

Qatar Economic Outlook

2015-2017

Update



وزارة التخطيط التنموي والإحصاء
Ministry of Development Planning and Statistics



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Foreword

This *Qatar Economic Outlook 2015–2017 Update* presents forecasts for 2015, 2016 and 2017.

This analysis has been made at a time when expectations about the future path of oil prices are being reassessed, and prospects for global economic growth have been revised downwards. The chances of divergent monetary policies further complicate the outlook, with the likelihood of rising interest rates in the United States but a commitment to monetary easing in the eurozone and Japan.

For Qatar, this *Update* sees steady expansion in the non-oil and gas sector, with double-digit growth in 2015, but this will taper in 2016 and 2017 as investment and construction activity begins to plateau, and as population growth eventually slows. This year real GDP growth of 3.7% is projected, but a pick-up in the hydrocarbon sector would take output growth up to 4.3% in 2016 before it eases to 3.9% in 2017.

Consumer price inflation is set to be low in 2015, and is expected to be just 1.5% in 2016. If global economic conditions strengthen, inflation may edge up a shade in 2017.

On the fiscal side, the government is taking measures to rationalise expenditure. Still, markedly lower hydrocarbon revenue will narrow the surplus in 2015 and is expected to lead to a modest deficit in 2016 of around 4.8% of GDP. A pick-up in oil prices and continued spending restraint could see the deficit begin to retreat in 2017.

Assessments of risk in earlier *Outlooks* have usually emphasised the potential impacts of weaker oil prices. And although prices have fallen precipitously since mid-2014, they still have the potential to track down further if global oil supply continues to outpace demand. That outcome could lead external current-account and fiscal balances lower, or could trigger a larger adjustment to government spending plans, than in the baseline forecasts in this *Update*. Contracting resources available to the state would also add to pressures on liquidity in domestic markets and tighten credit conditions.

This *Qatar Economic Outlook 2015–2017 Update* could not have been produced without the generous cooperation of other agencies. I would therefore like to thank the Statistics Directorate in the Ministry of Development Planning and Statistics, whose advice and provision of data were invaluable; the Qatar Central Bank; Qatar Petroleum; and the Ministry of Finance—for their continuous cooperation in providing us with the information and data required.

H.E. Dr. Saleh Al Nabit

Minister

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Capsule outlook for 2015–2017

Qatar's non-oil and gas sector will post double-digit growth in 2015, again spearheaded by construction, which is expected to expand by 13.5% in 2015. Services output, too, will rise strongly by 9.8%, buoyed by population growth.

However, a decline in hydrocarbon output will clip aggregate real economic growth in 2015, which is now expected to be 3.7%. The contraction in output reflects a combination of shutdowns and maintenance of production facilities, as well as declining output from maturing oil fields.

The anticipated recovery in oil prices in the last part of 2015 has so far failed to materialise, and realised oil prices have fallen short of forecasts. Lower oil prices and declining volumes in oil and gas will pull nominal GDP down by 13.4% in 2015. Lying behind this aggregate metric is a terms-of-trade decline and loss of real income.

Over the outlook period, hydrocarbon output will get a boost from Barzan, a new pipeline gas production facility scheduled to come on stream in 2016 and reach full capacity in 2017. The non-hydrocarbon sector will continue to expand, but the rate of growth will attenuate. Activity on existing projects will start to plateau as they near completion, with many new investments being put off until after 2018. Population growth, too, is set to slow so that the stimulus that it has provided to non-traded service activity will start to wane.

Annual consumer price inflation is expected to moderate in 2015 and stay low before edging up in 2017. Average inflation over the 10 months from January to October 2015 was 1.47%, somewhat below the full-year forecast made in the previous *Qatar Economic Outlook (QEO)* of June this year, and much lower than the consensus estimate reported at that time.

Looking to 2016 and 2017, global deflationary pressures and a strong US dollar (to which the Qatari riyal is pegged) are expected to subdue imported sources of inflation. Moderation of population growth, expanded capacity in the non-traded sector and restraint in

government spending plans are all expected to contain domestic price pressures.

Downside risks to the outlook have amplified and include the possibility of a protracted period of low oil prices. Any delays to delivery of, or cost overruns in, key infrastructure projects may add to fiscal demands in circumstances where revenues are being squeezed. Domestic liquidity conditions could also tighten further as government deposits are reduced and US dollar rates rise.

Update on the outlook

Table 1 provides a summary of the latest baseline forecasts for key macroeconomic indicators. They take into account the latest data releases and revisions, including information on demand and supply developments in global energy markets and global economic prospects. Uncertainty about this *QEO Update's* forecasts has risen given greater uncertainty about the global and financial outlook. The forecast methodology and assumptions are discussed in box 1. The section *Risks* discusses the fiscal impacts of lower oil prices.

Table 1 Qatar, latest forecasts of key indicators

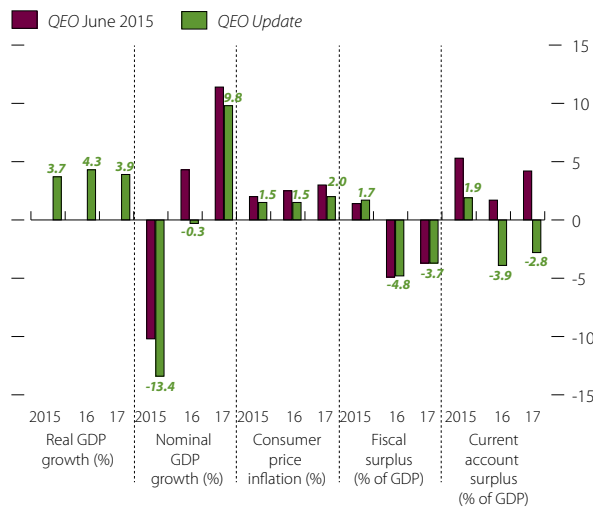
	2015	2016	2017
Real GDP growth (%)	3.7	4.3	3.9
Nominal GDP growth (%)	-13.4	-0.3	9.8
Consumer price inflation (%)	1.5	1.5	2.0
Fiscal surplus (% of nominal GDP)	1.7	-4.8	-3.7
Current account surplus (% of nominal GDP)	1.9	-3.9	-2.8

Note: Real GDP in constant 2013 prices.

Source: Ministry of Development Planning and Statistics (MDP&S).

Figure 1 compares the current forecasts with those made in June's *QEO*. The forecasts for real GDP growth in this *QEO Update* now reflect the base year of 2013, following the update of the national accounts by the Statistics Directorate of MDP&S. The figure presents revised real

Figure 1 Updates to the outlook for Qatar



Source: MDP&S estimates.

GDP forecasts but does not show the QEO forecasts for June, as they are not comparable. The reason for this is that starting in the second quarter of 2015, MDP&S changed the base-year price weights that underlie estimates of GDP, and so June’s QEO forecasts cannot simply be compared with those in this *Update* (box 2).

Economic prospects

Real economic activity

For 2015, real GDP growth is expected to be 3.7%, measured in 2013 prices, 0.4 percentage points lower than the growth realised in 2014. The explanation for the slower GDP growth lies entirely in the performance of the oil and gas sector. The latest data suggest that its output may contract by 2.2%. Crude oil production is now expected to be about 6% below 2014’s levels. The production of condensates is also likely to be lower in 2015 than the previous year, shrinking by about 8%. The June QEO forecast had also expected pipeline gas from Barzan to add to output this year, but 2016 now seems more likely. Lower oil prices have encouraged deferment of investments in maturing oil fields, and have advanced operations and maintenance on existing plant.

Output from Barzan and expected recovery in condensate production in 2017 should help to lift aggregate GDP growth above 2015’s in both 2016 and 2017. Solid expansion of the non-hydrocarbon economy is expected to continue, but will taper as infrastructure spending peaks, construction activity starts to level off and the inflow of migrant workers declines. In 2016 real growth is expected to accelerate to 4.3%, slowing marginally in 2017 to 3.9%.

Box 1 Forecast methodology and assumptions

The QEO’s forecasts are derived from an internally consistent numerical representation of Qatar’s economy, based on standard economic accounting and consistency checks. This framework is based on a flow-of-funds model of the economy in which all sources of funds from the various sectors equal their total uses of funds. This representation has been calibrated and updated with known outcomes for 2015 and data revisions for 2012, 2013 and 2014.

All GDP data forecasts are made on the basis of 2013 prices, following the current practice of the Statistics Directorate of MDP&S.

The main forecast assumptions are based on the best assessment of the future made by MDP&S and draw on expert opinion as published in a wide range of sources. Those on Qatar’s interest rates are based on the declared policy of the Qatar Central Bank (QCB) and on MDP&S staff assessments of likely trends. Data on budgetary outcomes and prospects are based on Ministry of Finance (MOF) estimates. Data for the years beyond the budget year are obtained through analysis of historical budget trends, which are modified based on signals about intended policy direction and spending. Assumptions on the external environment are anchored on forecasts in the *World Economic Outlook (WEO)* of

the International Monetary Fund (IMF) and of the World Bank. The major assumptions are in the box table.

Box table Forecast assumptions

	2015	2016	2017
Qatar			
QCB’s overnight deposit rate (%)	0.75	0.75	1.00
Qatari riyal/\$ exchange rate	3.64	3.64	3.64
Total budget spending (QR billion)	217.32	204.50	203.61
Current	163.69	149.50	145.17
Capital	53.63	55.00	58.44
External environment			
Global growth (%)	3.12	3.56	3.81
US\$ LIBOR, 6-month (%)	0.44	1.19	..
Average crude oil prices, \$ per barrel ^a	52.4	51.2	55.3
Japanese LNG price, \$ per million British thermal units (mmbtu)	10.30	10.50	10.60

.. = not available.

a Simple average of Dubai Fateh, West Texas Intermediate (WTI) and UK Brent.

Source: Consolidated from various sources including QCB, MOF, IMF and World Bank.

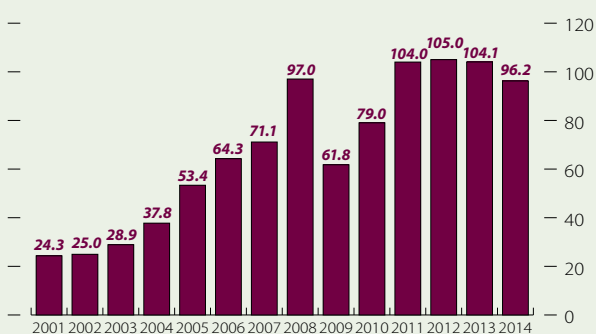
Box 2 New price weights for Qatar's national accounts

In the second quarter of 2015, MDP&S started to report constant price national accounts estimates using 2013 prices, replacing the previous 2004 price estimates. The rebasing exercise follows international standards for national income accounting, which recommends that countries update the national accounts price weights, particularly during times of rapid economic growth and relative price changes.

The change in base-year prices affects not only the sector profile of output when measured in constant prices but also constant price GDP growth and its components. Changes in the structure of relative prices between 2004 and 2013 have led to large adjustments in the price weights used to aggregate across output components.

In Qatar, the price of hydrocarbon output relative to the price of non-hydrocarbon goods and services is of particular relevance. In 2004, hydrocarbon prices were far lower than the price of non-hydrocarbon goods and services compared with the same price configuration in 2013. Oil prices began a prolonged ascent in early 2001, which was interrupted by the global financial crisis of 2008–2010, and which resumed through to mid-2014 (box figure). The IMF's *WEO* database shows average oil prices were about \$38/bbl in 2004, while in 2013 they were nearly three times as high, averaging \$104.

Box figure Crude oil prices (\$ per barrel)



Note: Average crude oil price is the simple average of three spot prices: Dated Brent, WTI and Dubai Fateh.

Source: IMF, *WEO* October 2015 database (<http://www.imf.org/external/pubs/ft/weo/2015/02/weodata/download.aspx>), accessed 29 October 2015.

Accordingly, application of 2013 prices in aggregating across sector output gives greater weight to hydrocarbon activity than would application of 2004 prices. Equally, the use of 2013 prices attaches less weight to non-hydrocarbon activity. Measured in 2013 prices, we would therefore expect to see a higher share of hydrocarbon activity in total GDP than if measured in 2004 prices. Box table 1 shows this impact for 2014.

Box table 1 Contrasting output shares (%)

2013 output shares	2004 prices	2013 prices
Mining and quarrying	40.9	54.8
Non-mining and quarrying	59.1	45.2

Source: MDP&S (http://www.mdps.gov.qa/portal/page/portal/gsdp_en/statistics_en).

The impact of the revised price weights on measured GDP growth is also pronounced. Measured in 2013 prices, aggregate GDP growth in 2014 is 4.0% whereas growth registers 6.1% using 2004 price weights. The use of 2013 prices dampens measured growth because it attaches greater weight to the slow-growing hydrocarbon part of the economy (conversely, less weight to the fast-growing non-hydrocarbon part). Box table 2 shows the impact of the rebasing on real GDP growth for recent years.

Box table 2 Real GDP growth in 2004 and 2013 prices (%)

	2004 prices	2013 prices
2011	13.0	13.4
2012	6.0	4.9
2013	6.3	4.6
2014	6.1	4.1

Source: MDP&S (http://www.mdps.gov.qa/portal/page/portal/gsdp_en/statistics_en).

At a sector level the change in the base-year price weights also matters, but with greater disaggregation the impacts of the base-year change are more muted. Nevertheless, growth of the non-oil and gas sector in 2014 when measured in 2013 prices is 0.7 percentage points slower than when 2004 prices are used. The explanation is that 2013 prices give a higher weight to slower-growing manufacturing, which includes refining and petrochemicals activity whose weights are influenced by the change in the real price of oil.

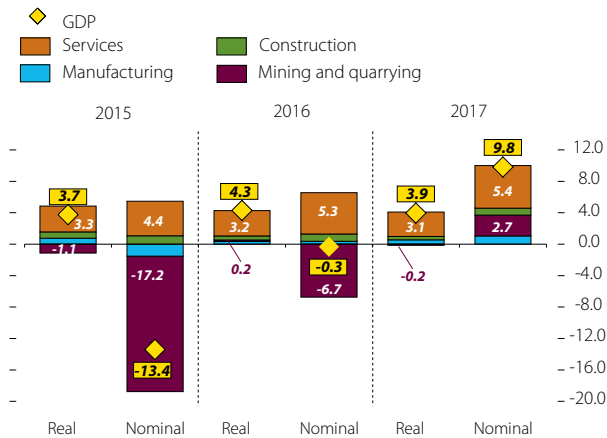
In the non-hydrocarbon sector, forecast growth in 2015 is now expected to be 10.1%, down a notch on the 2014 outcome. Strong momentum in the sector is being sustained by capital spending on infrastructure, which has been gathering momentum in 2015, and by rapid population growth. In November 2015, Qatar's population reached 2.46 million, up by 8.8% on the same month in 2014.

The service sector is expected to be the largest contributor to growth and its share in aggregate output will continue to rise (figures 2 and 3). Financial, real estate, transport and communication, and business

services will all benefit from property development and infrastructure projects. Trade and hospitality are also expected to grow robustly owing to conference activities and to growth in tourist arrivals, particularly from the region. Moderation of population growth is expected to slow service sector expansion in 2016 and 2017.

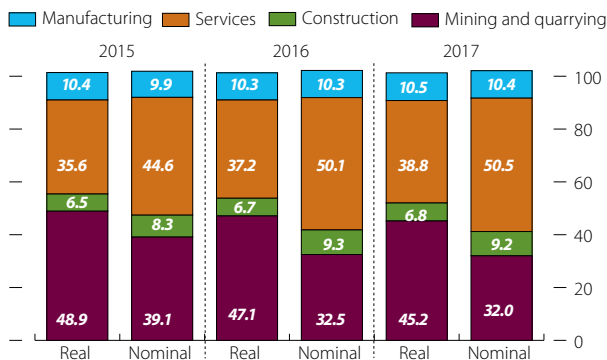
Manufacturing will accelerate in 2015, bolstered by the downstream hydrocarbon industry, particularly growth in fertilisers and other petrochemicals. But the production of refined products is expected to fall in 2015, with expansion of other downstream activities (the production of natural gas liquids and fertilisers)

Figure 2 Contributions to GDP growth, 2015–2017 (percentage points)



Note: Rounding errors are attributed to agriculture, imputed bank services, import duties and electricity and water, which are not shown.
Source: MDP&S estimates.

Figure 3 Share in GDP, 2015–2017 (%)



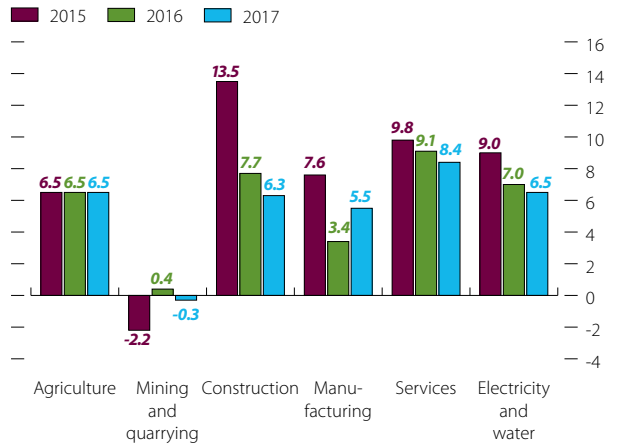
Note: Rounding errors are attributed to agriculture, imputed bank services, import duties and electricity and water, which are not shown.
Source: MDP&S estimates.

checked by feedstock availability (figure 4). In 2016 and 2017, however, manufacturing growth will decelerate as the push from fertilisers and petrochemicals fades. A new condensate refinery, Ras Laffan 2, is set to come on stream in the fourth quarter of 2016, accounting in large part for the faster growth expected in 2017. The refinery will produce jet fuel and gas oil to be sold domestically, and export other products, including diesel, to Asian markets. Demand for cement and metals stemming from construction and infrastructure projects is expected to sustain momentum in other manufacturing activities, albeit less rapidly than in the past.

Nominal GDP growth

In current price (or nominal) terms, GDP growth is expected to contract by 13.4% in 2015, reflecting the susceptibility of Qatar’s GDP deflator to movements of hydrocarbon product prices, which are set on

Figure 4 Sectoral growth in the economy, constant 2013 prices (%)



Source: MDP&S estimates.

international markets. An expected drop of 46% in the price of Qatar’s hydrocarbon basket will register directly in lower income from upstream production and in reduced resources flowing to the state. Nominal GDP growth may shrink marginally in 2016 if, as forecast, margins on gas decline. An expected increase in hydrocarbon prices in 2017 should allow a resumption of growth of nominal GDP.

Inflation

Annual inflation, as measured by the change in the consumer price index, is expected to average 1.5% in 2015, remain unchanged in 2016 and increase slightly to 2.0% in 2017. The June 2015 QEO projection of 2.0% has been revised downward. Average inflation over the 10 months from January to October 2015 was 1.5%. Inflation on residential properties has decelerated sharply in 2015.

Domestic sources of inflationary pressures are weakening. Government spending is expected to be restrained and population growth should slow. Tighter liquidity conditions are also expected in circumstances where US dollar interest rates are now expected to track up and tighter prudential regulation of the commercial banking system will brake credit expansion.

MDP&S calculations indicate that the recent uplift to slab tariffs for water and electricity for non-Qatari residential consumers (box 3), which came in to effect in September 2015, will make only a small impact on the headline consumer price index figure and will wash out of the inflation calculations before the end of 2016. Of course, were other increases in regulated prices to be announced, this could have short-run inflationary consequences.

Box 3 Kahramaa tariff hike

Kahramaa increased prices for non-Qatari households in September 2015, instituting slab rates for both water and power consumption. It also raised prices for government, commercial and industrial consumers. Whereas residential water consumption was previously charged on a flat rate, five bands now exist with increasing rates per unit of consumption (box table).

Electricity bands, of which there were previously two, have now been expanded to six for residential customers. Progressive brackets of water and power consumer rates are similar to those already in place in Abu Dhabi, where government transfers were cut sharply last year when a new fee structure was introduced.

Preliminary MDP&S estimates suggest that the new tariffs may result in an annualised average uplift of about 5.3% in charges for the representative residential consumer, but a low weight of electricity and water in the consumer price index means that this will barely register in headline consumer inflation. Any impact on consumer price inflation will be transitory, fading after September 2016. The additional revenues will, however, lower the subsidy costs that the government shoulders for water and power consumption.

These MDP&S calculations make no allowance for the incentives that will be provided for greater economy in power and water consumption, nor for knock-on effects on the prices of consumer goods and services that may result from the higher charges faced by commercial and industrial users.

Box table Kahramaa residential rates for villas and flats

Electricity consumption		
From (Kwh)	To (Kwh)	Tariff (QR per Kwh)
1 / 2001 / 4001 / 6001 / 8001 / 15001	2000 / 4000 / 6000 / 8000 / 15000 / Max.	0.08 / 0.09 / 0.10 / 0.12 / 0.18 / 0.22
Potable water		
From (cubic metres)	To (cubic metres)	Tariff (QR per cubic metre)
1 / 21 / 71 / 151 / 251	20 / 70 / 150 / 250 / Max.	4.4 / 5.4 / 6.4 / 7.4 / 9.4

Source: Kahramaa website (<https://www.km.com.qa/CustomerService/Pages/Tariff.aspx>).

Foreign sources of inflation will be conspicuously absent until the tail end of the forecast period, with lower global commodity prices and stronger purchasing power of the domestic currency. Low forecast food and industrial input prices (see *Non-energy commodity markets* below) and the recent US dollar appreciation, to which the Qatari Riyal is pegged, will help keep overall inflation in check.

Fiscal outlook

The QEO fiscal estimates and forecasts are made on a calendar-year basis rather than fiscal years (as presented by the MOF). However, as of 2016, the MOF will employ a calendar year budgeting cycle making direct comparisons possible. It is important to note that the QEO's fiscal calculations follow the budget classification of revenues, and thus make no allowance for investment income that accrues to the Qatar Investment Authority or similar entities.

The latest data updates, including those showing lower than anticipated production of crude oil and condensates, as well as the drop in oil prices, suggest that the fiscal surplus in 2015 may contract to 1.7% of GDP (down from 13.0% in 2014).

In 2016, it is foreseen that the overall fiscal balance will register its first deficit in 15 years, which the *QEO Update* estimates at about 4.8% of GDP. This estimate assumes that: the government successfully pares recurrent

spending levels and caps growth of capital spending below previously programmed levels; that there are effective cost reductions in the hydrocarbon sector that support transfers to the budget; and that there is additional non-oil and gas revenue accruing to the budget. However, these measures are more than offset by the squeeze on revenue inflicted by lower oil prices and the consequent reduction in investment income received by government.

Investment income—largely the financial surplus of Qatar Petroleum—accrues to the budget with a lag and in 2015 budget revenue was shielded to some extent by the higher oil prices of 2014. However, this buffer is removed in 2016, and the full impact of lower oil prices in 2015 will be felt on income from investments.

The fiscal deficit is forecast to remain in 2017, though expected reductions in expenditure and a mild recovery in hydrocarbon prices should narrow the deficit from 2016.

Balance of payments

The current account of the balance of payments is expected to remain in surplus in 2015, but modest deficits seem likely in 2016 and 2017. The key factor is Qatar's dependence on hydrocarbon exports and the lower prices currently expected. Import demand might see some reduction as projects' capital-equipment needs are scaled down, but it should stay supported by

demand for materials and by consumption demand of a larger population. With the retreat in the current account surplus, capital outflows will also be pared back.

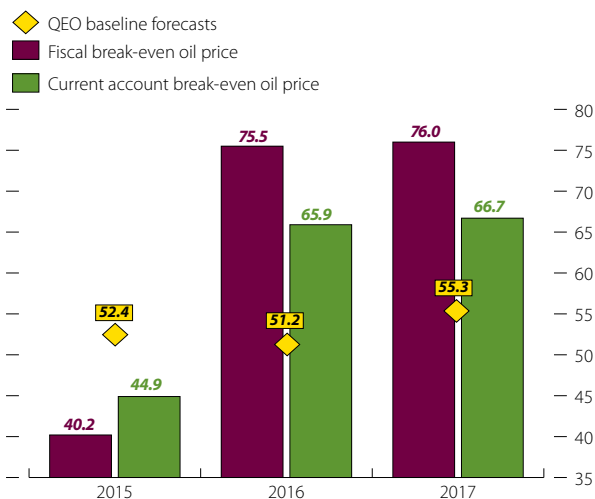
Risks

Risks to the outlook stem mainly from oil prices, which have dropped dramatically over the year. Their prognosis remains highly uncertain (see *Oil and gas consensus forecasts* below). If oil prices rise more quickly than forecast in this *Update*, realised nominal income growth, as well as fiscal and external balances, will see better outcomes. But if they fall short of projections, income growth will be restrained, fiscal balances could deteriorate more sharply and larger external-payment deficits might occur.

A useful metric for gauging how oil prices have an impact on important outcomes is the so-called “break-even” price of oil, which can be viewed in two perspectives. Fiscally it is the price that—for given levels of hydrocarbon output, government spending and non-hydrocarbon fiscal revenue—generates hydrocarbon revenue matching the non-hydrocarbon deficit. In balance-of-payments terms, it is the price needed to cover import costs and the deficit on the income and transfer flows of the current account, given non-oil and gas export revenues.

Figure 5 shows the estimated fiscal and current-account break-even oil prices for 2015–2017 with the baseline oil price underlying this *QEO Update*’s forecasts. The calculation of the break-even price follows the methodology introduced last June (see *QEO 2015–2017 Risks* section for more detail).

Figure 5 Break-even price of oil under different scenarios (\$ per barrel)



Source: MDP&S calculations.

For 2015, both sets of break-even prices are less than the baseline price assumptions, and considerably less than the prices realised through to 23 November 2015 (\$53.89 for Brent crude). This *Update*’s break-even oil price is lower than that projected in June, given the government’s recent efforts of scaling back on spending and an assumed faster transfer of Qatar Petroleum’s income revenue this year. If these assumptions are correct, realised prices over the remainder of the year would then have to fall from current levels to produce fiscal and current-account deficits in 2015. The estimate for fiscal break-even prices in 2015 is modulated by the stabilising effect of investment income that accrues in 2014, most of which is assumed to be booked as government revenue in 2015.

However, given the lower oil prices forecast for 2015, financial surpluses of hydrocarbon entities and investment income received by government in 2016 will shrink. The loss of this income lifts the estimated fiscal break-even price to \$75.5 in 2016—around one half higher than the baseline price assumption of \$51.2. This *QEO Update* estimates that the break-even price of oil to avoid a current account deficit in 2016 is \$65.9. The break-even prices for 2017 are \$76.0 (fiscal) and \$66.7 (current account).

The forecast of this *Outlook* relies on World Bank forecasts for regional LNG prices, which are on the high side against others’ forecasts (see *Oil and gas consensus forecasts*). This is particularly stark for Japanese LNG prices, which are a major swing factor for Qatar’s composite realised gas prices.

Risks of rapidly accelerating inflation seem contained at the moment but consumer price pressures would pick up if imported inflation gathered pace faster than now forecast. A global commodity supply shock, a sudden depreciation of the US dollar or an unexpected global demand recovery would add to local price pressures. Recent increases in the prices of utilities may nudge up domestic inflation, particularly in the summer months of 2016. Potential removal of other consumer subsidies, as part of the state’s efforts to rationalise spending, could push consumer price inflation up further still.

Finally, domestic liquidity conditions are likely to tighten. Government deposits with the commercial banking system have come down, as have deposits with the QCB, and the anticipated “normalisation” of monetary policy in the US could eventually put upward pressure on riyal interest rates. The Qatar Interbank Rate (QIBOR), which has been fairly stable over the year at a rate of just over 0.8%, spiked above 1% in the last week of October and remained elevated until mid-November. It was 0.87% on 1 December. Measures that aim to buttress financial market safety and soundness will help protect against risks but will also constrain banks’ ability to lend (box 4).

Box 4 Implementing the Basel III framework

QCB issued its Basel III guidelines in January 2014 (box table). As of end-December 2014, all but one domestic bank reportedly had capital above the minimum adequacy ratios (liquidity coverage, CET1, Tier 1 capital, total capital, and leverage) and capital conservation buffers (DSIB, countercyclical, and capital conservation).

QCB has set a minimum Basel III-related capital level at a combined 12.5%, which is 150–200 basis points higher than the Basel Committee recommendations. Subsequent circulars issued by QCB made amendments to the liquidity coverage ratio (to be implemented in phases through 2018) and the leverage ratio (which was set at 3.0% of Tier 1 capital in September 2014).

Concurrently, QCB has enhanced macro prudential regulations and established a multi-agency committee to monitor and promote financial stability and limit systemic risks. The Financial Stability and Risk Control Committee (chaired by the QCB governor) has been working towards coordination among the apex regulators across different market jurisdictions, such as the Qatar Financial Centre Regulatory Authority and the Qatar Financial Markets Authority. It has also deployed a variety of macro-prudential tools to contain risks. In July 2014, for example, it issued instructions setting a maximum of 100% on commercial banks' loan to deposit ratio to be achieved within three years.

Over the outlook period, and in circumstances where oil and gas revenues have ebbed and public sector deposits in the commercial banking system have fallen, domestic interest rates are likely to feel upward pressure from rising funding needs of government and the commercial banking system, which must now comply with tighter regulatory standards. Such pressure will be accentuated by the prospective rise in US interest rates.

Box table QCB's Basel III ratios and requirements (%)

	2014	2015	2016	2017	2018
Minimum adequacy ratios					
Liquidity coverage	60	70	80	90	100
Common Equity Tier 1	6	6	6	6	6
Tier 1 capital	8	8	8	8	8
Total capital	10	10	10	10	10
Leverage	3	3	3	3	3
Capital conservation buffers					
DSIB			0.5–3.5	0.5–3.5	0.5–3.5
Countercyclical			0.5–2.5	0.5–2.5	0.5–2.5
Capital conservation	2.5	2.5	2.5	2.5	2.5
Loan to deposit ratio				100	100

Notes:

Liquidity coverage ratio: Highly liquid assets (cash or bonds) equal to or greater than their net cash outflows over 30 calendar days.

Common Equity Tier 1 (CET1) ratio: A bank's core equity capital (excluding preferred shares or non-controlling interests) divided by its total risk-weighted assets

Tier 1 capital ratio: A bank's core equity capital, based on the sum of its equity capital and disclosed reserves, divided by its total risk-weighted assets.

Total capital ratio: The percentage of a bank's capital (Tier 1 and Tier 2, including subordinated debt) to its risk-weighted assets, otherwise known as a capital-adequacy ratio.

DSIB buffer: Domestic systemically important banks (DSIB) have been classified by QCB into different "buckets", which have corresponding requirements to hold additional mandatory capital.

Countercyclical buffer: Depending on their bucket, this is additional capital that must be held in reserve as a percentage of risk-weighted assets.

Capital conservation buffer: These are capital buffers (mandatory capital) held by banks to be built up outside periods of financial stress.

Leverage ratio: Assets to capital on a bank's balance sheet, defined as Tier 1 capital divided by on- and off-balance sheet non-derivative exposures.

Loan to deposit ratio: A bank's total loans divided by its total deposits.

Source: QCB (<http://www.qcb.gov.qa/>).

Consensus forecasts

Table 2 presents a summary of publicly available economic forecasts for 2015, 2016 and 2017, for real and nominal GDP growth and consumer price inflation. A consensus view of Qatar's prospects is obtained as the mean/median of all projections polled.

In June 2015, the Statistics Directorate of MDP&S rebased the national accounts to 2013 constant prices. As some forecasters have not yet updated their real GDP data series, this *Update* includes only those forecasts revised on the basis of the 2013 prices (see box 2), and so is based on a smaller sample than in the June *Outlook*. Also, as the June forecasts for real growth were expressed in 2004 prices, the June forecasts cannot be compared with the forecasts presented here. However, nominal growth forecasts, and those for inflation, can still be compared.

Real GDP growth

The mean consensus estimates are higher than those of MDP&S for each year. The difference is largest in 2015 (figure 6). Most forecasters see growth picking up in 2016, and MDP&S concurs with this view. In 2017, the consensus mean forecast is marginally lower than 2016; MDP&S sees growth decelerating. The MDP&S perspective is explained in *Economic prospects* above.

Nominal growth

Consensus forecasts for 2015 and 2016 have been revised down from those of June, by a pronounced 3.2 percentage points (2015) and 4.5 percentage points (2016). It is likely that these revisions have been influenced by a negative reassessment of the outlook for oil price (see *Oil and gas consensus forecasts*). Expected prices have fallen and the uncertainty around these expectations has risen, generating a much wider spread of GDP growth forecasts in 2016, when the coefficient of variation for nominal GDP growth is

Table 2 Poll of economic forecasts for Qatar, 2015, 2016 and 2017, as of 15 November 2015

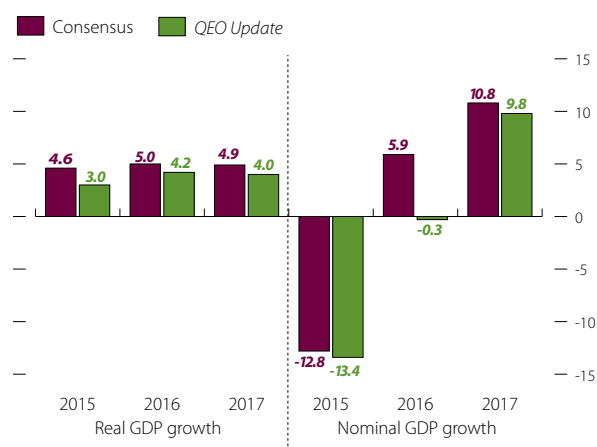
Economic forecaster	Real GDP growth			Nominal GDP growth			Inflation		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
BNP Paribas (Oct 15)	4.5	5.3	4.5	..	..	..	1.3	2.9	3.0
Business Monitor International (Oct 15)	6.6	5.9	5.5	-8.2	9.7	10.9	3.0	4.0	4.0
Citigroup (Nov 15)	..	..	..	-11.4	9.2	..	2.0	4.5	..
Economist Intelligence Unit (Nov 15)	4.3	4.4	4.6	-19.9	6.5	..	2.1	2.8	3.5
Emirates NBD (Sep 15)	..	..	..	..	..	..	2.5	3.0	..
Fitch Ratings (Oct 15)	..	..	..	-13.5	0.2	13.8	2.1	3.7	4.1
HSBC (Oct 15)	..	..	..	-21.3	7.7	11.3	2.0	1.4	1.6
IHS Global Insight (Nov 15)	3.9	4.1	4.8	-7.9	4.5	9.7	1.6	2.4	2.8
Institute of International Finance (Oct 15)	4.1	4.5	4.3	-17.9	7.1	8.8	1.5	2.5	4.0
IMF (Sep 15)	4.7	4.9	4.2	-8.6	0.1	10.4	1.6	2.3	2.9
J.P. Morgan Securities (Sep 15)	..	..	..	..	..	..	1.6	1.9	..
National Bank of Kuwait (Sep 15)	..	..	..	..	..	..	2.1	2.6	..
Oxford Economics (Sep 15)	4.4	4.8	4.9	-10.9	9.7	10.8	1.7	2.8	3.3
Qatar National Bank (Sep 15)	4.7	6.4	6.4	-16.9	9.4	12.3	1.7	2.8	2.9
SAMBA (Oct 15)	4.8	5.0	5.1	-7.7	-1.3	11.5	1.9	2.5	3.0
Standard and Poor's (Sep 15)	4.0	4.5	4.5	-8.9	8.6	8.6	2.0	2.5	2.5
Standard Chartered (Sep 15)	4.5	5.0	5.5	..	..	..	2.2	2.4	3.2
Consensus (mean)	4.6	5.0	4.9	-12.8	5.9	10.8	1.9	2.8	3.1
Median	4.5	4.9	4.8	-11.2	7.4	10.9	2.0	2.6	3.0
High	6.6	6.4	6.4	-7.7	9.7	13.8	3.0	4.5	4.1
Low	3.9	4.1	4.2	-21.3	-1.3	8.6	1.3	1.4	1.6
Standard deviation	0.7	0.7	0.7	5.0	4.1	1.6	0.4	0.7	0.7
Coefficient of variation (%)	15.9	13.6	13.2	-39.2	68.9	14.5	21.1	26.9	21.8
Memo items									
MDP&S forecasts December 2015	3.7	4.3	3.9	-13.4	-0.3	9.8	1.5	1.5	2.0

.. = not available

Note: Real GDP forecasts still reported in 2004 prices have been removed from this list.

Source: Consolidated from various reports and news articles.

Figure 6 Estimates of GDP growth (%)



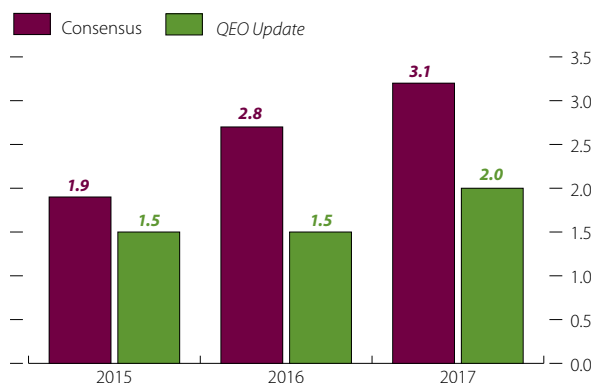
Source: Staff estimates based on forecasts consolidated from various reports and news articles.

68.9%, up from 33.7% in June. Once oil prices bottom, their drag on nominal GDP growth will dissipate, and most forecasters expect this to have occurred by 2017. In each of the forecast years, the MDP&S forecast is lower than the consensus estimate, though they largely converge by 2017.

Inflation

The consensus forecast for consumer price inflation has been revised down from the QEO June estimates (figure 7). The consensus average inflation rate for 2015 is 1.9%, but climbing to 3.1% in 2017. Consistent with the QEO's lower expectations on real and nominal growth, this *Update's* forecasts for inflation are also uniformly lower than those of the consensus. They are also marginally below the June QEO estimates, which reflects

Figure 7 Inflation estimates (% , year average)



Source: Staff estimates based on forecasts consolidated from various reports and news articles.

the likelihood of weaker demand growth in the domestic economy and continued deflationary pressures in global goods markets. Still, inflation is expected to creep up, to 2.0% by 2017.

Prospects for energy and commodity markets

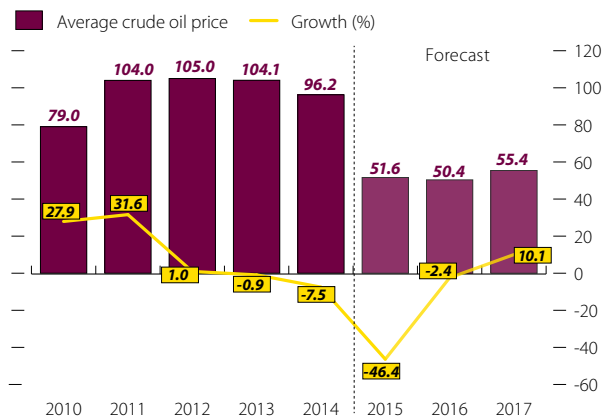
Oil prices

For 2015 the outcome oil price is likely to be below the June 2015 QEO forecast. As of 23 November, the average Brent spot price for the year stood at \$53.9 per barrel, compared with the June QEO forecast of \$56/bbl. The majority of market participants and major houses see some recovery in prices during 2016 and 2017. The US Energy Information Administration (EIA) forecasts supply growth to moderate in 2016, which, all else equal, is likely to support higher prices. However, the EIA cautions that there are high levels of uncertainty over political and economic conditions, and over future decisions by the Organization of the Petroleum Exporting Countries (OPEC) on production levels.

Futures tell a different story on prices. Both IMF and World Bank price forecasts are anchored on futures contracts, and these forecasts see prices moderating slightly next year. The most recent WEO from the IMF pegs the simple average of Brent, Dubai Fateh and WTI crude oil prices at \$50.4/bbl in 2016, rising to \$55.4 in 2017 (figure 8).

Global oil prices have dropped through much of the third quarter of this year (figure 9). New supply has continued to outpace demand. Despite falling prices, OPEC’s meeting on 4 December 2015 concluded without an agreement on production ceilings. Oil output from

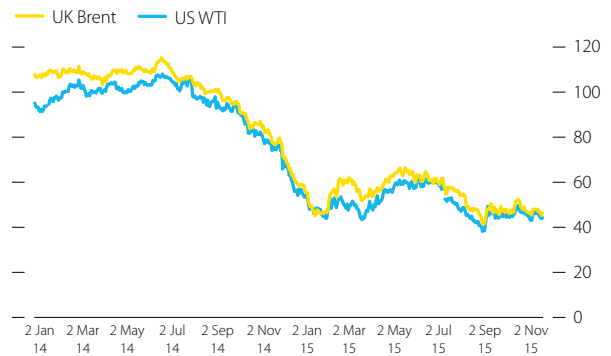
Figure 8 Average crude oil price (\$ per barrel)



Note: Average crude oil price is the simple average of three spot prices: Dated Brent, WTI and Dubai Fateh.

Source: IMF, WEO October 2015 database (<http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/download.aspx>), accessed 29 October 2015.

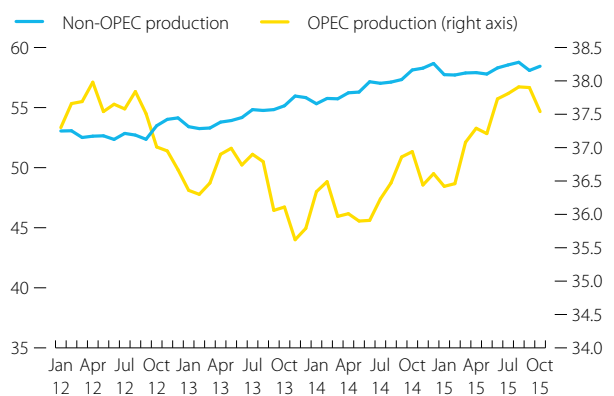
Figure 9 Average daily crude oil spot price (\$ per barrel)



Source: US EIA (http://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm), accessed 15 November 2015.

OPEC countries in October 2015 reached 31.8 million barrels per day (m b/d), which is more than 1 m b/d up on last year’s output (figure 10). Non-OPEC supplies, too, have soared and are likely to average about 58.1 m b/d in 2015, an annual gain of close to 1.15 m b/d. Russian production hit a post-Soviet Union era record. And although the US is pumping 274,000 b/d less crude than during the peak in April 2015, production in the biggest shale oil region, the Permian basin, continues to promise solid economic returns.

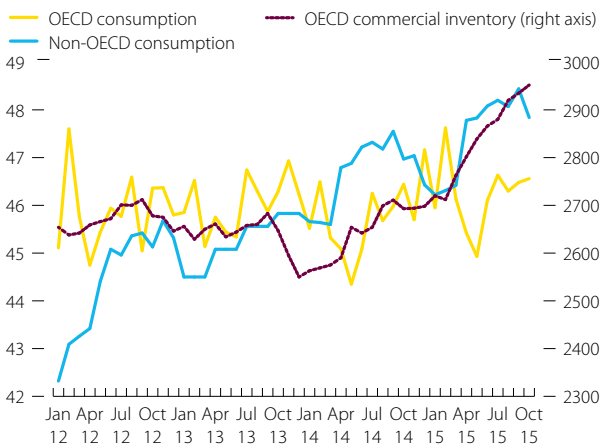
Figure 10 Global liquids production (m b/d)



Source: US EIA, International Petroleum and Other Liquids Production, accessed 10 November 2015.

Global demand, up by about 1.8 m b/d in 2015 over 2014 levels, has been overshadowed by the supply increase and has led to significant stockpiling. OECD commercial inventory levels have been trending up since late 2013, but this trend accelerated in March 2015 (figure 11). Inventories in OECD countries increased to 2.98 billion barrels in September 2015, more than a month’s worth of global oil consumption and a five-year high.

Figure 11 Global liquids consumption (m b/d)

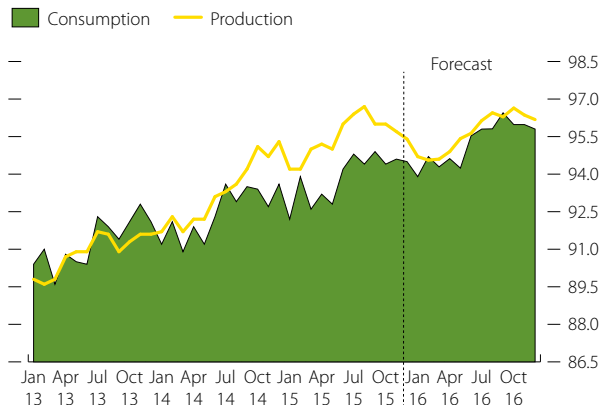


Source: US EIA, International Petroleum and Other Liquids Production, accessed 10 November 2015.

Most anticipate that oil prices will bottom early in 2016 and track up over the remainder of the year as market fundamentals restore balance (figure 12). Non-OPEC supplies are set to contract mildly in 2016, led by private producers in the US. In its November *Oil Market Report*, OPEC foresees production outside its group falling by about 130,000 b/d next year, as nearly \$200 billion of capital expenditure cutbacks put the brakes on supply. Although the October 2015 *Oil Market Report* of the International Energy Agency also forecasts global oil demand to slow in 2016, it anticipates that the present glut in the market will ebb in 2016, supporting higher prices.

The medium-term oil price outlook in 2017 and beyond is less certain. Additional OPEC supply could come to the market from Iraq and Libya, as well as from Iran as sanctions are loosened. The market outlook will also be heavily influenced by prospects in China. The International Energy Agency's *World Energy Outlook 2015*

Figure 12 International crude oil and liquid fuels, global demand and supply (m b/d)



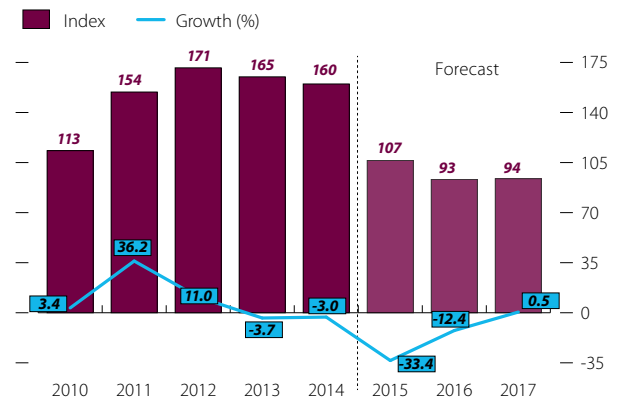
Source: US EIA (http://www.eia.doe.gov/steo/cf_query/index.cfm), accessed 15 November 2015.

foresees that China's energy demand expansion could be nearing its end. Reductions in energy subsidies in the Middle East, improved energy efficiency in advanced nations, and continued substitution towards renewables will all weigh on the oil price outlook.

Gas prices

The October 2015 *WEO* revised down sharply its forecast for average natural gas prices—a weighted average of European, Japanese and US prices—from the *WEO* forecast of April 2015 (figure 13). The revision is due to continuing expansion of production in the US, record global inventories and weaker crude oil prices (to which some natural gas contracts are indexed).

Figure 13 Natural gas price index (2005 = 100)

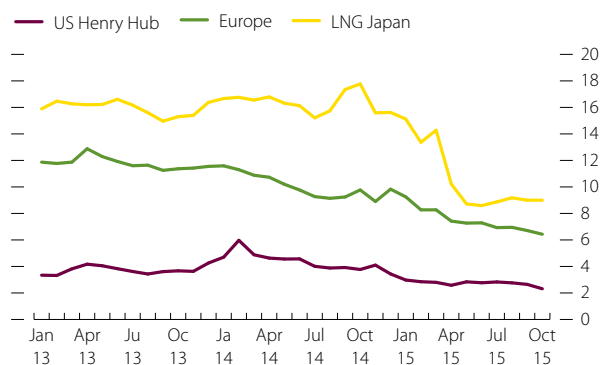


Note: The index is a weighted average of European, Japanese and US prices. Source: IMF, *WEO* October 2015 database (<http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/download.aspx>), accessed 29 October 2015.

US natural gas production hit a new record in August 2015, as producers continued to supply larger volumes despite low prices. By increasing operational efficiency and concentrating on proven production areas, specifically the Marcellus and Utica formations in the US, shale gas producers have defied expectations. The disconnect between expanding supply and moderate demand growth has put pressure on prices, as illustrated by one-month ahead gas futures briefly slipping below \$2 per million BTU (mmbtu) in the US in October 2015.

Prices in Europe and Japan (which are not covered in table 3) have also trended down (figure 14). There is some dissonance about the outlook in these markets, with the World Bank predicting prices rising by 1.6% on average next year but with the IMF taking a more negative view and forecasting a decline of 14.5%. (These two institutions are used here because they provide several regional prices, whereas the EIA and others primarily track Henry Hub in the US.)

Figure 14 Natural gas prices (\$/mmbtu)



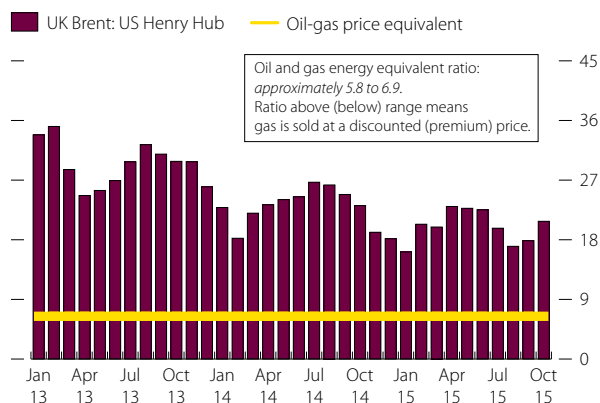
Source: World Bank Commodity Markets database (<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21574907~menuPK:7859231~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>), accessed 15 November 2015.

Since mid-2009, natural gas has been sold at prices that are substantially less than their energy equivalent parity with oil (figure 15), though since oil prices began to fall from mid-2014 this discount has continued to narrow. Oil and gas remain imperfect substitutes for one another.

Although markets for natural gas remain highly geographically segmented, prices are moving closer to convergence. The band separating US and Japanese natural gas prices has narrowed in 2015, with a spread of less than \$7 per million BTU in October 2015 (see figure 14). The US has lower prices, where most gas sales are made spot, and Japan higher prices, where gas is sold under long-term contracts. In Europe, gas trades under a raft of arrangements and has been priced between the other two regions for the last five years.

Whereas the IMF expects average global gas prices to bottom in 2016 and rise thereafter, the World Bank sees

Figure 15 Spot price ratios: Crude oil to gas



Sources: World Bank Commodity Markets database (<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21574907~menuPK:7859231~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>) and US EIA (http://www.eia.gov/dnav/pet/pet_pri_spt_s1_m.htm), both accessed 15 November 2015.

gas prices in all major regions increasing marginally. US inventories are expected to be drawn on heavily in the winter ahead, while industrial consumption is forecast to grow sharply in 2016 as new plants fire up. Nevertheless, US gas supplies are projected to continue outpacing domestic demand.

US export opportunities are expected to expand markedly. Demand from Mexico’s power sector, and for power and non-power sectors in other parts of the world, will benefit from the Texas-based export-oriented Cheniere’s Sabine Pass LNG facility. This facility will start export operations in January 2016, with eventual export capacity of 31.5 million tons per year, once all seven trains are completed. Several other export-oriented LNG projects are under development in the US, with a slated combined capacity of 33.5 million tons per year, excluding Cheniere. Eventually, gas exports should support Henry Hub prices.

In Asia, however, numerous Asian LNG projects are scheduled to come online and supply Japanese and Korean consumers, probably softening prices in that region. In Europe, the outlook for prices is uncertain: they could be restrained by moderate economic growth, more aggressive marketing by Russia of its gas and an interest in diversifying sources of supply to the US—or bolstered by an increased reliance on gas as a source of energy reflecting drops in subsidies for renewables.

Oil and gas consensus forecasts

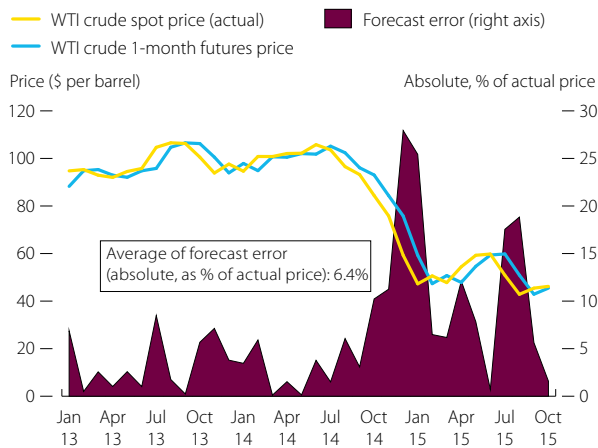
The vast majority of forecasting agencies have revised down their forecasts for oil prices in light of the recent price drop, with Brent consensus projections down 9.5% for 2015 and 18.5% for 2016 from those reported in June. Financial investors, seeing low returns elsewhere, have become increasingly active on commodity markets, and this may have led to sharper price peaks and troughs in prices over the short term.

Over the longer term, however, fundamentals remain the driving force as both demand and supply respond to real prices. In recent years, high prices have supported exploitation of comparatively high-cost, tight oil in North America. With the prospect of lower prices, higher-cost projects (for example Canada’s Pierre River and the Arctic’s Chukchi Sea) have been cancelled or deferred. Oil sands operators accounted for about \$50 billion of the cut global investments in 2015, or a quarter of all cancelled or deferred projects. However, technological advances that bring down the costs of production will continue to support supply.

Short-term forecasts of the oil price have typically not drifted too far from actual prices, but these forecasts

have rarely proven accurate. Given the complex and often unpredictable mix of factors that can have an impact on short-term price movements, the average absolute forecast error as a proportion of the average price (one month ahead) was 6.4% between January 2013 and October 2015 (figure 16).

Figure 16 Average monthly crude oil prices: Spot vs Futures



Source: Estimates based on data from US EIA (http://www.eia.doe.gov/steo/cf_query/index.cfm), accessed 15 November 2015.

A wide range of institutions publish their views on the future trajectory of oil and gas prices (table 3).

Expert forecasts of oil prices diverge widely for 2016 and perhaps inevitably more so for 2017: the spread between forecasts for Brent spans \$41 in 2016, stretching to over \$53 in the following year. The most bearish price forecast for Brent in 2016 is \$45.0/bbl, and \$46.8/bbl in 2017. The World Bank and IMF price forecasts are notably below the consensus mean and median.

The price difference between Brent and WTI is expected to narrow over the forecast period. Before 2010, WTI traded at a premium to Brent. This premium was subsequently reversed as large quantities of crude from North Dakota and Canada flowed into Cushing, the major trading hub for oil cargoes in the US. The consensus is that the premium on Brent will fall to \$4.76/bbl in 2016 and further to \$4.31 in 2017, from an estimated \$4.85 this year. Some pundits, including Lloyds Bank and Westpac, predict that the difference could be eliminated, or even reversed.

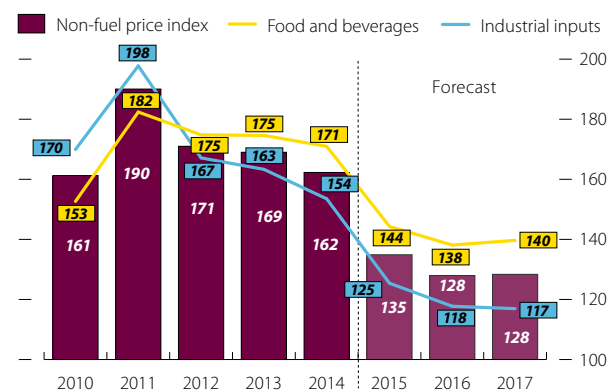
The consensus for gas prices is broadly reflective of what the IMF and World Bank are predicting, with forecasters (based on over 25 observations) expecting a recovery in 2016 and 2017. The consensus is based on US Henry Hub prices only, as US gas sales are made on a liquid spot market. The lowest commercial forecast for gas in 2016 is \$2.3/mmbtu and the highest is \$4.3/mmbtu. For 2017,

against consensus, some forecasters remain bearish and expect that the price could remain as low as \$2.7/mmbtu (but still over 16% higher than in October 2015).

Non-energy commodity markets

Global non-energy commodity prices are expected to continue their declining trend since 2012, as supply expands and demand growth slows with sluggish expansion in emerging economies, particularly China. According to October 2015's *WEO*, the non-fuel commodity price index is expected to drop by a further 5.1% in 2016 relative to 2015 (to 128 from 135). The index is forecast to bottom and rise only slightly by 0.3% in 2017 (figure 17).

Figure 17 Non-fuel commodity price index (2005 = 100)



Note: Industrial inputs include agricultural raw materials and metal price indices. Source: IMF, *WEO* October 2015 database (<http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/download.aspx>), accessed 29 October 2015.

The IMF expects food prices to decline by 4.3% in 2016, driven by a combination of better weather and higher crop yields, coupled with anaemic demand growth from emerging economies. Food prices are then foreseen recovering marginally by 1.1% in 2017. Industrial and raw material prices are also seen declining over the forecast period, primarily owing to heavy investment in the sector that has led to lumbering overcapacity. Metals and other material prices are also expected to fall as China's investment in heavy industry wanes.

Global economic prospects

In its latest issue of the *WEO* released in October 2015, the IMF presented a more guarded view of the global economy's growth prospects (figure 18). First-half data for 2015 point to a slowing global expansion, after a protracted slowdown of growth in emerging economies and a hesitant recovery in advanced economies. Global growth is now projected at 3.1% for 2015, 0.4 percentage

Table 3 Poll of oil and gas prices: 2015, 2016 and 2017, as of 15 November 2015

Economic forecaster	Oil (\$/bbl)						Gas (\$/mmbtu)		
	WTI			Brent			US Henry Hub		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
ABN AMRO (Oct 15)	55.0	60.0	65.0	60.0	65.0	70.0		3.5	
Banco Português de Investimento (Oct 15)	52.0	56.0	60.0	56.0	60.0	64.0			
Bank of America Merrill Lynch (Oct 15)	50.1	53.0	59.0	55.7	55.0	61.0			
Barclays (Oct 15)	51.0	59.0		56.0	63.0		2.8	3.0	
Bernstein (Oct 15)	60.0	81.0	90.0	65.0	86.0	95.0			
BMO Capital Markets Corp/Toronto (Oct 15)	50.2	52.5	55.0	54.1	57.5	60.0	2.8	2.9	3.3
BNP Paribas (Oct 15)	51.0	56.0	66.0	55.3	62.0	70.0	2.8	3.3	
Business Monitor International (Oct 15)	52.0	53.0	53.0	59.0			3.0		
Cantor Fitzgerald LP (Jul 15)	51.2	62.0	70.0	55.3	65.0	75.0	2.9	3.1	3.4
Capital Economics Ltd (Oct 15)	53.0	60.0	65.0	58.0	63.0	67.0	2.8	4.0	5.0
CIBC World Markets Corp (Aug 15)	53.2	62.5		58.1	70.5				
Citigroup (Sep 15)	48.0	48.0	60.0	52.6	52.0	65.0	2.8	3.0	3.5
Commerzbank (Oct 15)	51.2	59.0		55.3	62.0		2.9	4.0	
Credit Suisse (Oct 15)	49.0	54.0	60.0	54.5	58.0	65.0			
CRISIL (Oct 15)	52.5	47.5	55.0	54.5	50.5	58.0			
Danske Bank (Sep 15)	50.2	58.0		54.6	62.0				
Deutsche Bank (Oct 15)	50.3	52.0	58.0	55.8	57.0	63.0			
DZ Bank AG (Oct 15)	48.2	42.0		52.8	45.0		2.9	3.4	
Deloitte (Sep 15)	47.5	53.6	57.2	52.5	57.5	60.0	2.8	3.2	3.5
DNB Markets (Oct 15)				58.0	65.0	70.0			
Economist Intelligence Unit (Oct 15)	48.4	55.1	67.7	53.4	60.0	72.7			
First Energy Capital (Oct 15)	49.6	57.0	68.5	55.1	62.0	73.5			
Fitch Ratings (Aug 15)				65.0	75.0	80.0			
Goldman Sachs (Oct 15)	48.2	45.0	60.0	53.7	49.5	65.0			
HSBC Holdings (Nov 15)	49.8	55.0		55.4	60.0				
IHS (Nov 15)	49.0	51.0	61.0	53.0	55.0	65.0	2.7	2.8	2.8
Institute of International Finance (Nov 15)				55.0	55.0	57.0			
Intesa Sanpaolo SpA (Sep 15)	50.7	60.5	71.0	55.3	64.8	75.0	2.8	3.3	3.7
Itau Unibanco Holding SA (Oct 15)	49.7	48.4	50.3	53.9	52.6	55.0	2.8	3.1	3.2
JBC Energy (Oct 15)	50.0	52.5	64.1	53.8	55.5	67.8			
Jeffries (Sep 15)				54.0	61.0	73.0			
JP Morgan Chase & Co. (Nov 15)	50.4	51.8		55.7	54.8		2.9	3.1	
KLR Group LLC (Apr 15)	54.5	80.0	92.5	59.1	85.0	100.0	3.0	4.3	4.3
LBBW (Oct 15)	50.0	50.0	55.0	54.3	55.0	60.0			
Lloyds Bank PLC (Oct 15)	52.0	61.0	75.0	56.6	65.0	69.0	2.8	3.0	3.3
Macquarie Capital USA Inc (Sep 15)	49.7	53.0	61.0	54.6	58.0	67.0			
Moody's (Jul 15)				55.0	65.0				
Morgan Stanley (Oct 15)				53.0	55.0	75.0			
National Australia Bank Ltd (Oct 15)	49.8	52.5	61.3	54.5	55.3	63.3			
Natixis SA (Sep 15)	49.0	45.3	55.0	53.1	48.5	58.0			
Nomisma Energia (Oct 15)	50.1	52.5	58.9	54.1	55.5	60.9			
Nomura International Hong Kong Ltd (Sep 15)	50.0	50.0	56.0		55.0				
Norddeutsche Landesbank Girozentrale (Oct 15)	50.0	57.0		54.1	58.0				
Nordea Bank Norge ASA (Sep 15)				54.0	55.0	56.0			
Oversea-Chinese Banking Corp Ltd (Oct 15)	49.5	54.4		54.1	62.5		2.7	2.9	
Oxford Economics (Nov 15)	49.9	49.6	55.7	53.9	52.8	59.3	2.6	2.3	2.7
Prestige Economics LLC (Sep 15)	50.3	58.3	58.0	55.1	63.1	65.0	2.9	3.3	3.6
Promsvyazbank PJSC (Oct 15)				52.8	47.0	46.8			
Raiffeisen Bank International AG (Aug 15)	50.2	59.0	67.0	54.6	63.0	70.0			
Raymond James & Associates Inc (Oct 15)	50.0	55.0	70.0	56.0	62.0	77.0			
RBC Capital Markets (Sep 15)	51.3	57.0		56.1	62.0		2.9	3.3	
Samba (Oct 15)				56.0	58.0	70.0			
Sanford C Bernstein & Co Inc (Jul 15)					86.0			3.8	
Santander UK PLC (Aug 15)	49.5	52.7	57.0	54.6	58.0	62.0	2.7	2.9	3.1
Scotiabank (Nov 15)	49.0	47.5	57.5	54.0	52.5	62.5	2.7	2.7	3.0
Societe Generale (Oct 15)	48.8	49.4	65.0	53.4	54.4	70.0	2.8		
Standard and Poor's (Sep 15)	45.0	50.0	60.0	50.0	55.0	65.0	2.8	3.0	
Standard Chartered (Aug 15)	48.5	58.0	72.0	53.6	61.0	78.0			
TD Securities (Sep 15)	49.4	54.8	66.3				2.9	3.1	3.5
Thomson Reuters (Oct 15)	50.0	54.0		54.0	56.0				
Toronto-Dominion Bank/Toronto (Oct 15)	49.7	52.0		54.1	56.0		2.7	3.2	
UBS (Sep 15)	49.0	52.5		55.0	57.5				
UniCredit Markets & Investment Banking (Aug 15)	51.1	59.0		56.1	65.0				
US EIA (Oct 15)	49.5	53.6		54.0	58.6		2.8	3.1	
Wells Fargo Securities (Oct 15)		50.0			55.0			3.0	
Westpac Banking Corp (Oct 15)	49.7	47.0	54.0	53.8	45.0	51.0			

Table 3 continued

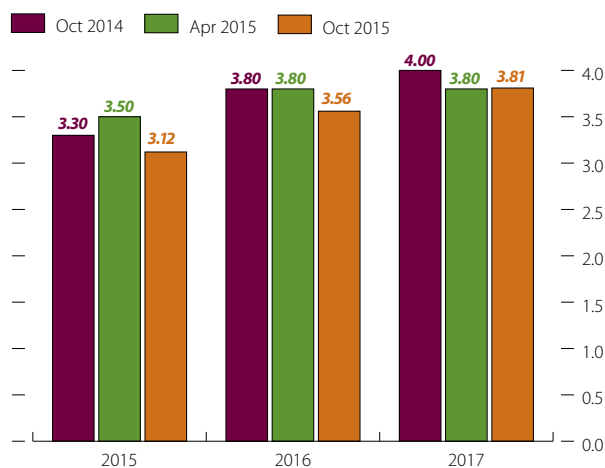
Consensus (mean)	50.3	54.6	62.8	55.2	59.4	67.0	2.8	3.2	3.4
Median	50.0	53.6	60.0	54.6	58.0	65.0	2.8	3.1	3.4
High	60.0	81.0	92.5	65.0	86.0	100.0	3.0	4.3	5.0
Low	45.0	42.0	50.3	50.0	45.0	46.8	2.6	2.3	2.7
Standard deviation	2.1	6.8	8.8	2.5	8.1	9.8	0.1	0.4	0.6
Coefficient of variation (%)	4.2	12.4	14.0	4.5	13.6	14.6	3.5	13.0	16.7
		Crude oil ^a				Gas (\$/mmbtu)			
Memo items	2015	2016	2017	2015	2016	2017			
Consensus average (Brent and WTI)	52.7	57.0	64.9						
International Monetary Fund (Oct 15)	51.6	50.4	55.4		2.8	3.0	3.2		
World Bank (Oct 15)	52.5	51.4	54.6		2.8	3.0	3.3		

Note: Blue= new forecaster.

a Average of WTI, Brent and Dubai Fateh spot prices.

Source: Consolidated from Bloomberg and Reuters surveys, various reports and news articles.

Figure 18 Global real GDP growth projections, IMF (%)



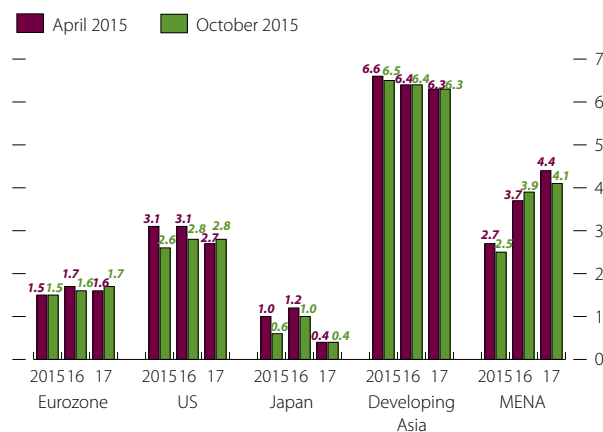
Source: IMF WEO October 2015 database (<http://www.imf.org/external/pubs/ft/weo/2015/02/weodata/download.aspx>), accessed 29 October 2015.

points lower than April's WEO. If the outcome is as forecast, 2015 will mark the fifth consecutive year in which global economic growth has slowed. But in 2016 and 2017 it is expected to pick up as oil prices recover and the US and eurozone recoveries continue, albeit at a tepid pace, and as other emerging economies begin to offset China's decelerating growth.

Although the revisions made to the outlook are marginally lower than those presented in the April WEO, downgrades are made for all regions in 2015 (figure 19). The recovery in advanced economies is still falling short of expectations, and conditions for emerging economies have become more difficult.

In the US, growth is weaker than expected, and despite a reduction in its unemployment rate, harsh winter weather in early 2015 and lower investment in the hydrocarbon sector have led to lower than forecast output growth. In the eurozone, a recovery in domestic demand has spurred faster than anticipated growth

Figure 19 Regional real GDP growth projections (%)



Source: IMF, WEO October 2015 database (<http://www.imf.org/external/pubs/ft/weo/2015/02/weodata/download.aspx>), accessed 29 October 2015.

in the periphery (Italy, Ireland and Spain), offsetting lower growth in Germany. In Japan, a fall in domestic consumption and exports in the first half of the year undermined the outlook for 2015, with growth revised down by 0.4 percentage points from the April forecast.

The outlook for countries in developing Asia has been marginally lowered, reflecting the anticipated repercussions of China's slowing, tighter financial conditions, and lower commodity prices. In the Middle East, lower oil prices have resulted in lower growth rates for oil exporters, and persistent geopolitical tensions continue to stifle growth in other economies. Fiscal consolidation among Gulf Cooperation Council (GCC) countries will slow growth there to about 3.3%, according to the IMF's *Regional Economic Outlook on the Middle East and Central Asia*.

Momentum remains muted in 2016 and 2017. The IMF expects the eurozone to continue its slow recovery, expanding by 0.1 percentage points in 2016 and in 2017. The start of monetary normalisation the US by late 2015

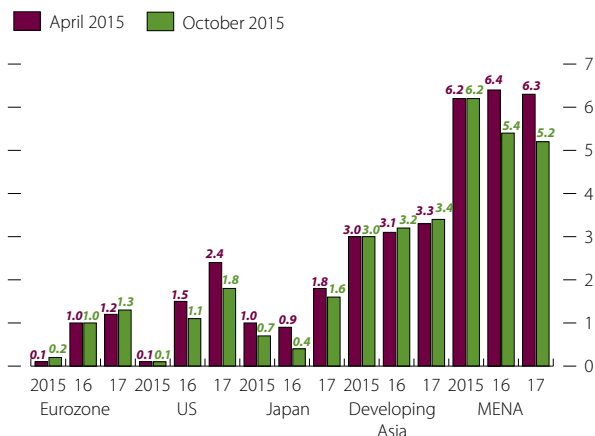
or early 2016 and weak demand in the US will continue to tighten financial conditions in emerging markets, and China's slowing will clip growth in developing Asia. In the Middle East and Africa, oil-exporting countries are adjusting to lower prices (as oil importers benefit) and economic growth there gains momentum after five years of sluggish growth. In 2016 and 2017, Iran is expected to begin to benefit from the P5+1 agreement and the softening of sanctions.

WEO sees world inflation averaging 3.3% in 2015, the lowest since 2009. Dynamics vary by region and country. In developed economies, despite persistent expansionary monetary policies, core inflation has stayed stable which, coupled with softer commodity prices, has seen inflation come in lower than expected. In developing economies, lower oil prices and a slowdown in economic activity have lowered inflation, except in countries suffering large currency depreciations. Bar the eurozone—where a pickup in economic activity and depreciation of the euro in the second quarter of 2015 reversed previous deflationary trends—inflation forecasts for 2015 across the different regions have been held at previous levels or revised to below those reported in April's WEO (figure 20).

Global inflation is expected to accelerate in 2016 and 2017, as oil prices begin to recover and as nominal exchange rate depreciation in some countries like Russia, Ukraine, Brazil, Chile and Venezuela puts upward pressure on prices. In the eurozone and the US, inflationary pressures are seen rising in the outlook period, but inflation will nonetheless remain significantly below the central banks' targets. In Japan, risks of deflation will be offset by a weaker yen and a tightening of the labour market, which should push inflation up to 1.6% by 2017.

In the Middle East, the appreciation of the US dollar—to which most GCC countries peg their currencies—and lower international food price growth have resulting in moderating inflation. According to the IMF's *Regional Economic Outlook for the Middle East and Central Asia*, inflation in the GCC region will average 2.4% in 2015, down from 2.6% the previous year. High inflation in Yemen, where conflict continues, Algeria, whose currency suffered a large depreciation against the dollar, and Iran pushed the overall MENA inflation average up in 2015, but it will begin to moderate in the outlook period.

Figure 20 Annual inflation projections (%)



Source: IMF, WEO October 2015 database (<http://www.imf.org/external/pubs/ft/weo/2015/02/weodata/download.aspx>), accessed 29 October 2015.

