



ROBECOSAM
Sustainability Award
Industry Leader 2015

ROBECOSAM
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Gold Class 2015

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In Collaboration with RobecoSAM

Thai Oil Public Company Limited

Q2/2015 Analyst Presentation 18 Aug 2015

Time : 2.00 - 4.00 pm.
Venue : The Okura Prestige Hotel

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VISION	A LEADING FULLY INTEGRATED REFINING & PETROCHEMICAL COMPANY IN ASIA PACIFIC
MISSION	<ul style="list-style-type: none"> • To be in top quartile on performance and return on investment • To create a high-performance organization that promotes teamwork, innovation and trust for sustainability • To emphasis good Corporate Governance and commit to Corporate Social Responsibility
VALUES	<div> <div> Professionalism Ownership & Commitment Social Responsibility </div> <div>  Integrity Teamwork & Collaboration </div> <div> Excellent Striving Vision Focus Initiative </div> </div>

Corporate Governance Policy

The board of directors, management and all staff shall commit to moral principles, equitable treatment to all stakeholders and perform their duties for the company's interest with dedication, integrity, and transparency.

Roles and Responsibilities for Stakeholders

- Truthfully report company's situation and future trends to all stakeholders equally on a timely manner.
- Shall not exploit the confidential information for the benefit of related parties or personal gains.
- Shall not disclose any confidential information to external parties.

CG Channels

Should you discover any ethical wrongdoing that is not compliance to CG policies or any activity that could harm the Company's interest, please inform:



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In Collaboration with RobecoSAM 

Member of DJSI Emerging Markets for 2 consecutive years

- Highest Ranked Level in RobecoSAM Gold Class of Global Oil & Gas Companies
- No.1 in ENERGY industry around the WORLD (Industry Group Leader)
- No.1 in Oil & Gas Producers Worldwide (Industry Leader)

Q2/15 KEY HIGHLIGHTS

Q2/15 PERFORMANCE ANALYSIS

Q4-15 & 1H-16 MARKET OUTLOOK



Q2/15 KEY HIGHLIGHTS



Refinery



- **\$7/bbl rose in Dubai crude price** from lower Non-OPEC production & stronger than expected oil demand
- **Seasonally low middle distillates but partially offset by strong gasoline spread** as robust demand during US driving season

Implication



2.5 \$/bbl inventory gain
 (from stock loss 1.5 \$/bbl in Q1/15)



Slightly soften GRM
 (from 8.8 to 7.4 \$/bbl Q/Q)

Aromatic



- **Stable PX spread** as limited supply from plant maintenance & run cut offset soften polyester demand
- **Better BZ spread** due to recovering demand from SM plants after turnaround period and improved SM margins



Improved Aromatic Margins
 (GIM contribution from (0.4) to 0.8 \$/bbl Q/Q)

Base Oil



- **Rising Base Oil spread** as peak oil-changing demand in summer while tight regional supplies from plants scheduled maintenance.
- **Stable Bitumen demand from** China and Vietnam on infrastructure projects



Improved Base Oil margins
 (GIM contribution from 0.7 to 1.0 \$/bbl Q/Q)

Refinery + Aromatics + Base Oil

\$/BBL	Q2/15	Q1/15
Market GIM	9.0	8.9
Stock Gains / (Loss)	2.4	(1.5)
Accounting GIM	11.4	7.4

Q2/15 Key Operation and Financial Highlights

Operation / Financial Highlights

	Utilization Rate
Refinery	107 %
Aromatic	84 %
Base Oil	88 %

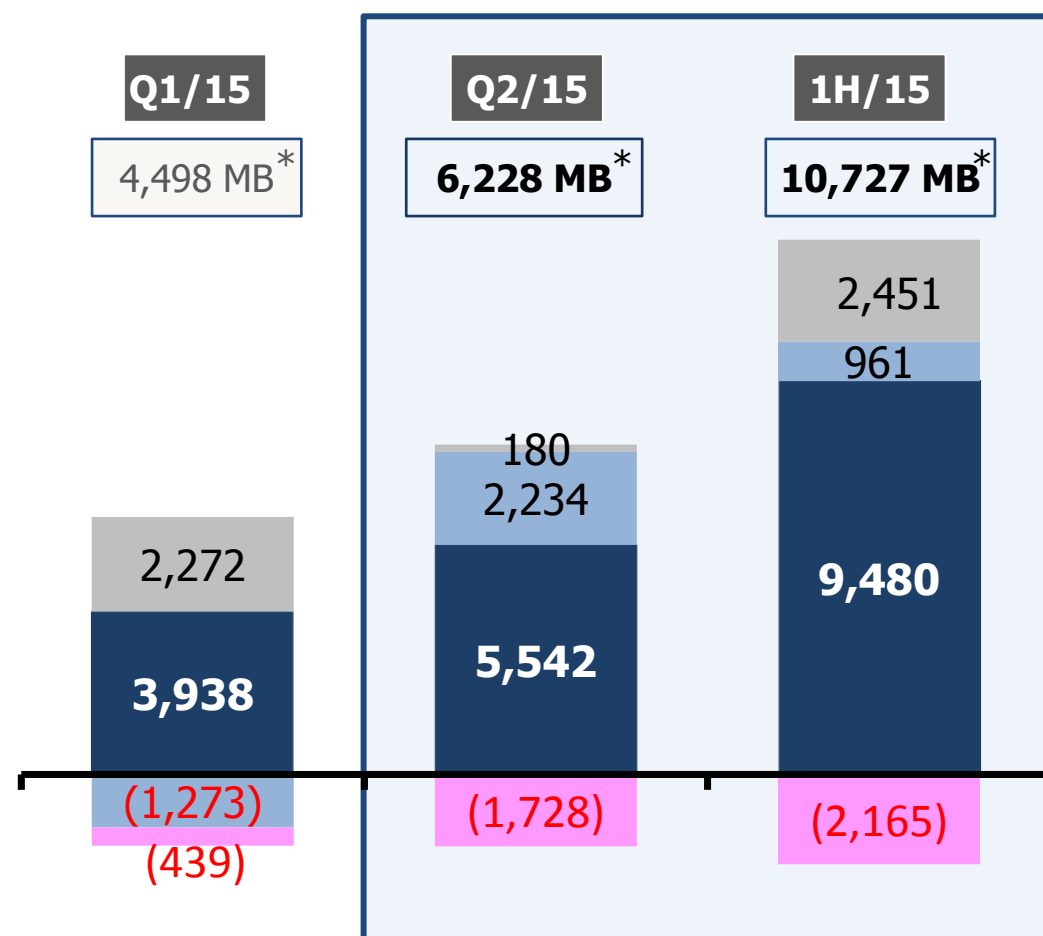
- Maximized refinery run and increased run for Aromatics & Lube to capture strong margins

- Stable contribution from other subsidiaries ~ 391 MB
- FX losses as THB depreciation (mainly from USD debt) ~ 1,179 MB
- Commodity hedging losses ~ 187 MB
- Repaid USD bond 350 M\$ on 9 Jun
- 5% Effective tax rate as utilizing BOI Tax privilege
- Maintain strong credit rating
 - Moody's Baa1 (Stable Outlook)
 - S&P BBB (Stable Outlook)
 - Fitch AA- (Stable Outlook)

TOP Group Net Profit


Unit : million THB (MB)

- Net Operating Profit (before tax)
- Stock G/(L) (before tax)
- Reversal of NRV/(NRV) (before tax)
- Others i.e. FX G/(L), Hedging G/(L), tax expense etc.



*redeemed BOI privilege for tax exemption on environmental projects in Q1/15 = 716 MB, Q2/15 = 795 MB, 1H/15 = 1,511 MB


Key Project Progress Update : LAB

Project	Detail	Progress
 Linear Alkyl Benzene (LAB)	<ul style="list-style-type: none"> • TPX JV with Mitsui (75% : 25%) • Upgrade existing Benzene and Kerosene into higher valued product; LAB which is an intermediate feedstock in production of surfactant (detergent) • Capacity: 100 KTA (First Integrated LAB Plant in SEA) • Benefit = add to GIM ~ 0.4-0.6 \$/bbl • CAPEX = 400 M\$ • COD = Jan 2016 	<p>98%*</p> <p>*As of July 2015</p>



LABIX : Feedstock / Products		
	KTA	%
<u>Feedstock</u>		
Kerosene (from TOP)	532	94%
Benzene (from TPX)	33	6%
<u>Product/ By-products</u>		
LAB	100	18%
By-products (mostly Kerosene components) (to TOP)	463	82%

Key Project Progress Update : 2 SPPs

Project	Detail	Progress
 <p>TOP SPP (2 blocks of SPP)</p>	<ul style="list-style-type: none"> • Low risk power business enhance income stability • Support reliability of electricity & steam supply for TOP Group • Develop 2 new SPP power plants; <ul style="list-style-type: none"> • Total power capacity 239 MW (~20% used in TOP complex ~80% sales to national Grid under firm contract) • Total steam capacity 498 T/H (100% used in TOP complex) • CAPEX = 380 M\$ • COD = 2Q 2016 	<p>91%*</p> <p>*As of July 2015</p>

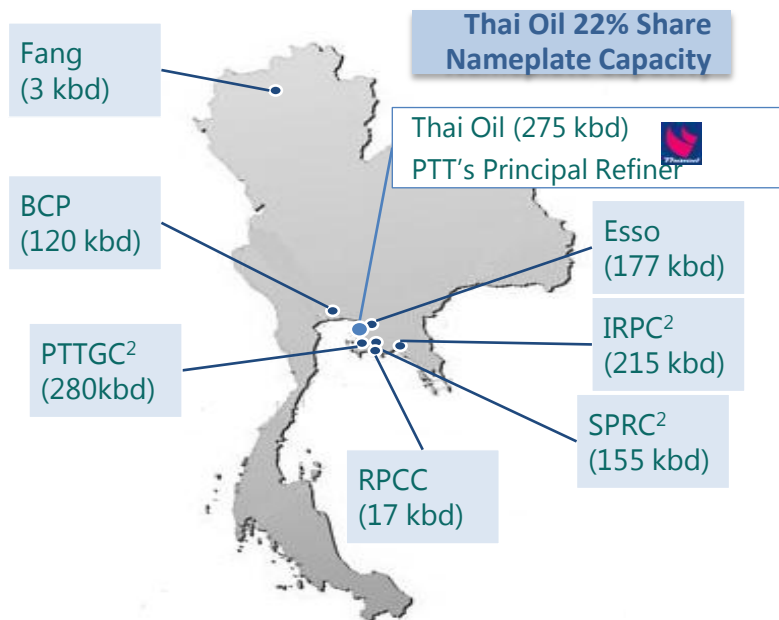


Q2/15 PERFORMANCE ANALYSIS

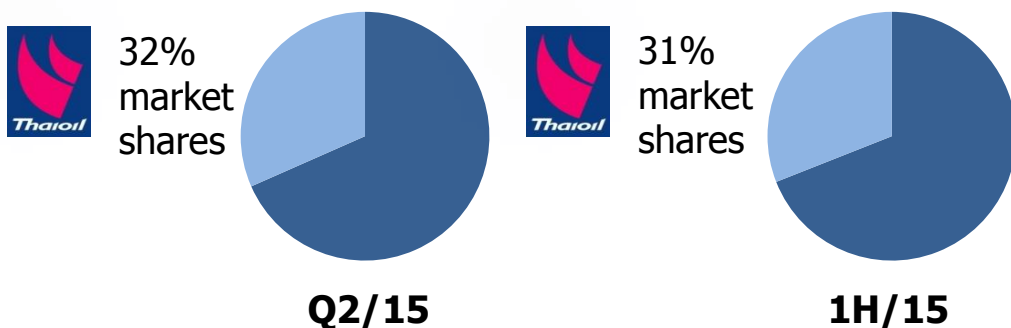


Thailand Leading Refinery : Superior Utilization/ Commercial

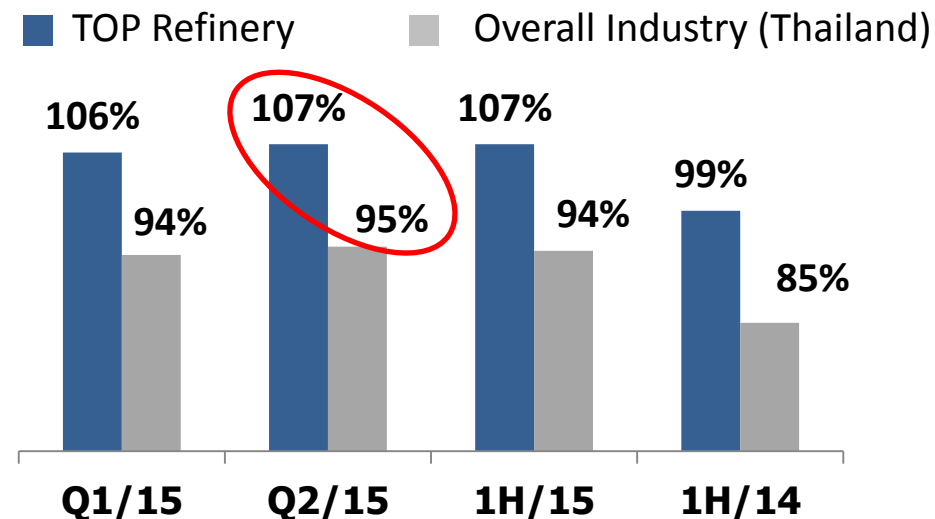
Total Thailand crude refining capacity 1,241 kbd¹



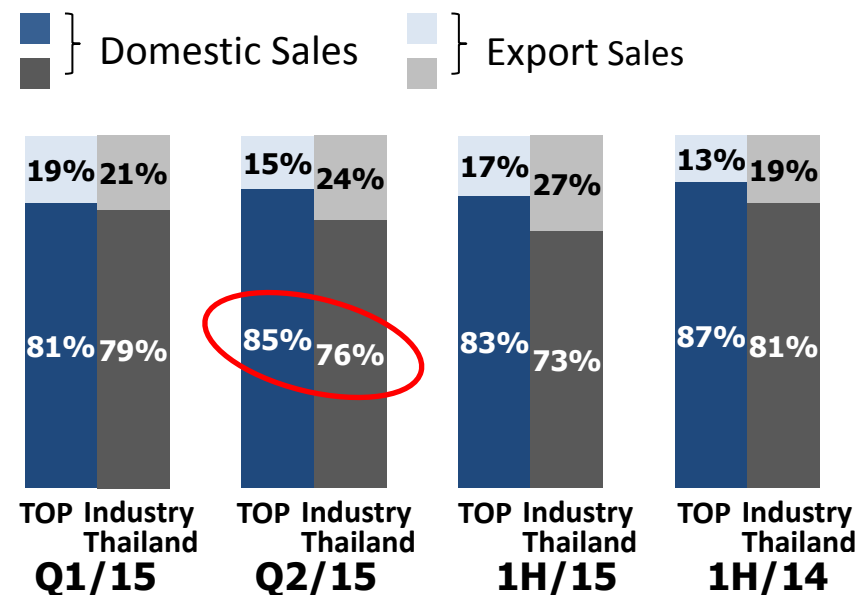
Market shares for refined petroleum product³



TOP's Refinery Utilization vs Industry⁴



TOP's Domestic Sale vs Industry⁴



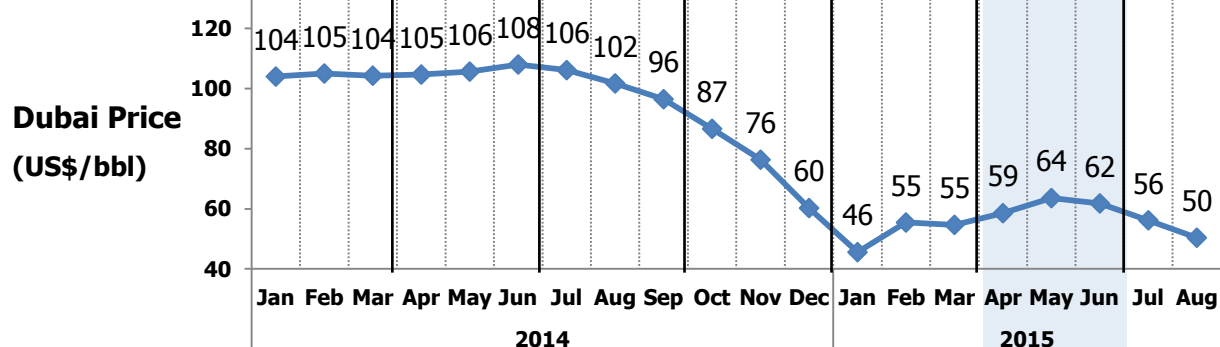
Note:

- Source: Energy Policy and Planning Office (EPPO), Ministry of Energy Thailand,
- PTT holds a 38.51% interest in IRPC, a 48.9% interest in PTTGC, and a 36% interest in SPRC
- Calculate by total domestic sales of refined petroleum products of Thai Oil divided by total sales of petroleum products in Thailand excl LPG. Source from EPPO
- Source: Department of Energy Business, Ministry of Energy

Q2/15: Healthy GRM & Stock Gain...Robust Earnings

Dubai Crude Price & Key Petroleum Product Spreads

	2014				2015				2014
\$/bbl	Q1	Q2	Q3	Q4	Q1	Q2	1H	Q3TD*	FY14
DUBAI (DB)	104.4	106.1	101.5	74.4	51.9	↑ 61.3	56.6	55.3	96.6
ULG95 - DB	14.6	16.1	13.2	13.4	15.3	↑ 19.8	17.6	20.0	14.3
JET - DB	17.0	14.3	14.5	17.7	17.1	↓ 13.5	15.3	9.4	15.9
GO - DB	17.8	16.0	14.4	16.0	16.3	↓ 13.7	15.0	8.7	16.1
HSFO - DB	(8.5)	(10.6)	(8.4)	(5.6)	(1.8)	↓ (3.5)	(2.7)	(7.3)	(8.3)



* As of 10 Aug 15

Refinery Utilization

Q1/15	Q2/15	1H/15
106%	107%	107%

Dubai

- + **Decelerated U.S. oil production growth**, and diminished rate of US crude stockpile builds
- + **IEA raised world oil demand** growth 2015 to 1.4 MBD
- + **Political conflict escalated in Yemen** as Saudis continued its Airstrike against rebels
- **OPEC production surged** (31.0 MBD), led by Saudi Arabia

GRM

- + **Strong gasoline demand** during the U.S. driving season and Ramadan in Indonesia
- **Lower middle distillates** after winter

Gross Refinery Margins - GRM

	2014				2015			2014
\$/bbl	Q1	Q2	Q3	Q4	Q1	Q2	1H	FY14
Marketing GRM	5.1	4.4	4.6	8.2	8.8	7.4	8.1	5.7
Stock G/(L)	(1.7)	1.4	(5.2)	(11.7)	(1.5)	2.5	0.5	(4.5)
Accounting GRM	3.4	5.8	(0.6)	(3.5)	7.3	9.9	8.6	1.2

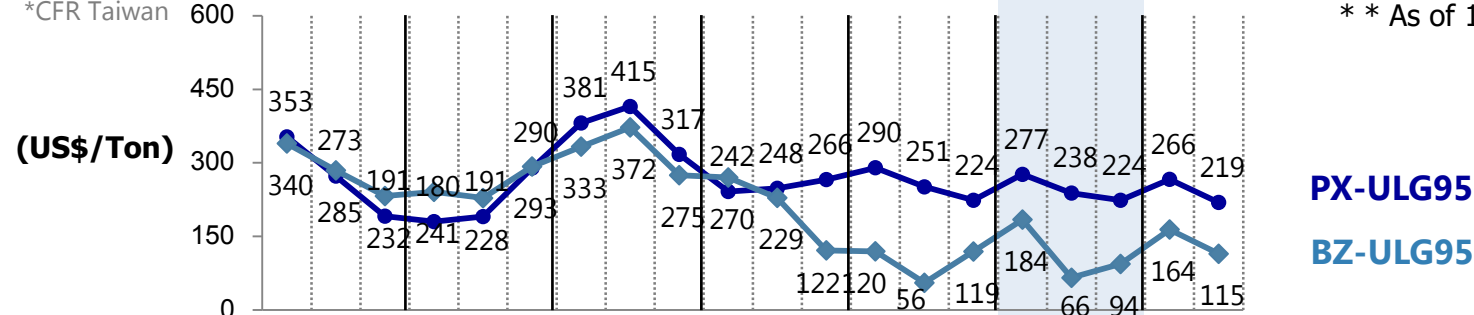
Q2/15: Improved Aromatics Margins & Higher Production

Aromatics Spreads and Margins

	2014				2015				2014
\$/ton	Q1	Q2	Q3	Q4	Q1	Q2	1H	Q3TD**	FY14
PX*-ULG95	273	220	371	252	255	↓246	251	228	279
BZ-ULG95	285	254	327	207	98	↑115	106	125	268

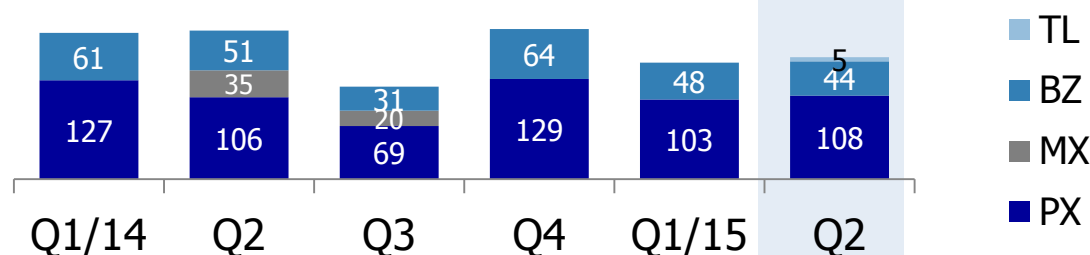
*CFR Taiwan

** As of 10 Aug 15



TPX's Sales & Product-To-Feed Margin (P2F)

(Unit : KTon)



Aromatics Production

Q1/15	Q2/15	1H/15
66%	84%	75%

Paraxylene (PX)

- + **Firmed PTA & Polyester demand**
- + **Asian seasonal PX plants maintenance**
- **Strong ULG95 market** pressured PX spread

Benzene (BZ)

- + **BZ plants and Naphtha cracker turnaround** limited BZ supply
- + **Increasing BZ import** from China
- + **Firmed downstream demand** from SM and Phenol plants

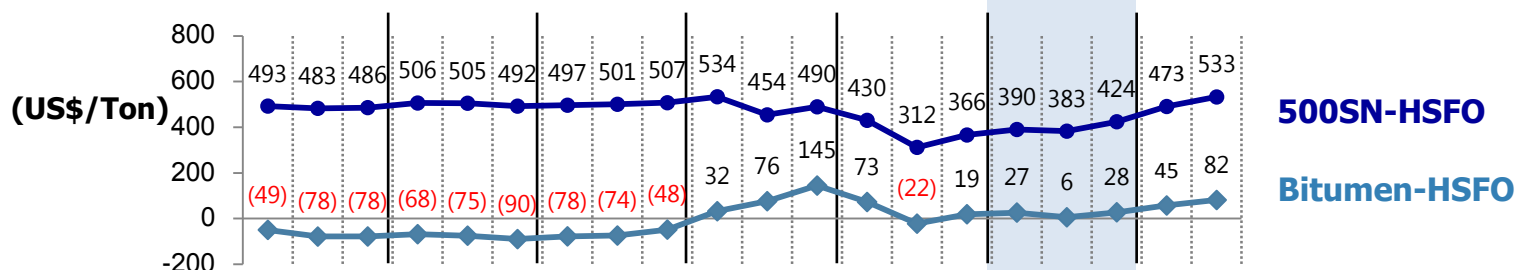
	2014				2015			2014
\$/ton	Q1	Q2	Q3	Q4	Q1	Q2	1H	FY14
P2F -\$/ton	63	37	66	22	11	76	44	46
P2F -\$/bbl	8.2	4.8	8.7	2.9	1.4	9.9	5.7	6.1

Q2/15: Improved Lube Margins from Strong Demand

Base Oil & Bitumen Spreads & Margins

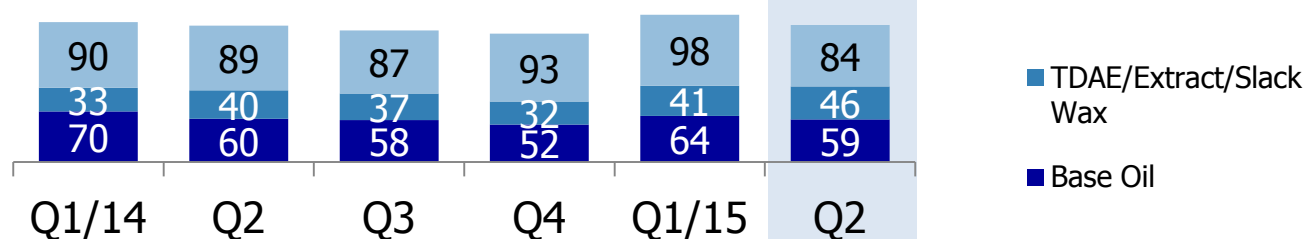
	2014				2015				2014
\$/ton	Q1	Q2	Q3	Q4	Q1	Q2	1H	Q3TD*	FY14
500SN-HSFO	486	501	500	493	369	↑399	384	512	495
BITUMEN-HSFO	(69)	(77)	(66)	85	23	↓20	22	70	(32)

* As of 10 Aug 15



TLB's Sales & Product-To-Feed Margin (P2F)

(Unit : KTon)



	2014				2015				2014
\$/ton	Q1	Q2	Q3	Q4	Q1	Q2	1H		FY14
P2F -\$/ton	135	117	107	90	108	139	124		112
P2F -\$/bbl	20.5	17.8	16.2	13.6	16.3	21.1	18.7		17.1

Base oil Production

Q1/15	Q2/15	1H/15
79%	88%	84%

Lube Base Oil

- + **Peak demand** due to summer oil-changing season
- + **NE Asian Gr.I plant maintenance** tightened supply (400KTA Gr.I JX Nippon & 305KTA Gr.I/II/III Idenmistu maintenance)
- **New supplies** from UAE (Gr.II 120KTA & Gr.III 500KTA) & Expansion in SG expected to increase 350 KTA to 1.6MTA

Bitumen

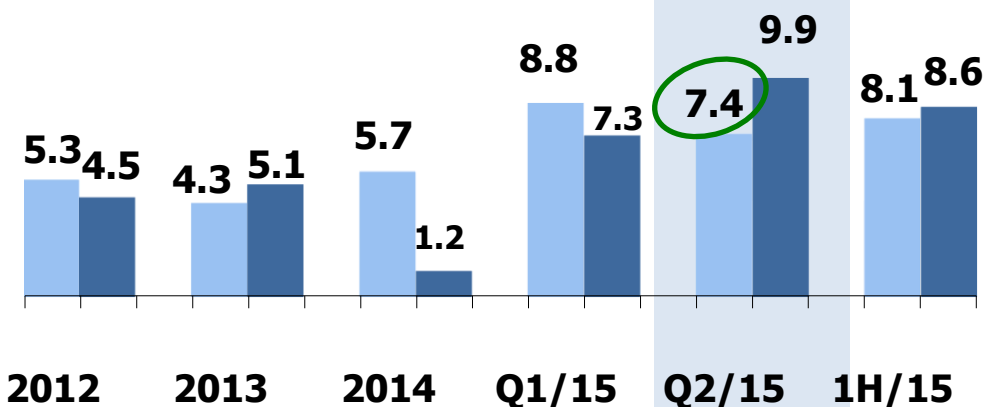
- + **Stable Chinese and Vietnamese demand** on infrastructure projects
- **Slow Indonesia demand** from delay fund release

Integrated Margin & Competitive Cash Cost

Gross Refining Margin

(Unit: US\$/bbl)

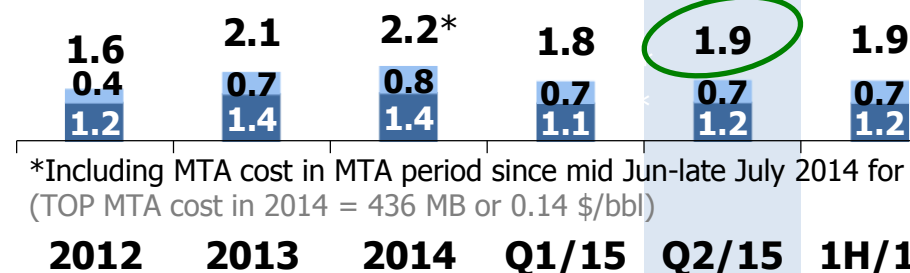
Marketing GRM Accounting GRM (Marketing GRM + Stock G/L)



Refinery's Cash Cost

(Unit: US\$/bbl)

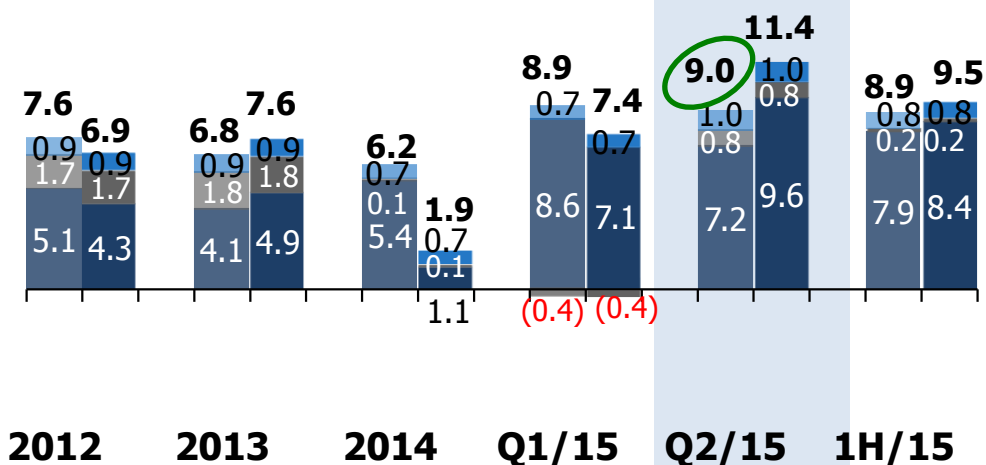
Operating Cost (excl. one-time non-operating item) Interest Expense (net)



*Including MTA cost in MTA period since mid Jun-late July 2014 for 46 days (TOP MTA cost in 2014 = 436 MB or 0.14 \$/bbl)

Gross Integrated Margin

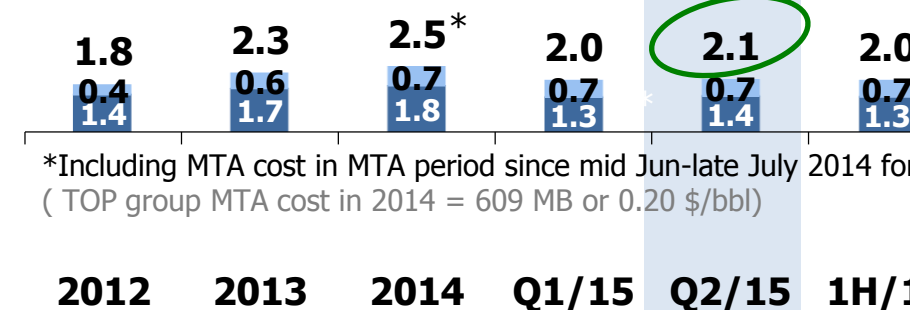
(Unit: US\$/bbl)

Marketing GIM Accounting GIM (Marketing GIM + Stock G/L)
TOP TPX TLB


Group's Cash Cost

(Unit: US\$/bbl)

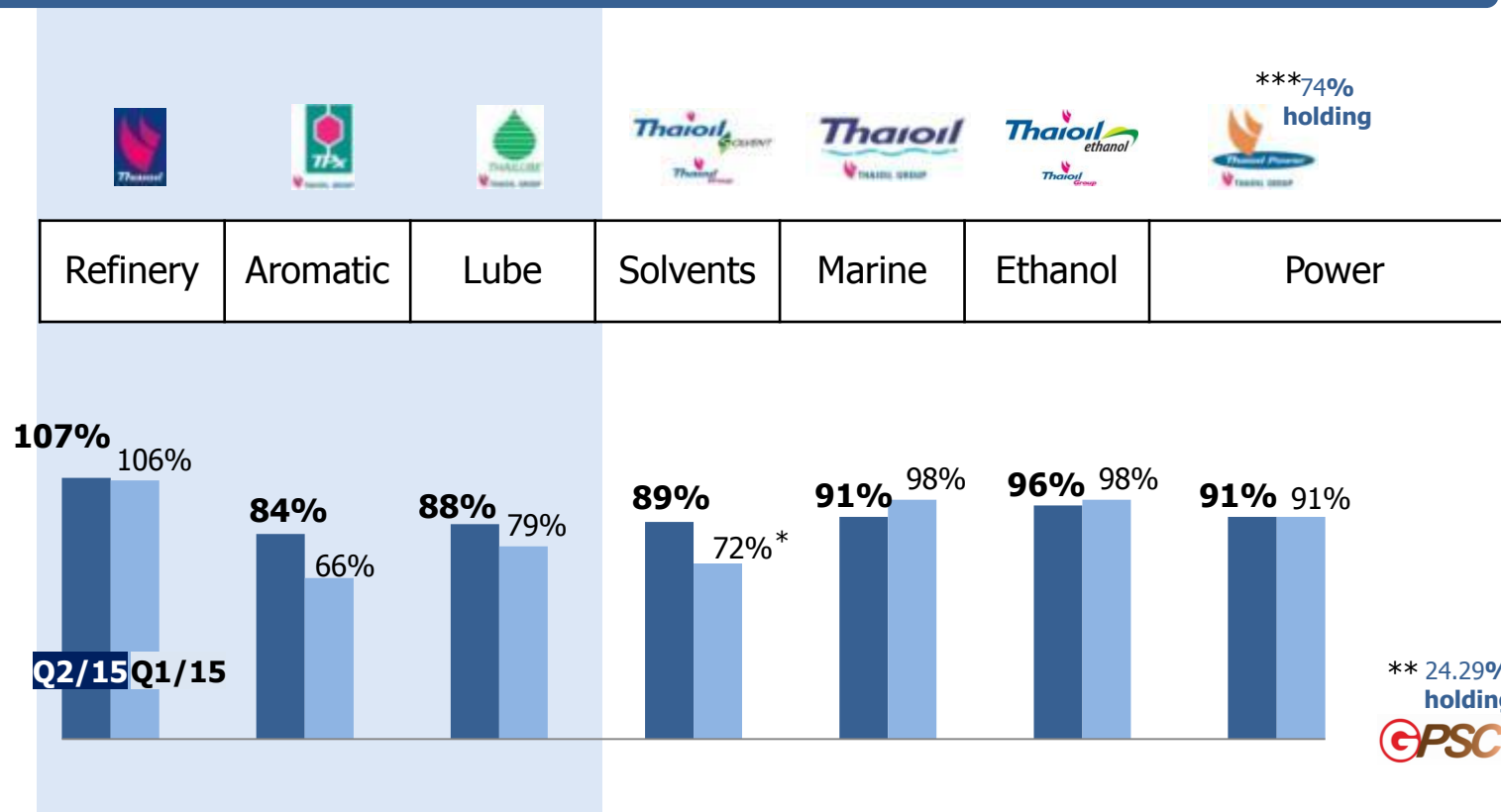
Operating Cost (excl. one-time non-operating item) Interest Expense (net)



*Including MTA cost in MTA period since mid Jun-late July 2014 for 46 days (TOP group MTA cost in 2014 = 609 MB or 0.20 \$/bbl)

Q2/15: Performance Breakdown

Utilization/Production (%) & Net Profit (million THB)



Key Points

- **TOP:** max run to capture strong GRM
- **TPX/TLB:** increased run due to higher price and demand
- **TP:** stable contribution as lower FT but offset by lower cost
- **TS:** better net profit Q/Q as higher sales volume and better sale margins
- **TM:** drop in vessel utilization due to scheduled maintenance
- **TET:** soften ethanol demand resulting in sales volume declined and planned maintenance of ethanol plant

	Q1/15 ^R	4,497	(742)	322	34	47	45	90	173	4,498	999	3,499
	Q2/15	4,791	457	524	138	28	(6)	99	134	6,228	2,414	3,814
	1H/15	9,288	(285)	845	172	75	39	188	307	10,727	3,413	7,314

*Since Q3/14 onwards, 2014 SAKC capacity = 141 KTA / 2013 SAKC capacity = 76 KTA

** Apply on an equity accounted basis in the consolidated financial statement.(GPSC has been held by TOP 8.9% and TP 20.8% since 18 May 15)

***TP performance are based on TOP's equity portion (excluding shares of profit from the investment in GPSC). TOP hold TP 74% since 4 Dec 12

Consolidated Financial Performance

(million THB)	<u>Q2/15</u>	<u>Q1/15</u>	<u>QoQ+ / (-)</u>	<u>Q2/14^R</u>	<u>YoY+ / (-)</u>	<u>1H/15</u>	<u>1H/14^R</u>	<u>YoY+ / (-)</u>
Sales Revenue	79,036	71,366	7,670	101,063	(22,027)	150,402	213,291	(62,889)
Hedging Gain	(187)	76	(263)	593	(780)	(111)	1,196	(1,307)
EBITDA	10,004	6,209	3,795	4,467	5,537	16,213	8,569	7,644
EBITDA excl. Stk G/(L) & Reversal of NRV/(NRV)	7,590	5,210	2,380	3,381	4,209	12,800	8,916	3,884
Financial Charges	(963)	(956)	(7)	(1,011)	48	(1,919)	(1,969)	50
FX G/(L) & CCS	(1,179)	676	(1,855)	290	(1,469)	(503)	983	(1,486)
(Tax Expense)/reversal	(361)	(354)	(7)	(441)	80	(714)	(649)	(65)
Net Profit / (Loss)	6,228	4,498	1,730	2,070	4,158	10,727	4,538	6,189
EPS (THB/Share)	3.05	2.20	0.85	1.01	2.04	5.26	2.22	3.04
Stock G/(L)&Reversal of NRV/(NRV)	2,414	999	1,415	1,085	1,329	3,413	(347)	3,760
Net Profit/ (Loss) excl. Stk G/(L) and Reversal of NRV/(NRV)	3,814	3,499	315	985	2,829	7,314	4,885	2,429
THB/US\$ - average	33.44	32.79	0.65	32.59	0.85	33.11	32.70	0.41
THB/US\$ - ending	33.93	32.70	1.23	32.60	1.33	33.93	32.60	1.33
Effective Tax Rate (%) *	5%	7%	(2%)	17%	(12%)	6%	12%	(6%)

^R Restated financial statement . As on 1 January 2015, Thaioil Group adopted TFRS10.

*redeemed BOI privilege for tax exemption on environmental projects in Q1/15 = 716 MB, Q2/15 = 795 MB and 1H/15= 1,511 MB

1H/15 Consolidated Cash Flow

(Unit: Million THB)

Operating Cash Flow		
	1H/15	1H/14 ^R
Operating Cash Flow	12,301	16,041
Net income & non-cash adj.	14,502	10,058
Change in working capital	(2,201)	5,983

(Unit: Million THB)

Investments		
	1H/15	1H/14 ^R
Investments	(9,769)	(8,243)
ST investments	(3,351)	2,512
CAPEX (PP&E) & other	(6,418) ¹⁾	(10,755)

1) LAB and new SPPs

Free Cash Flow		
	2,532	7,798

Financing		
	1H/15	1H/14 ^R
Financing	(13,012)	(1,945)
Loans proceeding (i.e. LABIX, SAKC)	2,595	28,735
Loans repayment	(12,370)	(25,729)
Dividends paid	(1,300)	(3,100)
Interest	(1,937)	(1,850)

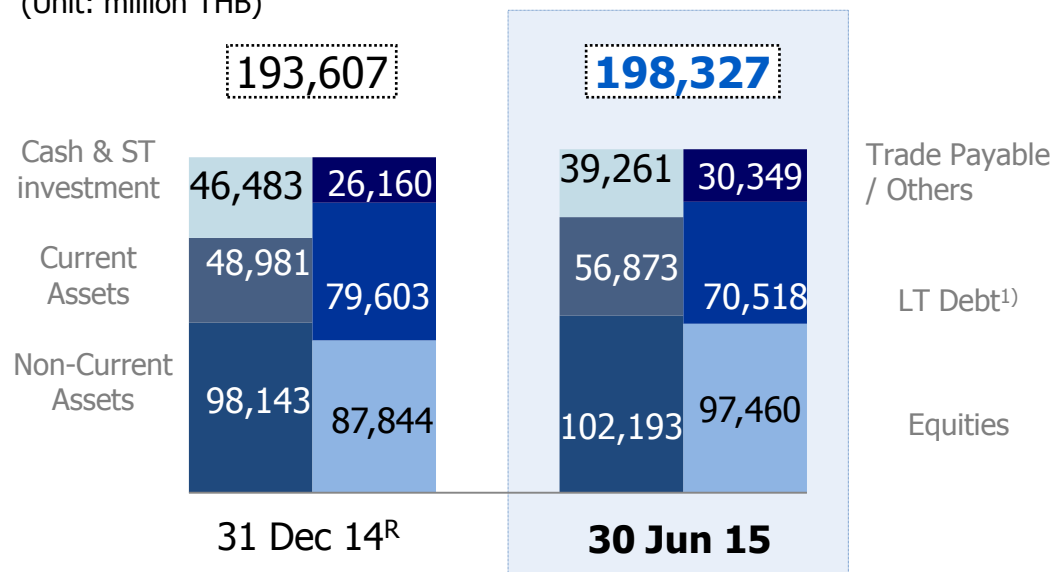
	Beginning		Change		Effect of FCD		Ending
cash	16,237	+	(10,480) ↓	+	(92)	=	5,665
S/T investment	30,246		3,350 ↑				33,596
	46,483						39,261

^R Restated financial statement . As on 1 January 2015, Thaioil Group adopted TFRS10.

Strong Financial Performance

Statements of Financial Position

(Unit: million THB)

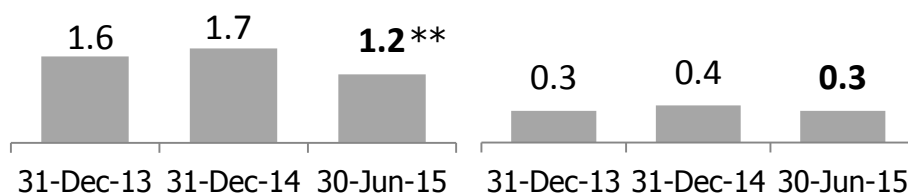

^R Restated financial statement as TOP has adopt TFRS 10

¹⁾ Including current portion of Long-Term Debt

Financial Ratios

Net Debt / adj. EBITDA*

Net Debt / Equity



* EBITDA(excl stock gain/loss & Reversal of NRV)/(NRV)

** Calculated by 1H EBITDA excl stock gain/loss & Reversal of NRV/(NRV) * 2

Consolidated Long-Term Debt as at 30 Jun 15 ¹⁾

Total Long-Term Debt

70,518 million THB
(US\$ 2,079 million equivalence)
Net Debt

31,954 million THB
(US\$ 942 million equivalence)

As at 30 Jun 15 (33.93 THB/US\$)

	Value (Million)	Portion
US\$ Bond & US\$ Loan	US\$ 1,125	54%
THB Bond	THB 25,500	36%
THB Loan	THB 6,849	10%

Interest Rate	Portion
Float	10%
Fixed	90%
TOP avg.debt life	12.9 Yrs

Cost of Debt	
TOP Group (Net***)	3.03%
TOP Group (Gross)	4.43%

***Calculated by interest expense net off interest income as per FS as at 30 Jun 15



Moody's Investors Service

Baa1
Stable Outlook

STANDARD
& POOR'S

BBB
Stable Outlook

FitchRatings

AA-
Stable Outlook

Q4-15 & 1H-16 MARKET OUTLOOK

- *Crude Oil*
- *Petroleum Products*
- *Aromatics*
- *Base Oil & Bitumen*

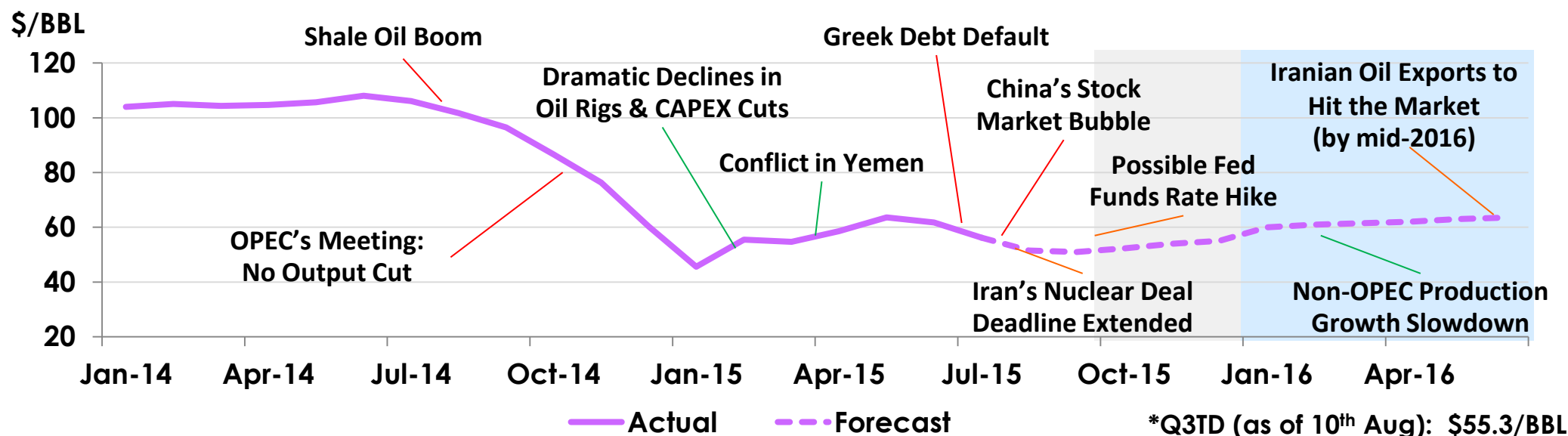


CRUDE OIL



Crude Prices Under Pressure Until Q4-15 and Gradually Recover in 1H-16

Dubai Price Movement



Key Highlights

Q4-15

1

Slowing Chinese Economic Growth

2

Concerns over rising Iran's oil exports

1H-16

3

Decelerated non-OPEC oil supply growth

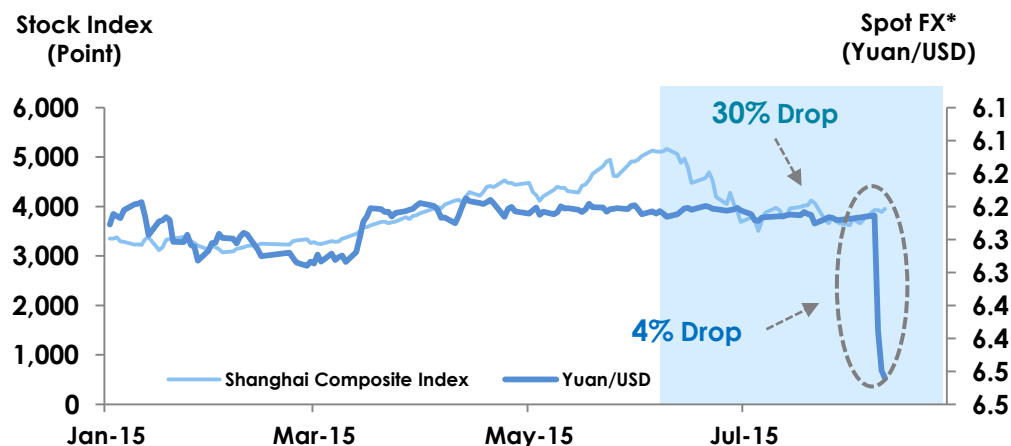
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Solid oil demand bolstered by lower oil prices

Crude Prices Under Pressure Until Q4-15

1 Slowing Chinese Economic Growth

A Stock Market Crash and Yuan Devaluation



* Scale inverted to show weaker Yuan

B Weakening Manufacturing Activities



*PMI: Purchasing Managers Index

Sources: NBS, Reuters (2015)

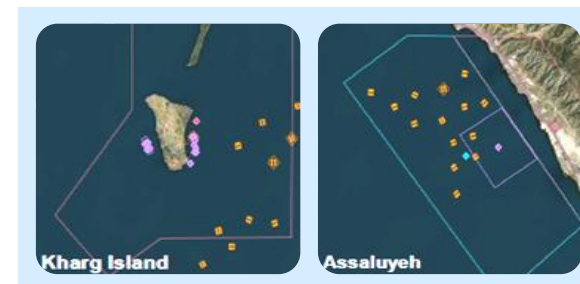
2 Concerns over Rising Iran's Oil Exports

A Iran's Supply to Rise by 500-700 KBD by 1H-16

- Gradual release of floating oil and condensate by early 2016

Condensate
28 MBBL

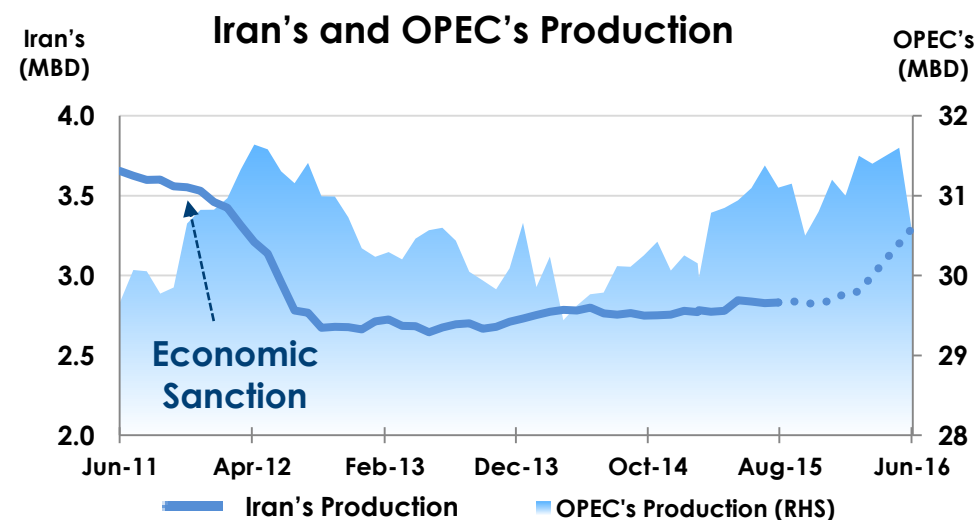
Crude
18 MBBL



- Full ramp up of production by mid-2016

Sources: IEA (Aug'15), Reuters (2015)

B Surge of OPEC Supply Adds to Oil Supply Glut



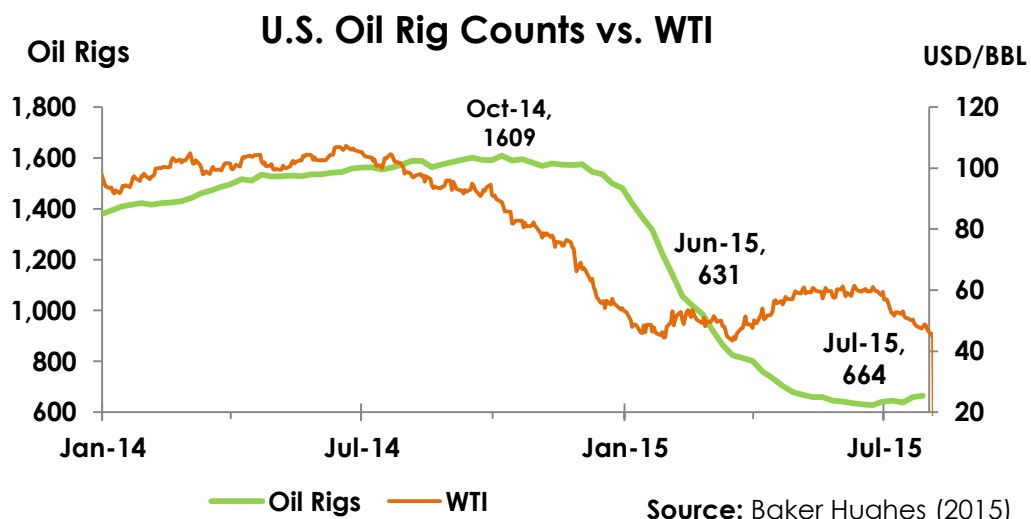
Source: Morgan Stanley (2015)

3

Crude Prices to Recover in 1H-16: Decelerated Non-OPEC Oil Supply Growth

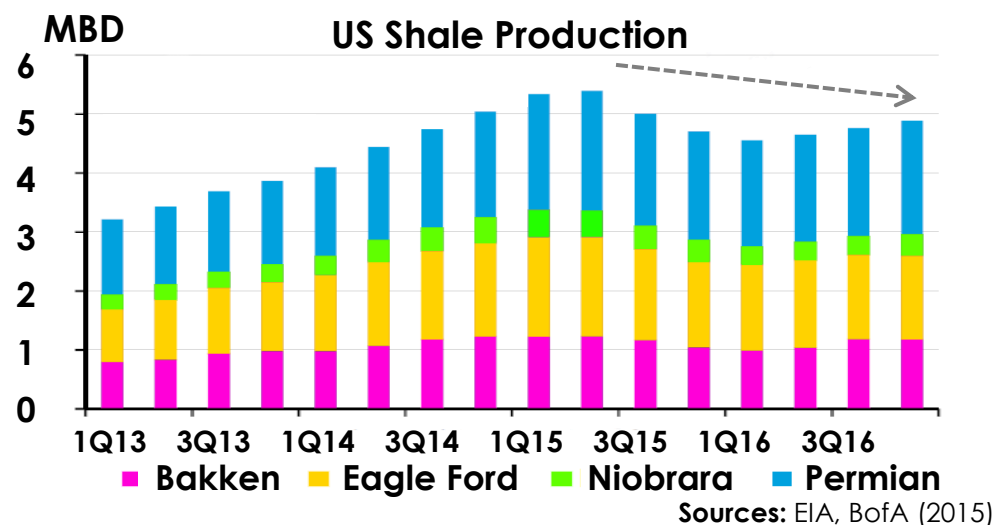
A

Declined U.S. Oil Rig Count



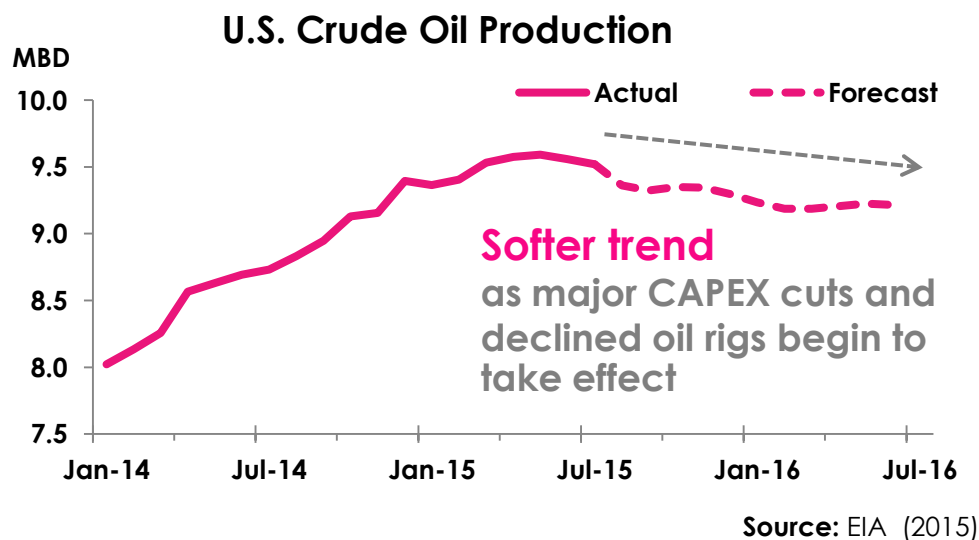
B

Slowing U.S. Shale Production Growth



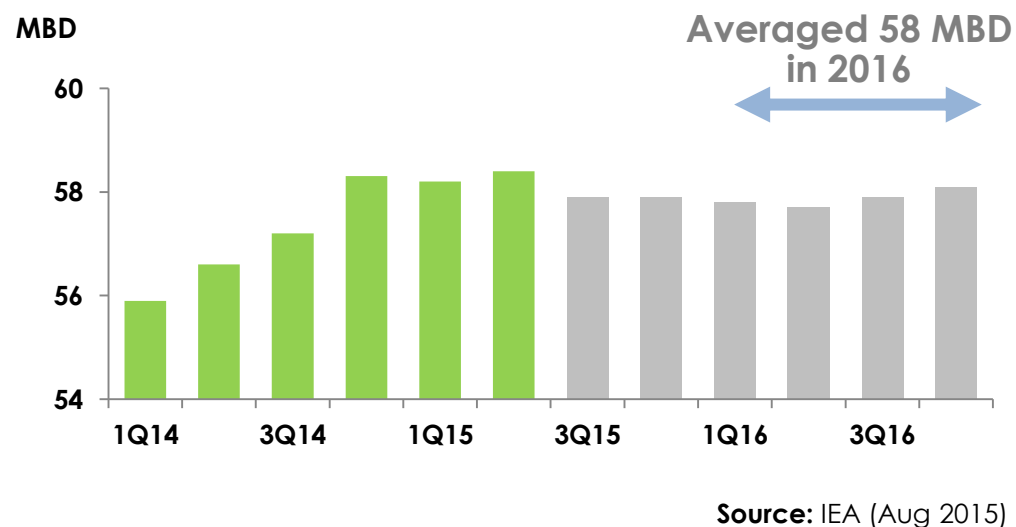
C

Slower Pace of U.S. Oil Supply Growth



D

Steady Non-OPEC Production

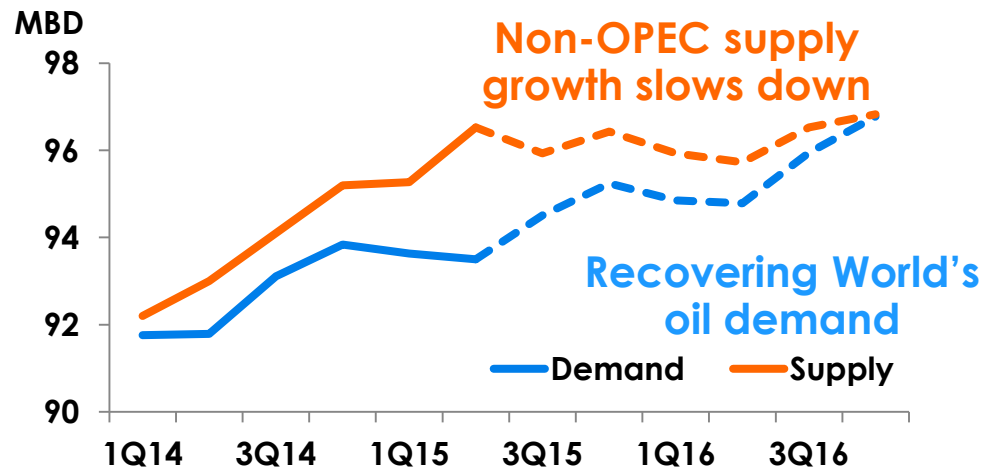


4

Crude Prices to Recover in 1H-16: Solid Oil Demand Bolstered by Lower Oil Prices

A

World Oil Demand and Supply

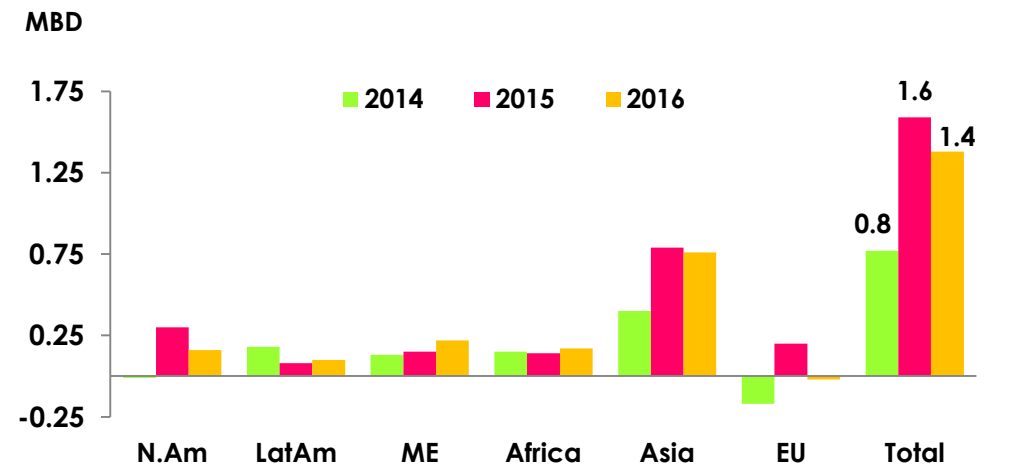


Sources: IEA (Aug'15), JP Morgan(2015)

B

Demand Growth over 1 MBD in 2016

World's Demand Growth by Region (YoY)

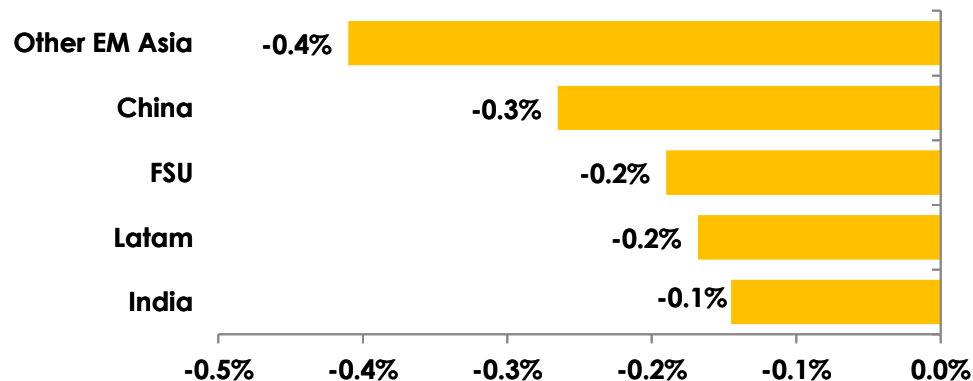


Source: IEA (Aug'15)

C

High Sensitivity to Low Oil Prices in EM*

12-Month Crude Price Elasticity of Local Transport Fuel Demand**



*EM: Emerging Market Economies

** % change in demand per 1 % change in price

Source: BofA (2015)

A Price-Driven Demand Recovery

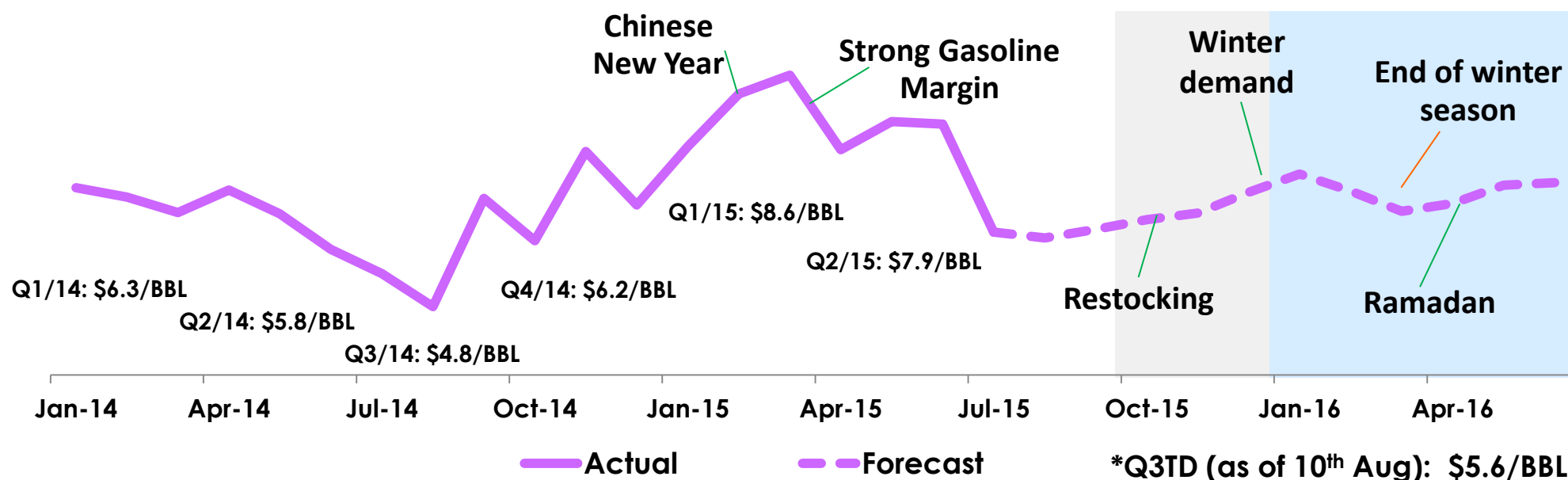
- ▶ EM Asia is among the most price-sensitive demand region
- ▶ Recent uptick in demand response has come on the back of low oil prices, not a cyclical upturn
- ▶ Asian demand growth has been primarily geared by decent transport fuel demand

PETROLEUM PRODUCTS



Recovered Refinery Margin in Q4-15 Supported by Strong Gasoline Demand and Winter Season

Singapore Cracking GRM (\$/BBL)



(\$/BBL)	Q1-15	Q2-15	Q3-TD*	Q4-15**	1H-16***
ULG95-DB	15.4	19.78	20.0	↓	↑
JET-DB	17.0	13.5	9.4	↑	↑
GO-DB	16.3	13.7	8.7	↑	↑
HSFO-DB	(-1.9)	(3.5)	(7.4)	↑	↔

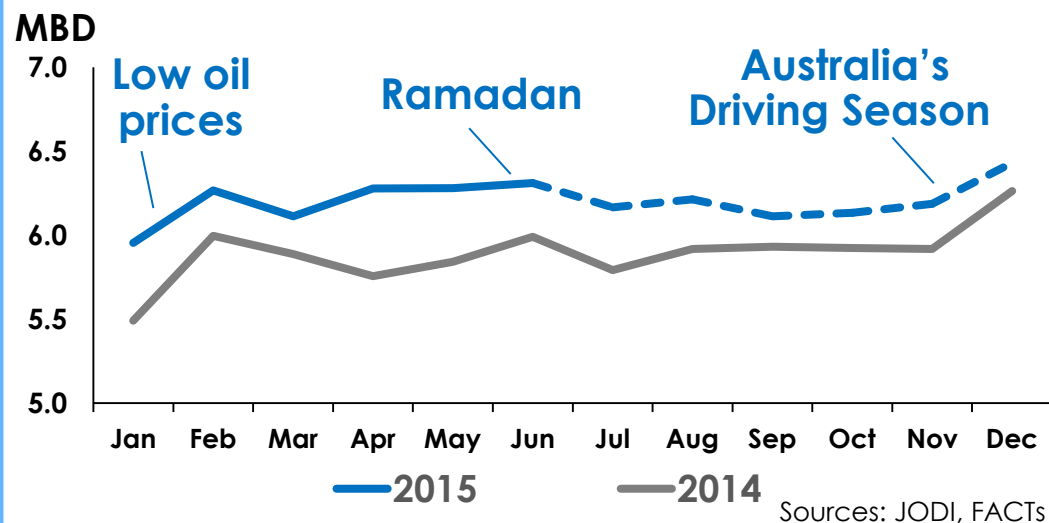
Remarks: * as of 10th Aug 15, ** Compared to Q3-TD, *** Compared to Q4-15

Key Highlights in Q4-15

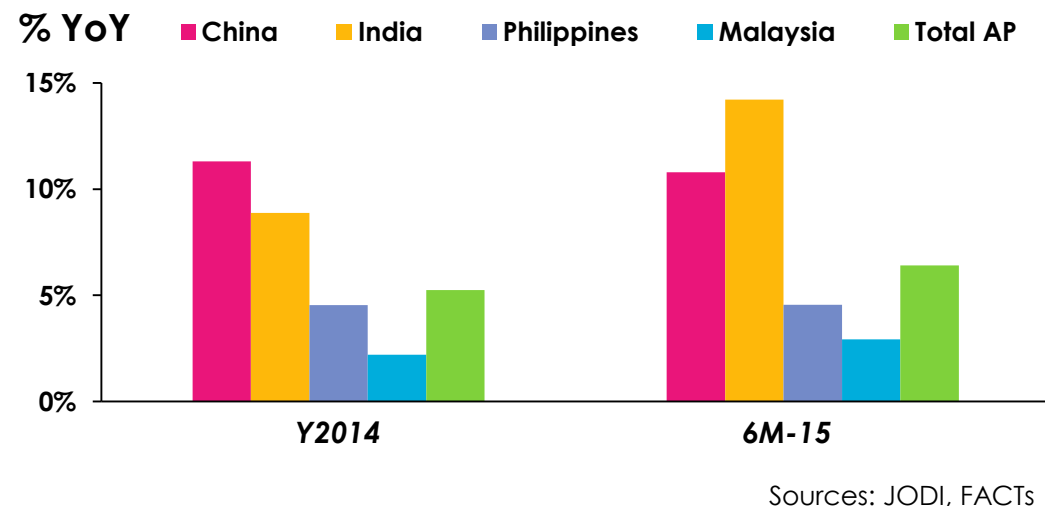
- 1 Healthy Gasoline market on strong demand and U.S. supply outage
- 2 Recovering Middle distillate and Fuel Oil cracks in Q4/15 on improving demand and tighter supplies

Refinery **1** Healthy Gasoline Market on Strong Demand and U.S. Supply Outages

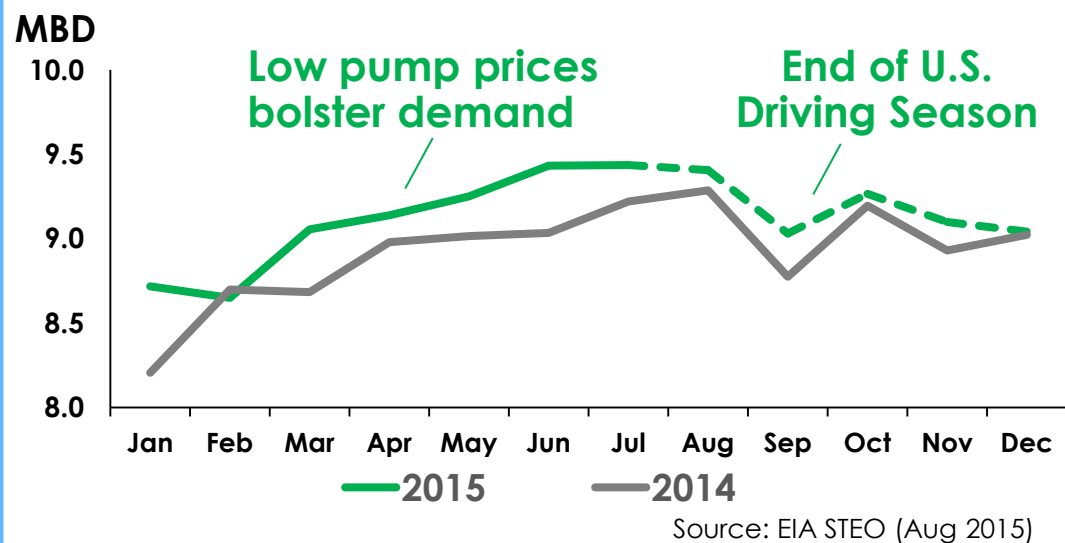
A AP Gasoline Demand



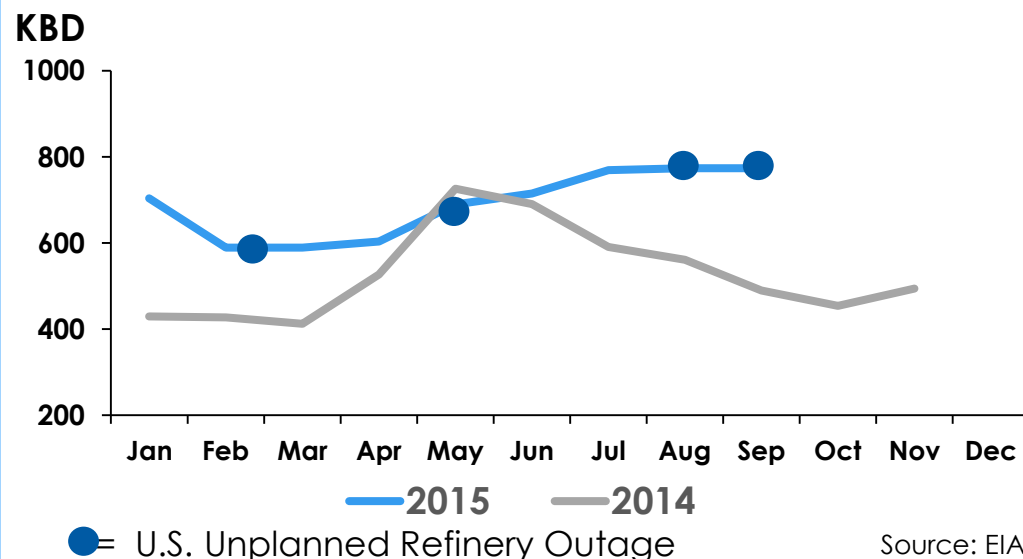
B AP Gasoline Demand Growth



C US Gasoline Demand



D US Gasoline Import

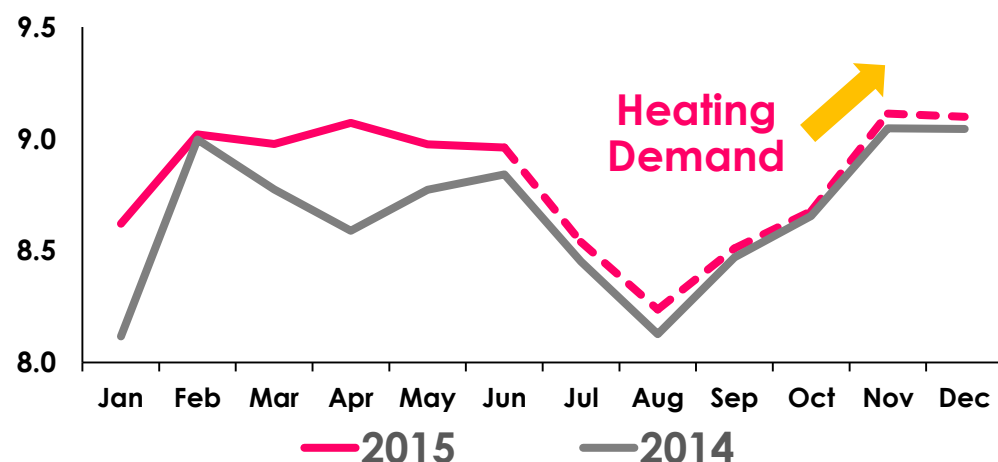


2

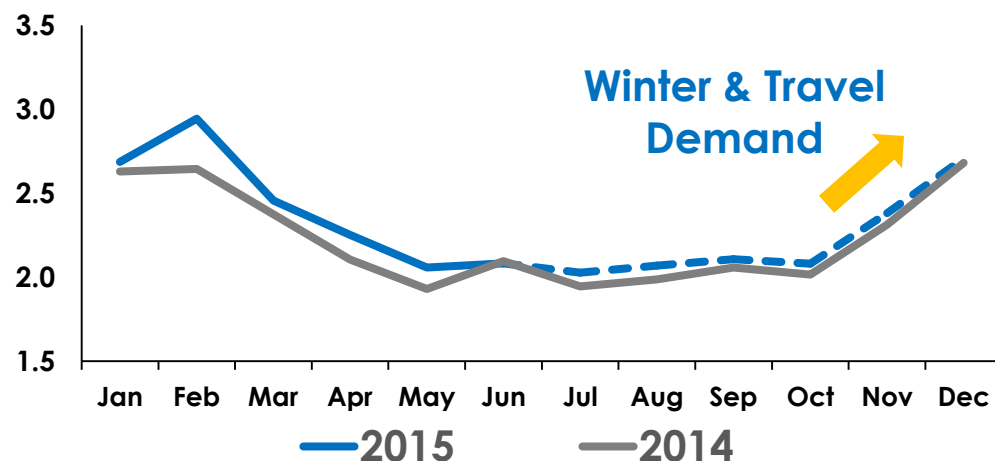
Recovering Middle Dist. and Fuel Oil cracks in Q4/15 On Improved Demand and Tighter Supplies

A Improving Demand during Winter

AP Gasoil Demand (MBD)



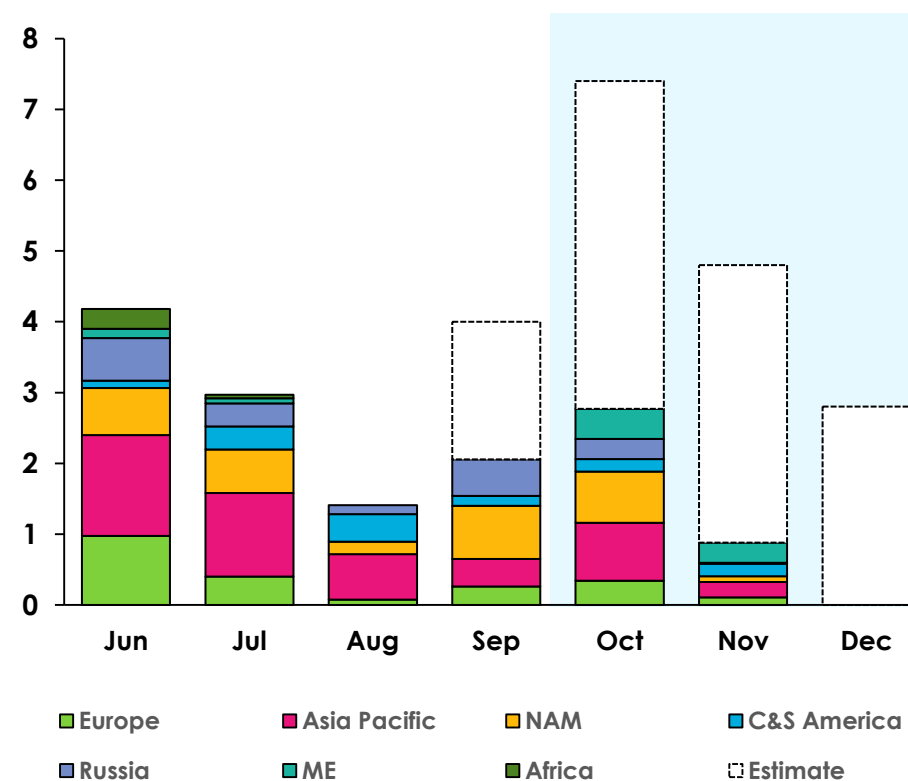
AP Jet Demand (MBD)



Sources: Reuters, FACTs, TOP's Estimate

B Tighter Supplies as MTA* & Run Cuts

Global Refinery Maintenance (MBD)



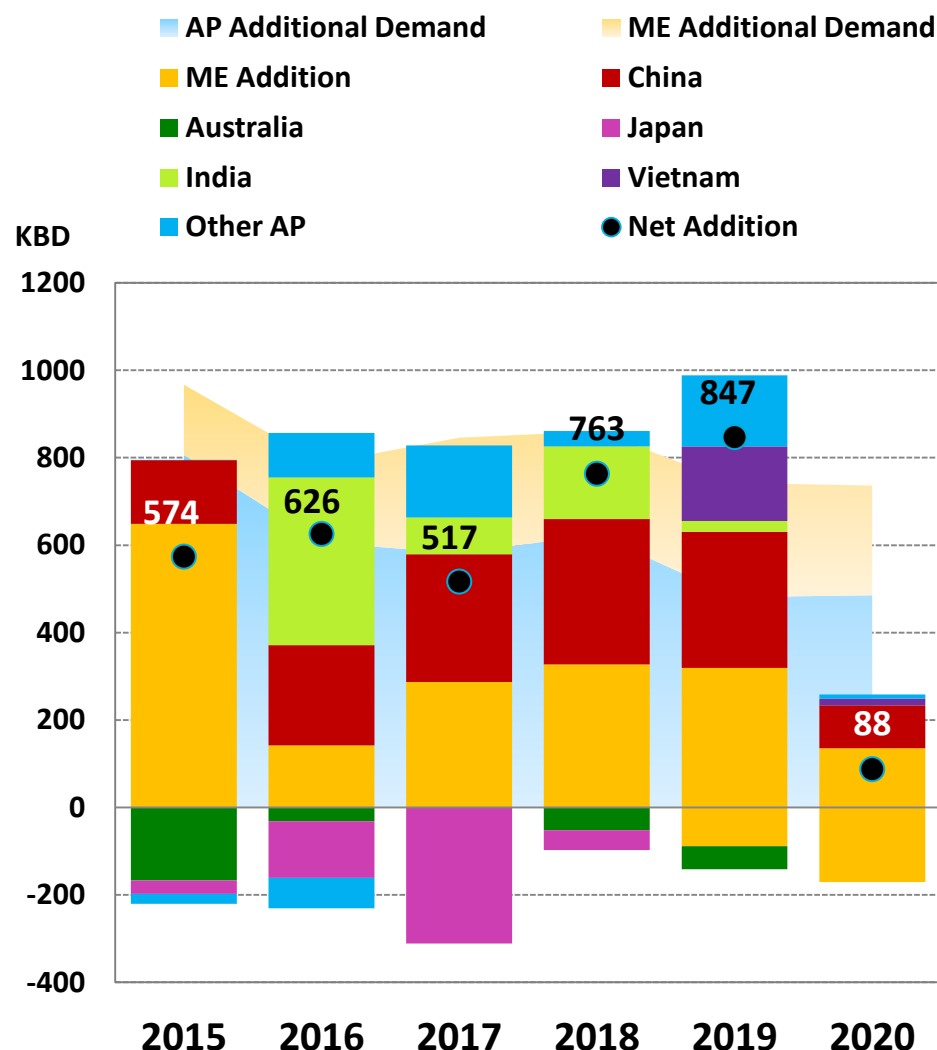
*MTA = Refinery Maintenance

► Low margins motivate refineries to cut runs

Sources: Reuters, FACTs, TOP's Estimate

Deferred Paradip Refinery Startup to 2016

CDU Addition VS Additional Demand – AP & ME



Note: Adjusted capacity based on start-up period
(Effective additional capacity)

Addition (start-up period)	Country	Nameplate (KBD)	Company
Q1-15	UAE	417	Ruwais
Q2-15	China	100	Local Rizhao Lanqiao
Q3-15	China	30	Sinopec Jiujiang
Q4-15	China	140	CNOOC/Ningbo Daxie
	New Zealand	8	Marsden Point
Q1-16	Pakistan	10	Pakistan Refinery
	India (Jan'15 > Jan'16)	300	IOC Paradip
Q2-16	India	112	BPCL Kochi
	Qatar	136	Ras Laffan
	Mongolia	41	Mongol Sekiyu
Q3-16	China	60	CNOOC Taizhou
	China	200	CNPC/SA Anning
	South Korea	102	Hyundai Lotte
Closure			
Q2-15	Australia	-95	BP Bulwer
Q4-15	China	-80	Local refineries
	Japan	-93	Nansei Sekiyu KK
	Taiwan	-93	CPC Corporation
Q3-16	Japan	-93	Cosmo oil
Q4-16	China	-111	Local refineries

Strong Thailand's Oil Demand in 2015



Year on Year	1H-2014	1H-2015	Y 2014	Y 2015 ^(B)
Mogas ^(A)	+0.3%	+14.1%	+3.8%	+10.8%
Jet/Kero	+1.3%	+8.1%	-1.0%	+6.2%
Diesel ^(A)	+0.3%	+2.5%	+0.9%	+1.9%
Fuel Oil	-0.9%	-7.1% ^(C)	-3.9%	-3.6%
Total	+0.4%	+5.3%	+1.0%	+4.6%
GDP	0.3%	N.A.	+0.9%	+3.0%

Thailand oil demand growth in Y2015 is expected to increased by 4.6% YoY

- Rapid growth of Gasoline and Gasoil demand supported by lower retail price
- Strong Jet demand as a result of healthy tourism sector

Remarks (A) Mogas and diesel included ethanol and biodiesel, respectively

(B) PTT Estimation (as of Jul 2015)

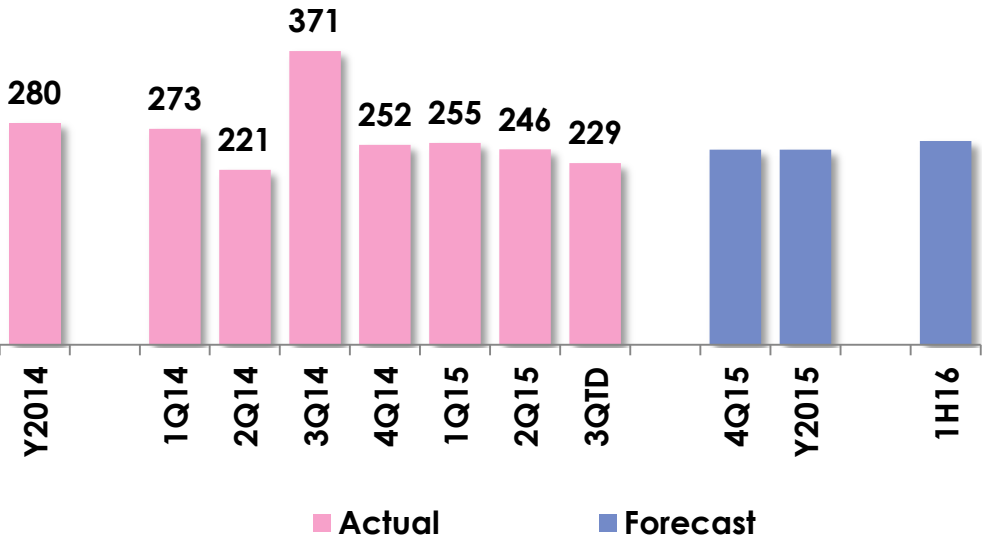
(C) Fuel oil demand in 1H-15 dropped by 7.1% YoY as 44% lower usage in electricity sector due to shorter periods of gas platform turnaround in 1H-2015 (Total 18 days) compared to 1H-2014 (Total 58 days)

AROMATICS

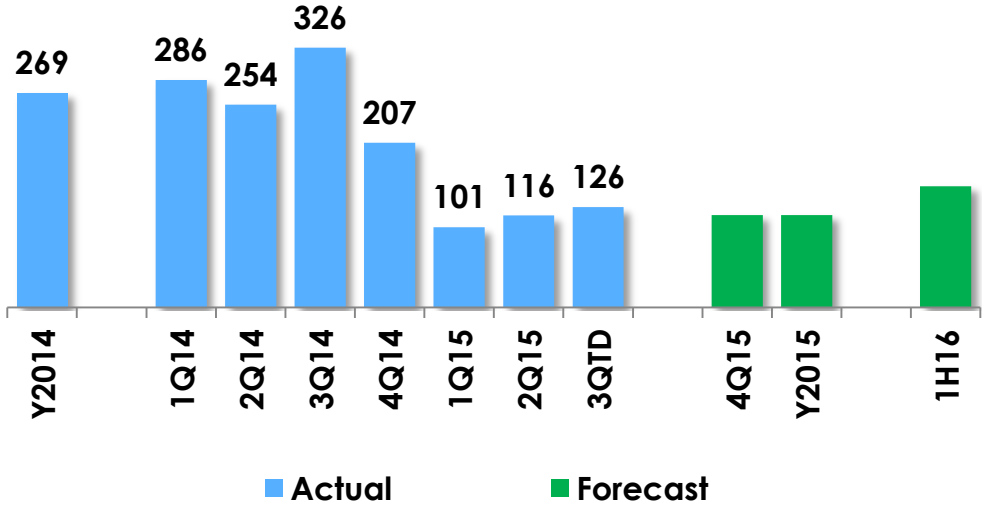


Aromatics Market

PX-ULG95 (\$/TON)



BZ-ULG95 (\$/TON)



(\$/TON)	Q1-15	Q2-15	Q3-TD*	Q4-15**	1H-16***
PX-ULG95	255	246	228	↔	↔
BZ-ULG95	98	115	125	↑	↑

Key Highlights in Q4-15

- 1 Sustains PX market on rising PX demand leading to improving operating rate
- 2 Upward trend of U.S. BZ and SM demand stimulates market
 - Softer ULG95 crack supports spread

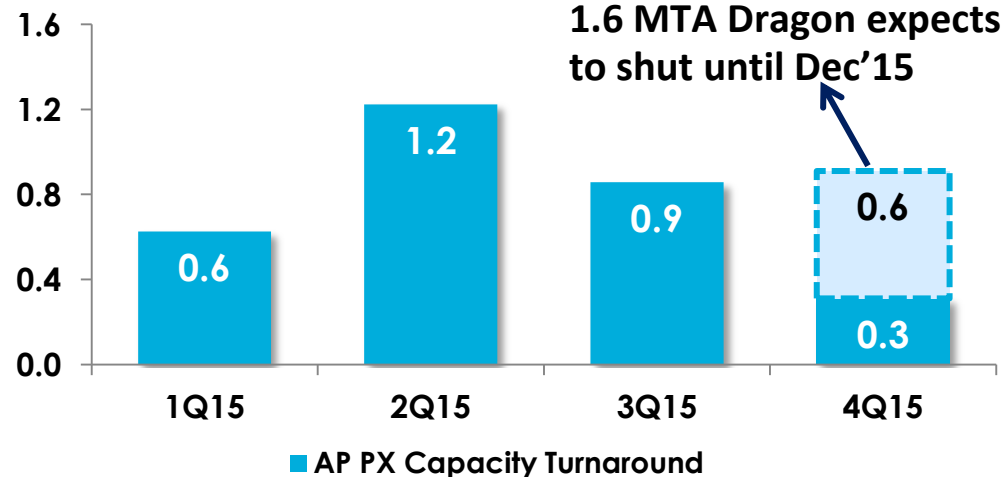
Remarks: *as of 10th Aug 15, **Compared to Q3-15, ***Compared to Q4-15

1

Sustains PX Market in Q4-15 on Rising PX Demand Leading to Improving Operating Rate

A AP PX Plant Turnaround Supports PX Price

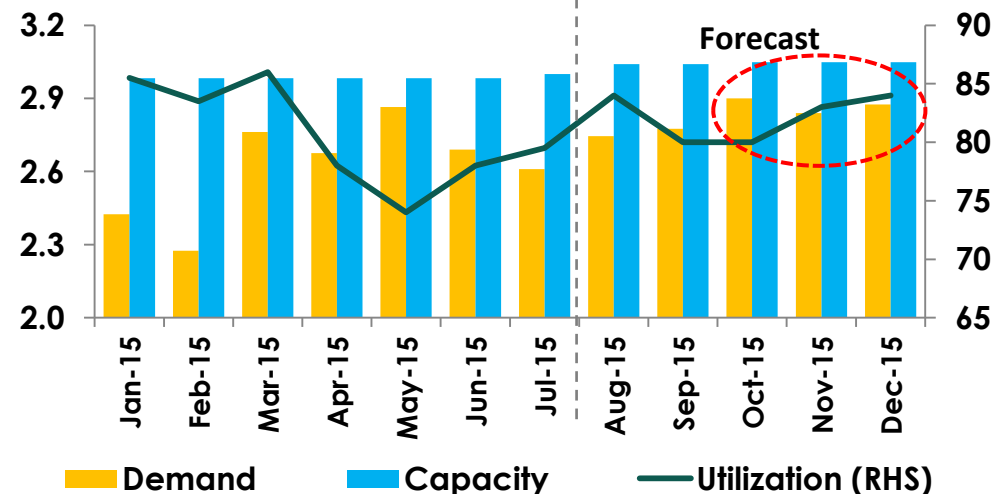
Mil ton/year



B Improving AP Demand in Q4-15 Encourages PX Market

Mil ton/month

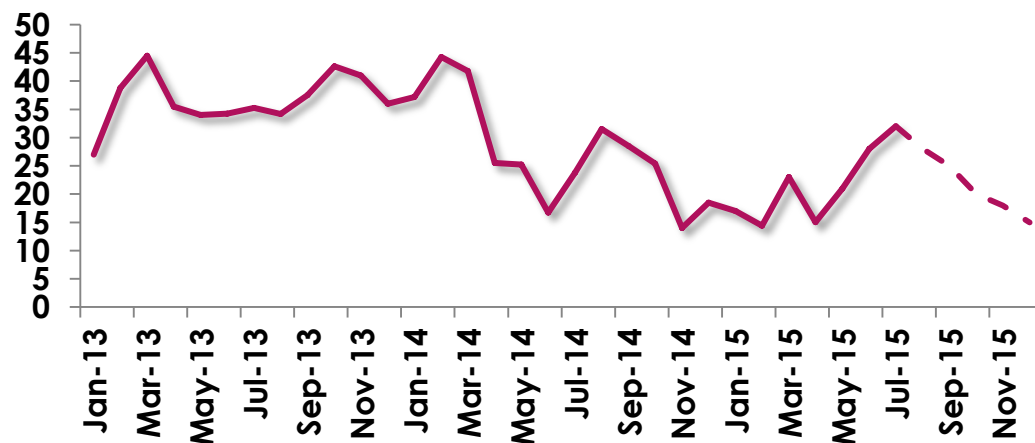
Utilization (%)



C Rising Polyester Demand during Winter Leading to Low Inventory

No. of Days

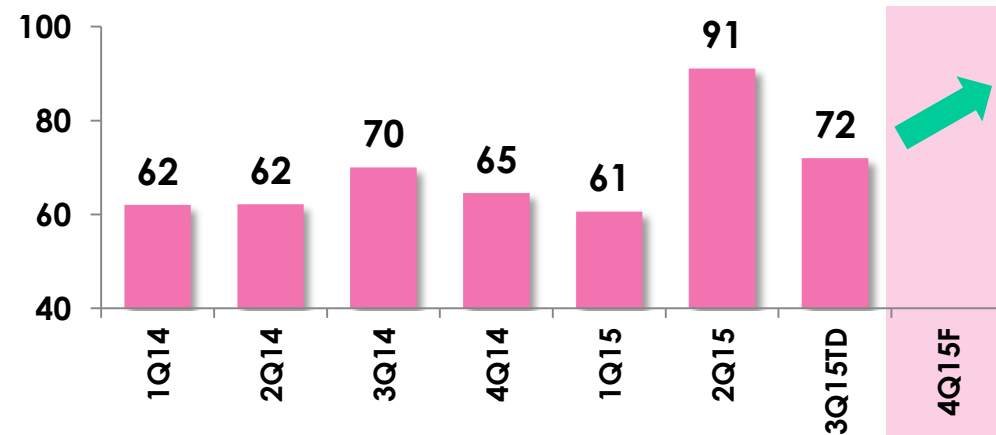
— Chinese Polyester Inventory



D Rising PTA P2F Supported by Improving Polyester Demand on Peak Season

\$/TON

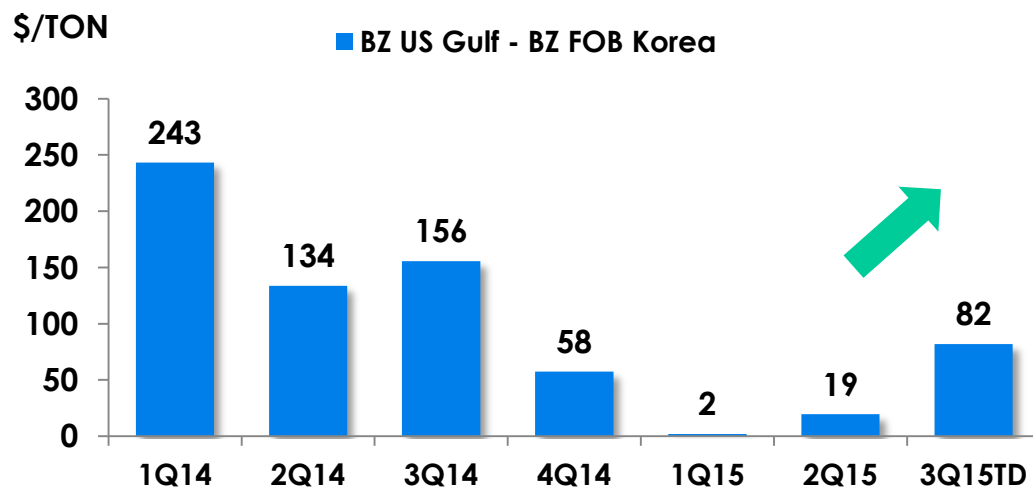
■ PTA P2F



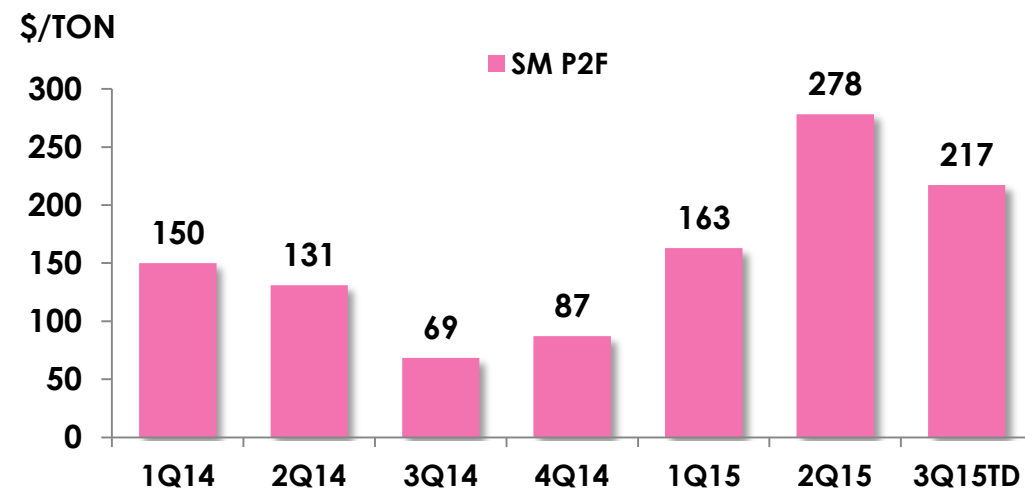
2

Upward Trend of U.S. BZ and SM Demand Stimulates Market in Q4-15

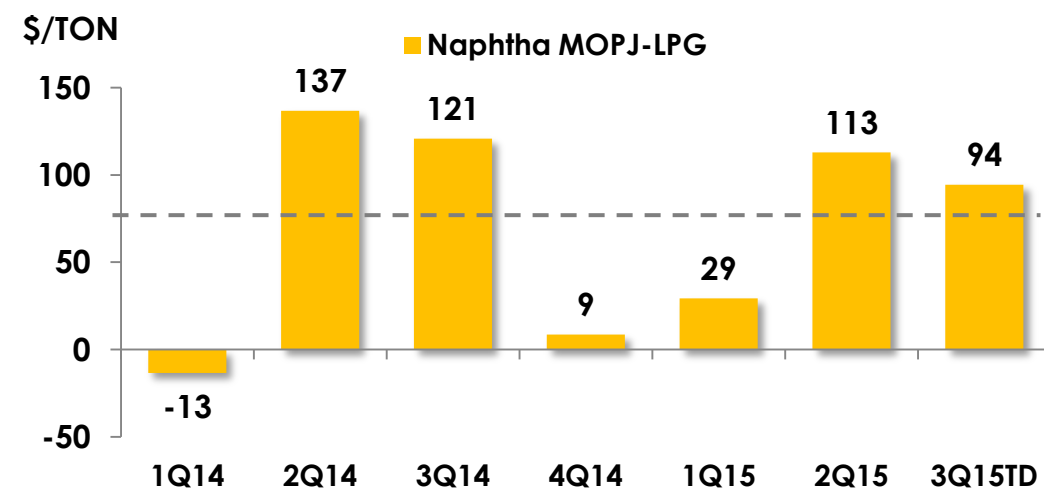
A Open Arbitrage Window from Asia to U.S.



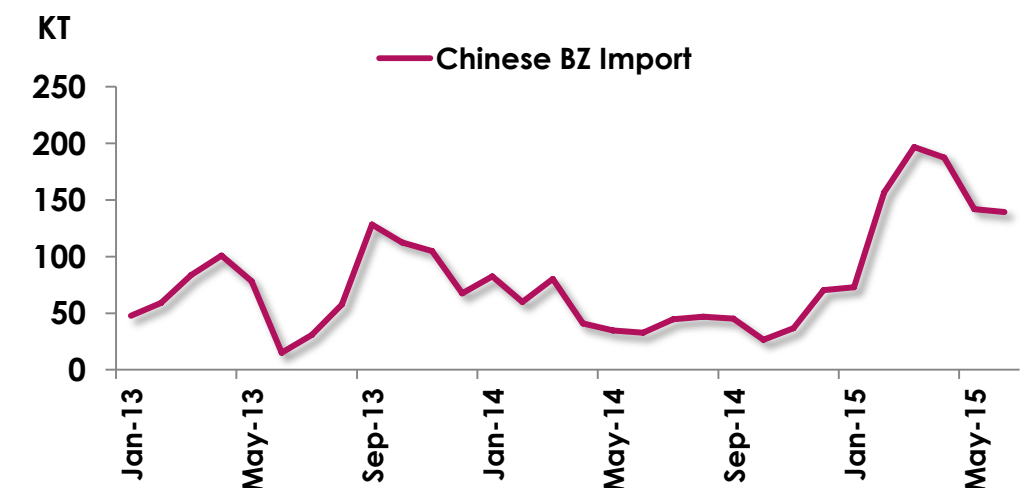
B Firm AP SM P2F Sustains BZ Demand



C Rising Naphtha over LPG Price Limits BZ Output



D Rising Chinese BZ Import in 2015 Supports Market



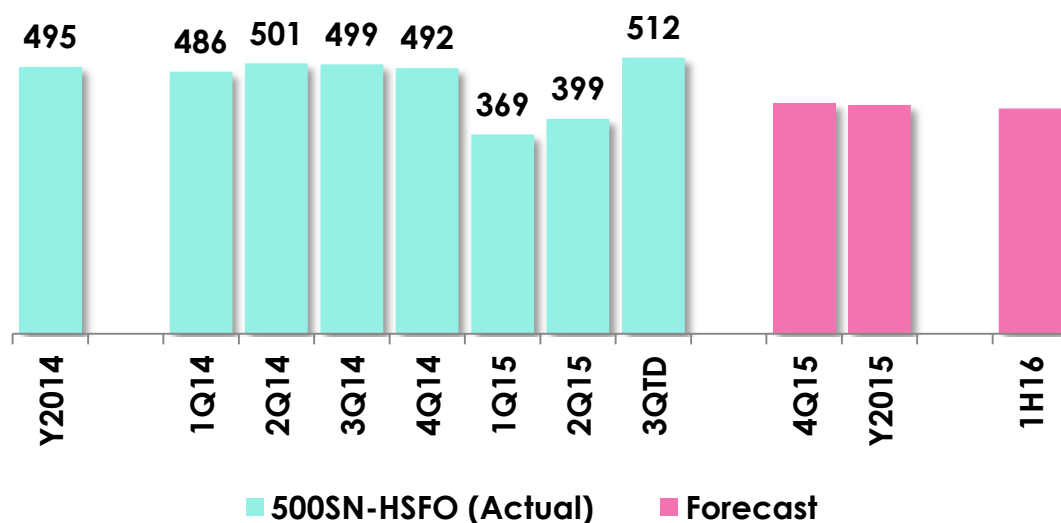
BASE OIL & BITUMEN



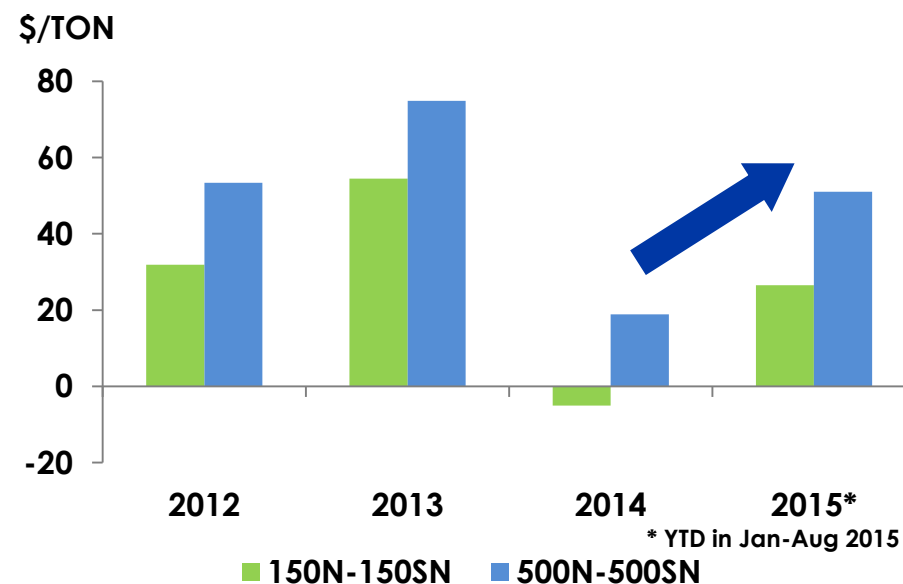
Softer Base Oil Spread in Q4-15 on Stronger Fuel Oil Crack

Base Oil Market

Base Oil Benchmark Spread (\$/TON)



Gr.II-Gr.I Price Difference



(\$/TON)	Q1-15	Q2-15	Q3-TD*	Q4-15**	1H-16***
500SN-HSFO	369	399	512	↓	↔

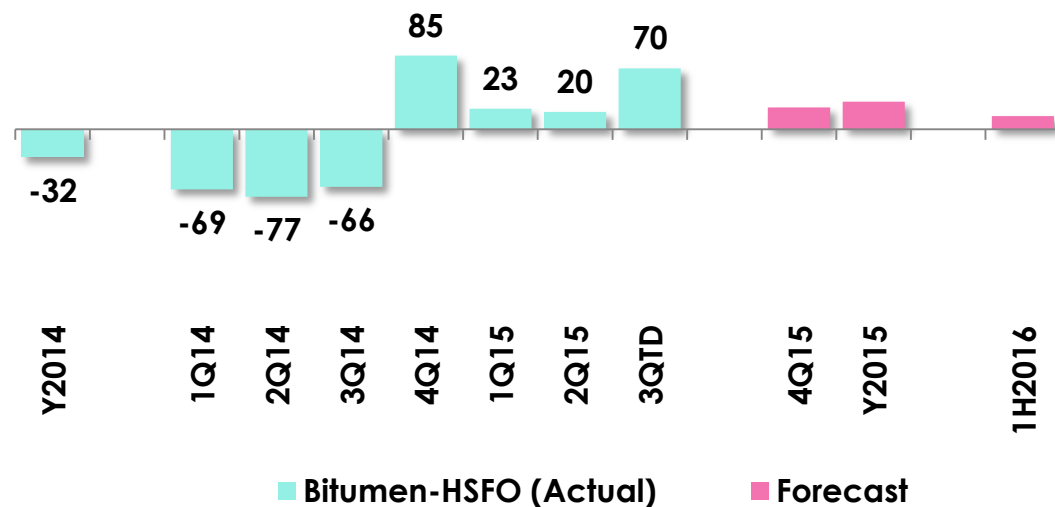
Key Highlights in Q4-15

- ▶ Stronger fuel oil crack limited spread
- ▶ Weak regional demand to minimize year-end stock
- ▶ Lower price competition from widening spread between Gr.II and Gr.I

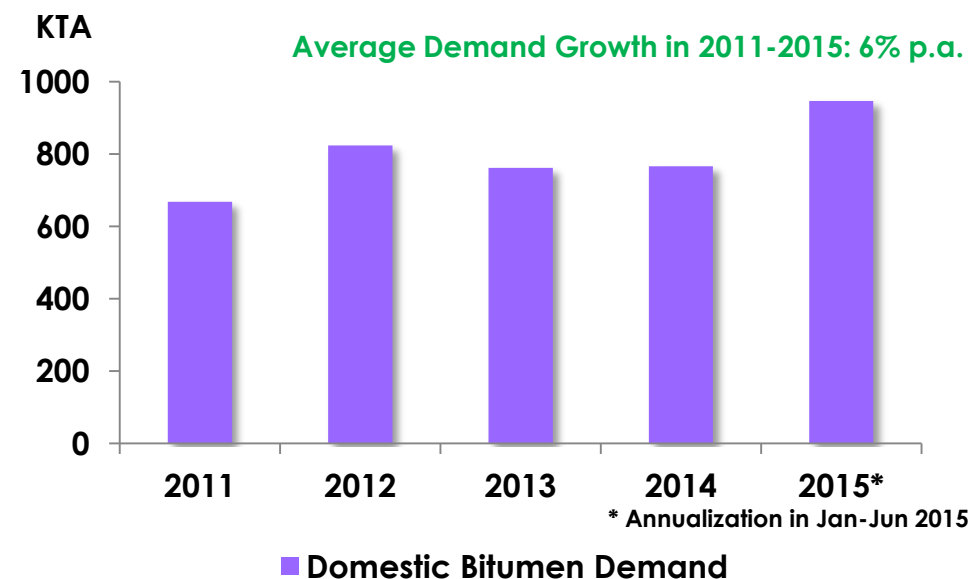
Remarks: *as of 10th Aug 15, **Compared to Q3-15, ***Compared to Q4-15

Bitumen Market

Bitumen Benchmark Spread (\$/TON)



Domestic Bitumen Demand



(\$/TON)	Q1-15	Q2-15	Q3-TD*	Q4-15**	1H-16***
Bitumen-HSFO	23	20	70	↓	↔

Key Highlights in Q4-15

- ▶ Weak Chinese and Vietnamese demand due to late rainy season
- ▶ Expected stronger fuel oil crack to limit spread
- ▶ Rising domestic demand on infrastructure projects

Remarks: *as of 10th Aug 15, **Compared to Q3-15, ***Compared to Q4-15

CONCLUSION



Q4-15 and 1H-16 Market Outlook Conclusion

Q4-15

1H-16



Refinery

Improved product spreads from winter demand

Recovered margins as demand outpaces refinery additions



Aromatics

Firm Aromatics spread on recovering demand during winter season

Stable Aromatics Spread on maintaining low PX operating rate and rising U.S. BZ demand



Lube Base

Soft Base oil and Bitumen spreads on weak regional demand

Stable Base oil and Bitumen spreads on high seasonal demand

Thank You

Any queries, please contact:



at email: ir@thaioilgroup.com

Tel: 662-797-2999 / 662-797-2961

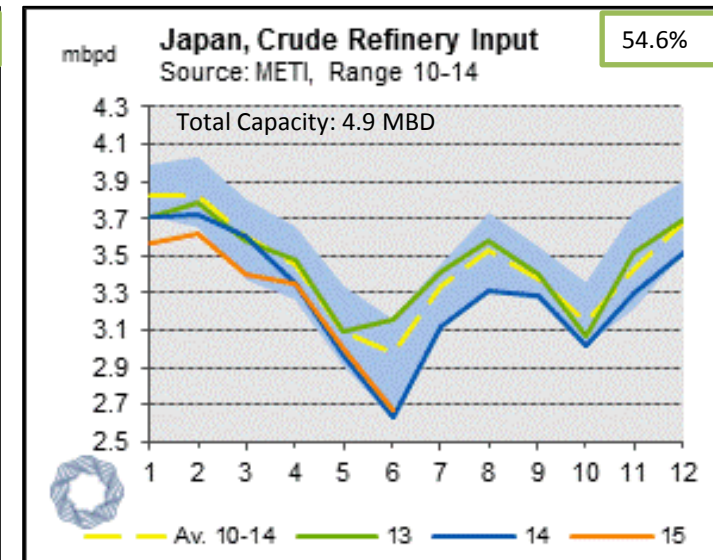
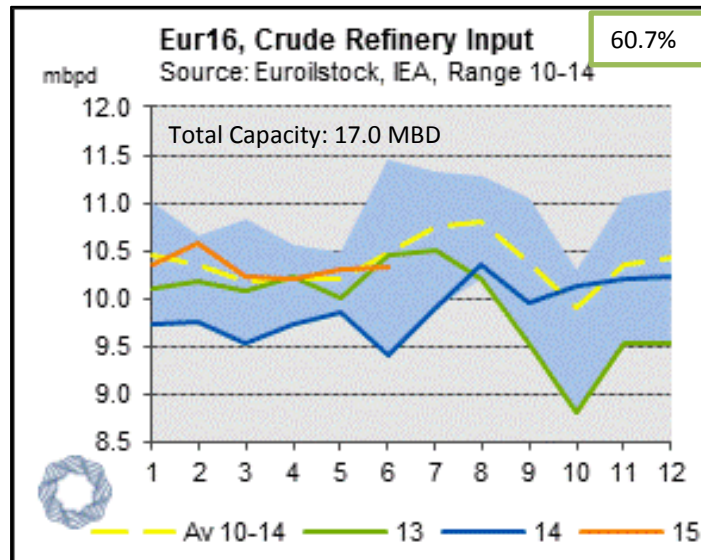
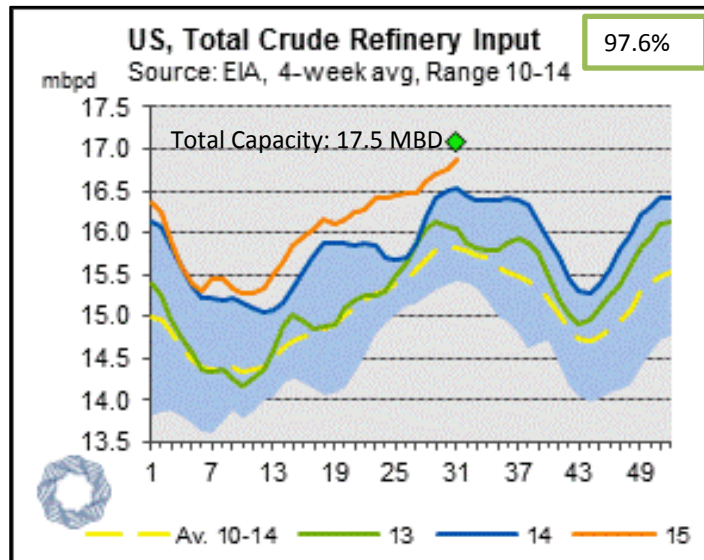
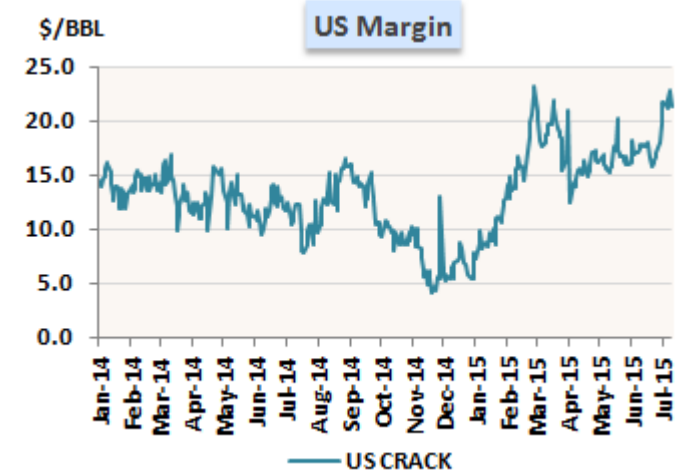
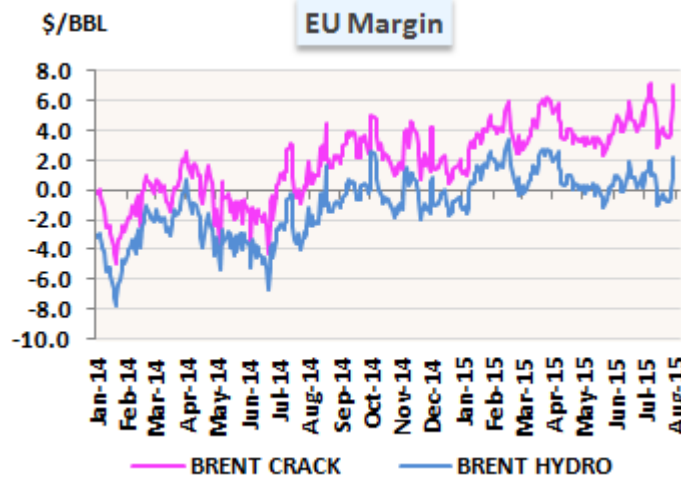
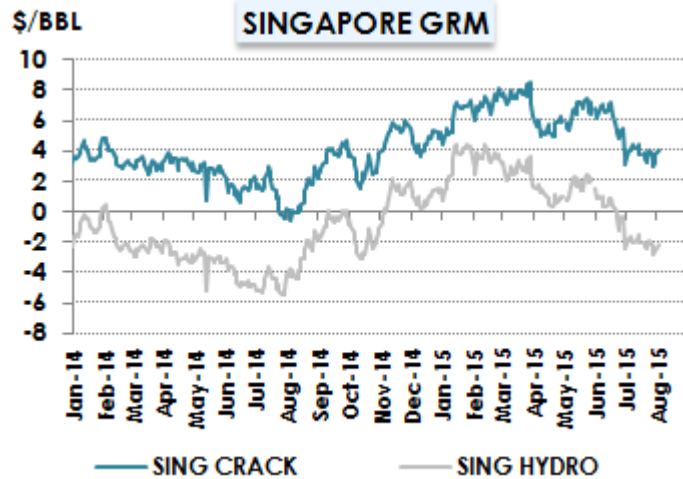
Fax: 662-797-2976

APPENDIX

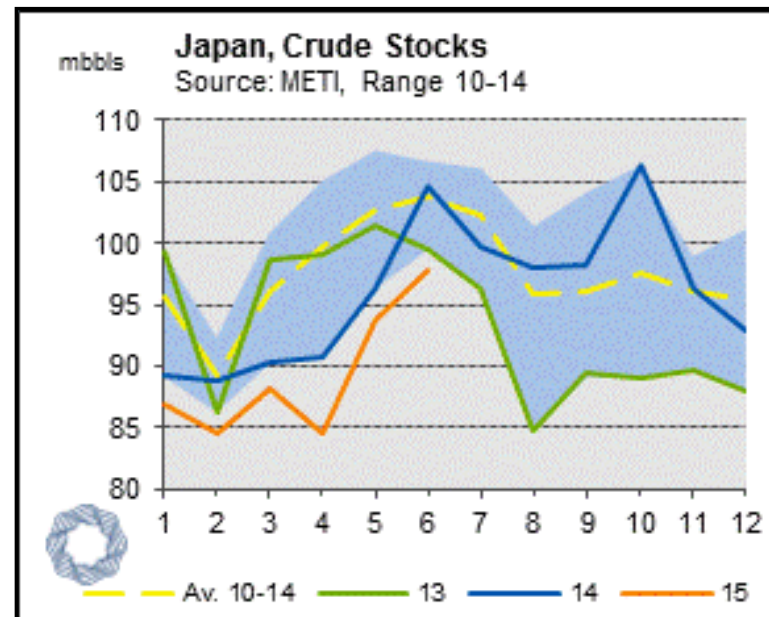
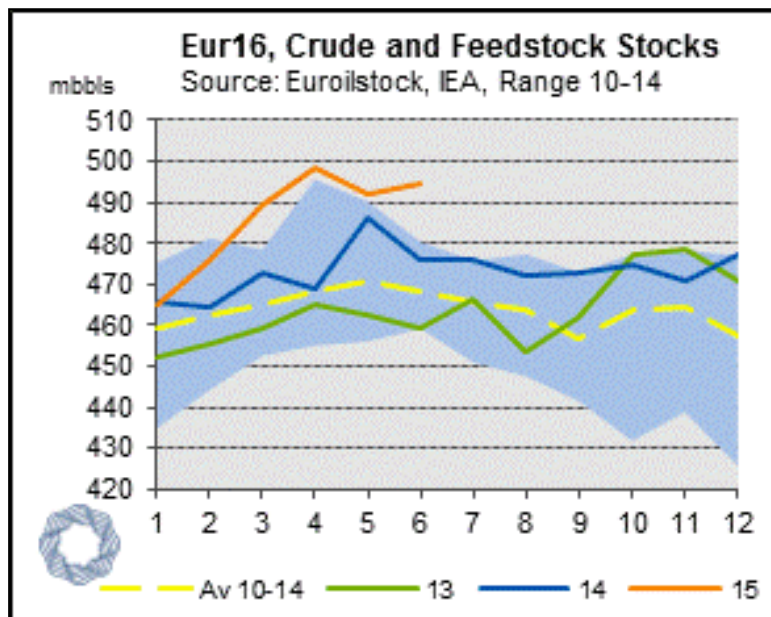
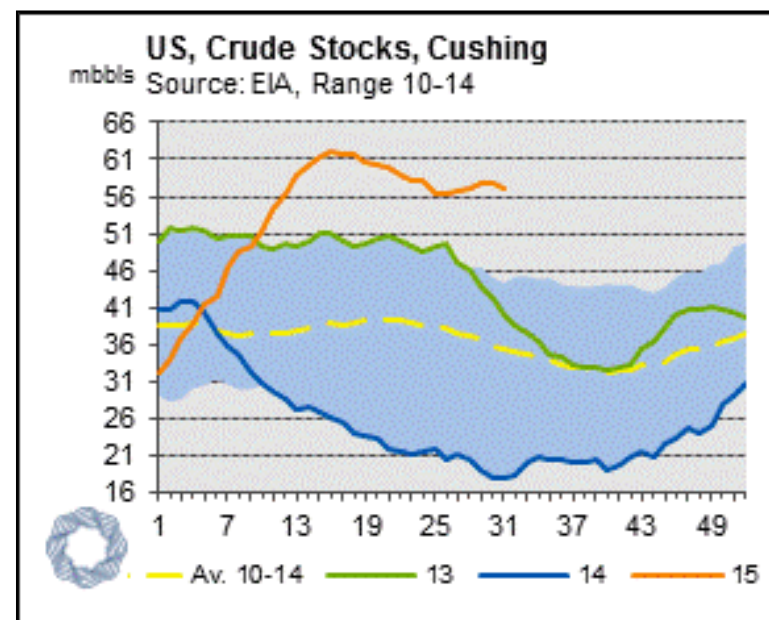
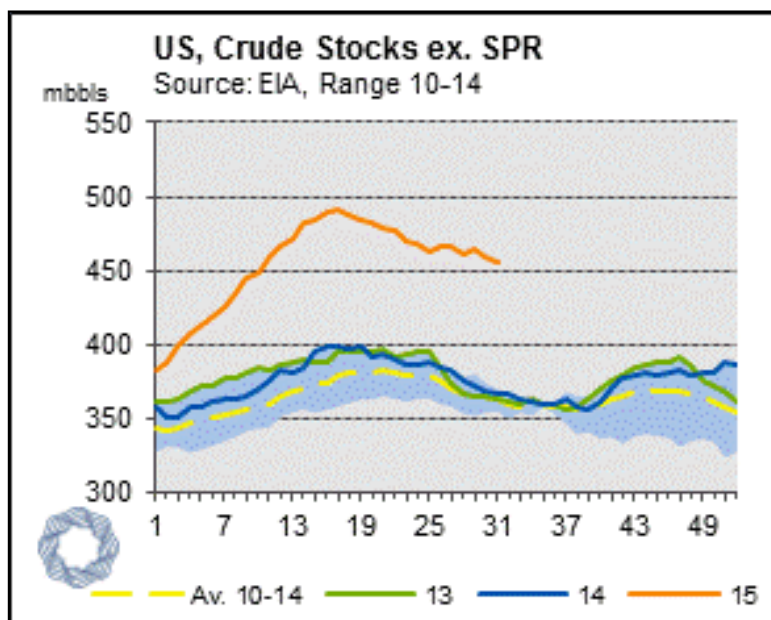
- World GRM / Inventories
- Thailand petroleum demand by products
- Strategic Investment Plan



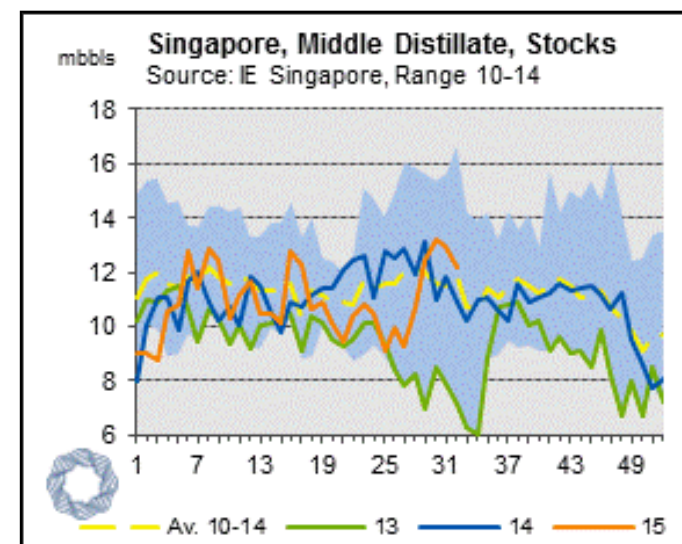
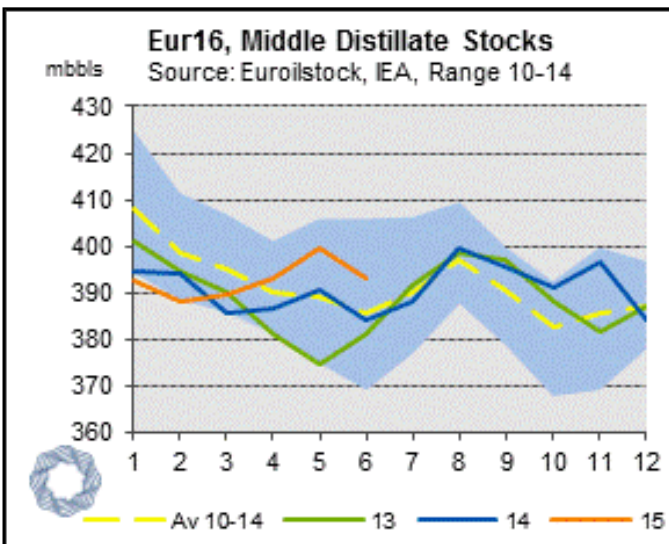
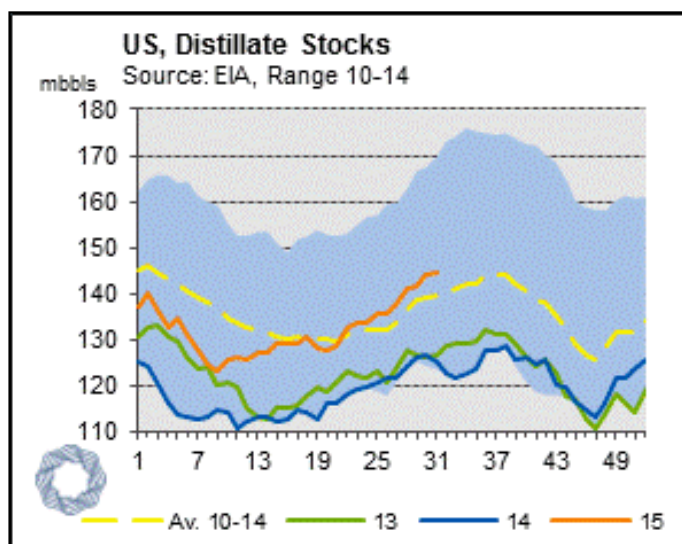
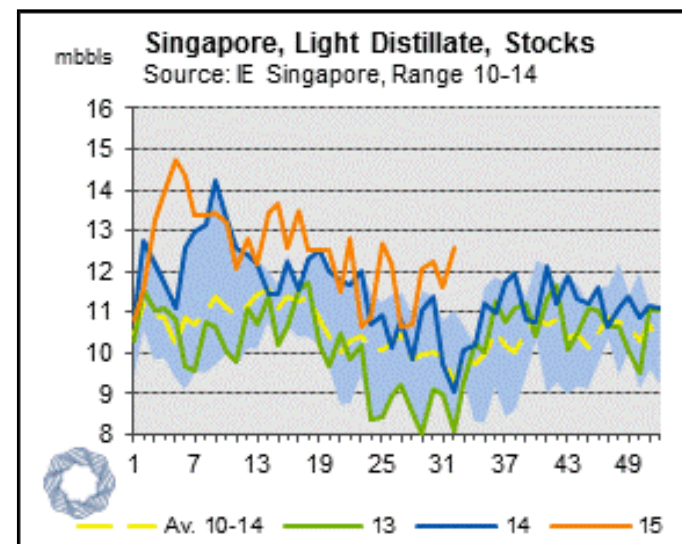
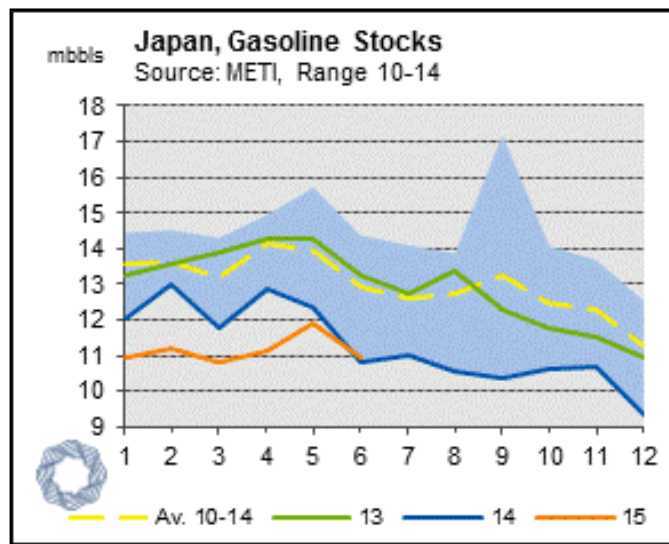
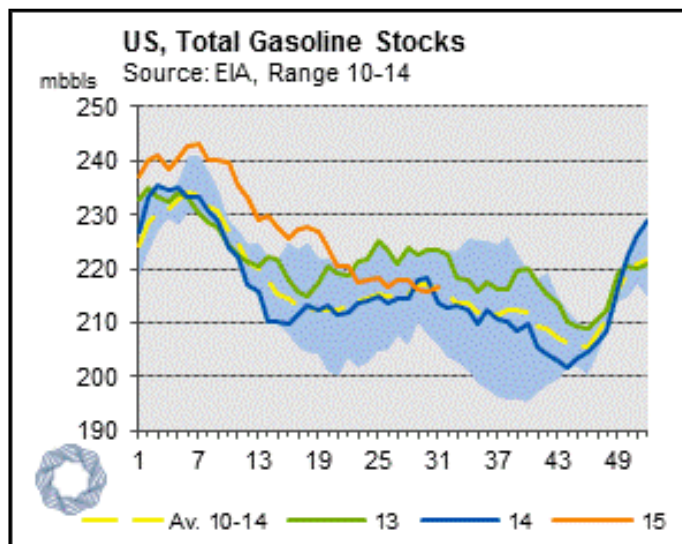
Asian Margin Vs. US-EU margin



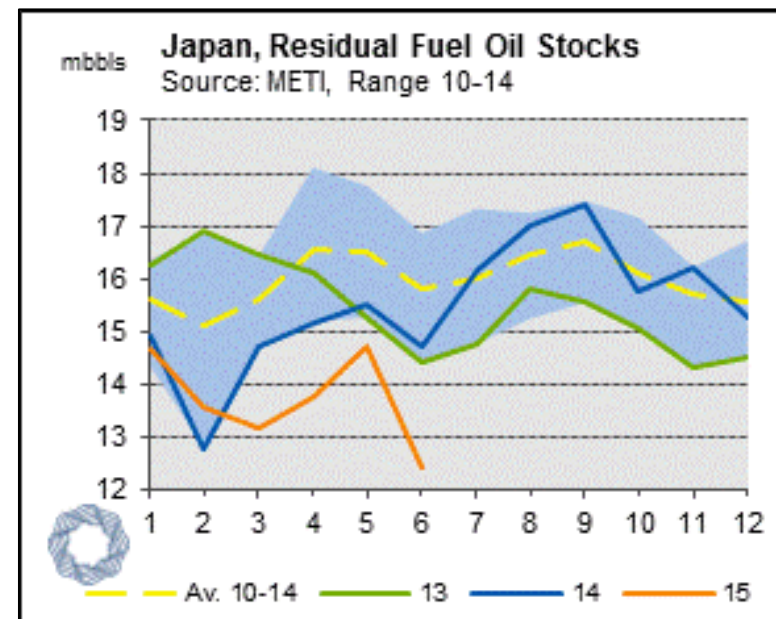
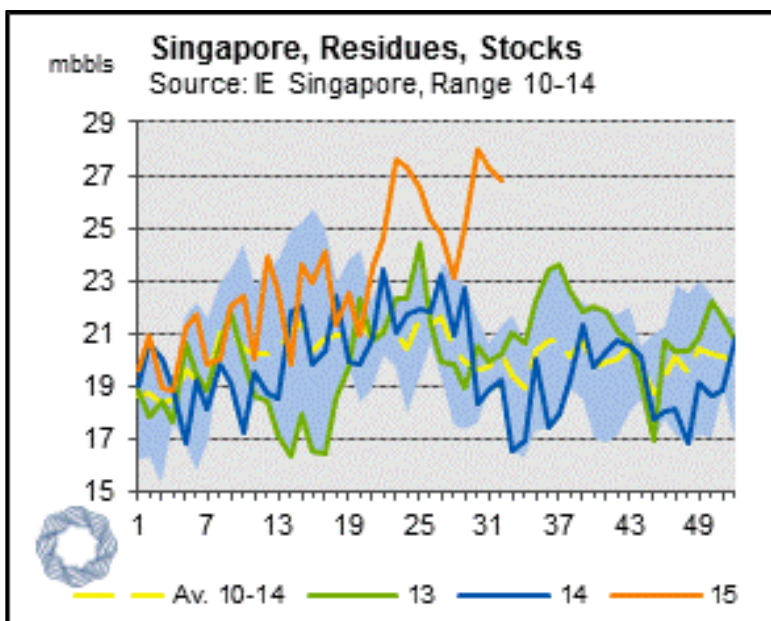
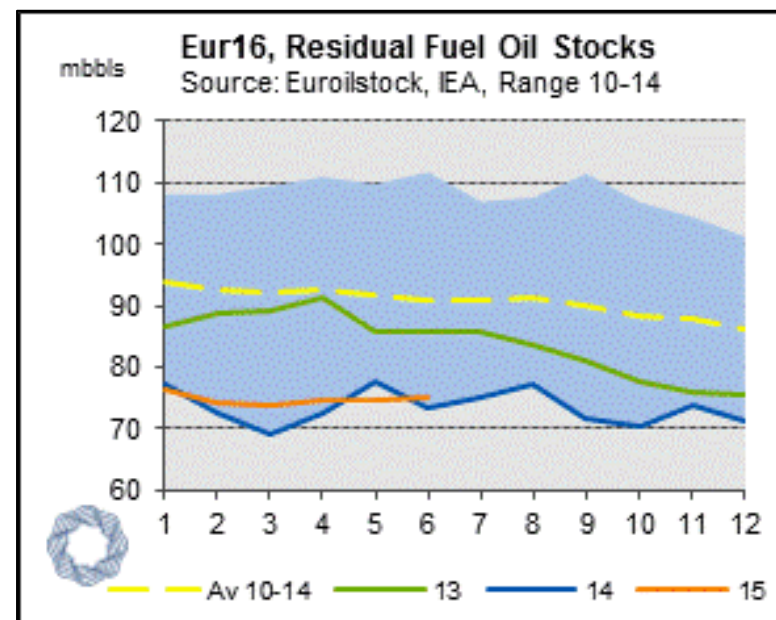
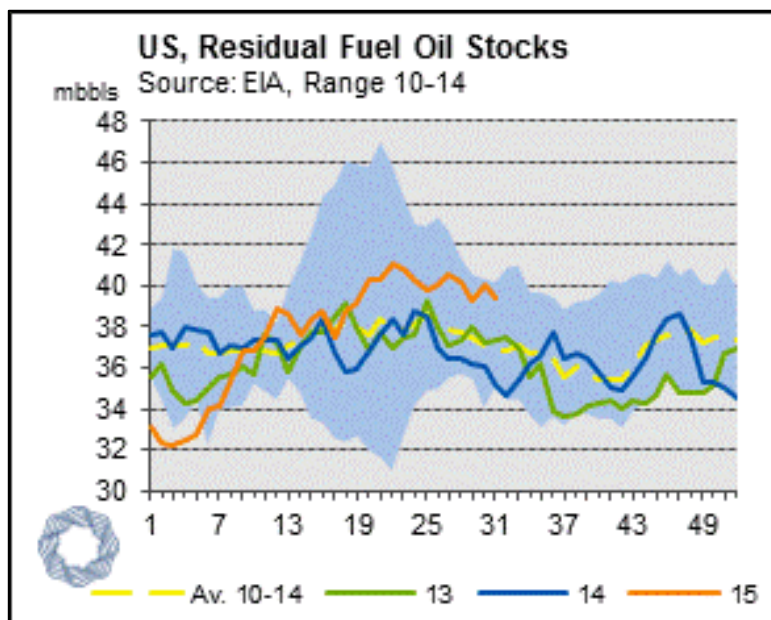
Crude Inventory



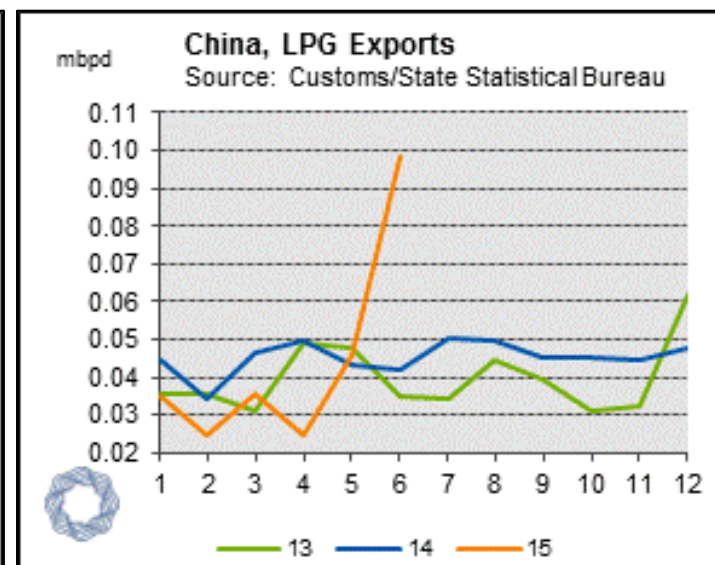
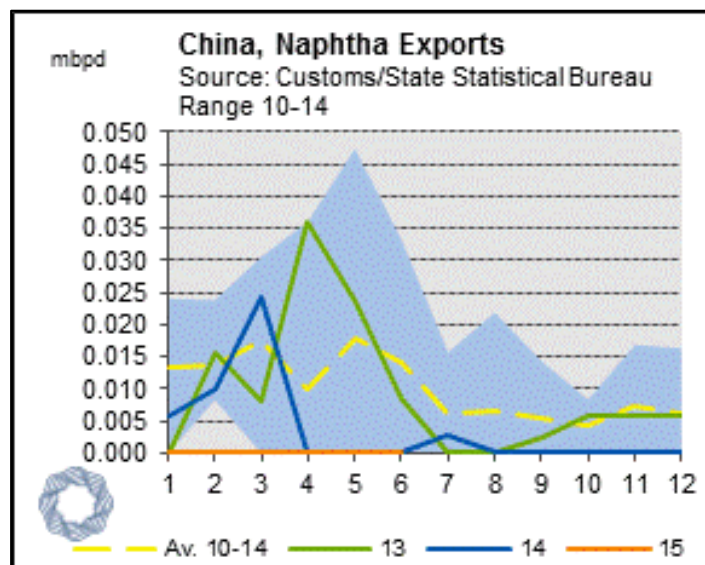
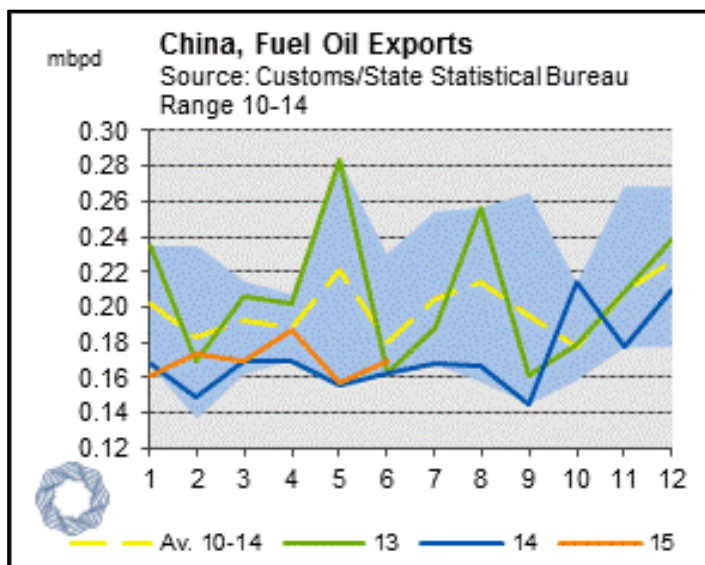
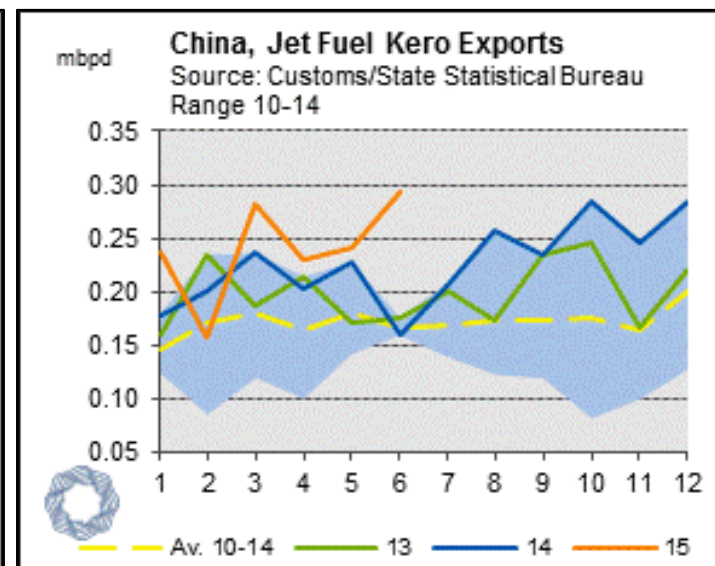
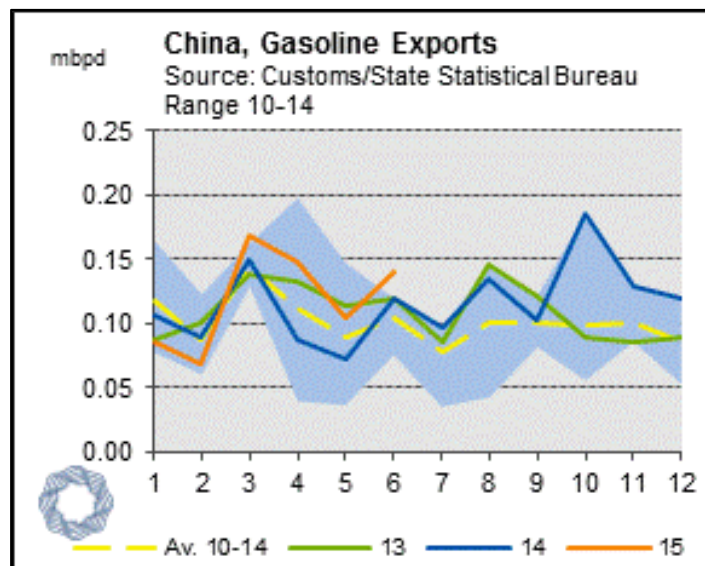
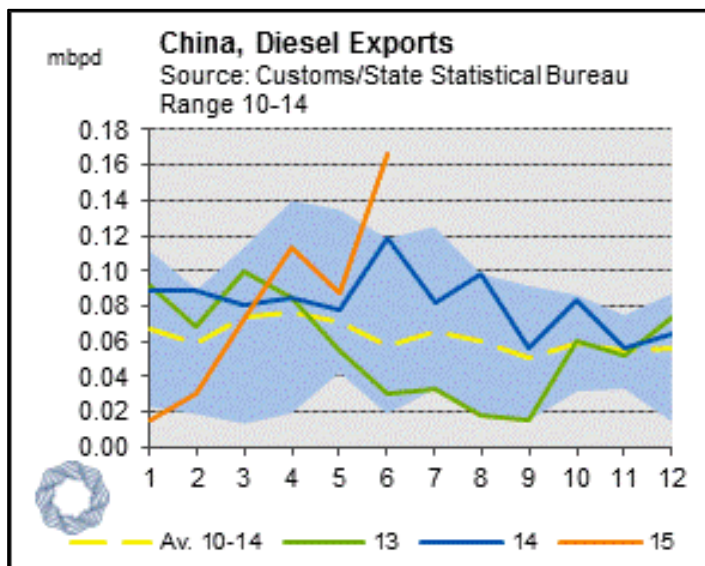
Global Distillate Inventory



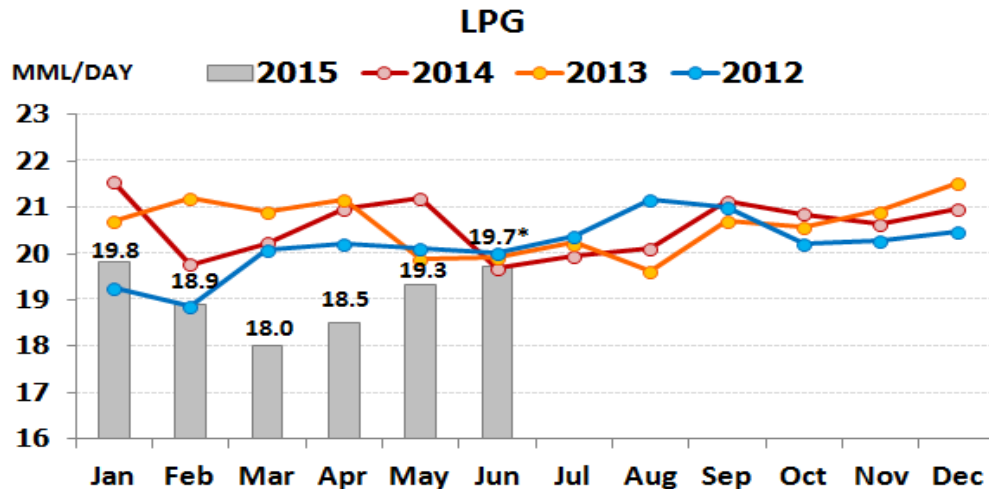
Fuel Oil Inventory



China's Product Export



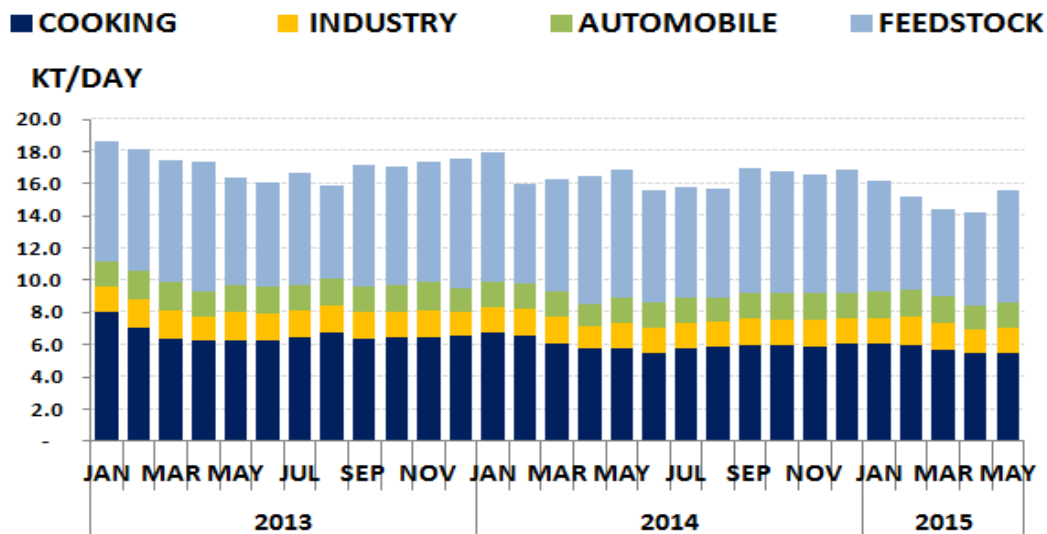
Thailand LPG Demand



*TOP Estimation

Remark : LPG demand includes Petrochemical and own used consumption

LPG Demand by Sector



LPG Demand Highlight

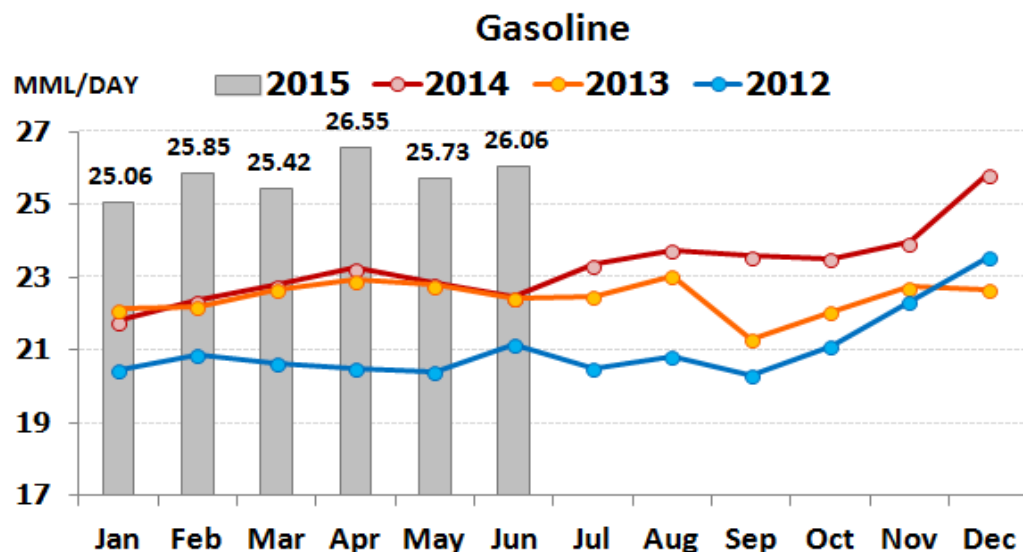
- In first half of 2015, LPG demand fell steeply by 7.4%YoY on account of lower usages in cooking, transportation and petrochemical sectors. Most of the decline came from cooking sector that faced higher retail prices and slowly-than-expected improvement of economy. Meanwhile, industrial usage was seen slightly higher on the brink of lower retail prices from last year.

Outlook for 2015

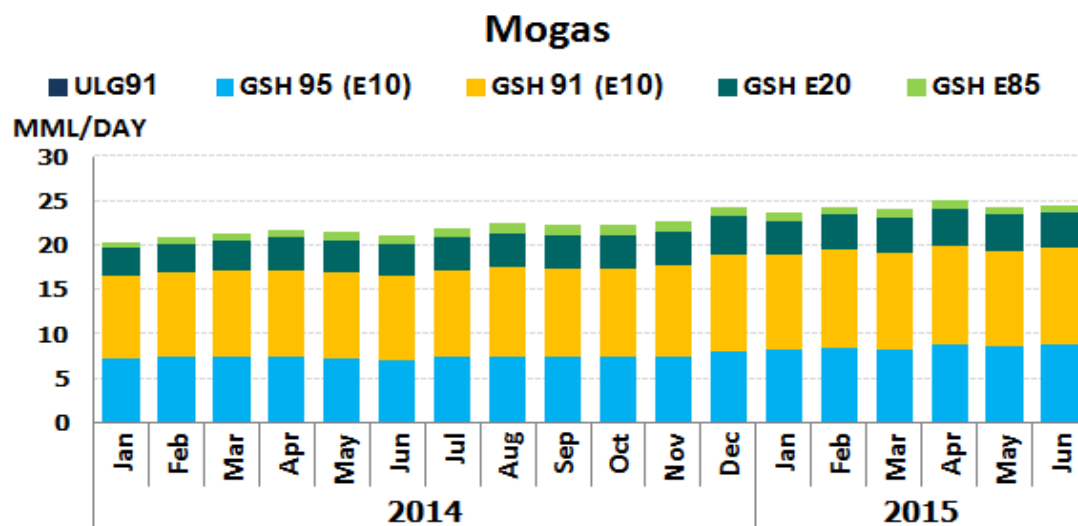
- LPG demand is expected to dropped by 4.0% YoY pressured by the expectation of lower demand in auto and cooking sectors as increased of LPG price and slowly-than-expected improvement of Thai Economy
- However, the slowdown of LPG demand was expected to limit by higher usage in industry sector as lower price compared to last year

Domestic Gasoline Demand

Thailand Gasoline Demand



Gasoline Demand by Grade



GASOLINE Demand Highlight

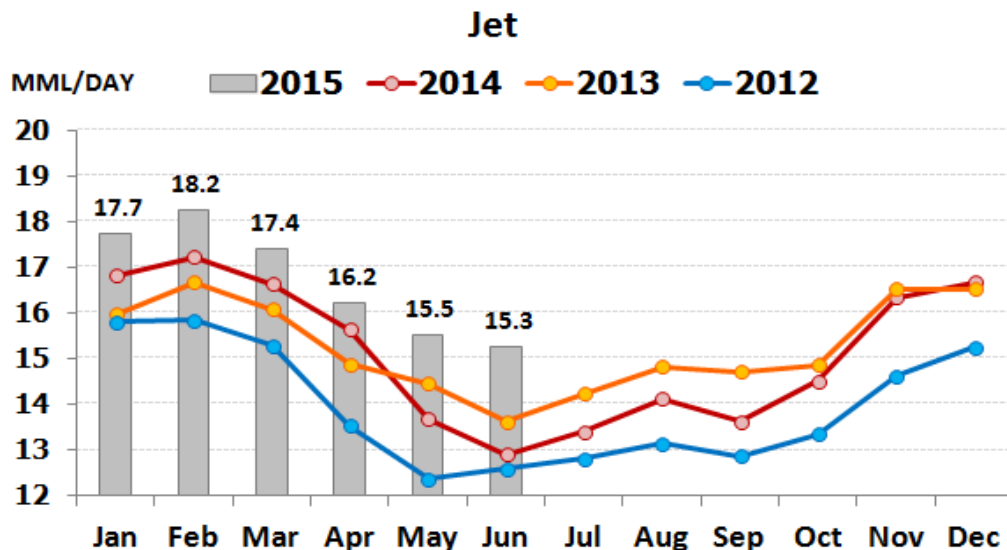
- In first half of 2015, Mogas demand jumped sharply by 14.1% from the same period last year to an average 25.78 mml/day. This was mainly due to a significant drop in retail prices and low-based last year which had the political protest in BKK. According to growing of Mogas, GSH91, GSH95, E20, and E85 individually grew 14.7%, 15.6%, 15.3%, and 16.3%, respectively.
- The level of domestic ethanol demand, in the first half of 2015, jumped sharply by 15.4% YoY from 3.04 mml/day to 3.51 mml/day following the rising of Mogas demand. Additionally, this was also because of higher demand in GSH-91, E20, and E85 backed by increasing in the number of new registered personal car and E20/E85 gas station.

Outlook for 2015

- Mogas consumption is predicted to grow by 7.9% YoY supported by increasing passenger cars and retail mogas price reduction.

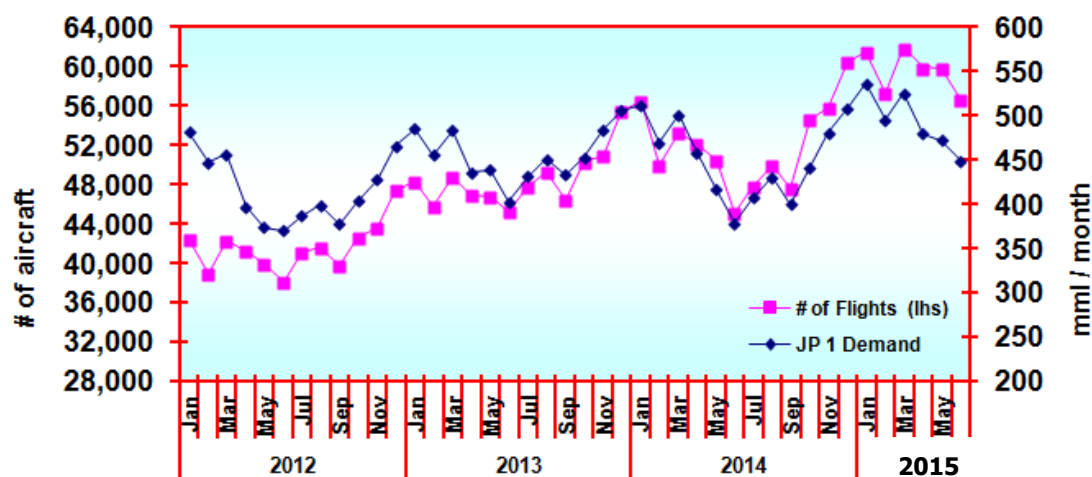
Domestic Jet Demand

Thailand JET-A1 Demand



JET-A1 demand and # of flights

Relationship between aircraft movement and JP-1 demand



JET Demand Highlight

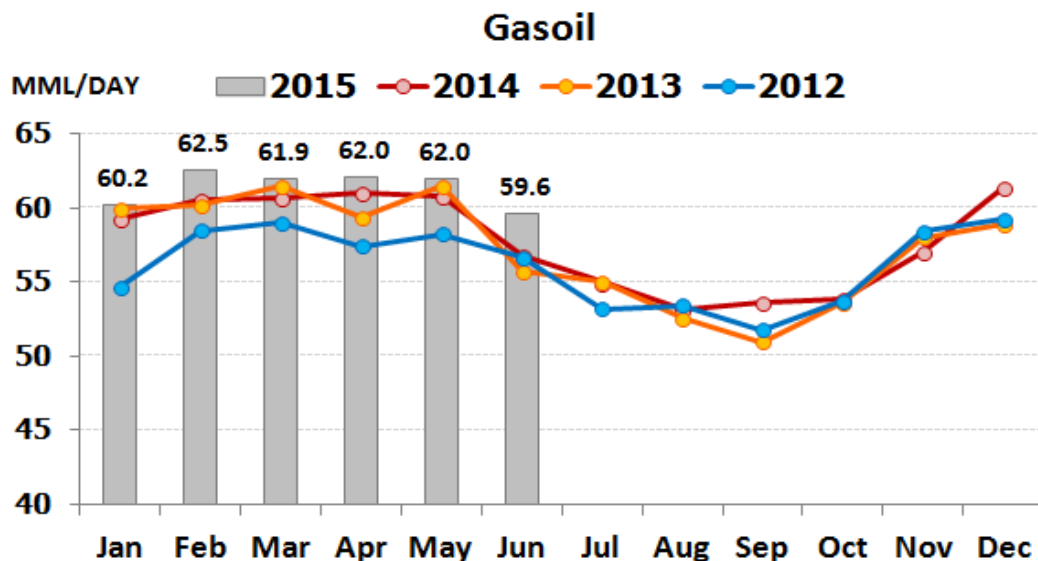
- In first half of 2015, Jet consumption increased significantly by 8.1% over the corresponding period last year mainly owing to reviving tourism sector. The expansion in tourism sector was a result of the return of Chinese and Malaysia tourists during Chinese New Year and higher travel activities, pushing the number of flight movements higher both international and domestic aircrafts.

Outlook for 2015

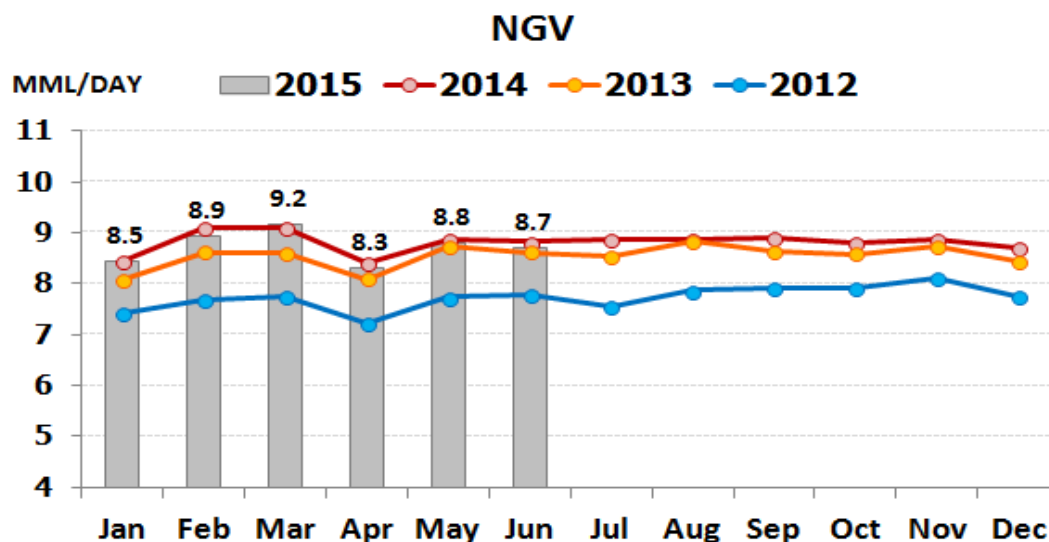
- Jet demand growth is expected to surge by 6.2%YoY owing to returning tourists from improving global economy and stable politic situation in Thailand. However, Jet demand will be pressured by impacts from ICAO and other aviation organizations quality inspection.

Domestic Gasoil and NGV Demand

Thailand Gasoil Demand



NGV Demand



Diesel Demand Highlight

- In first half of 2015, Diesel demand rose gradually by 2.5% YoY as relatively low retail prices boosted the consumption amidst strong agricultural demand from the peaking of harvesting season. Nevertheless, demand growth was curbed by the decline in export orders from ASEAN, EU and China and more slowly than expected improvement of domestic demand.

Outlook for 2015

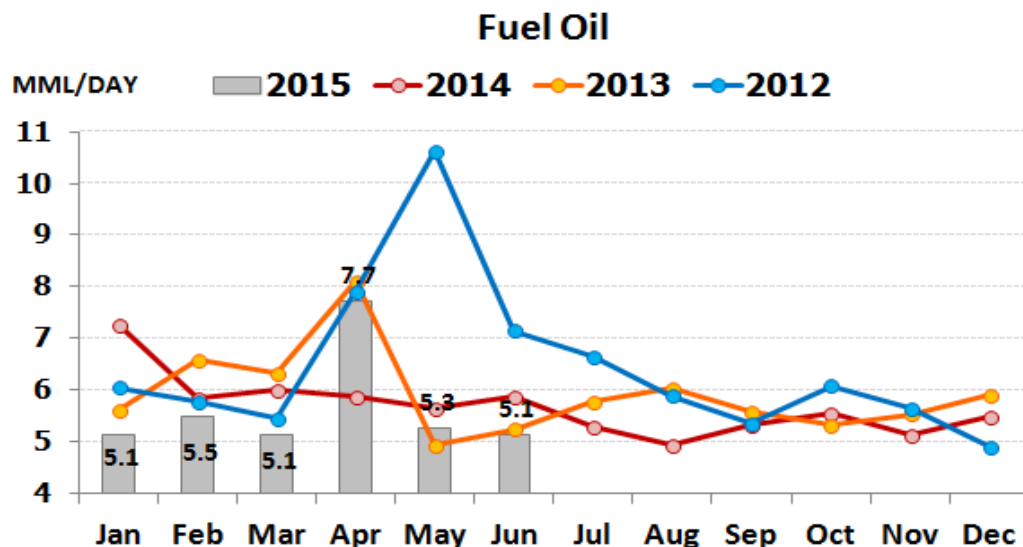
- Diesel demand in 2015 is expected to expand by 1.9% YoY supported by reducing retail price and increasing new commercial car sales. However, gasoil demand was limited gain by concerns on in-recovery of Thailand's export sector.

NGV Demand Highlight

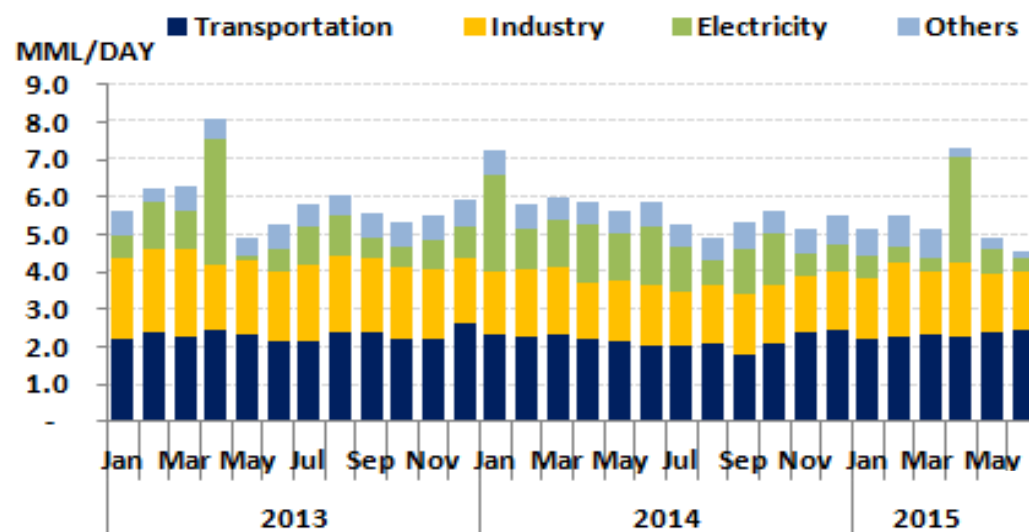
- In first half of 2015, NGV demand declined slightly by 0.7%. This was mainly because of higher NGV retail price, which has increased to hit the record high at 13.0 baht/kg for more reflecting to its true cost. In addition, the lower oil prices also reduced the amount of old cars' fuel switching.

Domestic Fuel Oil Demand

Thailand Fuel Oil Demand



Thailand Fuel Oil Demand by Sector



FUEL OIL Demand Highlight

- In first half of 2015, Fuel Oil consumption dropped significantly by 7.1% from a year earlier as a result of lower maintenance day of natural gas fields from Myanmar, JDA and local fields, comparing to the last year. Consequently, the demand of fuel oil in electricity sector was lower by 44.5%. In fact, two major gas fields, Yadana and Yetagun, were shut down for 10 days in Apr-15, whereas the Zawtika field was also shut down for 8 days in Apr-15. Last year, Yetagun was shut down for 13 days in Jan-14, Bongkot field was shut down for 18 days in Apr-14, and JDA was shut down for 19 days in Jun-14. However, industrial demand increased by 2.3% as a result of its lower price relatively to natural gas and diesel, while the demand from transportation sector increased significantly by 5.1%.

Outlook for 2015

- Fuel oil demand is expected to drop by 3.6% YoY following the government power develop plan (PDP) that aim to promote alternative fuel. Moreover, power plant also likely to use natural gas instead of fuel oil thanks to lower price.

Strategic Investment Plan

Our CAPEX investments will cover improvements in plants reliability, efficiency & flexibility, environmental & fuel efficiency improvement as well as value chain enhancement

Thai Oil has sufficient internal cash flow to fund this investment plan

CAPEX Plan (Unit US\$ million)

Projects	COD	Total Project Cost	Remaining capital investment				
			2014	2015	2016	2017	2018
Refinery upgrading	2014	137	32				
Reliability, efficiency and flexibility improvement	-	353	103	58	14	8	31
Environmental and fuel efficiency improvement	-	269*	89	12			
CDU-3 preheat train	2014	68	45	15			
Benzene Derivatives - LAB	2015	300	141	77	10	16	
Power – 2 SPPs	2016	380	140	192	48		
Solvent expansion – SAKC	2014	64	13	7			
Marine fleets expansion	2014/15	56	15	8			
Lorry Expansion	2016	55		28	27		
Total		1,682	578	396	98	24	31

Notes: Excluding approximately 40 M\$/year for annual maintenance

*anticipated to receive BOI for environmental projects

\$153m

Thank You

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