IPAA Midyear Meeting 2011

A VIEW FROM THE STREET: OIL MACRO OUTLOOK
JUNE 21, 2011

Simmons and Company International
Jeff Dietert
Co-Head Equity Research

Global Oil Fundamentals Highlight a Tighter Market in 2H 2011

- Non-OECD demand growth—well behaved but decelerating (2011 +1.7 mb/d y/y), OECD—secular stagnation/contraction. Non-OPEC supply growth is decelerating (2011 +0.6 mb/d y/y).

- Call on OPEC is rising with the loss of high quality Libyan crude exports (1.3 mb/d).

- Supply & demand balances (IEA, EIA, OPEC, SCI) consistently project a need for over 30 mb/d of OPEC crude in 2H'2011, compared with May OPEC production of about 29 mb/d.

- OPEC disagrees on the path forward. Saudi (controls ~80% of the spare capacity) increasing production. OPEC spare capacity (3-4 mb/d) is likely over-stated, declining and of poor quality.

- Power shortages (China/Japan/Middle East) = potential 3Q upside surprises (+300-500 kb/d).

- Economic recovery appears to be moderating (European debt crisis, moderating growth in economic indicators, rising inflation and central bank tightening in Brazil, India and China).

- NAM is becoming a critical source of non-OPEC supply growth (NAM Shale and Canadian Oil Sands).

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Global Supply & Demand Balances

IEA	2010	mb/d Δ	2011	mb/d Δ
OECD Demand	46.1	0.6	45.9	-0.2
Non-OECD Demand	41.9	2.2	43.4	1.5
Global Demand	**88.0**	**2.8**	**89.3**	**1.3**
Non-OPEC Supply	**52.7**	**1.1**	**53.3**	**0.6**
OPEC NGLs	5.3	0.4	5.9	0.5
Call on OPEC Crude	**30.0**	**1.2**	**30.1**	**0.2**

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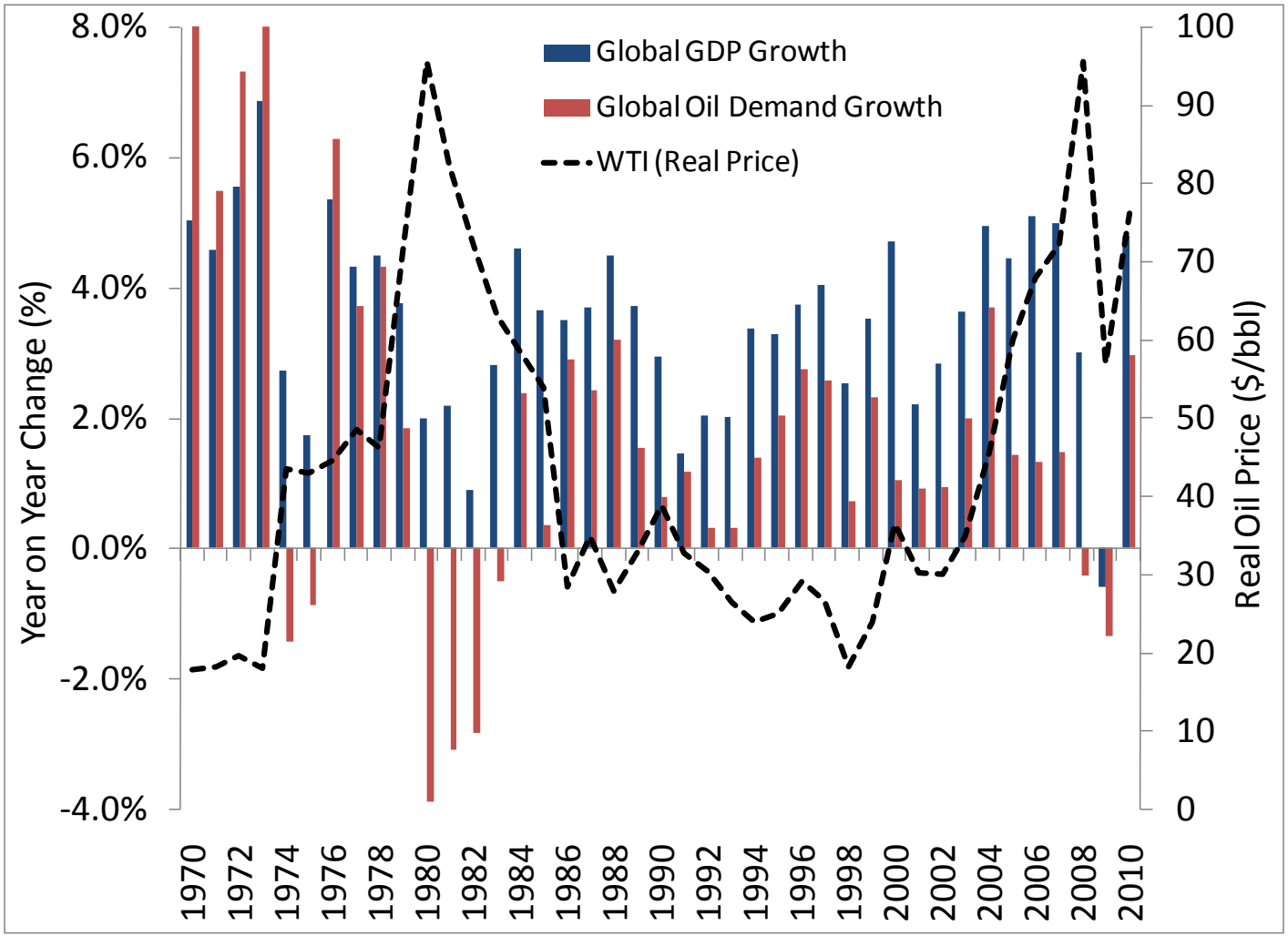
Global Oil Demand and Economic Growth



Sources: IMF, IEA, BP Statistical Review, Bloomberg

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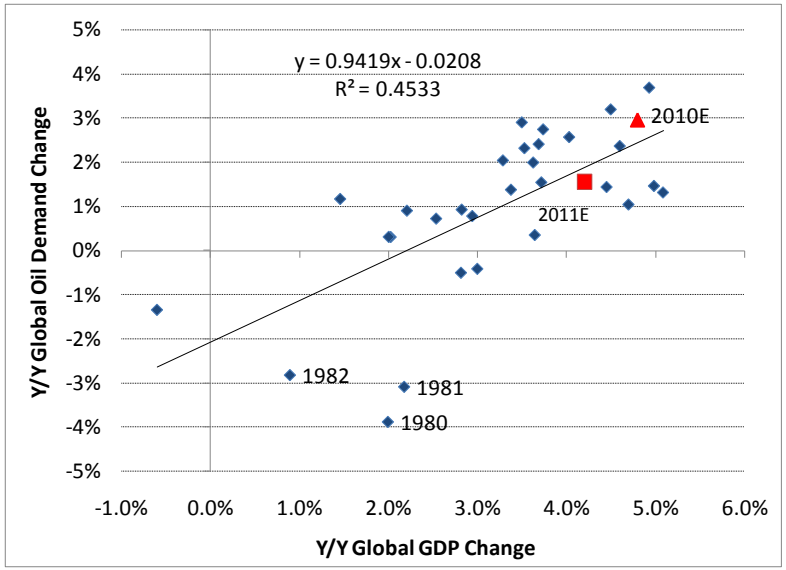
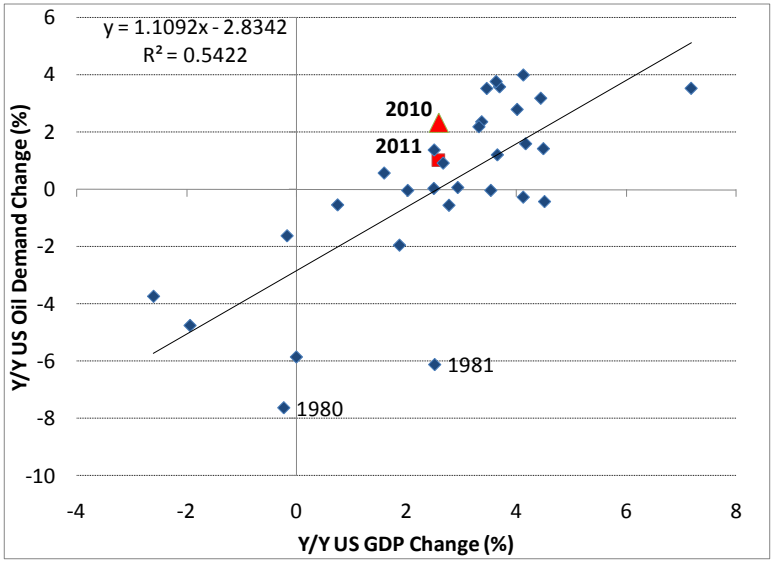
Oil Demand and Economic Growth

Global Oil Demand & GDP



US Oil Demand & GDP



Sources: IMF, IEA, Bloomberg, Simmons & Company International

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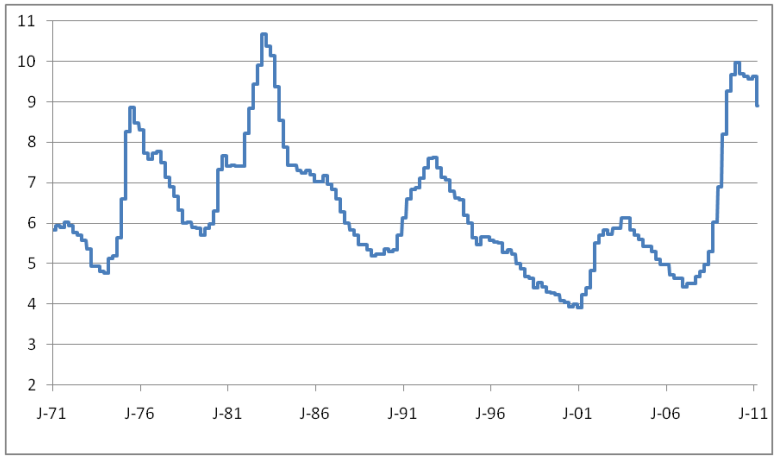
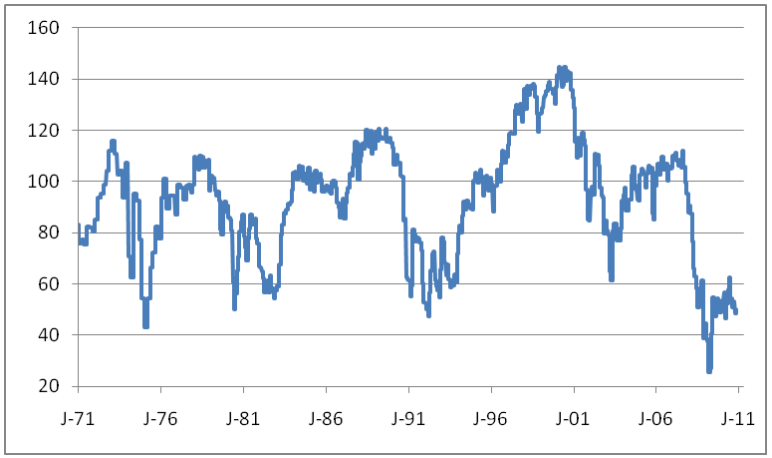
U.S. Consumer (70% of GDP) Indicators (Gasoline)

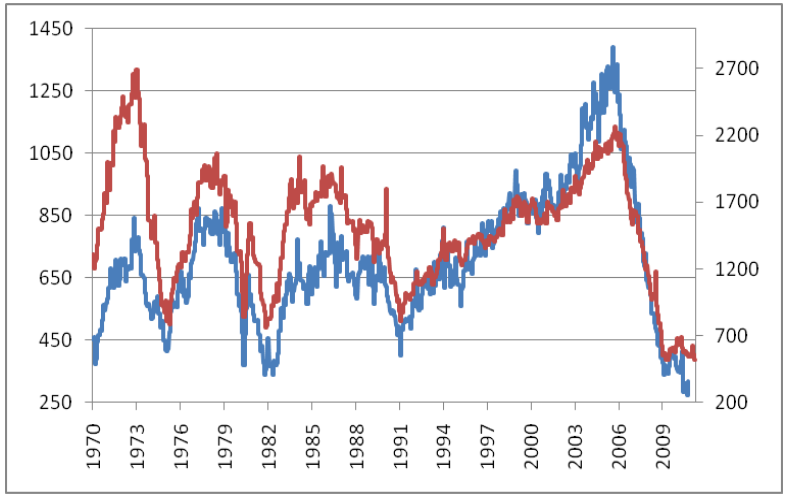
U.S. Unemployment Rate (%)



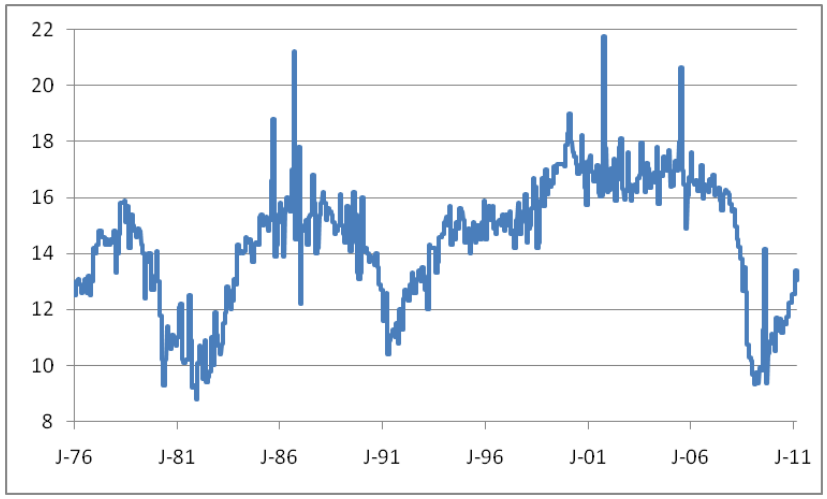
Conference Board Consumer Confidence



New Home Sales (in thousands) and Building Permits



Auto Sales (in MMs)



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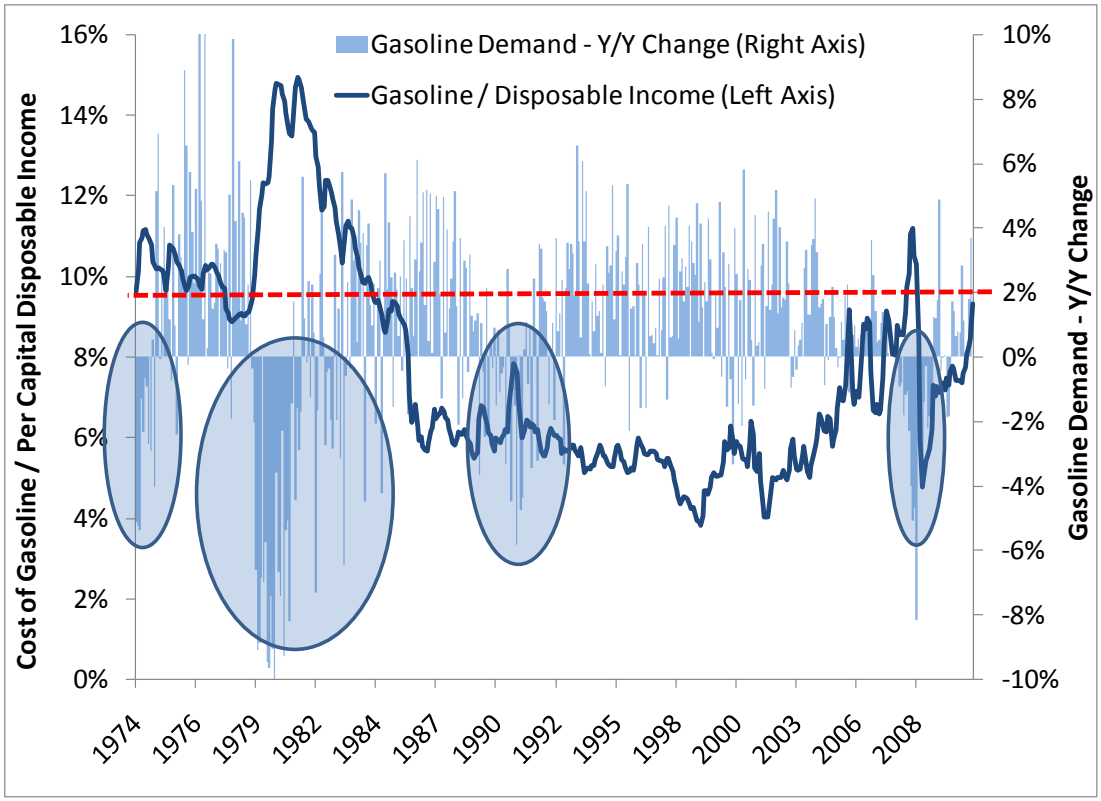
U.S. Gasoline Demand & Disposable Income



Current Sensitivity

US Gasoline Cost	% of Per Capita Disposable Income
$3.00	8.0%
$3.25	8.7%
$3.50	9.4%
$3.75	10.0%
$4.00	10.7%
$4.25	11.4%
$4.50	12.1%

- US Gasoline Demand has only experienced significant declines during 4 historical periods: **1) 1979 to 1982** (-5-6% y/y in '79/'80); **2) 1974** (-6%); **3) 2008-2009** (-3% in '08); and **4) 1989 to 1991** (-1% in '90).
- A key factor impacting US gasoline demand is gasoline cost as % of per capita disposable income.
- At $3.50/gal gasoline, we expect to begin to see some negative impact to the US consumer.

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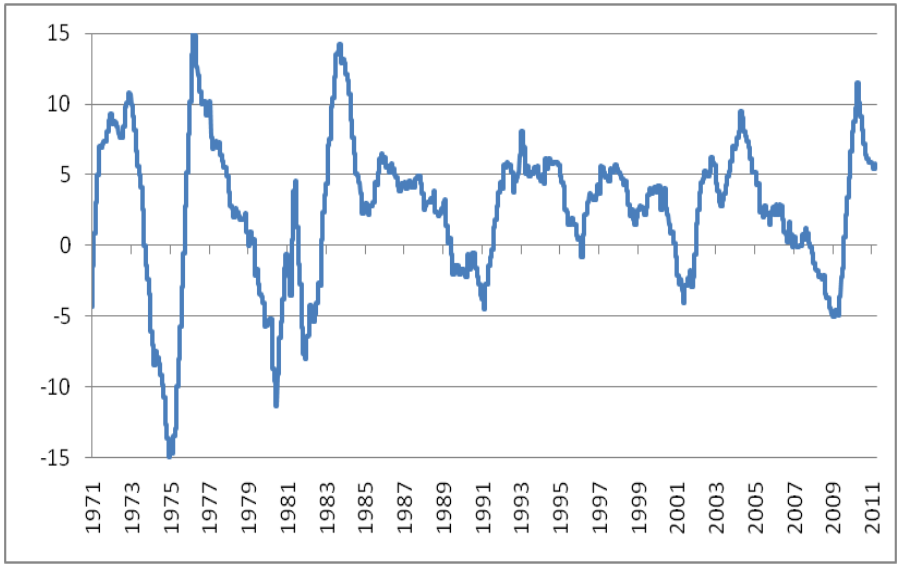
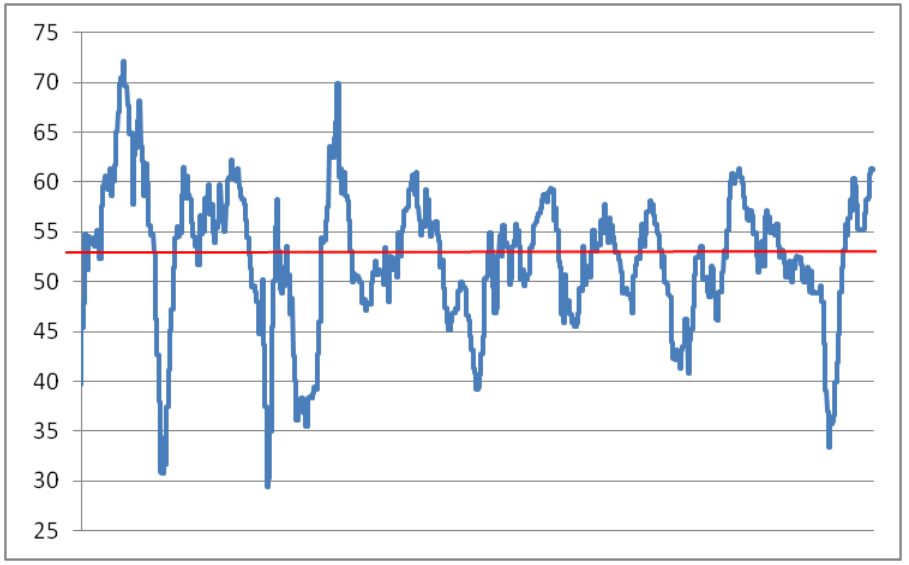
U.S. Leading and Manufacturing Indicators (Diesel)

Conference Board Leading Economic Indicator y/y %



ISM Manufacturing PMI



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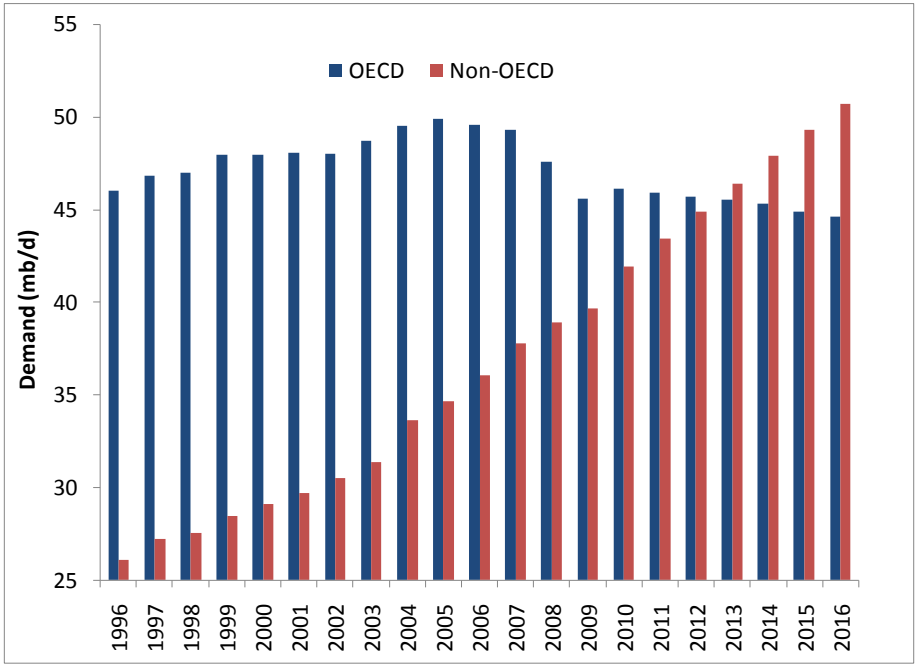
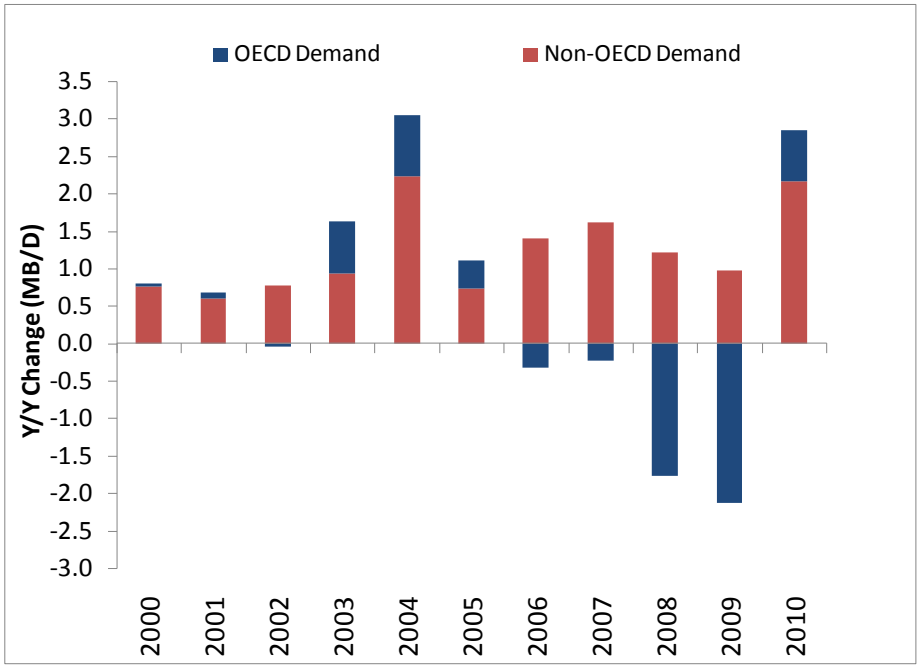
Non-OECD Drives Growth, Becoming a Larger % of Global Demand

Global Oil Demand



Global Oil Demand (Y/Y Change)



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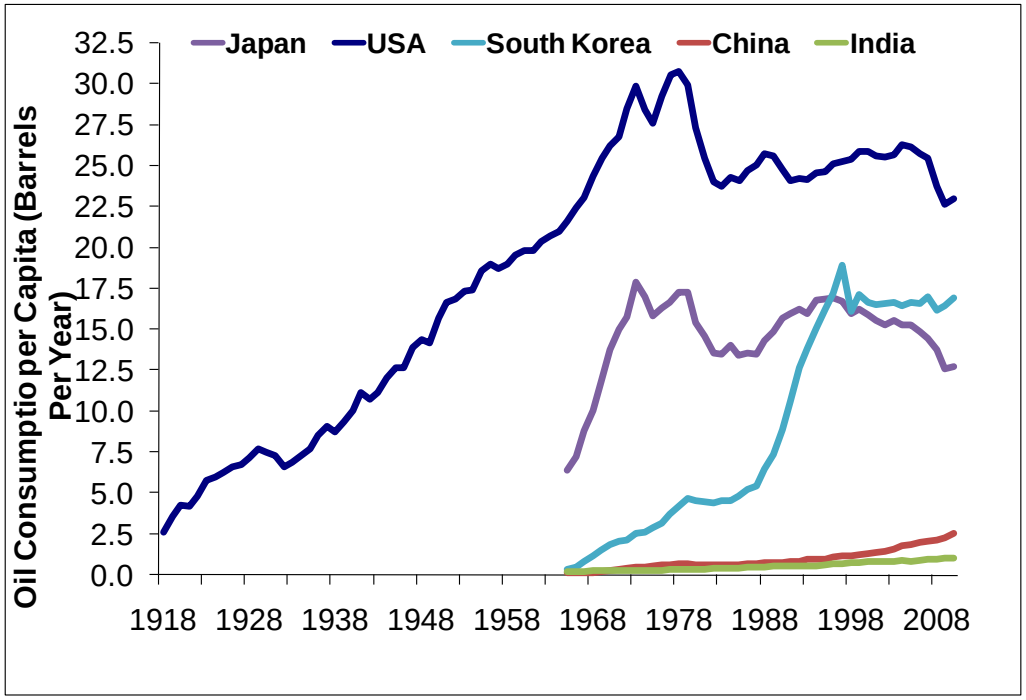
Developing Countries to Provide Future Oil Demand Growth

Region	2010 Oil Demand (mb)	Population (in billions)	Oil Consumption per Capita (bbls)
United States	7,136	0.31	23.2
OECD	16,838	1.22	13.8
Japan	1,613	0.13	12.7
Germany	908	0.08	11.0
China	3,428	1.32	2.6
India	1,219	1.16	1.1



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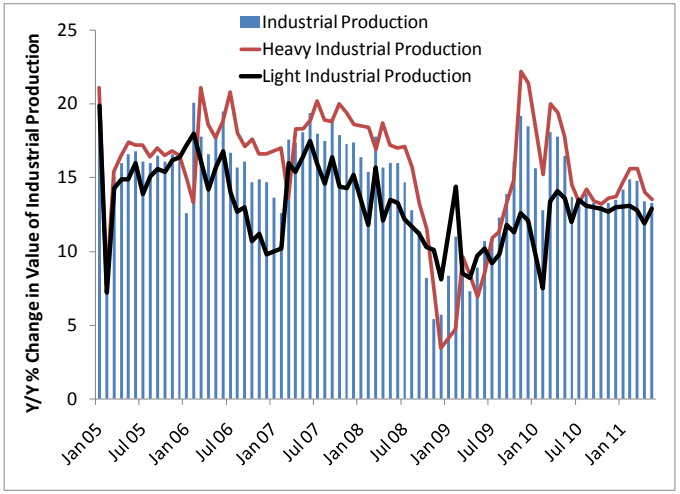
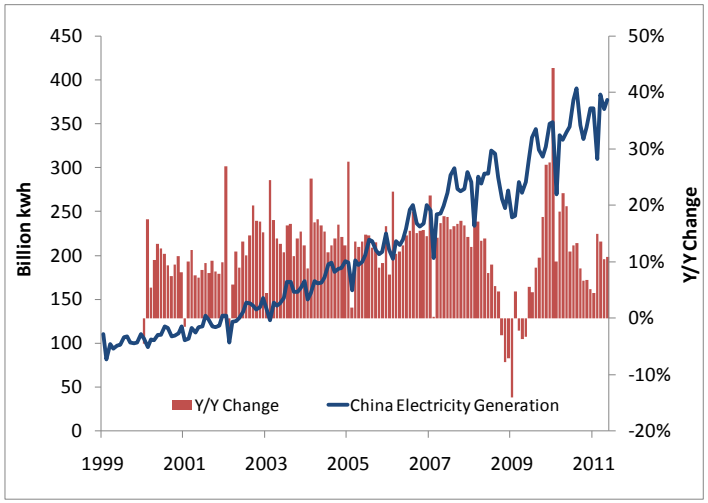
China: Oil Demand and Economic Statistics

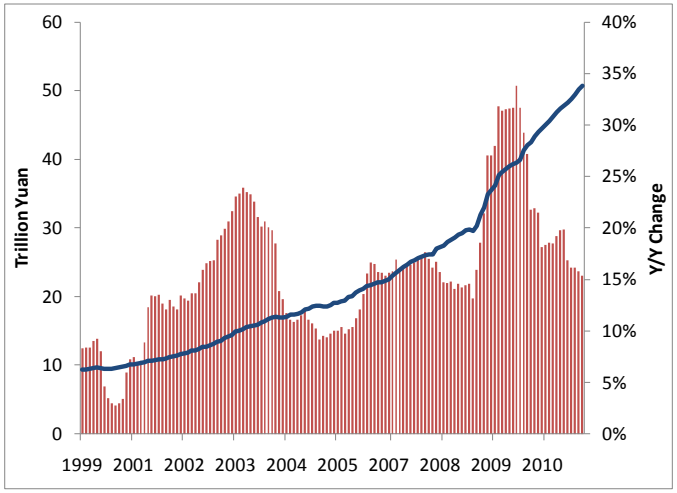
Industrial Production



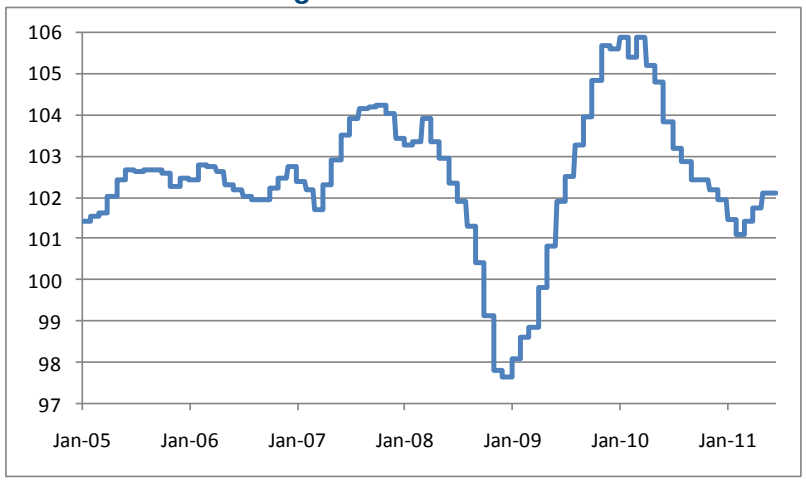
Electricity Generation



China Loans



Leading Economic Indicators



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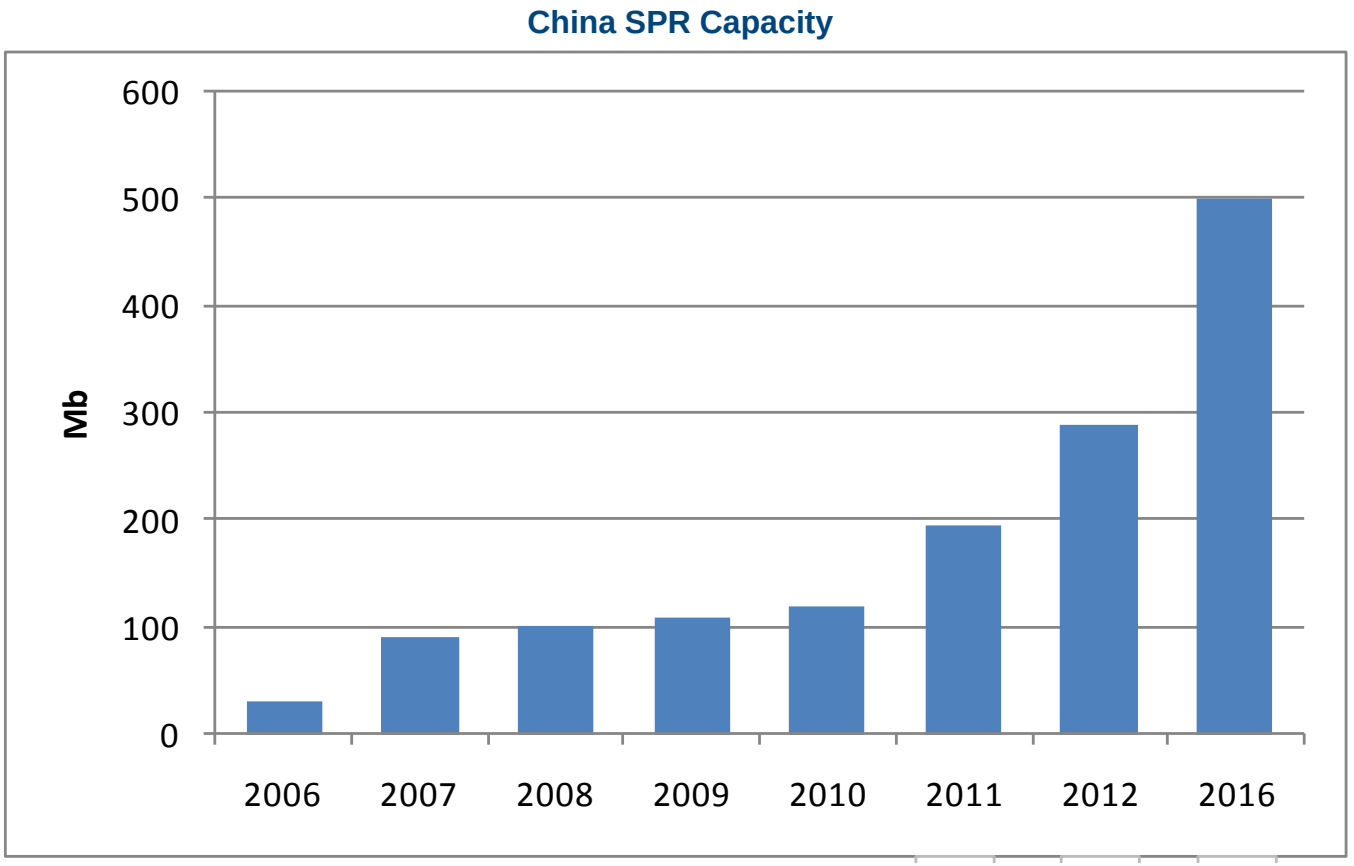
China/Asia Oil Stockpiling



Source: Oil & Gas Journal.

- 2011: +90 Mb/365 days=250 kb/d, 2012: +100 Mb=270 kb/d, 2016: +200 Mb=135 kb/d over 4 years.
- Commercial storage additions across Asia expected to add 320 mb of storage (180 kb/d fill rate).

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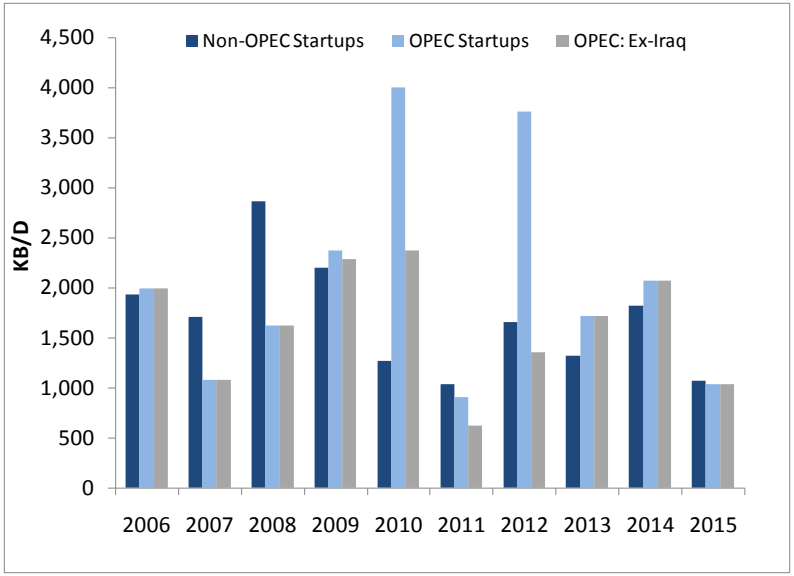
Major Oil Supply Project Queue



Major Project Startup Summary (kb/d)			
Year	Non-OPEC	OPEC	Total
2006	1,933	1,995	3,928
2007	1,711	1,080	2,791
2008	2,866	1,625	4,491
2009	2,195	2,372	4,567
2010	1,270	3,997	5,268
2011	1,031	906	1,937
2012	1,657	3,759	5,416
2013	1,318	1,718	3,036
2014	1,823	2,067	3,890
2015	1,073	1,035	2,108

- Non-OPEC startups peaked at 2.9 mb/d in 2008, fell to a low of 1 mb/d in 2011 and are expected to rise to 1.8 mb/d in 2014.

- OPEC capacity additions shift from Saudi Arabia to Iraq in the years ahead.

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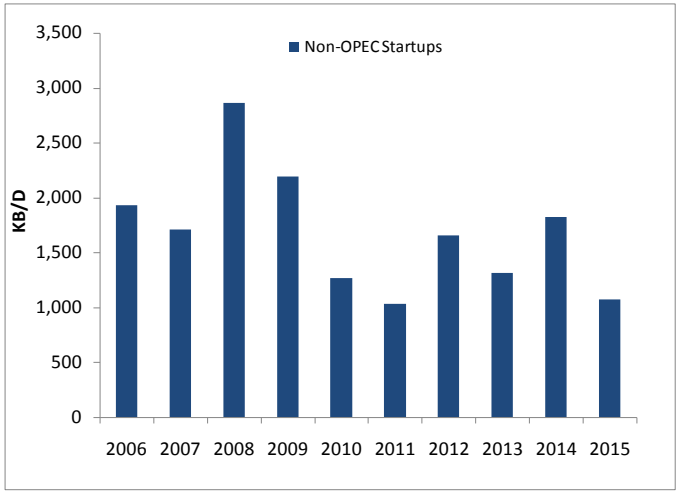
Major Oil Supply Project Queue

- Summation of 2013/2014 startups is 1.9 mb/d, 38% below summation of 2008/2009 startups.

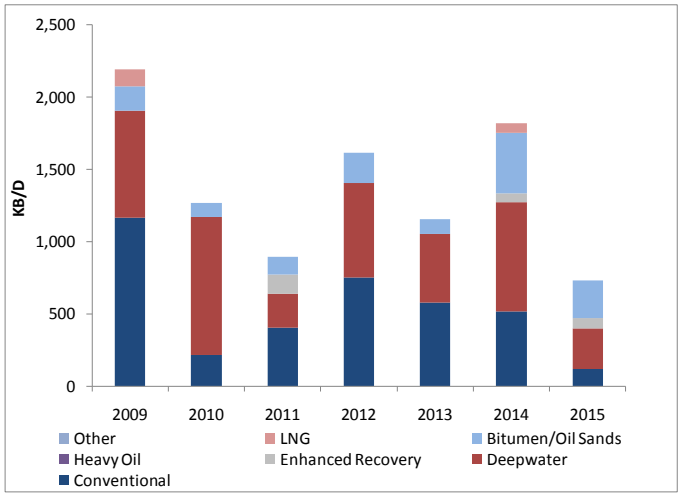
- Unconventional production is increasingly important to non-OPEC supply (Oil Sands account for >25% of 2014-2015 startups vs. 10% of 2009 to 2013 startups.)

- Brazil, Canada, FSU account for >60% of '12 to '15 startups.

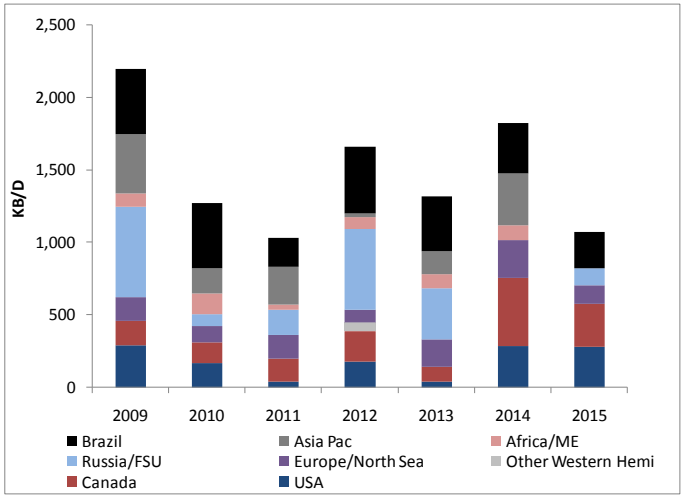
Total Non-OPEC Startups



Non-OPEC Startups by Project Type



Non-OPEC Startups by Geography



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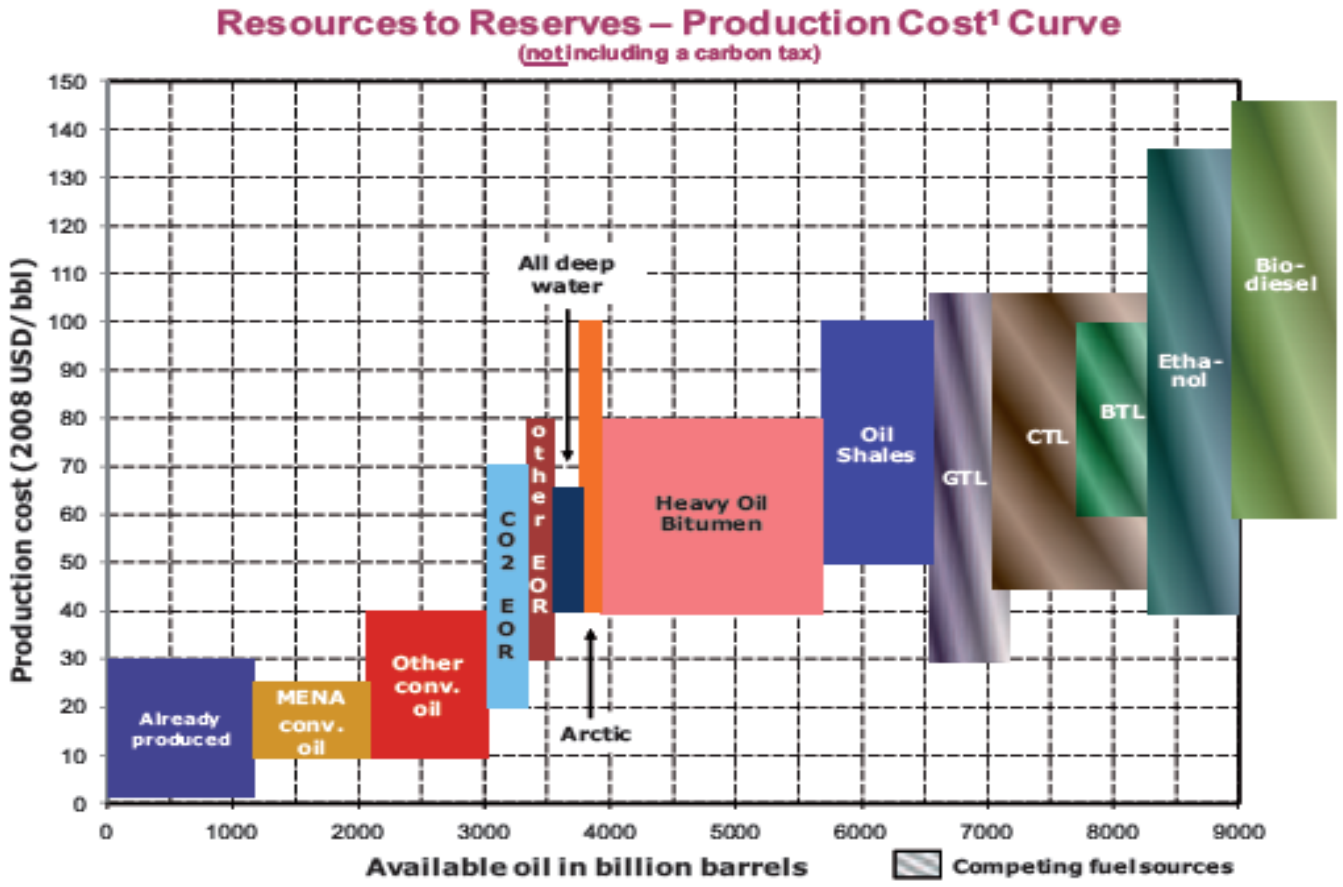
Threshold Economics by Play Type



Source: An updated version of the IEA's 2005 publication *Resources to Reserves: Oil and Gas Technologies for the Energy Markets of the Future* to be published later this year.
¹Production cost is defined as the break-even point and does not include an assumed return on investment

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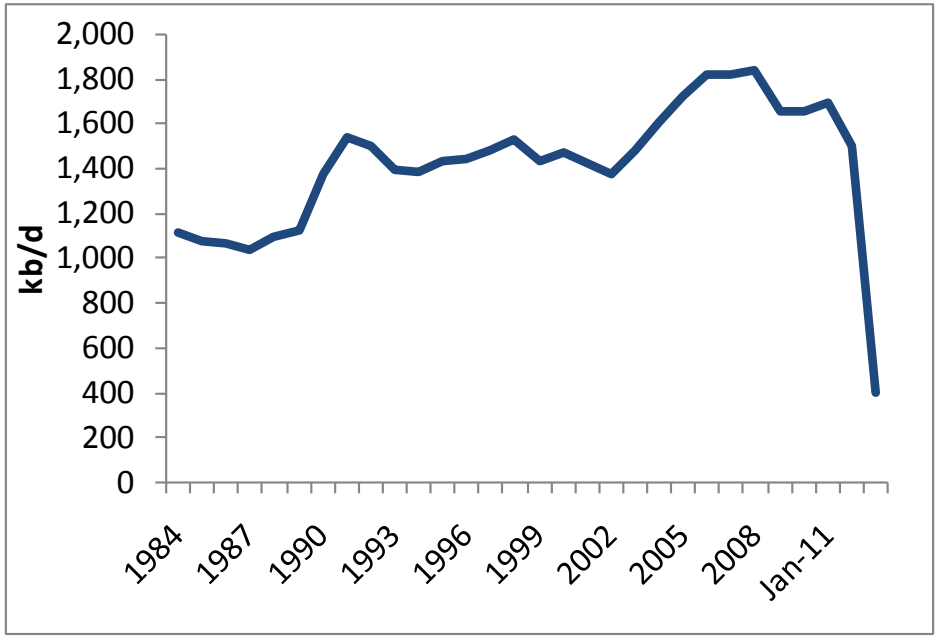
Libyan Production



Libyan Crude	Terminal	2010 Exports (kb/d)	API Gravity	Sulfur	Location
Es Sider	Es Sider	341	37.0	0.44	East
Amna	Ras Lanuf	217	36.0	0.17	East
El Shahara	Zaiwa	206	42.6	0.07	West
Mellitah	Mellitah (Al Wafa)	154	42.0	0.07	West
Zuetina / Bu Attifel	Zuetina	147	41.5/43.4	0.31/0.06	East
Brega / Sirtica	Marsa al Brega	87	39.8/42.2	0.20/0.40	East
Bouri	Bouri	48	26.3	1.91	West
Sarir	Tabrouk	45	37.6	0.16	East
Al Jurf	Farway FPSO	28	30.0	1.91	West
		1,273	**38.7**	**0.33**	

Source: Simmons & Company, IEA, Energy Intelligence

- Libyan crude production and exports are at a fraction of pre-crisis levels.
- 2010 exports averaged 1.3 mb/d of high quality, light sweet crude.
- Libyan production expected to remain depressed for an extended period of time.
- ~85% of Libyan crude exports are typically destined for European refineries.

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Saudi Arabia Production Capacity: A Closer Look

Saudi Arabia Crude Oil Production Capacity

Field	Capacity (kb/d)	Grade
Ghawar	5,500	Arab Light
Safaniyah	1,500	Arab Heavy
Khurais	1,200	Arab Light
Shaybah	750	Arab Extra Light
Zuluf and Marjan	1,200	Arab Medium
Khursaniyah	500	Arab Light
Qatif	500	Arab Light
Abqaiq	350	Arab Extra Light
Berri	300	Arab Extra Light
Abu Safa	150	Arab Medium
Nuayyim	100	Arab Super Light
Small Fields	150	Arab Super Light
Neutral Zone	300	
Total	**12,500**	

Source: Simmons & Company, IEA, Energy Intelligence, Bloomberg

- Saudi claims production capacity of ~12.5 mb/d. Recent production high was ~9.5 mb/d (IEA, mid 2008) plus 1.5 mb/d of new capacity suggest max capacity closer to 11 mb/d.

- Leading edge data suggests Saudi produced 9 mb/d (IEA) in May.

- Saudi accounts for ~75% to 80% of total effective OPEC spare production capacity.

- Production increases take time to impact the market. 1-way tanker voyages from Saudi Arabia to US Gulf Coast – 43 days, Japan - 25 days.

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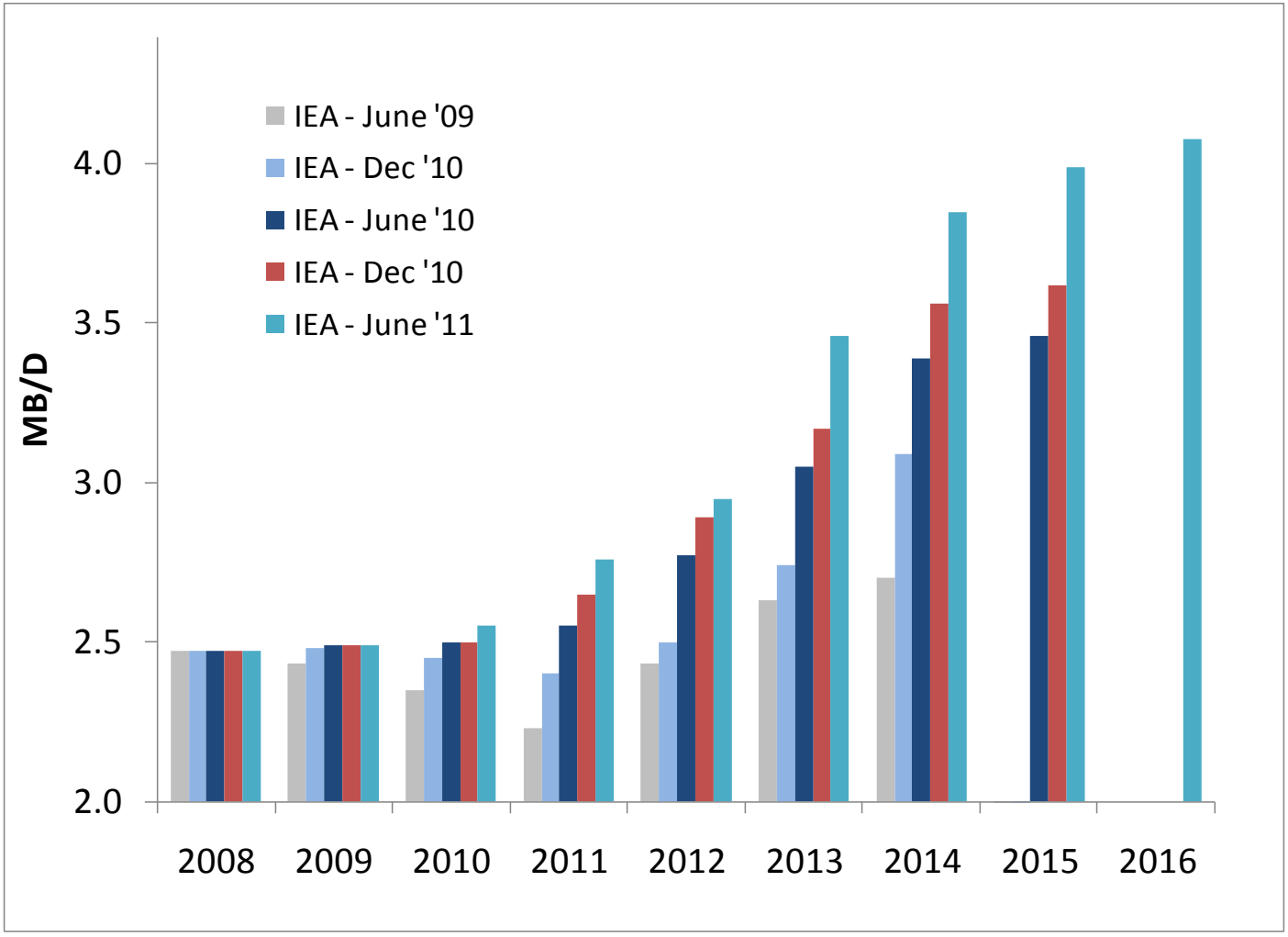
Iraqi Crude Oil Production Potential



Source: IEA

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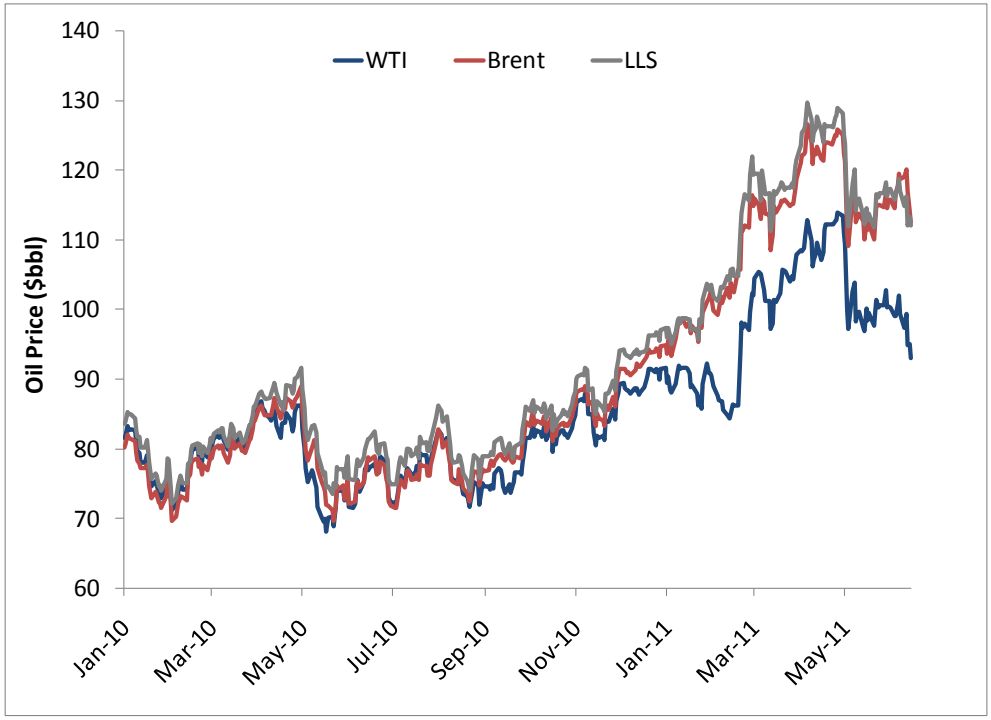
WTI Price is Disconnected from International Crude Prices



- WTI price is depressed due to rapid NAM onshore production growth and lack of infrastructure. Pipeline infrastructure expansions/reversals planned for 2013.

- Recent Brent strength supported by Libya outage, Buzzard field maintenance and Nigeria force majeure.

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NAM/US Onshore Production Potential

US Light Tight Oil Production (thousand barrels per day)							
	2010	2011	2012	2013	2014	2015	2016
Bakken	268	363	472	566	651	716	752
Barnett	15	23	29	35	42	46	51
Eagle Ford	21	40	65	98	138	193	260
Monterrey	7	8	10	20	30	40	50
Niobrara	61	85	114	143	179	215	247
TOTAL	372	519	690	862	1,040	1,210	1,360

- Bakken, Eagle Ford and Niobrara have the potential for substantial growth (conservative projections?)

- Table does not include meaningful growth from the West Texas, Oklahoma and Canada.

- Potential constraints to growth: 1) oil price, 2) export infrastructure, 3) cost inflation, 4) environmental concerns (including water).

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Major Crude Pipeline Projects

Key North American Crude Pipeline Projects				
Name	Operator	Route	Start-up	Capacity (kb/d)
Enterprise Phase II	Enterprise	Eagle Ford-Houston	Q1 2013	320
Koch Pipeline Co. LP	Koch Pipeline Co. LP	Eagle Ford - Corpus Christi	mid-2012	250
Keystone XL	TransCanada	Cushing-Port Arthur	2013	500
Enterprise/Energy Transfer	Transfer	Cushing - Houston	2013	400
Longhorn reversal	Magellan	West Texas-Houston	2013	225
West Texas Gulf Expansion	West Texas Gulf	Permian-Longview, TX	2013	100
Monarch	Enbridge	Cushing-USGC	4Q 2013	150-300
Bakken Expansion	Enbridge	Bakken-Enbridge system	2013	145-325
Bakken Marketlink	TransCanada	Bakken-Keystone XL	2013	100
Northern Gateway	Enbridge	Alberta-Pacific Coast	?	525
TransMountain expansion	Kinder Morgan	Alberta-Pacific Coast	?	400

- There are a number of pipeline projects scheduled for 2013. Not all will move forward.
- Most likely projects include Keystone XL, Longhorn reversal and West Texas Gulf expansion.
- Further bottlenecks will develop. Bakken/Permian/Eagle Ford/Cushing/Houston/Longview to name a few.

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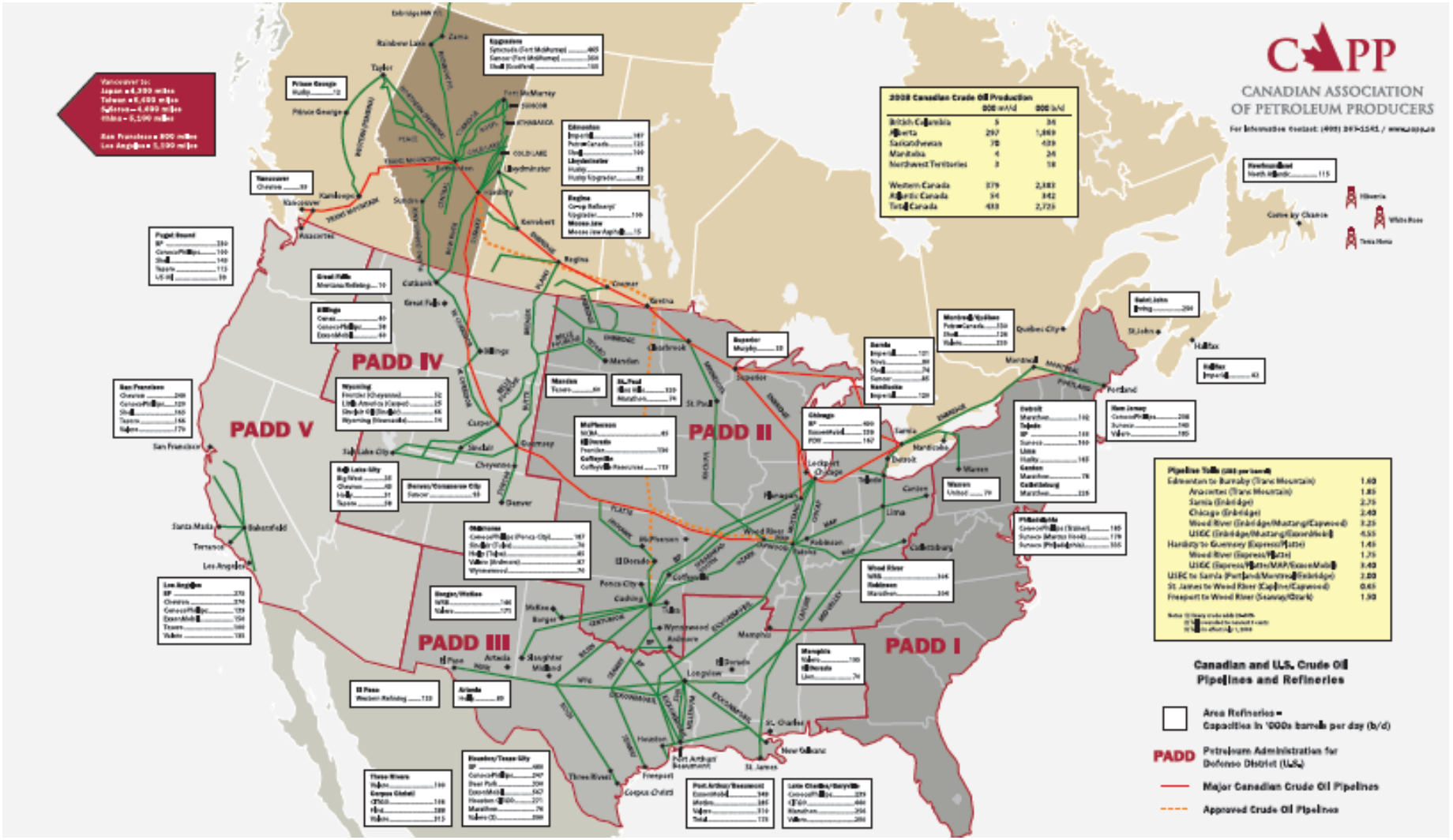
NAM Pipeline Infrastructure



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Crude Fundamentals and Implications for NAM Oil Producers

- Non-OPEC supply growth is becoming more challenging, with resources that are time, technology and capital intensity (deeper water/formations, harsher environment, higher pressures/temperatures, unconventional/heavy oil).

- Access to major resources and geopolitics remain challenging (i.e. Russia, Venezuela, Middle East, Mexico).

- Crude supply and demand fundamentals are supportive of crude prices and further NAM oil supply development, absent Sovereign debt contagion or a major slowdown in developing countries (especially China).

- Economics of marginal supply sources require oil prices sufficient to support NAM shale oil and oil sands development.

- The rapid pace of development of the oil shale is likely to contribute to further cost inflation.

- Substantially more infrastructure to move oil production to market will be required.

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Appendix D

Analyst Certification:
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