



International price forecast December 31, 2011

Forecast commentary

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2012: Nostradamus, Mayan Calendar, or a new norm

A new year calls for new predictions. This year being 2012 has an ominous start. Long ago in one of Nostradamus' many predictions, it was interpreted that he saw an end to the world in the year 2012. Ironically, the ancient Mayan calendar abruptly ends in 2012, which has been interpreted to signify the end of the world.

As a prognosticator of crude oil and natural gas prices I too must make a prediction of where these commodities will go, but unlike these forecasting predecessors my forecast cannot end in 2012. There is no chance that the world's thirst for crude oil will end in 2012, or in the foreseeable future for that matter. To ease the environmentalists, there will be an increase in alternative fuels taking a slice out of the supply, but the overall increase in energy demand is only going to create a bigger pie to slice from. Predictions found in the World Energy Outlook 2011 by the International Energy Agency (IEA) show growth in crude oil demand increasing over the next fifteen years. That would take current demand levels, around 87 MMbbl/d, to over 99 MMbbl/d by 2035. The question remains, where will this additional supply come from? The cheap, easily accessible crude oil reservoirs in the world be it the North Sea, Mexico, or in the Middle Eastern fields are on the decline.

of the equation. Add to that conventional reservoir drilling that still exists in the high Arctic and deep water reservoirs through-out the world will remain more costly projects to develop and maintain. This further justifies that the high world oil prices (+US\$100.00/bbl) will become the norm as the economics to develop these resources require high prices.

It is interesting to note that the Brent crude oil price compared to the British NBP natural gas price is at a ratio of 12:1. This is more in line with historical relationships, compared to the North American oil to gas ratio of 23:1 for 2011. The average spread between Brent and WTI for 2011 was near US\$16.00/bbl. The spread and the ratio are clear indicators that there is more demand outside the North American container. These markets are where the future demand will exist.

In order to meet the global demand for energy, infrastructure and shipping necessary to deliver these more remote, costly resources also needs to be considered. To satisfy the demand indicated in the IEA report, discussions like ones occurring today regarding major oil and gas pipelines criss-crossing North America will become more common place. These major projects are not going to happen overnight and thus we will continue to see near term oscillation in commodity prices as the supply and demand balance shifts along with all the other influences that affect price forecasting.

The use of energy as we know it is not going to end in 2012 or anytime soon. We therefore must follow the path that will leave a tolerable impact on our environment and still strive to meet the needs of global expansion. The demand on the world's global resources will continue to increase as developing nations rely on the cheaper, more efficient, hydrocarbon energy to drive their growing economies. The oil and natural gas resources are there, they have just become much more costly to explore for and develop. This means that I predict no end to the current high international oil and natural gas price levels in 2012 and beyond.

“Do not follow where the path may lead. Go instead where there is no path and leave a trail.”

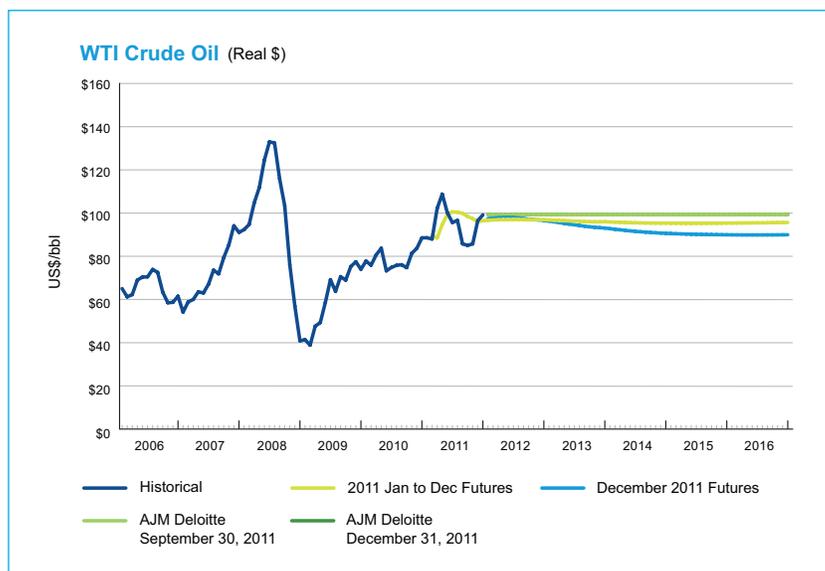
- George Bernard Shaw

Technology is becoming more influential in the quest to access hydrocarbons that are more difficult to recover. Technological examples include enhanced recovery projects; in-situ techniques in heavy oil and bitumen reservoirs; and horizontal drilling with multiple fractures per well for both oil and natural gas. To maintain the current supply levels, the so called “Unconventional Resources” are going to become a more significant part

Crude oil price and market demand forecast

Forecast considerations

- Current forecasts for other Crude Oil reference points are based on historical trends to the WTI price.
- Brent, United Kingdom crude is based on 38.3°API with 0.37% sulphur content. Brent blend is a light sweet North Sea crude oil that serves as an international benchmark grade.
- United States Gulf Coast Argus Sour Crude Index (ASCI) is a blend of offshore Gulf Coast oil from Mars, Poseidon, and Southern Green Canyon.
- OPEC Basket represents the current grouping of crude oil prices from the OPEC member countries.
- Nigerian Bonny Light is based on 33.4°API FOB at local port of landing.
- Mexico Maya is based on 21.8°API FOB at local port of landing.
- China Daqing is based on 32.3°API FOB at local port of landing.
- Russia Urals 31.7°API is the FOB delivered price to the Mediterranean destinations.

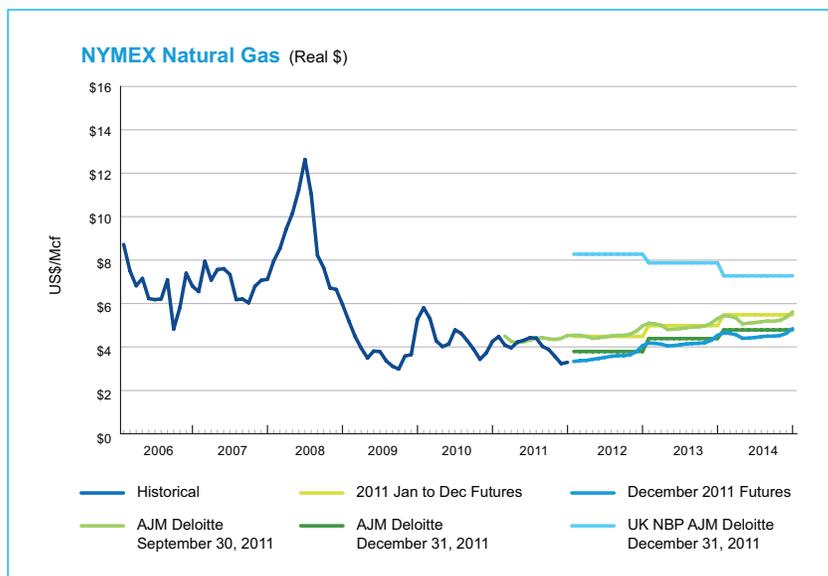


Year	Average WTI Spot	Brent Spot	Gulf Coast ASCI	Average OPEC Basket	Nigerian Bonny Light	Mexico Maya	China Daqing	Russia Urals
	US\$/bbl Real	US\$/bbl Real	US\$/bbl Real	US\$/bbl Real	US\$/bbl Real	US\$/bbl Real	US\$/bbl Real	US\$/bbl Real
Forecast								
2012	\$100.00	\$105.00	\$102.00	\$102.00	\$103.00	\$93.00	\$103.90	\$103.00
2013	\$100.00	\$105.00	\$100.00	\$102.25	\$103.00	\$95.00	\$103.90	\$103.00
2014	\$100.00	\$105.00	\$98.00	\$102.25	\$103.00	\$95.00	\$103.90	\$103.00
2015	\$100.00	\$105.00	\$98.00	\$102.25	\$103.00	\$95.00	\$104.00	\$103.00
2016	\$100.00	\$105.00	\$98.00	\$102.25	\$103.00	\$95.00	\$104.00	\$103.00
2017	\$100.00	\$105.00	\$98.00	\$102.25	\$103.00	\$95.00	\$104.00	\$103.00
2018	\$100.00	\$105.00	\$98.00	\$102.25	\$103.00	\$95.00	\$104.00	\$103.00
2019	\$100.00	\$105.00	\$98.00	\$102.25	\$103.00	\$95.00	\$104.00	\$103.00
2020	\$100.00	\$105.00	\$98.00	\$102.25	\$103.00	\$95.00	\$104.00	\$103.00

Natural gas price and market demand forecast

Forecast considerations

- The NYMEX price is based on delivery at the Henry Hub in Louisiana, the nexus of 16 intra- and interstate natural gas pipeline systems that draw supplies from the region's prolific gas deposits.
- The NYMEX market trades natural gas futures to the year 2021.
- Gas prices have been determined independently from oil prices but still reflect the current competitive nature of the two fuels.
- With the increase in the United States shale gas plays over the last few years, AJM Deloitte introduced estimates for a number of US supply regions effective with its September 30, 2009 price forecast.
- Expanded world activity has also given cause to provide an estimate for the United Kingdom NBP price.



Year	USD to GBP Exchange	USD to EUR Exchange	NYMEX	Permian Waha	San Juan Ignacio	Gulf Coast (Onshore)	Louisiana East Texas	Rocky Mtn. Opal	UK NBP
	Rate	Rate	US\$/Mcf Real	US\$/Mcf Real	US\$/Mcf Real	US\$/Mcf Real	US\$/Mcf Real	US\$/Mcf Real	US\$/Mcf Real
Forecast									
2012	1.600	1.300	\$3.80	\$3.45	\$3.50	\$3.65	\$3.80	\$3.40	\$8.30
2013	1.650	1.300	\$4.40	\$4.05	\$4.10	\$4.25	\$4.40	\$4.00	\$7.90
2014	1.650	1.300	\$4.80	\$4.45	\$4.50	\$4.65	\$4.80	\$4.40	\$7.30
2015	1.650	1.300	\$5.15	\$4.80	\$4.85	\$5.00	\$5.15	\$4.75	\$7.65
2016	1.650	1.300	\$5.45	\$5.10	\$5.15	\$5.30	\$5.45	\$5.05	\$7.95
2017	1.650	1.300	\$5.75	\$5.40	\$5.45	\$5.60	\$5.75	\$5.35	\$8.25
2018	1.650	1.300	\$6.00	\$5.65	\$5.70	\$5.85	\$6.00	\$5.60	\$8.50
2019	1.650	1.300	\$6.35	\$6.00	\$6.05	\$6.20	\$6.35	\$5.95	\$8.85



Pricing philosophy

AJM Deloitte looks to both the futures and the past when we create our forecasts

Price forecasting takes into account many variables that can influence future prices. While experience tells us we must continually review the tools we use to predict future oil and gas prices, one constant is the impact that the geopolitical landscape has on pricing. This impact is most accurately reflected in the financial industry's futures market for commodities. That is why the futures market is the main influence in the creation of AJM Deloitte's price forecast.

At AJM Deloitte, we understand that sound analysis of changing trends can influence the decisions made about mergers, acquisitions, divestitures and investments. One of the ways we ensure our price forecasts are as accurate as possible is to review our pricing assumptions on a quarterly basis. Accurate and realistic information ensures better long-term decisions for our clients.

These forecasts are AJM Deloitte's best estimate of how the future will look

In preparing the price forecast, AJM Deloitte considers the current monthly trends, the actuals and trends for the year to date, and the prior year actuals in determining the forecast. The base forecast for both oil and gas is based on NYMEX futures in US dollars. Crude oil and natural gas forecasts are based on yearly variable factors weighted to a higher percentage for the current data and then reflecting a higher percentage to prior year historical data for the later years. Gas prices have been determined independently from oil prices but still reflect the current competitive nature of the two fuels and reflect historical oil-to-gas ratios for the latter years of the gas forecast.

AJM Deloitte prepares our price and market forecasts based on information we collect from numerous government agencies, industry publications, oil refineries, natural gas marketers and industry trends. Inflation forecasts and exchange rates have also been considered.

While these forecasts are considered reasonable, changing market conditions or additional information may require alteration from the indicated effective date.

Crude Oil Quality

API° & Sulphur %wt

United States Crude Reference Price Points:

West Texas Intermediate (WTI)	39.6°	0.24%wt
Alaska North Slope (ANS)	31.9°	0.93%wt
California Kern River	13.4°	1.20%wt
Heavy Louisiana Sweet	32.9°	0.35%wt
Louisiana Light Sweet	35.6°	0.37%wt
Mars Blend US Gulf of Mexico	28.9°	2.05%wt
Wyoming Sweet	37.2°	0.33%wt

International Crude Reference Price Points:

United Kingdom Brent	38.3°	0.37%wt
US Gulf Coast Argus Sour Crude (ASCI)		
<i>Approx.</i>	29.1°	2.00%wt
OPEC Basket (1)		
Venezuelan BCF-17 Bachaquero	16.5°	2.53%wt
Venezuelan Merey	16.0°	2.45%wt
Nigerian Bonny Light	33.4°	0.16%wt
Arabia UAE Dubai Feteah	30.4°	2.13%wt
Mexico Maya	21.8°	3.33%wt
China Daqing	32.3°	0.11%wt
Russia Urals	31.7°	1.35%wt
Indonesia Minas	35.3°	0.09%wt

(1) The current OPEC Reference Basket (ORB) is made up of the following crudes: Saharan Blend - Algeria; Girassol - Angola; Oriente - Ecuador; Iran Heavy - Islamic Republic of Iran; Basra Light - Iraq; Kuwait Export - Kuwait; Es Sider - Libya; Bonny Light - Nigeria; Qatar Marine - Qatar; Arab Light - Saudi Arabia; Murban - UAE; Merey - Venezuela.

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