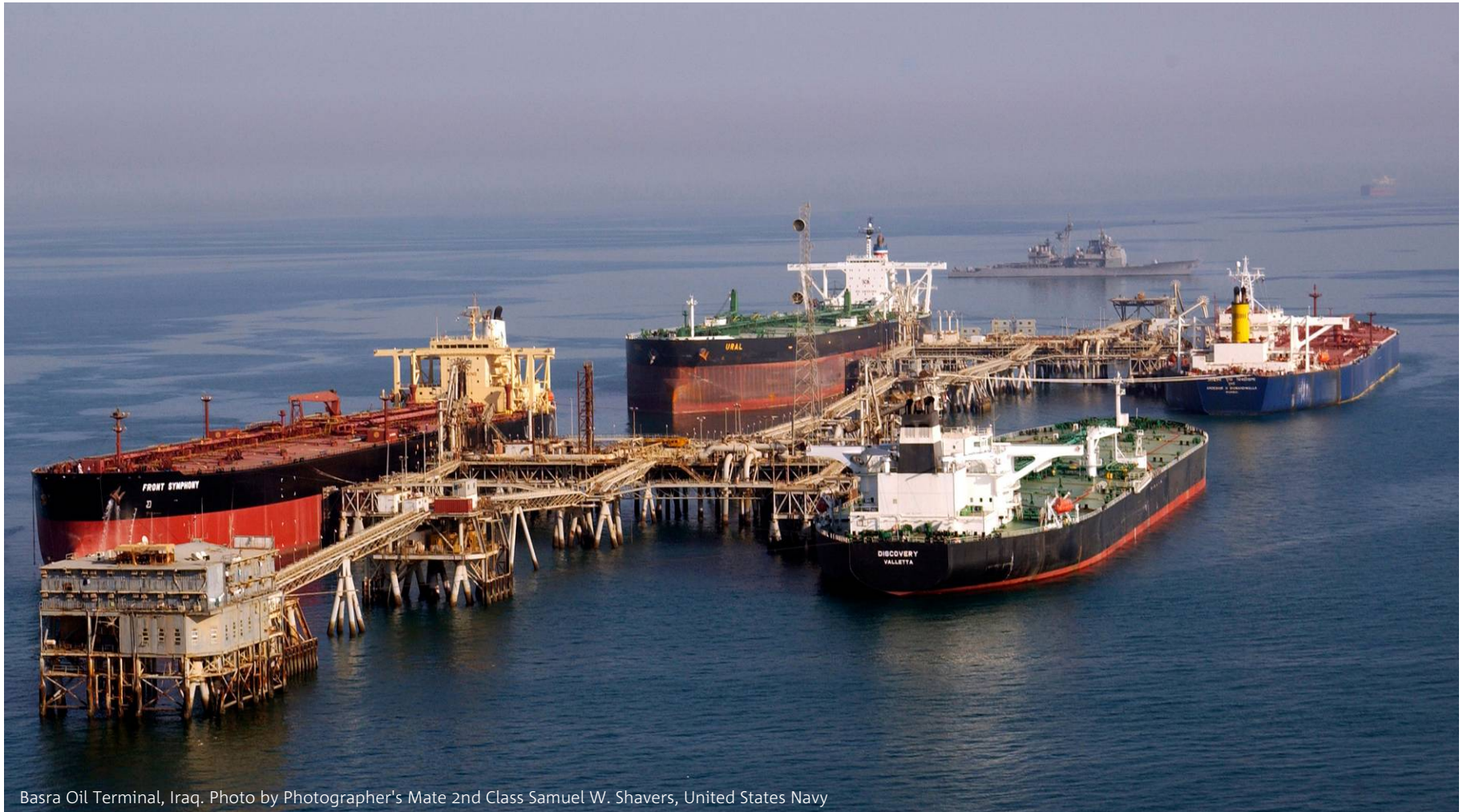


Oil Market Update – September 2014

NAB Group Economics



National
Australia
Bank



Basra Oil Terminal, Iraq. Photo by Photographer's Mate 2nd Class Samuel W. Shavers, United States Navy

Key points

- Since our last [Quarterly Oil Market Update](#) in June 2014, global crude oil prices have fallen sharply amid ample supply and weak demand combined with an increasing confidence that turmoil in Iraq is unlikely to disrupt supplies.
- Global supply stood at 91.96 million barrels in August, up 2.1% from the same time in 2013. Growth has been led by increased non-OPEC production, in particular from non-conventional sources in the United States, while OPEC supply has been pushed higher by Libyan production coming back online.
- In contrast to ample supplies, liquid fuel demand has been subdued for the last several months, reflected in higher inventories and lower refinery runs. Slowing economic growth in China, coupled with weakness in Japan and ongoing malaise in much of Europe have pushed expectations of demand lower, despite some optimism returning to the US, UK and India.
- Reflecting these fundamentals, market expectations of oil prices have fallen sharply since June as ample supply and weak demand continue to outweigh concerns over geopolitical tensions in the Middle East.
- We have cut our forecasts for crude oil prices accordingly over the medium term. We expect that that Brent will average US\$103/barrel in 2015. Our forecasts for Australian retail fuel prices show underlying growth in line with a lower trending Australian dollar. We expect unleaded to reach 151.1 AUc/litre in the March quarter 2015, climbing to 155.2 AUc/litre by the December quarter 2015.

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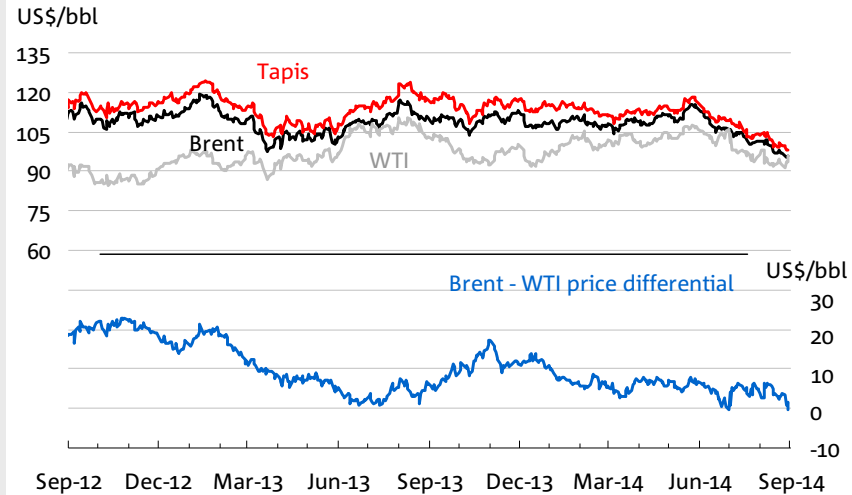


Recent price trends

- Brent averaged US\$97.85/barrel in September, down 4.4% for the month, while Tapis fell 4.2% to US\$100.67/barrel. WTI also declined, but at a slower rate than Brent or Tapis, falling 3.2% to average US\$93.42/barrel in September. Brent ended September trading at US\$94.72/barrel, Tapis at US\$99.60/barrel and WTI at US\$91.17/barrel.
- The Brent-WTI spread has continued to narrow amid abundant global supply, reinforced by a reduced dependence on US oil imports as US production continues to grow. Oil supplies previously earmarked for US delivery are now looking for alternative markets as US import demand falls.
- Australian retail fuel prices have fallen in response to lower international crude oil prices, although a falling AUD may arrest this trend. The weighted average capital city ULP price stood at 144.94 AUc/litre in August, down 4.5% from July. Prices are down 3.4% compared to the same time last year.

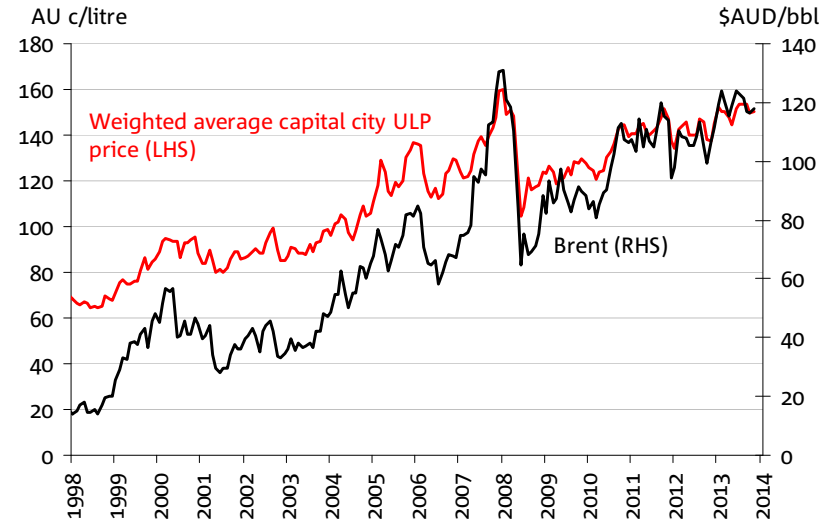


Figure 1: Daily oil prices



Source: Thomson Datastream and NAB Group Economics

Figure 2: Australian Retail Fuel Prices



Source: RACQ, US Energy Information Administration

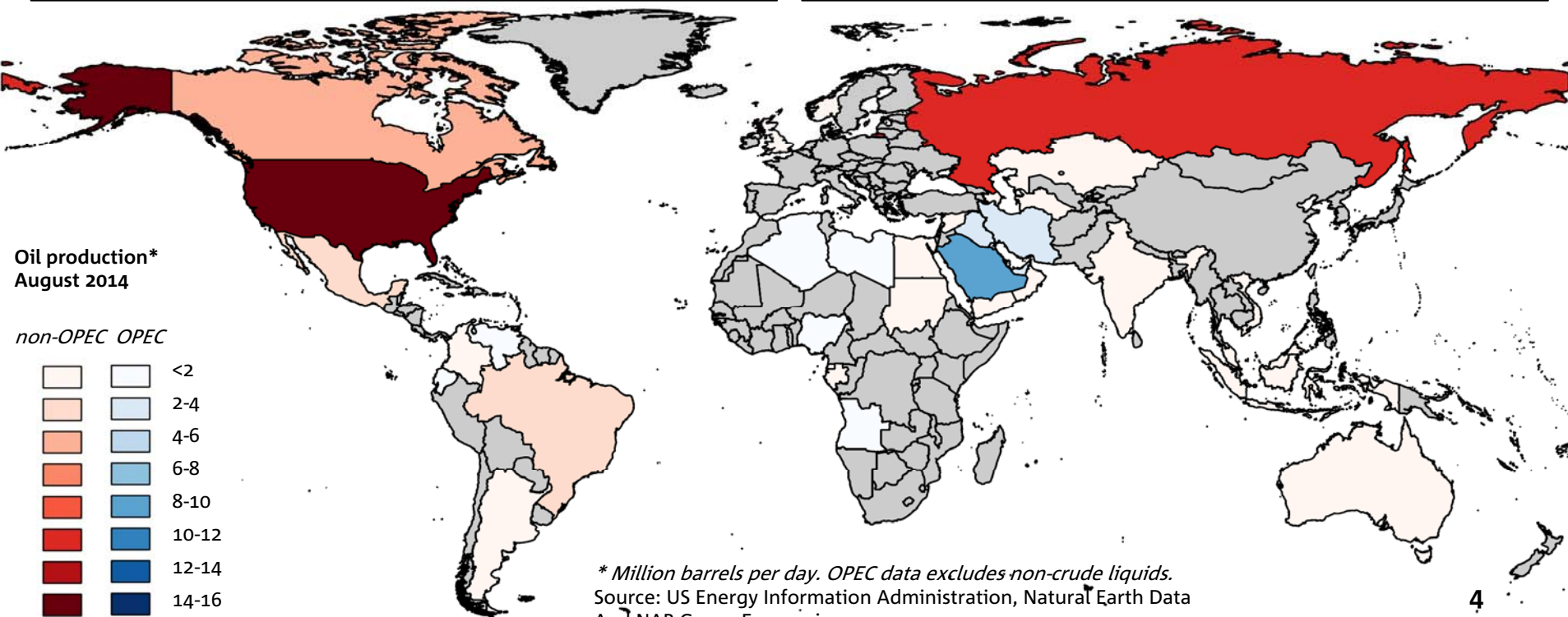
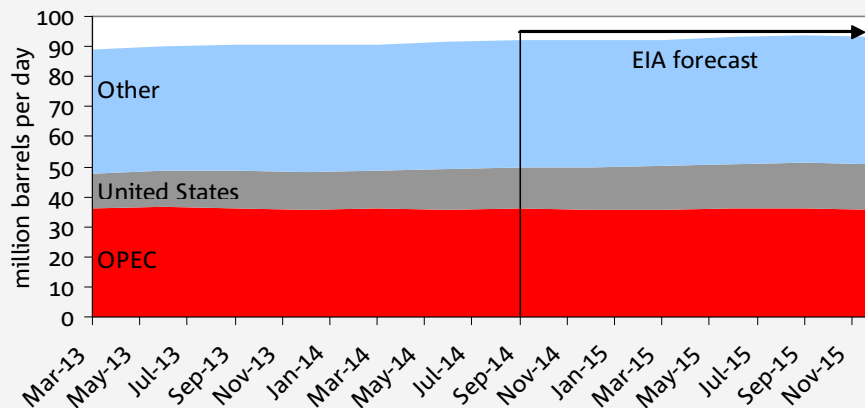
Global oil supply

Global oil supply has been increasingly generous throughout 2014, and particularly in the third quarter. The US Energy Information Administration (EIA) reports that global supply stood at 91.96 million barrels in August, up 2.1% from the same time in 2013.

Supply growth has been led by increased non-OPEC production, particularly higher US production from non-conventional sources, while OPEC supply has been pushed higher by Libyan production coming back online.

Ample global supply combined with weak demand has led to speculation that OPEC may cut its production quotas. OPEC members are to discuss production at their November meeting, although agreement may be difficult to reach.

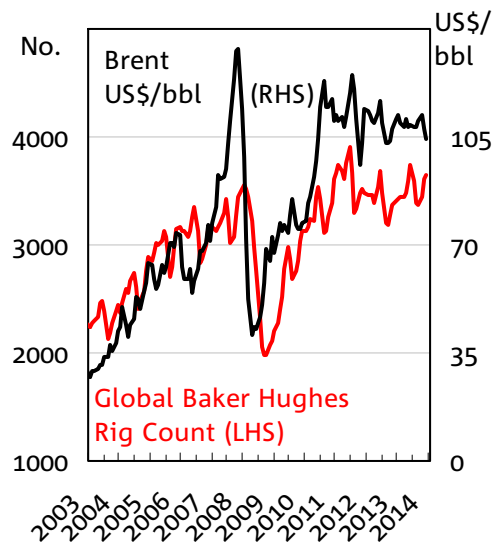
Figure 3: Global crude oil and liquids production



Exploration

- Exploration trended up in August despite falling crude oil prices, with the Baker Hughes Global Rig Count reaching 3,642, up 0.9% on July and up 6.6% on the same time in 2013.
- However, we expect that exploration activity could ease in the coming months in response to lower crude oil prices.

Figure 4: Global crude oil supply response

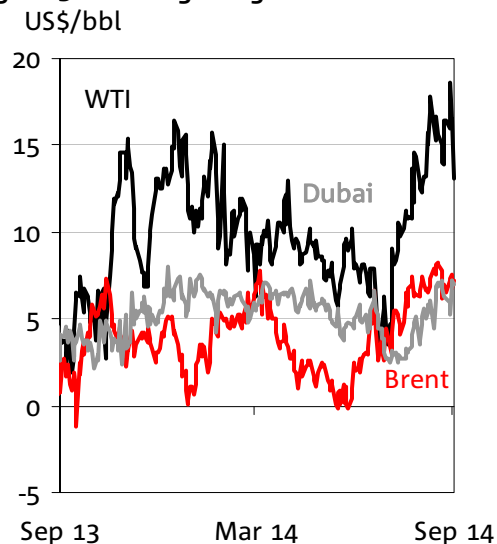


Source: Thomson Datastream and Baker Hughes

Refining

- Refining margins have climbed from their June 2014 lows and have surged in recent months, particularly for WTI which averaged over US\$15/barrel in September.
- The primary cause of these stronger margins has been increased supply which has seen lower crude prices. Stronger US production has seen less need for imports, which has in turn led to crude supplies previously destined for the US move to Europe.

Figure 5: Refining margins US\$/bbl

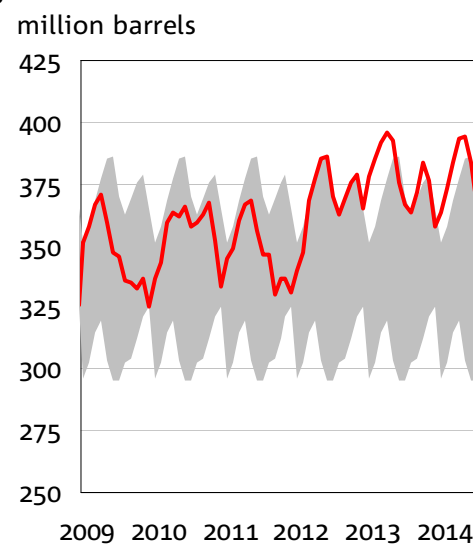


Source: Thomson Datastream

Inventories

- Inventories have trended generally higher in 2014, with US total commercial inventories up 7.4% and OECD inventories up 2.2% since January.
- US commercial crude oil stocks declined in August on seasonal factors but remain only 1.2% below the same time in 2013, reflecting higher overall US crude oil supply balanced against improved takeaway capacity from Cushing to Gulf Coast refineries.

Figure 6: US commercial crude oil stocks (ex SPR*) million barrels



Note: Grey band around storage levels represents the range of monthly average minimum and maximum levels from Jan.2008 - Dec.2012. * SPR = Strategic Petroleum Reserve

Source: US Energy Information Administration

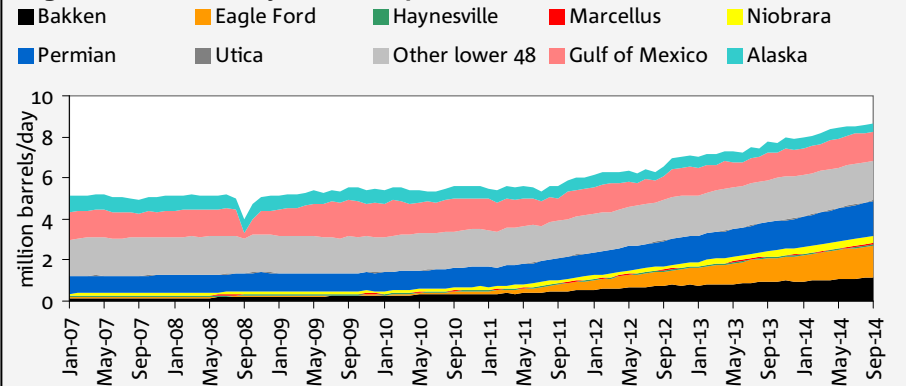
In focus: United States supply

Summary

US crude oil production continues to grow strongly on account of rapidly increasing shale oil extraction, particularly from the Eagle Ford, Permian and Bakken plays. The EIA estimates September US crude and liquid fuels production to be 14 million barrels per day.

US production is now the highest since 1986 and is forecast to continue to grow in 2015. The EIA reports that the share of US petroleum and other liquids met by imports has fallen from 60% in 2005 to 32% in 2013 and forecasts an import share of only 21% for 2015 – the lowest since the 1960s. We note, however, that some risks remain around longevity of shale well performance.

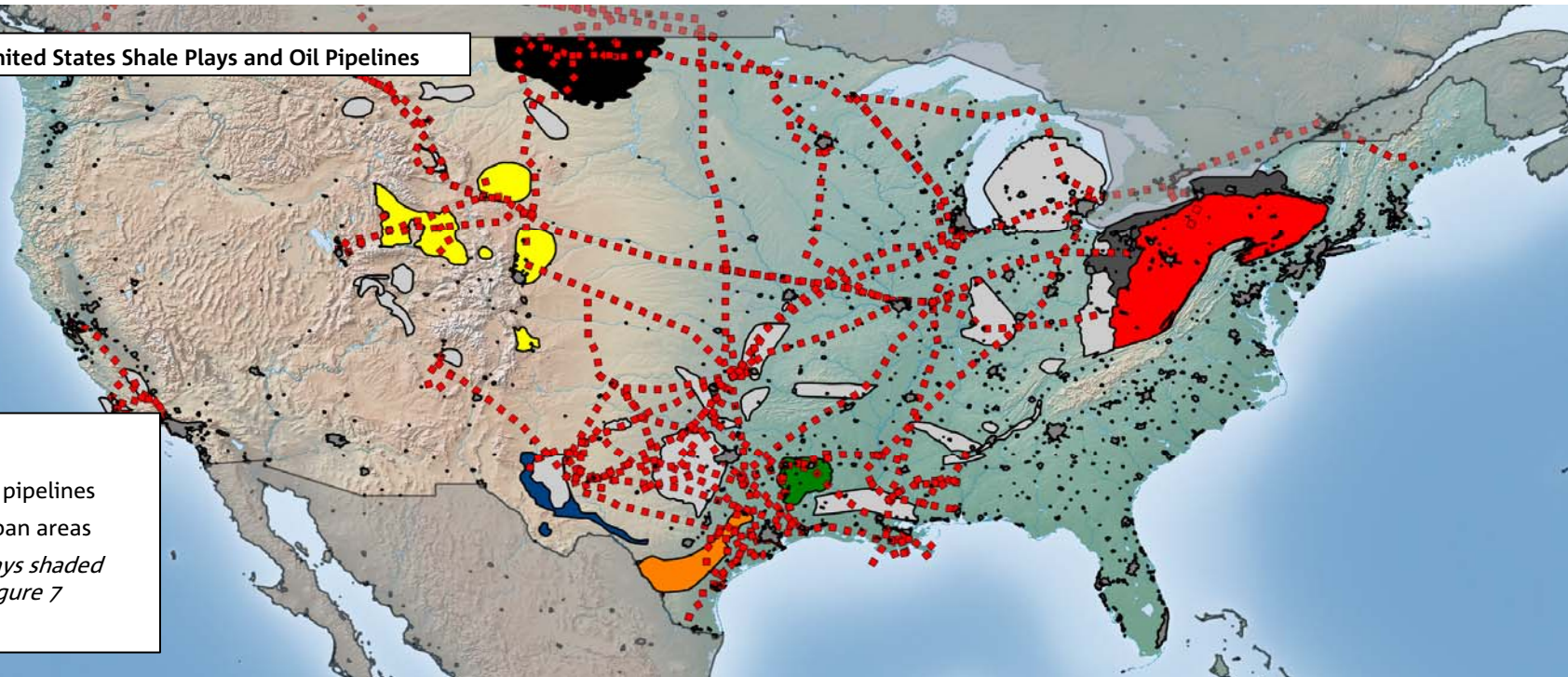
Figure 7: US monthly crude oil production



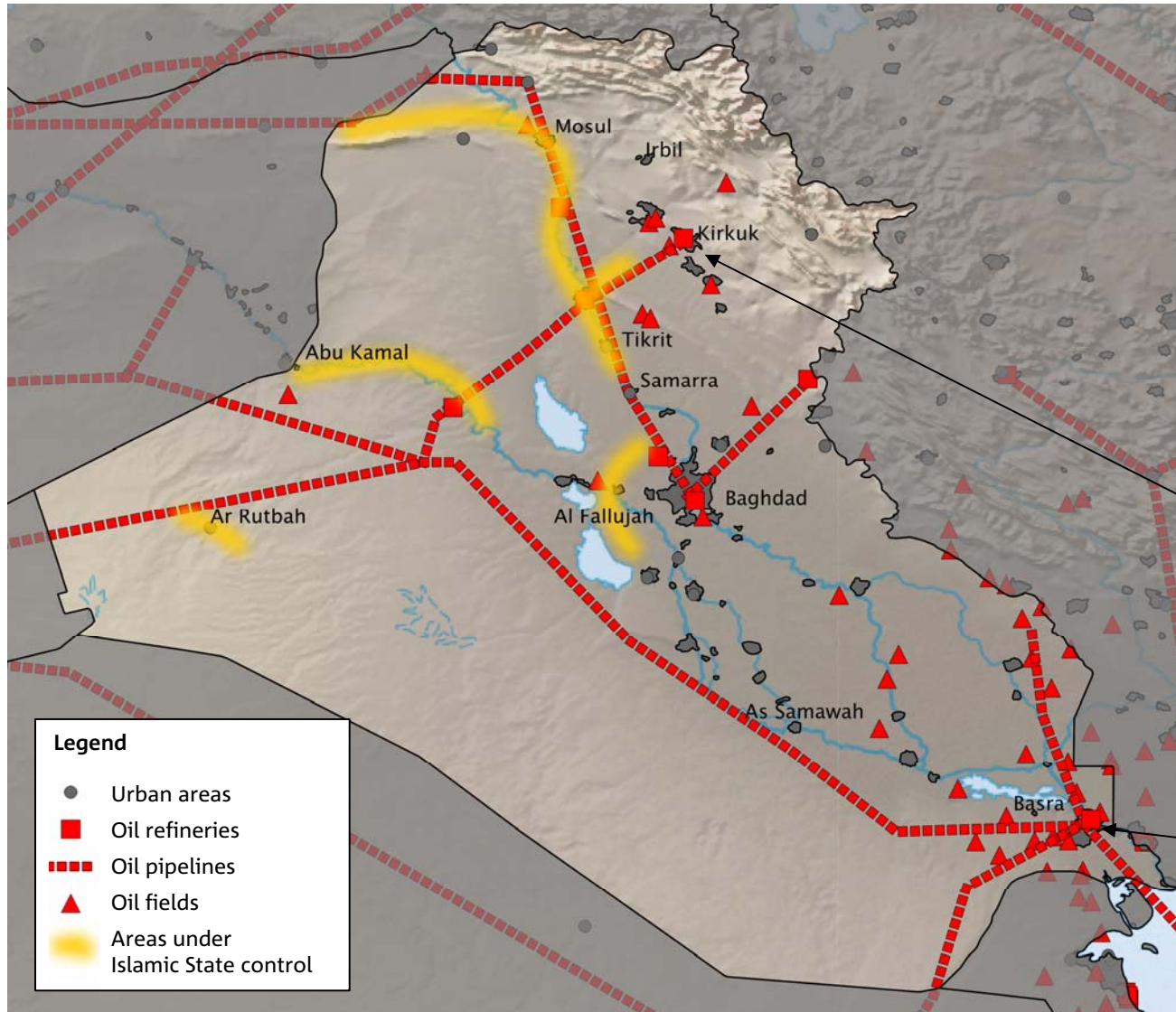
Major United States Shale Plays and Oil Pipelines

Legend

- Oil pipelines
- Urban areas
- Shale plays shaded as per Figure 7*



In focus: Iraq supply



Iraq supply status: September 2014

While prices spiked in June in response to a rapid advance of Islamic State terrorists across northern Iraq, markets have since eased as southern production and export through Basra remains largely unaffected. While exports through Kirkuk have ceased, they constituted a small proportion of the market.

Figure 8: Kirkuk crude loaded

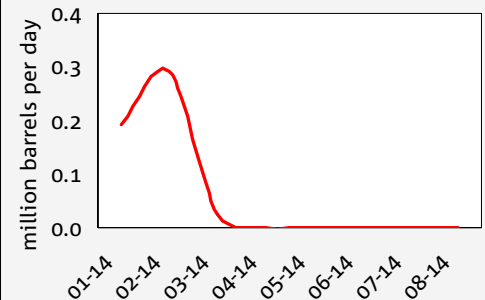
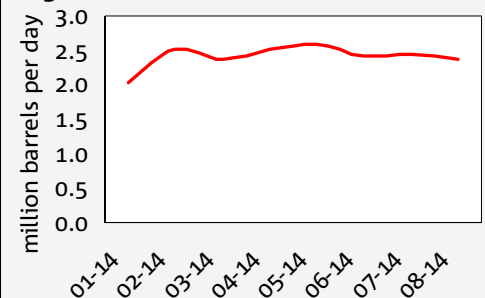


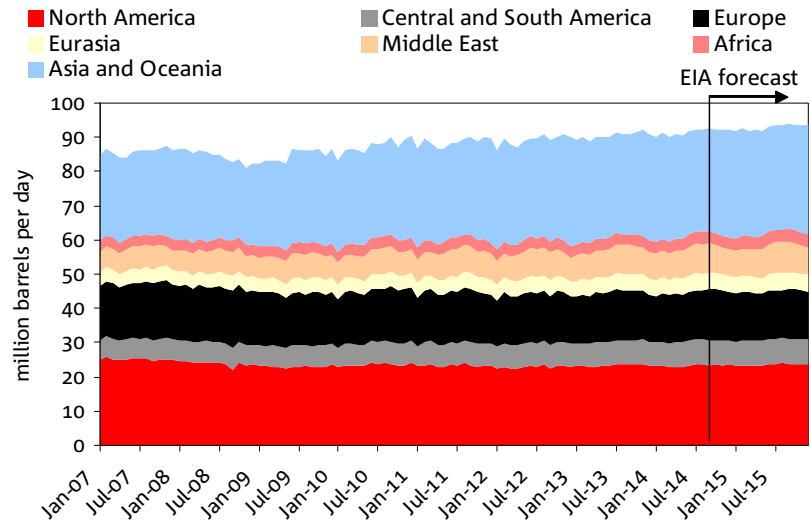
Figure 9: Basra crude loaded



World demand

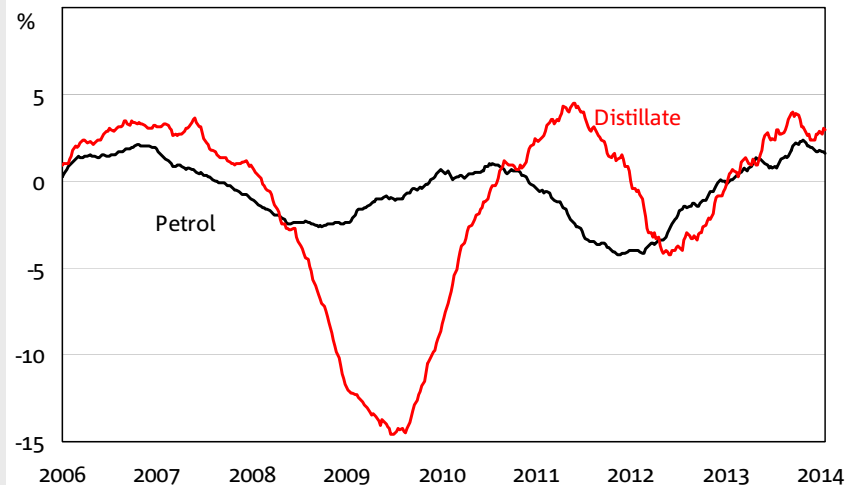
- Global liquid fuel demand has been subdued for the last several months, reflected in higher inventories and lower refinery runs.
- Weakness in Japan, stagnation in the Euro-zone and a hard landing in Latin America have resulted in a slowdown in the pace of global growth through the first half of 2014. Elsewhere, while economic upturns look secure in North America and the UK, and Indian growth has picked up, China's gradual slowing continues.
- Consumption of both petrol and diesel in the US was down in September on predominantly seasonal factors. Petrol consumption was 4.7% lower and diesel 6.9% lower than in August. Consumption is slightly lower than the same time in 2013 (-0.6% for petrol and -2.3% for diesel).
- Chinese crude oil imports were up 6.0% in August, although caution should be exercised with the series owing to high month to month volatility. There are concerns that increasing weakness in the Chinese residential property market could further weigh on China's growth prospects, leading to weaker oil demand.
- The EIA forecasts that world liquid fuels consumption will increase 1.1% to 91.55 million barrels per day in 2014 and 1.5% to 92.89 million barrels per day in 2015. The International Energy Agency forecasts demand to reach 93.8 million barrels per day in 2015, but has revised down its forecast to reflect slowing demand growth and a weaker outlook for Europe and China.

Figure 10: World liquid fuel consumption – EIA projection



Source: US Energy Information Administration and NAB Group Economics

Figure 11: Weekly US product demand: 12 month average percentage change

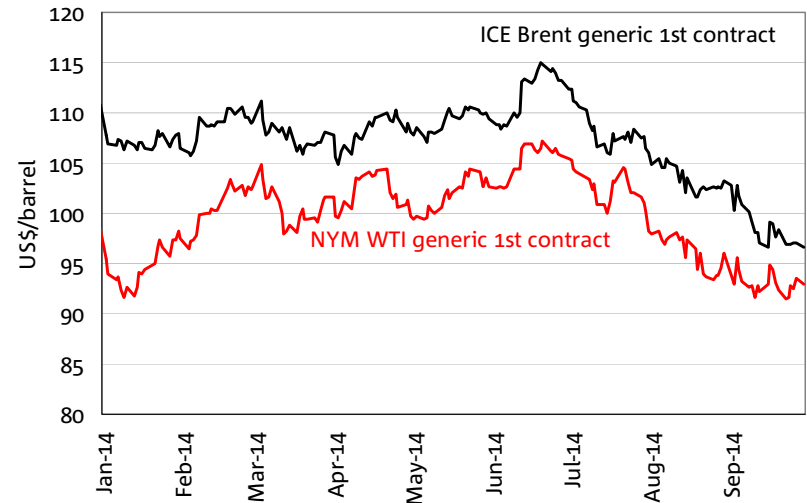


Source: US Energy Information Administration and NAB Group Economics

Price outlook: market expectations

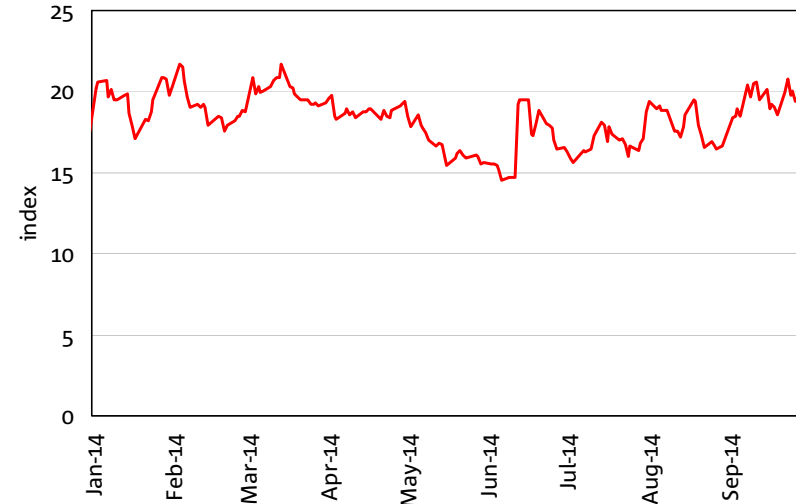
- Market expectations of oil prices have fallen sharply since June as ample supply and weak demand continue to weigh on sentiment. Mixed economic data, particularly from China and Europe, have seen further price falls.
- While growing US supply has led to calls for a relaxation in US oil export restrictions (and consequently a move closer to parity with Brent), the even sharper price falls for Brent than WTI have somewhat dampened these demands for the immediate future. It is unclear whether the chorus for export liberalisation will grow louder while the US remains a substantial oil importer.
- Backwardation (where futures contracts become cheaper for later deliveries) persists in WTI futures markets as increased pipeline capacity continues to allow a drawdown of inventories at Cushing, Oklahoma. Compounding this effect are continued expectations of ample supply and muted demand, leading sellers to discount future deliveries.
- Sustained lower prices have led to speculation, reported by Bloomberg and others, that OPEC (which produces almost 40% of world crude oil) may cut its production quotas for 2015 when it reviews its target in November. While such a move would place upward pressure on oil prices, it would require the approval of all 12 OPEC member states and agreement may be difficult to achieve.
- The EIA has revised down its 2015 price forecast for Brent from US\$105/barrel to US\$103/barrel and expects the WTI-Brent spread to average US\$8/barrel in 2015.

Figure 12: Brent and WTI generic contracts



Source: Bloomberg

Figure 13: CBOE crude volatility index (OVX)



Source: Bloomberg

Oil price outlook: NAB forecasts

- We consider that absent a supply disruption in Iraq, crude prices are likely to remain at subdued levels over the medium term as supply growth exceeds demand growth.
- A cut in OPEC production represents an upside price risk, however we do not currently have sufficient information to incorporate this risk into our forecasts.
- On balance, our central case forecast is for Brent to decline to US\$100/barrel in the December quarter and thence to average US\$103/barrel in 2015. Our central case for WTI is for US\$95/barrel in the December quarter, with underlying growth from the March quarter 2015 as the WTI-Brent spread declines in line with higher US production and increasing pressure to allow exports.
- We forecast that petrol prices will rise slightly to 148.8 AUc/litre in the December quarter before continuing to climb in 2015 as the AUD declines against the USD, offsetting the effects of lower international crude oil prices.

	Spot	Actual	Forecasts							
	30/09/2014	Sep 14	Dec 14	Mar 15	Jun 15	Sep 15	Dec 15	Mar 16	Jun 16	Sep 16
Brent (US\$/bbl)	94.92	103	100	102	103	103	104	104	105	105
WTI (US\$/bbl)	91.17	98	95	96	97	98	100	101	102	102
Tapis (US\$/bbl)	99.60	105	103	105	106	106	107	107	108	108
Singapore gas oil (AUc/L)	78	79	75	75	75	75	75	76	76	76
Petrol* (AUc/L)	NA	147.1	148.8	151.1	152.6	153.6	155.2	156.2	157.1	157.3

Source: NAB Group Economics, RACQ, Thomson Datastream and US Energy Information Administration

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