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# El Nuevo Mercado Petrolero

## Variables detras de los precios internacionales y perspectivas

Jaime Brito, Vice presidente, desarrollo de negocios

8o Congreso Internacional Bolivia Gas y Energía

Agosto 2015

- London
- Houston
- Washington
- New York
- Portland
- Calgary
- Santiago
- Bogota
- Rio de Janeiro
- Singapore
- Beijing
- Tokyo
- Sydney
- Dubai
- Moscow
- Astana
- Kiev
- Porto
- Johannesburg
- Riga

Market Reporting

Consulting

Events

illuminating the markets

# ¿Quién es Argus?

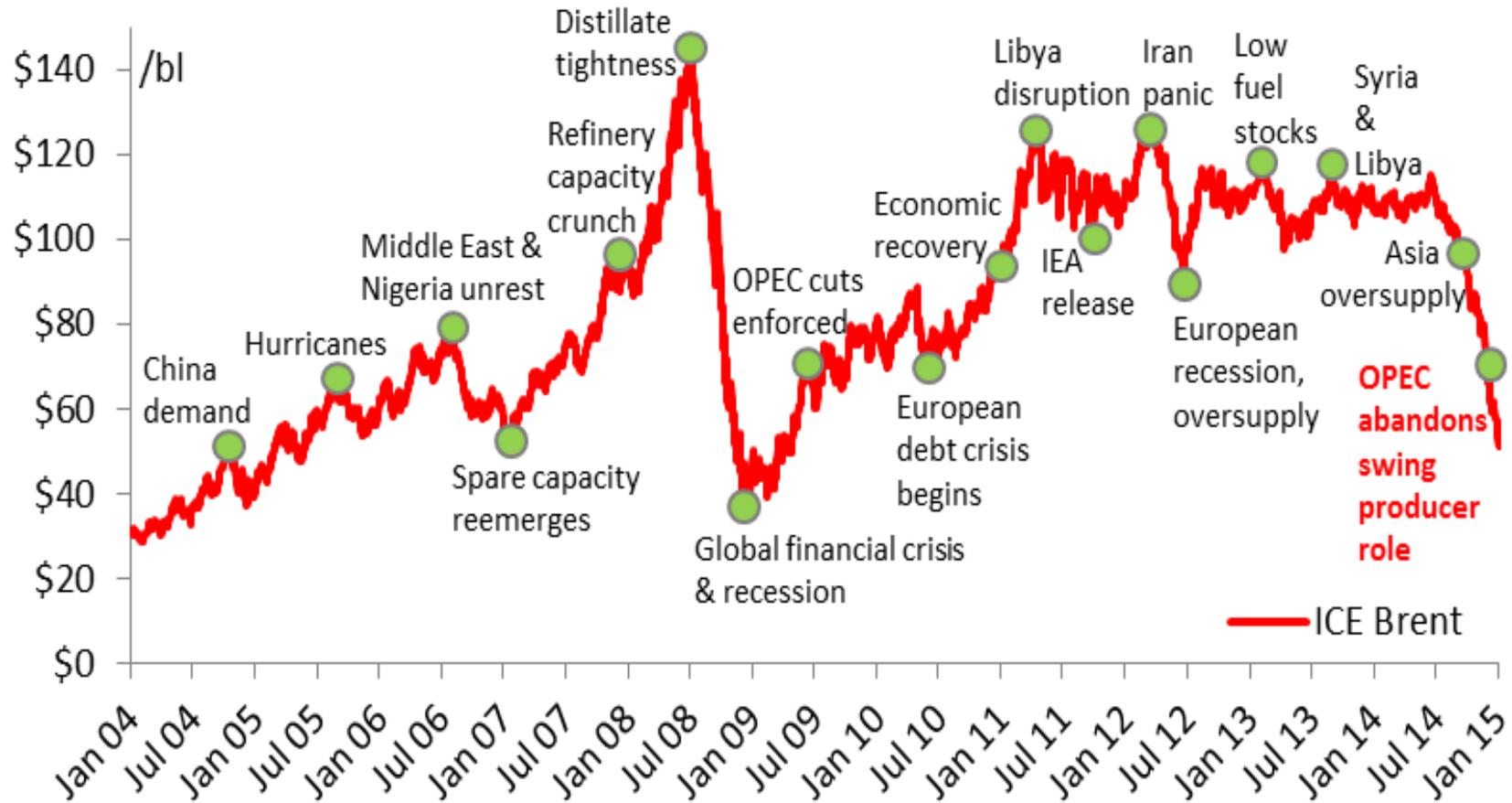
	América	Europa	Medio Oriente	Asia	África
Precios	Crudo	Productos Refinados		LPG	
Inteligencia de Mercado	Gas Natural	Biocombustibles		LNG	
Consultoría	Carbón	Transportación		NGLs	
Conferencias	Emisiones	Petroquímicos		Metales	

# El contexto internacional

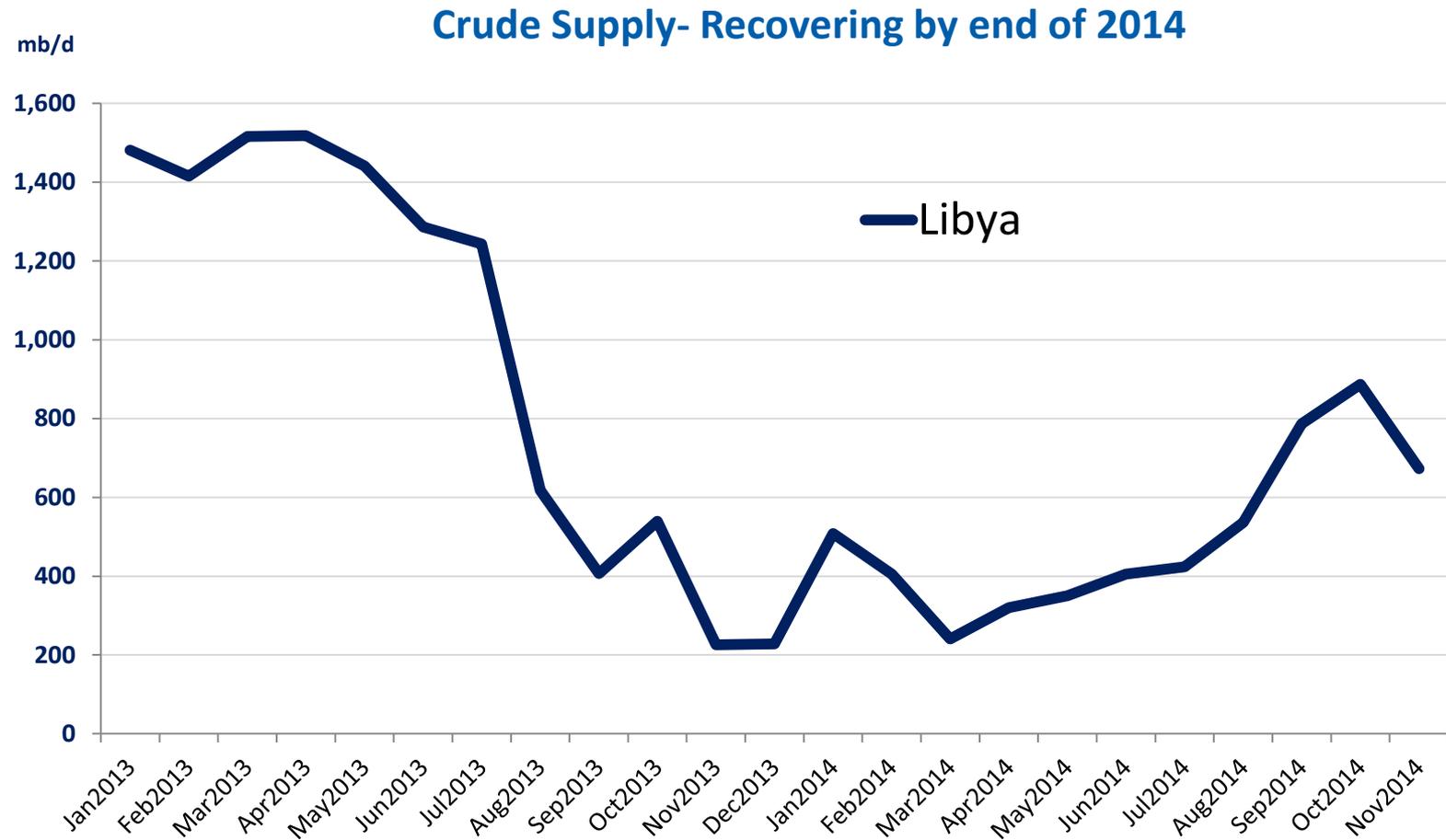
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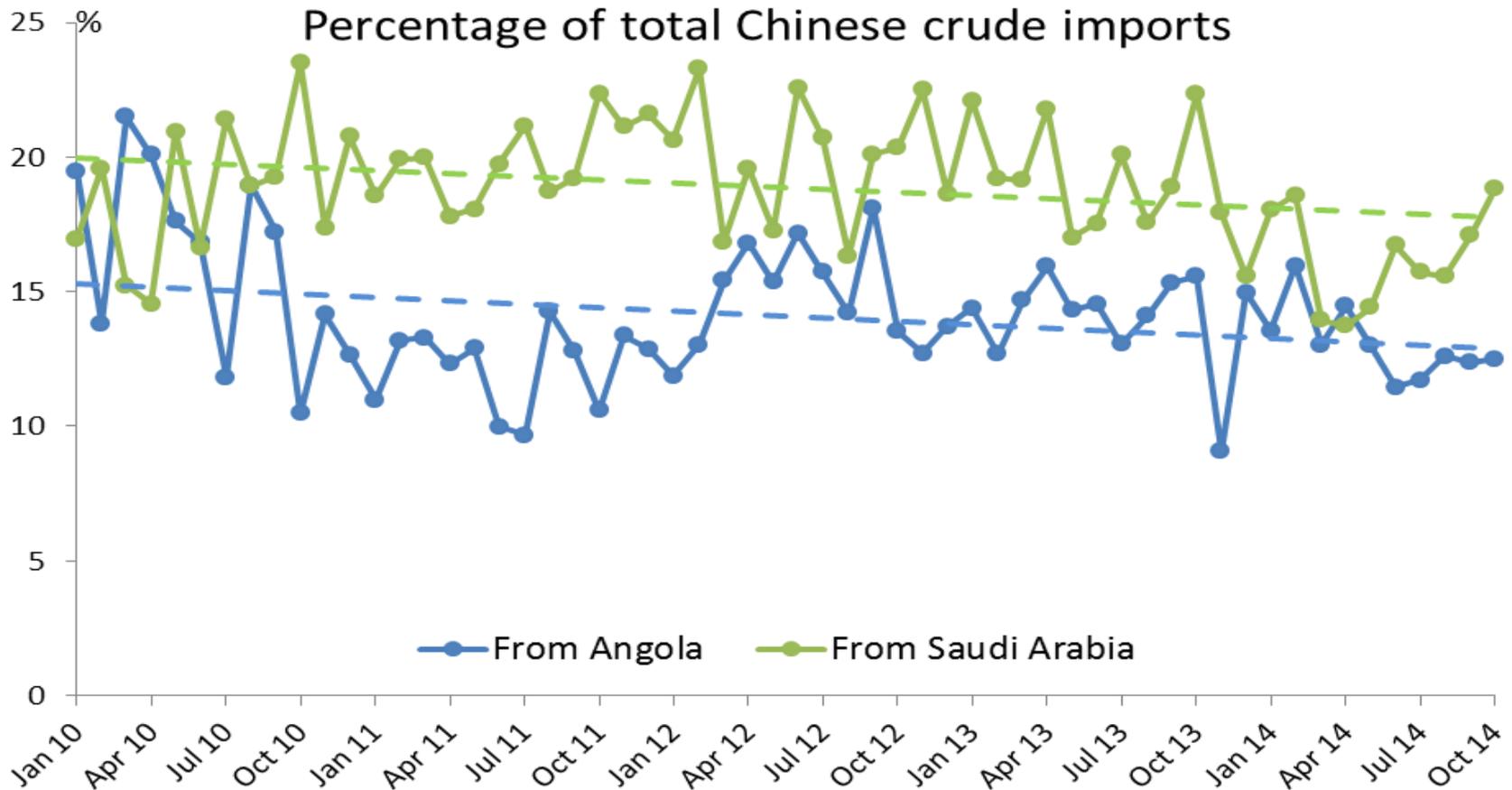
# 2014- nuevo paradigma de parte de la OPEP



# No había preocupaciones del lado de la oferta



# Los principales proveedores perdieron participación de mercado



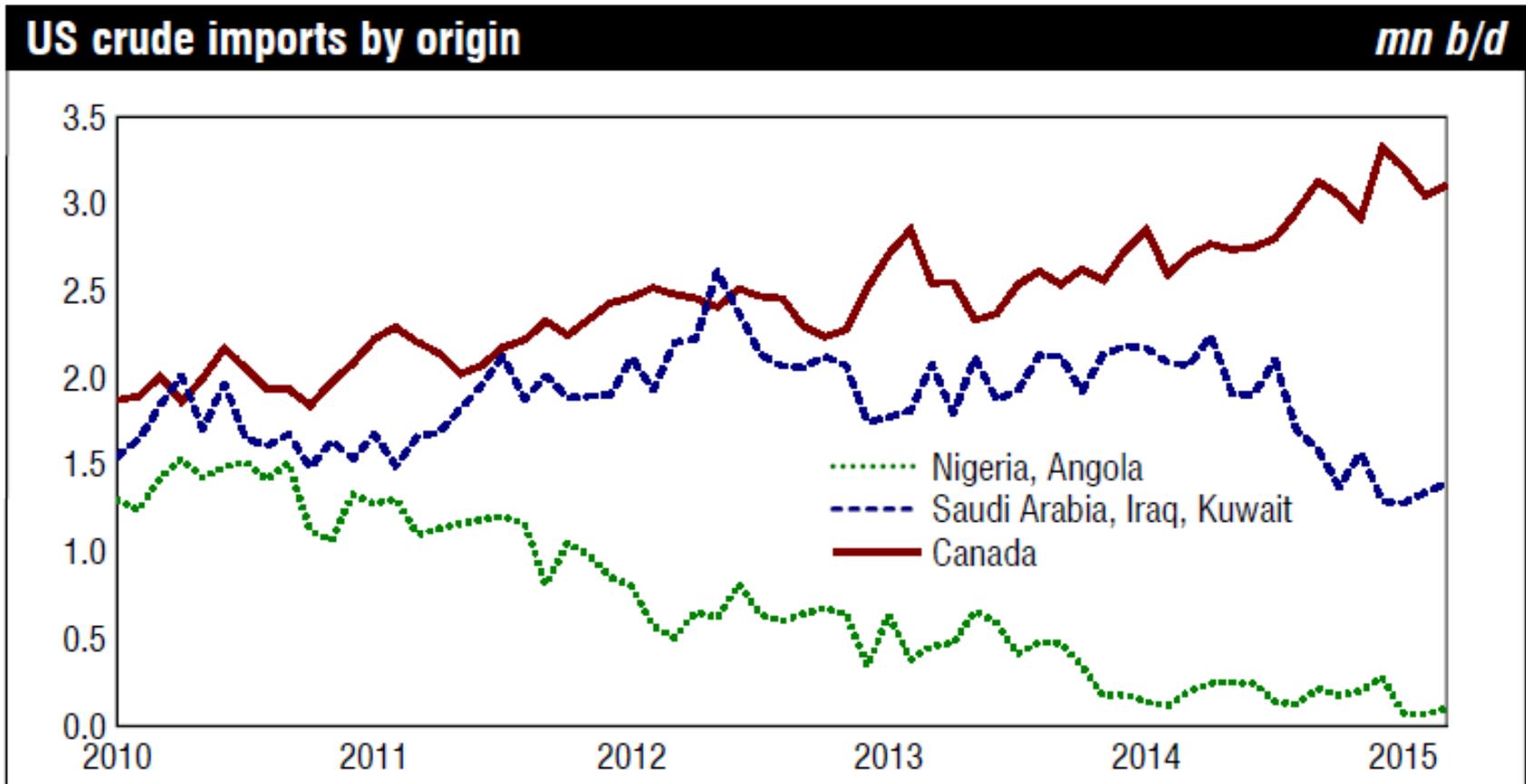
Source: Argus China Petroleum

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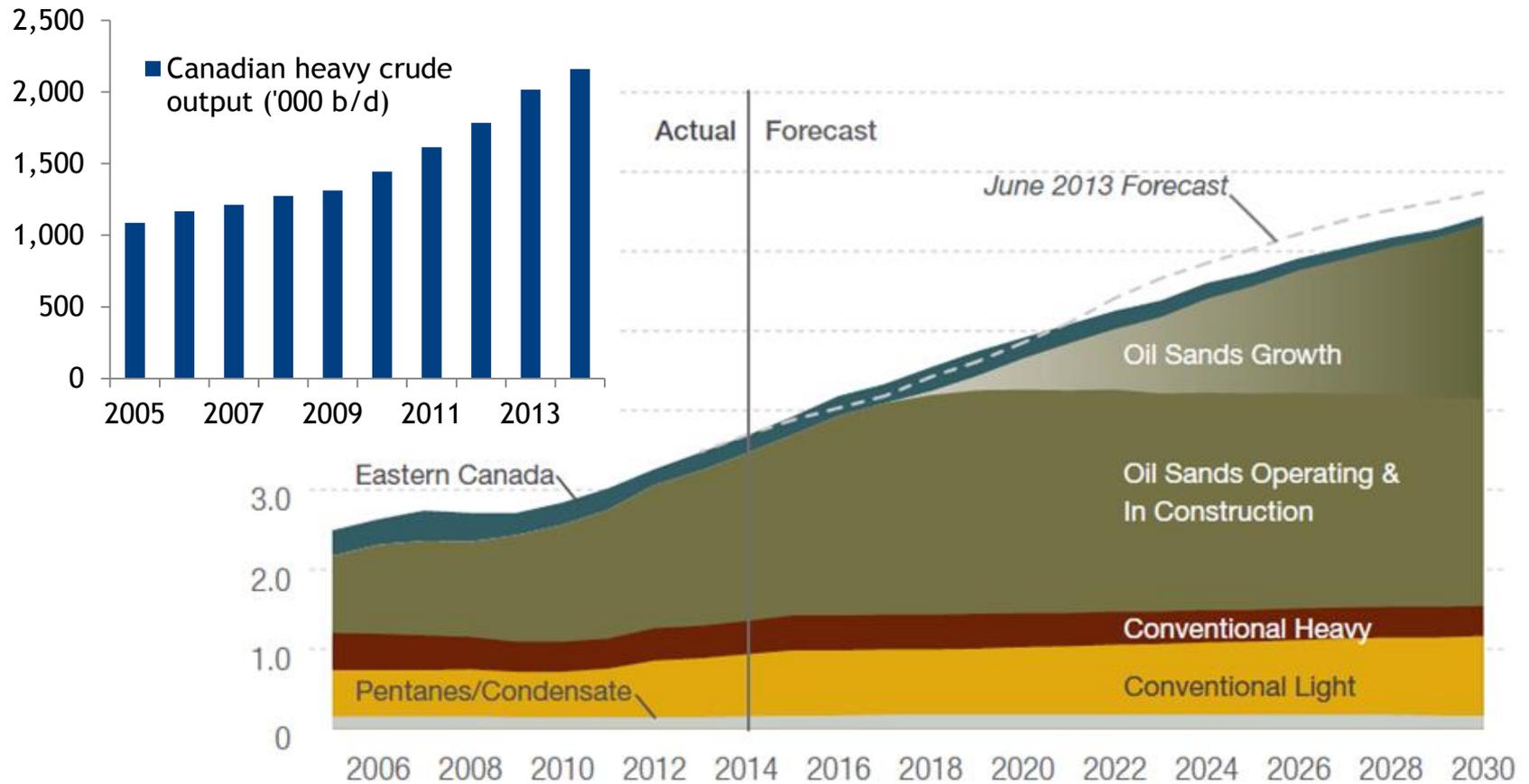
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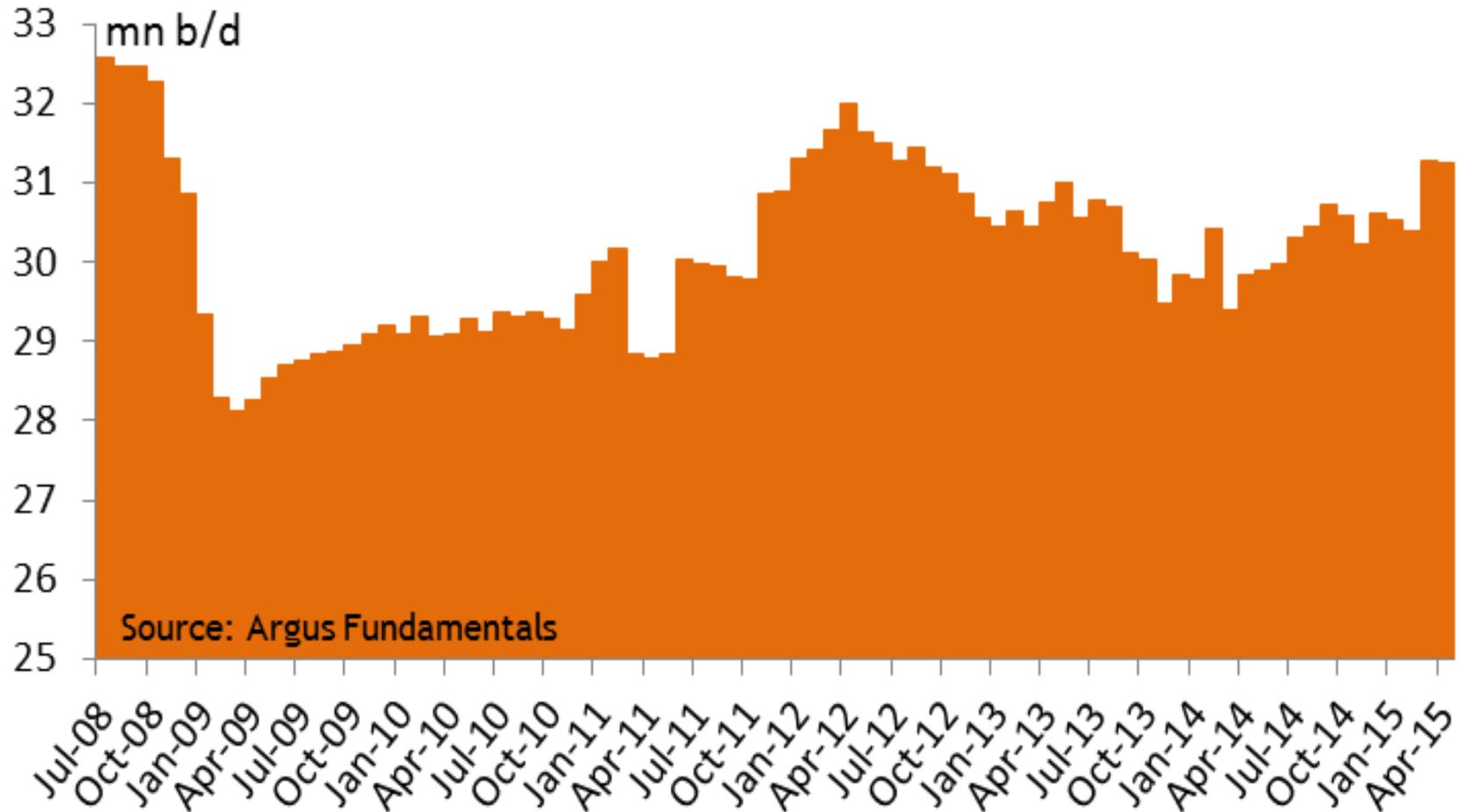
# Los barriles Canadienses también son competencia



# Crudo pesado Canadiense se duplica desde el 2005



# La producción de la OPEP se dispara: nuevo paradigma



■ OPEC crude production

# Piezas adicionales en el tablero

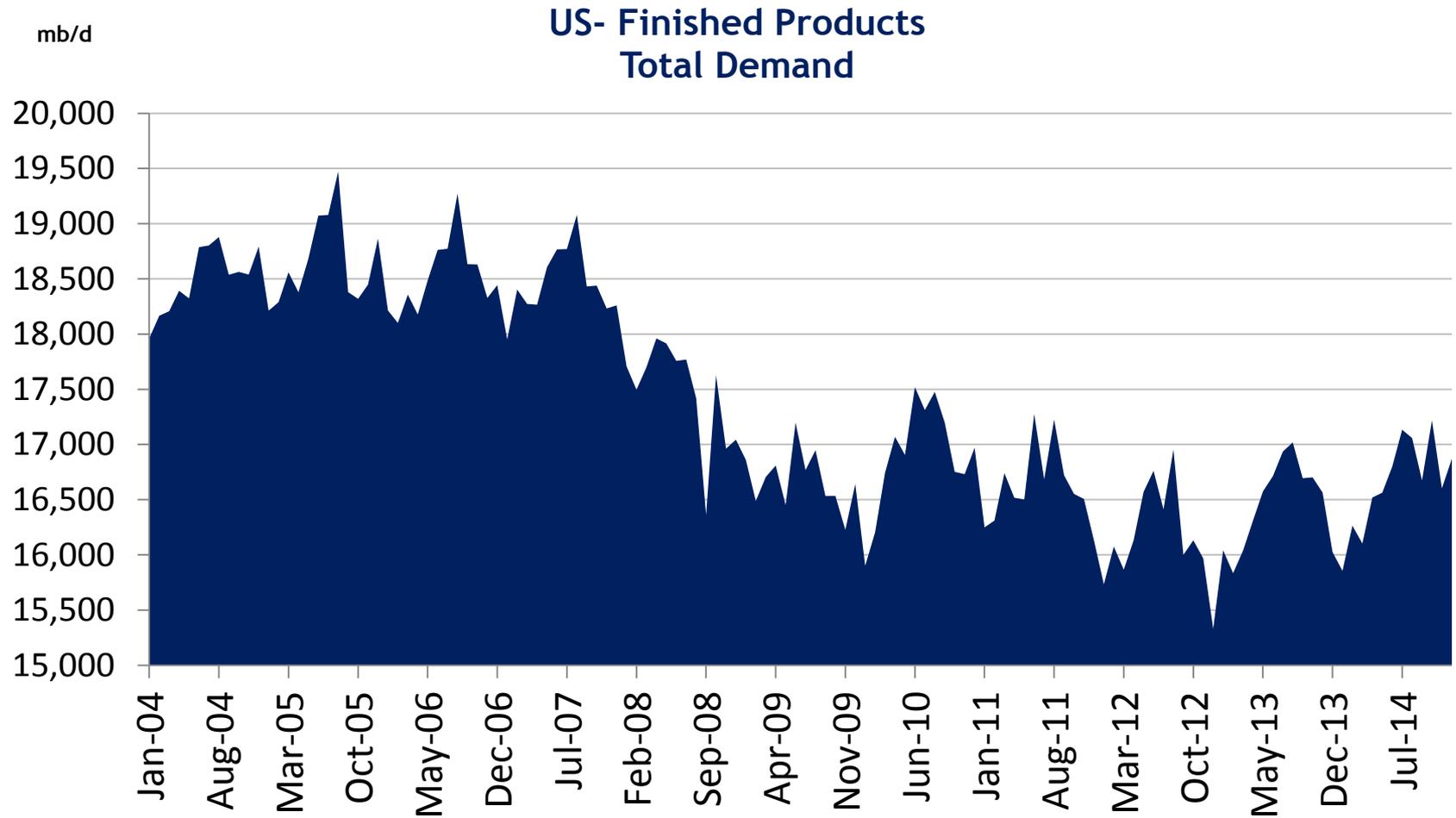


# El nuevo mercado

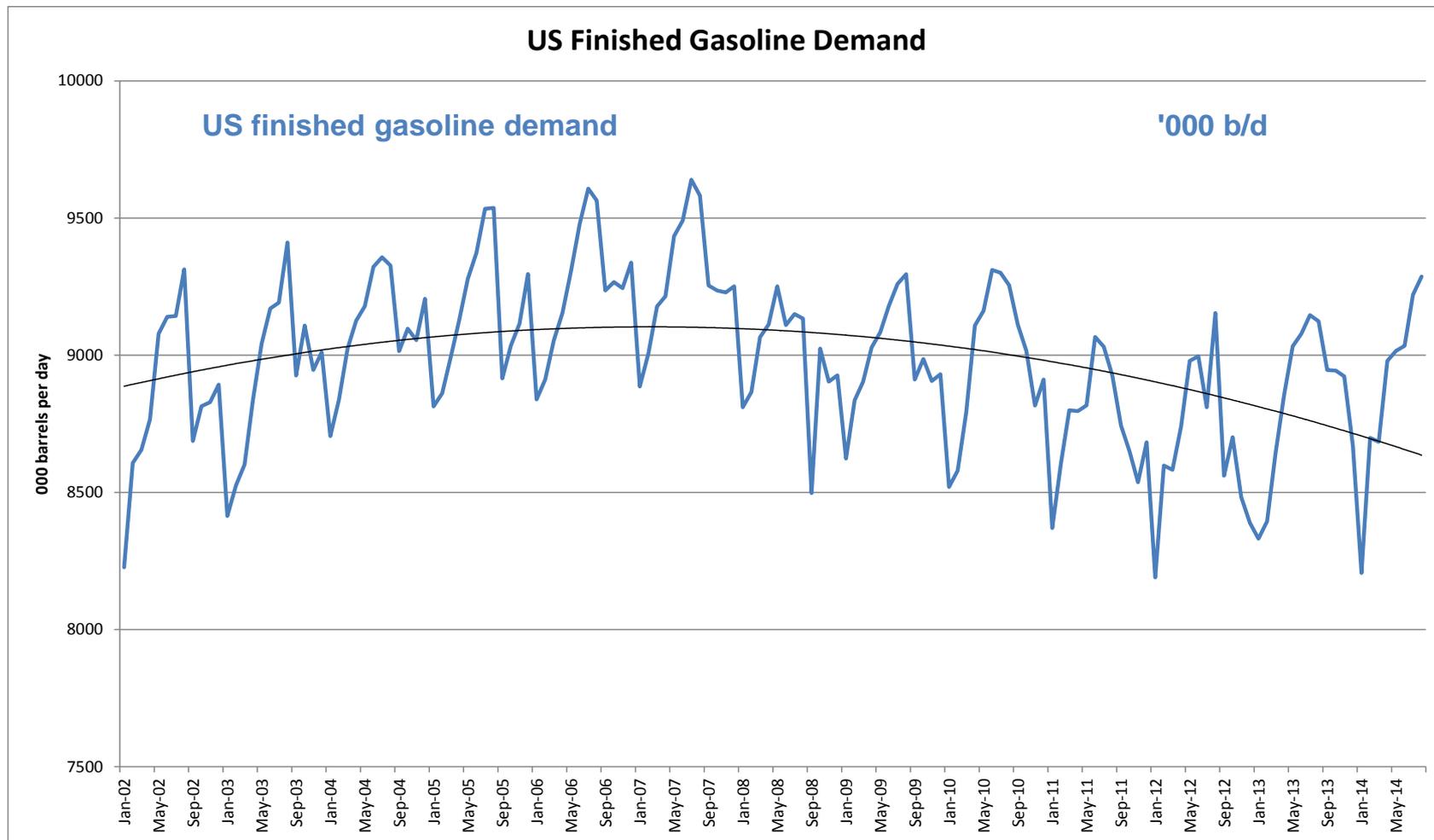
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# La demanda de productos refinados: a la baja en EEUU

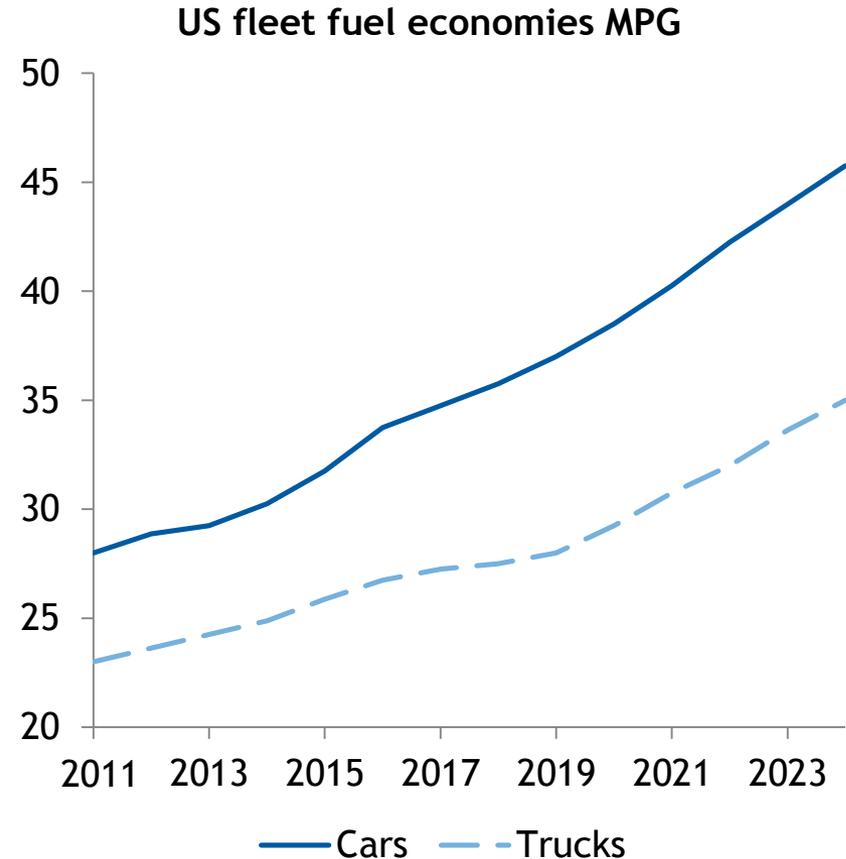


# La demanda de gasolina en este país llegó a su máximo en 2007

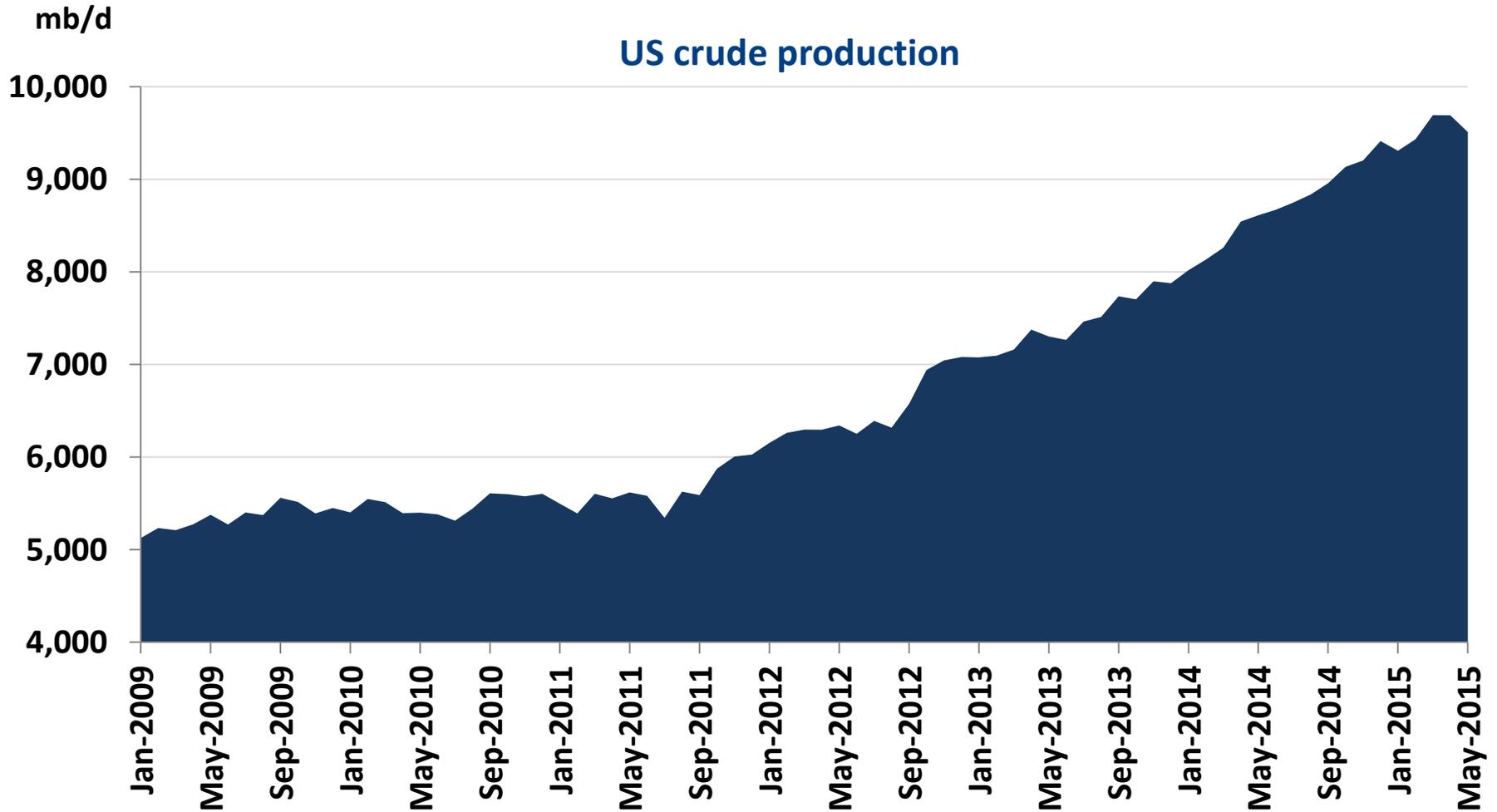


# Diversas variables han impactado en el consumo de gasolina

- Vehicle miles-per-gallon rising sharply with each model year
- US miles driven per person peaked in 2005
- US vehicle count to shrink 10% by 2020
- Urbanization
- “Baby Boomer” generation into retirement



# La producción de crudo se incrementa



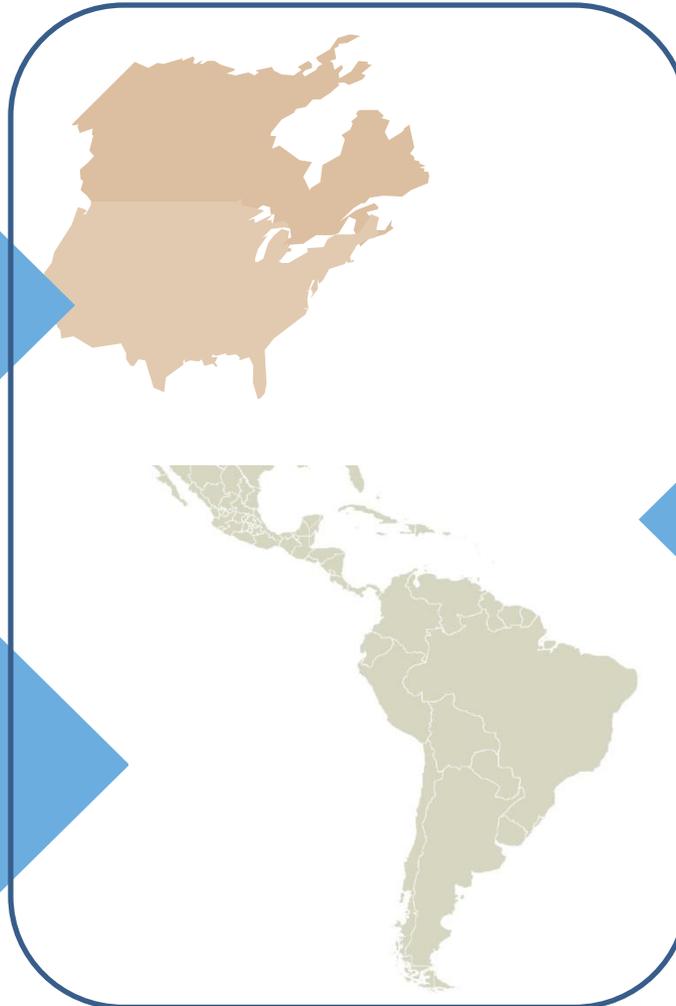
# Tendencias regionales

## Crudo

Norteamérica:  
logística vs  
producción

## Latino América:

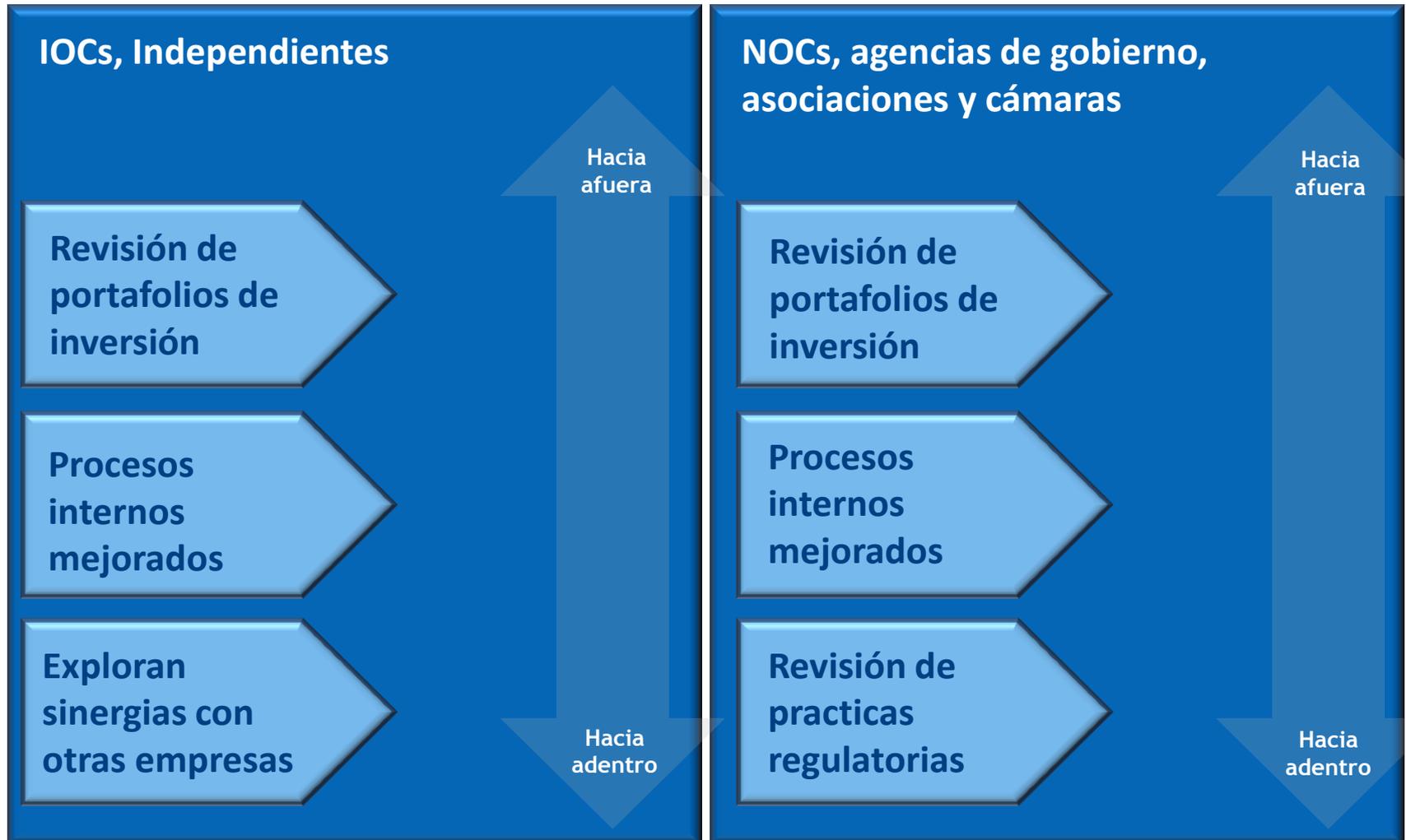
- Rondas para producción
- Intentos de atraer inversionistas



## Productos refinados

Integración

# Los precios bajos forzan la implementación de mejores practicas



# Reportes relevantes en el mercado de hidrocarburos

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## Argus Crude Outlook

Issue 14-12

### Ice Brent — the month ahead

We expect front month Ice Brent to trade in a \$67-72/bbl range through December. The steep rise in response to Opec's decision not to cut production was no great surprise. The volatility that expected, with no near historical reference available to serve as a floor. Given the present low are approaching year end, we expect to see the price stay relatively stable over the month.

Opec's decision to let prices fall in an effort to constrain non-Opec supply growth is obviously months to affect market fundamentals in such a way as to lift prices.

The potential short-term upside for Brent lies with Libyan supply. Opec's decision not to cut but to essentially the steady re-emergence of Libyan exports since the middle of this year that production — in the sense of reliable supply — has started to look questionable again. Any full support the Brent price.

Ice Brent front month (One-day candles \$/bbl)

Libyan exports continue to rise

News that Opec production hit a 14-month high in September

Indications that Opec is unlikely to cut production in response to oversupply

01-Aug 17-Aug 02-Sep 18-Sep 04-Oct 20-Oct 05-Nov 21-Dec

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## Argus Crude

Crude market prices and analysis

Issue 14-246 Friday 12 December 2014

### MARKET COMMENTARY

#### Prices slide again

Crude prices fell as the International Energy Agency again cut its 2015 crude demand forecast. Towards 4.30pm in London, the February North Sea price was \$62.31/bbl, \$2.26/bbl down on the same time during the previous session.

#### Benchmark at fresh low

The North Sea Dated benchmark finished the week at a new five-year low, as the region's crudes continued to clear ahead of the Christmas break.

#### CPC exports rise

January exports of light sweet Caspian CPC Blend are set to rise by 1pc over the December plan to 947,200 b/d.

#### Eastern promise

On the Mideast Gulf market, spot premiums for February loading cargoes rose amid demand from Japan, Thailand and South Korea.

### PRICE SUMMARY

Price summary	Basis	DIFF	Bid	Ask	\$/bbl
<b>North Sea</b>					
Dated	Feb	-0.87	61.41	61.47	-2.10
Brent	Dated	-0.29	61.61	61.67	-2.30
Forties	Dated	-0.22	61.19	61.23	-2.82
Oseberg	Dated	+1.30	62.31	62.57	-2.30
Ekofisk	Dated	+0.50	61.91	61.97	-2.10
<b>Russia-Caspian</b>					
Urals WTC	Dated	-2.20	59.21	59.27	-2.10
Urals West 80,000k	Dated	-1.50	60.31	60.37	-2.30
Azari Light	Dated	+1.30	62.91	62.97	-2.10
CPC Blend	Dated	-0.30	61.11	61.17	-2.10
<b>Russia-Caspian Feb netbacks</b>					
Urals Feb Primorsk	Dated	-3.33	57.88	57.94	-2.17
Urals Feb Novorossiysk	Dated	-3.11	58.30	58.36	-2.19
CPC Feb Terminal	Dated	-1.62	59.79	59.85	-2.33
Azari Feb Sargas	Dated	-0.32	61.09	61.15	-2.19
<b>Mediterranean</b>					
Sabran Blend	Dated	-0.25	61.06	61.12	-2.15
ES Sider	Dated	-1.20	59.71	59.77	-2.30
Karuk	Dated	-1.25	58.16	58.22	-2.10
<b>West Africa</b>					
Bonny Light	Dated	+0.40	62.01	62.07	-2.10
Girasol	Dated	+0.40	61.01	61.07	-2.10
Hungo	Dated	-2.75	58.66	58.72	-2.10
<b>US pipeline</b>					
LLS	Basis	DIFF	WVA	\$	
Jan WTI	+2.42		60.23	-2.85	
Mars	Jan WTI	-1.50	56.31	-2.15	
<b>Argus Sour Crude Index (ASCI™)</b>					
ASCI	Jan WTI	-2.12	55.69	-2.20	
<b>Canada pipeline</b>					
Synthetic	CMA Hymex	DIFF	Bid	Ask	\$
WCS	CMA Hymex	40.21	40.71	-0.68	
<b>Americas cargoes</b>					
AMS	Feb WTI	60.20	60.25	-1.87	
Vasconia	Mar WTI	56.10	56.60	-0.89	
<b>Asia-Pacific</b>					
Miras	ICP	+0.90	63.83	63.93	-1.57
Tapis	Dated	+3.00	64.39	64.49	-2.10
North West Shelf	Dated	-3.40	57.99	58.09	-2.30
<b>Russia Asia-Pacific</b>					
ESPO Blend	Jan Dubai swaps	-2.38	63.01	63.11	-1.52
Sokol	Feb Dubai swaps	-1.40	64.65	64.75	-1.57
<b>Mideast Gulf</b>					
Dubai	Feb	59.89	59.99	-1.56	
Oman	Feb Dubai swaps	-0.68	60.57	60.67	-1.86
Murban	Feb Adnoc	-0.50	62.42	62.52	-1.27

### ICE Brent vs Dated

Brent, Forties, Oseberg, Ekofisk vs Dated \$/bbl

— Brent — Forties — Oseberg — Ekofisk

North Sea Dated = 0

23 Jun 14 19 Aug 14 16 Oct 14 12 Dec 14

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IS

# LatAm Energy

NEWS, PRICES AND ANALYSIS FROM LATIN AMERICA AND THE CARIBBEAN

VOLUME XVII, 23, 2 December 2014

## Oil prices look a particularly grim

Venezuela, but other states would suffer too

Oil prices have fallen to their lowest point since the start of a ground-breaking challenge to the oil market. In Brazil, behind the steady drip of revelations and finger-pointing over alleged corruption at state-controlled Petrobras, the lower oil price has lifted some of the financial pressure from Petrobras in the form of cheaper fuel imports, narrowing the gap between market rates and the domestic price cap. But the sub-salt deposits that are a pillar of the government's plan to revive the economy are looking less viable in a lower price environment. High-cost developments such as the Ito-Ito-12bn bl Libra project in the Santos basin might make less economic sense, explaining why Brazil will have to postpone the first part of a ground-breaking upstream tender (see p4).

In Brazil, behind the steady drip of revelations and finger-pointing over alleged corruption at state-controlled Petrobras, the lower oil price has lifted some of the financial pressure from Petrobras in the form of cheaper fuel imports, narrowing the gap between market rates and the domestic price cap. But the sub-salt deposits that are a pillar of the government's plan to revive the economy are looking less viable in a lower price environment. High-cost developments such as the Ito-Ito-12bn bl Libra project in the Santos basin might make less economic sense, explaining why Brazil will have to postpone the first part of a ground-breaking upstream tender (see p4).

Smaller producers are undergoing similar challenges. Ecuador will find it harder to develop the environmentally sensitive Ishpingo-Tambococha-Tiputini (ITT) heavy crude block even if China makes a sizeable investment (see p9). And in Colombia, peace talks are close to restarting but the economic upside of working around chronic rebel attacks will be less obvious (see p5).

A sustained drop in oil prices makes the region's investment conditions harder to predict. While several Latin American governments have already revised their oil price assumptions for next year's spending, many are beginning to ponder the wider political implications of the market's possible new reality.

There was ever a time to stand up to the corporate bullies, it is now

Vasconia \$/bbl

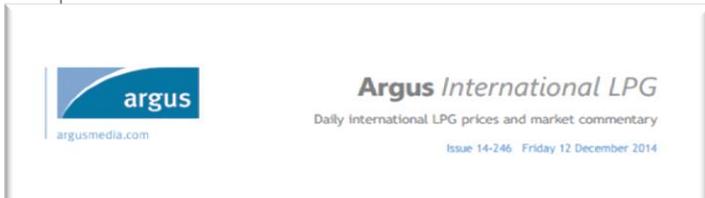
Mexico: Crude output m b/d

Brazil: Crude output m b/d

Crude	1 Dec	±17 Nov
Vasconia Feb	62.24	-1.42
Costa Feb	61.34	-1.10
Mexa USGC	61.97	-0.90
Omexa	71.40	-0.68
Infamea	69.76	-0.80
WTI Queeny	69.20	-0.64
AMS	69.80	-0.90

Products	1 Dec	±17 Nov
Gasol 6500	208.87	-25.78
USGC	170.88	-15.41
Gasol 6000	170.88	-15.41
USGC	170.88	-15.41
Gasol 6000	170.88	-15.41
USGC	170.88	-15.41
Gasol 6000	170.88	-15.41
USGC	170.88	-15.41

# Reports covering this sector



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**Argus International LPG**  
Daily International LPG prices and market commentary  
Issue 14-246 Friday 12 December 2014



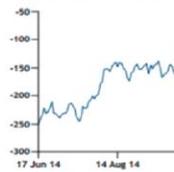
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**Argus NGL Americas**  
Issue 14Q-239 Friday 12 December 2014

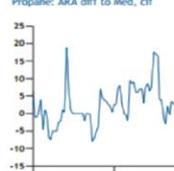
**OVERVIEW**

Asia-Pacific: Buying ideas firmed.  
Europe: Both grades fell back.  
North America: Upward momentum

Propane: Mt Belvieu non-LST diff t



Propane: ARA diff to Med, cif



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- Northwest Europe
- Mediterranean, FSU
- International swaps
- Middle East
- Asia-Pacific
- US
- Latin America
- Industry news

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**STATISTICAL REVIEW OF GLOBAL LP GAS 2014**



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TWICE MONTHLY NEWS, PRICES AND ANALYSIS VOLUME XX, ISSUE 10, 21 MAY 2015

**Targa terminal ahead of schedule**  
*A key natural gas liquids (NGL) producer could have its expanded export facility on the US Gulf operational before October, adding to US LPG exports*

US midstream operator Targa Resources Partners' expansion of its LPG export terminal at Galena Park, Texas, is ahead of schedule, according to chief executive Joe Bob Perkins.

"Our expanded international grade export project is getting ahead of schedule and may let us service a few spot cargoes before term contracts are signed in October," Perkins said during an earnings call on 3 May. Targa's LPG exports more than doubled on the year in the first quarter to 44,000 bbl/d (1.4m t/yr).

Targa exports around 1.1m bl/month of domestic-grade propane and butane, and is expanding loading capacity to 2m bl/month to export international-grade propane through very large gas carriers (VLGCs) by the third quarter of this year. The company also plans to add another 2m bl/month of export capacity by the third quarter of 2014, bringing total capacity to 5m bl/month.

Lower US NGL prices are creating a surge in export demand from buyers in Latin America, Asia-Pacific as well as western Europe. The propane arbitrage between the US and northwest Europe fell after the expansion of NGL giant Enterprise Products Partners' LPG export terminal in March. But Targa executives see continued demand for LPG exports (LPGW, 5 March, pp6-7).

The third-quarter expansion for international-grade propane is completely contracted, but we may be able to work spot volumes in there above that," Perkins said. "We see very high demand for contracting volumes that will begin in 2014."

Perkins anticipates more butane exports later this year. "As we come on for VLGCs in the third quarter, most of the off-take agreements provide options for butane to be part of the cargoes," Perkins said.

**Fractionator steady**  
Targa's fee-based export and fractionation businesses benefited from an industry-wide glut of NGL production in the first quarter.

But the Houston-based partnership reported little change in NGL volumes produced from its fractionator, averaging 133,300 bbl/d over the quarter, as natural gas processing volumes fell by 7pc to 2.07bn bbl/d (27.6m mty). The company attributed the lower volumes to pipeline maintenance on a major third-party line carrying unfractionated volumes to Mont Belvieu in addition to lower ethane content.

Targa's earnings fell by a massive 45pc on the year in January-March to \$45.3m. Sales dropped by 15pc to \$1.4bn, mainly because of lower NGL prices. Targa received an average 90¢/USG for its NGL sales in the first quarter, down from 121¢/USG in the previous year. Meanwhile, the company's new 100,000 bbl/d train 4 expansion at the Cedar Bayou fractionator is currently being commissioned.

*Europe does not exist in a vacuum, and nations such as Australia and China are welcoming of shale — Warsaw-based Sobienski Institute analyst Grzegorz Zielinski (see p10)*

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	High	Mean	VWA
17,230	17,000		
17,000	16,813	16,813	
17,500	17,250		
17,250	17,000		
17,375	16,813	16,812	
17,500	17,250		
17,250	17,000		
17,125	16,875	16,875	
17,500	17,250		
53,875	53,625		
53,375	53,688	46,146	
56,250	55,500		
55,125	53,500		
55,250	53,438	54,205	
54,750	54,500		
53,000	52,750		
53,000	52,750	52,750	
54,000	53,750		
55,875	55,625		
55,875	55,425	55,425	
66,750	66,500		
71,875	71,625		
73,000	71,625	71,937	
73,100	73,131		
71,500	71,250		
71,500	71,250	71,250	
72,000	71,888	71,239	
73,150	73,000		
114,000	113,750		
114,250	113,750	113,910	
116,000	115,250		
115,500	115,250		
115,500	115,250	112,730	
117,000	116,750		
113,000	112,750		
113,000	112,750	115,250	
114,500	114,250		

# Inteligencia de mercado en otros sectores

## argus Global LNG

MONTHLY LNG MARKETS, PROJECTS AND INFRASTRUCTURE

### Sakhalin 2 expansion moves closer

Operator Sakhalin Energy has secured feedgas for a planned third train from Gazprom's far east fields

The Sakhalin 2 LNG project led by Russia's state-controlled Gazprom has moved a step closer to expansion after the company agreed to provide natural gas for a planned third train.

Gazprom is prepared to provide gas from its Sakhalin 3 fields in the Okhotsk Sea for the 5m mty train. Gazprom and Shell, which are key Sakhalin 2 shareholders, signed an agreement in June. Shell has a 27.5pc minus one share stake in Sakhalin 2, while Gazprom has 50pc plus one share.

Sakhalin 2's two trains produced 10.7mmt of LNG last year using gas from the Lunskoye field in the Okhotsk Sea. But Lunskoye's reserves are not sufficient to support another train — a key issue that has held up a final investment decision (FID) for the third train.

Gazprom does not say which Sakhalin 3 fields will provide gas for the third train or how much gas could be provided. The company has discovered the 162bn m³ Kirinsky and 630bn m³ South Kirinsky fields at Sakhalin 3, and holds the East Odoptinsky and Ayazhsky blocks, which have yet to be explored. Two of six planned production wells have been drilled at Kirinsky, which has the onshore and offshore infrastructure in place to produce gas. But the field, which is earmarked to supply gas to the domestic market, is idle for now because of a lack of demand in the far east of Russia. Kirinsky can produce 5.5bn mty of gas.

South Kirinsky is at the exploration stage, with at least four more exploration wells to be drilled in 2016-17, and

its reserves could rise further. The field could produce at least 16bn mty using current reserves. Gazprom plans to drill wells at East Odoptinsky and Ayazhsky after 2016. The company has not yet decided how to develop South Kirinsky.

Kirinsky could provide gas for the third train initially and supply from South Kirinsky could be used at a later point, a Gazprom official says. The amount of gas that Gazprom will supply to the third train will largely depend on gas demand in Russia's far east and Sakhalin 2's decision to further explore and develop its own gas reserves.

Gazprom and Shell will begin initial engineering work for the third train this year. This process should be completed next year, with an FID likely in late 2017. Sakhalin 2 operator Sakhalin Energy plans to commission the train in 2021 at the earliest, much later than government expectations for 2018 (AGL, June, p6).

#### Infrastructure ready

The train could be built within four years given that the 800km gas and 800km oil pipelines that link Sakhalin 2 gas and oil fields are already in place. Gazprom's Sakhalin 3 gas fields are close to Sakhalin 2 infrastructure, although a 100km connection would need to be built. The Sakhalin 2 gas pipeline would need to be expanded to handle the extra supply. The expansion is expected to cost \$5bn-7bn (AGL, April, p13).

Sakhalin 2 shareholders plan to use the same Shell liquefaction technology that is employed at the first two trains.

*"They have a take-or-pay contract and we expect that they are going to do that contract" — ConocoPhillips chief executive on APLNG deal*

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## METHODOLOGY AND SPECIFICATIONS GUIDE



## ARGUS NORTH AMERICAN NATURAL GAS FORWARD CURVES

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- Introduction 2
- Methodology 2
- Code of Conduct and Compliance 2
- Definition of Standard Forward Contracts 3
- List of Natural Gas Markets/Locations in Argus North American Natural Gas Forward Curves 4
- Contact Information 4
- Trading Locations for Argus North American Natural Gas Forward Price Curves 5

LAST UPDATED: FEBRUARY 2012

The most up-to-date Argus North American Natural Gas Forward Curves methodology is available on [www.argusmedia.com](http://www.argusmedia.com)

[www.argusmedia.com](http://www.argusmedia.com)

## Argus Natural Gas Americas

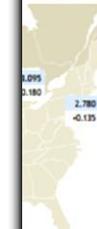
Issue 15-155 Thursday 13 August 2015

### NATURAL GAS PRICES

Transaction date: 13 Aug 15, flow date(s): 14 Aug 15  
Argus North America Index: \$2.805/mmbtu

	NYMEX	Daily delta	5W cash basis	Bid week delta
East	2.150	0.000	-0.760	
Algonquin Citygates	2.130	-0.045	-0.585	0.325
Algonquin receipts	1.650	-	-1.285	N/A
Col Gas, Appalachia	2.835	0.010	-0.060	0.040
Domestic, North Point	1.525	-0.025	-1.390	N/A
Domestic, South Point	1.545	-0.010	-1.370	0.295
Dracut	-	-	-	N/A
Freights, Washington	3.085	0.030	0.170	0.375
Freights, zone 1	-	-	-	N/A
Freights zone 2	3.105	0.020	0.190	0.370
Lebanon	2.930	0.025	0.025	0.040
Ledy Hub	-	-	-	-
Ledy Line	1.240	-0.130	-1.675	0.035
Millstream receipts	1.325	-0.115	-1.590	N/A
Nagara	-	-	-	-
TGP zone 4 Marcellus	1.170	-0.085	-1.765	0.040
TGP zone 4 200 Line	1.740	0.005	-1.175	0.295
TGP zone 6 200 Line	2.230	-0.050	-0.685	0.200
TETCO in-2 receipts	1.505	-0.050	-1.410	0.275
TETCO in-3	1.680	-0.030	-1.205	0.300
Tranco zone 5	2.940	-0.020	0.025	N/A
Tranco zone 6 nonHY	2.795	0.025	-0.130	0.795
Tranco zone 6 nonHY North	2.790	0.025	-0.125	0.790
Tranco zone 6 HY	2.780	0.045	-0.125	0.830
Gulf/Texas	2.880	-0.005	-0.005	
Aqua Dulce	-	-	-	N/A
ANR, Louisiana	2.860	0.025	-0.025	0.015
Carthage	2.850	-0.045	-0.115	-0.010
Columbia Gulf, La	2.860	0.000	-0.055	0.010
Columbia Gulf Mainline	2.865	0.015	-0.050	0.060
Florida Gas zone 2	2.905	0.010	-0.010	0.010
Florida Gas zone 3	2.905	-0.010	-0.010	-0.030
Gulf South Pipeline	-	-	-	N/A
Gulfstream Natural Gas	-	-	-	N/A
Henry Hub	2.915	0.000	0.000	0.030
Houston Ship Channel (AH)	2.900	0.010	-0.015	0.075
Katy Hub	2.900	0.005	-0.015	0.075
NGPL, South Texas zone	2.875	0.025	-0.040	0.070
Pine Prairie	2.905	0.030	-0.010	N/A
Sokol La	2.895	0.005	-0.025	0.030
TETCO L La	2.860	0.010	-0.055	0.020
TETCO ETX	2.800	-0.005	-0.115	-0.015
TETCO in-1 24	2.800	0.020	-0.115	N/A
TETCO in-1 30	2.860	0.030	-0.055	0.040
TETCO South Texas zone	2.845	0.000	-0.070	0.020
TETCO W La	2.880	0.000	-0.035	0.045
TGP La 500 Leg	2.880	-0.015	-0.035	0.020
TGP La 800 Leg	2.855	-0.010	-0.040	0.010
TGP zone 0 North	-	-	-	-
TGP zone 0 South	2.820	-0.005	-0.095	0.025
TGT zone 1	2.865	0.015	-0.050	0.040

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