



Oil and Natural Gas Outlook for 2014

Commodities: Oil & Gas

Fundamentals & Scenarios, January 2014

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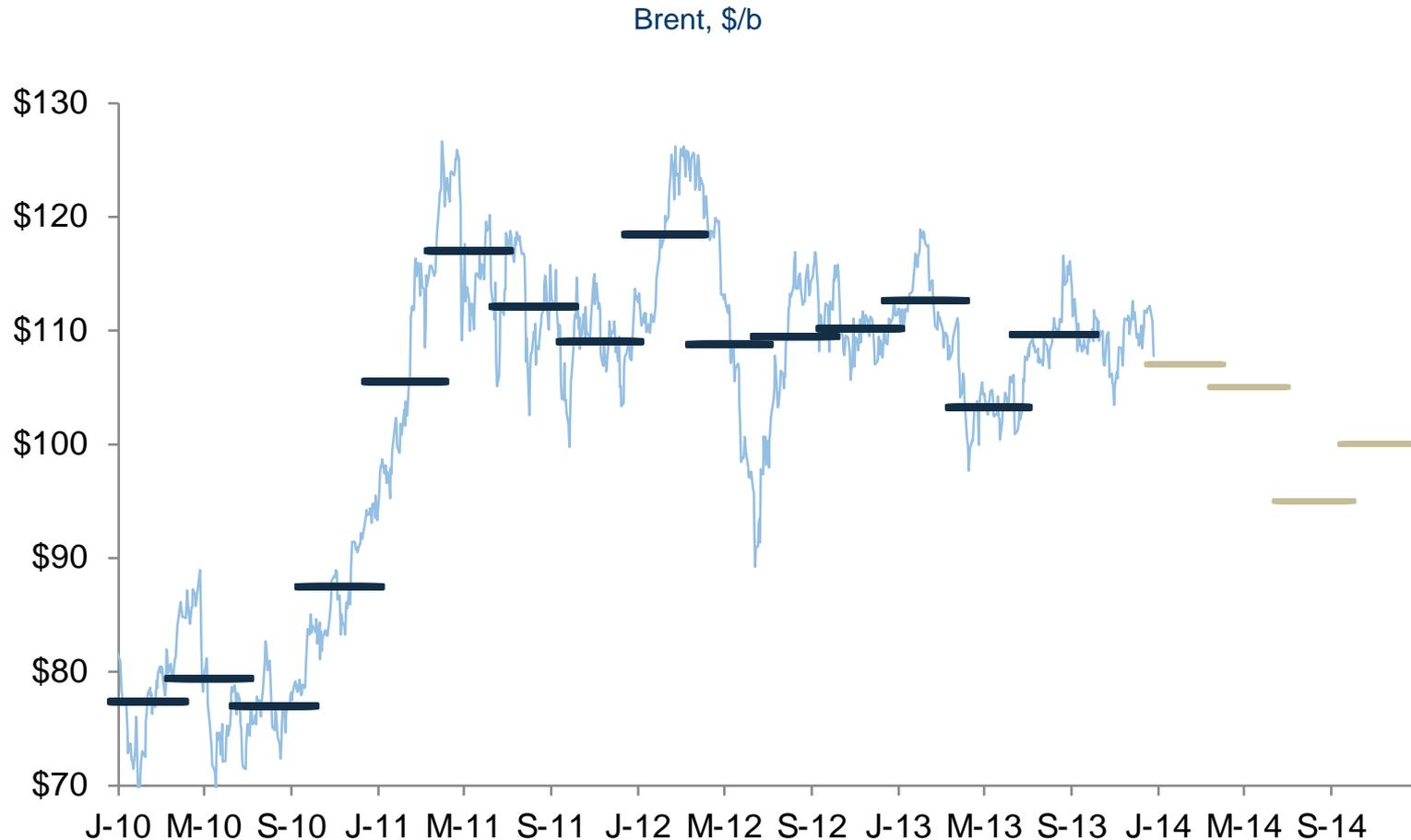
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Brent prices clearly dip: If indeed supply grows as planned/desired

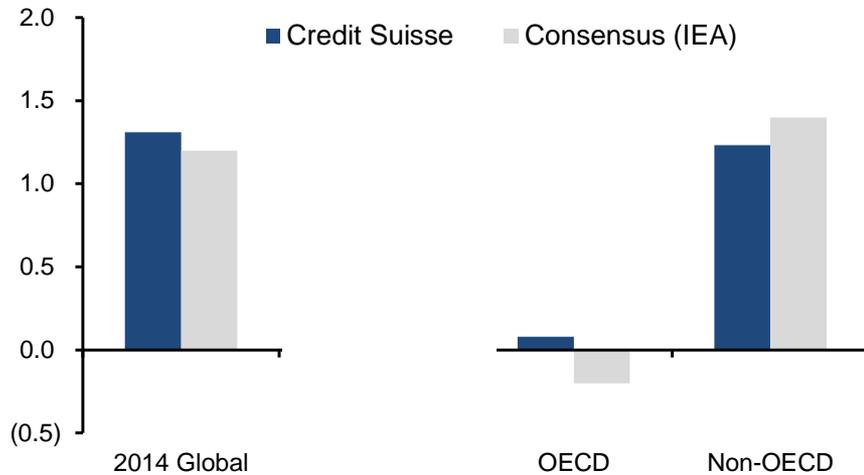


Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

CS v Consensus: Our non-Opec and demand views align (too?) closely

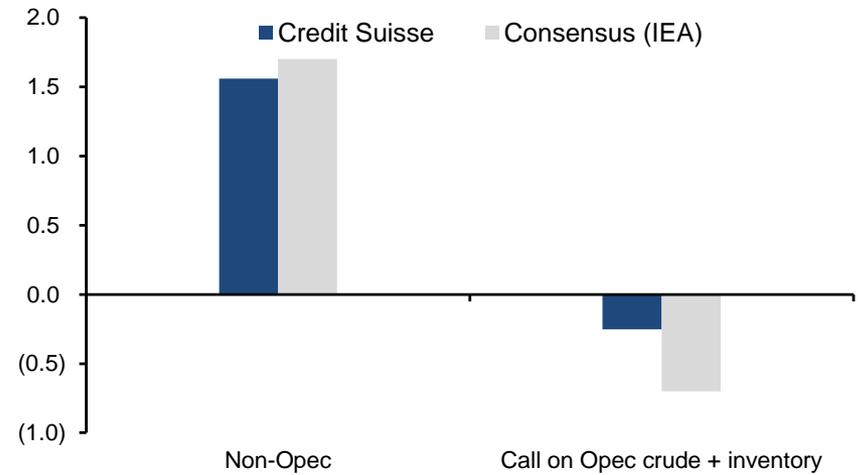
Fundamental demand shifts in 2014, our view vs. consensus

Yoy, Mb/d



We see about half the cut in the “call on Opec”

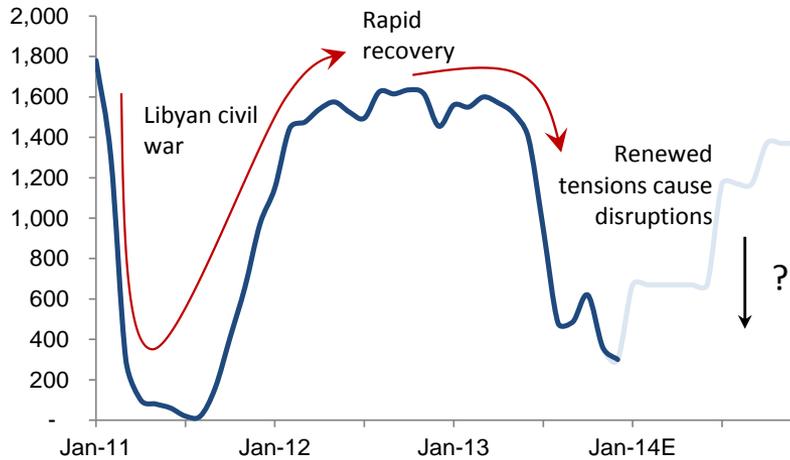
Yoy, Mb/d



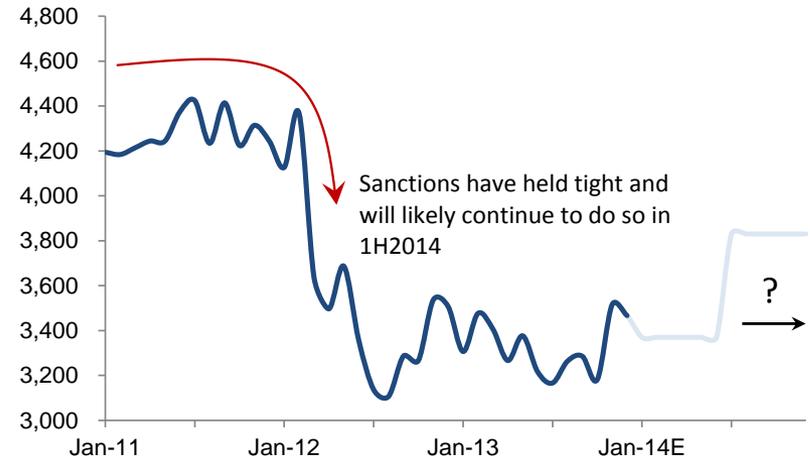
Source: Credit Suisse, IEA

Supply growth from sovereigns is critical to our view

In our base case, Libya's exports rebound early and materially (kb/d)



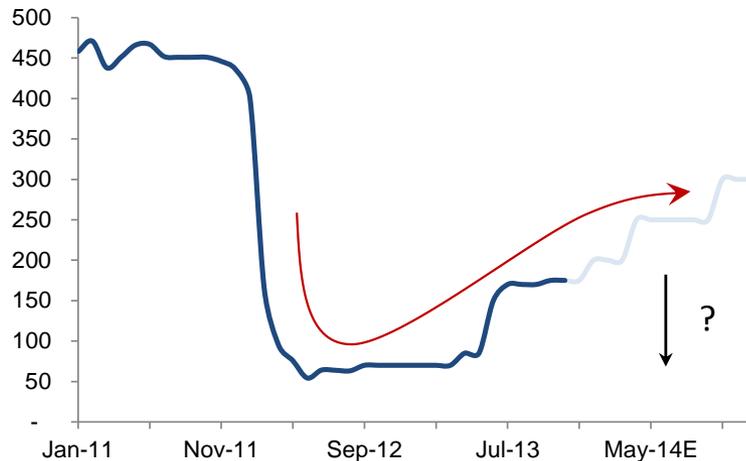
And sanctions on Iran relax in H2-2014, lifting its exports too (kb/d)



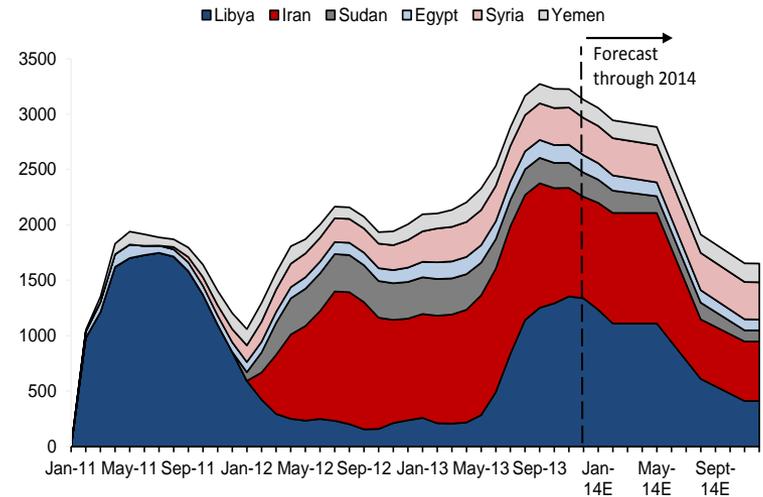
Source: Credit Suisse, Petrologistics

Evidently there is downside volume risk to our view

Our base-case rebound in Sudan is being overtaken by events (kb/d)



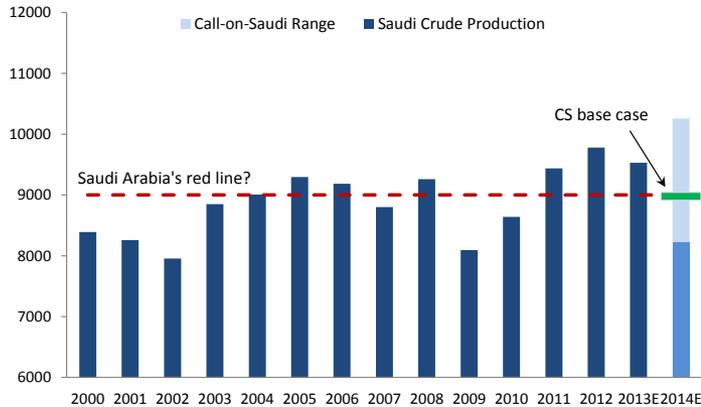
And three years of history of the Arab Awakening also suggests risk



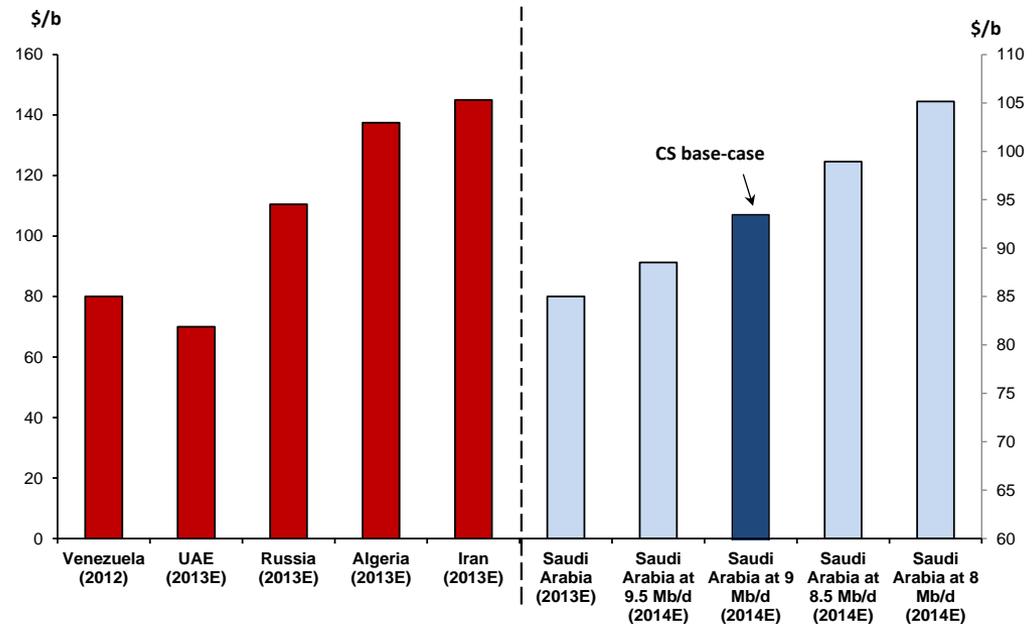
Source: Credit Suisse, Petrologistics, Reuters

But if we prove correct, then Saudi gets a free option

A fairly wide range for the 2014 “call” on Saudi plus inventories (kb/d)



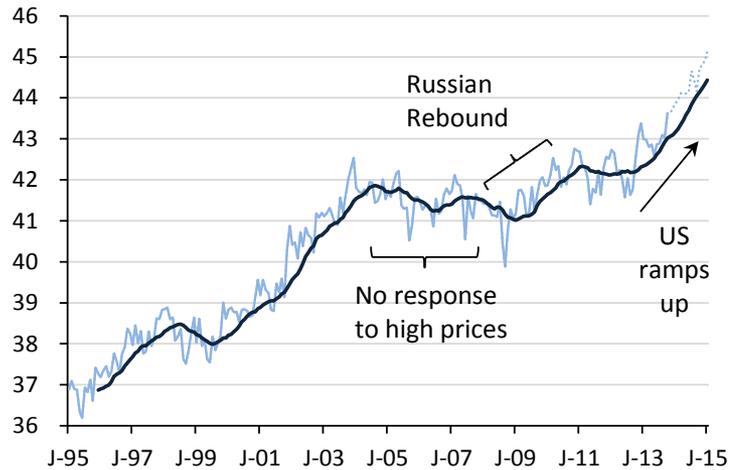
Budget break-even oil prices for select sovereigns and several Saudi output scenarios (\$/b Brent)



Source: Credit Suisse, IFF

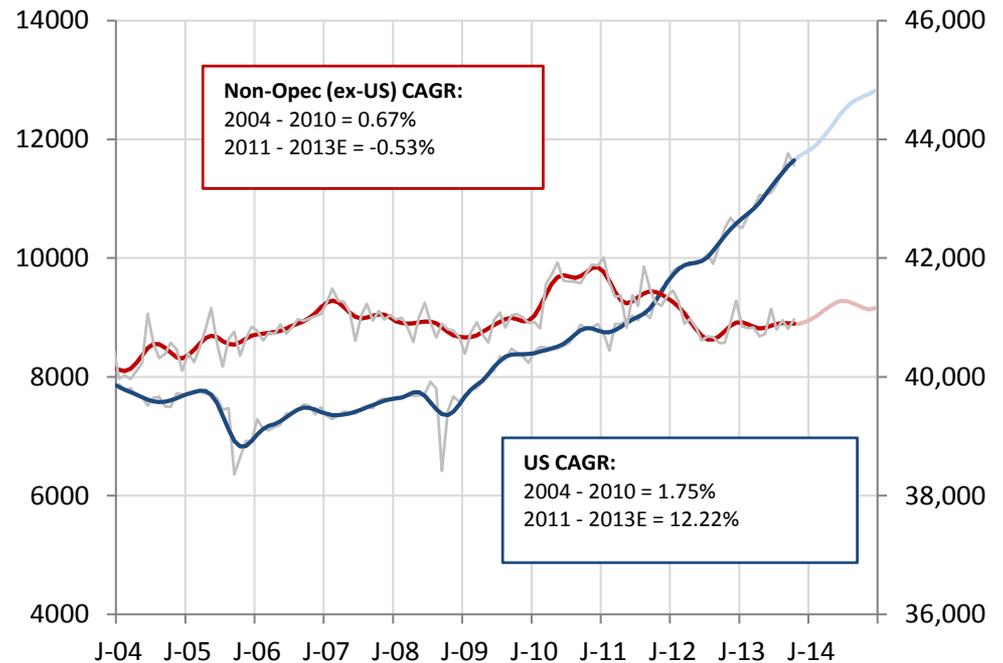
Back to quantifiable issues: Non-Opec acceleration

Non-Opec crude oil production, a US story of late (kb/d)



While US production has risen, the rest of non-Opec has stagnated

Monthly total liquids production (kb/d) SA, US in blue (lhs), non-Opec ex-US in red (rhs)



Source: Credit Suisse, IEA, EIA, ANP, CAPP, UK NBP, Reuters

Supply data: Base, yoy growth and shades of risk

2013 base (kb/d) and yoy, % growth by quarter as well by year (2010-15)

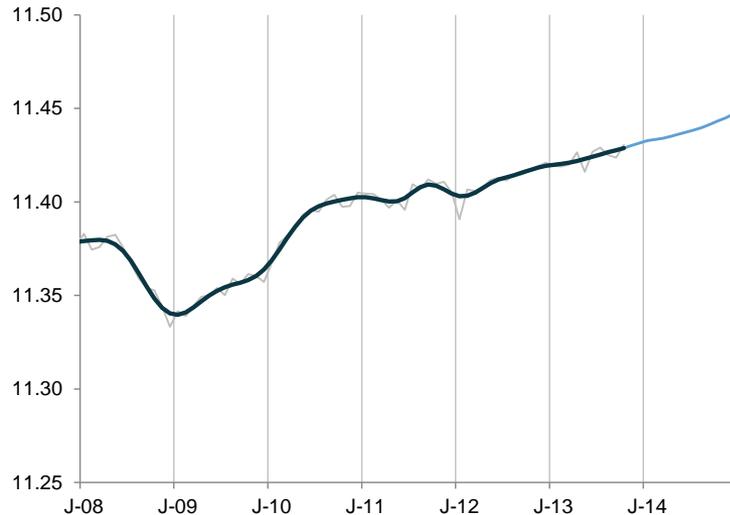
	Base	Y-o-Y Growth by quarter ('000 b/d)								Y-o-Y Growth					
	2013E	1Q13	2Q13	3Q13	4Q13E	1Q14	2Q14E	3Q14E	4Q14E	2010	2011	2012	2013E	2014E	2015E
Global Oil	91,290	-390	250	930	-210	580	600	2,410	2,800	2,545	1,030	2,080	150	1,605	1,650
Opec all oil	36,720	-910	-970	-770	-1,240	-730	-1,080	690	1,300	1,230	695	1,490	-965	45	-105
Non Opec	52,050	470	1,180	1,650	980	1,270	1,630	1,670	1,450	1,220	240	540	1,070	1,510	1,705
North America	18,660	1,090	1,180	1,730	1,150	1,340	1,420	1,440	1,440	640	605	1,275	1,285	1,415	1,405
US	11,190	830	1,120	1,420	1,000	1,090	1,180	1,190	1,180	505	405	1,060	1,090	1,160	1,125
Canada	3,980	260	110	350	190	240	220	240	250	130	195	225	225	240	245
Mexico	2,870	-10	-60	-50	-50	0	0	0	0	-20	-20	-20	-45	0	25
South America	8,100	-260	80	170	50	90	180	40	0	115	55	-40	10	75	180
Venezuela	2,740	-90	40	-10	40	-20	-20	-20	-20	-130	-25	-5	-5	-25	-20
Brazil	2,480	-210	-10	60	-40	90	180	100	0	120	-20	-40	-50	95	220
Argentina	660	-30	-10	-20	-10	-10	-10	-20	-20	-10	-40	-15	-20	-15	-25
Europe	4,200	-370	-290	-60	-220	-180	-140	-150	-150	-310	-330	-245	-235	-160	-145
Norway	1,770	-250	-160	-10	-160	-100	-100	-100	-90	-220	-105	-100	-145	-100	-95
United Kingdom	810	-140	-130	-100	-100	-110	-90	-80	-80	-105	-240	-170	-115	-90	-75
FSU	14,050	190	340	210	270	130	110	120	90	335	175	75	250	115	225
Russia	10,760	140	210	80	90	90	90	90	90	315	270	110	130	95	95
Kazakhstan	1,710	60	90	130	50	10	10	10	10	60	10	-20	80	10	140
Azerbaijan	890	-30	20	-30	80	-20	-40	0	-10	-20	-100	-45	10	-15	-5
Middle East	28,040	-760	-910	270	-190	110	-130	220	380	1,170	2,070	155	-395	145	-765
Saudi Arabia	11,350	-490	-720	260	60	-140	-390	-520	-540	725	860	280	-220	-395	-1,230
Iran	3,310	-640	-230	60	-100	-40	80	590	500	15	35	-735	-225	285	630
UAE	3,590	310	210	210	90	80	50	40	60	65	405	120	205	60	-110
Kuwait	3,170	-170	-30	40	10	140	30	40	180	75	365	300	-35	100	-95
Iraq	3,130	300	40	-140	-170	40	10	20	180	30	350	280	10	60	50
Africa	9,240	-330	-280	-1,170	-1,150	-770	-760	610	1,060	235	-1,475	750	-730	35	740
Nigeria	2,520	-30	-180	-320	-80	-160	-80	0	-60	340	-80	20	-150	-75	30
Algeria	1,670	-270	-90	20	-20	110	-70	-90	-20	-145	65	20	-90	-15	-60
Libya	1,040	220	-50	-940	-1,130	-900	-830	530	930	60	-1,285	1,030	-475	-65	600
Angola	1,780	0	60	0	0	40	50	70	60	-35	-125	80	15	55	70
Sudan	130	-150	40	100	110	130	140	80	130	-10	-10	-350	25	120	75
Asia	9,010	50	130	-210	-110	-120	-80	120	-10	360	-70	115	-40	-20	5
Indonesia	850	-40	-30	-60	-40	-50	-40	0	-10	-5	-40	-45	-45	-25	-5
China	4,190	110	160	-50	-40	-60	-50	70	-50	285	-5	45	45	-25	-15
India	890	-10	-10	0	10	20	20	10	20	80	20	0	0	15	15

Source: Credit Suisse, EIA, IEA, Jodi, Petrologistics

Global oil demand grows +1.4%: DM accelerates, EM wobbles

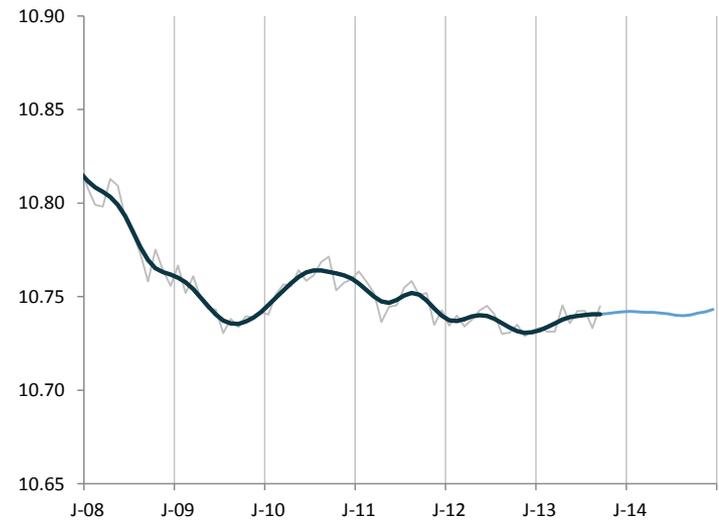
Global oil demand growth should hold steady at +1.4% yoy

sa t-13 log scale, monthly data through Oct 2013, lighter shaded line is forecast through 2014



OECD oil demand flat-lines as the US grows while Europe falls less

sa t-13 log scale, monthly data through Oct 2013, lighter shaded line is forecast through 2014

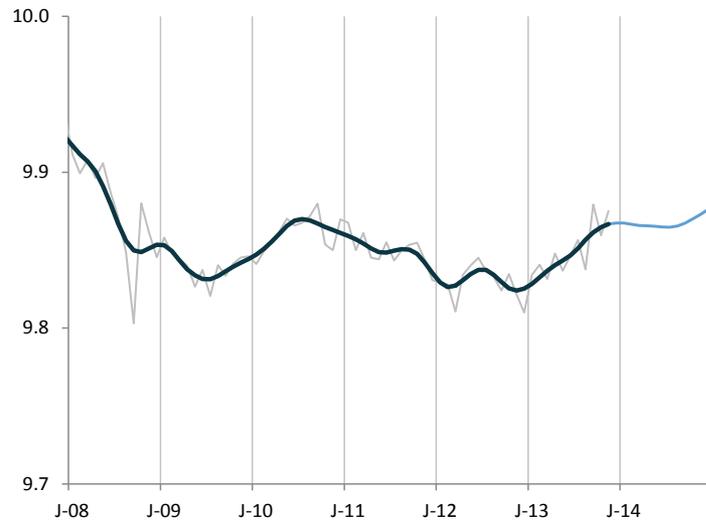


Source: Credit Suisse, IEA, EIA, JODI, ANP, NBS

US oil consumption: Upside risk if 2013's steep growth path extends

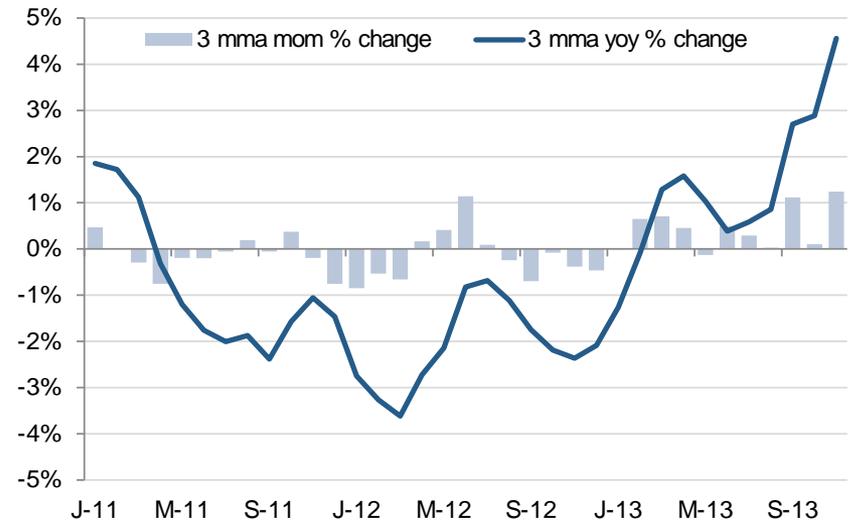
US oil consumption rebounds on economy and low cost NGLs

sa t-13 log scale, monthly data through Oct 2013, lighter shaded line is forecast through 2014



Its demand growth gained momentum in H2-2013

Mom and 3 mma % change

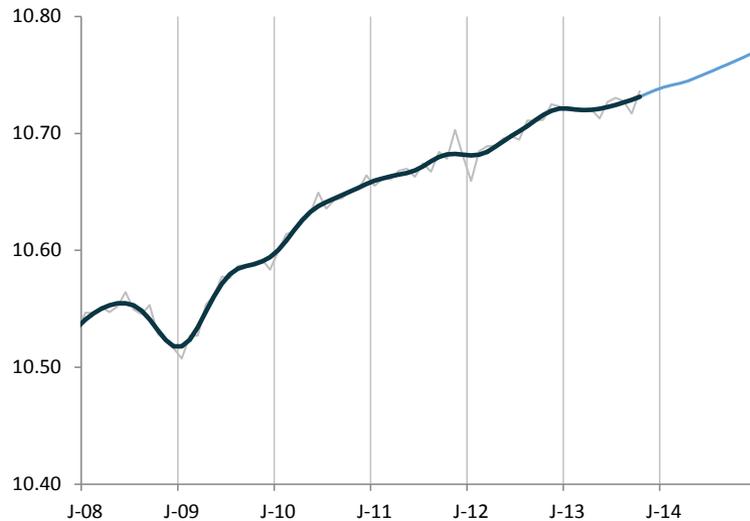


Source: Credit Suisse, IEA, EIA

Non-OECD growth decelerates – cyclically, so it should rebound

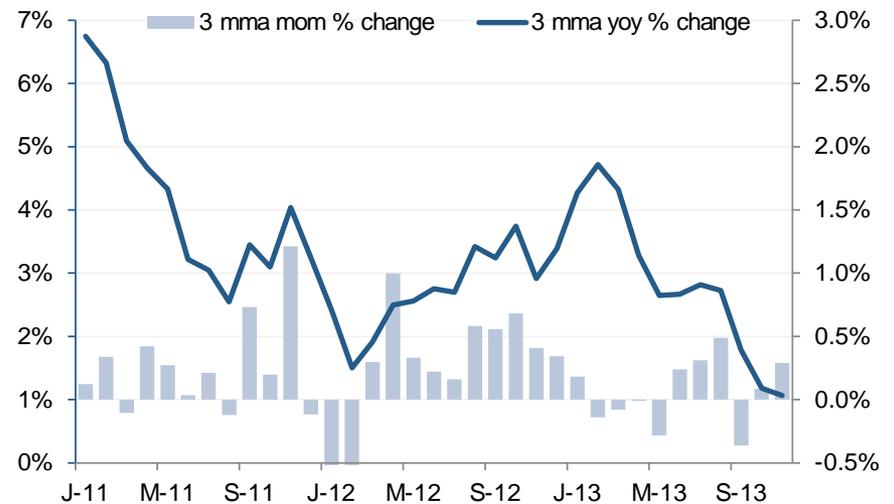
Non-OECD oil demand gained in late-'12; but wobbled in 2013

sa t-13 log scale, monthly data through Nov 2013, lighter shaded line is forecast through 2014



Non-OECD momentum, dragged down by EM Asia and ME

Mom (rhs) and yoy (lhs) 3 mma % change

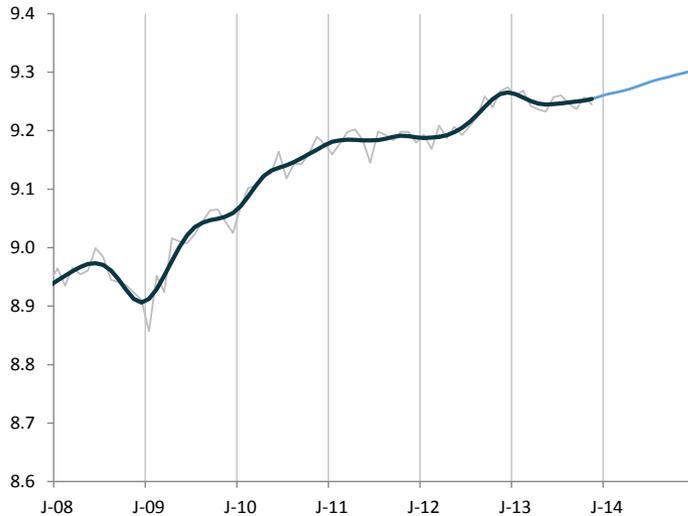


Source: Credit Suisse, JODI, ANP, NBS

China's oil consumption surprisingly deflated in 2013

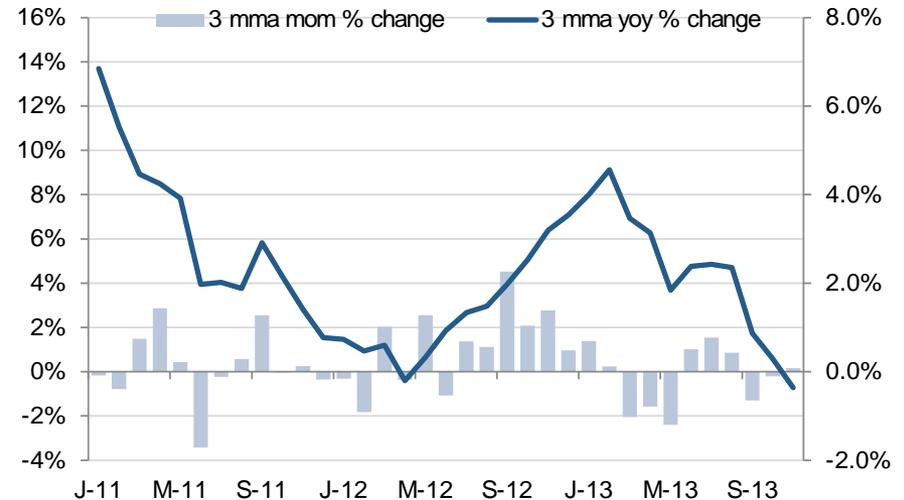
Two-way risks to our outlook for China, after a flat 2013

sa t-13 log scale, monthly data through Nov 2013, lighter shaded line is forecast through 2014



Chinese oil demand growth lost all momentum late in 2013

Mom (rhs) and yoy (lhs) 3 mma % change



Source: Credit Suisse, NBS

Demand data: Base, yoy growth and shades of risk

2013 base (kb/d) and yoy % growth by quarter as well by year (2010-15)

1,000 b/d	Base 2013E	by quarter (2013 - 2014)								by year (2010-14)						2008-12
		1Q13	2Q13	3Q13	4Q13E	1Q14E	2Q14E	3Q14E	4Q14E	2010	2011	2012	2013E	2014E	2015E	
Global	91,620	1.7%	1.2%	1.3%	1.5%	1.5%	1.1%	1.7%	1.4%	4.1%	1.2%	0.7%	1.4%	1.4%	1.7%	0.9%
OECD	46,120	-0.8%	0.1%	0.8%	1.2%	0.8%	-0.1%	0.2%	-0.2%	1.4%	-1.0%	-1.3%	0.3%	0.2%	0.4%	-1.7%
Emerging Markets	45,500	4.5%	2.4%	1.8%	1.7%	2.2%	2.4%	3.2%	3.1%	7.3%	3.7%	2.8%	2.6%	2.7%	3.0%	4.0%
OECD Americas	24,080	1.5%	0.7%	1.9%	3.2%	2.3%	1.3%	1.3%	0.6%	2.0%	-0.8%	-1.3%	1.8%	1.4%	1.2%	-1.7%
Canada	2,300	4.6%	3.9%	-1.9%	-2.7%	-0.1%	-0.6%	2.9%	1%	4.7%	0.1%	0.6%	0.8%	0.8%	0.8%	0.0%
Mexico	2,130	0.8%	0.5%	-1.0%	-2.9%	-0.2%	-1.6%	-1.2%	0.4%	0.5%	1.6%	1.5%	-0.7%	-0.7%	0.9%	-0.2%
USA	18,980	1.3%	0.3%	2.6%	4.8%	2.9%	1.8%	1.4%	0.5%	2.2%	-1.2%	-2.1%	2.3%	1.6%	1.3%	-2.1%
South America	6,800	3.5%	3.9%	3.7%	2.4%	2.1%	1.9%	2.9%	2.8%	7.3%	3.2%	3.0%	3.4%	2.5%	2.3%	4.6%
Brazil	3,280	4.1%	3.5%	4.8%	3.0%	2.3%	2.7%	3.9%	3.5%	9.7%	3.8%	4.4%	3.9%	3.1%	2.3%	5.3%
Argentina	800	8.3%	11.8%	5.3%	3.8%	3.6%	0.3%	4.2%	4.0%	7.5%	2.4%	3.3%	7.2%	3.0%	3.5%	3.7%
Europe	14,530	-3.7%	-0.3%	0.7%	-0.4%	-0.1%	-2.0%	-0.6%	-0.5%	-0.3%	-2.7%	-3.4%	-0.9%	-0.8%	-0.2%	-2.3%
France	1,740	-3.3%	2.3%	1.4%	0.1%	1.3%	-2.9%	-1.5%	-1.4%	-1.9%	-2.2%	-2.9%	0.1%	-1.1%	-0.7%	-2.5%
Germany	2,420	-0.8%	5.1%	1.4%	-0.8%	-0.3%	-7.5%	-0.7%	-0.9%	0.7%	-3.0%	-0.3%	1.3%	-2.4%	0.5%	-0.2%
Italy	1,300	-4.6%	-6.1%	-3.1%	-1.0%	0.2%	-0.1%	0.0%	0.0%	0.0%	-3.3%	-9.4%	-3.7%	0.0%	0.2%	-4.7%
UK	1,510	-1.7%	0.8%	2.4%	0.9%	-1.0%	-1.2%	-1.0%	-0.9%	-0.9%	-2.3%	-5.1%	0.6%	-1.0%	-0.9%	-3.0%
Oth Europe	7,560	-4.9%	-1.8%	0.6%	-0.6%	-0.2%	-0.4%	-0.5%	-0.1%	-0.1%	-2.6%	-3.0%	-1.7%	-0.3%	-0.2%	-2.3%
FSU	4,470	2.1%	-2.7%	3.5%	3.1%	2.0%	2.0%	2.0%	2.0%	2.5%	6.3%	0.4%	1.5%	2.0%	1.5%	1.4%
Mideast	7,650	5.5%	0.7%	0.1%	2.5%	4.2%	3.1%	4.7%	3.7%	5.2%	2.7%	3.0%	2.1%	3.9%	4.3%	3.6%
Saudi Arabia	3,040	7.1%	0.8%	-2.3%	3.4%	5.9%	2.8%	5.5%	3.3%	7.8%	5.0%	4.9%	1.9%	4.4%	3.5%	7.1%
Iran	1,750	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	2.0%	-1.4%	-2.4%	-0.1%	0.0%	1.0%	3.5%	-1.7%
Iraq	619	4.5%	7.1%	13.4%	4.5%	5.0%	5.0%	5.0%	5.0%	11.3%	9.2%	9.6%	7.5%	5.0%	5.0%	13.2%
Africa	3,730	6.5%	4.1%	0.2%	2.7%	3.7%	3.8%	3.7%	3.7%	4.4%	-1.5%	2.8%	3.4%	3.7%	3.8%	3.7%
Asia-Pac	30,360	2.6%	2.1%	0.8%	0.2%	0.4%	1.4%	1.7%	1.8%	7.8%	3.9%	3.2%	1.4%	1.3%	2.1%	3.2%
China	10,410	5.6%	4.2%	2.0%	-0.2%	1.1%	3.0%	4.2%	4.4%	14.0%	4.9%	3.9%	2.8%	3.2%	3.9%	6.4%
India	3,620	4.4%	1.8%	-0.4%	0.9%	0.6%	1.5%	3.0%	3.1%	5.7%	4.7%	5.5%	1.7%	2.0%	3.3%	4.4%
Indonesia	1,700	2.6%	1.9%	2.6%	2.4%	2.5%	2.5%	2.3%	2.3%	4.7%	9.4%	2.3%	2.4%	2.4%	3.0%	4.7%
Japan	4,560	-3.7%	-4.2%	-3.7%	-2.7%	-3.4%	-1.7%	-4.0%	-3.3%	1.5%	2.6%	3.4%	-3.6%	-3.1%	-2.1%	-1.2%
South Korea	2,300	-1.1%	2.1%	-0.3%	0.1%	0.3%	-1.1%	0.3%	-1.2%	3.7%	-0.5%	1.9%	0.2%	-0.4%	0.3%	0.6%
Australia	1,130	1.5%	1.2%	0.5%	-0.9%	-0.8%	0.5%	1.6%	1.3%	1.7%	4.2%	1.9%	0.6%	0.6%	0.5%	1.4%
Thailand	1,270	8.8%	3.5%	0.6%	1.2%	1.2%	1.2%	1.2%	1.6%	6.4%	4.8%	7.0%	3.5%	1.3%	2.2%	3.7%

Source: Credit Suisse, IEA, EIA, JODI

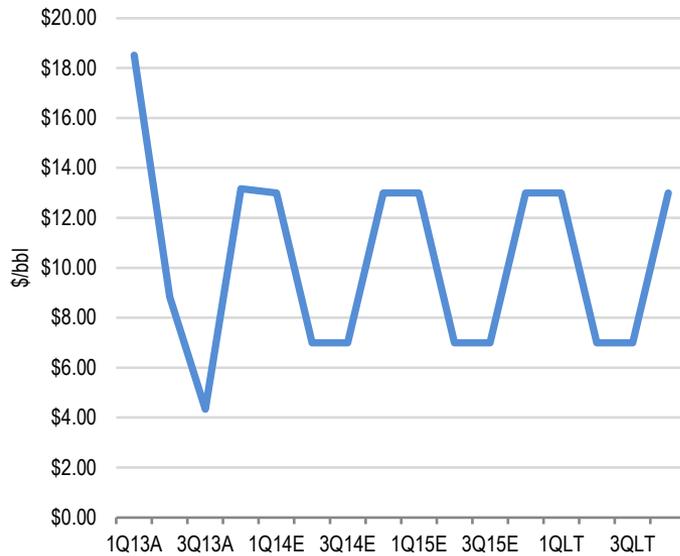
WTI is far from distressed: “Illustrative” East of Rockies s/d balance

	2013	2014	2015	2016	2017	2018
Crude Capacity, kbd	14156	14369	14699	14769	14769	14769
Crude Throughput, kbd	12287	12645	12935	13440	13440	13440
Utilisation, %	86.8%	88.0%	88.0%	91.0%	91.0%	91.0%
Total US Crude Supply, kbd	7476	8416	9309	10331	10829	11262
Crude Supply, East of Rockies, kbd	5881	6740	7560	8499	8940	9336
Canada Imports (assuming all growth into East of Rockies)	2097	2353	2601	2843	3003	3183
Light Crude Exports to West Coast	50	63	161	308	308	308
Exports to East Coast Canada	300	300	300	300	300	300
Total Inflows (KBD)	7628	8731	9700	10735	11335	11912
US Crude Growth, yoy	1010	939	894	1022	497	433
East of Rockies Crude Growth, yoy	971	859	820	939	440	396
Canada Import Growth, yoy	96	256	248	242	160	180
Required Imports	4659	3914	3235	2705	2104	1528
Current level of imports	4660	4660	4660	4660	4660	4660
Reduction in Imports required to balance system	1	746	1425	1955	2556	3132
Adjusted Import Levels by API						
Light (> 36)	726	0	0	0	0	0
Mediums (28-36)	2005	1986	1307	777	176	0
Heavy (< 28) Ex Canada	1928	1928	1928	1928	1928	1528
Memo : Of Which Gulf Countries	1350	1350	1307	777	176	0

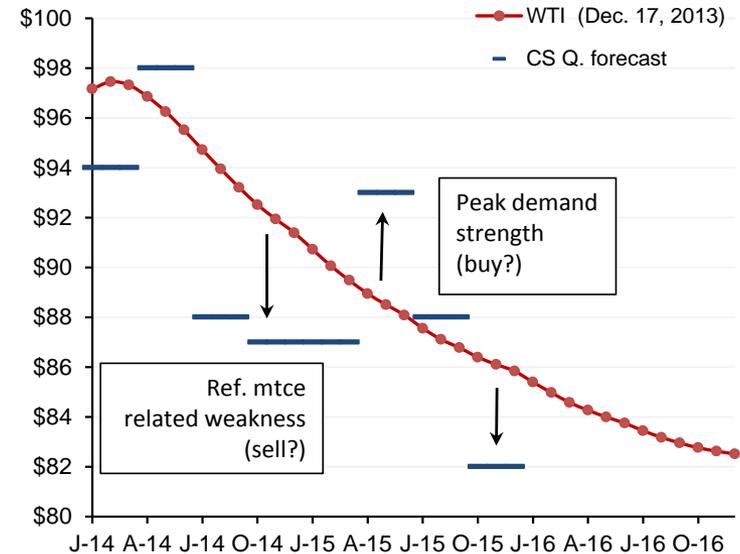
Source: Credit Suisse estimates

WTI pricing moves to the Gulf Coast

Our forecast WTI-Brent seasonality reflects GoM refiner markets (\$/b)



And implies fairly obvious trading opportunities (\$/b)



Source: Credit Suisse, company data, the BLOOMBERG PROFESSIONAL™ service

CS Balance view: Global oil demand (Mb/d, unless otherwise specified)

Demand	2010	2011	Q1-'12	Q2-'12	Q3-'12	Q4-'12	2012	Q1-'13	Q2-'13	Q3-'13	Q4-'13E	2013E	Q1-'14E	Q2-'14E	Q3-'14E	Q4-'14E	2014E	2015E
Global	88.6	89.7	89.0	89.5	90.7	92.0	90.33	90.6	90.6	91.9	93.3	91.6	91.9	91.6	93.5	94.7	92.9	94.5
YoY Growth, net mb/d	3.5	1.1	-0.1	1.1	0.2	1.1	0.6	1.5	1.1	1.2	1.3	1.3	1.3	1.0	1.5	1.3	1.3	1.6
YoY Growth, %	4.1%	1.2%	-0.1%	1.3%	0.3%	1.2%	0.7%	1.7%	1.2%	1.3%	1.5%	1.4%	1.5%	1.1%	1.7%	1.4%	1.4%	1.7%
OECD	47.0	46.6	46.2	45.5	45.9	46.3	46.0	45.9	45.5	46.3	46.8	46.1	46.2	45.4	46.4	46.8	46.2	46.4
YoY Growth, net mb/d	0.6	-0.4	-0.9	0.0	-1.1	-0.5	-0.6	-0.4	0.0	0.4	0.6	0.2	0.4	-0.1	0.1	-0.1	0.1	0.2
YoY Growth, %	1.4%	-1.0%	-1.8%	0.1%	-2.4%	-1.0%	-1.3%	-0.8%	0.1%	0.8%	1.2%	0.3%	0.8%	-0.1%	0.2%	-0.2%	0.2%	0.4%
Americas	24.1	24.0	23.4	23.6	23.8	23.8	23.6	23.7	23.8	24.2	24.6	24.1	24.3	24.1	24.5	24.7	24.4	24.7
YoY Growth, net mb/d	0.5	-0.2	-0.7	-0.1	-0.4	-0.1	-0.3	0.4	0.2	0.4	0.8	0.4	0.5	0.3	0.3	0.1	0.3	0.3
YoY Growth, %	2.0%	-0.8%	-3.0%	-0.4%	-1.5%	-0.4%	-1.3%	1.5%	0.7%	1.9%	3.2%	1.8%	2.3%	1.3%	1.3%	0.6%	1.4%	1.2%
Europe	14.9	14.5	14.0	14.1	14.1	13.9	14.0	13.4	14.0	14.2	13.9	13.9	13.4	13.8	14.1	13.8	13.8	13.8
YoY Growth, net mb/d	0.0	-0.4	-0.5	-0.3	-0.8	-0.4	-0.5	-0.5	0.0	0.1	-0.1	-0.1	0.0	-0.3	-0.1	-0.1	-0.1	0.0
YoY Growth, %	-0.1%	-2.8%	-3.3%	-1.9%	-5.6%	-2.8%	-3.5%	-3.8%	-0.2%	0.8%	-0.4%	-0.9%	0.0%	-2.0%	-0.6%	-0.4%	-0.7%	-0.1%
Asia Pacific	7.9	8.1	8.9	7.8	8.0	8.5	8.3	8.7	7.7	7.8	8.4	8.1	8.5	7.6	7.7	8.2	8.0	7.9
YoY Growth, net mb/d	0.2	0.1	0.3	0.4	0.1	0.0	0.2	-0.2	-0.1	-0.2	-0.1	-0.2	-0.2	-0.1	-0.1	-0.2	-0.1	-0.1
YoY Growth, %	2.1%	1.9%	4.0%	5.8%	1.2%	0.2%	2.7%	-2.3%	-1.5%	-2.1%	-1.6%	-1.9%	-2.0%	-1.1%	-1.9%	-2.0%	-1.8%	-1.0%
Non-OECD	41.6	43.2	42.8	44.1	44.9	45.7	44.4	44.7	45.1	45.7	46.5	45.5	45.7	46.2	47.1	47.9	46.7	48.2
YoY Growth, net mb/d	2.8	1.5	0.8	1.1	1.3	1.6	1.2	1.9	1.1	0.8	0.8	1.1	1.0	1.1	1.5	1.4	1.2	1.4
YoY Growth, %	7.3%	3.7%	1.9%	2.5%	3.1%	3.7%	2.8%	4.5%	2.4%	1.8%	1.7%	2.6%	2.2%	2.4%	3.2%	3.1%	2.7%	3.0%
Former Soviet Union	4.1	4.4	4.1	4.4	4.5	4.6	4.4	4.2	4.3	4.7	4.7	4.5	4.3	4.3	4.8	4.8	4.6	4.6
YoY Growth, net mb/d	0.1	0.3	0.1	0.0	-0.1	0.0	0.0	0.1	-0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
YoY Growth, %	2.5%	6.3%	1.5%	1.0%	-1.3%	0.6%	0.4%	2.1%	-2.7%	3.5%	3.1%	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%	1.5%
China	9.3	9.7	9.8	9.9	10.1	10.7	10.1	10.4	10.3	10.3	10.7	10.4	10.5	10.6	10.7	11.2	10.7	11.2
YoY Growth, net mb/d	1.1	0.5	0.2	0.1	0.4	0.8	0.4	0.6	0.4	0.2	0.0	0.3	0.1	0.3	0.4	0.5	0.3	0.4
YoY Growth, %	14.0%	4.9%	2.4%	1.3%	3.7%	8.1%	3.9%	5.6%	4.2%	2.0%	-0.2%	2.8%	1.1%	3.0%	4.2%	4.4%	3.2%	3.9%
Other emerging Asia	10.7	11.2	11.3	11.4	11.4	11.8	11.5	11.8	11.8	11.6	12.0	11.8	12.0	11.9	11.9	12.3	12.0	12.3
YoY Growth, net mb/d	0.7	0.5	0.2	0.2	0.5	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3
YoY Growth, %	7.2%	4.6%	1.9%	2.2%	4.7%	2.7%	2.9%	3.9%	2.8%	1.7%	1.8%	2.5%	1.7%	1.6%	2.0%	2.1%	1.8%	2.5%
South America	6.2	6.4	6.3	6.6	6.7	6.8	6.6	6.5	6.8	6.9	6.9	6.8	6.6	7.0	7.1	7.1	7.0	7.1
YoY Growth, net mb/d	0.4	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
YoY Growth, %	7.3%	3.2%	2.9%	3.7%	1.2%	4.2%	3.0%	3.5%	3.9%	3.7%	2.4%	3.4%	2.1%	1.9%	2.9%	2.8%	2.5%	2.3%
Mideast	7.1	7.3	7.0	7.6	8.0	7.4	7.5	7.3	7.7	8.0	7.6	7.6	7.7	7.9	8.4	7.8	7.9	8.3
YoY Growth, net mb/d	0.4	0.2	0.1	0.4	0.3	0.0	0.2	0.4	0.1	0.0	0.2	0.2	0.3	0.2	0.4	0.3	0.3	0.3
YoY Growth, %	5.2%	2.7%	2.0%	5.1%	4.5%	0.3%	3.0%	5.5%	0.7%	0.1%	2.5%	2.1%	4.2%	3.1%	4.7%	3.7%	3.9%	4.3%
Africa	3.6	3.5	3.6	3.5	3.5	3.8	3.6	3.9	3.6	3.5	3.9	3.7	4.0	3.8	3.7	4.0	3.9	4.0
YoY Growth, net mb/d	0.2	-0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
YoY Growth, %	4.4%	-1.5%	-0.2%	1.7%	3.8%	5.9%	2.8%	6.5%	4.1%	0.2%	2.7%	3.4%	3.7%	3.8%	3.7%	3.7%	3.7%	3.8%

Source: Credit Suisse, IEA, JODI, EIA

Global oil supply (Mb/d, unless otherwise specified)

Supply	2010	2011	Q1-'12	Q2-'12	Q3-'12	Q4-'12	2012	Q1-'13	Q2-'13	Q3-'13	Q4-'13E	2013E	Q1-'14E	Q2-'14E	Q3-'14E	Q4-'14E	2014E	2015E
Global	88.0	89.1	91.3	91.1	90.7	91.4	91.1	90.9	91.4	91.7	91.2	91.3	91.5	92.0	94.1	94.0	92.9	94.5
YoY Growth, net mb/d	2.5	1.0	2.0	2.9	2.1	1.3	2.1	-0.4	0.3	0.9	(0.2)	0.2	0.6	0.6	2.4	2.8	1.6	1.6
YoY Growth, %	3.0%	1.2%	2.3%	3.3%	2.4%	1.5%	2.3%	-0.4%	0.3%	1.0%	-0.2%	0.2%	0.6%	0.7%	2.6%	3.1%	1.8%	1.8%
Non OPEC	50.2	50.4	51.3	50.5	50.3	51.8	51.0	51.8	51.7	52.0	52.7	52.1	53.1	53.3	53.7	54.2	53.6	55.3
YoY Growth, net mb/d	1.2	0.2	0.6	0.6	0.2	0.8	0.5	0.5	1.2	1.7	1.0	1.1	1.3	1.6	1.7	1.5	1.5	1.7
YoY Growth, %	2.5%	0.5%	1.2%	1.2%	0.5%	1.5%	1.1%	0.9%	2.3%	3.3%	1.9%	2.1%	2.4%	3.2%	3.2%	2.8%	2.9%	3.2%
North America	14.9	15.5	16.6	16.5	16.5	17.5	16.8	17.6	17.6	18.3	18.6	18.0	19.0	19.0	19.7	20.0	19.4	20.8
YoY Growth, net mb/d	0.6	0.6	1.3	1.3	1.1	1.3	1.3	1.1	1.2	1.7	1.1	1.3	1.3	1.4	1.4	1.4	1.4	1.4
YoY Growth, %	4.3%	3.9%	8.7%	8.4%	7.4%	8.1%	8.1%	6.5%	7.1%	10.4%	6.5%	7.6%	7.5%	8.0%	7.8%	7.6%	7.8%	7.2%
South America	4.6	4.6	4.7	4.5	4.5	4.6	4.6	4.5	4.6	4.6	4.6	4.6	4.6	4.7	4.7	4.6	4.6	4.8
YoY Growth, net mb/d	0.2	0.1	0.1	0.0	-0.1	-0.1	0.0	-0.2	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.2
YoY Growth, %	5.5%	1.3%	1.6%	-0.2%	-2.6%	-2.4%	-1.0%	-3.7%	0.4%	2.6%	-0.5%	-0.3%	1.4%	3.7%	1.6%	-0.3%	1.6%	3.6%
Europe	4.5	4.2	4.2	4.1	3.7	3.8	3.9	3.8	3.8	3.6	3.6	3.7	3.7	3.6	3.5	3.4	3.5	3.4
YoY Growth, net mb/d	-0.3	-0.3	-0.2	-0.1	-0.3	-0.4	-0.3	-0.4	-0.3	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
YoY Growth, %	-6.8%	-7.6%	-4.8%	-2.2%	-7.4%	-9.8%	-6.0%	-8.9%	-7.3%	-1.9%	-6.1%	-6.2%	-5.0%	-4.1%	-4.4%	-4.6%	-4.6%	-4.4%
FSU	13.3	13.5	13.6	13.5	13.5	13.7	13.5	13.8	13.8	13.7	13.9	13.8	13.9	13.9	13.8	14.0	13.9	14.1
YoY Growth, net mb/d	0.3	0.2	0.1	0.0	0.0	0.2	0.1	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2
YoY Growth, %	2.5%	1.2%	0.6%	-0.2%	-0.1%	1.7%	0.5%	1.4%	2.5%	1.5%	1.9%	1.8%	0.9%	0.8%	0.9%	0.6%	0.8%	1.6%
Russia	10.3	10.5	10.6	10.6	10.6	10.8	10.6	10.8	10.8	10.7	10.9	10.8	10.9	10.9	10.8	10.9	10.9	11.0
YoY Growth, net mb/d	0.3	0.3	0.2	0.0	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
YoY Growth, %	3.2%	2.7%	1.7%	0.4%	0.2%	1.8%	1.0%	1.3%	1.9%	0.7%	0.8%	1.2%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Africa	2.6	2.6	2.3	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.3	2.3	2.4	2.3	2.4
YoY Growth, net mb/d	0.0	-0.1	-0.3	-0.4	-0.5	-0.4	-0.4	-0.2	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.2	0.1	0.1
YoY Growth, %	0.5%	-2.1%	-12.0%	-14.9%	-17.9%	-17.2%	-15.5%	-10.3%	-0.9%	2.7%	4.1%	-1.3%	6.5%	8.0%	4.2%	6.8%	6.4%	4.5%
Mideast	1.7	1.7	1.4	1.5	1.5	1.5	1.5	1.4	1.3	1.3	1.4	1.3						
YoY Growth, net mb/d	0.0	-0.1	-0.3	-0.2	-0.2	-0.1	-0.2	0.0	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
YoY Growth, %	1.2%	-4.1%	-19.3%	-11.1%	-11.3%	-4.5%	-11.7%	-2.5%	-10.2%	-10.3%	-9.1%	-8.1%	-4.1%	2.0%	0.2%	-0.7%	-0.7%	-1.2%
Asia	8.5	8.4	8.5	8.4	8.5	8.6	8.5	8.5	8.5	8.3	8.5	8.5	8.4	8.4	8.4	8.5	8.4	8.4
YoY Growth, net mb/d	0.3	-0.1	0.0	0.0	0.2	0.3	0.1	0.0	0.1	-0.2	-0.1	0.0	-0.1	-0.1	0.1	0.0	0.0	0.0
YoY Growth, %	4.2%	-1.1%	-0.3%	-0.2%	2.3%	3.1%	1.2%	0.4%	1.4%	-2.6%	-1.4%	-0.6%	-1.6%	-1.1%	1.3%	-0.2%	-0.4%	-0.1%
Processing gain	2.3	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6
OPEC	35.5	36.2	37.5	38.1	37.9	37.2	37.7	36.6	37.2	37.1	35.9	36.7	35.9	37.2	37.1	35.9	36.8	36.7
YoY Growth, net mb/d	1.2	0.7	1.4	2.3	1.8	0.5	1.5	-0.9	-1.0	-0.8	-1.2	-1.0	-0.7	0.0	0.0	0.0	0.0	-0.1
YoY Growth, %	3.6%	2.0%	3.8%	6.3%	5.0%	1.4%	4.1%	-2.4%	-2.6%	-2.0%	-3.3%	-2.6%	-2.0%	0.0%	0.0%	0.0%	0.1%	-0.3%
Opec Crude Oil	30.0	30.5	31.6	32.2	31.9	31.2	31.7	30.6	31.1	31.0	29.8	30.6	29.8	30.0	31.5	31.1	30.6	30.7
YoY Growth, net mb/d	0.8	0.4	1.2	2.0	1.5	0.2	1.2	-1.0	-1.1	-0.9	-1.4	-1.1	-0.8	-1.1	0.5	1.3	0.0	0.1
YoY Growth, %	2.8%	1.5%	4.1%	6.8%	4.8%	0.8%	4.1%	-3.0%	-3.4%	-2.9%	-4.3%	-3.4%	-2.6%	-3.5%	1.7%	4.4%	0.0%	0.2%
Opec 11	27.6	27.7	28.8	29.1	28.6	28.0	28.6	27.6	27.9	27.8	26.8	27.5	26.7	26.9	28.3	28.0	27.5	27.5
YoY Growth, net mb/d	0.8	0.1	1.2	1.8	1.0	-0.1	1.0	-1.3	-1.2	-0.8	-1.2	-1.1	-0.8	-1.1	0.5	1.1	-0.1	0.0
YoY Growth, %	3.0%	0.3%	4.3%	6.7%	3.6%	-0.4%	3.5%	-4.4%	-4.0%	-2.7%	-4.2%	-3.8%	-3.0%	-3.8%	1.8%	4.2%	-0.2%	0.0%
Opec non-crude	5.5	5.7	5.9	6.0	6.0	6.0	6.0	6.0	6.1	6.2	6.1	6.1	6.1	6.1	6.3	6.1	6.2	6.0
YoY Growth, net mb/d	0.4	0.3	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.2	0.0	0.1	-0.2
YoY Growth, %	8.2%	4.7%	2.4%	3.9%	6.1%	4.6%	4.3%	0.9%	2.2%	2.6%	2.0%	1.9%	1.2%	-0.1%	2.8%	-0.1%	1.0%	-2.7%

Source: Credit Suisse, IEA, JODI, EIA

Implied and reported stock changes and “call on OPEC”

(Mb/d, unless otherwise specified)

Balance, stocks	2010	2011	Q1-'12	Q2-'12	Q3-'12	Q4-'12	2012	Q1-'13	Q2-'13	Q3-'13	Q4-'13E	2013E	Q1-'14E	Q2-'14E	Q3-'14E	Q4-'14E	2014E	2015E
Implied inventory change	-0.6	-0.7	2.2	1.6	0.0	-0.6	0.8	0.3	0.8	-0.3	-2.1	-0.3	-0.4	0.4	0.6	-0.7	0.0	0.0
Reported oil inventory:																		
OECD stock change	0.0	-0.2	0.6	0.3	0.5	-0.7	0.2	0.0	0.0	0.3	-1.2	-0.2	-0.4	-0.1	-0.1	-0.5	-0.3	
OECD inventory (billion barrels)	2.67	2.60	2.65	2.68	2.72	2.66	2.66	2.66	2.65	2.68	2.58	2.58	2.54	2.53	2.52	2.47	2.47	
Cover, days demand	56.6	56.1	58.2	58.4	58.8	57.9	57.9	58.4	57.3	57.3	55.7	55.7	55.8	54.5	53.9	53.4	53.4	
'Call on Opec & stocks"	30.6	31.1	29.4	30.6	31.9	31.7	30.9	30.3	30.3	31.2	31.9	31.0	30.3	29.6	30.9	31.8	30.6	30.7
YoY Growth, net mb/d	1.7	0.5	-0.8	0.3	-0.4	0.1	-0.2	1.0	-0.3	-0.7	0.2	0.1	0.0	-0.7	-0.3	-0.2	-0.3	0.0
YoY Growth, %	6.1%	1.6%	-2.7%	0.9%	-1.3%	0.2%	-0.7%	3.3%	-0.9%	-2.1%	0.6%	0.2%	-0.1%	-2.2%	-1.1%	-0.5%	-1.0%	0.1%

Source: Credit Suisse, IEA, JODI, EIA

US Natural Gas

US natural gas prices: Upside risk this quarter only

Henry Hub gas price, actual, CS forecast and futures (\$/Mmbtu)



CS forecast vs. futures and consensus (\$/Mmbtu)

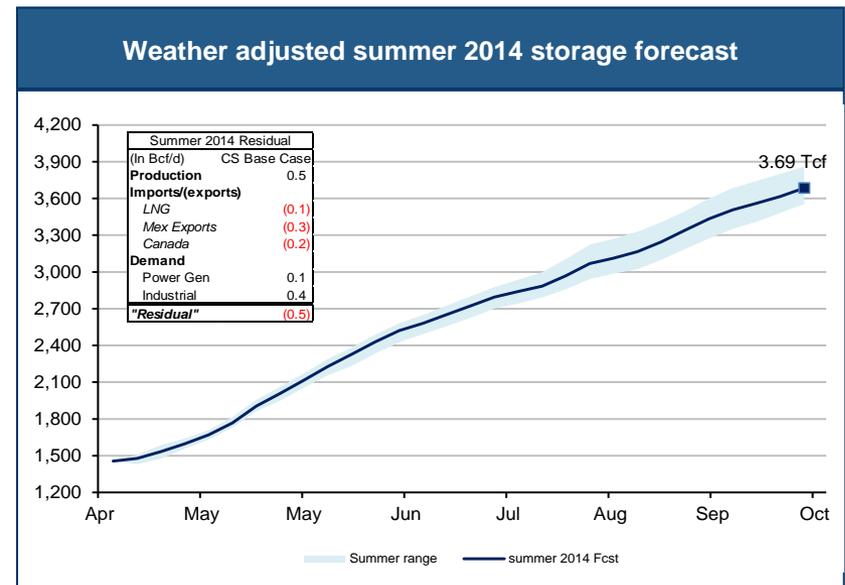
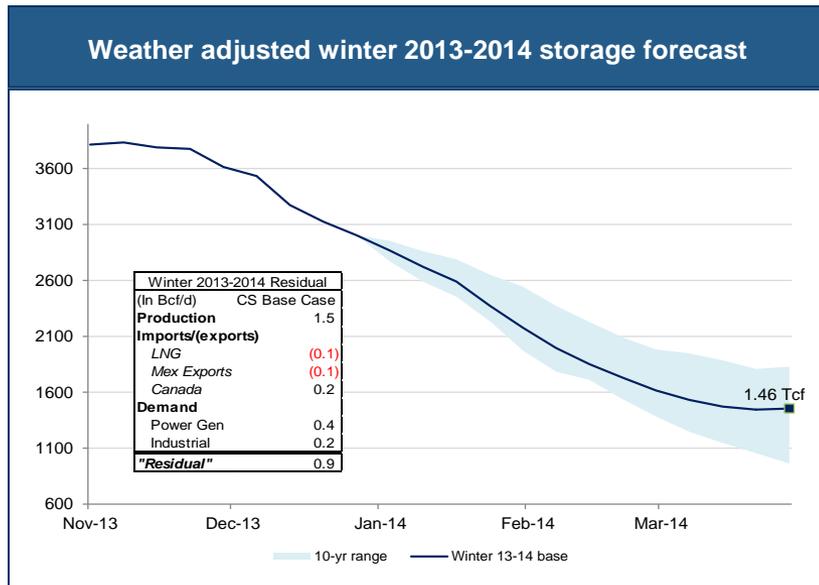
Period	Actuals & CS Forecast	Previous Fcst	Futures*	BBG Consensus**
FY12 (a)	\$ 2.80			
1Q13 (a)	\$ 3.35			
2Q13 (a)	\$ 4.09			
3Q13 (a)	\$ 3.60			
4Q13 (a)	\$ 3.63	\$ 3.75		
FY13 (a)	\$ 3.70	\$ 3.70		
1Q14	\$ 4.30	\$ 4.10	\$ 4.21	\$ 3.90
2Q14	\$ 3.80	\$ 3.80	\$ 4.08	\$ 3.88
3Q14	\$ 3.80	\$ 4.00	\$ 4.12	\$ 3.96
4Q14	\$ 3.75	\$ 3.75	\$ 4.20	\$ 4.08
FY14E	\$ 3.90	\$ 3.90	\$ 4.15	\$ 4.00
1Q15	\$ 3.90	\$ 4.10	\$ 4.33	\$ 4.00
2Q15	\$ 4.00	\$ 4.00	\$ 4.00	
3Q15	\$ 4.20	\$ 4.20	\$ 4.03	
4Q15	\$ 4.50	\$ 4.30	\$ 4.12	
FY15E	\$ 4.20	\$ 4.20	\$ 4.12	\$ 4.35
FY16E	\$ 4.40	\$ 4.40	\$ 4.12	\$ 4.77
FY17E	\$ 4.50	\$ 4.50	\$ 4.16	\$ 4.63
Long-Term	\$ 4.50	\$ 4.50		

*Moving 10 day average of futures contracts

**Bloomberg forecasts from previous three months only

Source: the BLOOMBERG PROFESSIONAL™ service, Credit Suisse Global Commodities Research

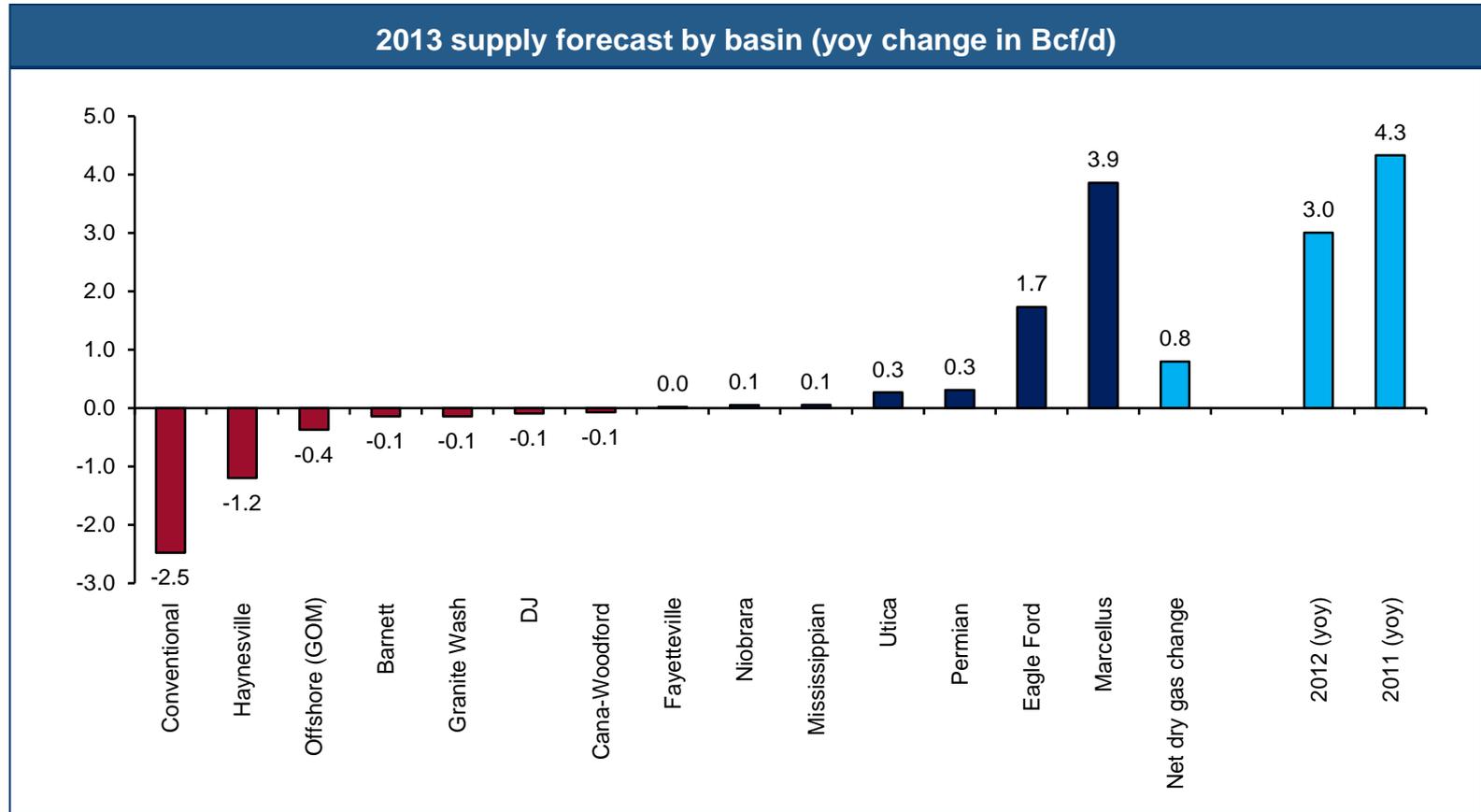
Tighter balances this winter reduce inventories, but ...



- Storage path residuals, key moving parts (positive and negative)
 - **US production:** Stays bearish, as yoy growth >1bcf/d through winter. Thank greater efficiencies, better well performance and the completion of pipeline infrastructure. An uncompleted well backlog still exists but is currently being whittled down in NE.
 - **Net imports:** At 5yr lows and still shrinking (from Canada and LNG); more important, Mexico export growth accelerates.
 - **Demand:** From power generation looks higher as space heating in SE/Mid Con has increased burn this winter. Industrial expansion is underway but remains muted, and we'll see if a "normal" winter brings the much discussed growth in ResCom.
 - **Storage:** 1.46 Tcf end March 2014 could turn into 3.69 Tcf by November 2014 under normal weather.

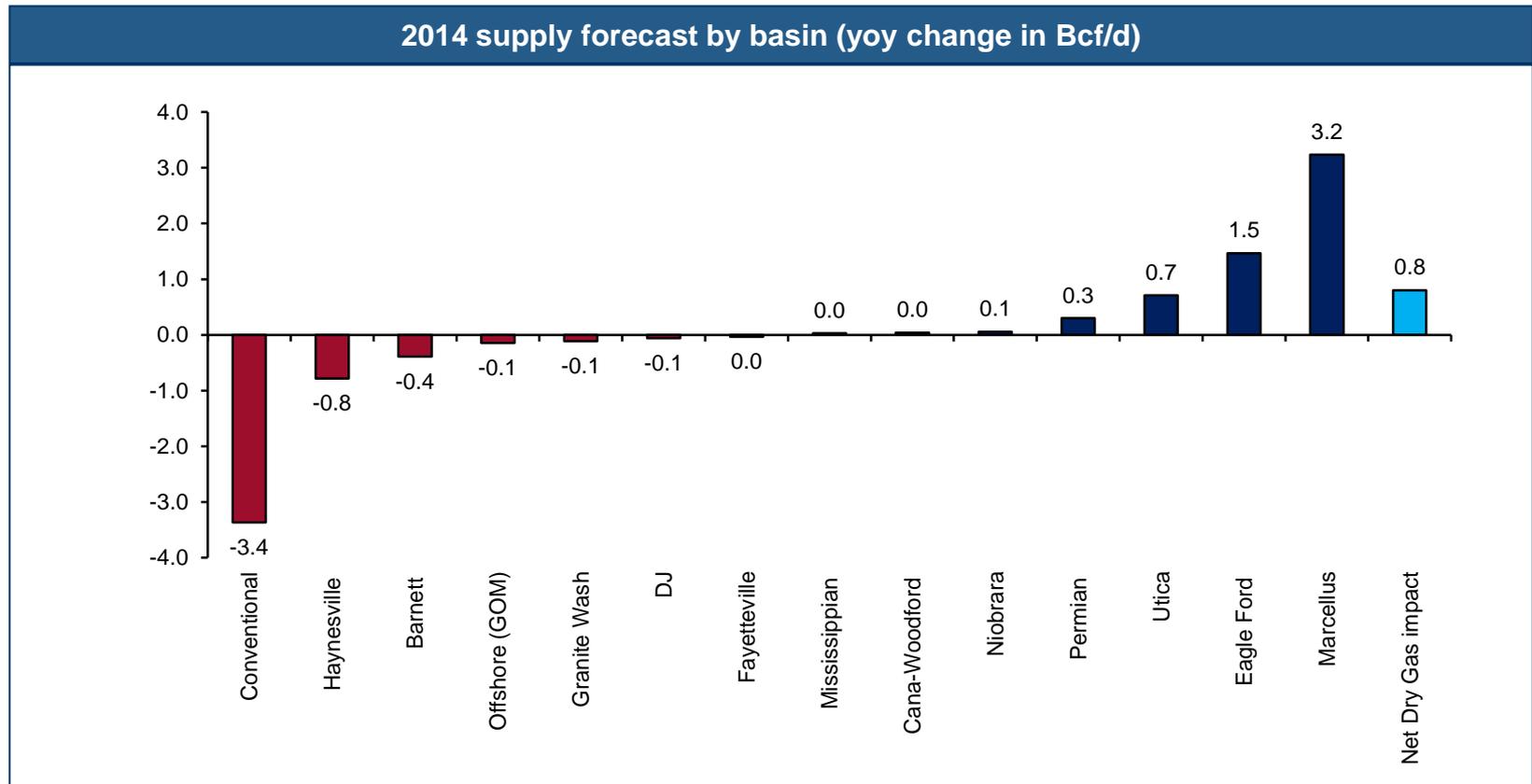
Source: EIA, Bentek Energy, NOAA, Credit Suisse Global Commodities Research

Supply: Growth in 2013 lags that of 2012 and 2011



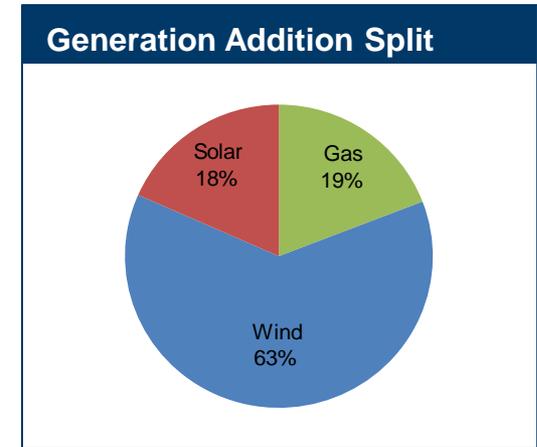
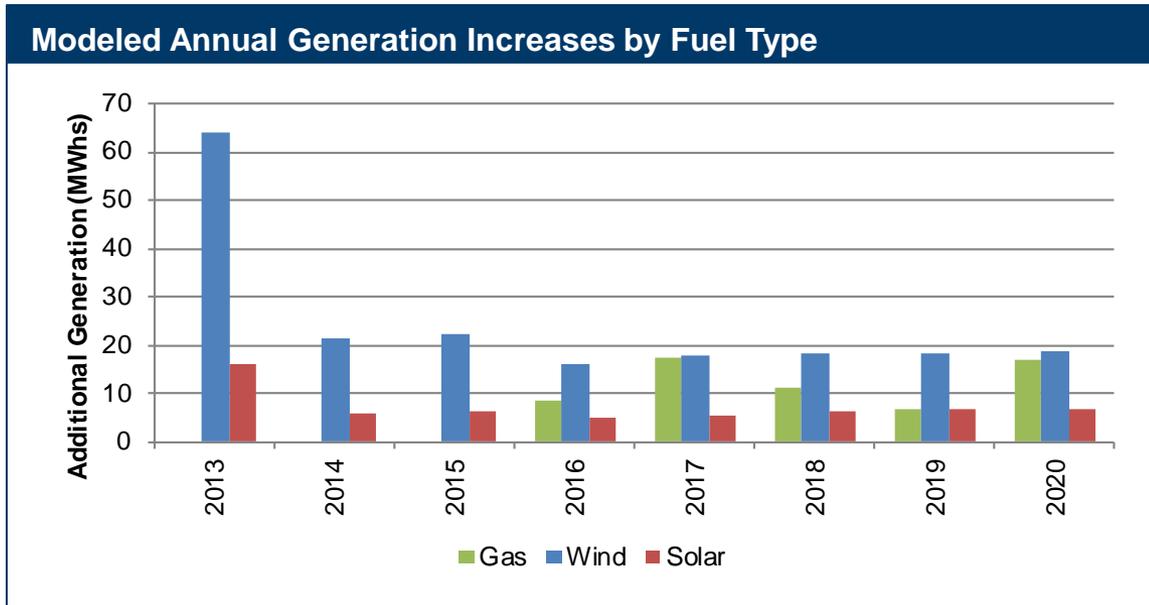
Source: HPDI, Credit Suisse research

2014 supply growth led by Marcellus, Eagle Ford, Utica



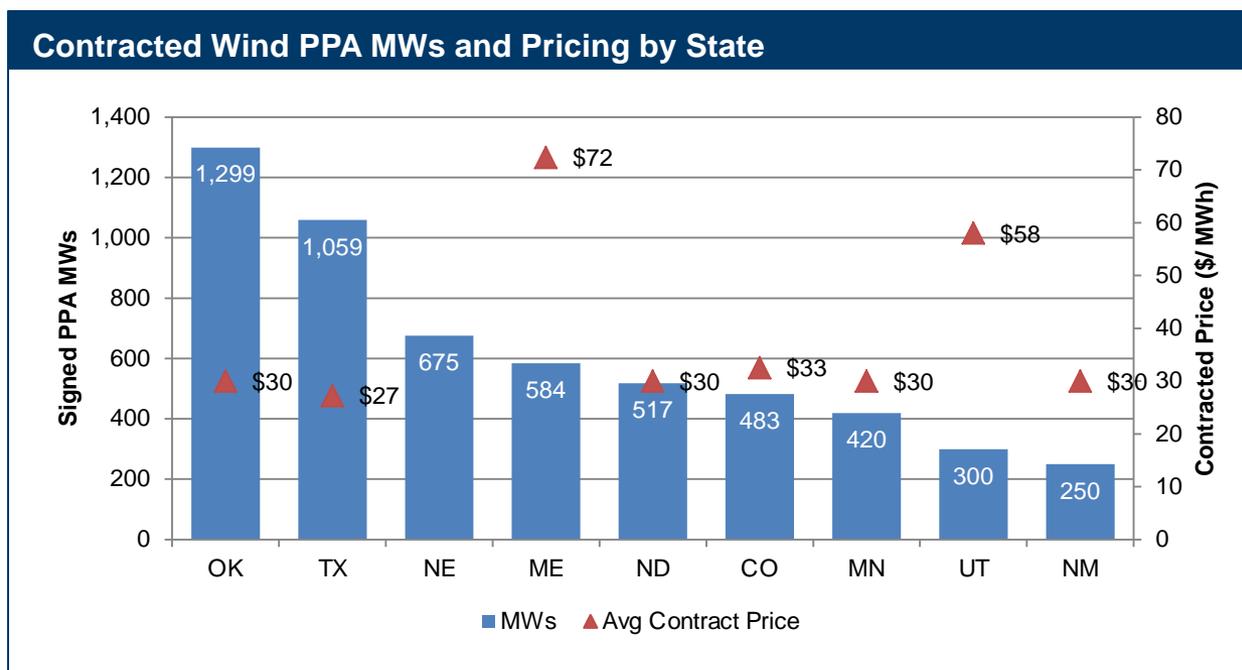
Source: HPDI, Credit Suisse research

Renewables Could Meet ~85% of Future Power Needs



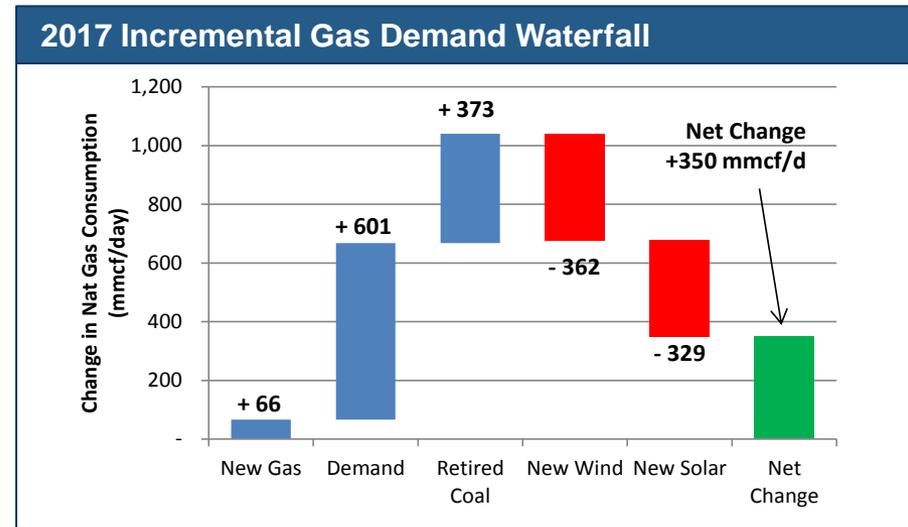
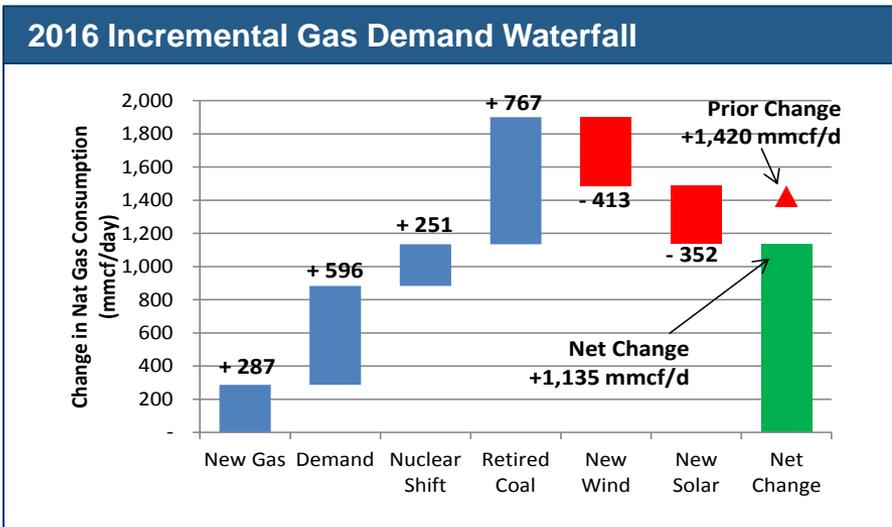
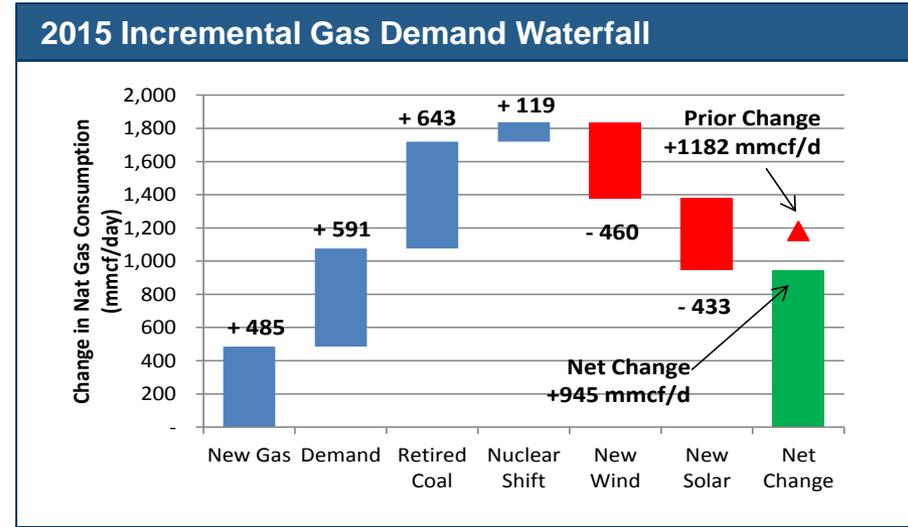
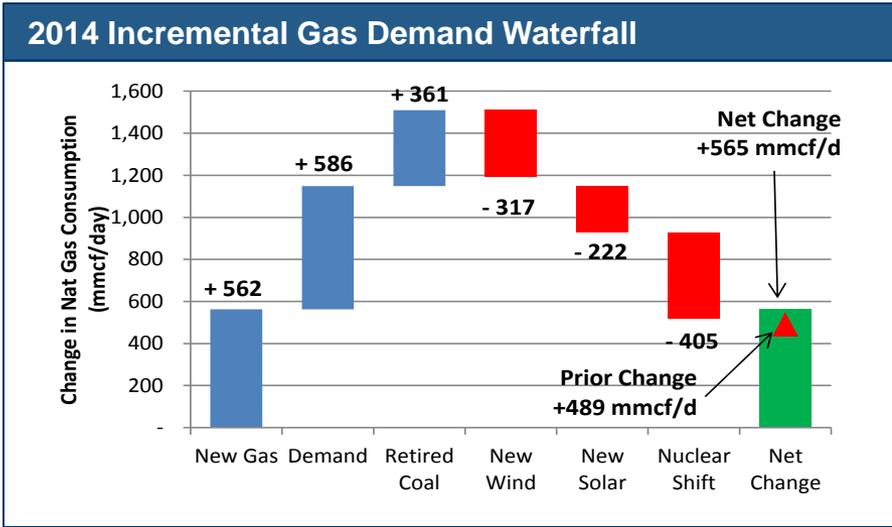
- The growth outlook for renewables will be significantly (but not entirely) driven by obligations to meet the formal renewable portfolio standards in 30 states plus 8 voluntary state programs with upside coming as utilities simply take advantage of attractive economics.
- Just to comply with state standards, we see required renewable additions through 2020 exceeding 100 GWs of capacity with renewable generation meeting ~85% of the total incremental electric generation created by modest demand growth and expected coal plant retirements.

Wind PPAs are Getting Done at Attractive Pricing



- With the drop in levelized costs, long-term PPAs are clearing at levels below \$30/MWh, effectively 'creating' natural gas under 20 year PPAs at less than \$3/MMBtu.
- In 2013 alone, 6.2 GWs of contracts have been publicly announced with more than half at or below the \$30/MWh led by good wind resource states such as TX, OK and ND. The lowest PPAs we have heard is <\$20/MWh in Oklahoma and mid-\$20s in TX.
- We expect total PPAs for additions in 2014/15 reaching ~15 GW.

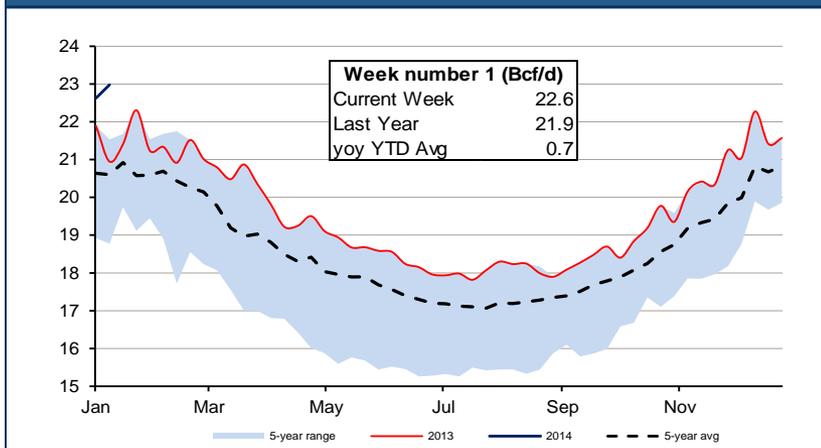
Incremental gas power demand trending lower – 3 bcf/d by '17



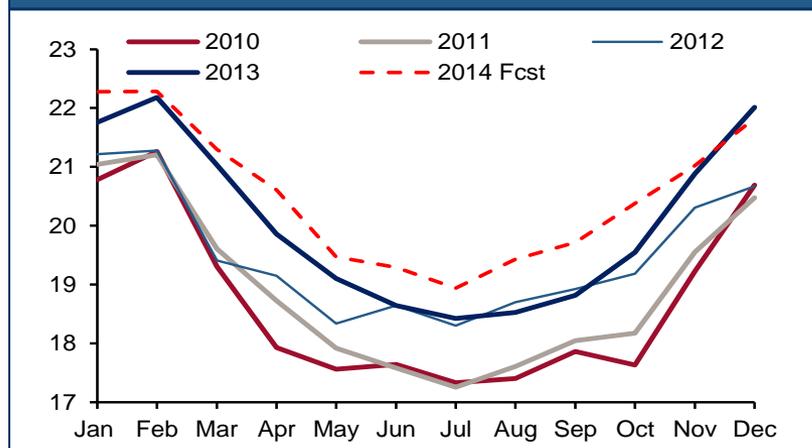
Source: SNL Financial, NRC.gov, Credit Suisse estimates

Industrial demand: Alive and well, but no big additions until 2015

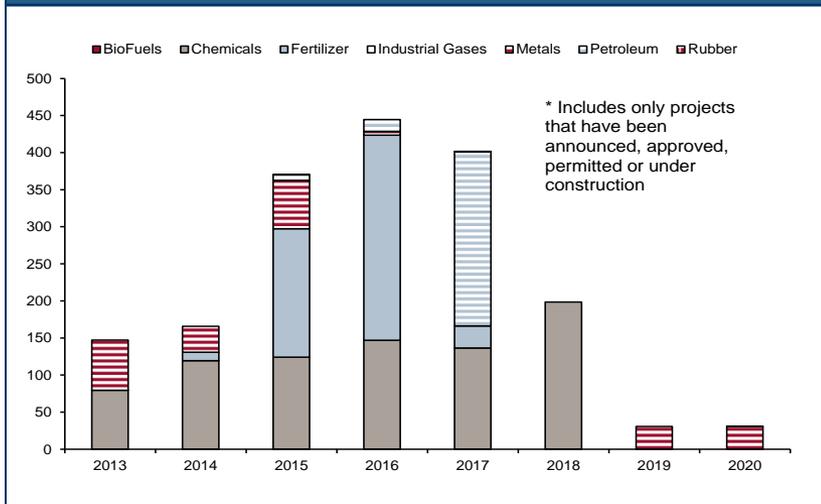
Daily flows show steady growth in 2013 (Bcf/d)



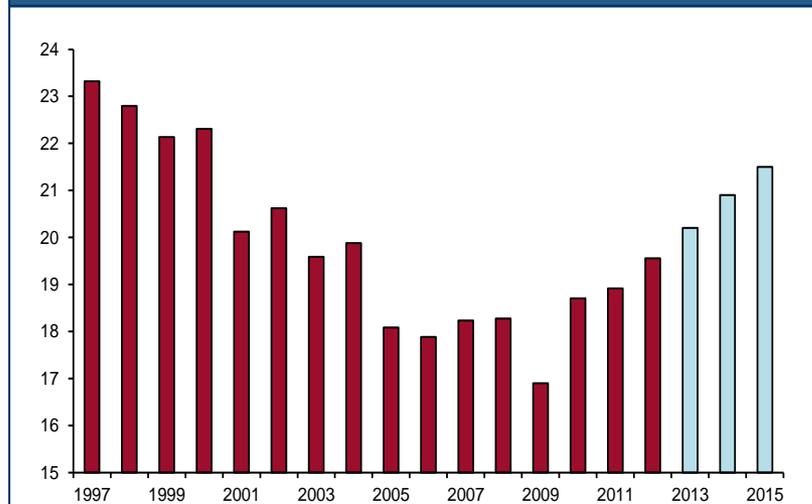
We forecast yoy gains to continue in 2014 (Bcf/d)



Natural gas impact from industrial plant additions by industry



Industrial demand annual forecasts (Bcf/d)



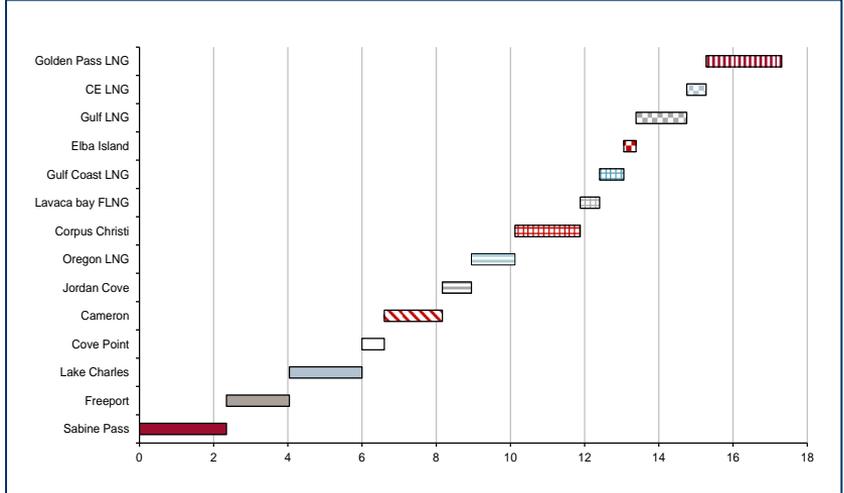
Source: Bentek Energy, Wood Mackenzie, Credit Suisse Global Commodities Research

US LNG Exports: 8.5 Bcf/d of approvals in our base case by 2020

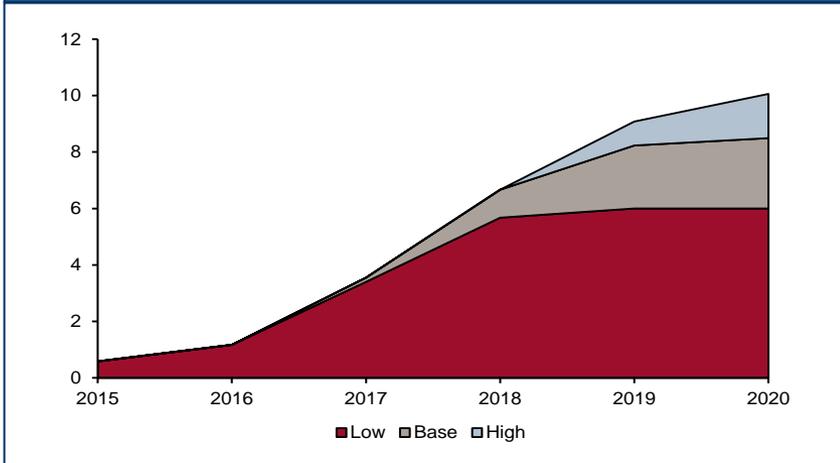
US and Canadian LNG Exports projects



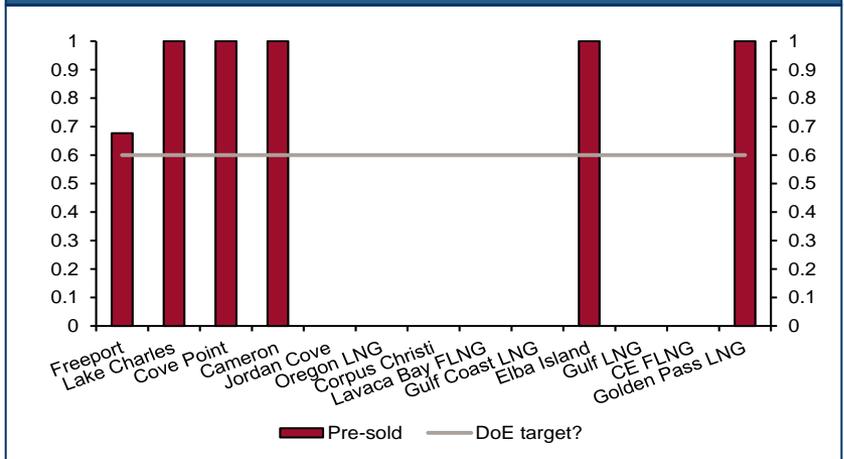
US LNG export potential (Bcf/d)



US LNG export scenarios (Bcf/d)

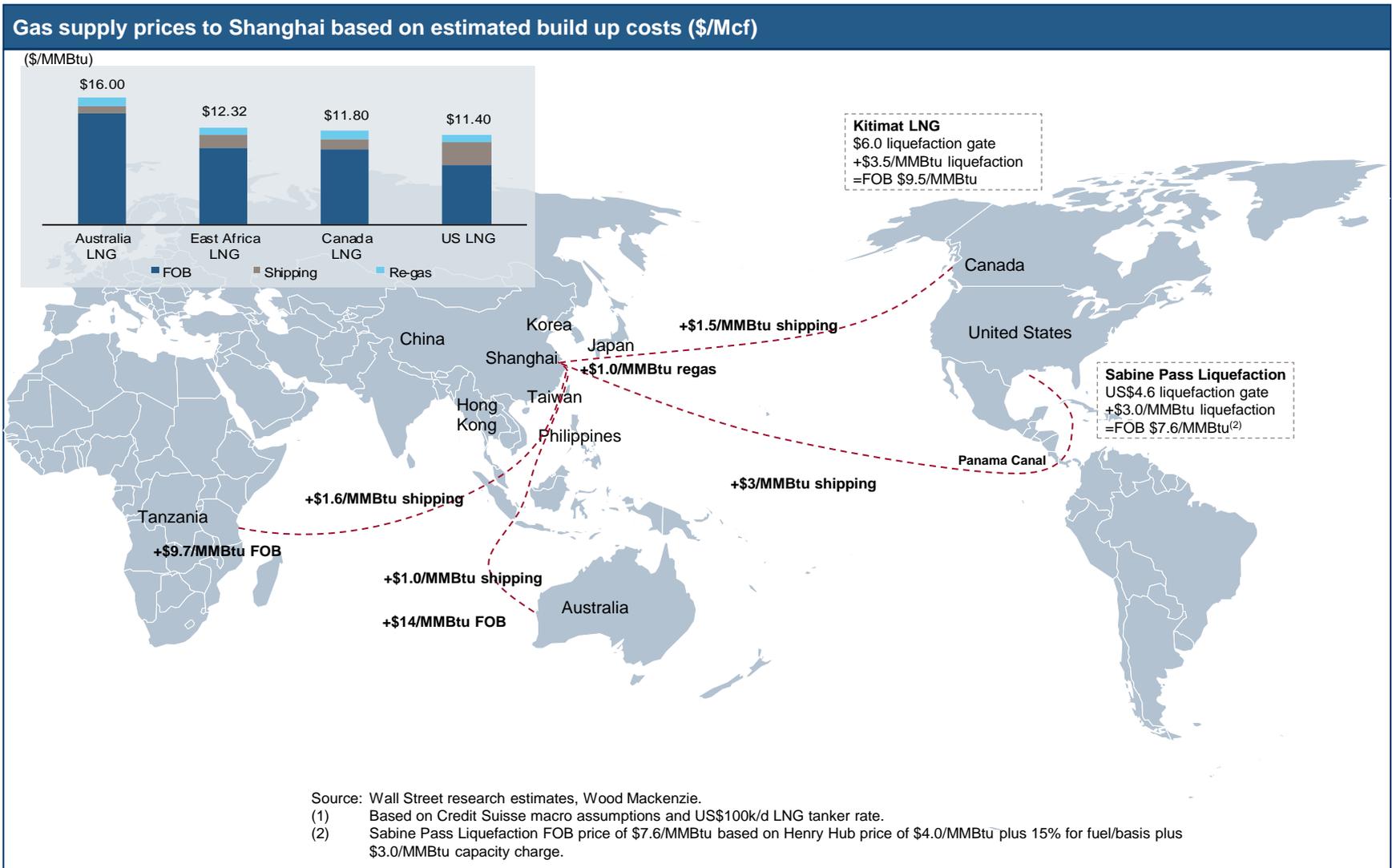


Presold volumes?



Source: FERC, Cheniere Energy, CERA, Wood Mackenzie, Credit Suisse

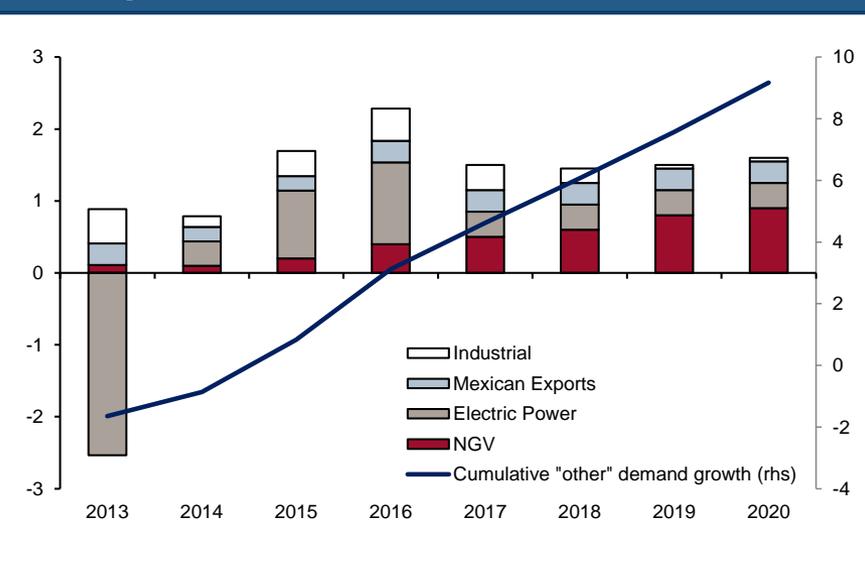
Comparative delivered prices to Asia: USGC should be low-cost supply



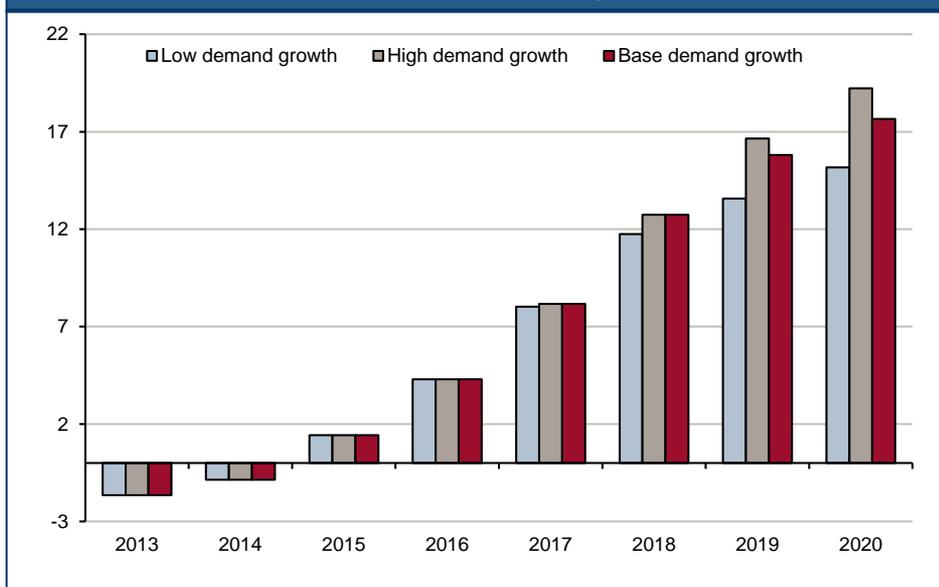
Source: Industry data and Credit Suisse estimates

~15-20 Bcf/d cumulative demand growth between 2013-2020

Demand growth w/o LNG could be 11 bcf/d



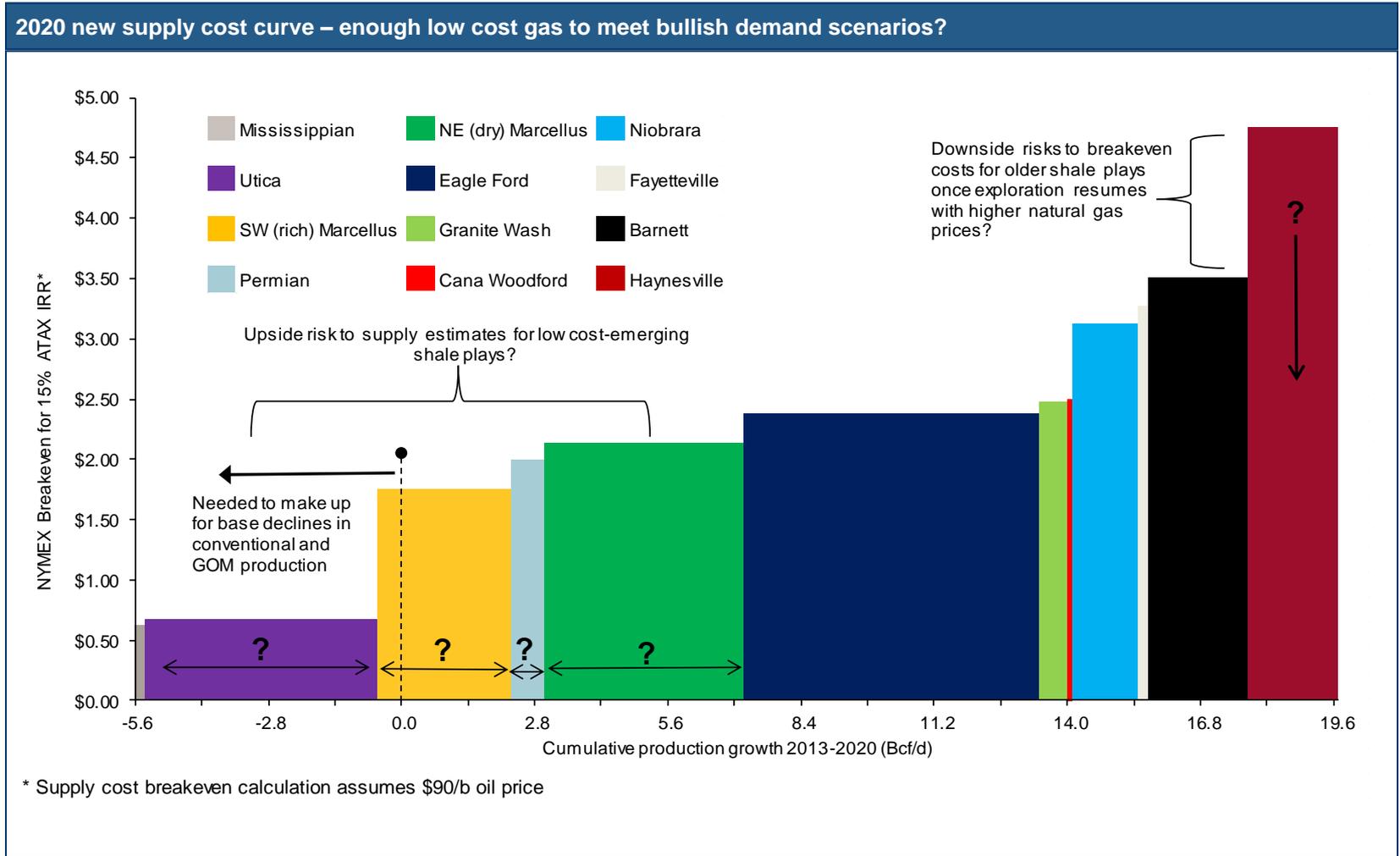
Our base case calls for ~19 bcf/d with LNG exports



- Industrial, electric power, Mexican exports, and natural gas vehicle demand growth could conservatively add 10 bcf/d to demand by the end of the decade.
- Additionally, our base-case scenario for US LNG exports calls for 8.5 Bcf/d by 2020.
- With cumulative end-decade growth estimates nearing 18 Bcf/d, will we witness our low-cost resource base dry up?
- A supply-cost model (of today's known resource plays) would tell us there should be ample low cost shale production to meet new demand at sub-\$5 prices.

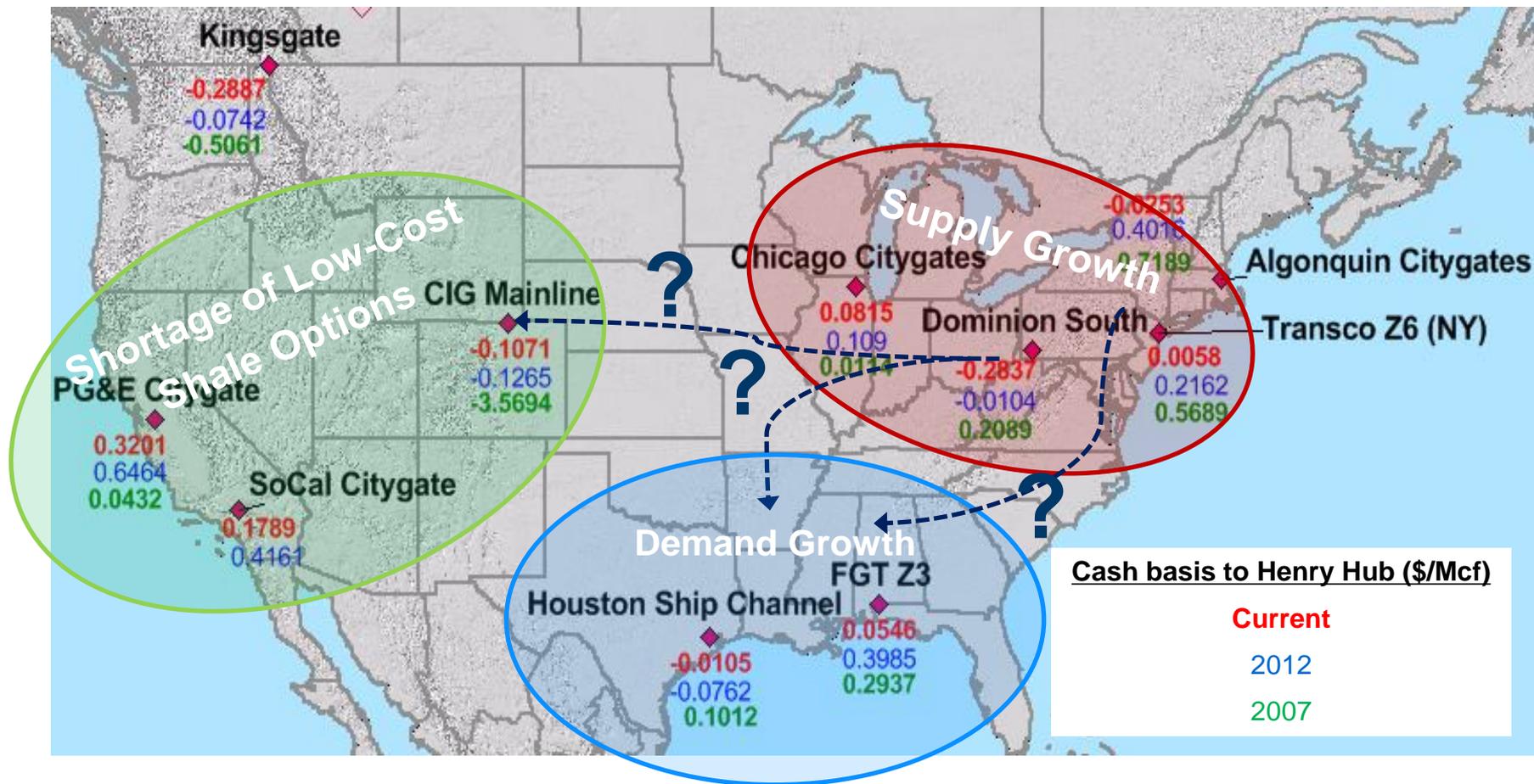
Source: EIA, Company reports, Credit Suisse

But forecasts for future low cost supply appears adequate



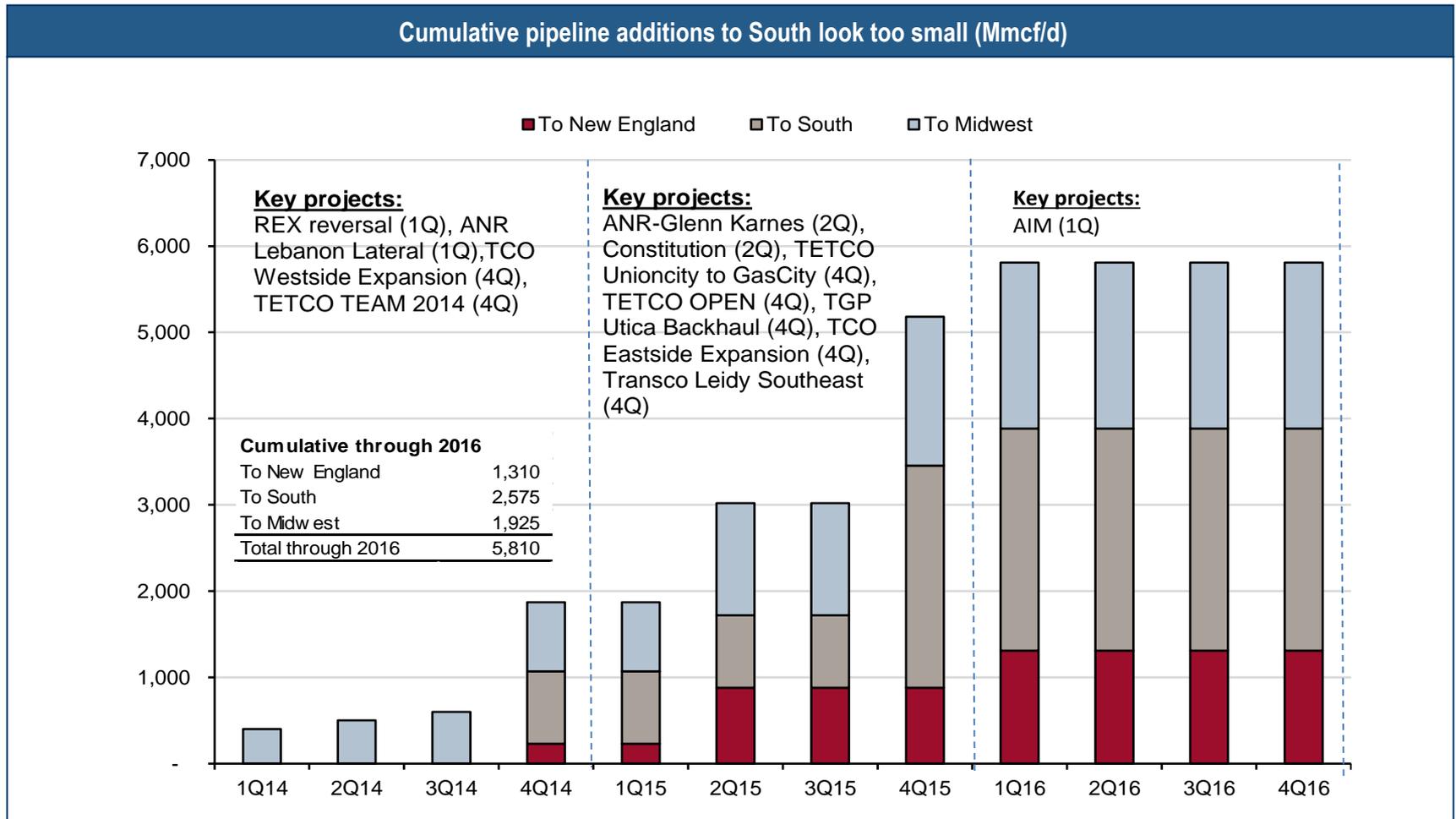
Source: Credit Suisse

Basis diffs are shifting, perhaps leading to HH premium and a reversal of historical flows direction



Source: Ventyx, Credit Suisse

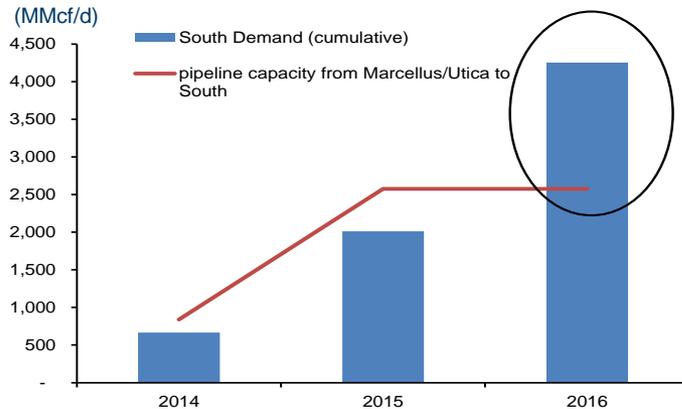
Pipelines out of the Northeast have been aggressive



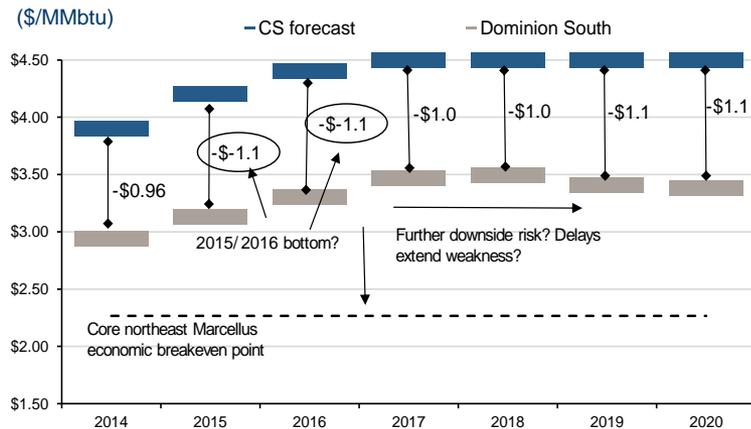
Source: Bentek Energy, Credit Suisse

Without ample export pipe capacity, NE basis diffs need to widen

But current plans still leaves too little gas headed south



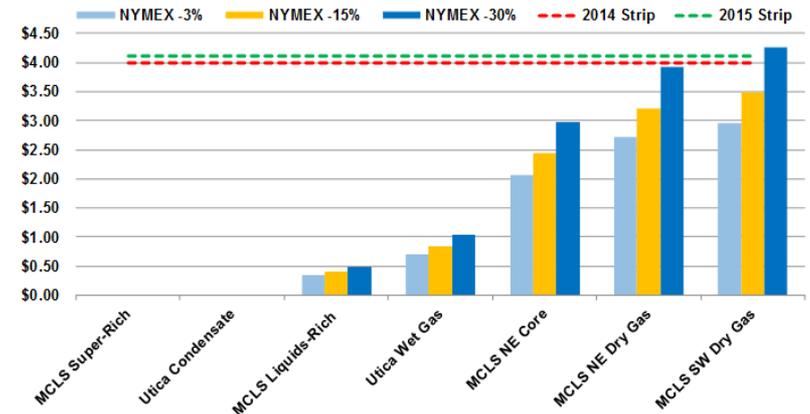
NYMEX versus Dominion South – how low for how long?



Basis weakness in Appalachia may need to weaken further

	Dominion South	Chicago Citygate	Tenn Zone 0
2010	\$ 0.19	\$ 0.12	\$ (0.08)
2011	\$ 0.15	\$ 0.12	\$ (0.10)
2012	\$ (0.01)	\$ 0.10	\$ (0.07)
2013	\$ (0.20)	\$ 0.11	\$ (0.07)
Futures			
Winter 2014	\$ (0.83)	\$ 0.34	\$ (0.13)
Summer 2014	\$ (0.95)	\$ 0.03	\$ (0.15)
Winter 2015	\$ (1.10)	\$ 0.05	\$ (0.15)
Summer 2015	\$ (1.08)	\$ (0.18)	\$ (0.17)
Winter 2016	\$ (1.08)	\$ (0.15)	\$ (0.15)
Summer 2016	\$ (1.08)	\$ (0.24)	\$ (0.16)

Not until basis reaches \$2 does NE core Marcellus begin to slow



Source: the BLOOMBERG PROFESSIONAL™ service, Credit Suisse Global Commodities Research

Disclosure Appendix

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Sell: Indicates a recommended sell on our expectation that the issue will deliver a return lower than the risk-free rate.

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Buy: Indicates a recommended buy on our expectation that the issue will be a top performer in its sector.

Outperform: Indicates an above-average total return performer within its sector. Bonds in this category have stable or improving credit profiles and are undervalued, or they may be weaker credits that, we believe, are cheap relative to the sector and are expected to outperform on a total-return basis. These bonds may possess price risk in a volatile environment.

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	Global Recommendation Distribution**	
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Market Perform	53%	(of which 85% are banking clients)
Underperform	16%	(of which 80% are banking clients)
Sell	<1%	(of which 100% are banking clients)

*Data are as at the end of the previous calendar quarter.

**Percentages do not include securities on the firm's Restricted List and might not total 100% as a result of rounding.

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