

# **RBC Capital Markets**

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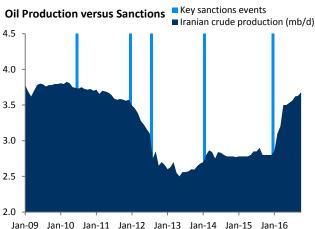
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November 10, 2016

# **Commodity Comment: Collision Course**

- The election of Donald Trump has raised the likelihood of renewed hostilities between Washington and Tehran, as the President Elect repeatedly denounced the 2015 nuclear agreement on the campaign trail, and US congressional sanctions that target the energy sector could snap back (page 1).
- For oil, while energy market watchers have highlighted President-Elect Trump's nod towards drilling and fracking, we believe that a Trump administration will have a larger impact on the demand side of the ledger in the US (page 1).
- The World Gold Council's Q3 2016 Gold Demand Trends report highlighted trends already built into our balances. Namely, consumer demand was down significantly, with investors and ETPs being the only bright spot. While a seasonal uptick in Asian demand may be coming, it is unlikely to be a game changer in our view (page 2).

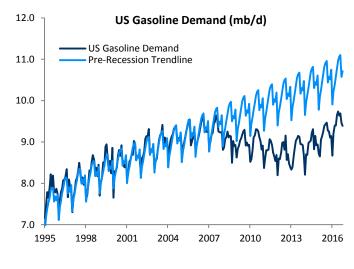
#### Geopolitics: New Sherriff in Town



The election of Donald Trump has raised the likelihood of renewed hostilities between Washington and Tehran, as the President Elect repeatedly denounced the 2015 nuclear agreement on the campaign trail. As we noted in our piece released overnight, US congressional sanctions that target the energy sector could snap back if President Trump refuses to certify Iran as fully compliant with the agreement during the quarterly review process. The IAEA may provide some fodder if he is looking to give Iran a negative grade. This week, the UN nuclear watchdog agency reported that Iran had exceeded the deal's 130 metric ton heavy water limit for the second time this year. The US State Department spokesperson downplayed the breech, stating that Iran had not tried to conceal the violation and was preparing to ship the excess material out of the country. The incoming Trump administration may not be so magnanimous.

#### Oil: A Trump Administration Could Have Outsized Impact On Demand

While energy market watchers have highlighted President-Elect Trump's nod towards drilling and fracking, we believe that a Trump administration will have a larger impact on the US demand side of the ledger. The two key regulations which, if repealed, could drive US gasoline demand materially higher are the Corporate Average Fuel Efficiency Standards (CAFE) and the Renewable Fuel Standard (RFS). The potential impact of a Trump presidency on US gasoline demand is not one that should be underestimated. After all, US gasoline demand comprises of nearly 10% of total global oil demand and has been the sole bright spot in the OECD region, which has otherwise been trending lower on a structural basis since the recession. The potential repeal of aforementioned regulations is unlikely to make a difference in his first 90 days in office, but it is a rather bullish potential catalyst in the guarters and years to come.



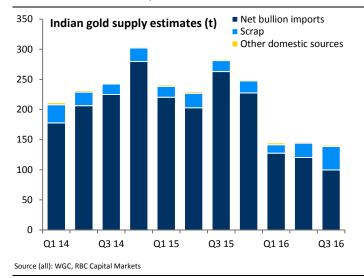
Source (all): IEA, EIA, Bloomberg, government agencies, news sources, RBC Capital Markets

Priced as of prior trading day's market close, ET (unless otherwise stated). All values in U.S. dollars unless otherwise noted.

#### For Required Non-U.S. Analyst and Conflicts Disclosures, please see page 10.



#### Gold: Indian demand very weak



The Q3 2016 Gold Demand Trends report, released recently from the World Gold Council (WGC), highlighted trends which we expected and have already built into our balances. According to the WGC, bars, coins, and jewelry all remained quite weak, down 16% according to the organization. ETPs were the only real source of growth as holdings continued to accumulate, albeit at half the quarterly pace seen on average in H1 2016 – admittedly still a sizable volume. We think the main factors keeping gold at current levels are investors, and while there may a seasonal uptick from Asian demand coming, it will not be a game changer in our view. In fact, Indian demand continues to struggle for a number of reasons, still at a low, diminishing the need for imports (see figure on left). Chinese demand also slipped, with jewelry demand falling to a low and shifts in consumer tastes continuing.

#### **Table of Contents:**

Oil charts	3
Gold charts	4
CFTC positioning (managed money and swap dealers)	5
Correlation Matrix	7
OPEC Watch List, Supply & Demand Balances, and Price Forecasts	8
Global Economic Calendar	9

#### **Recent Commodity Strategy Research:**

Commodity Strategy: Post-Election Update (November 10, 2016) – Commodity Strategy Team

In our weekly review of the commodity sector, we highlighted a Trump administration's possible effect on geopolitics, US oil demand, and gold.

#### Oil Strategy: A Hypothetical Idea for Saudi Arabia (November 8, 2016) - Michael Tran

Saudi oil policy of the last two years has left the Kingdom with little to show for its trouble. A possible long-term market share strategy could be one in which the Kingdom adopts a hedging program selling the term portion of the forward curve. Keeping the less liquid portion of the term structure anchored to a low point that wards off future investment would be a by-product of this strategy.

#### Commodity Comment: On Fragile Footing (November 3, 2016) – Commodity Strategy Team

In our weekly review of geopolitics, energy and metals, we highlighted Nigeria, OPEC doubters, and gold's fragile footing.

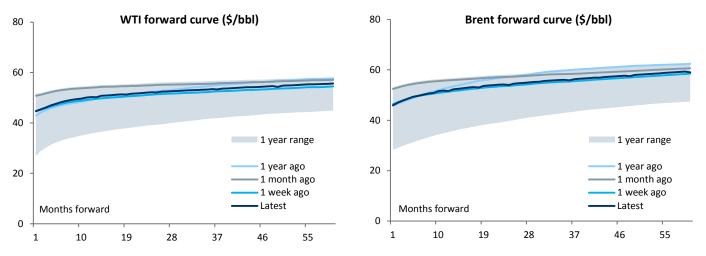
#### Commodity Surveyor: Up, Down and Away! (November 3, 2016) – Christopher Louney

Overall, October was a mixed bag, but strong index investment and even a turn in structured product AUM helped drive total commodity investor AUM higher by \$8.0bln, to \$278.6bln. Over the last six months, index allocations and ETPs have traded places as the primary growth drivers for overall commodity investor allocations, as commodities as an asset class have regained some of their lost luster.

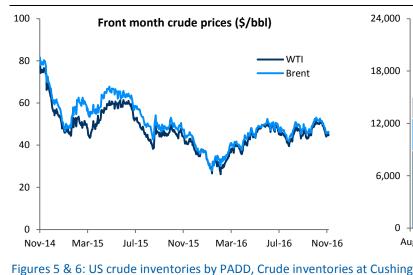


## Oil charts

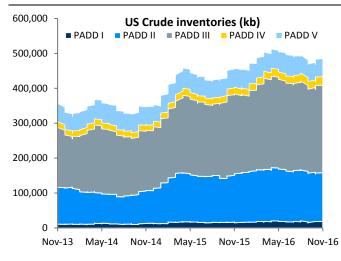
#### Figures 1 & 2: WTI forward curve, Brent forward curve

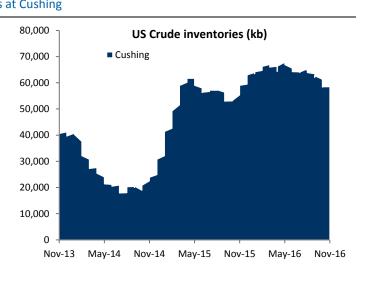


#### Figures 3 & 4: Front month crude prices, North American crude oil production



#### 24,000 North American crude production (lagged by official US data) US production (kb/d) Canadian production (kb/d) 18,000 Mexican production (kb/d) 12,000 6,000 0 Dec-14 Aug-14 Apr-15 Dec-15 Aug-16 Aug-15 Apr-16





Source (all): Bloomberg, NYMEX, ICE, DOE, EIA, NEB, PEMEX, RBC Capital Markets

30

25

20

15

10

5

0

Nov-16

Jul-16



## **Gold charts**

Figures 7 & 8: Gold forward curve, Gold price versus gold volatility

1500

1400

1300

1200

1100

1000

Nov-14

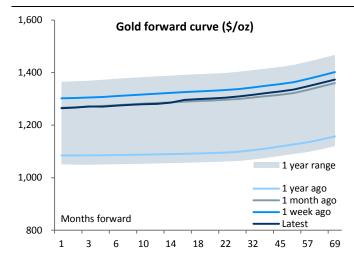
Nov-14

Mar-15

Jul-15

Mar-15

Jul-15



#### Figures 9 & 10: Gold versus equities, Gold versus US rates





Nov-15

Mar-16

Jul-16

Nov-16

Nov-15

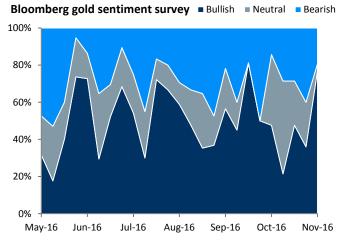
Mar-16

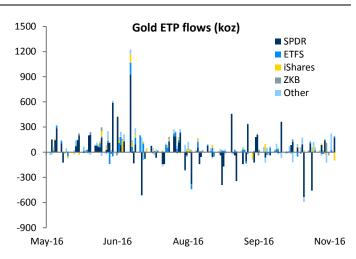
Gold price versus 30-day volatility

30-day gold volatility index (RHS)

Gold price (LHS, \$/oz)







Source (all): Bloomberg, Thomson Reuters Eikon, ETP issuer websites, RBC Capital Markets



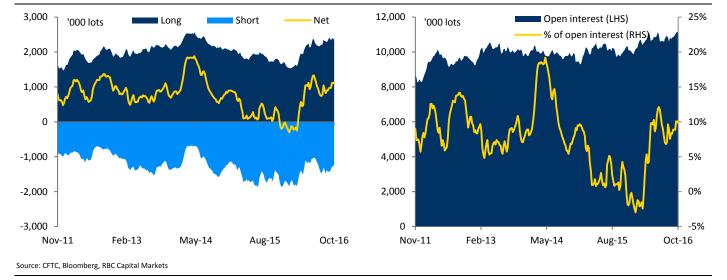
## **CFTC** positioning (managed money and swap dealers)

Figure 13: Managed money positioning ('000 lots)

Managed money			ong) as % of open erest	Open intere	st (futures)	Futures	(net long)	Futures & Opt	ions (net long)
As of:	1-Nov-16	Current	week ago	Current	w/w	Current	w/w	Current	w/w
Orange Juice	ICE	35.5%	40.1%	16.66	1.01	5.91	1.18	5.85	1.25
Gold	Comex	31.9%	35.2%	521.51	13.89	166.27	22.36	172.53	20.73
Soybean oil	CBOT	26.5%	28.1%	475.07	13.08	125.72	11.59	126.54	11.39
Coffee	ICE	26.2%	27.4%	217.27	11.83	56.86	5.99	56.62	5.97
Sugar	ICE	26.0%	23.5%	844.93	(7.77)	219.74	(23.29)	228.34	(29.19)
Palladium	Nymex	26.0%	14.5%	22.77	1.16	5.91	(2.44)	5.95	(2.38)
Cotton	NYBOT	24.9%	24.9%	257.26	(3.24)	63.99	(0.67)	67.61	(0.42)
Silver	Comex	24.2%	28.8%	196.91	0.60	47.67	9.27	49.06	8.38
Soybeans	CBOT	18.2%	21.0%	615.15	(23.92)	111.81	12.34	110.61	12.01
Live cattle	CME	14.2%	17.5%	275.22	2.05	39.10	9.37	43.81	8.82
Lean hogs	CME	12.8%	15.8%	223.54	(7.20)	28.55	5.74	31.82	5.15
Copper	Comex	11.5%	32.9%	203.04	(10.53)	23.37	40.02	23.34	40.03
Crude	Nymex	11.4%	9.4%	1,854.61	32.88	211.41	(33.22)	234.13	(34.06)
Platinum	Nymex	11.3%	15.6%	71.11	0.73	8.01	3.19	7.74	3.40
Gasoline	Nymex	10.9%	12.5%	383.77	(38.50)	41.94	1.32	41.86	1.13
Сосоа	ICE	9.4%	9.6%	260.08	(1.78)	24.55	0.27	23.87	0.03
Natural Gas	Nymex	6.2%	0.5%	1,153.05	9.86	70.95	(65.09)	72.95	(64.08)
Soybean meal	CBOT	5.7%	7.6%	366.38	(15.76)	20.85	5.72	21.02	6.53
Wheat	MGEX	5.0%	2.9%	68.94	0.93	3.47	(1.48)	3.47	(1.48)
Heating oil	Nymex	4.5%	6.3%	387.43	(25.02)	17.42	5.34	17.30	4.95
Wheat	КВОТ	1.5%	1.0%	263.87	8.78	4.02	(1.35)	4.08	(1.32)
Crude	ICE	-1.2%	-2.6%	537.02	(1.25)	(6.46)	(7.32)	(6.47)	(7.26)
Oats	СВОТ	-1.6%	1.3%	8.56	(0.31)	(0.14)	0.25	(0.14)	0.25
Corn	CBOT	-3.9%	-3.3%	1,345.45	9.84	(52.76)	7.89	(65.01)	3.95
Lumber	CME	-6.2%	-20.3%	3.93	0.08	(0.25)	(0.57)	(0.25)	(0.57)
Feeder cattle	CME	-6.3%	-6.2%	42.14	(1.44)	(2.65)	0.15	(2.20)	0.26
Rice	CBOT	-13.9%	-13.0%	10.56	(0.01)	(1.47)	0.10	(1.47)	0.10
Wheat	CBOT	-21.9%	-18.8%	495.53	(1.59)	(108.58)	15.84	(110.63)	12.76
Total/average		10.3%	11.2%	11,121.74	(31.60)	1,125.21	22.48	1,162.35	6.31

Source: CFTC, Bloomberg, RBC Capital Markets

This page provides a breakdown of managed money positioning in major commodity futures (and options) as defined by the CFTC Commitment of Traders Report. The table above ranks commodities by net long futures position as a percentage of futures open interest versus the same a month prior. A money manager is defined by the CFTC as "a registered commodity trading advisor (CTA); a registered commodity pool operator (CPO); or an unregistered fund identified by CFTC. These traders are engaged in managing and conducting organized futures trading on behalf of clients."



#### Figures 14 & 15: Managed money positions in major futures markets, Net long as a percentage of futures open interest

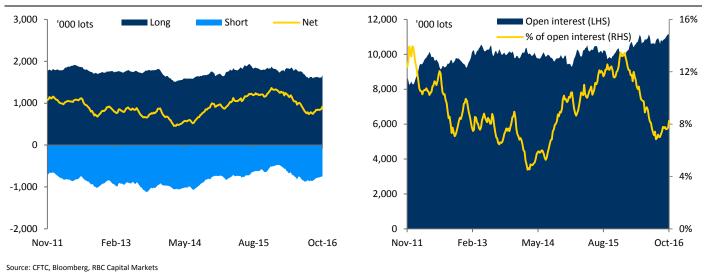


#### Figure 16: Swap dealer positioning ('000 lots)

Swap dealers		inte	ng) as % of open erest	Open inter	est (futures)	Futures (	net long)	Futures & Op	tions (net long)
As of:	1-Nov-16	Current	week ago	Current	w/w	Current	w/w	Current	w/w
Lean hogs	CME	24.8%	27.0%	223.54	(7.20)	55.44	2.91	56.14	3.01
Heating oil	Nymex	22.8%	23.2%	387.43	(25.02)	88.46	(4.41)	89.24	(3.11)
Cotton	NYBOT	22.1%	21.3%	257.26	(3.24)	56.87	(2.72)	60.36	(2.50)
Live cattle	CME	19.9%	19.7%	275.22	2.05	54.64	(0.08)	53.22	0.07
Soybeans	CBOT	19.8%	21.5%	615.15	(23.92)	121.97	5.33	122.39	5.15
Soybean meal	CBOT	19.5%	21.9%	366.38	(15.76)	71.42	5.33	73.32	5.22
Copper	Comex	19.4%	20.3%	203.04	(10.53)	39.39	(0.33)	39.42	(0.17)
Corn	CBOT	18.9%	19.5%	1,345.45	9.84	254.02	10.43	256.12	11.39
Soybean oil	CBOT	16.8%	16.8%	475.07	13.08	79.96	2.06	85.37	1.07
Coffee	ICE	15.0%	14.8%	217.27	11.83	32.51	1.30	31.19	1.58
Feeder cattle	CME	13.9%	12.6%	42.14	(1.44)	5.85	(0.73)	5.79	(0.78)
Wheat	CBOT	13.6%	14.3%	495.53	(1.59)	67.63	3.17	69.80	3.50
Gasoline	Nymex	13.3%	14.5%	383.77	(38.50)	51.08	(1.10)	51.68	(0.78)
Palladium	Nymex	10.1%	18.6%	22.77	1.16	2.30	2.15	1.96	2.05
Wheat	КВОТ	10.0%	9.6%	263.87	8.78	26.49	(0.42)	26.98	(0.21)
Sugar	ICE	9.5%	9.7%	844.93	(7.77)	80.23	0.98	58.45	8.67
Natural Gas	Nymex	7.5%	10.3%	1,153.05	9.86	86.20	33.06	85.15	31.22
Wheat	MGEX	6.0%	5.3%	68.94	0.93	4.12	(0.40)	4.10	(0.42)
Oats	CBOT	4.3%	3.4%	8.56	(0.31)	0.37	(0.09)	0.37	(0.09)
Orange Juice	ICE	3.8%	3.0%	16.66	1.01	0.64	(0.11)	0.64	(0.11)
Rice	CBOT	2.8%	2.8%	10.56	(0.01)	0.30	(0.00)	0.30	(0.00)
Сосоа	ICE	2.8%	3.3%	260.08	(1.78)	7.34	1.08	6.16	2.10
Lumber	CME	2.3%	2.5%	3.93	0.08	0.09	0.01	0.09	0.01
Crude	ICE	-2.2%	-2.8%	537.02	(1.25)	(11.67)	(3.19)	(47.24)	(5.84)
Crude	Nymex	-6.0%	-5.3%	1,854.61	32.88	(110.68)	11.24	(177.02)	14.15
Platinum	Nymex	-8.7%	-12.0%	71.11	0.73	(6.15)	(2.48)	(6.15)	(2.82)
Silver	Comex	-13.7%	-14.2%	196.91	0.60	(26.98)	(1.06)	(30.54)	(1.36)
Gold	Comex	-21.7%	-22.5%	521.51	13.89	(113.32)	(7.26)	(123.29)	0.06
Total/average		8.8%	9.2%	11,121.74	(31.60)	918.51	54.67	793.99	71.07

#### Source: CFTC, Bloomberg, RBC Capital Markets

This page provides a breakdown of swap dealer positioning in major commodity futures (and options) as defined by the CFTC Commitment of Traders Report. The table above ranks commodities by net long futures position as a percentage of futures open interest versus the same a month prior. A swap dealer is defined by the CFTC as "an entity that deals primarily in swaps for a commodity and uses the futures markets to manage or hedge the risk associated with those swaps transactions. The swap dealer's counterparties may be speculative traders, like hedge funds, or traditional commercial clients that are managing risk arising from their dealings in the physical commodity."



#### Figure 17 & 18: Swap dealer positions in major futures markets, Net long as a percentage of futures open interest



## **Correlation Matrix**

Figure 19: Cross asset correlation matrix covering major commodities, equity, yield and foreign exchange marks

Correlation Matri	x																1	As of:		10-Nc	ov-16	
1 month 3 month	WTI Crude	Brent Crude	Natural Gas	Gold	Platinum	Copper	Aluminum	Corn	Wheat	Soybeans	S&P 500	TSX Index	Nikkei Index	Shanghai Comp.	US Inflat. Index	US 10yr	Canadian 10yr	Japan 10yr	USD Index	EUR/USD	YqL/asu	USD/CAD
WTI Crude		0.99					0.02	0.31		0.14	0.47	0.48	0.10	0.42	0.00	0.17	0.27	-0.38	0.18	-0.29	0.27	
Brent Crude	0.96						0.06	0.30		0.13	0.48	0.47	0.07	0.40	-0.04	0.18	0.31	-0.41	0.16	-0.26	0.27	
Natural Gas	0.12	0.14		0.69							-0.02	0.36	0.17		0.06	0.26	0.16	0.35			0.10	
Gold	0.12		-0.05		0.70	0.37	0.25				0.11	0.41		0.07	0.71		-0.55	0.11	-0.58	0.35		
Platinum	0.10			0.73		0.68	0.51							0.08	0.29		-0.36	0.12	-0.61	0.51		
Copper	0.04				0.43		0.55						0.01					0.10	-0.30	0.28		-0.03
Aluminum	0.16					0.48		0.10	0.11	0.00									-0.22	0.24		-0.07
Corn	0.08						0.01		0.80	0.53												-0.32
Wheat	0.03							0.71		0.30				-0.15	-0.01			-0.09	-0.18			-0.36
Soybeans	0.08								0.12		0.15	0.13	-0.02	-0.18	0.24				0.16	-0.16	-0.01	-0.13
S&P 500	0.40									0.04		0.56	-0.01	0.39	0.12					-0.23	0.33	-0.44
TSX Index	0.50										0.72		0.06	0.37	0.41	-0.30	-0.26	-0.34	0.02	-0.24	0.00	-0.14
Nikkei Index	-0.10											0.04		0.22	-0.19	0.38	0.18	-0.37	0.32	-0.24	0.32	0.30
Shanghai Comp.	0.19												0.36		0.08				0.11	-0.31	0.12	
US 10yr Tips	-0.03													0.02		-0.18	-0.11	-0.15	-0.09	-0.11	-0.29	-0.17
US 10yr	0.06														0.39		0.86	-0.27	0.57	-0.45	0.68	0.13
Canadian 10yr	0.18															0.86		-0.32	0.36	-0.24	0.47	
Japan 10yr	-0.20																0.06		-0.10	0.07	-0.08	0.04
USD Index	-0.08																	0.15		-0.91	0.65	0.35
EUR/USD	0.03																	-0.03	-0.93		-0.59	
USD/JPY	-0.03																		0.73	-0.65		-0.01
USD/CAD	-0.48	-0.48	-0.04							-0.09	-0.49	-0.37	0.08	-0.23	0.19	0.36	0.08	0.26	0.50	-0.30	0.33	
			Scale:				3	month cor	relation (I	bottom)	Positi	ve -> Neg	ative				1 month	correlation	on (top):	Positi	ve -> Nega	ative

Source: Bloomberg, RBC Capital Markets

This page provides cross asset correlations. Source data is from Bloomberg as of the date indicated in the table. Darker colors indicate more positive correlations while lighter colors indicate more negative correlations. The top right section indicates one-month correlations of daily changes while the bottom left indicates three-month correlations of daily changes. Yield markets were calculated on the yields themselves. This table covers the major commodity markets (energy, precious metals, base metals and agriculture), major global equity indexes, major yield markets, and major FX indexes and crosses.



## **OPEC Watch List, Supply & Demand Balances, and Price Forecasts**

Figure 20: OPEC Watch List - Relative risk scale

	Oil producti	on (mb/d)	Geopoliti	cal risk	
Country	2015 avg	Last month	Past year	This year	Comment
Saudi Arabia	10.24	10.58	6		6 MBS unveils ambitious reforms, but implementation is in question.
Iraq	4.03	4.59	10		9 How long can oil remain immune from rising instability?
Iran	2.81	3.68			<sup>3</sup> Turn-around story of the year, has seen a reversal of fortune y/y.
UAE	2.88	3.11			2 Flush with cash and few citizens, UAE sits in the sweet spot.
Kuwait	2.85	2.96			<sup>3</sup> Financially flush but the population does not want austerity.
Venezuela	2.36	2.18	8	1	0 With few economic options left, oil production now looks at risk.
Nigeria	1.94	1.67	8	1	0 The militancy in the delta has taken oil offline in the country.
Angola	1.80	1.50	5		6 Public criticism mounts as financial troubles deepen.
Algeria	1.10	1.11	7		8 Political uncertainty and high security challenges.
Indonesia	0.79	0.74			<sup>3</sup> Not the biggest oil story but has good economic prospects.
Qatar	0.67	0.62			2 Reliant on LNG, Qatar's challenge will emerge later this decade.
Ecuador	0.54	0.56			5 The president remains popular given his strong track record.
Libya	0.39	0.52	10		9 Being the IS fallback option could push it back up on our watch list.
Scale:			High -> Low	High -> Low	

Note: Geopolitical risk rankings are based on our own in-house RBC Commodity Strategy methodology based on both quantitative and qualitative factors. All rankings are updated as deemed necessary and all numbers are subject to revision. Source: Bloomberg (production data), RBC Capital Markets

#### Figure 21: Global Oil Supply & Demand Balance and Price Forecasts (Commodity Strategy)

Oil balance (mb/d)	Q1 16	Q2 16	Q3 16 E	Q4 16 F	2016 F	Q1 17 F	Q1 17 F	Q3 17 F	Q4 17 F	2017 F
Total Supply	96.6	95.8	96.4	96.2	96.2	95.8	96.1	97.1	97.2	96.5
Total Demand	95.2	95.4	96.4	96.6	95.9	96.2	96.4	97.7	97.8	97.0
Stock Change	1.3	0.4	0.0	-0.3	0.3	-0.5	-0.3	-0.6	-0.6	-0.5
Call on OPEC	31.9	32.8	33.3	33.0	32.8	33.2	33.0	33.6	33.4	33.3
WTI (\$/bbl)	34	46	45	51	44	53	54	58	61	56
Brent (\$/bbl)	35	47	47	53	46	55	56	61	65	59

Note: Price forecasts (published as averages) draw from RBC Commodity Strategy's in-house fundamental methodology. Annuals in this table are published as averages. All inputs and outputs are subject to revision and other adjustments as deemed necessary. Source: Petro-Logistics SA, IEA, IDDI, company and government sources, RBC Capital Markets

#### Figure 22: Global Gold Supply & Demand Balance and Price Forecasts (Commodity Strategy)

Gold balance (t)	Q1 16	Q2 16	Q3 16 E	Q4 16 F	2016 F	Q1 17 F	Q1 17 F	Q3 17 F	Q4 17 F	2017 F
Total Supply	1173	1147	1181	1209	4711	1046	1078	1141	1175	4440
Total Demand	1190	1001	1137	951	4279	1005	929	938	997	3869
Balance	-16	146	44	258	432	41	149	203	177	571
Price (\$/oz)	1184	1259	1335	1278	1264	1272	1258	1221	1216	1241

Note: Price forecasts (published as averages) draw from two primary methodologies, 1) a macroeconomic model and 2) physical balance forecasts. Price forecasts are at least partially based on a standard OLS regression which utilizes a number of macroeconomic variables sourced from RBC forecasts, market consensus forecasts, and official forecasts. All inputs and outputs are subject to revision and other adjustments as deemed necessary. Source: Thomson Reuters Eikon, GFMS, WGC, Bloomberg, company and government sources, RBC Capital Markets





## **Global Economic Calendar**

Figure 23: Major commodity-relevant economic data releases

7-Nov	8-Nov	9-Nov	10-Nov	11-Nov
	China CPI, PPI	EIA Petroleum Status Report	EIA Natural Gas Report US Jobless Claims	Baker-Hughes rig count
14-Nov	15-Nov	16-Nov	17-Nov	18-Nov
RBA meeting	UK CPI, PPI EU, Germany GDP flash	ElA Petroleum Status Report UK Labor Market Report Australia Labor Force survey	EIA Natural Gas Report US Jobless Claims ECB Minutes	Baker-Hughes rig count Canada CPI
21-Nov	22-Nov	23-Nov	24-Nov	25-Nov
		EIA Petroleum Status Report France, EU, German PMI EIA Natural Gas Report US Jobless Claims FOMC Minutes	US Holiday	Baker-Hughes rig count UK GDP
28-Nov	29-Nov	30-Nov	1-Dec	2-Dec
	EU Economic Sentiment	EIA Petroleum Status Report	EIA Natural Gas Report US Jobless Claims	Baker-Hughes rig count Canadian Labour Force Survey

Source: WSJ, Econoday, Bloomberg, Reuters, RBC Capital Markets



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