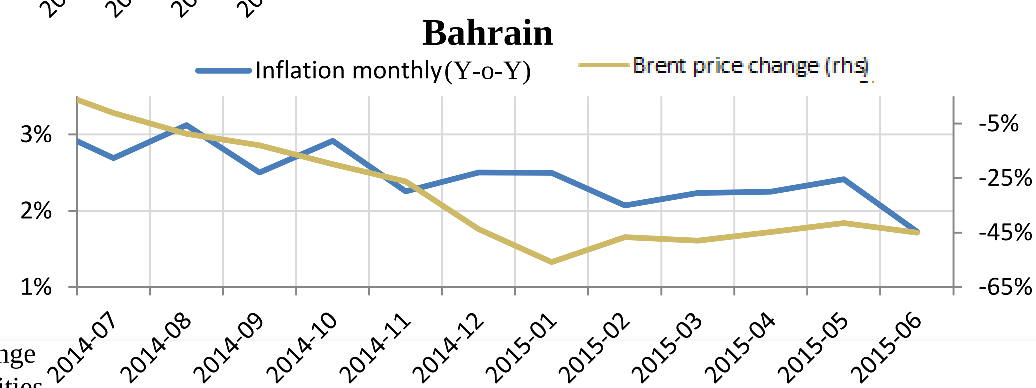
- *For Kuwait, inflation has been moving in the opposite direction to the oil price change with a correlation of -52% due to the subsidy removal effect*

- *Oman's and Bahrain's inflation had a positive correlation with the oil price change of 50% and 60% respectively, suggesting the dominant effect of less government spending and slower credit growth*

Monthly Inflation (Break down)







Left Axis: Inflation, Right Axis: Oil Price Change
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, GCCSTAT

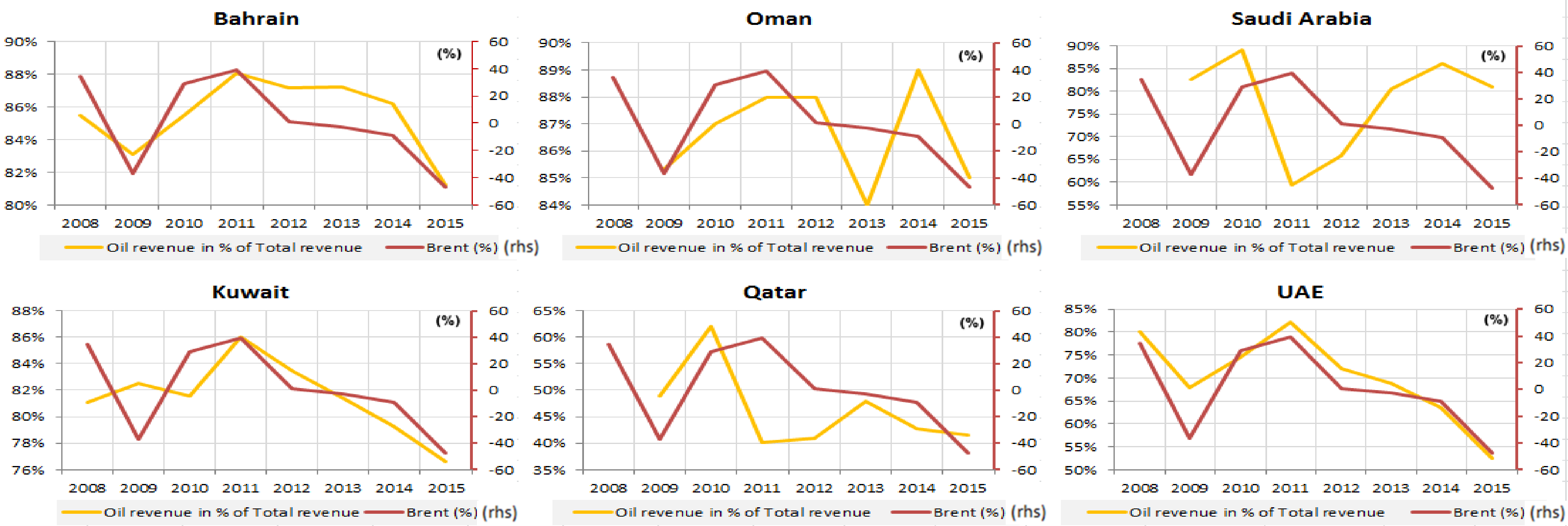
3. *Fiscal balance in the GCC countries and the oil price cycle*

Oil revenues as a share of Total revenues

- *In all GCC countries, there is a decline of the share oil revenues in the total fiscal income, since 2014 and especially in 2015, due to lower oil prices. However, oil revenues continue to be a main source of income for the governments of GCC*

- *For the largest economies in GCC, the decline in 2015 for the oil revenues as a share of total is from 86% to 81% for Saudi Arabia, and from 64% to 53% for the UAE*

GCC Oil revenue (% of total Fiscal revenue)

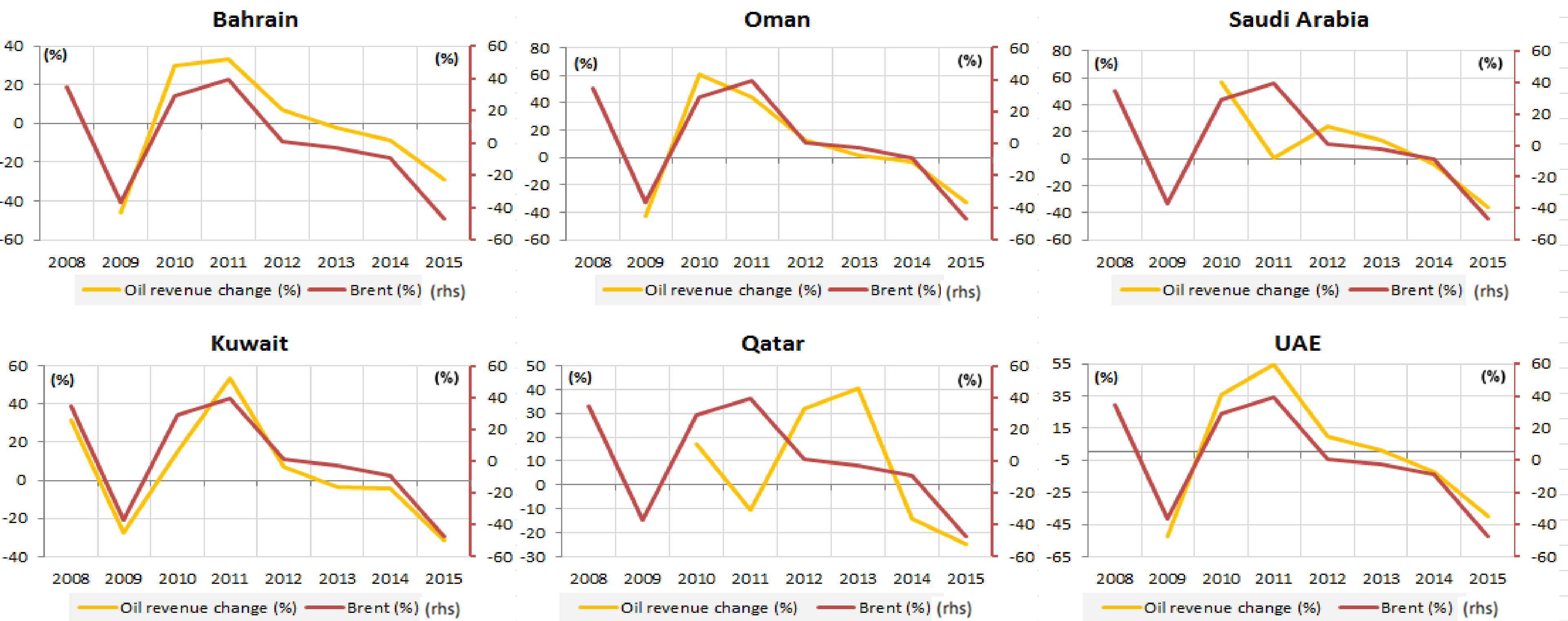


Source: EIA, GCC National Statistical Authorities, IHS Global Insight, IMF Article 4

Oil revenues

- *The correlation between oil price change and oil revenues is around 95% for all GCC countries, except for Qatar where the correlation is 30% due to the higher importance of LNG for the economy*

GCC Oil revenue change (Y-o-Y, %)



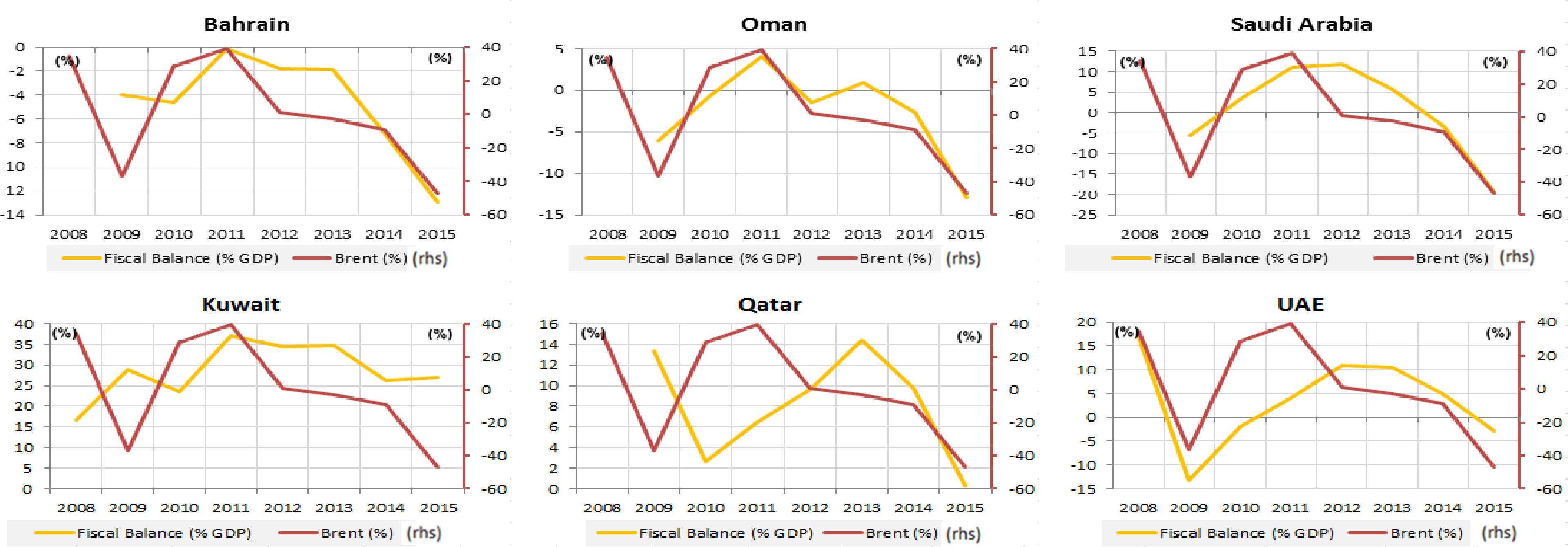
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, IMF Article 4

Fiscal Balance

- *The correlation between the fiscal balance and oil price change is 75% for Bahrain, 86% for Oman, 68% for Kuwait, 42% for Qatar, 85% for UAE and 87% for Saudi Arabia*

- *Fiscal policies (revenue and expenditures) are very much procyclical with the oil price cycle*

GCC Fiscal Balance (% of GDP)



Source: EIA, GCC National Statistical Authorities, IHS Global Insight, IMF Article 4

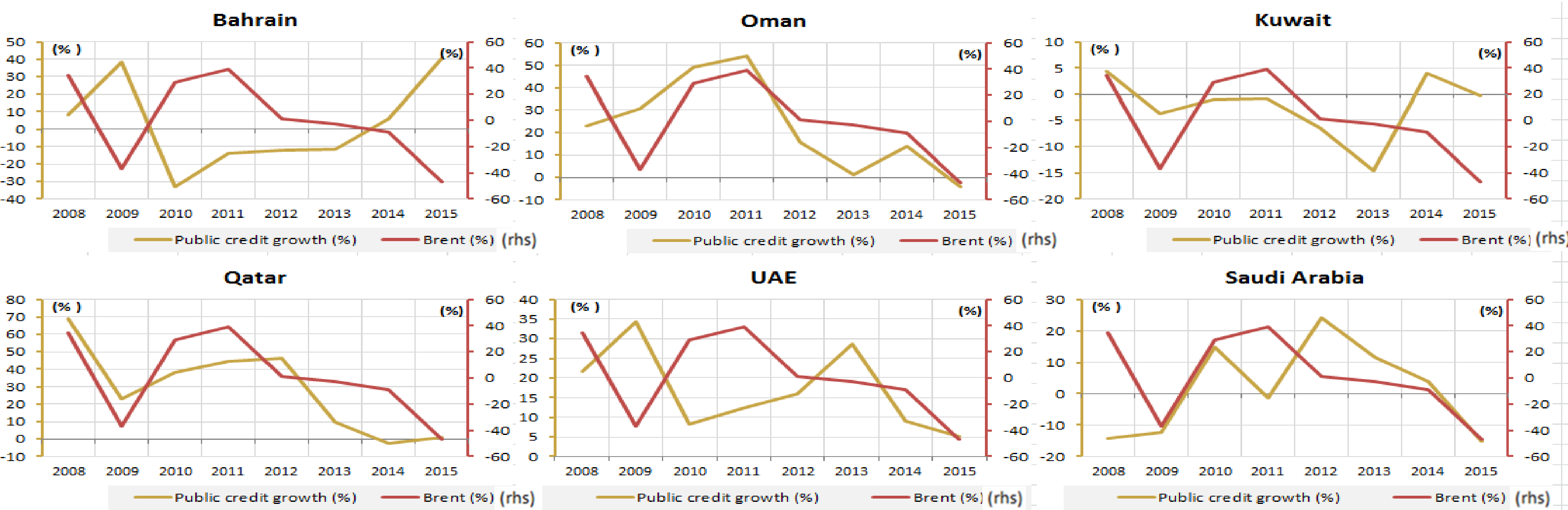
United Arab Emirates

4. *Credit growth in the GCC countries and the oil price cycle*

Public sector credit

- *Government loans at banks represent a small share of total loans, with the exception of the UAE (24%) and Qatar (36%)*
- *Correlations between credit growth are negative for Bahrain (correlation of -79%) and the UAE (correlation of -13%),implying more borrowing with less oil revenues.*
- *Correlations for other countries' are pro-cyclical with the oil price change*

GCC Public credit growth (% of GDP)

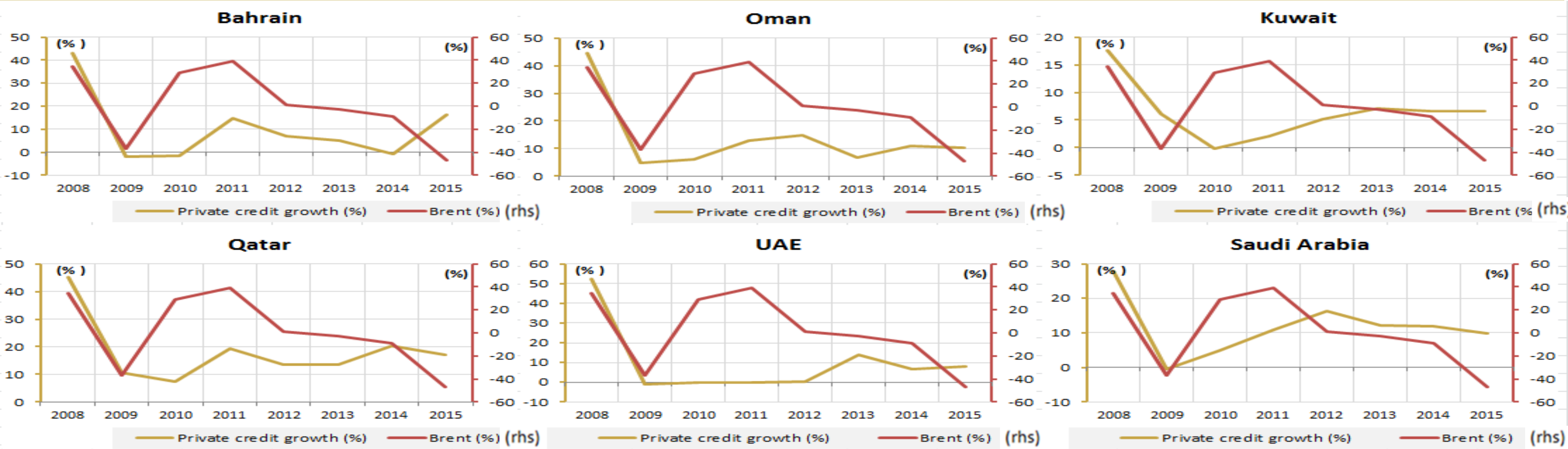


Source: EIA, GCC Central Banks

Private sector credit

- *Private sector credit growth experienced a steady growth, CAGR[1] of 9%, for Bahrain, 13% for Oman, 6% for Kuwait, 18% for Qatar, 9% for the UAE and 11% for Saudi Arabia, for the years 2010-15.*
- *Private credit growth is highly correlated with the oil price change.*
- *For the three major economies in the GCC, the correlation is of 37% for Qatar, 32% for the UAE and 47% for Saudi Arabia.*
- *Banks' risk assessment and, ability and readiness to lend are procyclical with the oil price movements and that private sector is leveraging less in periods of low oil price, which amplifies the economic downturns.*

GCC Private credit growth (% of GDP)



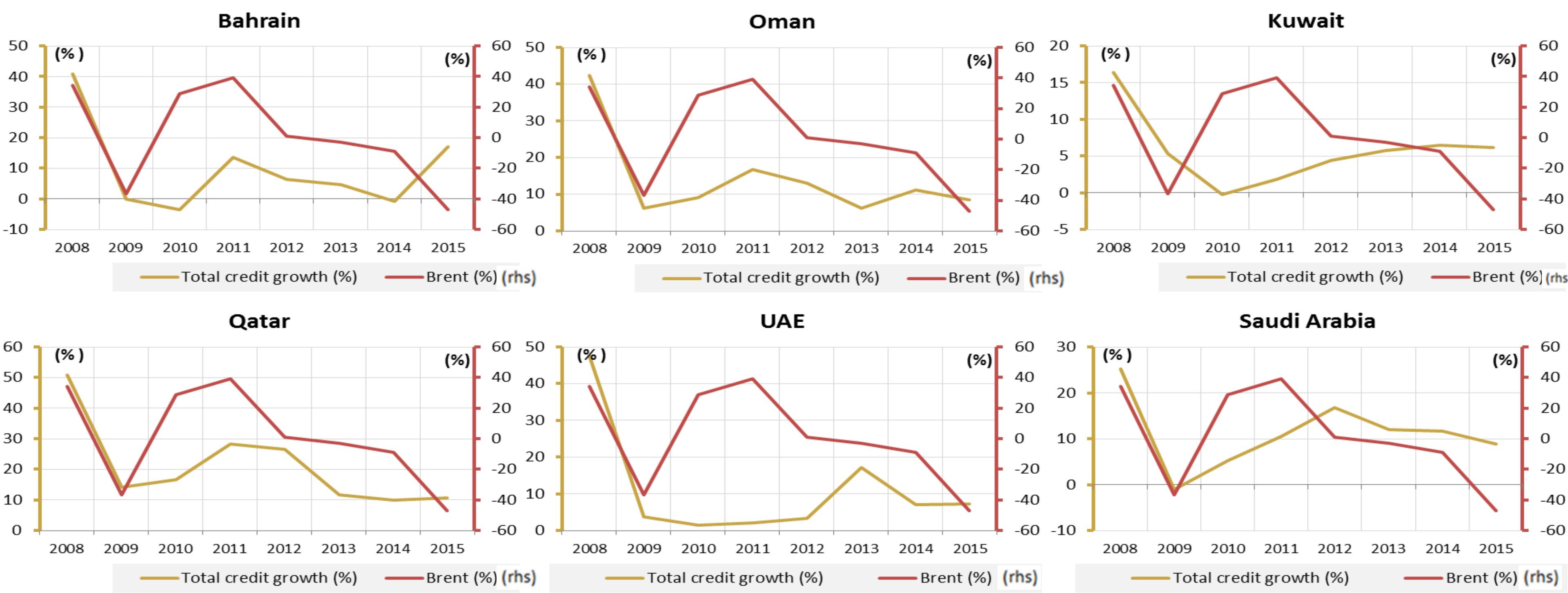
[1]:The CAGR is the mean annual growth rate (geometric mean) over a specified period of time longer than one year. It is a more precise measure for average growth than the arithmetic mean

Source: EIA, GCC Central Banks

Total credit

- *Total loans also show a procyclical behavior with the oil price change.*
- *Correlations with oil price fluctuations are of 66% for Qatar, 31% for the UAE and 48% for Saudi Arabia*
- *Credit, being a driver of growth, is following the oil cycle, further reinforcing the decline of growth when oil price is falling*

GCC Total credit growth (% of GDP)



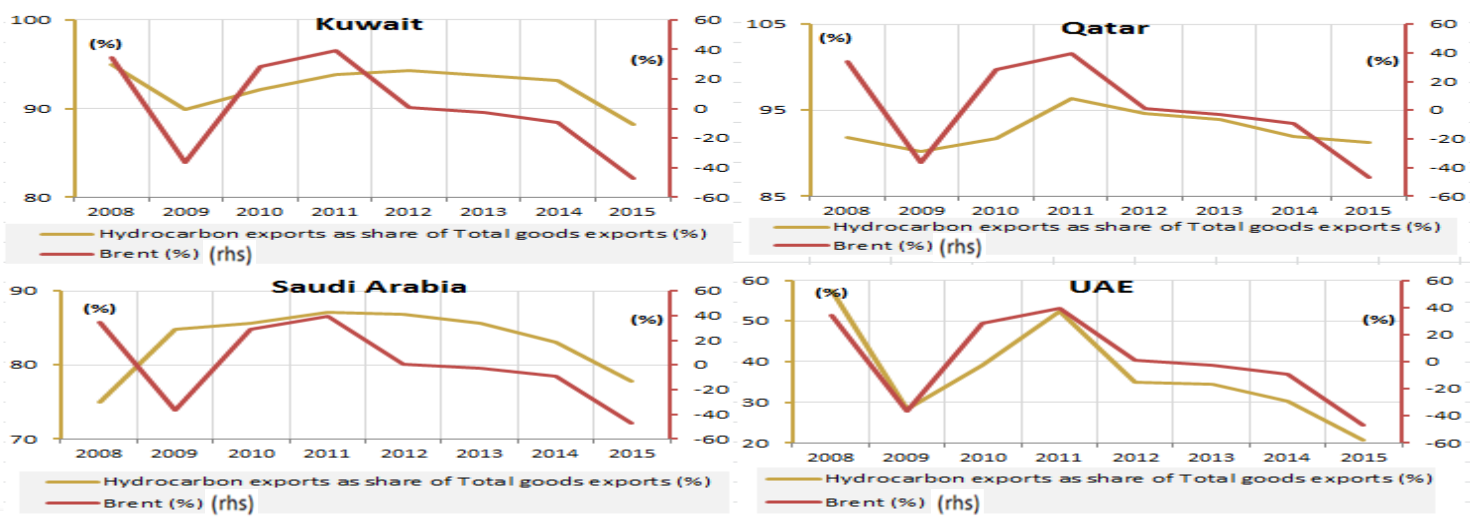
Source: EIA, GCC Central Banks

5. *Trade of the GCC countries and the oil price cycle*

Hydrocarbon exports

- *For the four major economies of the GCC, hydrocarbon exports as a share of total exports, fluctuate in line with the oil price cycle.*
- *The share of UAE oil exports correlates with oil price change at 91%, attesting to a highly diversified structure of exports.*
- *On the other hand, Kuwait, Qatar and Saudi Arabia, there is limited scope to grow non-energy exports during periods of decline in the oil price, preserving a high share of energy exports in total exports.*
- *For other countries, the correlation is much lower (Saudi Arabia is at 14%).*

Hydrocarbons export as a share of total exports

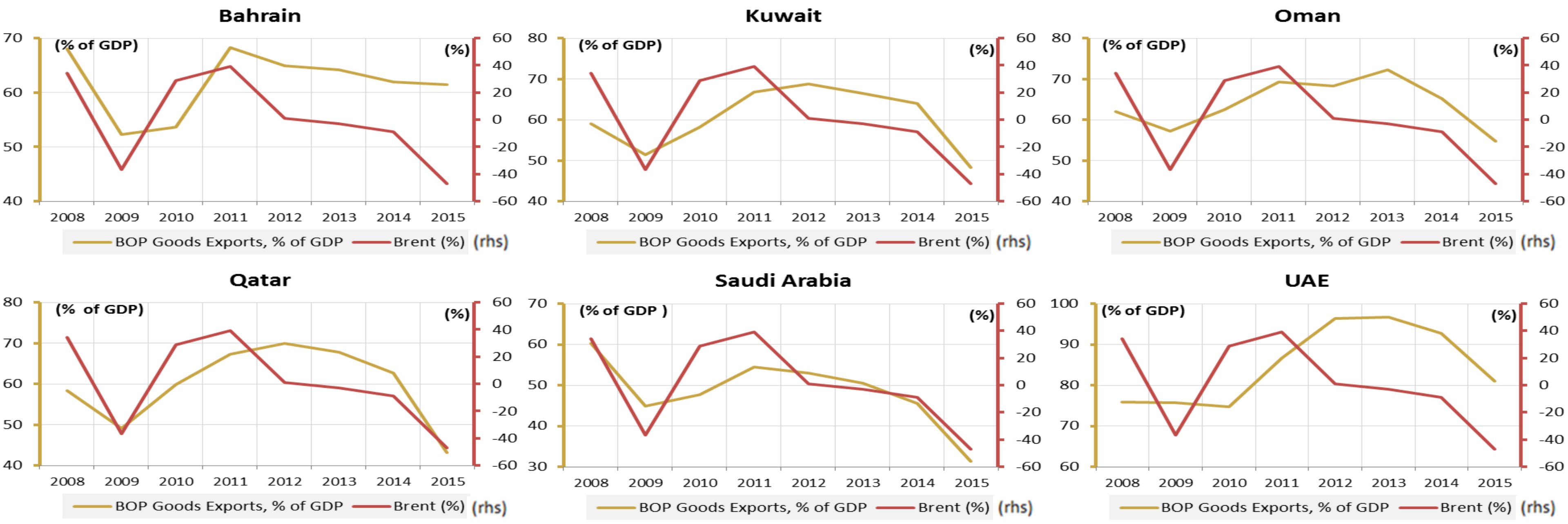


Source: EIA, IMF Article 4

Exports

- *Across GCC countries, the share of exports to GDP is fluctuating in line with the oil price change, attesting to high dependency on oil exports.*
- *Saudi Arabia's exports are correlated at 80% with the oil price.*
- *An exception is for the UAE, where the correlation is negative (-18%) as the growth of the non-oil sector has decreased the share of oil exports to GDP over time.*

GCC Export (% of GDP)

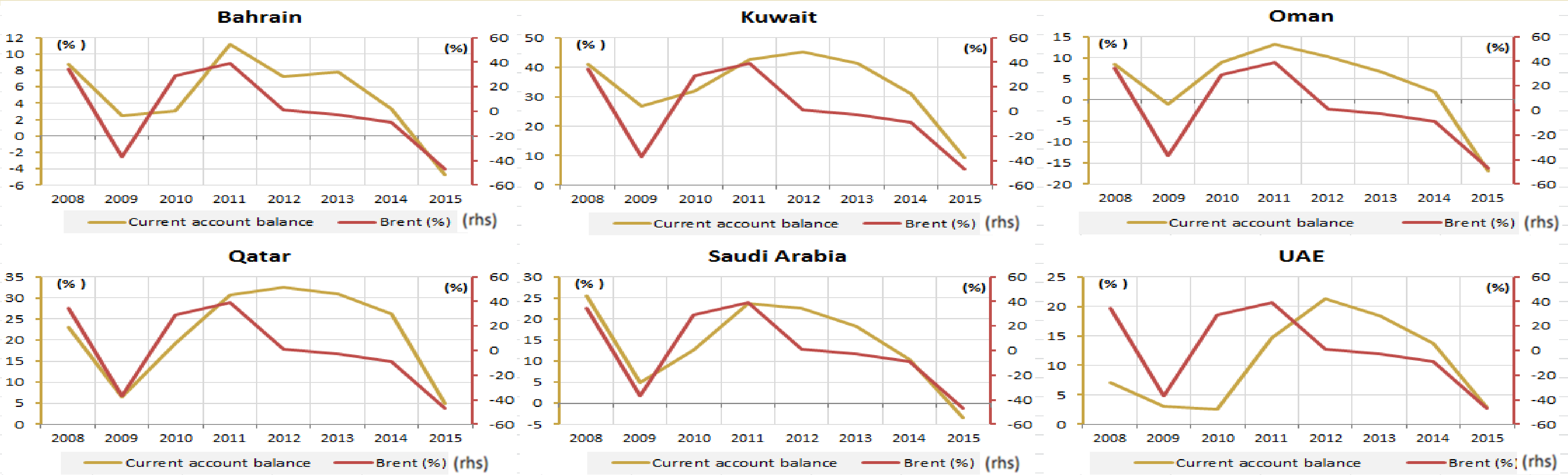


Source: EIA, IMF Article 4, IHS Global Insight

Current account balance

- *The current account balances (% of GDP) fluctuate in line with the oil price change.*
- *Correlations are generally high for Bahrain (73%) Kuwait (72%) Oman (87%) Qatar (47%) and Saudi Arabia (86%).*
- *The lower correlation for the UAE (37%) attests to less dependency on oil exports and more diversified receipts in the current account*

GCC Current account balance



Source: EIA, IMF Article 4, IHS Global Insight

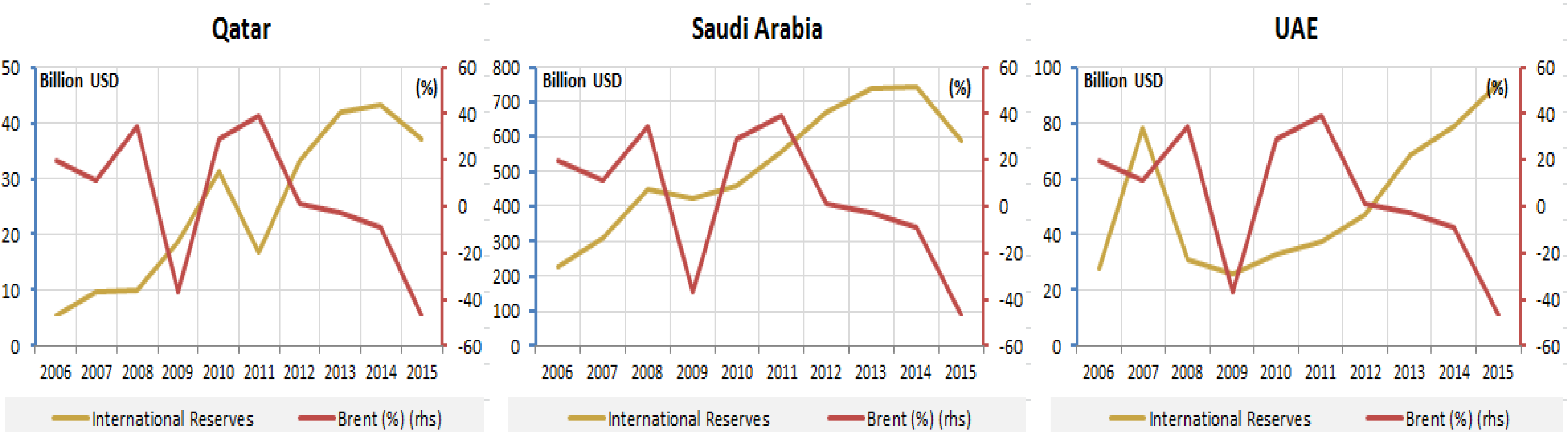
United Arab Emirates

6. International Reserves of the GCC countries and the oil price cycle

International Reserves

- *Between 2006-2015, international reserves have been growing at a CAGR of 18% for Qatar, 10% for Saudi Arabia and 13% for the UAE*
- *International reserves continue to grow even at times of oil downturn*
- *The correlation with oil price change is -48% for Qatar, -28% for Saudi Arabia and -47% for the UAE.*
- *The three biggest economies in the GCC have adequate reserves to protect local currencies at times of speculative attacks*

GCC International Reserves



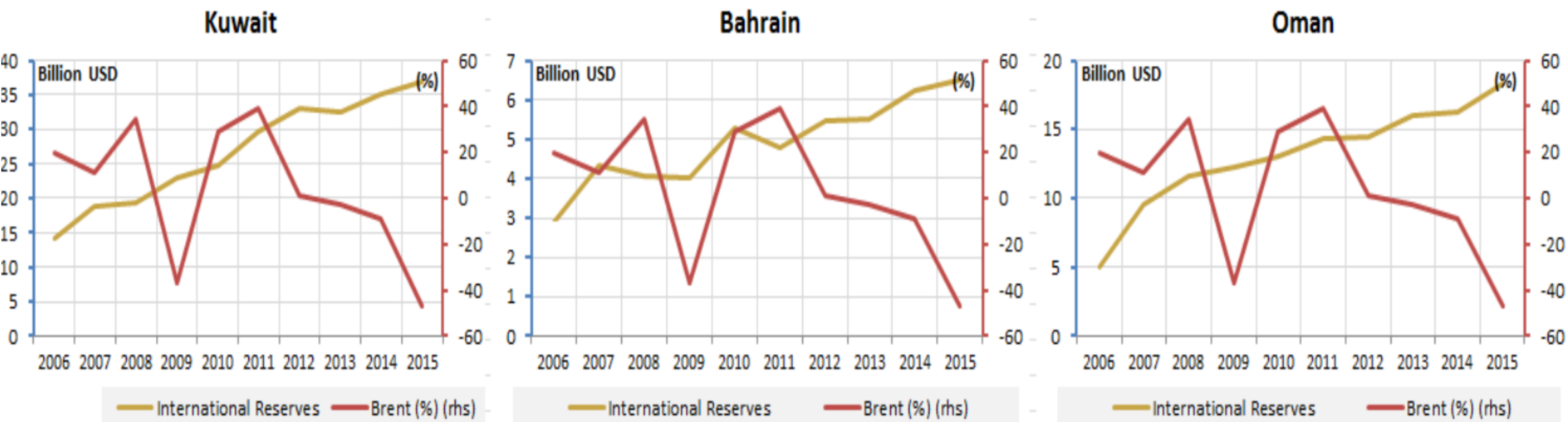
Source: EIA, IMF, World Bank, IHS Global Insight

International Reserves

- *International reserves for the three other GCC states – Bahrain, Kuwait and Oman are also negatively correlated with the oil price change, at -14%, -47% and -34%*

- *Their reserves have been also growing during the last 10 years, providing a buffer to maintain their pegged exchange rate regimes*

GCC International Reserves



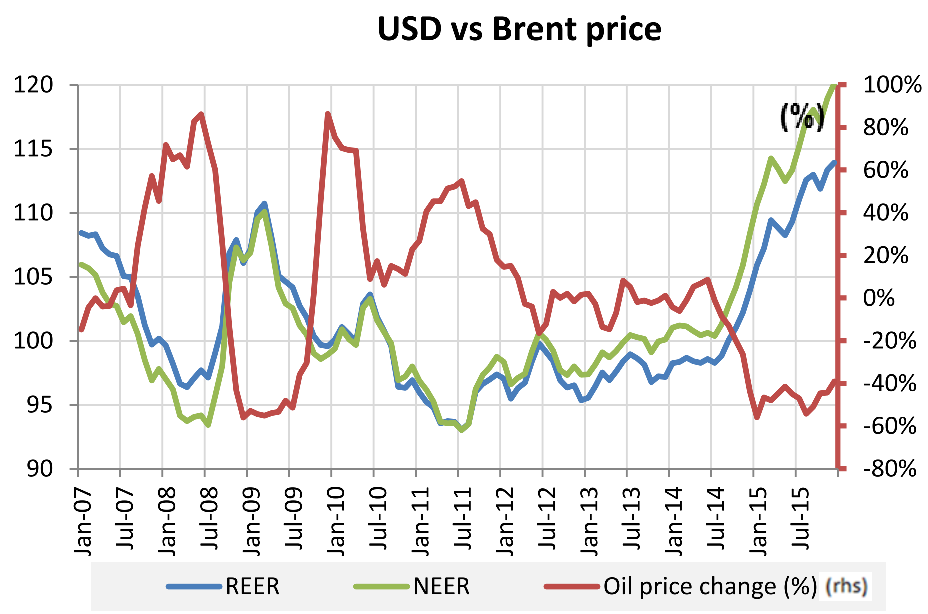
Source: EIA, IMF, World Bank, IHS Global Insight

7. Exchange rates in the GCC countries and the oil price cycle

USD Effective Exchange Rate

- *The dollar effective exchange rates are moving in opposite directions with the oil price*
- *The REER has a correlation of -66% and the NEER of -76% with the oil price*
- *Hence, the GCC currencies'[1] NEERs are negatively correlated with the oil price change, i.e. in a period of oil price fall, the currencies are appreciating in nominal terms.*

USD Effective Exchange Rate vs. Brent price change



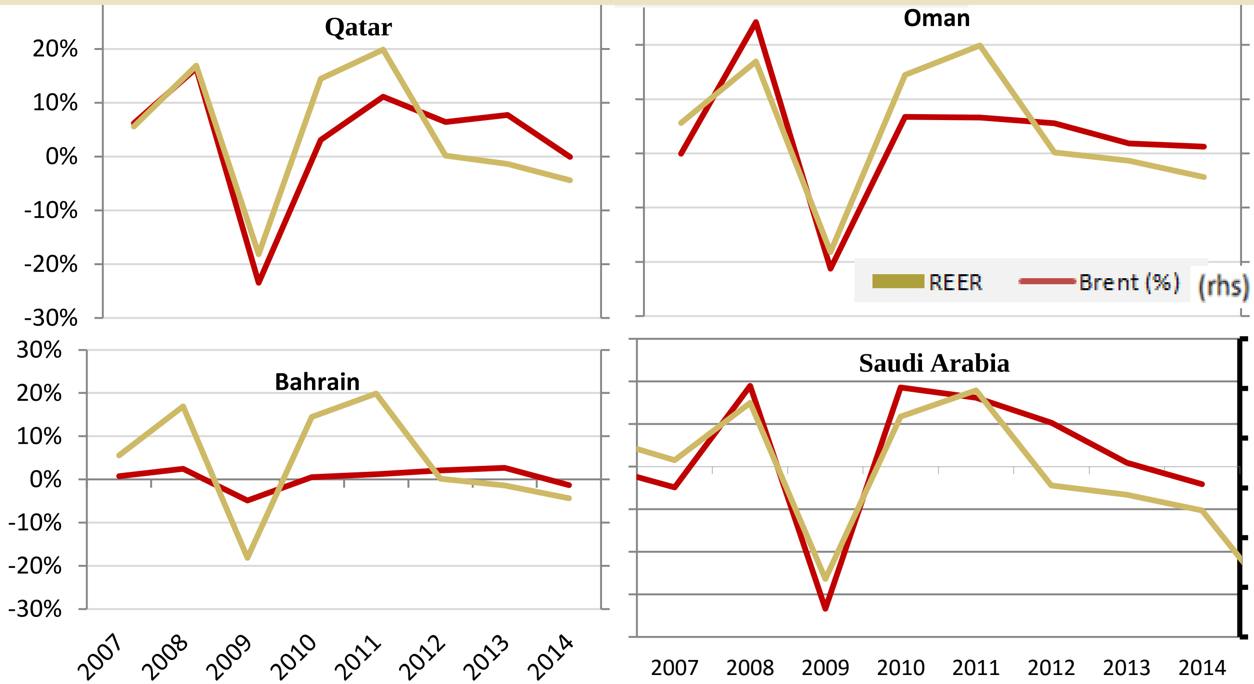
Source: EIA, GCC National Statistical Authorities, IHS Global Insight, BIS

[1]: All currencies in GCC with exception of the Kuwaiti Dinar (KWD) are pegged to the USD. The KWD is pegged to a basket, where around 90% of the weight is attributed to the USD

Exchange rate in the GCC countries and the oil price cycle

- *Correlation between the REERs for the GCC with the oil price are quite different.*
- *Countries with positive correlations are composed of Kuwait, Oman and Saudi Arabia, where the correlations are 43%, 31% and 38%.*
- *Countries with negative correlations comprise Bahrain, Qatar and the UAE, with correlations -49%, -24% and -14%*
- *Despite negative correlation between the NEER and the oil price across GCC, variation in the REERs' correlations comes from the relations of countries' inflation with the oil price*

GCC Real Effective Exchange Rate



Left Axis: REER, Right Axis: Oil Price Change
Source: EIA, GCC National Statistical Authorities, IHS Global Insight

8. *The way forward in the GCC*

Oil still plays an important role in the GCC economies

- GCC economies remain highly dependent on oil price fluctuations

- The primary channel is through oil revenues in the budget and the impact on the fiscal spending

- The procyclical fiscal stance increases inflationary pressures during an oil price boom at the risk of slowing down economic activity with the decline in the oil price

The way foreword – becoming less dependent on oil

- Fiscal rules should limit spending during a boom to provide scope for stabilization during a recession

- GCC should aim towards further diversification of the economy to reduce dependency on oil price fluctuations

- Reforms of public finance are necessary to reduce dependency of fiscal spending on oil revenues

The way foreword towards stable growth

- Priorities for monetary policy should be focused on safeguarding the stability of the exchange rate and developing macro-prudential policy instruments to strike the balance between credit growth and financial stability

- Structural reforms should aim at deepening the financial markets, increasing productivity and development of SMEs

- Further, regulations should aim at stemming distortions that the increase inflationary pressures counter economic cycles

Thank you