



Commodities Chartpack

28 January 2016

Barnabas Gan

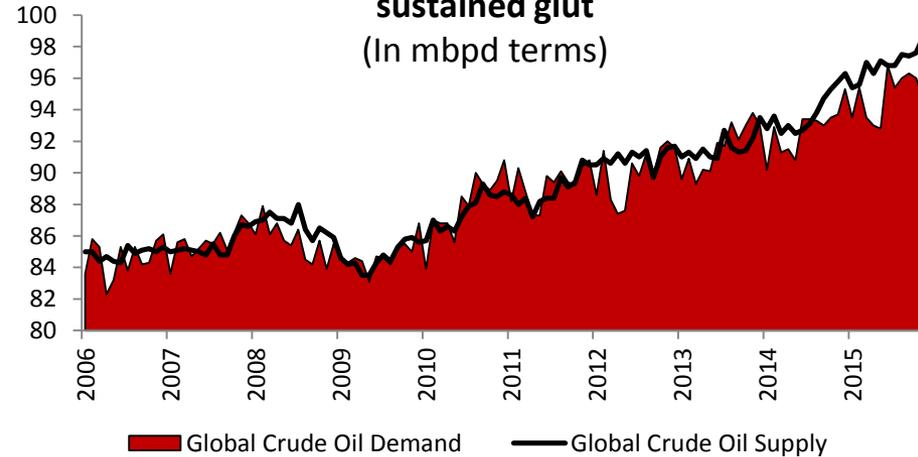
Global Treasury Research & Strategy

Crude Oil – Do not be short-sighted

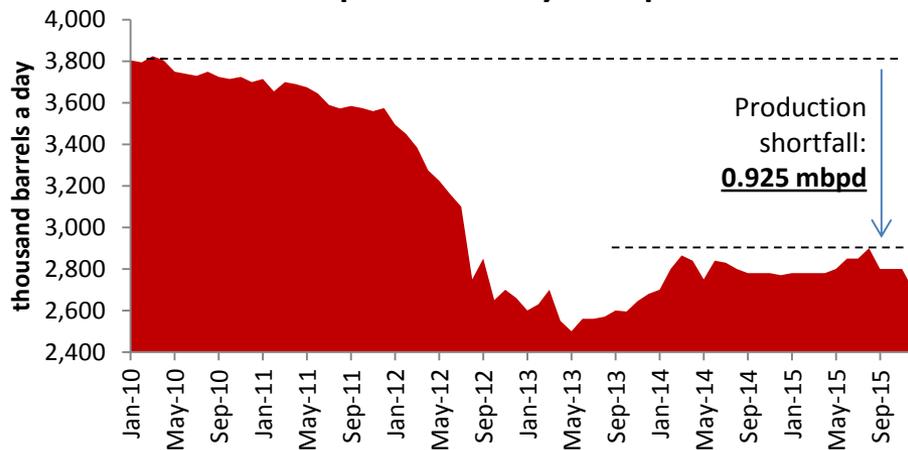
Fear of oversupplies spook the market

- Global crude oil oversupply glut has widened to 3.8 million barrels per day (mbpd) as of November 2015, up from 1.9 mbpd at the start of last year, according to data by EIG.
- Concerns over further exacerbation of oversupplies stemming from higher Iranian oil supplies in to 2H16, as well as the lifting of US crude oil export ban have spooked oil prices lower.

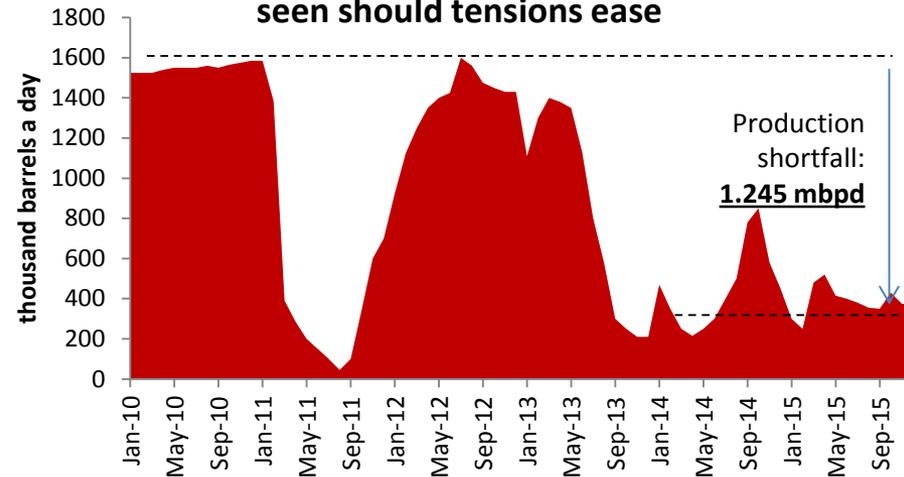
Global oil production and demand points to a sustained glut (In mbpd terms)



Iran has repeatedly highlighted its intention to raise crude oil production by 1 mbpd in 2016



Upside surprises in Libya's production may be seen should tensions ease

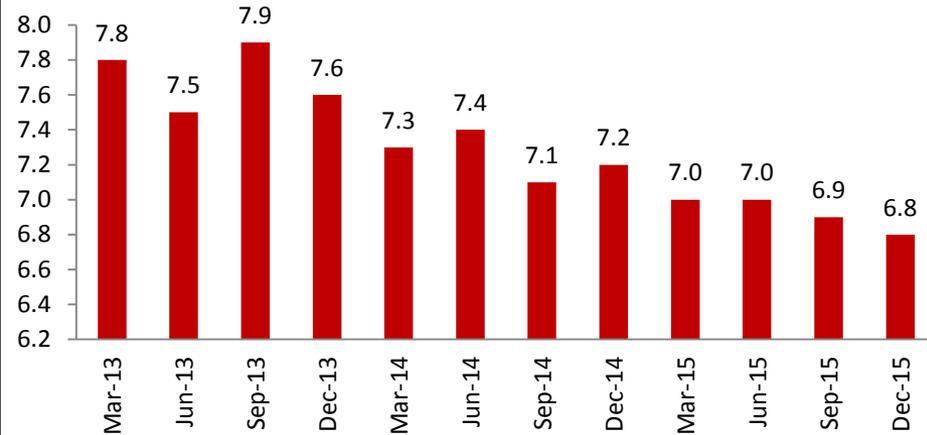


OCBC Bank

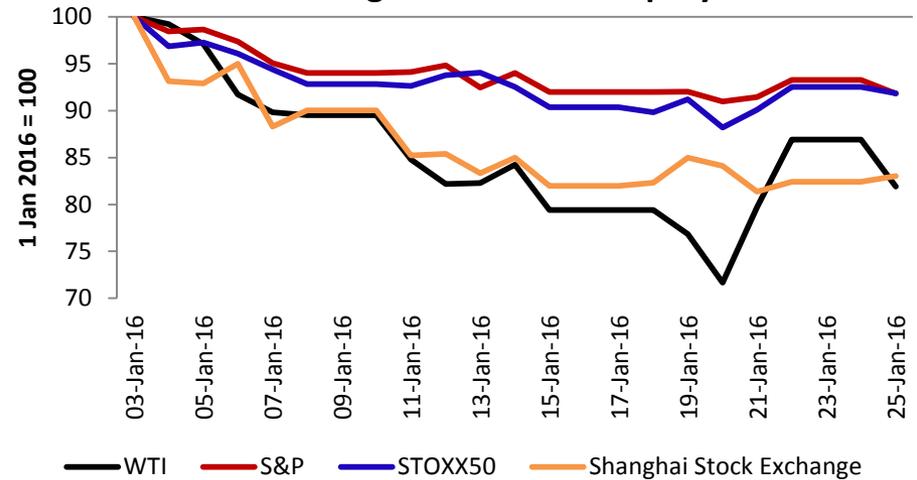
Source: Energy Intelligence Group (EIG), Bloomberg, OCBC

Growth sentiments deteriorated in 1M16

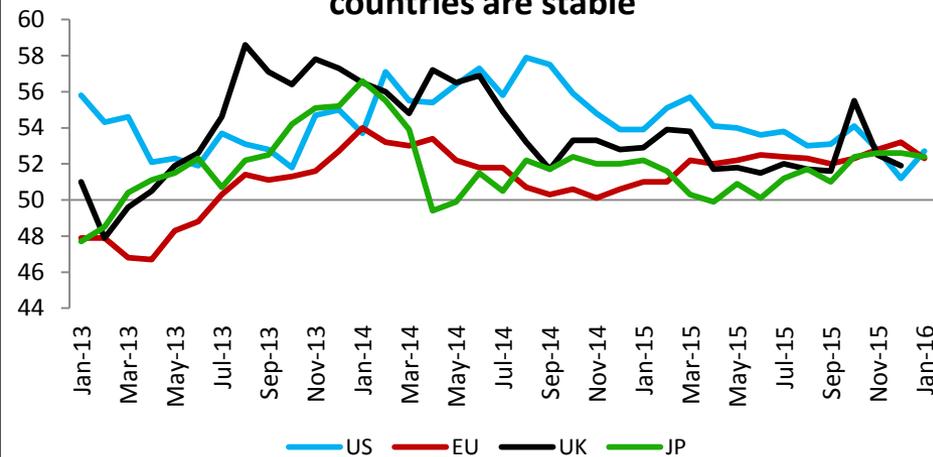
China's growth slowed gradually over the last three years



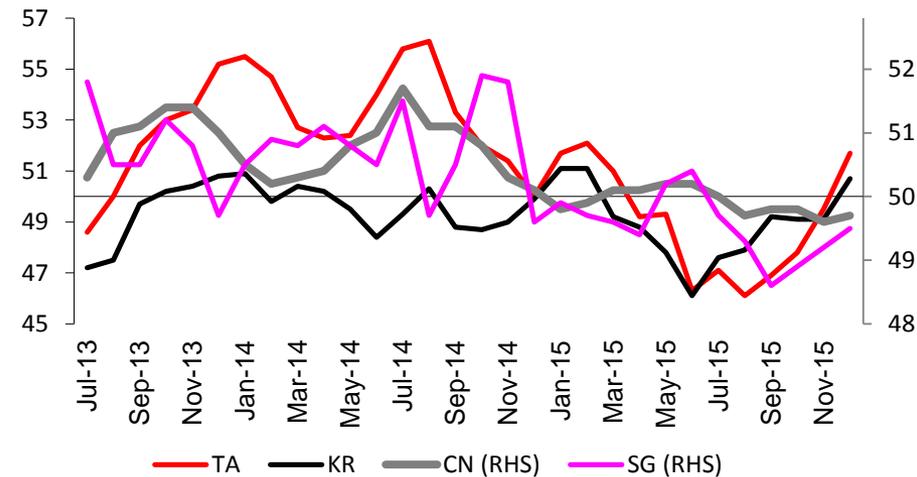
Crude oil fell together with the equity rout



Manufacturing PMI prints in developed countries are stable



Manufacturing PMI prints in Asia are picking up

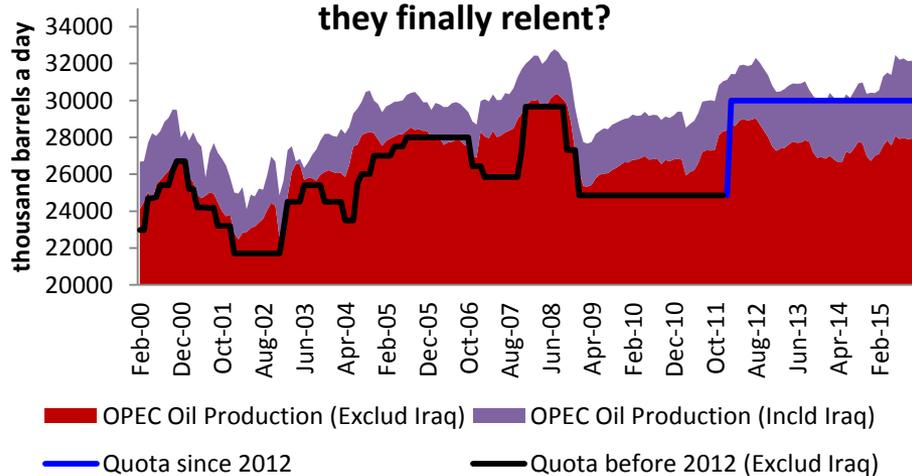


Prices may remain weak (sub-\$40/bbl) in 1H16

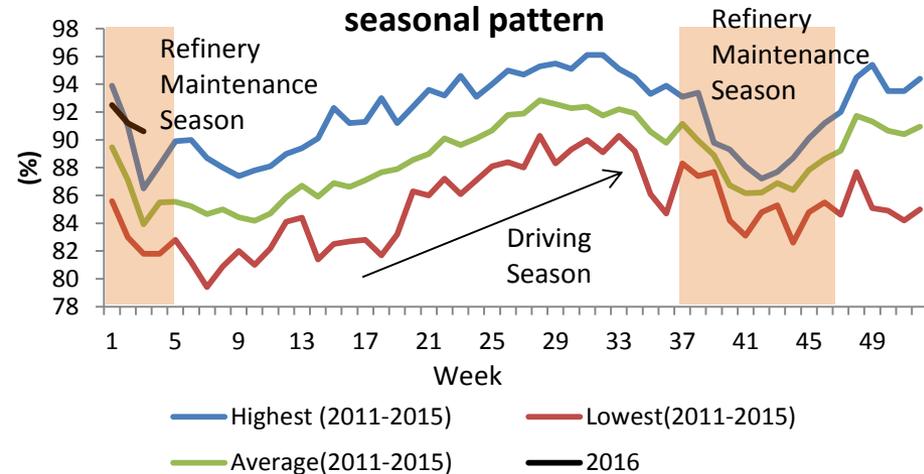
Suspense over future production and inventory levels will likely cap any rally.

1. US refinery maintenance (Jan – early Feb) should add more crude oil inventories
2. Will Iran manage to lift production by 1 mbpd in 2016? Note Iraq took 42 months to do so after its sanction-lift in Dec 1996.
3. Will OPEC countries finally agree on a cutting quota to prop oil prices higher?

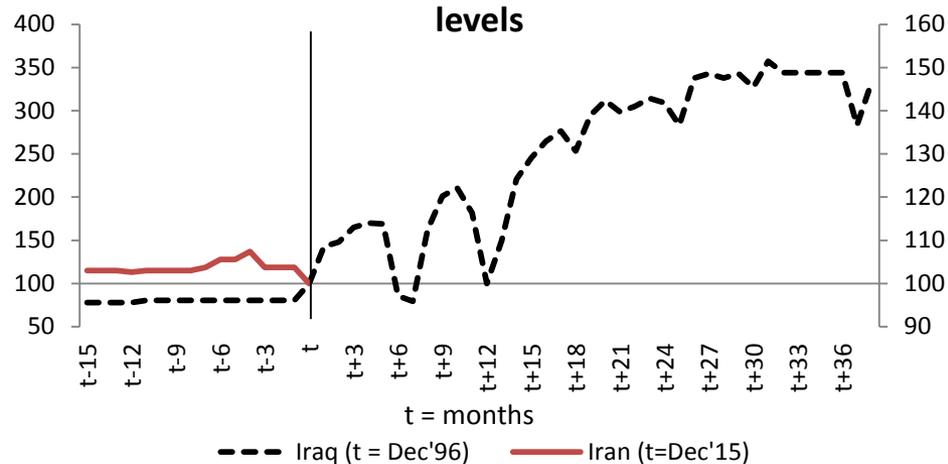
OPEC's production is adding to the glut. Will they finally relent?



US refinery utilization rates follow a strict



Iraq took 42 months to recover to pre-sanction



Saudi Aramco – What we know for now

- Saudi Aramco highlighted the prospect of a initial public offering (IPO) on the Saudi stock exchange. It said that it was considering “the listing in capital markets of an appropriate percentage of the company’s shares and/or the listing of a bundle of its downstream subsidiaries.”
- An IPO on Saudi Aramco’s refining facilities had been done in history back in 2008 – Refining and Petrochemical Company, PetroRabigh, offered 25% of shares to investors.
- **The move to raise funds is likely an attempt to finance its budget and further fuel its strategy to keep oil prices low.**

Oil Giants

Aramco is by far the world’s largest producer of crude and a formidable producer of natural gas.

Top oil-production companies, 2013

in millions of barrels per day

Saudi Aramco	9.99
National Iranian Oil Co.	3.68
Kuwait Petroleum Corp.	3.15
China National Petroleum Corp.	3.05
Iraq National Oil Co.*	2.94

Top natural-gas-production companies, 2013

in billions of cubic feet equivalent per day

Gazprom	47.05
National Iranian Oil Co.	15.49
Exxon Mobil	12.32
Saudi Aramco	10.70
Qatar Petroleum	9.88

*Iraqi state-own oil firms Source: Petroleum Intelligence Weekly

THE WALL STREET JOURNAL.

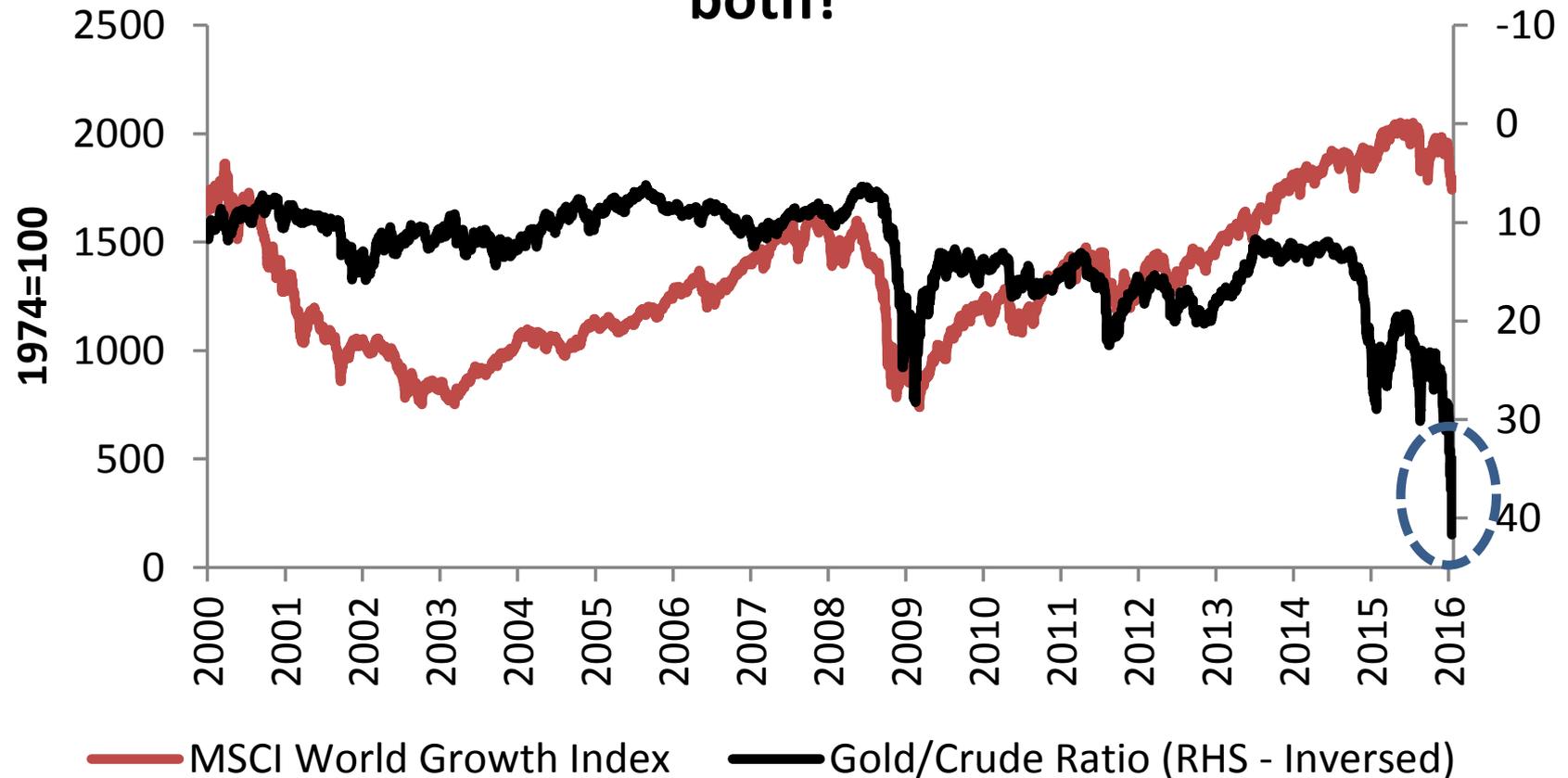


OCBC Bank

Source: Wall Street Journal, Bloomberg, OCBC

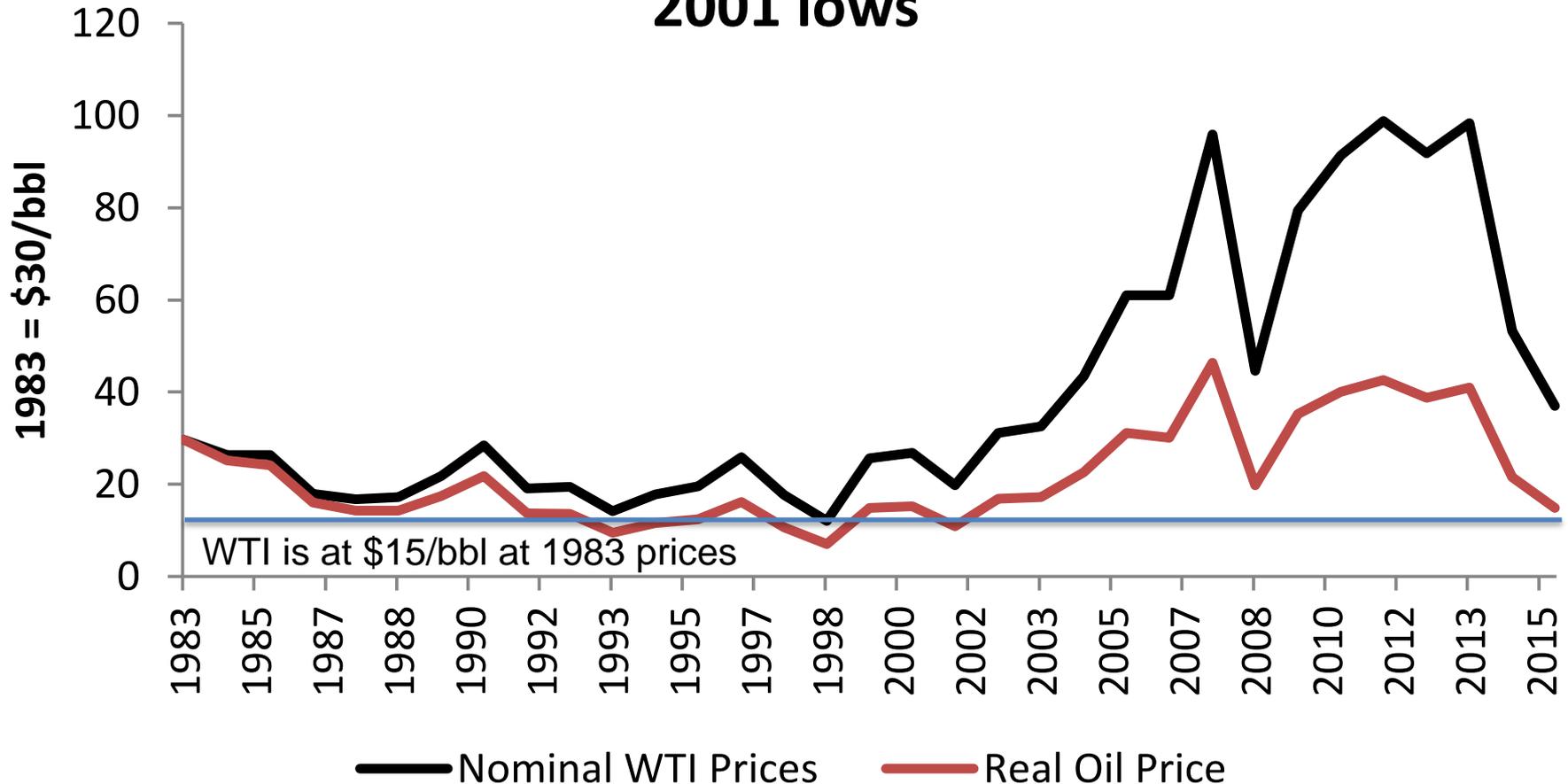
Fall in crude oil prices 'too much' even if accounting for the decline in risk-taking appetite

Either oil is undervalued, gold is overvalued... or both?



The magnitude of the oil price slump is magnified should we adjust for inflation

Crude oil price (adjusted for inflation) is at its 2001 lows



US crude supply is likely to fall into 2016

Capital Expenditure in Major Energy Names (USD mn)

Name	2014	2015 [^]	2016 [^]	2017 [^]
Anadarko Petroleum Corp	9,508	5,867	4,412	5,058
Apache Corp	12,372	4,363	3,378	4,112
Chevron Corp	35,407	30,875	24,246	19,779
Concho Resources Inc	2,589	2,217	1,403	1,669
ConocoPhillips	17,085	10,161	7,616	7,790
Continental Resources Inc/OK	4,717	2,800	1,520	1,886
Denbury Resources Inc	1,079	486	311	367
Diamondback Energy Inc	1,448	515	354	518
Emerald Oil Inc	480	73	36	120
Energy XXI Ltd	789	724	156	243
Exxon Mobil Corp	32,952	29,069	27,760	26,506
Goodrich Petroleum Corp	322	107	44	11
Marathon Oil Corp	5,160	3,276	2,038	2,330
Oasis Petroleum Inc	1,401	726	415	485
Pioneer Natural Resources Co	3,576	2,178	2,451	2,797
Rosetta Resources Inc	1,298	362	349	695
Sanchez Energy Corp	1,361	631	286	265
Swift Energy Co	386	123	92	139
WPX Energy Inc	1,807	1,051	625	747
Total	<u>133,737</u>	<u>95,603</u>	<u>77,491</u>	<u>75,516</u>

Source: Company Balance Sheet, Bloomberg, OCBC Bank

[^] Bloomberg Estimates

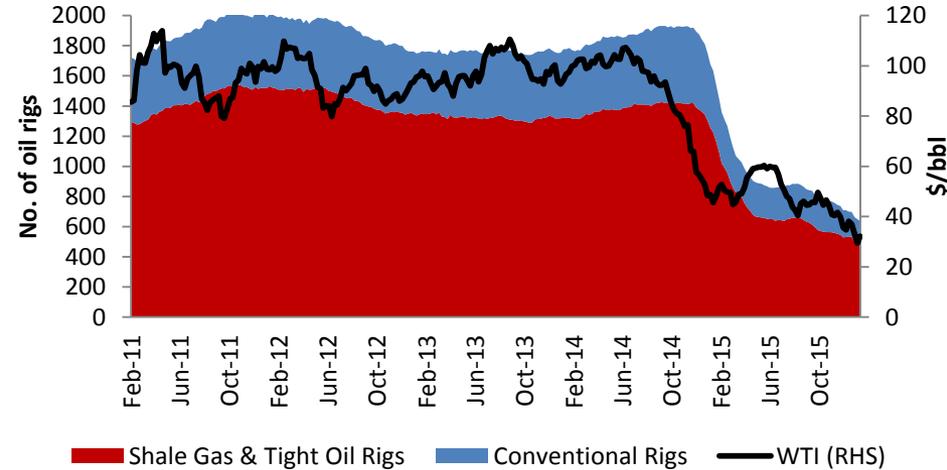
-19%

-3%

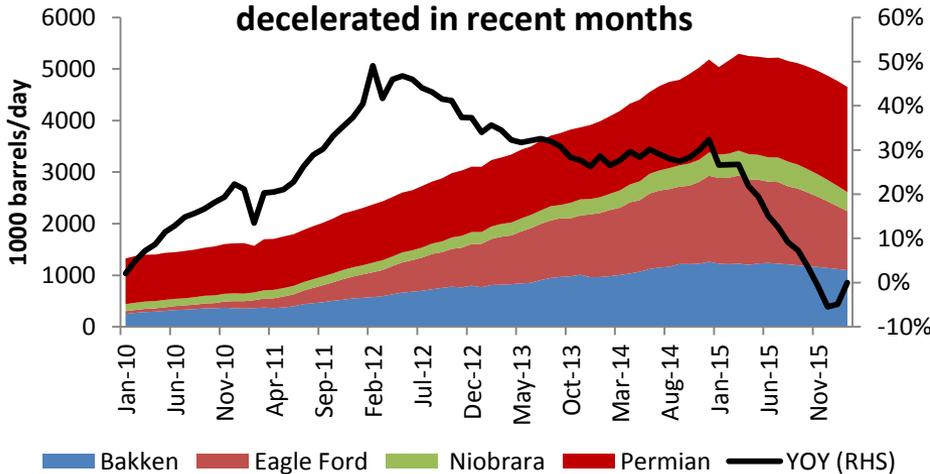
US crude supply may fall to 8.8 mbpd at end 2016

- Falling rig counts and US lower crude oil production are likely a function of the crude oil slump.
- Given relatively weaker crude oil prices at this juncture, non-OPEC oil production, especially from the US, should see further downside risk.
- We look for US crude oil production to fall to 8.8 mbpd at end 2016.

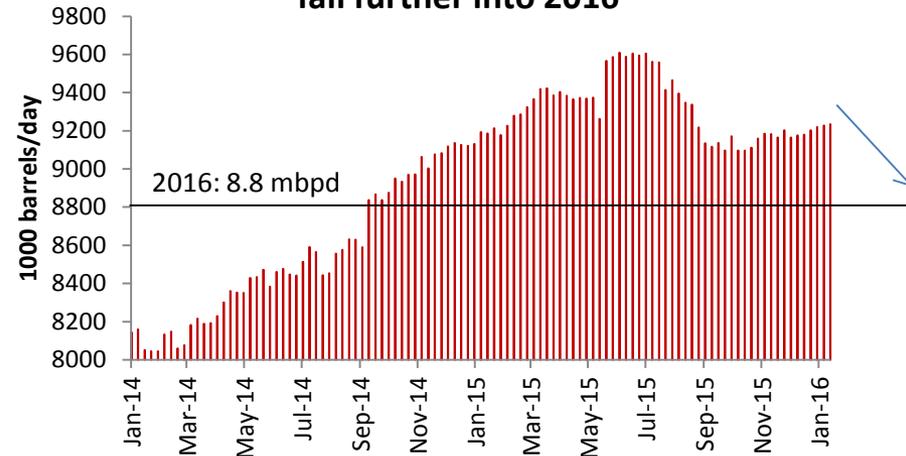
Number of US oil rigs fell significantly since 2014



Oil production in US major shale oil regions has decelerated in recent months



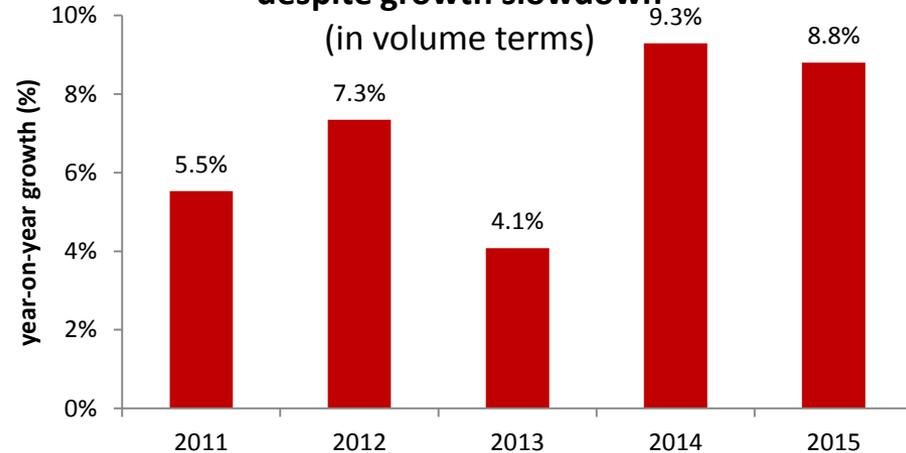
US production has fallen rapidly in 2015, may fall further into 2016



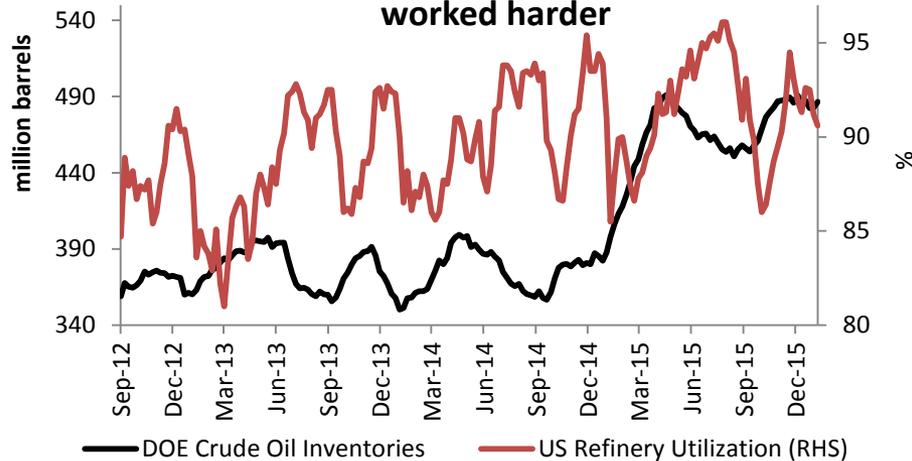
Demand is the (only) saving grace

- Demand appears supportive for oil prices. Note that global consumption of petroleum and other liquid fuels grew by 1.4 mbpd in 2015, and is expected to grow by another 1.4 mbpd in 2016.
- Elsewhere, crude oil imports in 11M15 were largely supported by improving economic fundamentals in Europe, while Chinese thirst for the sticky liquid led to a robust 8.8% yoy growth last year.

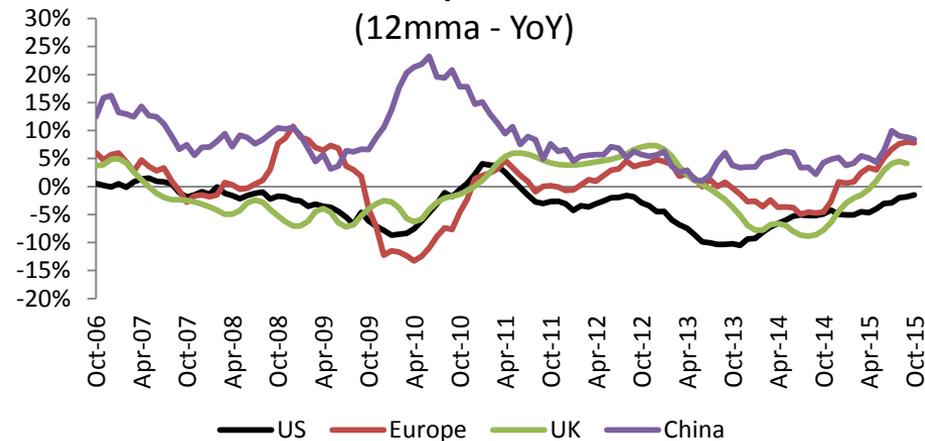
China crude petroleum imports still healthy despite growth slowdown
(in volume terms)



US crude oil inventories declined as refineries worked harder

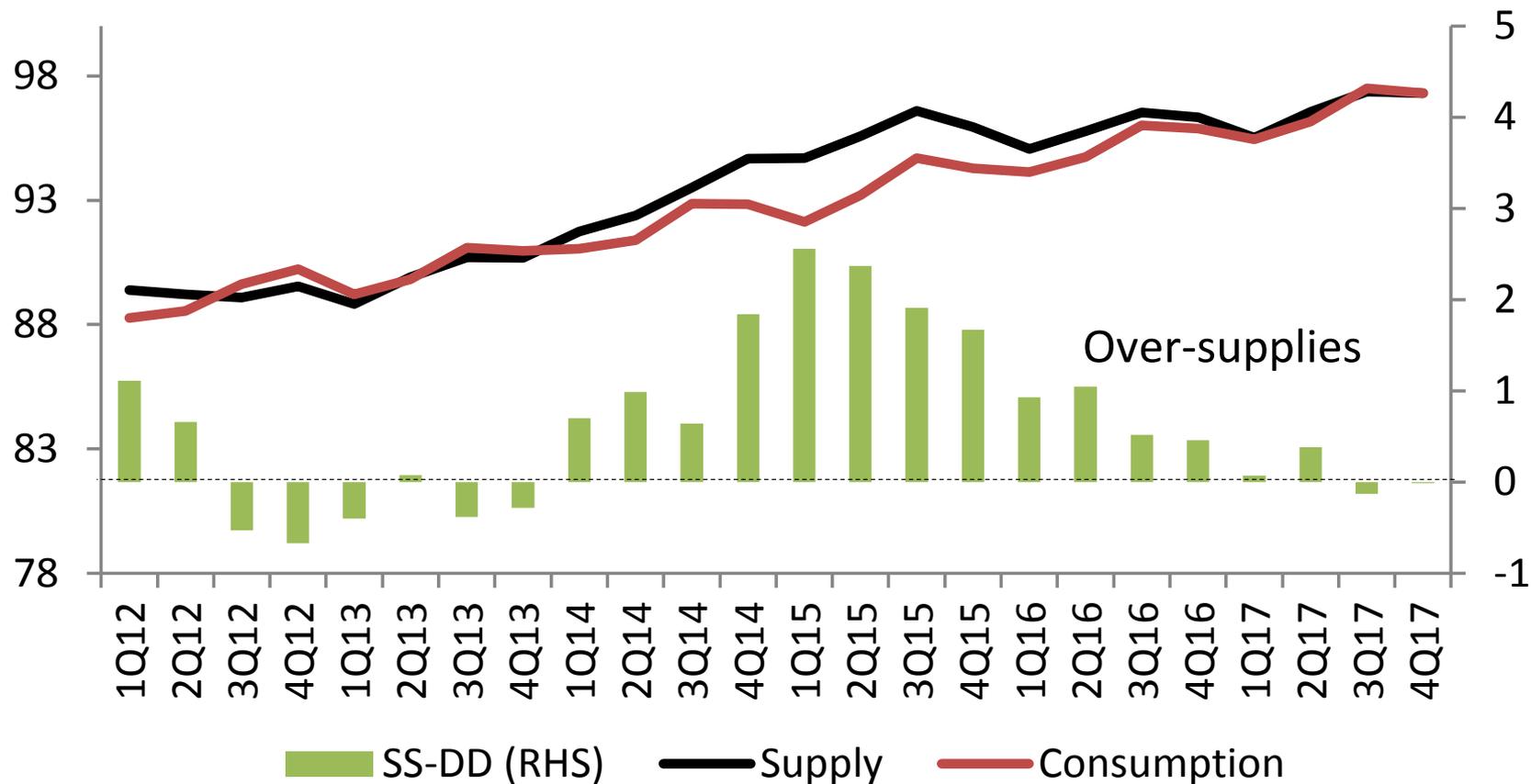


China and Europe leading the growth in oil imports



Don't be myopic, rebalancing likely to happen

Crude oil likely to rebalance into 2H16

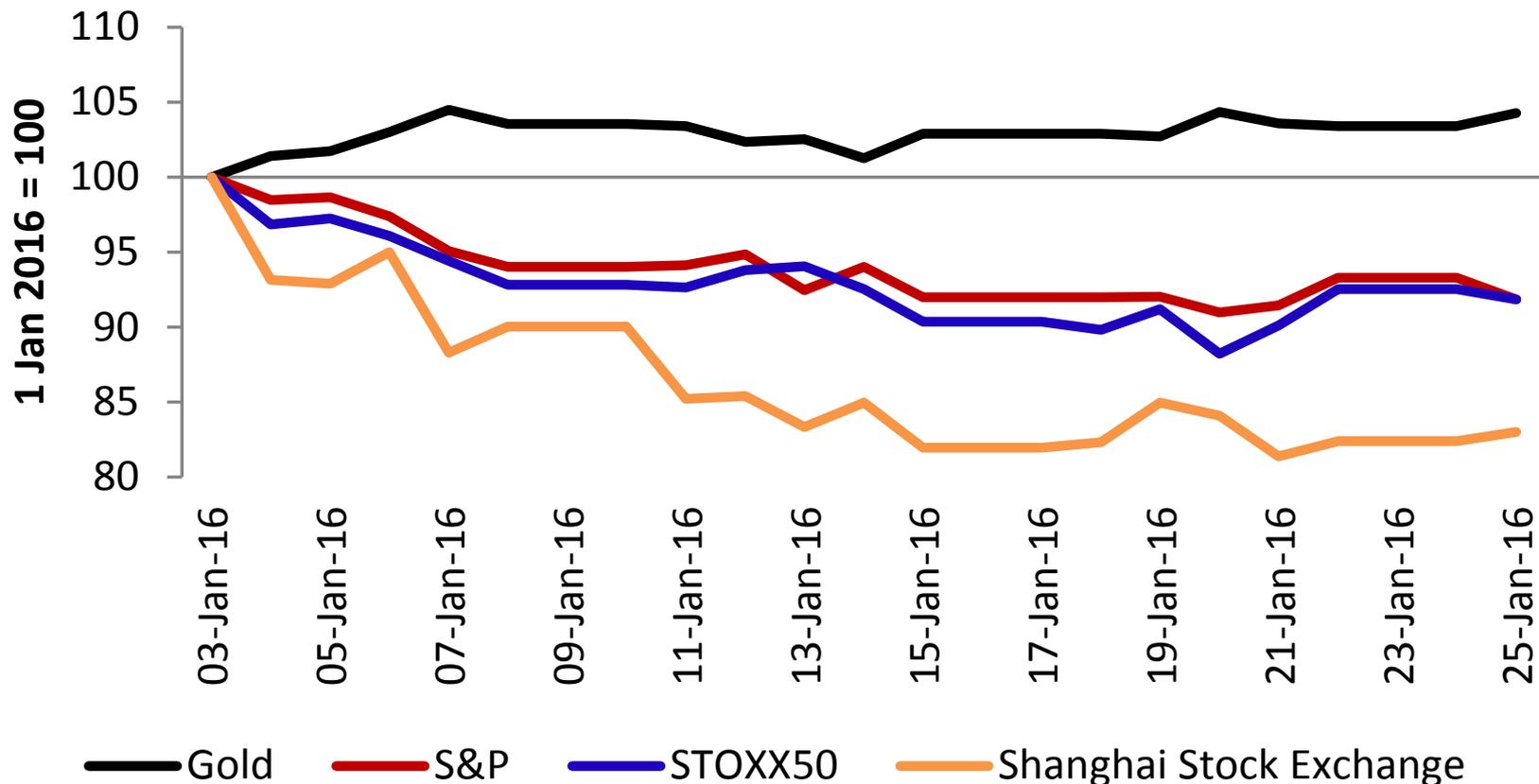




Gold – Shiny today, dull tomorrow

Gold – Still a safe haven nonetheless

Gold is a clear winner in the current equity rout

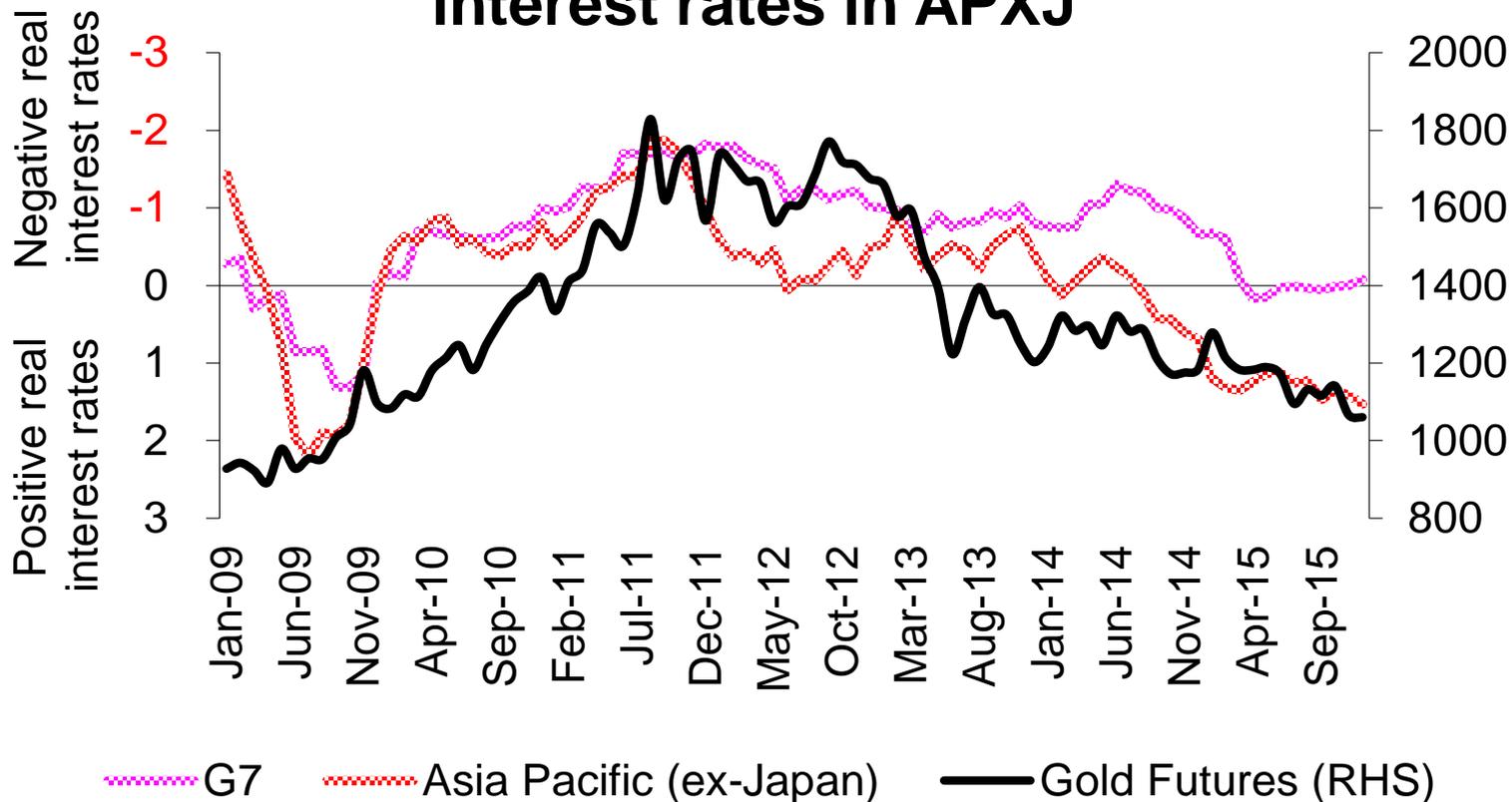


OCBC Bank

Source: Bloomberg, OCBC

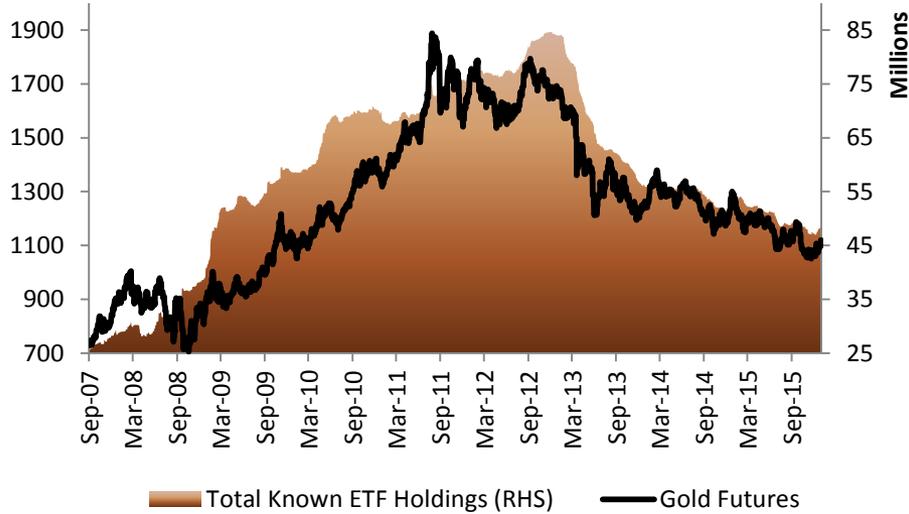
Gold fundamentals – Real Interest Rates

Gold fell in tandem with higher real interest rates in APXJ

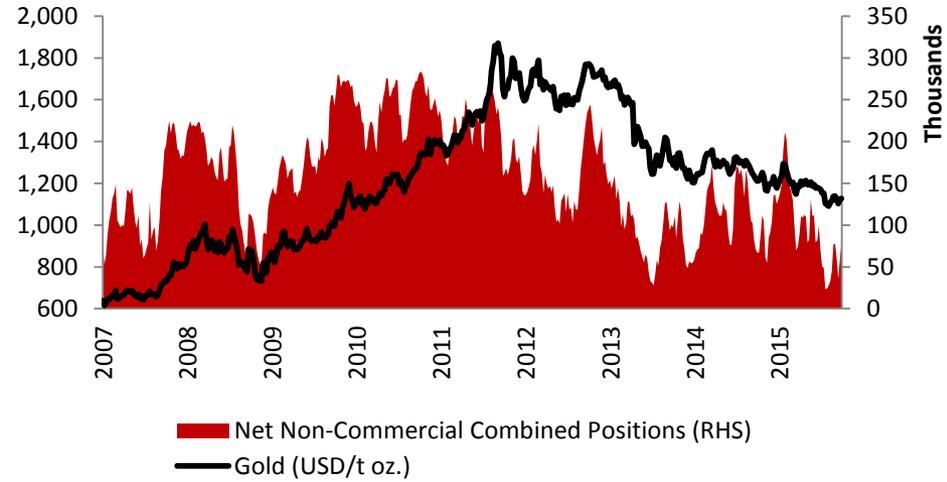


Physical demand down, India and China to blame

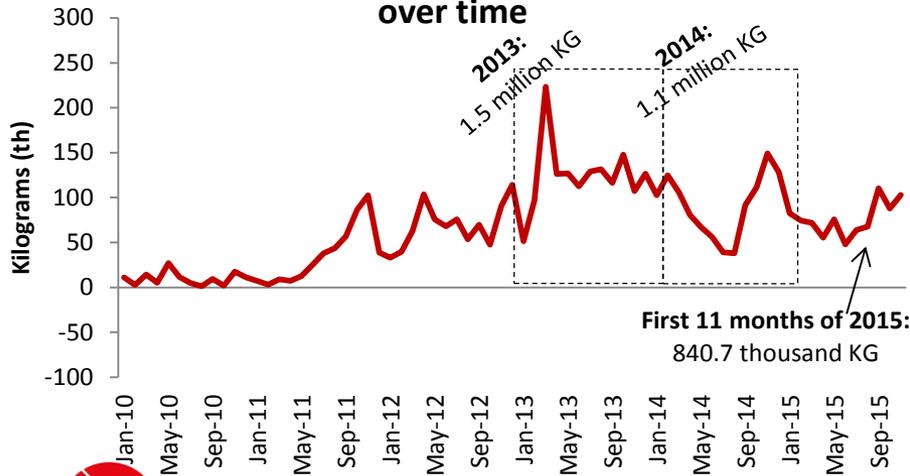
Gold ETF & Futures - one direction down



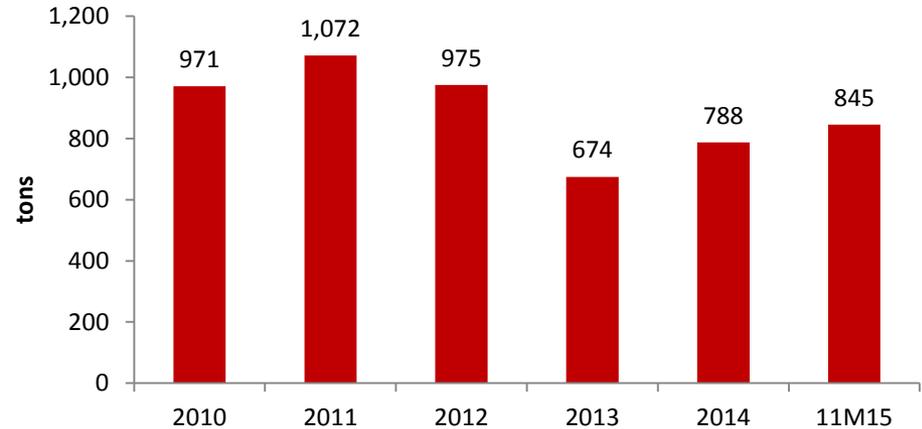
Gold speculative positions



Hong Kong Gold Exports to China edged lower over time



India gold imports are also far from previous glory



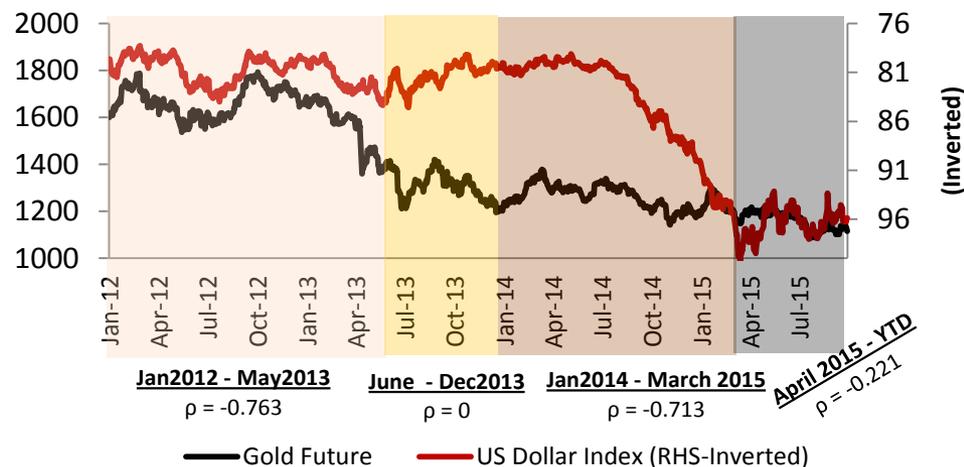
Focus on FOMC rhetoric

- The FOMC remains data-dependent through the assessment of economic conditions relative to its objective of maximum employment and 2% inflation, according to the January FOMC press release.
- On this, the central bank expects inflation to remain low in the near term given low oil prices, but expects it to rise to its inflation objective in the medium term. **On economic performance, it deems that the housing sector as improved further while the decline in underutilization of labor resources persisted.**
- Given that gold is widely regarded as a **safe haven** and a **dollar hedge**, its future price trend should anchor on these two factors. On the same note, our outlook for three rate hikes in 2016 should result in a dearer greenback, and a bearish gold price of \$950/oz at end 2016.

Percent

Variable	Median ¹				
	2015	2016	2017	2018	Longer run
Change in real GDP	2.1	2.4	2.2	2.0	2.0
September projection	2.1	2.3	2.2	2.0	2.0
Unemployment rate	5.0	4.7	4.7	4.7	4.9
September projection	5.0	4.8	4.8	4.8	4.9
PCE inflation	0.4	1.6	1.9	2.0	2.0
September projection	0.4	1.7	1.9	2.0	2.0
Federal funds rate	0.4	1.4	2.4	3.3	3.5
September projection	0.4	1.4	2.6	3.4	3.5

Dollar strength should depress gold prices

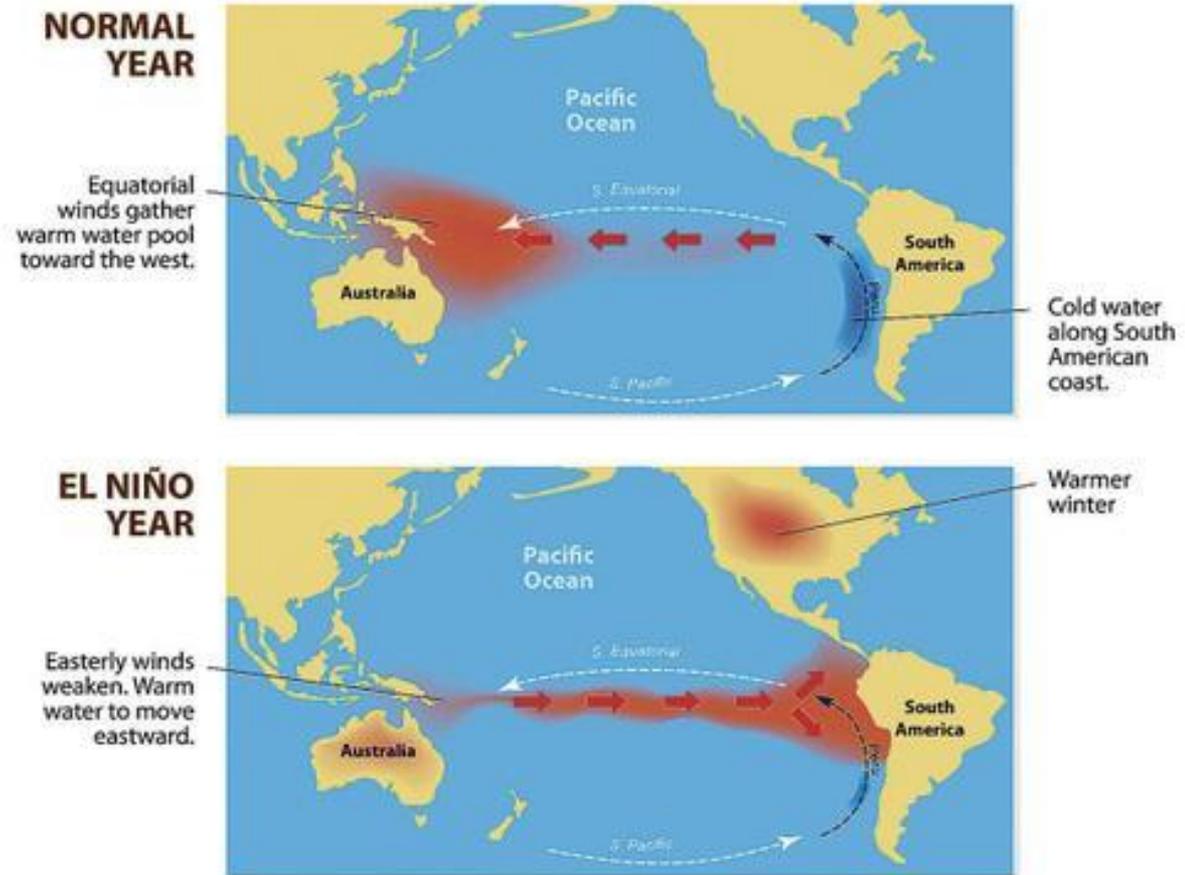


Crude Palm Oil – Listen to mother nature

Weather is the key wildcard for palm oil harvest

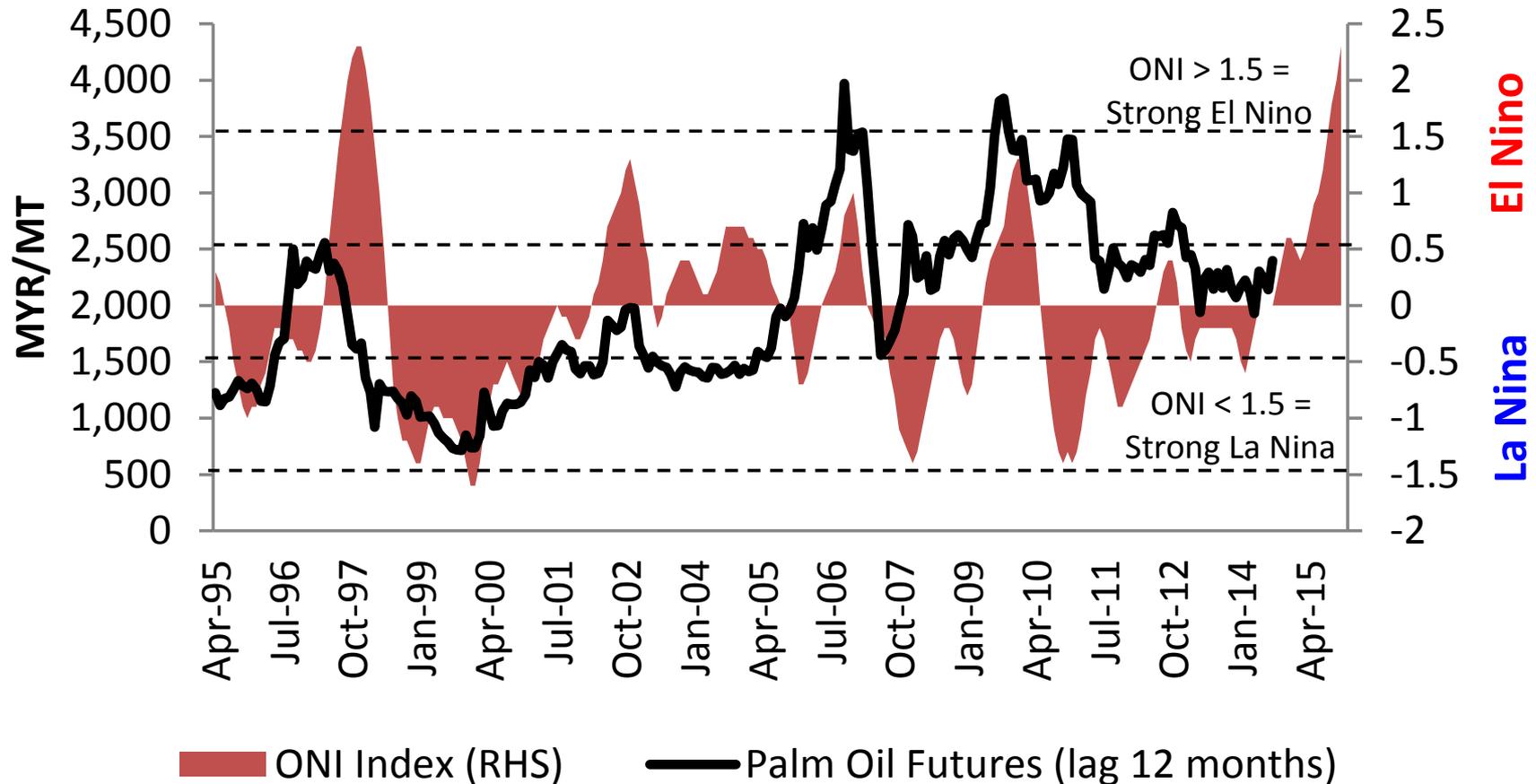
- The presence of a 2015 El Niño phenomenon is announced on 9th April 2015 by the National Oceanic and Atmosphere Administration (NOAA).
- The current El Niño phenomenon matches the severity seen back in 1997/8. A typical El Niño causes drought in Australia and South East Asia, heavier rain patterns across south America.
- To date, agriculture harvests are reportedly threatened by dry weathers, including rice in Thailand, sugar in India, and palm oil in Malaysia & Indonesia.

THE EL NIÑO PHENOMENON



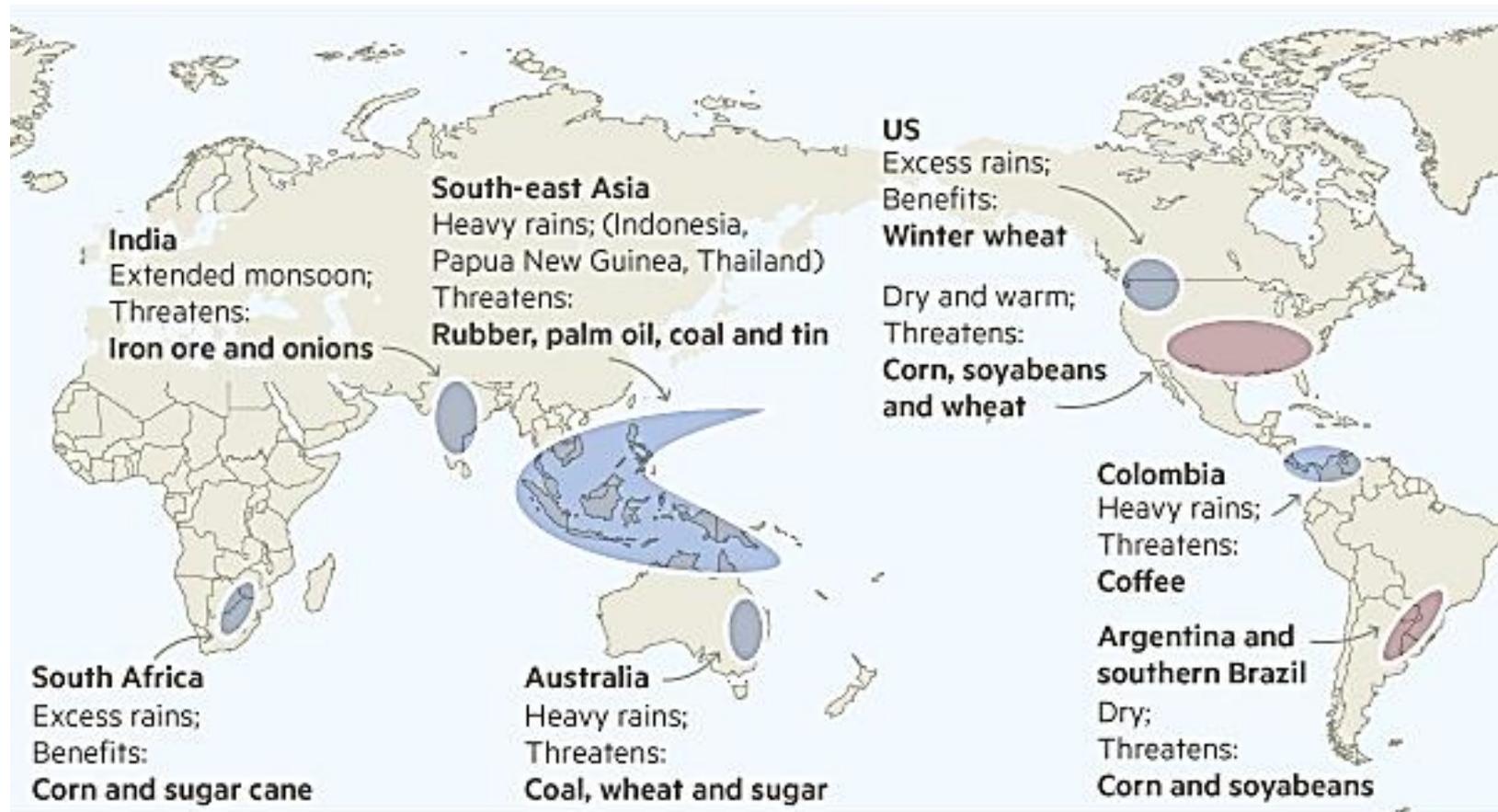
Palm prices typically lag 12 months to peak on El Nino severity

Watch out for higher palm oil prices into 2H16



The end of hot weather conditions may lead to unfavorable wetter weathers should La Nina strikes

Potential La Niña impacts on commodities



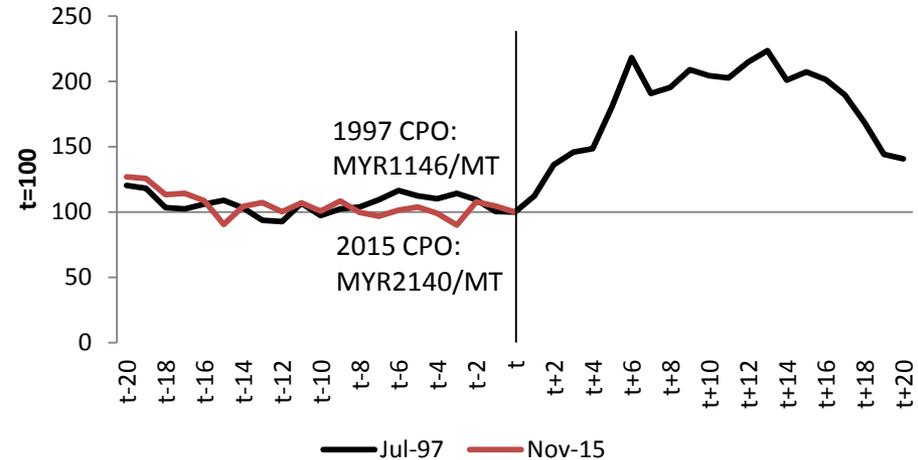
Sources: Commodity Weather Group; FT research

FT

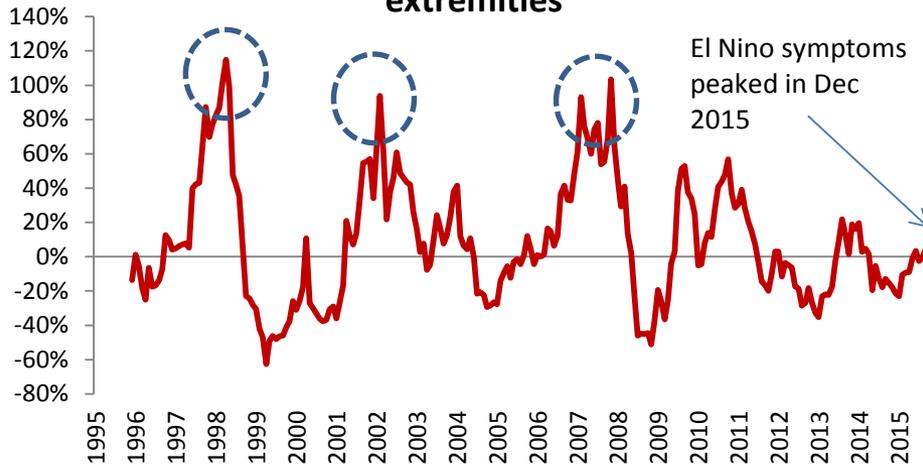
Ceteris paribus, palm oil prices MUST rally into 2016

- With El Nino conditions reaching severity levels seen during 1997/8, palm prices must peak on poor harvest conditions. Note that palm prices rallied 2-fold during 1997/8 El Nino years.
- We estimate Malaysia's palm oil production to contract by at **least 3.0% this year**, and that should translate into lower inventory prints and higher palm prices.

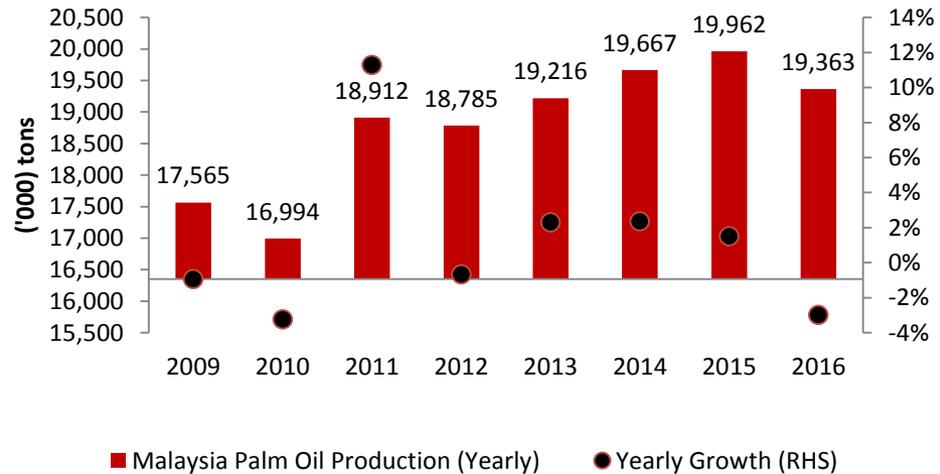
Palm oil rally behavior 1997 vs 2015



Palm prices rally significantly on weather extremities

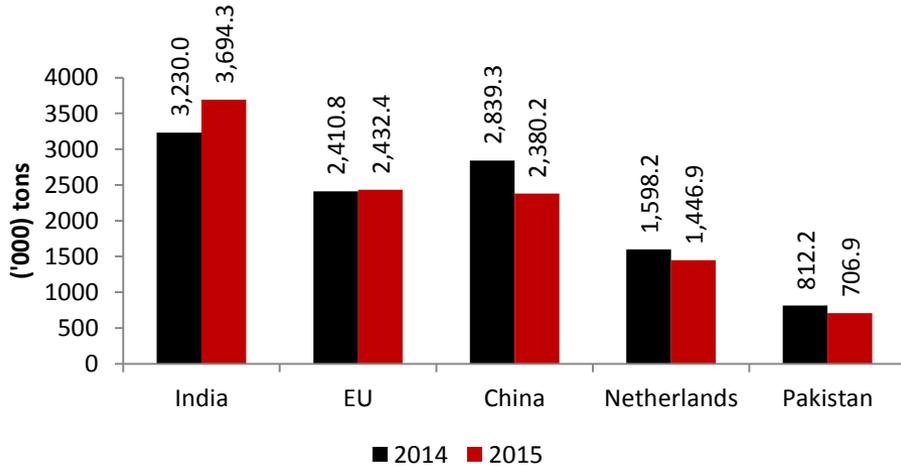


Facing the brunt of the hateful weather

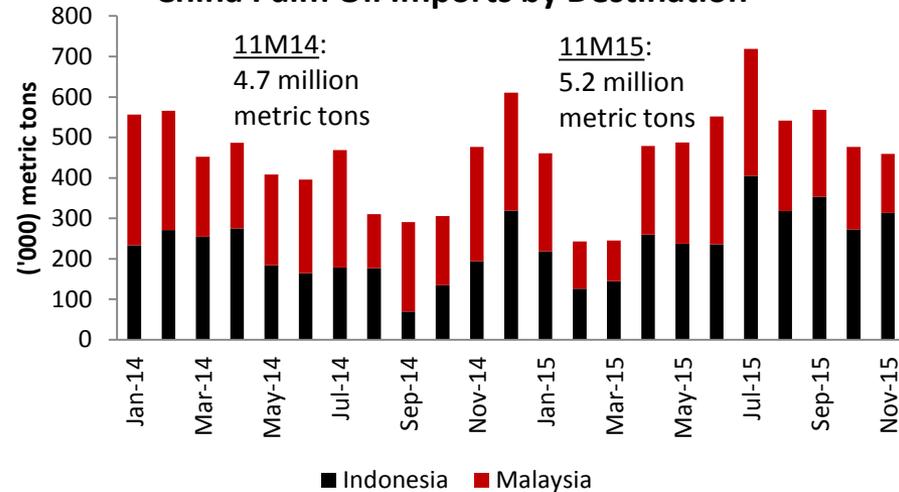


CPO demand growth was healthy in 2015 despite economic headwinds

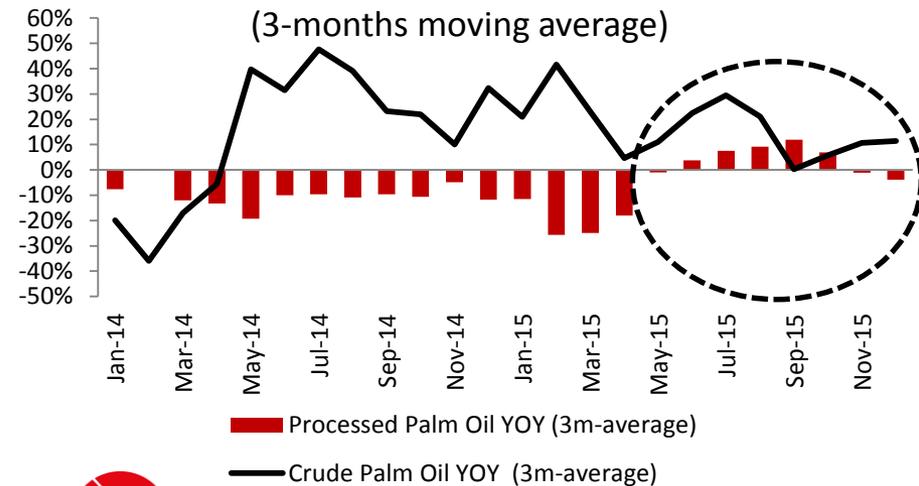
Malaysia palm oil top five export destination



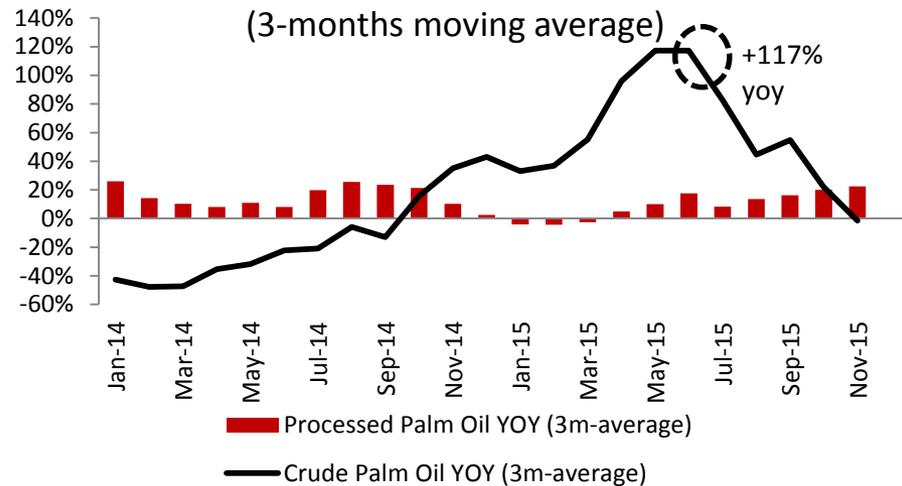
China Palm Oil Imports by Destination



Malaysian palm oil exports picked up in 2H15

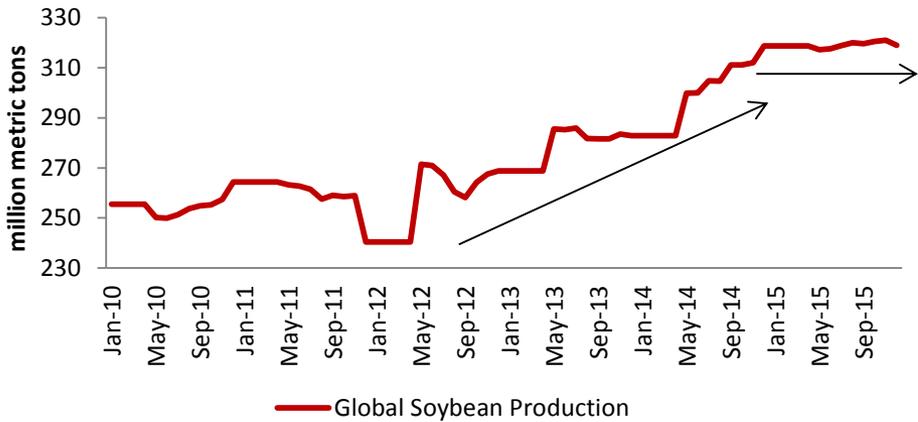


Indonesia's palm oil exports was strong in 2015

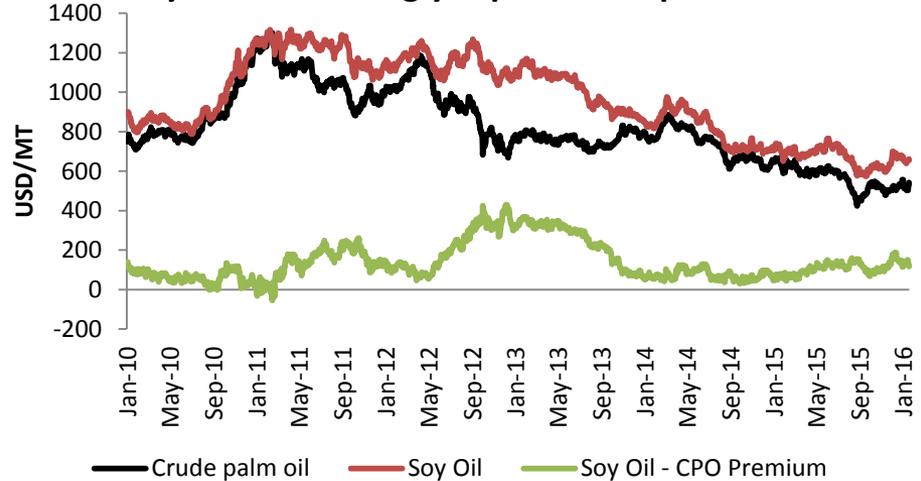


Crude palm oil is still cheaper than its competitors, though more expensive compared to crude oil

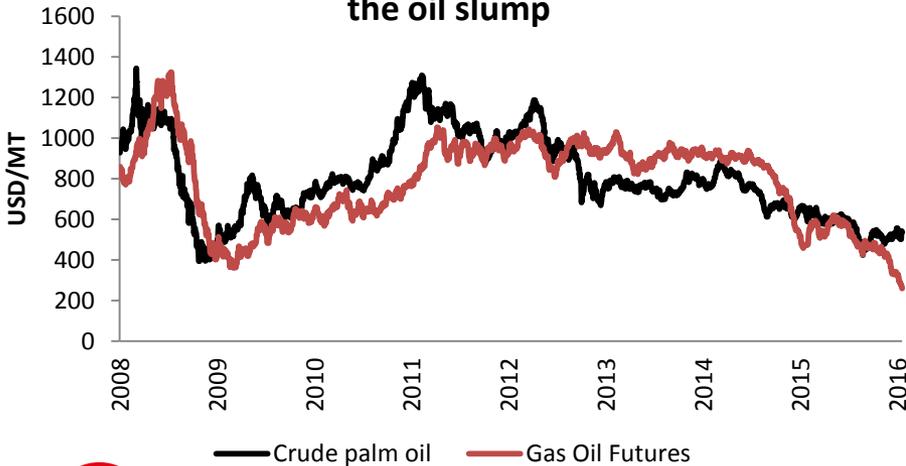
Global soybean production sidelined in recent years



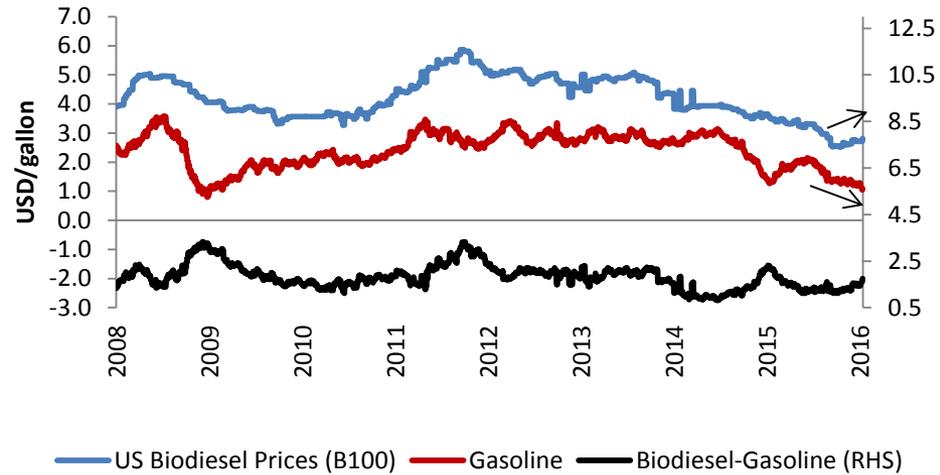
Soyoil is increasingly expensive vs palm oil



Palm oil turned more costly versus gas oil given the oil slump



Biodiesel premium has risen in recent months



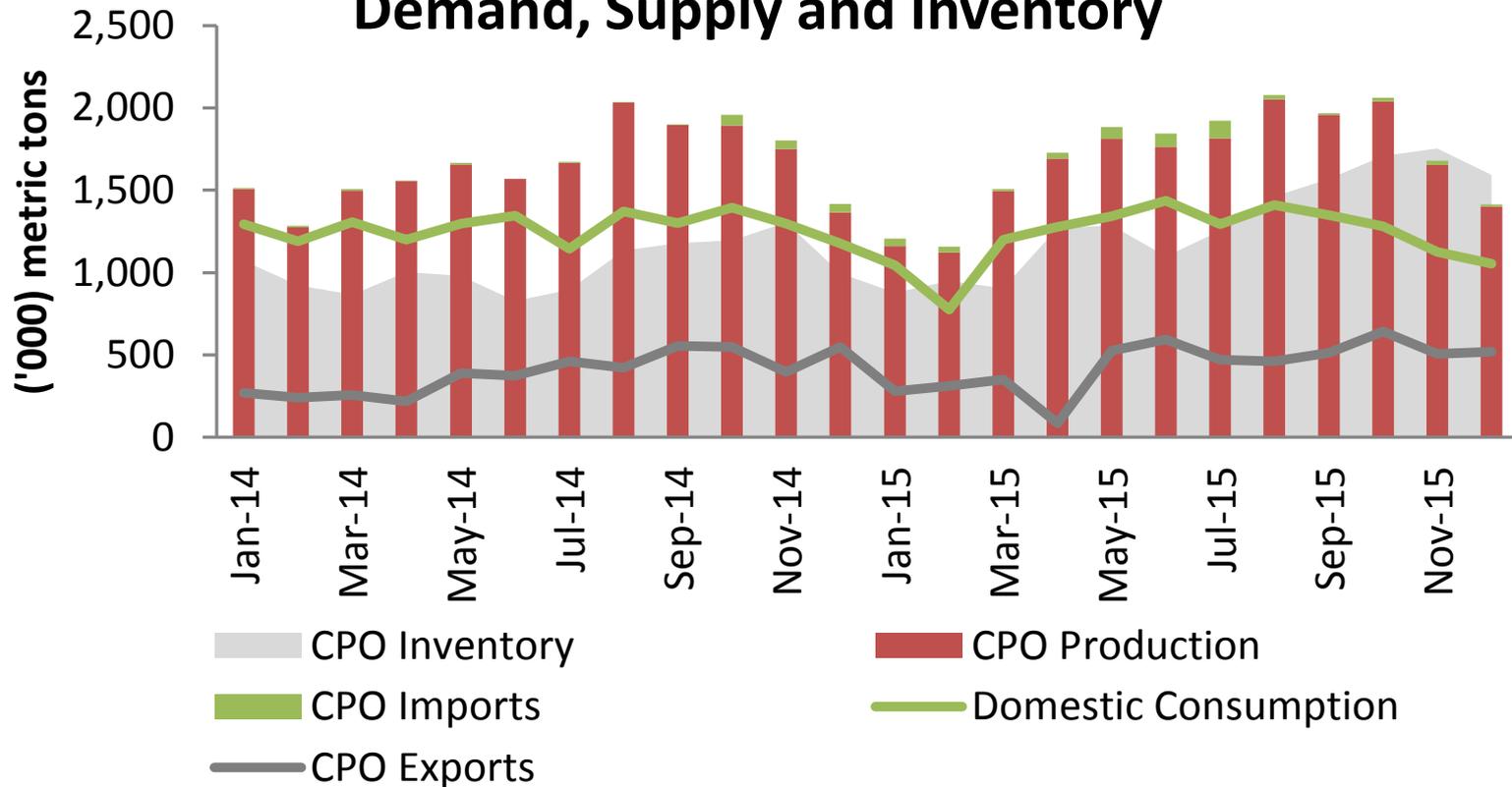
OCBC Bank

Source: Bloomberg, MPOB, OCBC

Watch out for Malaysia's inventory levels:

CPO inventories touched 1.75 million tons, nearing its 2012 high

Malaysia CPO Key Indicators - Demand, Supply and Inventory





Commodity Forecast

Commodity Forecasts as Jan 2016

As of January 13, 2016

	2015				2016			
	Q1	Q2	Q3	Q4	Q1F	Q2F	Q3F	Q4F
Energy								
WTI (\$/bbl)	48.6	58.0	46.5	42.2	35.0	40.0	45.0	50.0
Brent (\$/bbl)	55.1	63.5	51.3	44.7	35.0	40.0	45.0	50.0
Gasoline (\$/gallon)	1.60	2.00	1.64	1.31	1.17	1.33	1.50	1.67
Natural Gas (\$/mmbtu)	2.81	2.74	2.74	2.24	2.02	1.89	2.65	2.50
Precious Metals								
Gold (\$/oz)	1,217	1,193	1,124	1,105	1,025	1,000	975	950
Silver (\$/oz)	16.7	16.4	14.9	14.8	14.4	14.5	14.6	14.6
Platinum (\$/oz)	1,192	1,128	991	911	882	889	897	905
Palladium (\$/oz)	785	758	616	606	653	658	663	669
Base Metals								
Copper (\$/MT)	5,805	6,047	5,274	4,882	4,514	4,676	4,838	5,000
Tin (\$/MT)	18,369	15,581	15,224	15,093	13,277	13,753	14,229	14,706
Nickel (\$/MT)	14,388	13,046	10,605	9,443	9,604	9,949	10,294	10,638
Zinc (\$/MT)	2,090	2,191	1,854	1,634	1,557	1,612	1,668	1,724
Aluminum (\$/MT)	1,814	1,788	1,623	1,507	1,347	1,396	1,444	1,493
Asian Commodities								
Crude Palm Oil (MYR/MT)	2,270	2,196	2,082	2,220	2,388	2,475	2,563	2,650

Source:

Historical Data - Bloomberg

Forecasts - OCBC Bank

Note: Data reflects average price



Thank You

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