



# Thai Oil Public Company Limited

## Presentation to Investors

Opportunity Day

3 September 2013



## Disclaimer

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## Corporate Vision, Mission and Values

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

# Corporate Governance Policy

## 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:



Corporate Management Office  
Thai Oil Public Company Limited  
555/1 Energy Complex Building A  
11F, Vibhavadi Rangsit Road,  
Chatuchak, Bangkok 10900



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CG  
Manual

<http://www.thaioilgroup.com>

## Agenda

**TOP GROUP OVERVIEW**

**Q2 & 1H/13 BUSINESS HIGHLIGHTS**

**PERFORMANCE ANALYSIS**

**MARKET OUTLOOK**

**TOP WAY FORWARD**





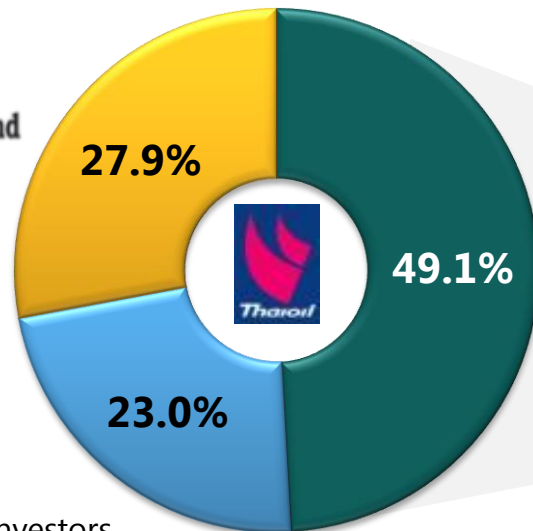
# **TOP Group Overview**

# Strategic relationship and operational integration with PTT

## Thai Oil's strong shareholder base



# of Listed Shares	2,040 mil. shares
Free Float Shares	49.9%



- PTT
- Foreign Investors
- Local Investors

As of 4 Mar 2013



- Benefits from PTT's dual role as our major shareholder and key business partner
- All transactions take place at arm's length and in adherence with strong corporate governance principles

### Key strategic benefits for Thai Oil

#### 1. Long-term strategic partnership

- Thai Oil is PTT's principal refiner
- Long-term strategic shareholder and joint investment

#### 2. Business partnership

- Product offtake
- Crude procurement

#### 3. Operational synergies

- Freight costs reduction
- Knowledge transfer and shared services
- Close management collaboration and secondment of trained staff

# TOP Group Synergy & Strategic Role in PTT Group Value Chain

Upstream

Intermediate

Downstream

Diversifying to a broad range of downstream products to enjoy higher profit margins and reduce earnings volatility

CRUDE IMPORT



NATURAL GAS



REFINERY



POWER



SOLVENTS



AROMATICS



PLATFORMATE

LONG RESIDUE

REFINED PETROLEUM

LUBE BASE



Solvent

Pentane

Hexane

Toluene

Mixed-Xylene

Paraxylene

Mixed-Xylene

Toluene

Benzene

LPG

Gasoline

Jet/Kero

Diesel

Fuel Oil

Lube Base Oil

Slack Wax

Extract

TDAE

Bitumen



The majority of refined petroleum products are sold domestically to PTT

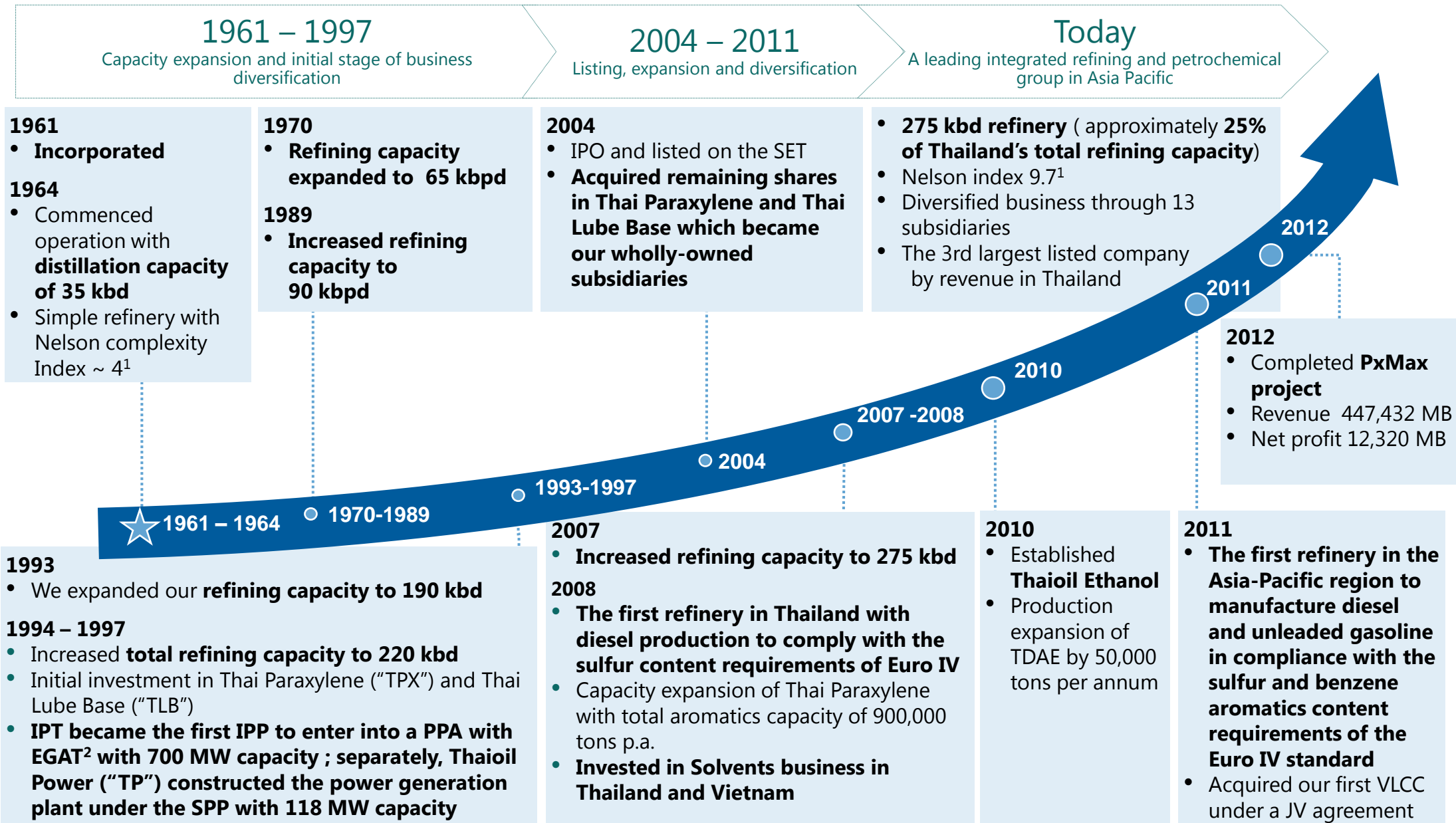


PTT is our principal domestic customer for our lube base products

Thai Oil's Businesses



# Key milestones: 51 years, a long track record of success



# Thai Oil Group Business Structure

## OIL REFINERY



Thaioil (TOP)

**Capacity :**  
275,000 barrels/day

Platformate  
1.8 million tons/annum

## PETROCHEMICAL & LUBE BASE



**Aromatics Capacity:**  
Paraxylene  
527,000 tons/annum  
Mixed Xylene  
52,000 tons/annum  
Benzene  
259,000 tons/annum  
**Total**  
838,000 tons/annum

**LABIX Company Limited (LABIX)**

LAB producer and distributor  
Capacity: 100 KTA COD: 2015



**Lube Base Oil**  
Capacity :  
Base Oil  
267,015 tons/annum  
Bitumen  
350,000 tons/annum  
TDAE  
67,520 tons/annum

100.0%



**Thaioil Solvent Through TOP Solvent (TS)**



## POWER GENERATION



**Sells Electricity/ Steam to Group**

**Small Power Producer Program**  
3-on-1 Combined Cycle  
Electricity 118 MW  
Steam 168 tons/hour



**Global Power Synergy Company Limited**

**Principal power plant of the PTT**  
capacity 1,038 MW of electricity and 1,340 tons/hour of steam  
Total aggregate capacity 1,357 MW

## TRANSPORTATION & OTHER



**5 Oil&Chemical Tankers**  
Capacity :147,450 DWT  
100.0% **Thaioil Marine International Pte Ltd.**  
NYK Bulk & Energy B.V. 50.0%

50.0% **TOP-NYK MarineOne Pte Ltd. (TOP-NYK)**

**Crude Tankers :VLCC**  
Capacity :281,050 DWT  
55.0% **TOP Maritime Service (TMS)**  
Provide service of

**5 Crew and Utility boats**  
33.3% **Thome -Thailand**  
Ship Management Service  
50.0% **TOP-NTL Pte. Limited**

Trustee Manager to set up business trust  
35.0% **TOP Nautical Star Company Limited**

9.0% **Thappline (THAP)**  
Multi-product Pipeline  
Capacity:26,000 m.lts/y  
PTT ICT Solutions(PTT ICT)

PTT Group 80.0% | 20.0%

PTT 31.0% | Others 60.0%

PTT 40.0% | PTTGC 20.0% | IRPC 20.0%

PTT 40.0% | PTTGC 20.0% | IRPC 20.0%

PTT 40.0% | PTTGC 20.0% | IRPC 20.0%



Mitr Phol 35.0% | Padaeng 35.0%

30.0% **Maesod Clean Energy (MCE)**

**Sugarcane Based Ethanol**  
Capacity : 230,000 lts/day

50.0% **Sapthip (SAP)**

**Cassava Based Ethanol**  
Capacity : 200,000 lts/day

21.3% **Ubun Bio Ethanol (UBE)**

**Cassava/Molasses Based Plant**  
Capacity : 400,000 lts/day

100.0%

**Thaioil Energy Services (TES)**

**Proceeds the business on various professional of management services**

PTT 40.0% | PTTGC 20.0% | IRPC 20.0%

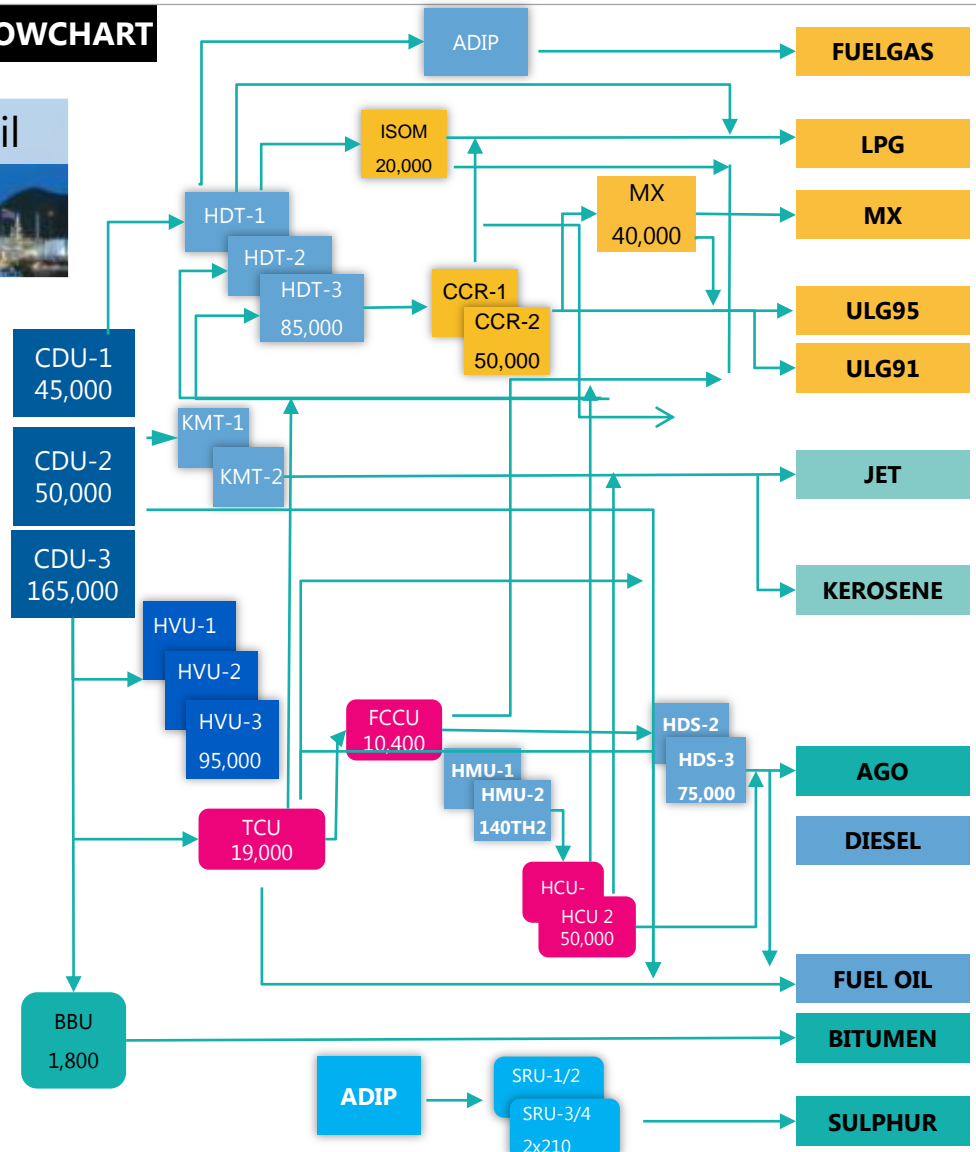
**PTT Energy Solutions (PTTES)**

**Provides engineering technique consulting services**

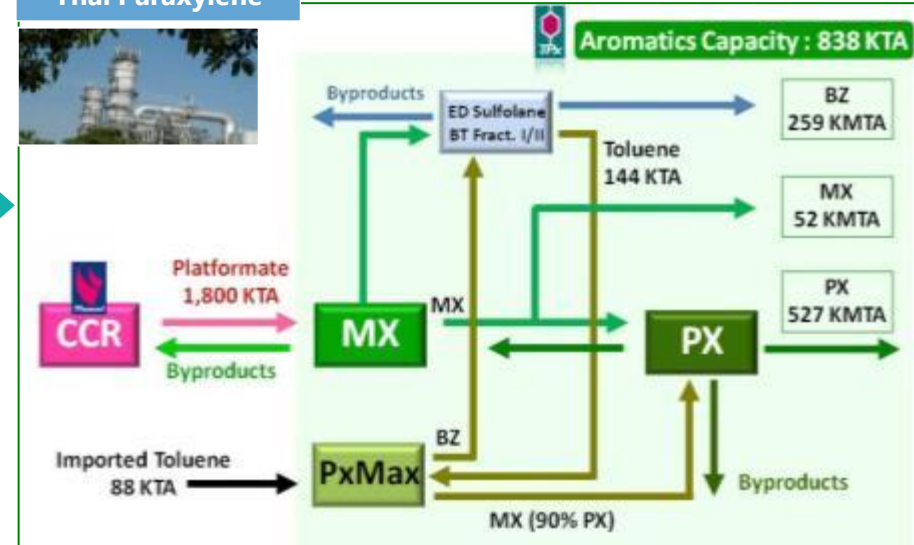
**Provides engineering technique consulting services**

# Process Linkage: Beauty of Integration

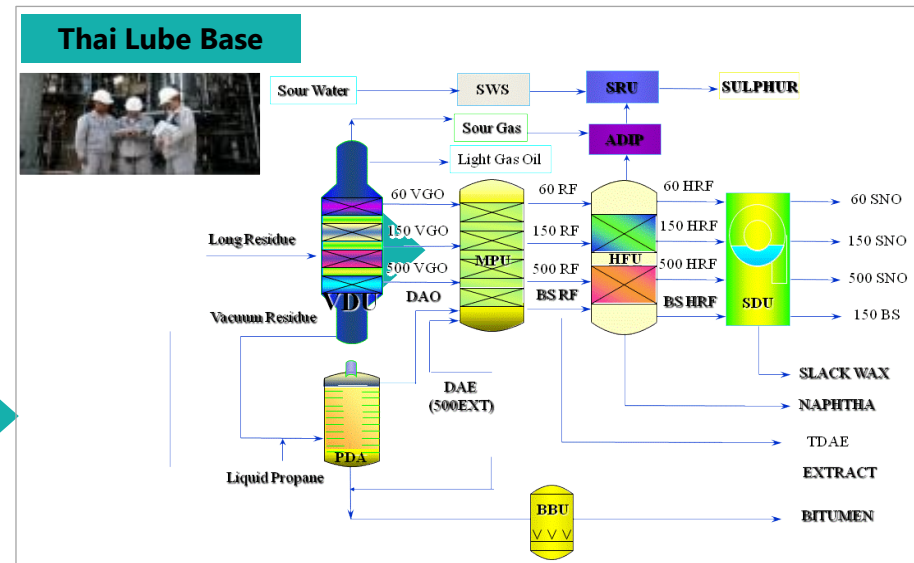
## PROCESS FLOWCHART



## Thai Paraxylene



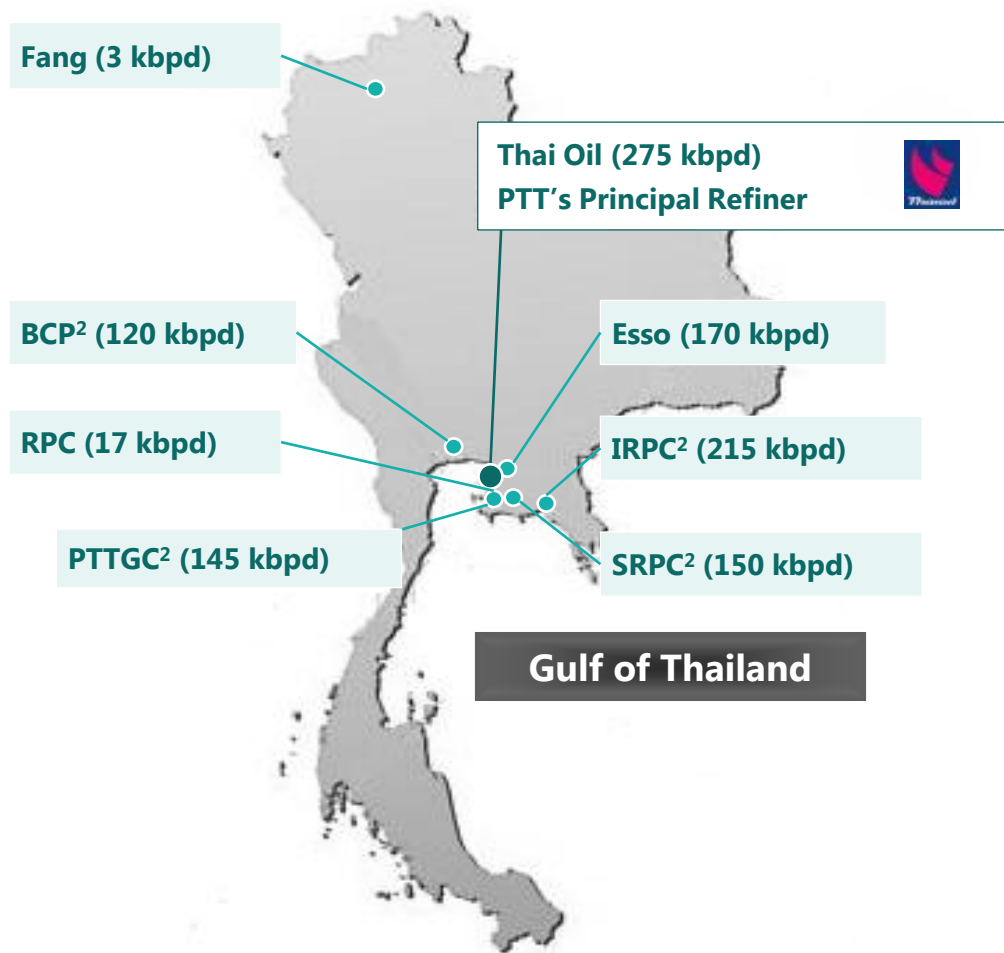
## Thai Lube Base



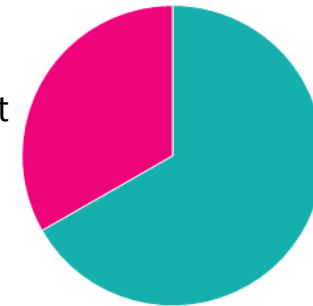
# One of Region's Leading Refineries

Total Thailand crude refining capacity 1,095 kbd

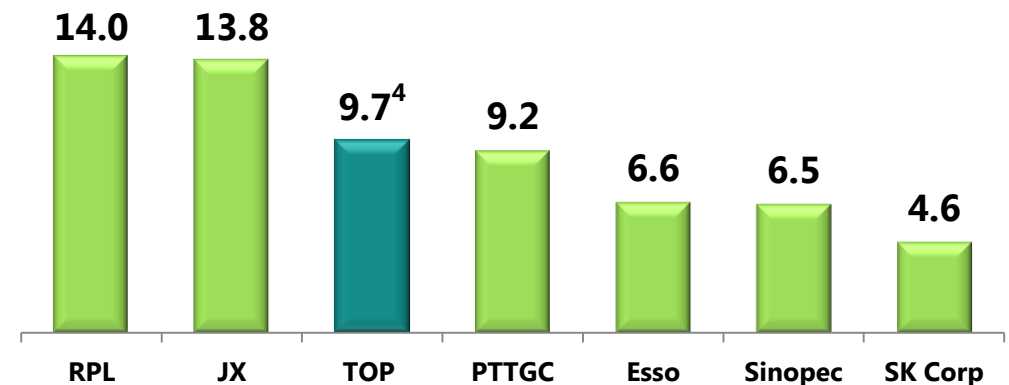
2012 Market shares for refined petroleum product<sup>3</sup>



35%  
market  
shares



## Nelson Index - Regional Comparison



Remarks:

- Nelson Complexity Index measures refinery's upgrading capability for comparison
- It is the ratio of complexity barrels divided by crude distillation capacity

Source: The company and broker research

Note:

1. Source: Energy Policy and Planning Office, Ministry of Energy Thailand,
2. PTT holds a 27.22% interest in BCP, a 38.51% interest in IRPC, a 48.9% interest in PTTGC, and a 36% interest in SPRC
3. Calculated by using total sales of refined petroleum products of Thai Oil in 2011 divided by total sales of petroleum products in Thailand in 2011. Data obtained from Energy Policy and Planning Office, Ministry of Energy Thailand, the Company
4. Based on our internal estimates using the methodology of the Nelson Complexity Index.



# Strategic location with competitive advantages in access to key markets

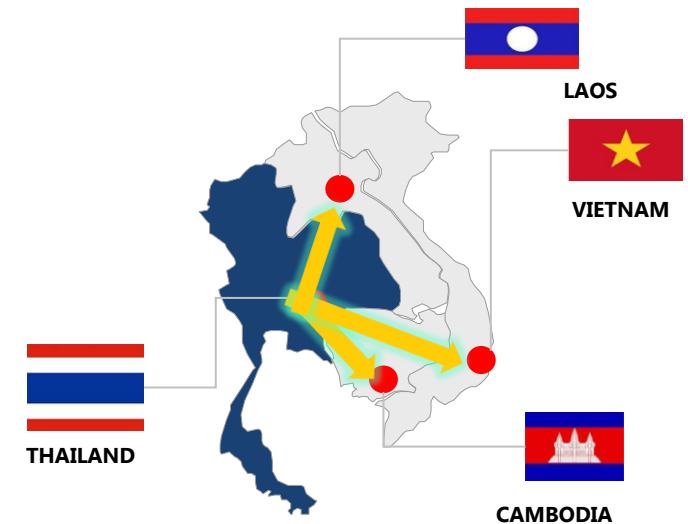
Our strategic location provide us with

1. Close proximity with the key domestic markets and Indochina
2. Direct access to deep water ports
3. Direct connection with multi-product pipelines

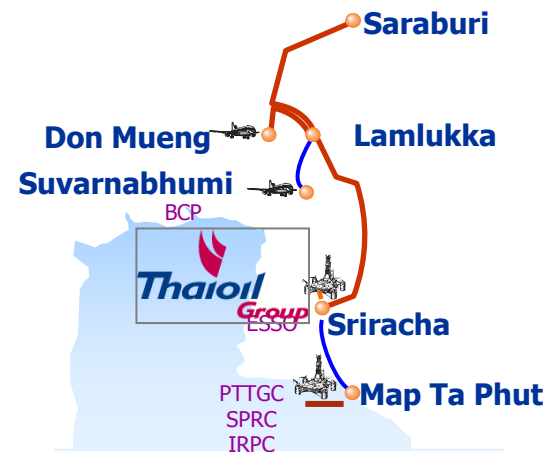
## Close proximity to the key domestic markets



## Access to Indochina markets through deep water ports



## Direct connection with product pipeline system

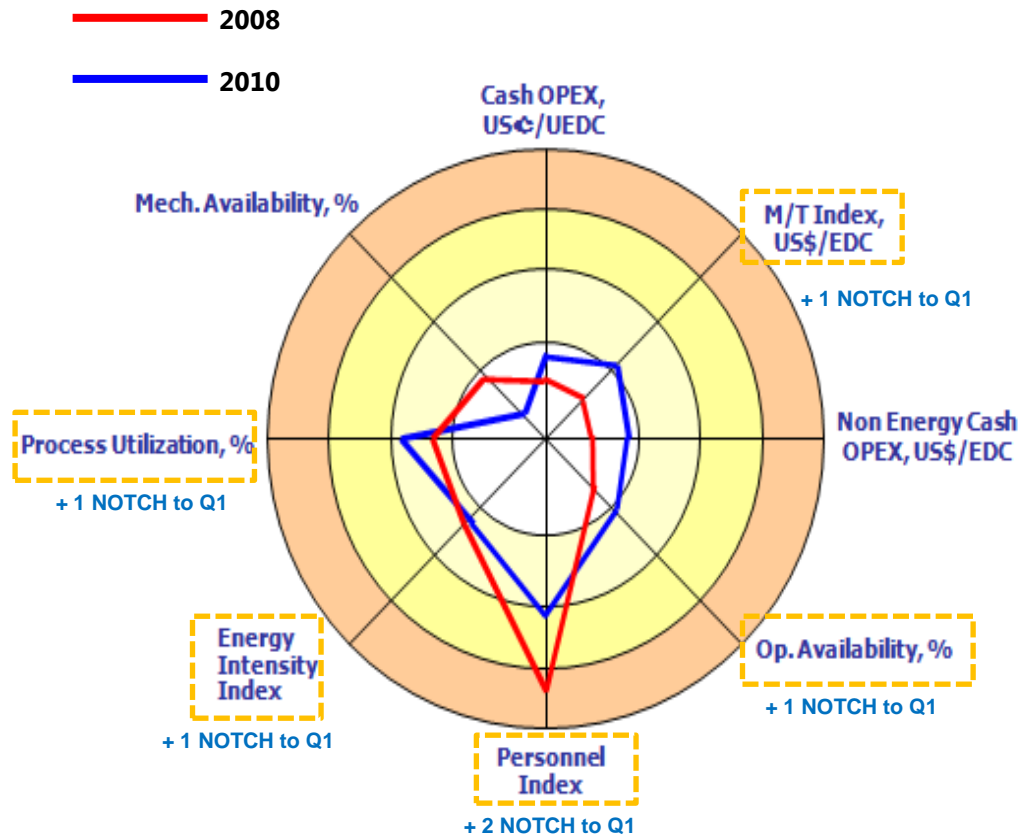


— Product pipeline system

- ✓ Our plants are located within the Sriracha Complex
- ✓ SBM provides direct access to deep water ports, and ability to receive feedstock directly from VLCC
- ✓ We also enjoy available connections to delivery networks such as multi-product pipelines, including Thappline

# Competitive Performance Benchmarking

## Solomon (Bi-Annually)



## Shell Global Solutions International (SGSi)

### Operational Performance Review

### Hydrocarbon Management Review

### Operational Troubleshooting

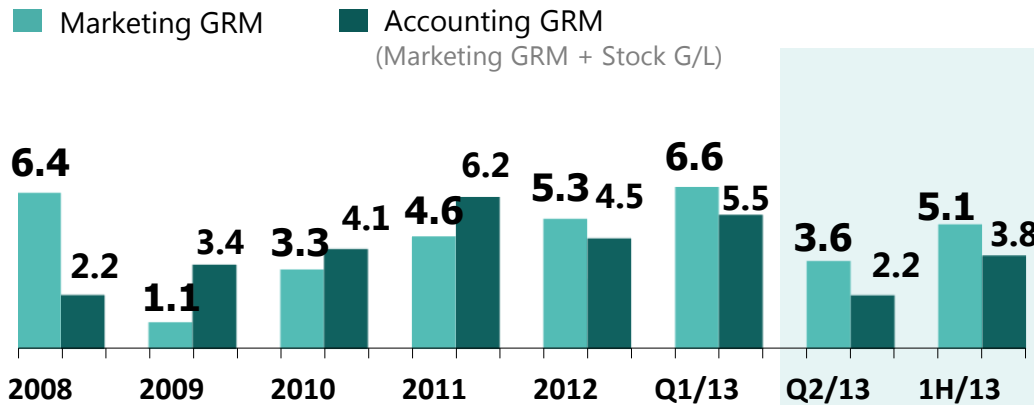
### Staff Competency Development

### Knowledge Management & Research

# Integrated Margin & Competitive Cash Cost

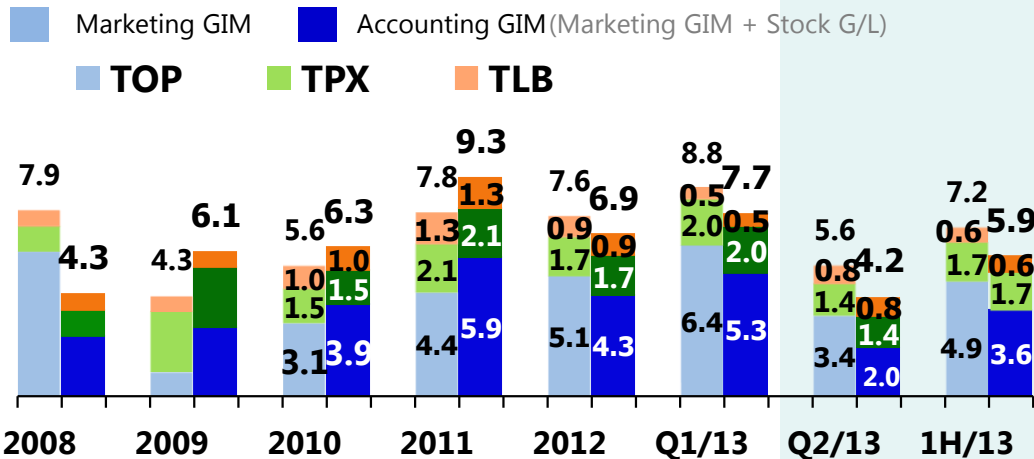
## Gross Refined Margin

(Unit: US\$/bbl)



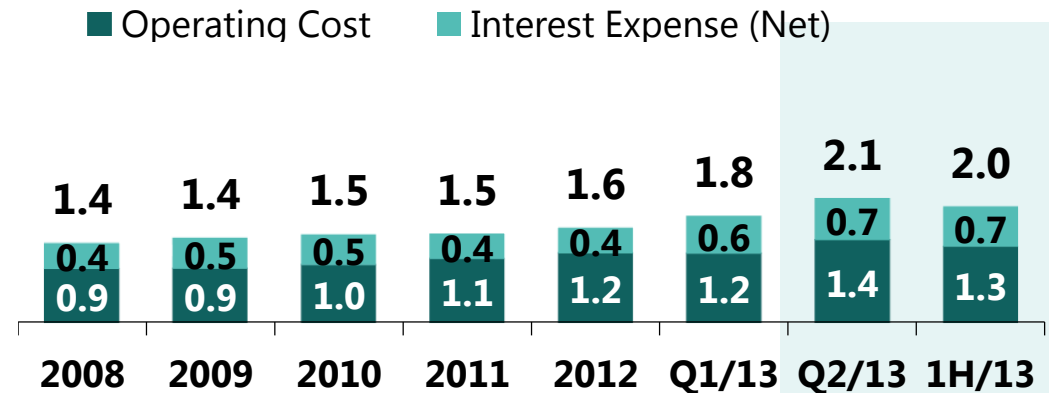
## Gross Integrated Margin

(Unit: US\$/bbl)



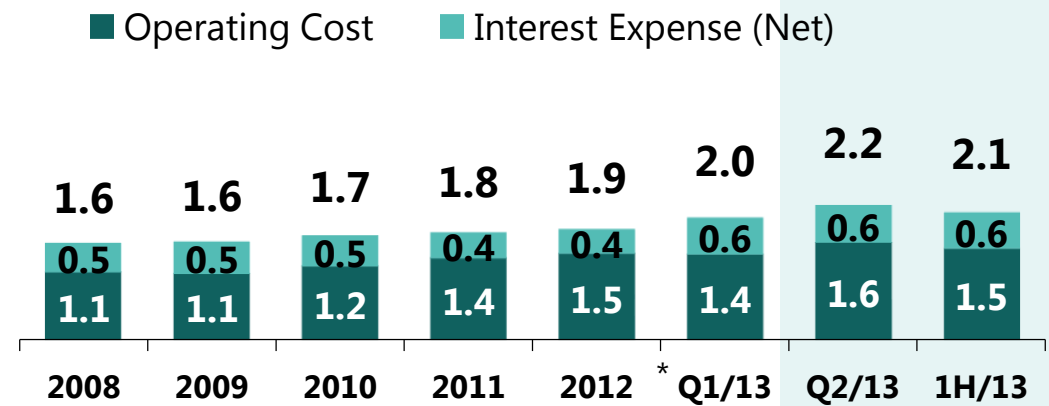
## TOP's Cash Cost

(Unit: US\$/bbl)



## Group's Cash Cost

(Unit: US\$/bbl)



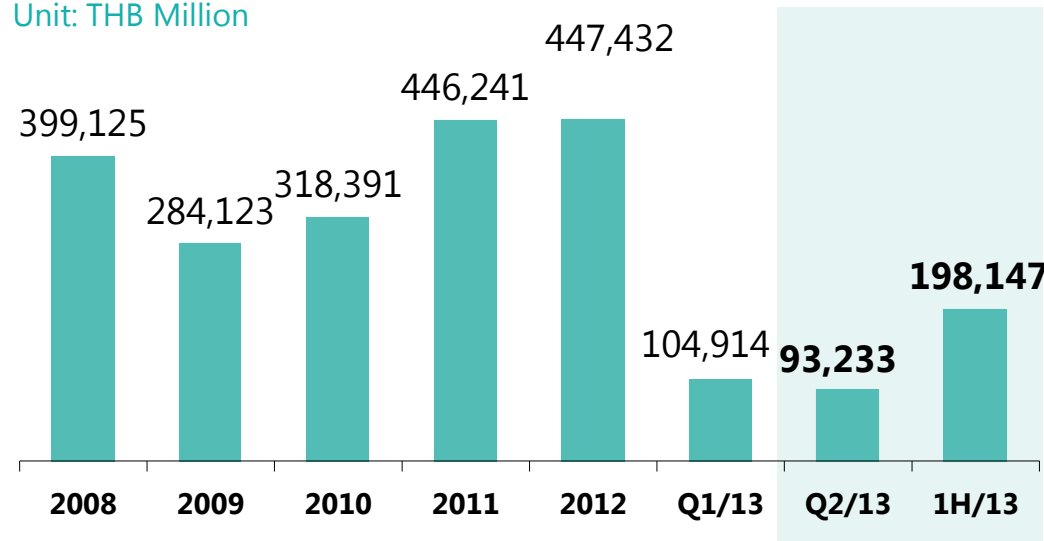
• Mkt GRM/GIM = Marketing GRM/GIM (excl. Stock gain/loss)  
• Acct GRM/GIM = Marketing GRM/GIM + Stock gain/(loss)

\* contingency flooding cost which is a one time payment  
• excluding employee benefit as per TAS#19 from 2011 onwards

# Financial Performance

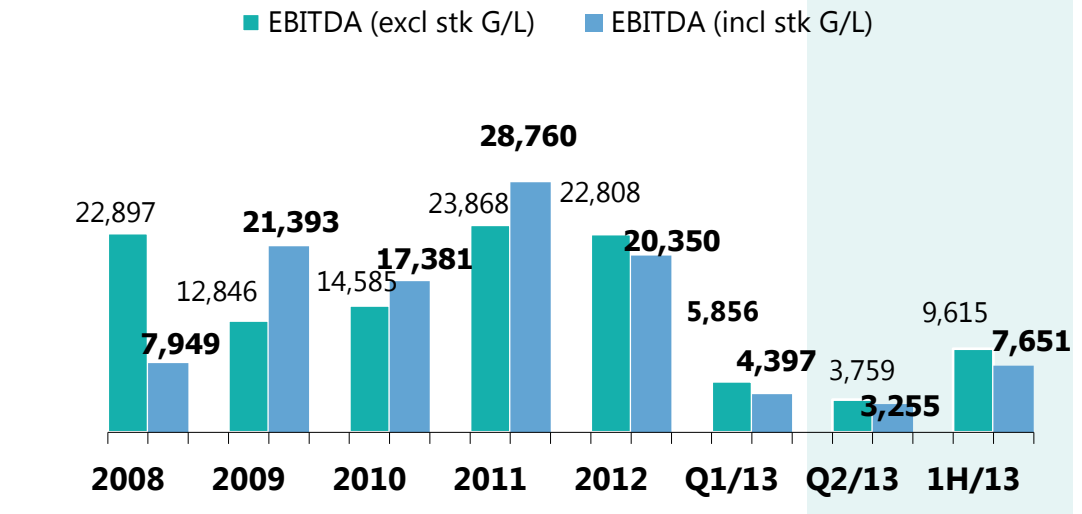
## Sales Revenue

Unit: THB Million



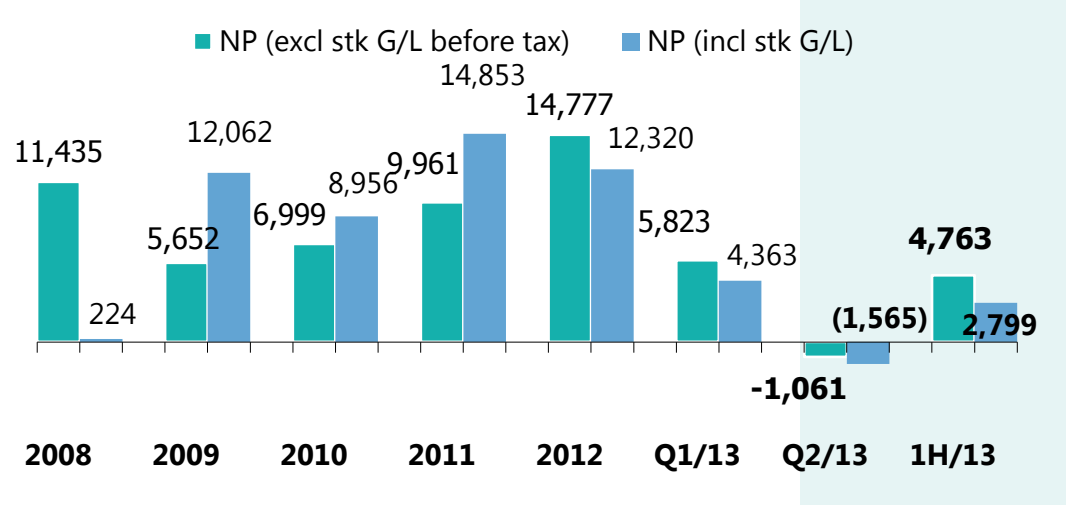
## EBITDA

Unit: THB Million



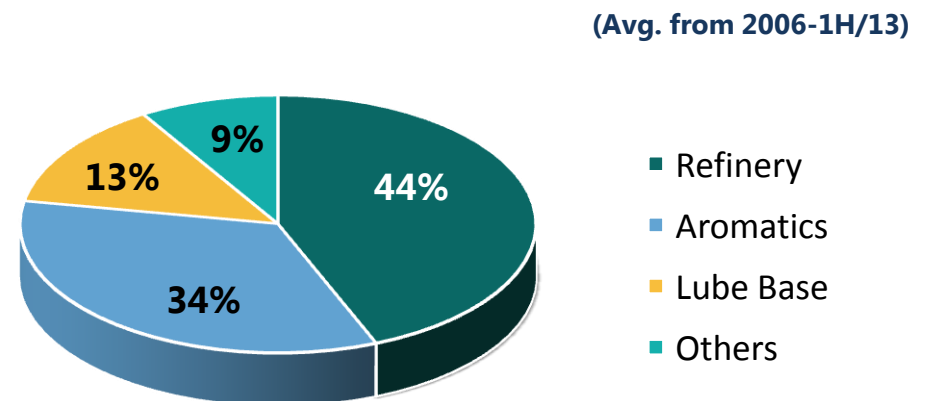
## Net Profit

Unit: THB Million



## Net Profit Breakdown

Unit: THB Million



\* Stock G/(L) from 2011 onwards is include BOI Tax redemption on environmental projects



## TOP Group Key Highlights



Thailand's largest and one of the region's most advanced and competitive refineries

1

Diversified earnings through integration with, and significant contribution from, our subsidiaries

2

Strategic relationship and operational integration with PTT as the Group's principal refiner

3

Strategic location with competitive advantages in access to key markets

4

Industry with high barriers to entry and strong market positioning

5

Technological superiority, logistical advantages & cost leadership

6

Highly experienced management team

7

Strong financial profile

8



# **Business Highlights**

# Q2/13 : Business Highlights

## Economic / Industry Highlights

- **Weak global economy especially a slowdown in China** triggering IMF has revised down world GDP & China while **Europe show some sign of recovery**
- **Market concerns over the possibility of US's QE policy tapering**
- **Ongoing unrest in Middle East and North Africa** including the trouble on the Korean Peninsula
- **Uncertainties during Iran pre & post presidential election** with hope of easing the sanction
- **Soft PX demand** from decelerating PTA markets when **BZ demand remained strong**
- **Peak seasonal lube demand** as well as **healthy bitumen** buying interests in the region

■ **Concerns on global oil demand growth**

■ **Oil price volatility resulted in Stock Loss**



+ Supply disruptions, plant outages and maintenance season caused **tight supply situation supporting oil price**

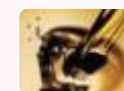
■ **Lower GRM from decreasing oil cracks**



■ **Decline Aromatics margins**



+ **Improved lube base and bitumen margins**



## Financial Highlights

- **Depreciation of THB against USD** ~1.8 THB/USD causing big FX loss at ~2.8 billion THB
- **Sought opportunity in risk management; commodity hedging gain** ~500 million THB, **gain on CCS** ~92 million THB
- **Dividend paid 2.20 THB/share; totaling 4.5 billion THB in April'13** (Annual dividend = 2.7 THB/share including interim dividends of 0.50 THB/share )

## Business Highlights

### Safety / Reliability / Flexibility / Efficiency

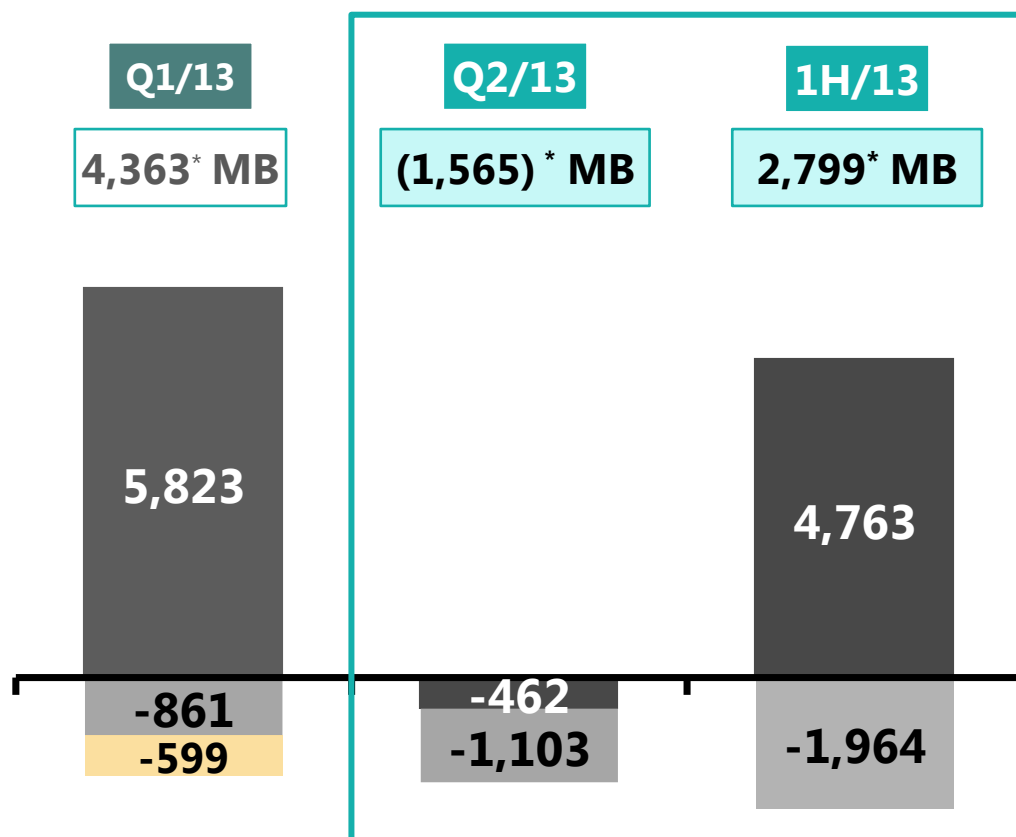
- **Refinery run rate remained high at 102%** despite a maintenance shutdown in May'13
- **New JV. set up: LABIX** (TPX 75 : Mitsui 25) to produce and distribute LAB (Linear Alkyl Benzene) & **TOP Nautical Star** (TM 50 : Nathalin 50) to buy vessels serving a high growth
- **Awards:** Asia's outstanding company on CG in Corporate Governance Asia Recognition Awards 2013

# Q2 & 1H/13: Economic Uncertainties...Pressured Earnings

## Top Group Net Profit

Unit : million THB

■ NP w/o Stock G/L ■ Stock G/(L) Before tax ■ LCM



## Gross Refinery Margin - GRM

\$/bbl	Q1/13	Q2/13	1H/13
Marketing GRM	6.6	3.6	5.1
Stock Gain/(Loss)	(1.1)	(1.4)	(1.3)
Accounting GRM	5.5	2.2	3.8

## Gross Integrated Margin - GIM

\$/bbl	Q1/13	Q2/13	1H/13
Aromatics	2.0	1.4	1.7
Lube base	0.5	0.8	0.6
<b>Marketing GIM</b>	<b>8.8</b>	<b>5.6</b>	<b>7.2</b>
<b>Accounting GIM</b>	<b>7.7</b>	<b>4.2</b>	<b>5.9</b>

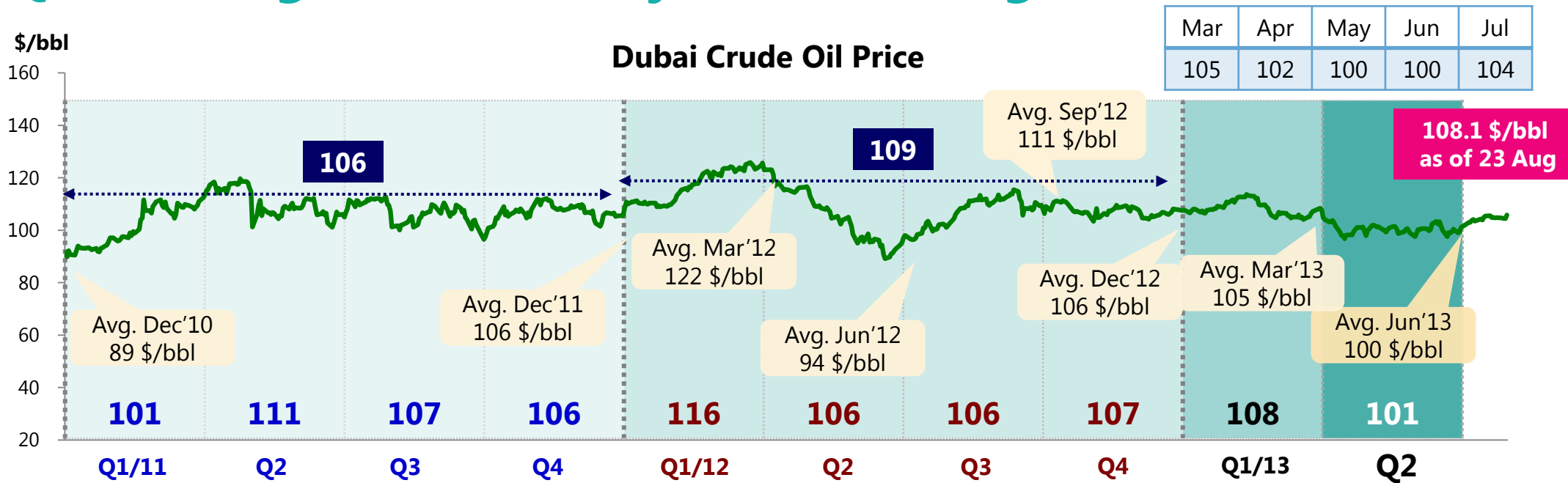
\*redeemed BOI privilege for tax exemption on environmental projects in Q1/13 = 466 MB, Q2/13 = None and 1H/13 = 1 MB (from subsidiary)



The background features several overlapping, wavy lines in various shades of teal and light blue. These lines create a sense of motion and depth, with some areas appearing more saturated than others. The lines flow from the top left towards the bottom right, with some crossing over each other.

# **Performance Analysis**

# Q2/13: Stagnant Economy...Diminishing Crude Price



## Global economy slowdown



- IMF & World Bank has made a downward revision on world GDP growth forecast to 3.3% and 2.4% respectively in consequence of **sluggish Chinese economy** (its GDP was revised down to 7.7-7.8% by IMF and OECD), **weak EU economic conditions**

## Concerns on US monetary policy & stimulus package



- After FED noticed the probability of QE4 tapering in mid 2014, market started concerning about an overall economic recovery in the US, resulting in **softened global oil demand**. However FED still maintained its bond buying program

## Extended geopolitical risk



- Unrest in Middle East and North Africa**
- Potential supply disruption in Libya & South Sudan** still support crude prices
- Violence in Egypt & Syria** to spike up sentiment in the market

## Limited crude supply



- North Sea crude oil field's** maintenance shutdown season and supply outage at **Buzzard**
- Unplanned shutdown of US crude pipeline from North Dakota**

# Q2/13: Contracted Product Spreads...Lower GRM

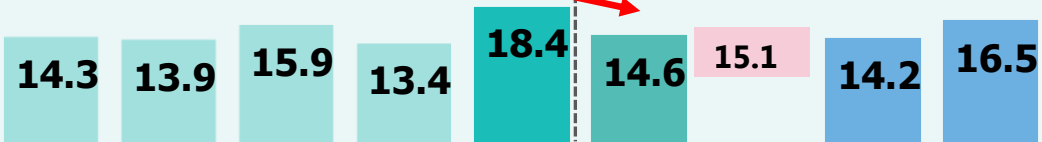
**LPG - DB** (Unit: \$/bbl)



•  $LPG\ price = 76\%\ CP\ price + 24\% * 333\ \$/ton.$

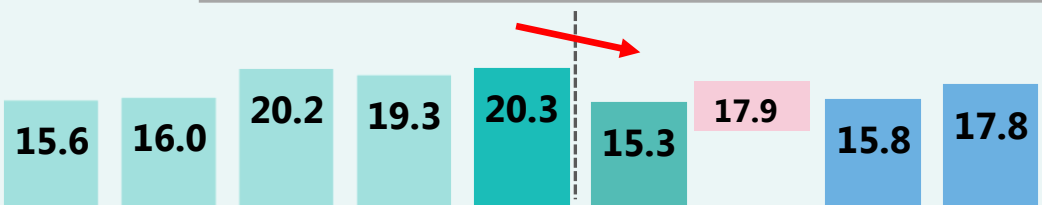
**ULG95 - DB**

- + Indonesian and Muslim demand
- + Refineries run cuts and turnaround in Asia and EU
- Weak US and EU market pressuring cracks
- Additional supply in US as turnaround season ended



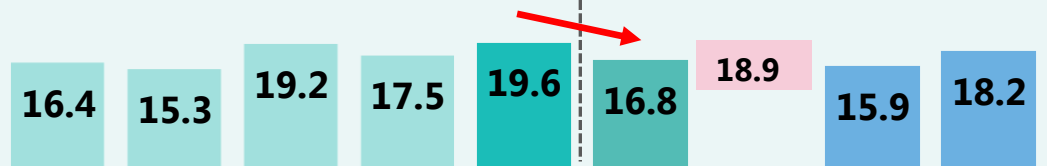
**JET - DB**

- + Refineries turnaround season in Asia and ME
- Close-end of winter demand in NEA
- Sluggish aviation activities in Asia and EU



**GO - DB**

- + Supportive ME and African summer demand
- + Refineries run cuts and outage in India and Taiwan
- Closed arbitrage to West
- Exports from China on weak domestic demand

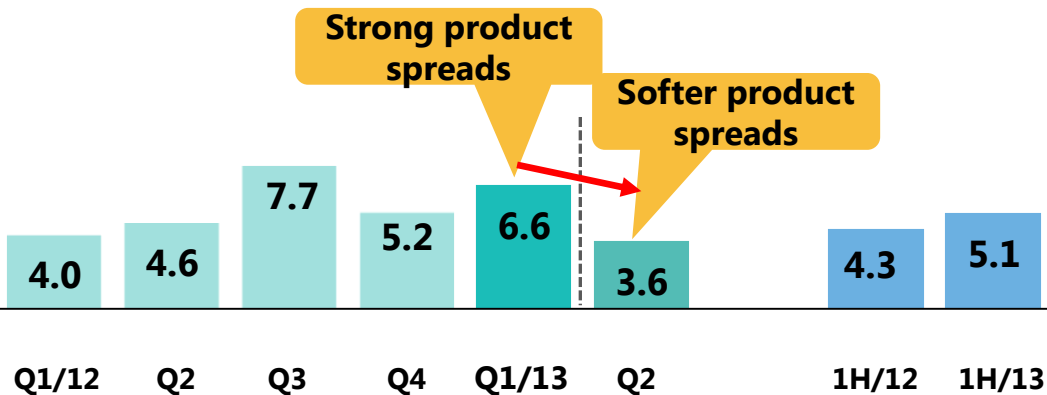


**HSFO - DB**



- + Concerns over lack of on-specification FO
- + Buying interest from South Korea and ME
- Weak China's teapot refinery as poor gasoline and gasoil margin / High western inflows

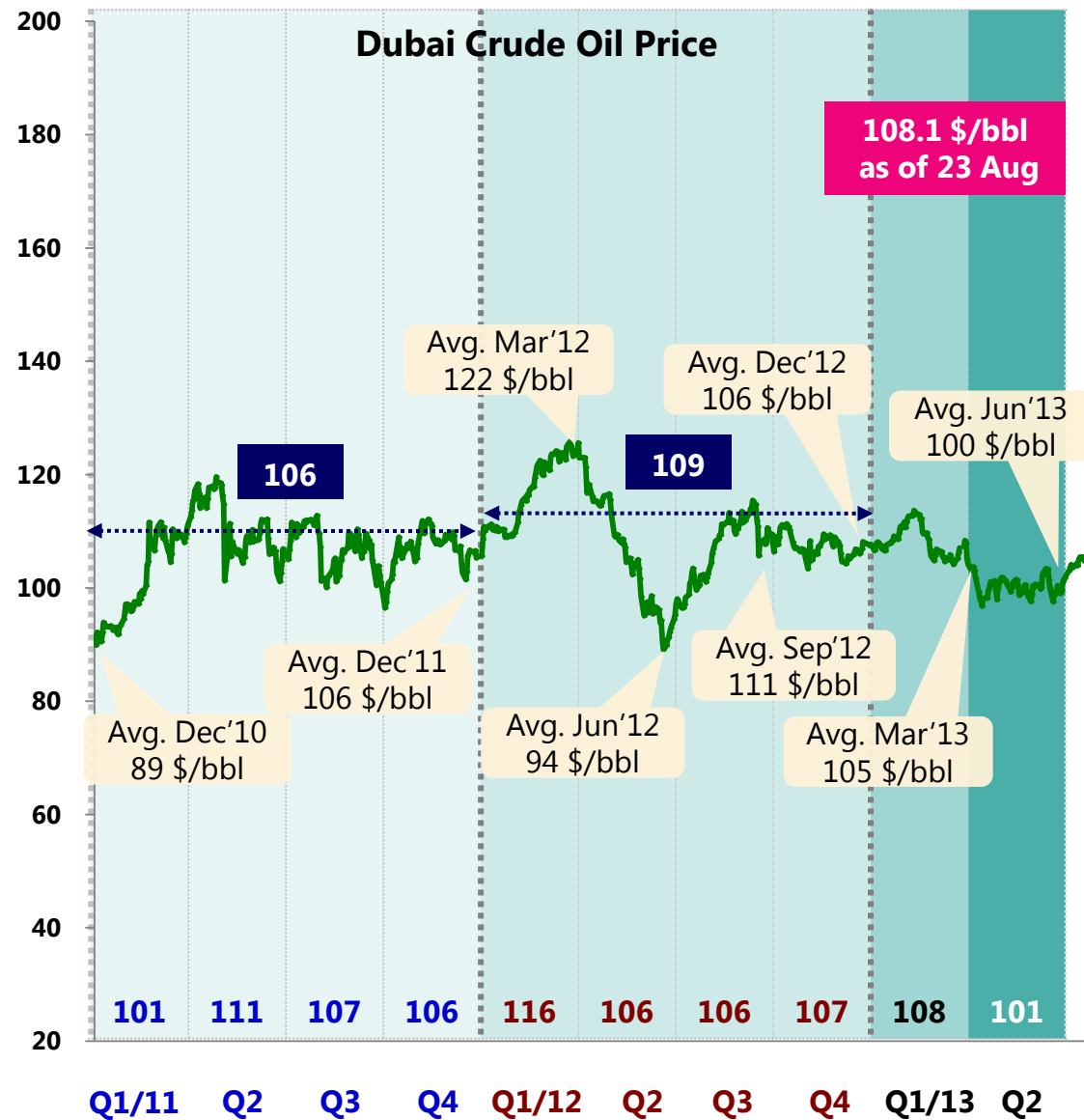
## Gross Refinery Margin - GRM



# Crude Price Volatility...Causing Stock Loss

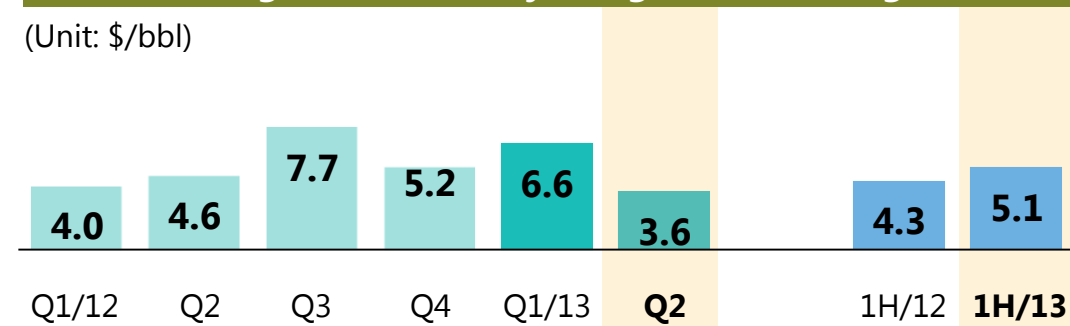
Mar	Apr	May	Jun	Jul
105	102	100	100	104

(Unit: \$/bbl)



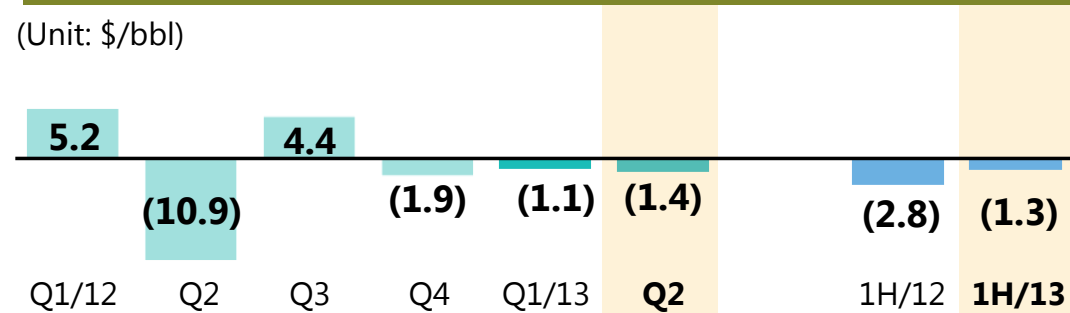
## Marketing Gross Refinery Margin – Marketing GRM

(Unit: \$/bbl)



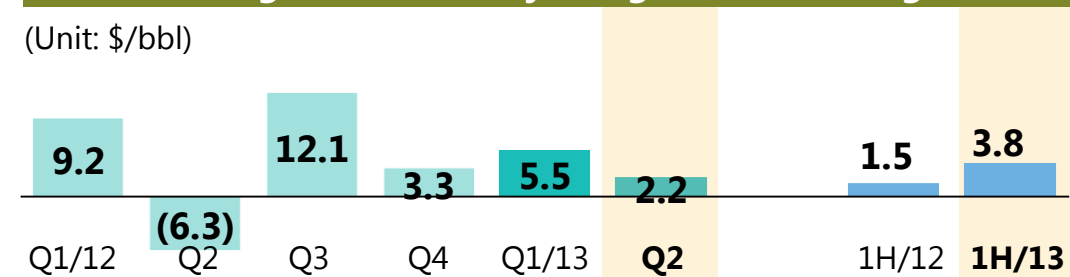
## Stock Gain/ Loss

(Unit: \$/bbl)



## Accounting Gross Refinery Margin – Accounting GRM

(Unit: \$/bbl)





# Optimized & Flexible Operations...Superior Performance

Crude Assays based on  
TOP configuration



Sources of  
Crude

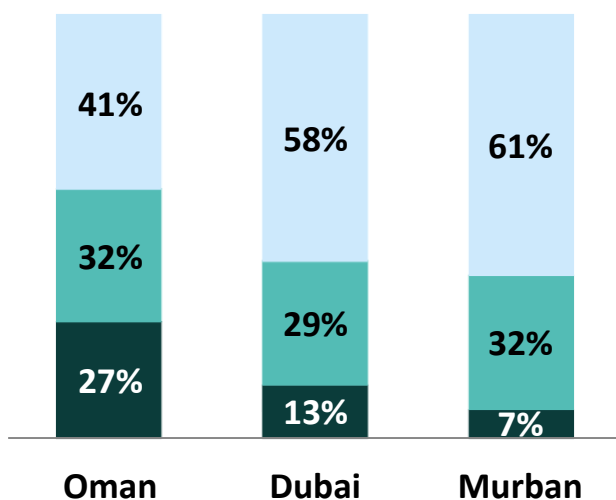
Product Spread over  
output Dubai (US\$/bbl)



Domestic demand for  
petroleum products\*

% S = 1.54 API = 31.2	% S = 2.13 API = 30.4	% S = 0.79 API = 39.7
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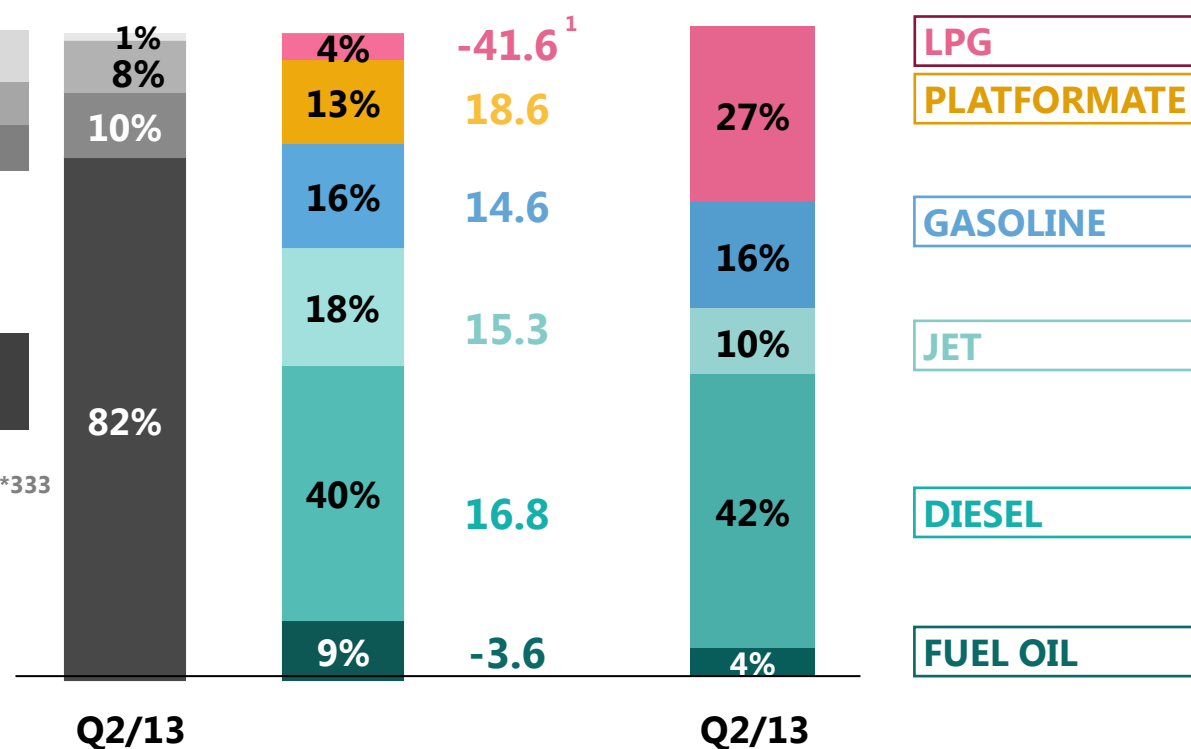
■ Short Residue ■ Waxy ■ Gas/Distillates



Others  
Far East  
Local

Middle  
East

1. LPG price =  
76% CP + 24%\*333  
\$/ton



Thai Oil is able to diversify its type of crude intake and product outputs to maximize demand and margin

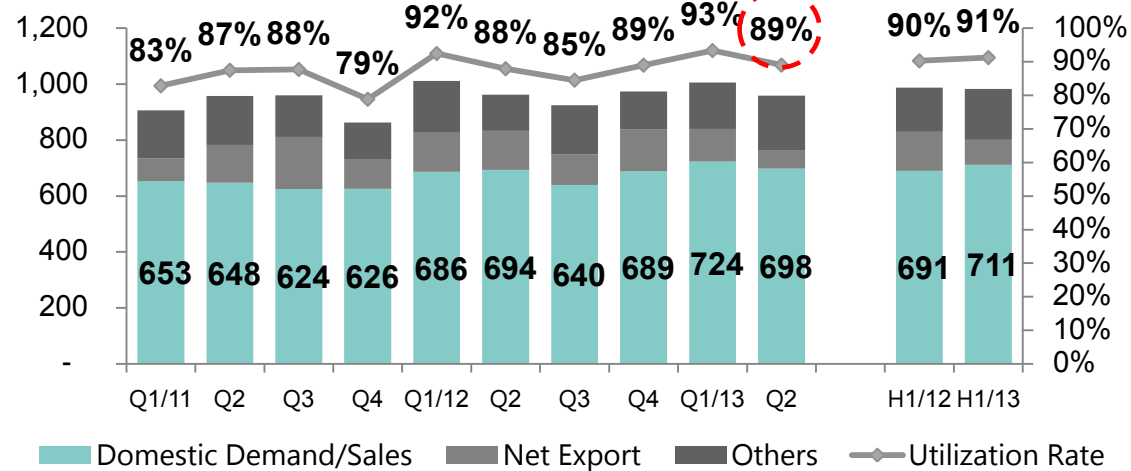
- **Flexibility in crude intake** allows diversification of crude types to source cheaper crude
- **Flexibility in product outputs** by maximizing middle distillates (jet and diesel) by adjusting production mode to capture domestic demand and price premium
- **Maximize Platformate production** to capture higher margin on aromatics
- **Minimize fuel oil output to avoid lower margin products**

# Growing Country Demand...Max Domestic Sales

## Domestic Oil Demand / Domestic Refinery Intake

KBD

Utilization = 102%

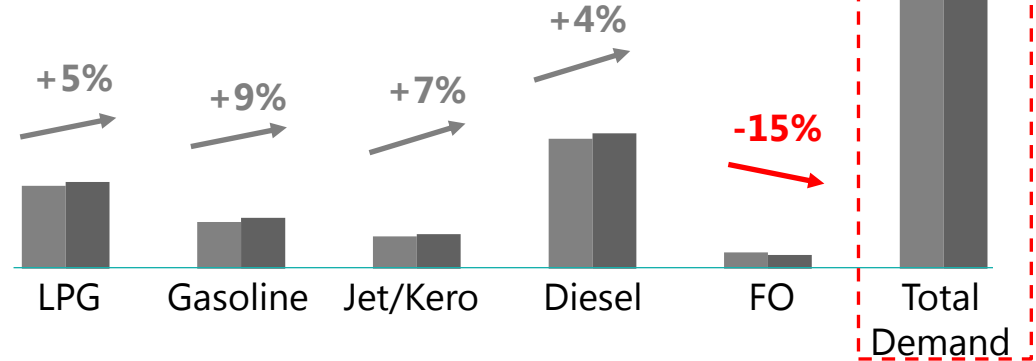


## Domestic Oil Demand

KBD

1H/12

1H/13

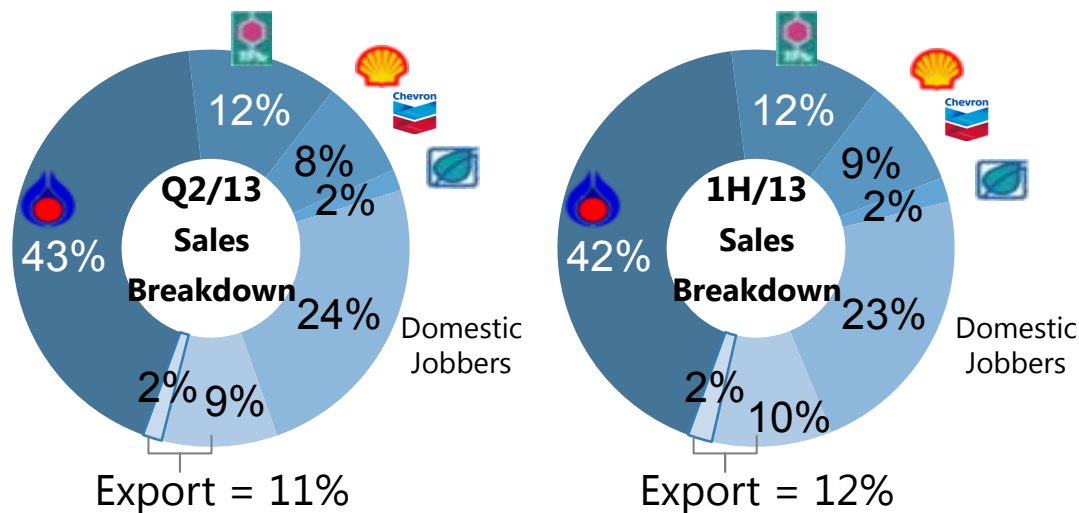
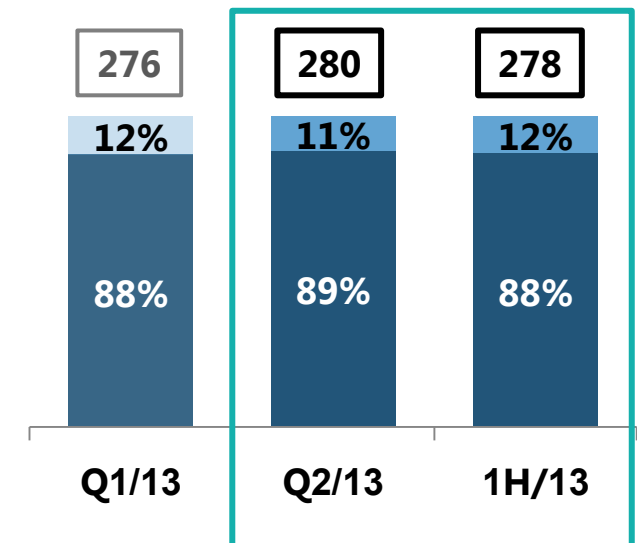


## TOP's Domestic & Export Sales

Refinery Intake (KBD)

Export

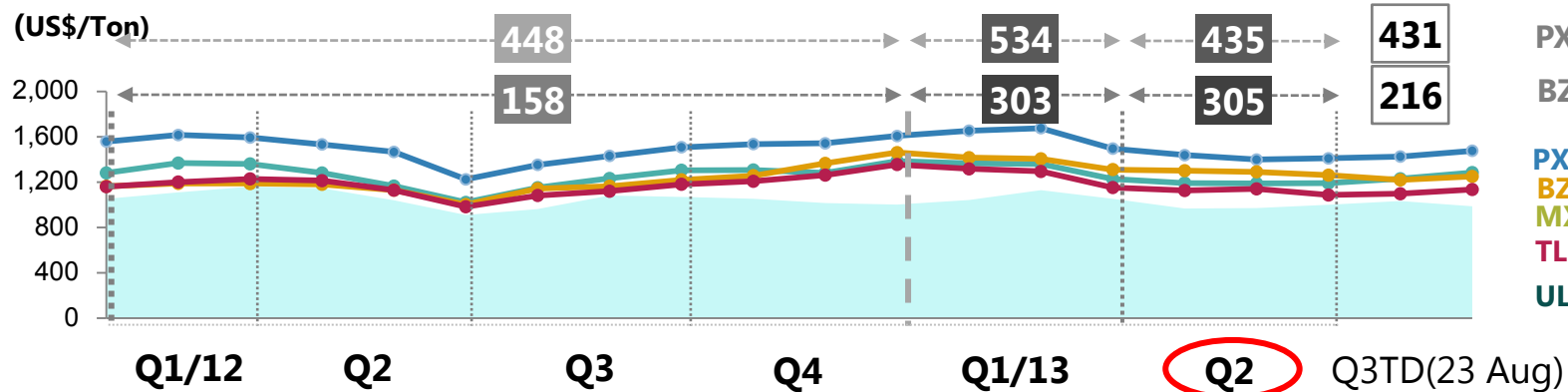
Domestic



# Q2/13: Weaker Demand...Limited Aromatics Margins

## Aromatics Spot Prices and Margins

(US\$/Ton)	Q1/12	Q2	Q3	Q4	2012	Q1/13	Q2	1H
PX-ULG95	482	380	394	536	448	534	<b>435</b>	<b>485</b>
BZ-ULG95	72	84	139	336	158	303	<b>305</b>	<b>304</b>



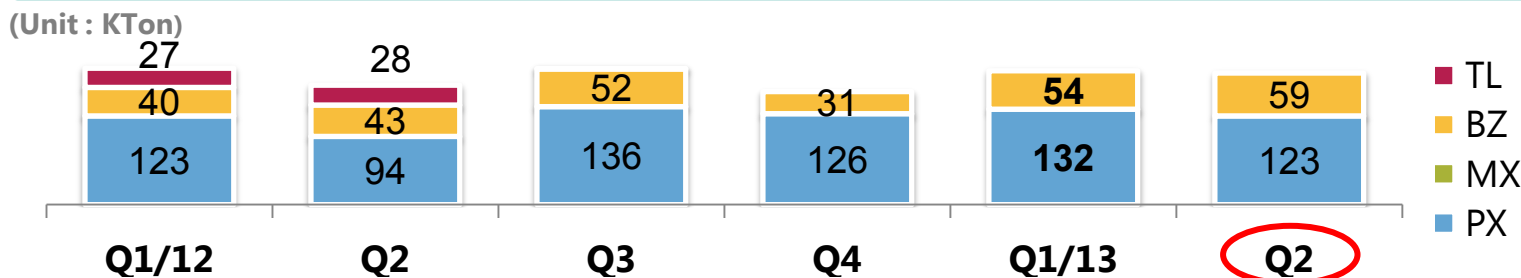
## 2013 Aromatics Production

Q1	Q2	1H
82%	<b>87%</b>	<b>84%</b>

## Paraxylene (PX)

- **Weak polyester demand in China** as less trading activities
- **Decelerating PTA market** leading to PTA producers cut run then dumped PX in the market
- + **Lower feedstock price**
- + **The delay of new PX plants in China (800 KTA @ Zhangzhou, 550 KTA @ Indonesia)**

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



(US\$/Ton)	Q1/12	Q2	Q3	Q4	2012	Q1/13	Q2	1H
P2F -\$/ton	138	125	98	139	126	155	<b>127</b>	<b>141</b>
P2F -\$/bbl	18.1	16.3	12.8	18.2	16.4	20.3	<b>16.5</b>	<b>18.4</b>

## Benzene (BZ)

- + **High demand from downstream producers** as they rose operating rate tracking their attractive margins
- + **Tight supply** amid maintenance season of regional olefin plants
- **High inventory** in China limited the upside

# Q2/13: Improved Seasonal Demand...A Bounce in Margins

## Base Oil & Bitumen Spot Prices & Margins

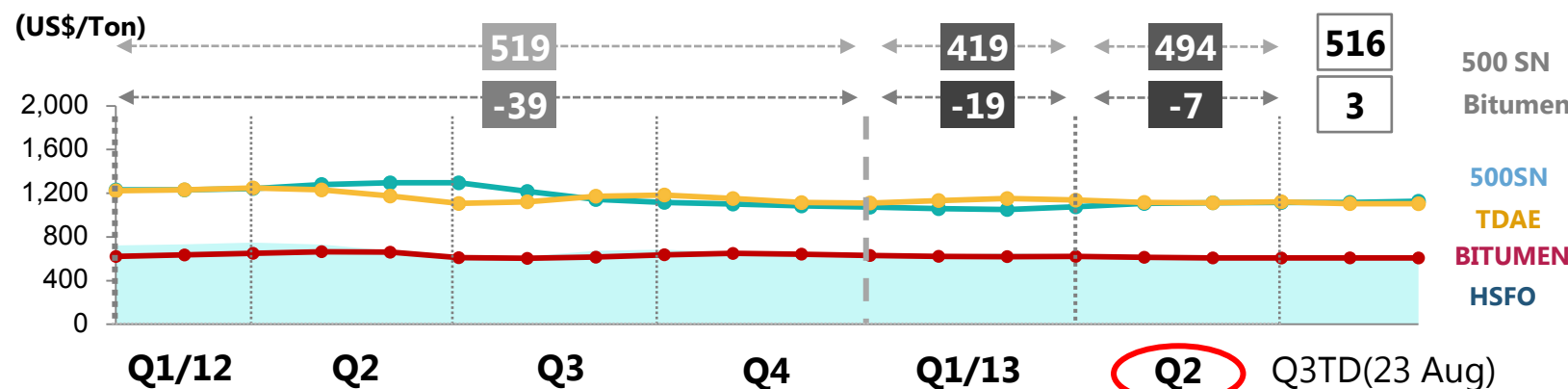
(US\$/Ton)	Q1/12	Q2	Q3	Q4	2012	Q1/13	Q2	1H
500SN-HSFO	500	621	497	460	519	419	<b>494</b>	<b>457</b>
BITUMEN-HSFO	-99	-32	-41	15	-39	-19	<b>-7</b>	<b>-13</b>

## 2013 Base oil Production

Q1	Q2	1H
97%	<b>105%</b>	<b>101%</b>

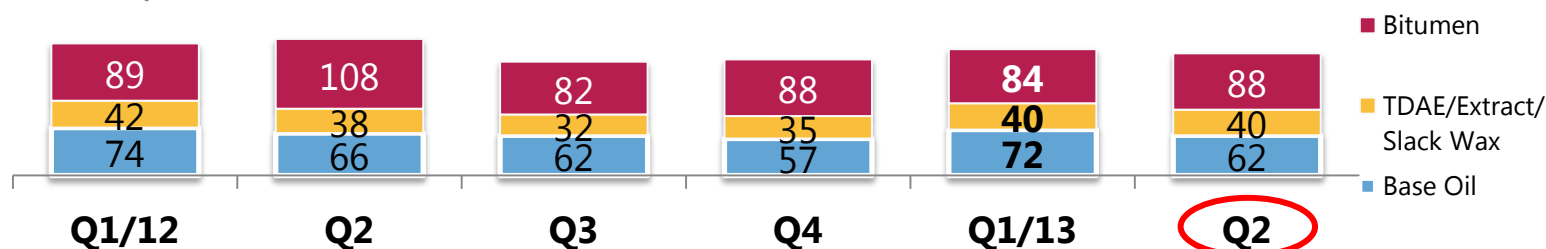
## Lube Base Oil

- + **High seasonal agricultural demand** in summer
- + **Tight supply** from regional plants turnaround
- + **Lower feedstock cost** following HSFO price
- **Ample supply of Group II base oil** to pressure on Group I



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

(Unit : KTon)



(US\$/Ton)	Q1/12	Q2	Q3	Q4	2012	Q1/13	Q2	1H
P2F -\$/ton	132	143	145	120	135	118	<b>132</b>	<b>126</b>
P2F -\$/bbl	20.0	21.7	22.1	18.3	20.5	18.0	<b>20.1</b>	<b>19.1</b>

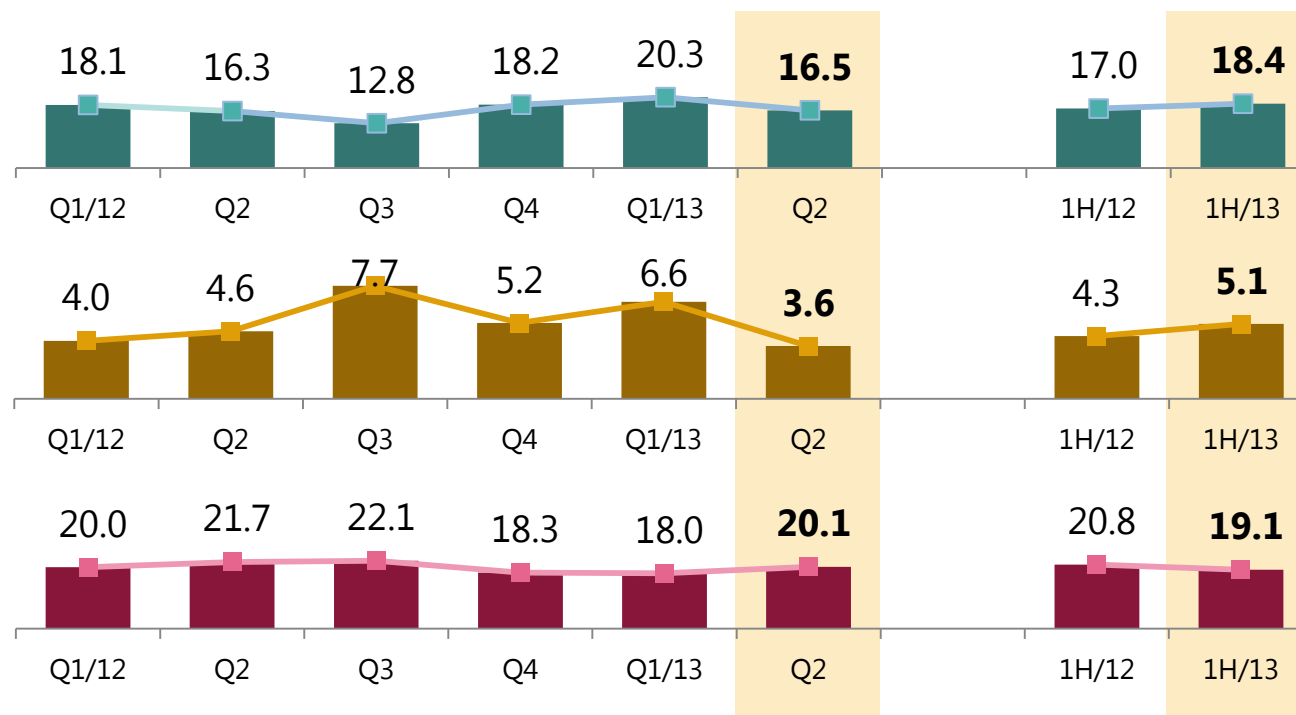
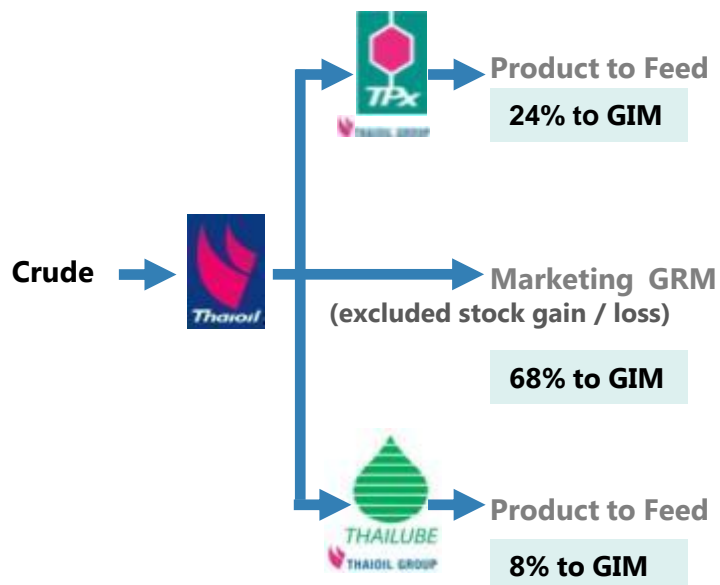
## Bitumen

- + **Firm demand from paving projects** in Vietnam & Indonesia
- + **Lower feedstock cost** following HSFO price
- **Less buying interest in China** as government's tight monetary policy & high inventories



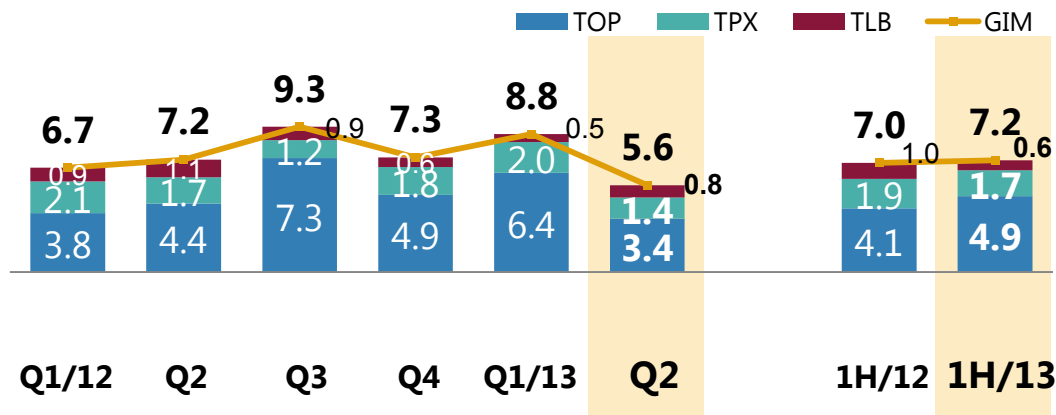
# Beauty of Integration...Sustainable GIM

(US\$/bbl)



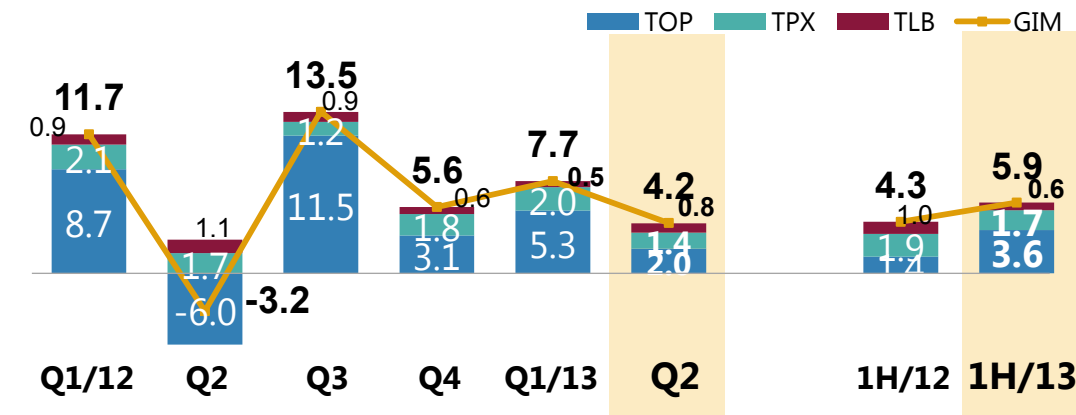
## Marketing GIM

(US\$/bbl)

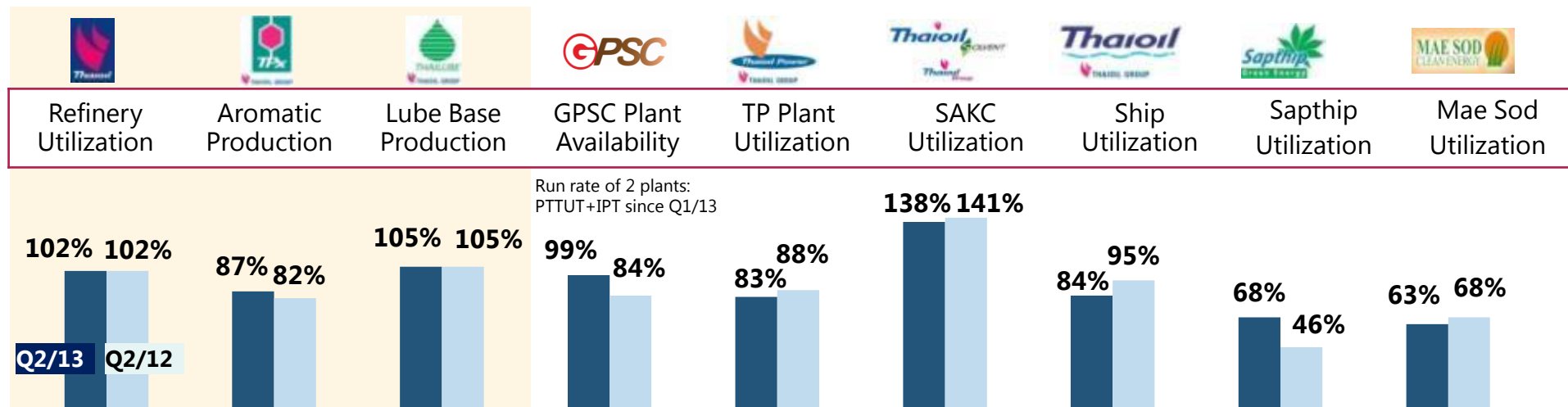


## Accounting GIM

(US\$/bbl)



# Q2/13: Performance Breakdown



Run rate of 2 plants:  
PTTUT+IPT since Q1/13

- TOP: CDU-2, CCR-2, HDT-2 shutdown in May 13
- GPSC: maintained high availability rate after Combustion Inspection in Q1.
- TP: Major Inspection during 21Apr-12May13 following TOP's maintenance shutdown
- TM: VLCC-Tenyo and T3 were off hired due to dry dock period
- TET: MCE planned S/D, SAP had major turnaround

Stock G/(L) 1H/13*	= (1,103) MB
Net Profit excl. stock G/(L)*	= (462) MB

## Q2/13 Net Profit Breakdown (include stock gain / loss)

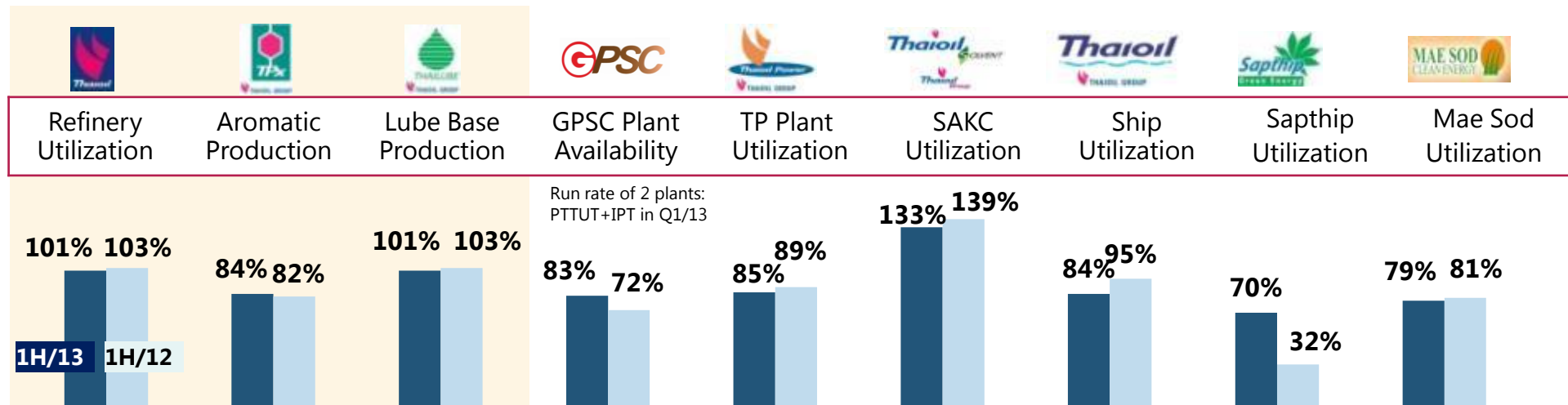
\*before tax

(Unit: MB)	Thaioil	TPX	THALURE	GPSC	TP	TOP	Thaioil	Thaioil ethanol	Conso.
NP	(2,909)	697	334	356	82	36	47	(5)	(1,565)
ΔYoY	5,748 ▲	(190) ▼	(297) ▼	N/A	(21) ▼	(7) ▼	(24) ▼	44 ▲	5,338 ▲
ΔQoQ	(5,492) ▼	(189) ▼	158 ▲	239 ▲	(15) ▼	(13) ▼	2 ▲	(47) ▼	(5,928) ▼

\*\* Apply on an equity accounted basis in the consolidated financial statement.(GPSC has been hold by TOP 11.88% and TP 27.71% since 10 Jan 13)

\*\*\*TP performance only (excluding 27.71% shares of profit from the investment in GPSC)

# 1H/13: Performance Breakdown



Run rate of 2 plants:  
PTTUT+IPT in Q1/13

- TOP: CDU-2, CCR-2, HDT-2 shutdown in May 13
- GPSC: maintained high availability rate after Combustion Inspection in Q1.
- TP: Major Inspection during 21Apr-12May13 following TOP's maintenance shutdown
- TM: VLCC-Tenyo and T3 were off hired due to dry dock period
- TET: MCE planned S/D, SAP had major turnaround

**Stock G/(L) & LCM 1H/13\*** = (1,964) MB

**Net Profit excl. stock G/(L)&LCM\*** = 4,763 MB

\*before tax

## 1H/13 Net Profit Breakdown (include stock gain / loss)

(Unit: MB)	Thailand	TPs	THALURE	GPSC	Thailand Pioneer	TOP	Thaioil	Thaioil ethanol	Conso.
NP	(326)	1,584	510	472	179	84	93	37	2,799
ΔYoY	2,809 ▲	(367) ▼	(580) ▼	N/A	(6) ▼	(81) ▼	(29) ▼	127 ▲	2,476 ▲

\*\* Apply on an equity accounted basis in the consolidated financial statement.(GPSC has been hold by TOP 11.88% and TP 27.71% since 10 Jan 13)

\*\*\*TP performance only (excluding 27.71% shares of profit from the investment in GPSC)

## Consolidated Financial Performance

(US\$/bbl)	<u>Q2/13</u>	<u>Q1/13</u>	<u>Q2/12</u>	<u>QoQ+ / (-)</u>	<u>1H/13</u>	<u>1H/12</u>	<u>YoY+ / (-)</u>
Marketing GRM	3.6	6.6	4.6	(3.0)	5.1	4.3	0.8
Marketing GIM	5.6	8.8	7.2	(3.2)	7.2	7.0	0.2
Accounting GIM	4.2	7.7	(3.2)	(3.5)	5.9	4.3	1.6
(MB)							
Sales Revenue	93,233	104,914	112,387	(11,681)	198,147	229,474	(31,327)
<b>EBITDA</b>	<b>3,255</b>	<b>4,397</b>	<b>(4,366)</b>	<b>(1,142)</b>	<b>7,651</b>	<b>4,284</b>	<b>3,367</b>
Financial Charges	(987)	(867)	(617)	120	(1,853)	(1,151)	702
FX G/(L) & CCS	(2,764)	1,717	(578)	(4,481)	(1,047)	578	(1,625)
Tax Expense*	(116)	(270)	(34)	(154)	(386)	(668)	(282)
<b>Net Profit / (Loss)</b>	<b>(1,565)</b>	<b>4,363</b>	<b>(6,903)</b>	<b>(5,928)</b>	<b>2,799</b>	<b>323</b>	<b>2,476</b>
EPS (THB/Share)	(0.77)	2.14	(3.38)	(2.91)	1.37	0.16	1.21
THB/US\$ - ending	31.27	29.45	31.97	1.82	31.27	31.97	(0.70)
Effective Tax Rate (%)	N/A	6%	N/A	N/A	12%	N/A	N/A

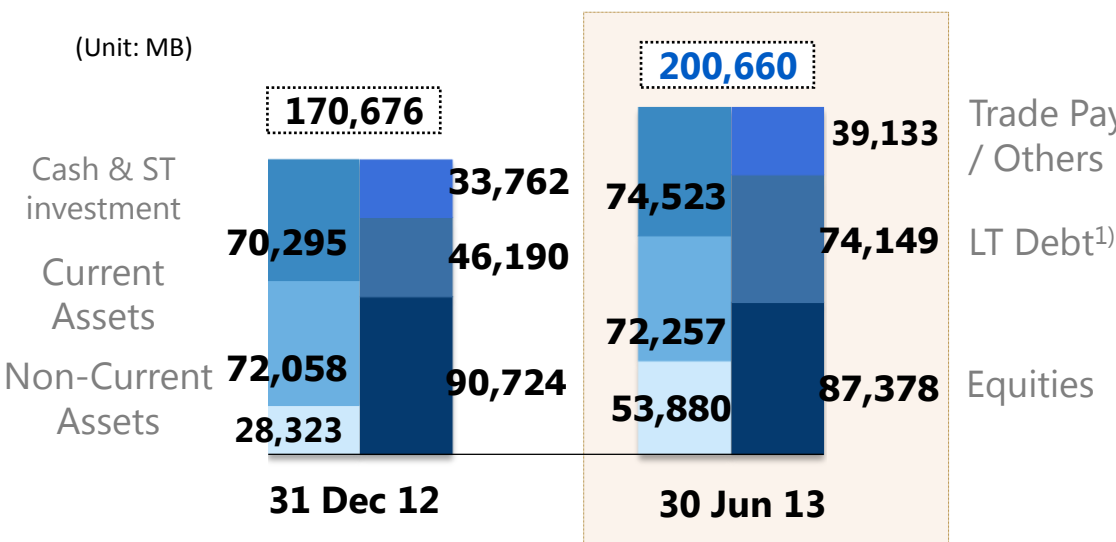
- In 2013, the corporate income tax rate is reduced to 20% from 23%
- redeemed BOI privilege for tax exemption on environmental projects in Q2/13 = None, 1H/13 = 1 MB (from subsidiary) and Q1/13 = 466 MB



# Strong Financial Performance

## Statements of Financial Position

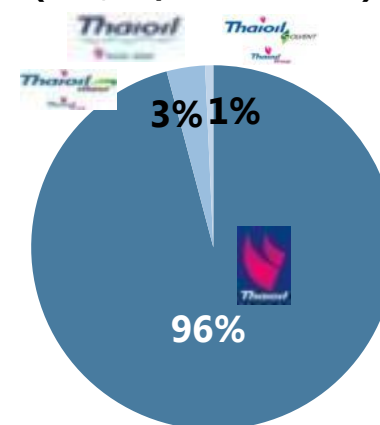
(Unit: MB)



## Consolidated Long-Term Debt as at 30 June 13 <sup>1)</sup>

### Total Long-Term Debt

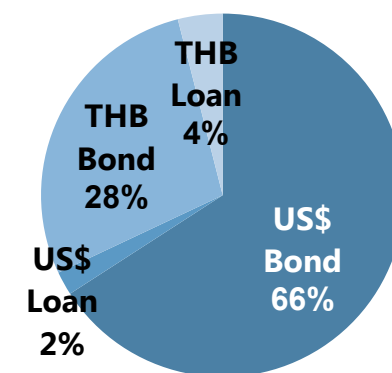
THB 74,149 million  
(US\$ 2,371 million)



### Net Debt

THB 25,203 million  
(US\$ 806 million)

As at 30 June 13 (31.27 THB/US\$)



1) Including current portion of Long-Term Debt

Interest Rate	Currency
6% Float	32% THB
94% Fixed	68% USD

Cost of Debt (Net*)	
TOP Group	2.93%*

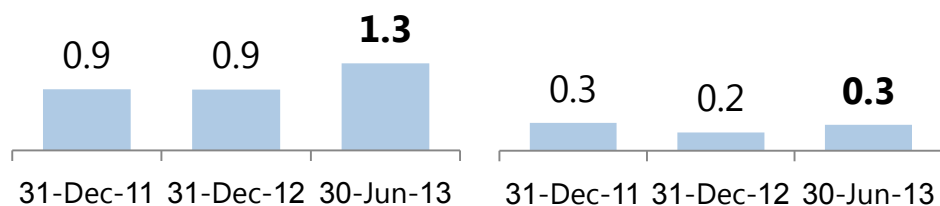
## Financial Ratios

Net Debt / EBITDA<sup>2)</sup>

Policy ≤ 2.0x

Net Debt / Equity

Policy ≤ 1.0x



**Moody's Investors Service**

Baa1  
Stable Outlook

**STANDARD & POOR'S**

BBB  
Stable Outlook

**FitchRatings**

AA-  
Stable Outlook

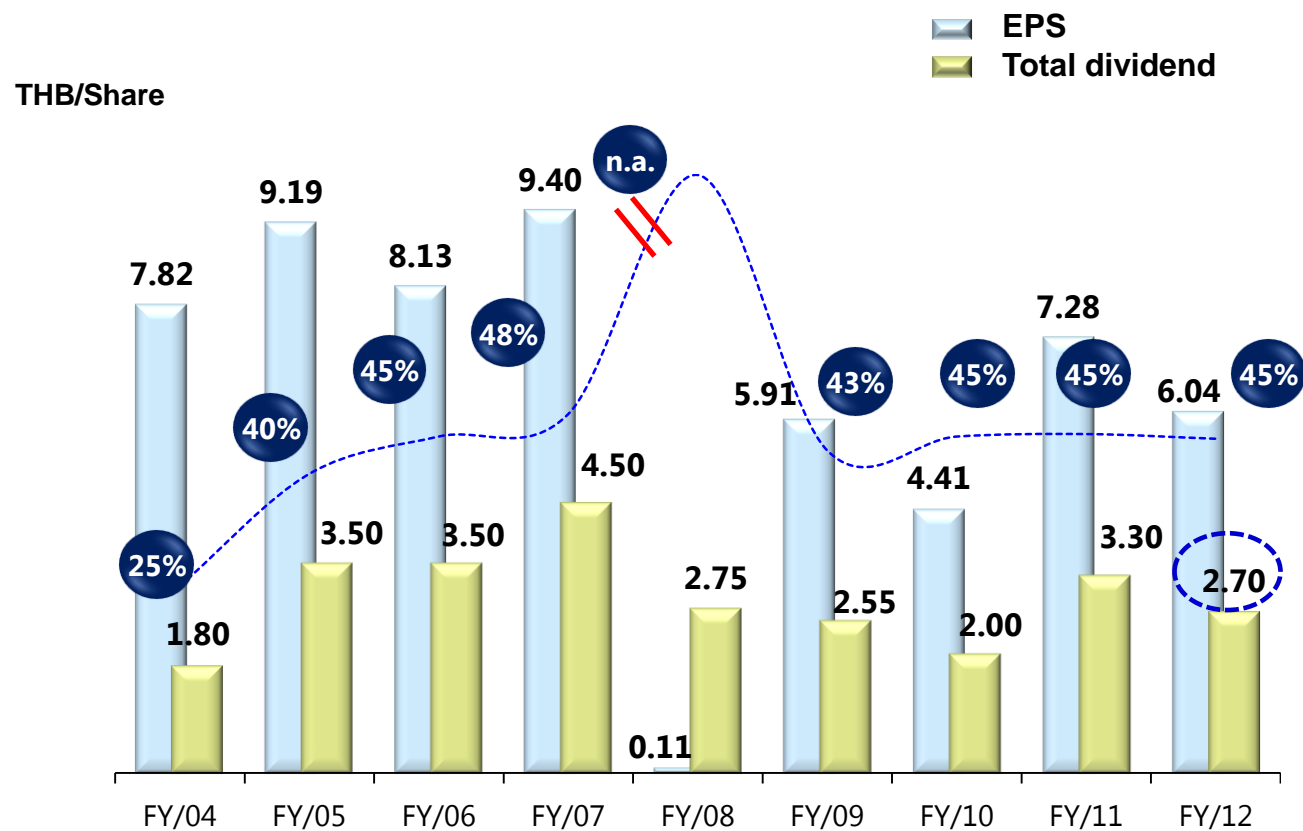
2) EBITDA1H/13 (excl stock loss & LCM)\*2

\*Annualized interest expense net off interest income as per FS as at 30 June 13 (actual 1H/13\*2)

# Dividend Payment

## Dividend Policy :

Not less than 25% of consolidated net profit after deducting reserves, subject to cash flow and investment plan



Yield*	4.0%	5.6%	5.6%	6.2%	5.2%	7.1%	4.0%	4.7%	4.2%
--------	------	------	------	------	------	------	------	------	------

\* Based on average TOP price in each year

TOP price	44.70	63.04	62.71	72.66	53.31	35.88	49.85	69.78	65.09
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Dividend Payment	THB/Share	Payout
FY/04	1.80	25%
FY/05	3.50	40%
FY/06	3.50	45%
Interim	1.50	
Annual	2.00	
FY/07	4.50	48%
Interim	1.75	
Annual	2.75	
FY/08	2.75	n.a.
Interim	1.75	
Annual	1.00	
FY/09	2.55	43%
Interim	1.05	
Annual	1.50	
FY/10	2.00	45%
Interim	0.60	
Annual	1.40	
FY/11	3.30	45%
Interim	1.30	
Annual	2.00	
FY/12	2.70	45%
Interim	0.50	
Annual	2.20	



# Q3 & 2H-2013 Market Outlook

- ***Macroeconomics & Crude Prices***
- ***Petroleum Market***
- ***Aromatics & Base Oil***
- ***Conclusion***





# Macroeconomics & Crude Prices

*Rising global oil supply and slowdown Chinese economy to pressure oil prices ...*

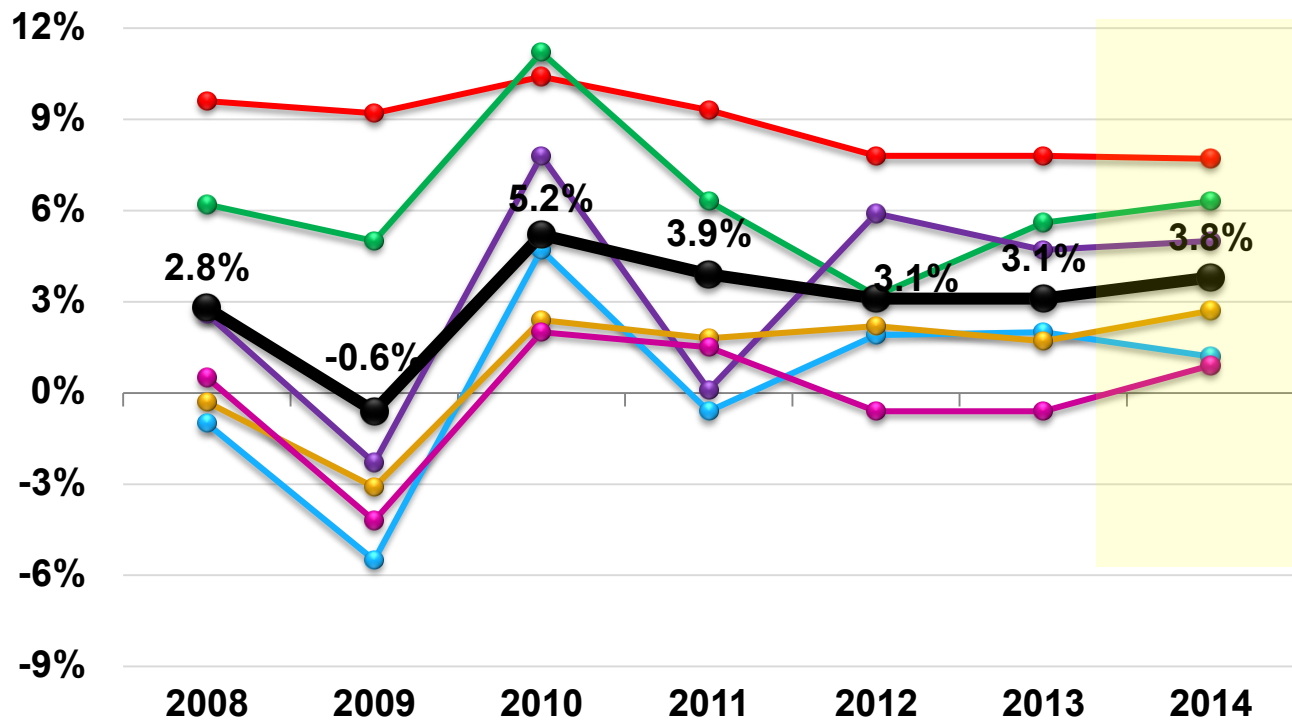
*Supply disruption in MENA to limit losses for Q3*



## 2013 GDP by IMF – Growing Pains in Global Growth

IMF revised down global GDP forecast in 2013 from its Apr's forecast, driven by a large extent by appreciably weaker domestic demand and slower growth in China

Growth (%YoY)



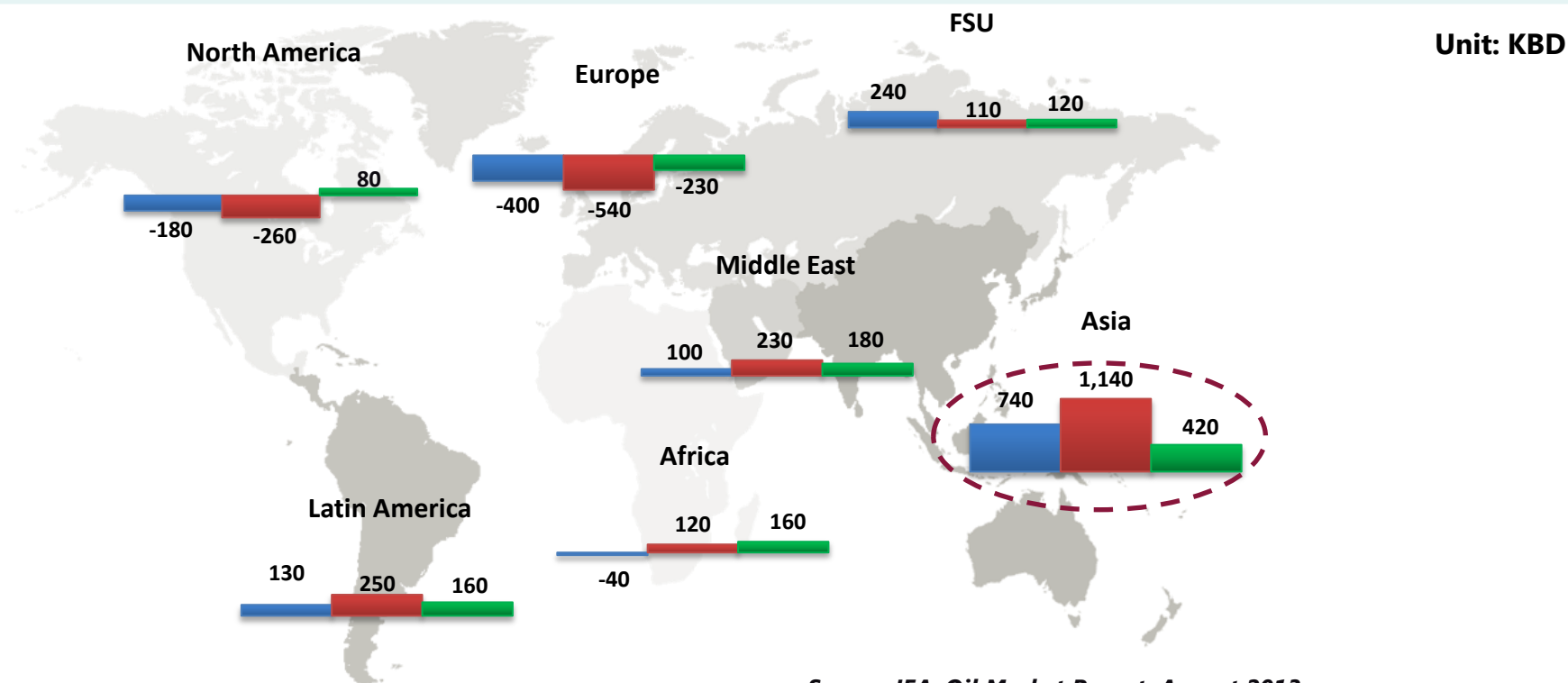
	2012	2013*	2014
China	7.8%	7.8%	7.7%
India	4.0%	5.6%	6.3%
Japan	2.0%	2.0%	1.2%
Thailand **	5.9%	4.2%	5.0%
US	2.2%	1.7%	2.7%
EU	-0.2%	-0.6%	0.9%
World	3.2%	3.1%	3.8%

\* IMF World Economic Outlook (WEO) Jul, 2013

\*\* BOT inflation report latest, Jul 2013

# Global Oil Demand Growth in 2013

IEA **revised down** 2013 global oil demand growth due to lower macroeconomics forecasts by IMF



Source: IEA, Oil Market Report, August 2013

2011/2012/2013

IEA	Demand (mbd)	Growth (mbd)
2011	88.88	+0.76
2012	89.94	+1.06
2013	90.84	+0.90

Source: IEA, Oil Market Report August 2013

EIA	Demand (mbd)	Growth (mbd)
2011	88.30	+1.19
2012	88.90	+0.60
2013	89.99	+1.09

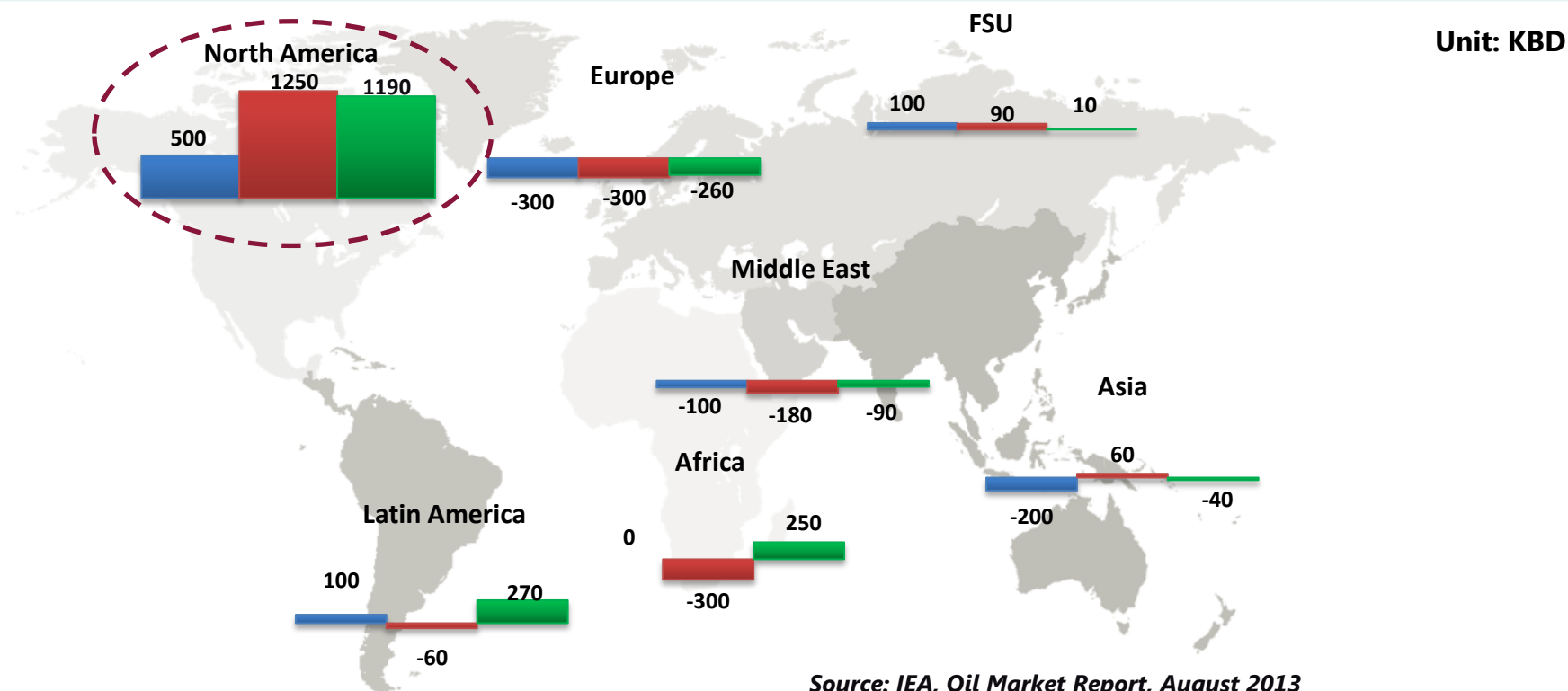
Source: EIA, Short Term Energy Outlook August 2013

OPEC	Demand (mbd)	Growth (mbd)
2011	88.10	+0.90
2012	88.90	+0.80
2013	89.70	+0.80

Source: OPEC, Oil Market Report August 2013

# Non-OPEC Supply Growth in 2013

Stronger non-OPEC supply growth in 2013 at around 1.1 mbd, mainly from the North of America



2011/2012/2013

IEA	Supply (mbd)	Growth (mbd)
2011	52.80	+0.20
2012	53.40	+0.60
2013	54.51	+1.11

Source: IEA, Oil Market Report August 2013

EIA	Supply (mbd)	Growth (mbd)
2011	52.06	+0.30
2012	52.73	+0.67
2013	53.99	+1.26

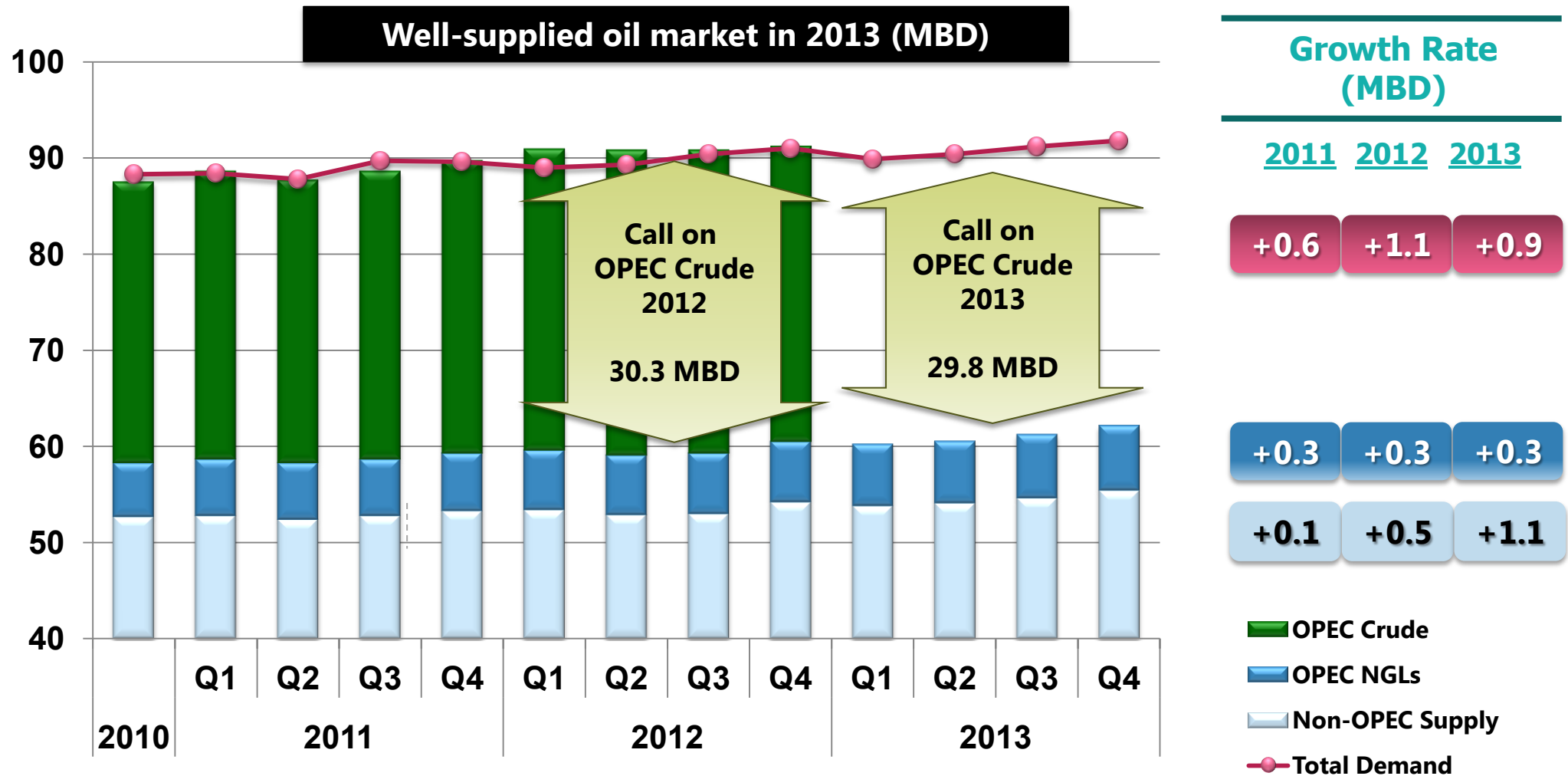
Source: EIA, Short Term Energy Outlook August 2013

OPEC	Supply (mbd)	Growth (mbd)
2011	50.33	+0.11
2012	50.81	+0.49
2013	51.75	+0.94

Source: OPEC, Oil Market Report August 2013

# OPEC to Balance Demand/Supply

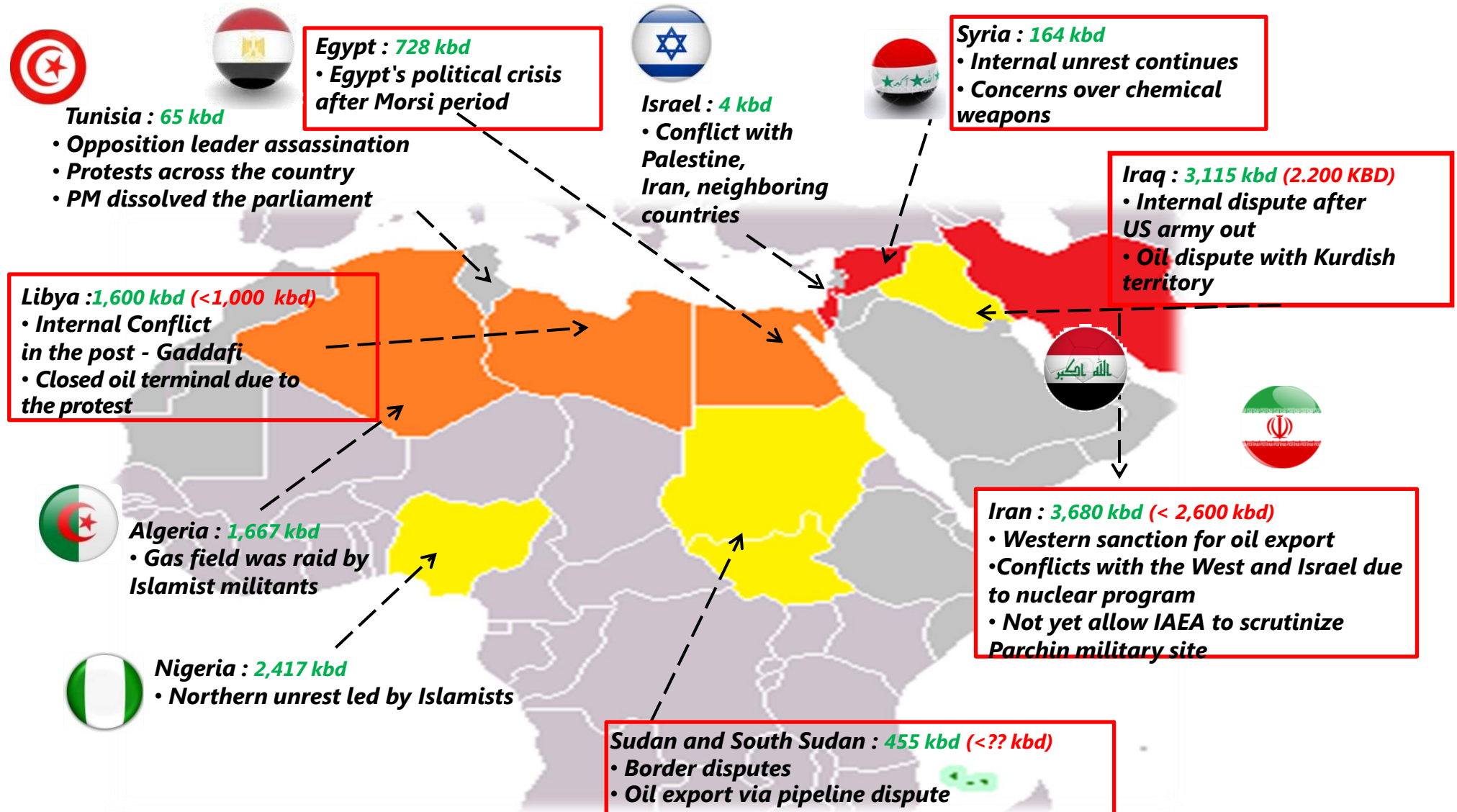
Due to increasing Non-OPEC oil supply in 2013 by 1.1 MBD, *call on OPEC crude will drop to 29.8 MBD*





# Oil Supply Disruption in Middle East and North Africa (MENA)

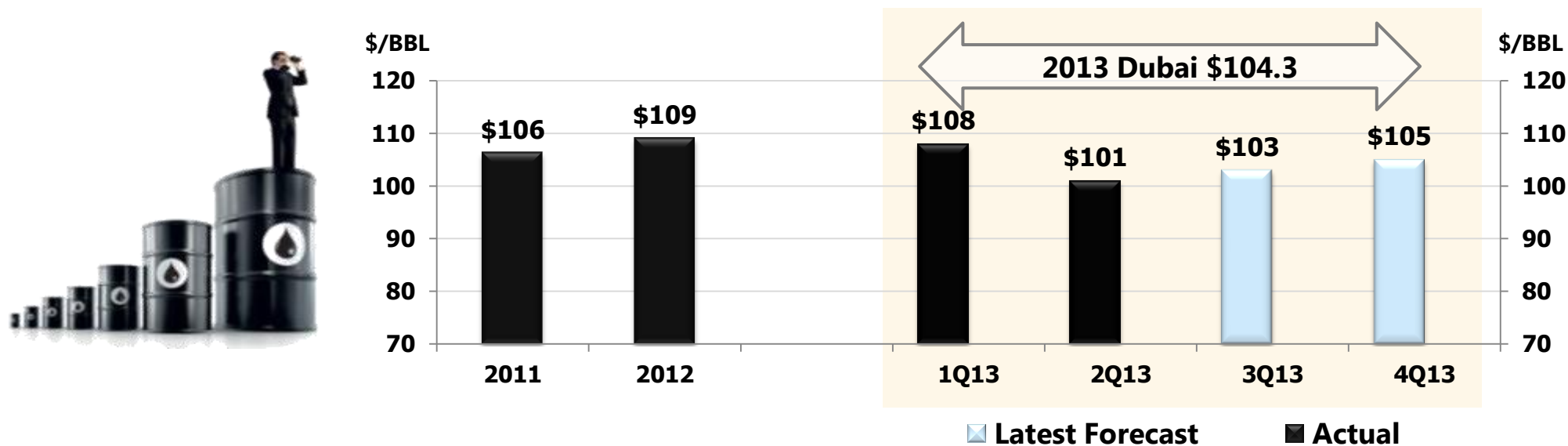
Since the start Q3-13, crude oil supply lost from MENA is around 1 – 1.5 MBD (mainly from Libya & Iraq)



Note: Crude Oil Production from BP, 2013

## In Q3-13... Oil price to recover from sharply fall in Q2

***What We See.... Ongoing MENA Unrest, N.Sea Maintenance, Hurricane Season to Support Crude Oil Prices in Short term***



***... Factors to watch for Q3-2H'13 ...***



Weak CN's economy?



Uncertainty on QE4



EU Debt Crisis



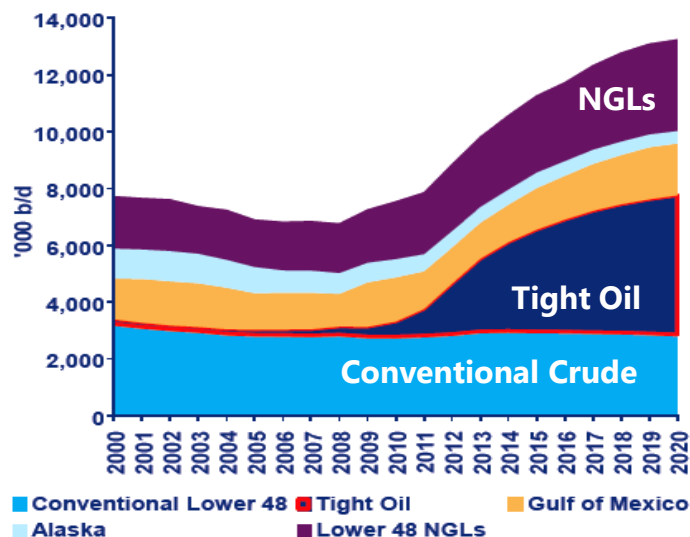
Tension in the Middle East  
and North Africa



Hurricane and Winter season

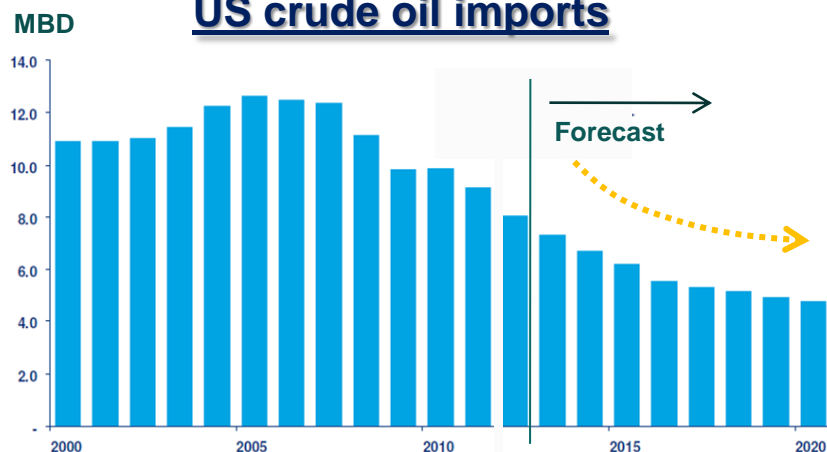
# Impact of higher US tight oil on crude spread – Opportunity for Asian refinery to buy more W. African crude

Total US liquids production



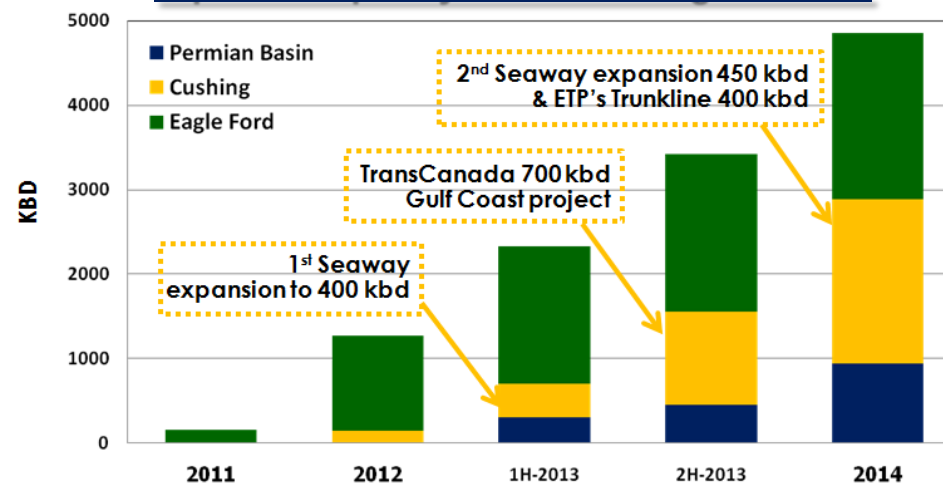
Source: Wood Mackenzie, Jul 2013

US crude oil imports



Source: EIA

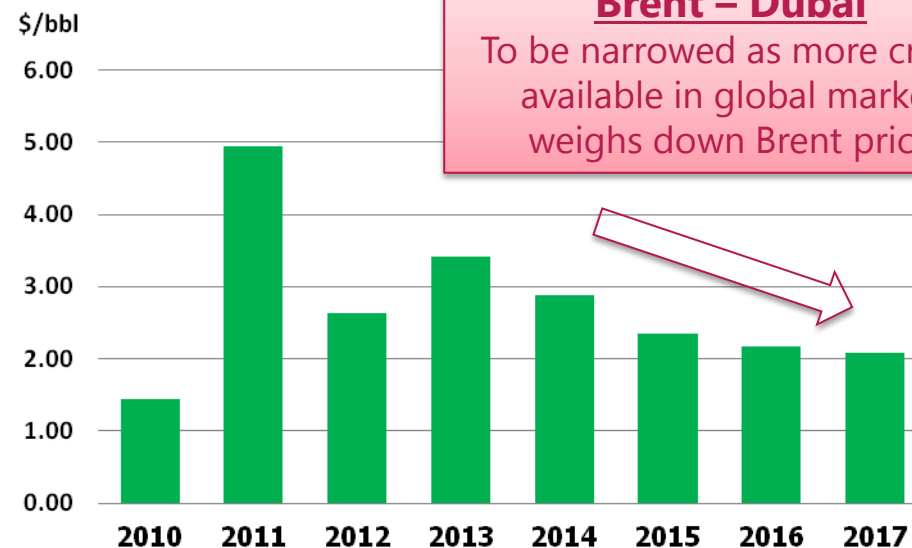
Pipeline capacity from Cushing to USGC



Source: FGE, June 2013

Brent – Dubai

To be narrowed as more crude available in global market weighs down Brent price







## **Petroleum Product Market**

GRM in Q3 to be better than Q2 ...

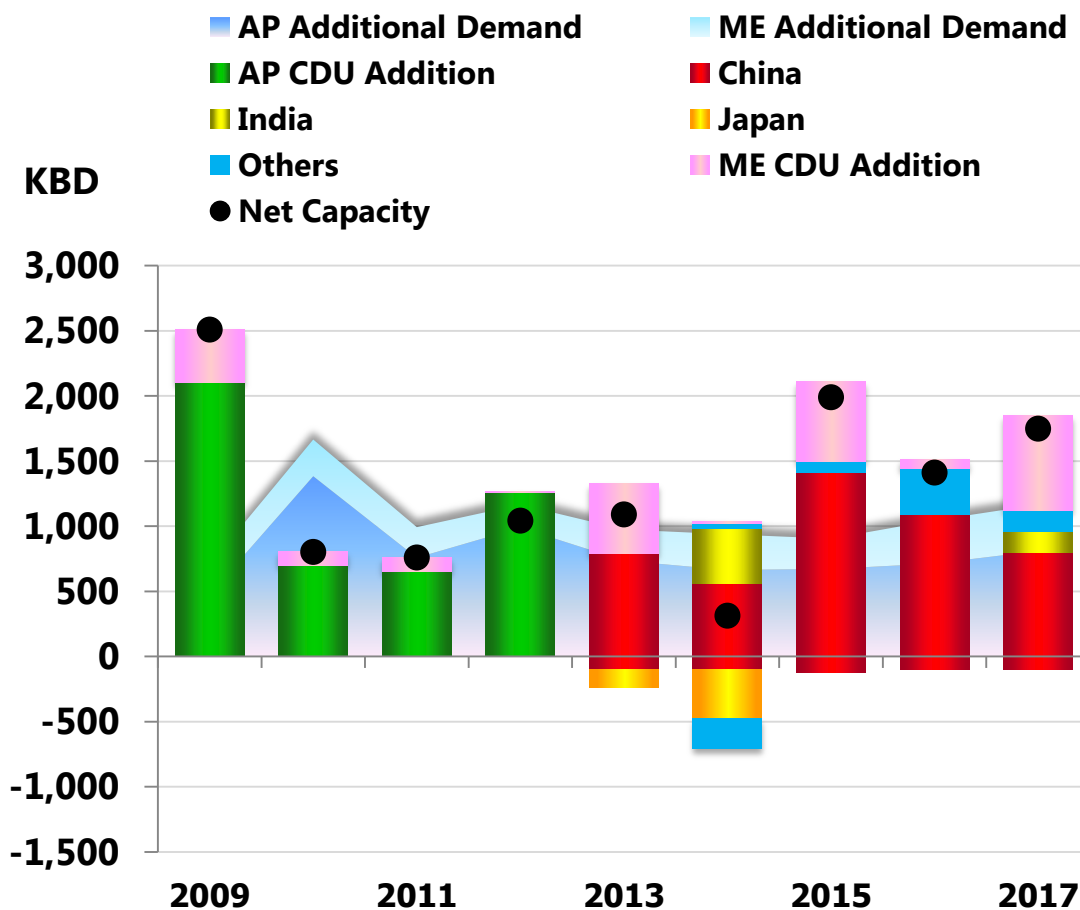
*Supported by Summer & Ramadan demand as well as  
limited Chinese exports  
however, keep watching the coming up new Jubail Refinery*



# 2013 Refinery Status – Supply to Match with Demand

## CDU Capacity Addition VS Additional Demand – AP & ME

### CDU Capacity Addition VS Additional Demand – AP & ME



Addition		KBD	Company and (Site)
China	Q2-13	200	PetroChina Pengzhou (Sichuan) <i>Delay start up until Aug'13 from Q1-13 due to Earthquake</i>
China	Feb'13	200	Sinopec Maoming 2 (Guangdong) ✓
China	Dec'13	240	Sinochem Quanzhou (Fujian) ✓
India	Q1-14	120	Nagarjuna Oil (Cuddalore) <i>Delay from Q3-13</i>
Iran	Q1-13	80	NIORDC (Arak) ✓
Saudi	Q4-13	400	SATORP [Aramco/Total] (Jubail) ✓ <i>Bring forward from 2014</i>
US	2013	325	Motiva (Texas) ✓ <i>Start-up in Q1</i>
Closure		KBD	Company and (Site)
German	Mar'13	-100	Shell (Hamburg-Harburg) ✗
Japan	Jul'13	-130	Cosmo Oil (Sakaide) ✗
Hawaii	Apr'13	-93.5	Tesoro ✗
China	Q4-13	-100	Local refinery
German	2013	-110	Petroplus (Ingolstadt) <i>Potential close in 2013</i>
Belgium	2013	-108	Petroplus (Antwerp) <i>Potential close in 2013</i>
France	Q2-13	-120	Petroplus (Petite) <i>Potential close in 2013</i>

## Firm growth thanks to active government policy

% year on year	2011	2012	Q2-13	2013F
LPG	+15 %	+7 %	+2%	+5 %
Gasoline	-1 %	+5 %	+10%	+7 %
Jet/Kero	+8 %	0 %	+11%	+5 %
Gasoil	+4 %	+7 %	+2%	+4 %
Fuel Oil	- 6 %	-4 %	-29%	0 %
Total (exclude LPG)	+2 %	+5 %	+ 2%	+5 %

### Factor to Watch

**"Strong demand from econ growth & 30B diesel price policy"**



**BOT revised GDP growth in 2013 down from 5.1% to 4.2%** from the private investment deceleration and the export contraction from China's economy slowdown.



Government is bound to **maintain 30B diesel price policy** by using diesel excise tax exemption.



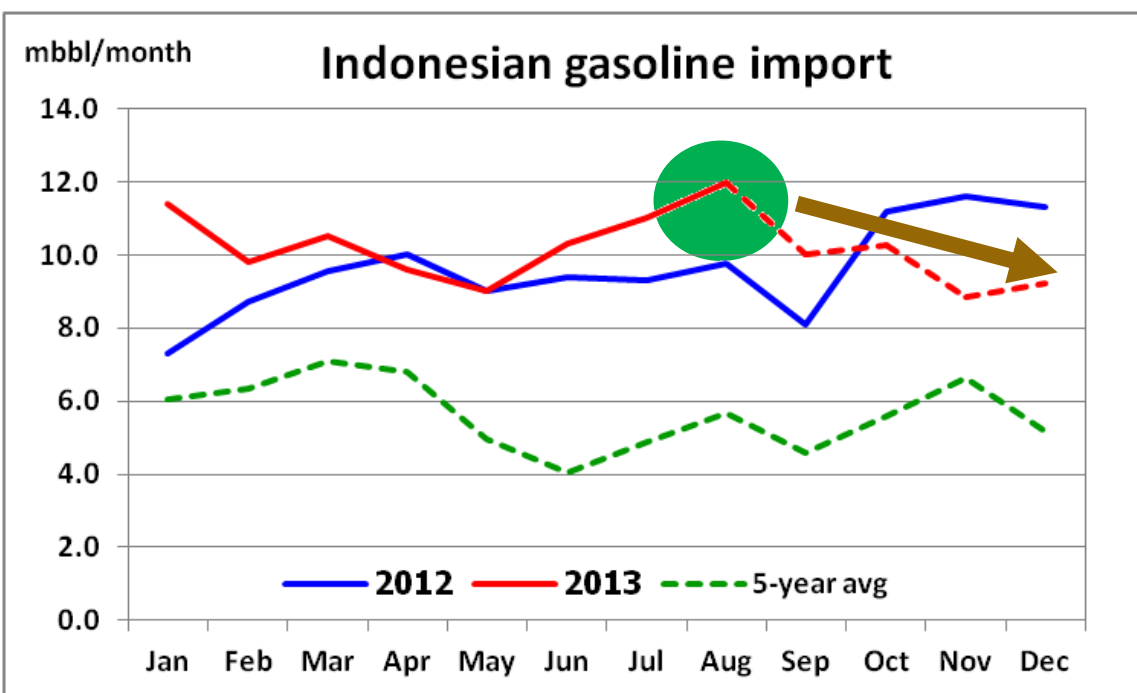
**Cars were largely delivered in 1H 2013** supported by 1<sup>st</sup> car program.



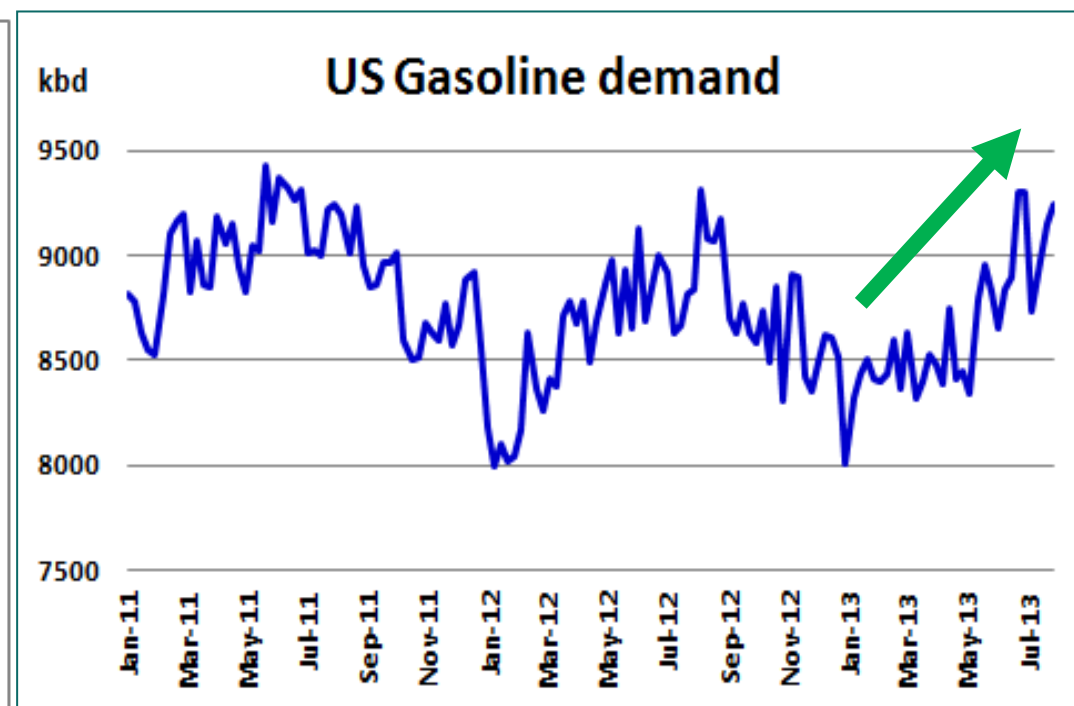
**Government aims to float retail household LPG price** by 0.5B/Kg per month starting Sep 1, 2013.

# Peak Asian gasoline price in Jul due to

- ✓ Strong Indo. import ahead of Ramadan month in Jul 9 – Aug 9, 2013
- ✓ Indonesia's Pertamina refinery turnaround in Jun
- ✓ Refineries outage in India, Taiwan end-May to Aug
- ✓ Tracking increasing US reformulated gasoline blendstock for oxygen blending (RBOB) due to stronger 4-week average gasoline demand during summer driving season



Source: Wood Mackenzie, Reuters, Jodi Database, TOP



Source: EIA

## In the rest of Q3'13... Less demand as Ramadan & Summer season ended Watch for Impact of new 400 KBD Jubail refinery

(\$/bbl)	Q2-13	Q3TD-13	Q3-13*	Q4-13**
LPG (\$/t)	772	806	↑	↑
ULG95-DB	14.6	15.1	↔	↓
JET-DB	15.3	17.9	↑	↑
GO-DB	16.8	18.9	↑	↑
HSFO-DB	-3.6	-9.2	↔	↔

Note: Q3TD as of 23 Aug

\* Compared to Q2-13 \*\* Compared to Q3-13

### What happened in Q3TD ....



- Steady high demand during summer in EU/ME

- Firm Ramadan demand from Muslim countries



- Refinery return from outage and maintenance

### Factor to Watch for Aug-Sep ....



- Softer demand on end of Ramadan & US driving season

- New 400 KBD Jubail ref. to supply more diesel late-Sep



- Limited Chinese exports & refinery T/A in Asia/EU in Sep-Oct





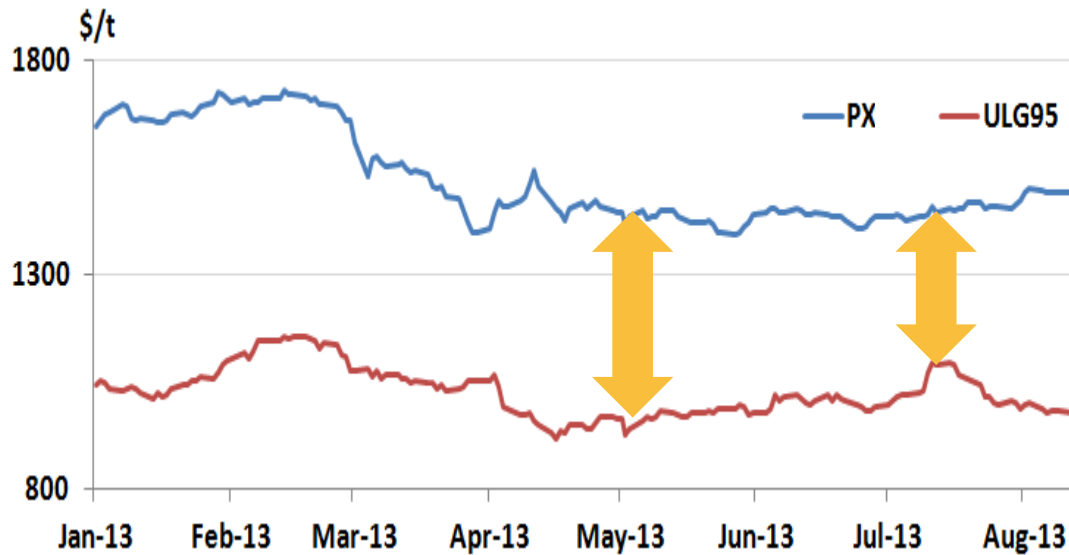
# Aromatics

PARAXYLENE ....

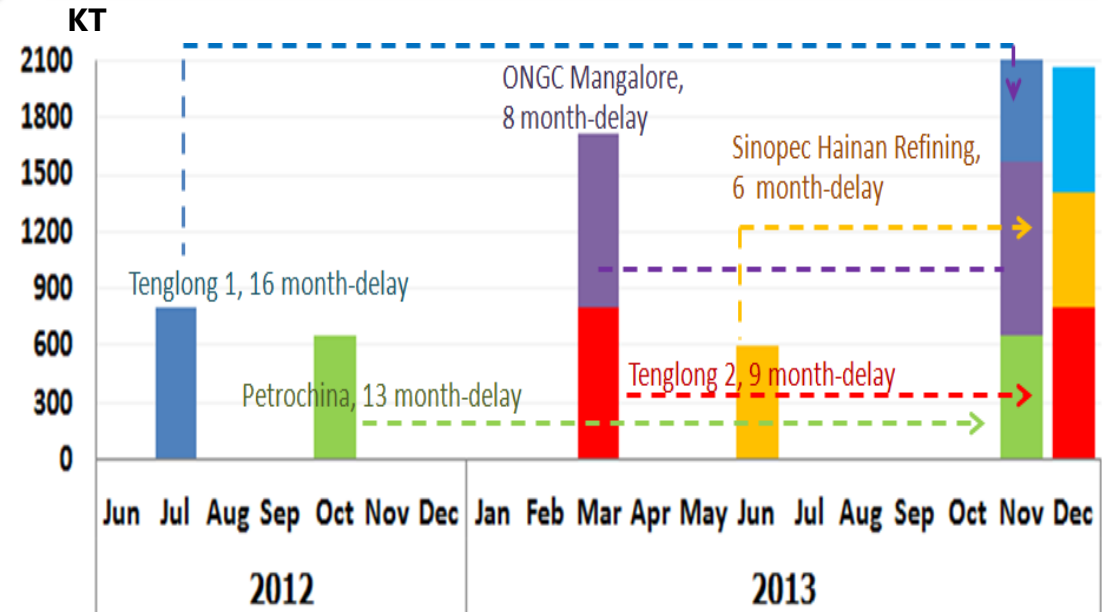
*Ongoing delays in new PX capacity result in  
firm PX market*

# Stronger-than-expected PX margin in Q3

## "PX VS ULG95"



## "Delayed PX Supply in 2013"



## "Asia Polyester Demand"

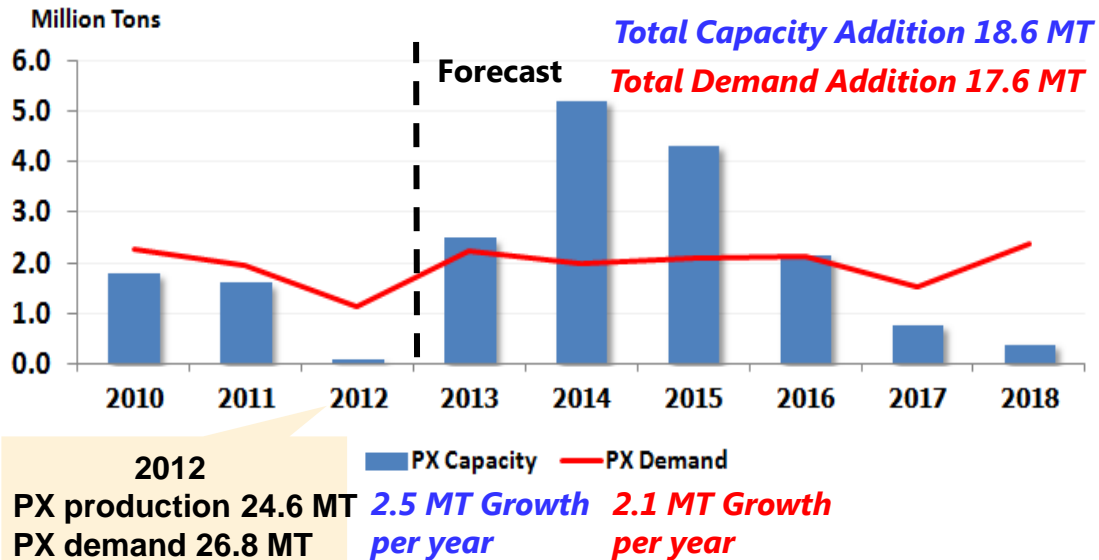


Source: CMAI and PCI Xylene&Polyesters

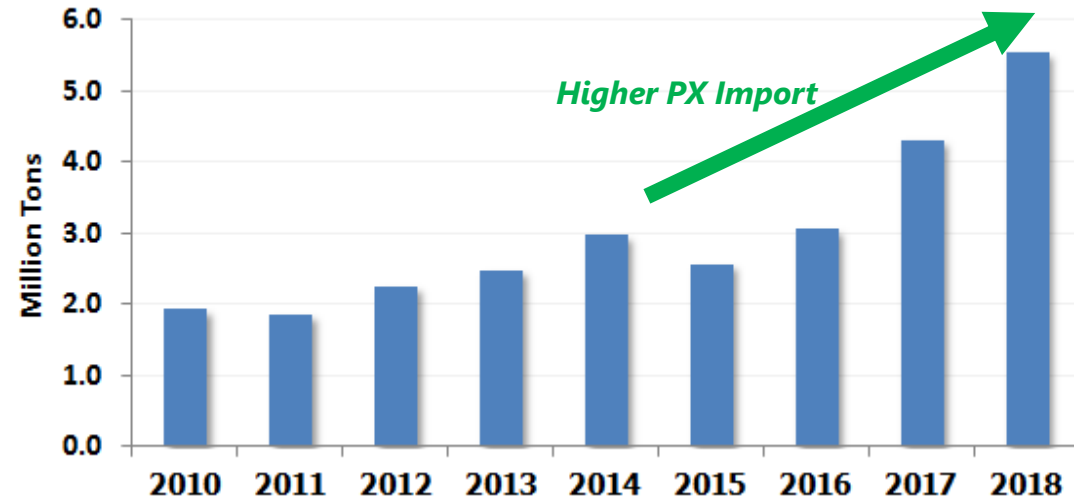
- + New PX plants continue to delay start-up from technical issues.
- + Stronger polyester in Q3-Q4 demand will help push up PX and PTA demand.
- + PX spread in Q3 will remain well-supported in the absence of new capacity coming to market in Q3.
- + PX spread is expected to soften in Nov and Dec. But average spread in Q4 will still be higher than Q3 due to stronger polyester demand and softer ULG95 price.

# PX Demand/Supply Outlook

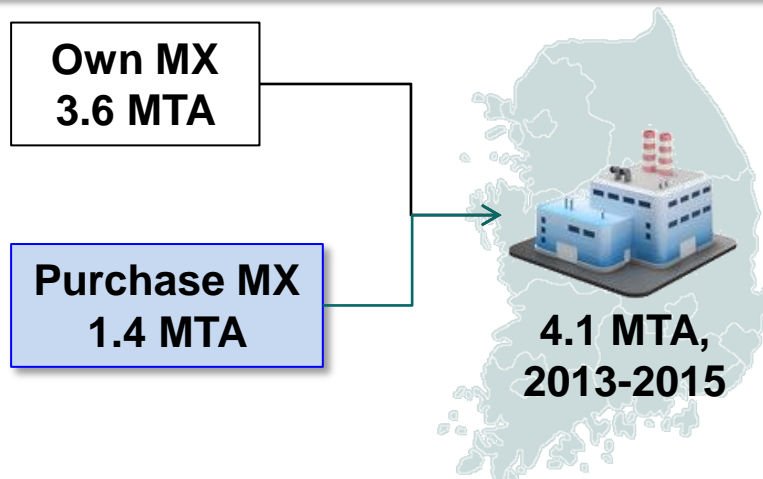
## "PX Supply and Demand Addition In Asia"



## "Asia PX Net Import"



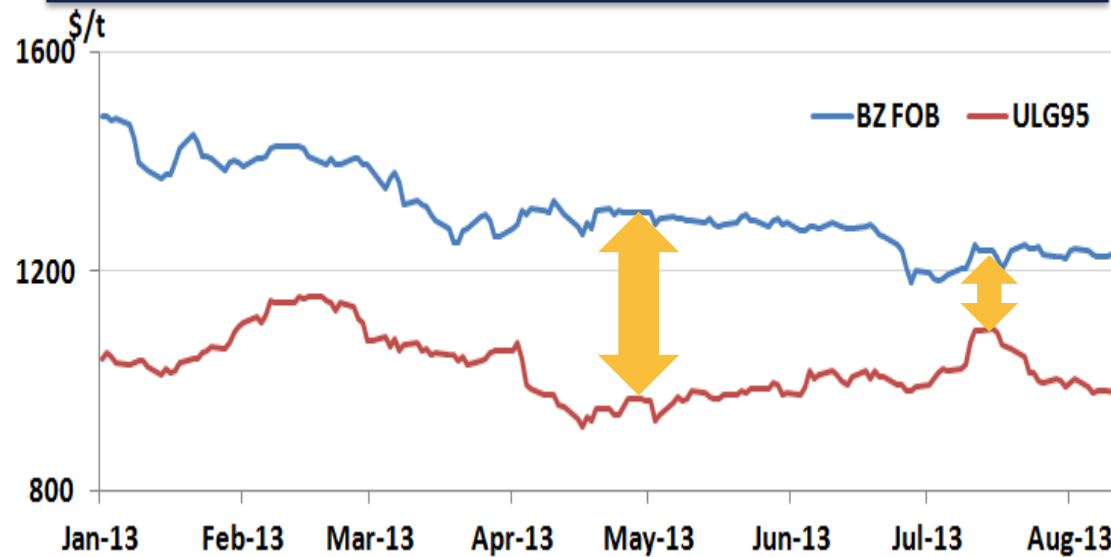
## "Constraint on MX Feedstock Supply in Korea "



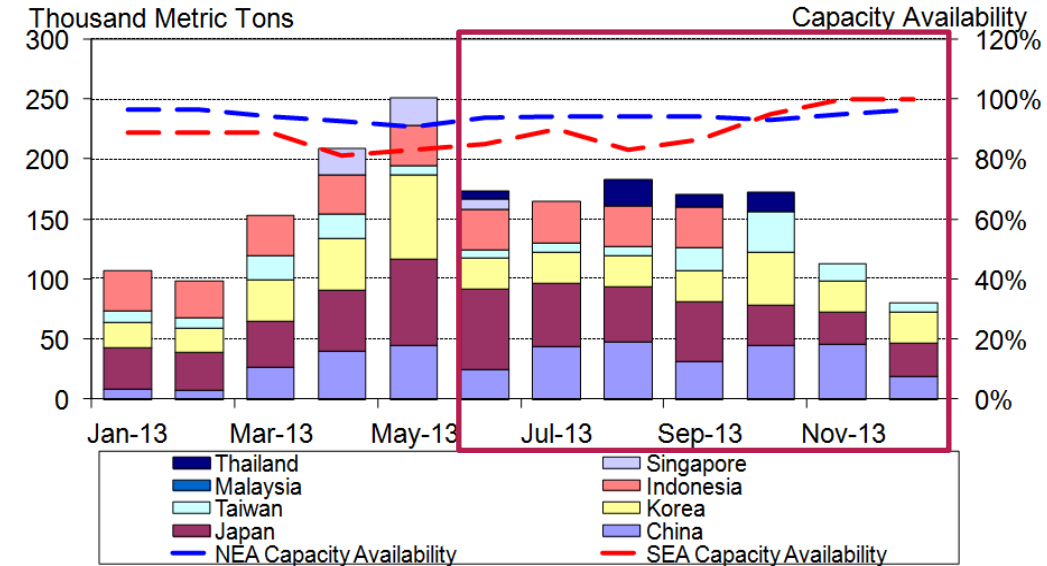
- New PX capacity of 2.5 million tons/year will be added in China, India and South Korea, while demand is expected to grow at 2.1 million tons/year.
- Constraint on MX feedstock supply may cause PX producers to operate at limited rate. Consequently, new PX capacity addition will be less than nameplate.
- Asia still needs to import PX in the next 5 years.

# Why BZ spread was soften in Q3?

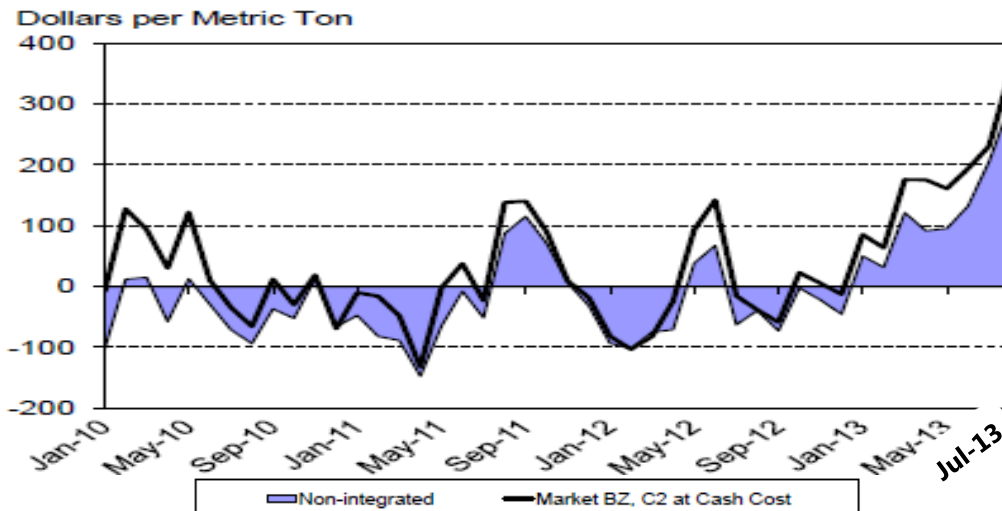
"BZ FOB VS ULG95"



"BZ supply loss due to turnaround"



"Styrene Cash Margins"



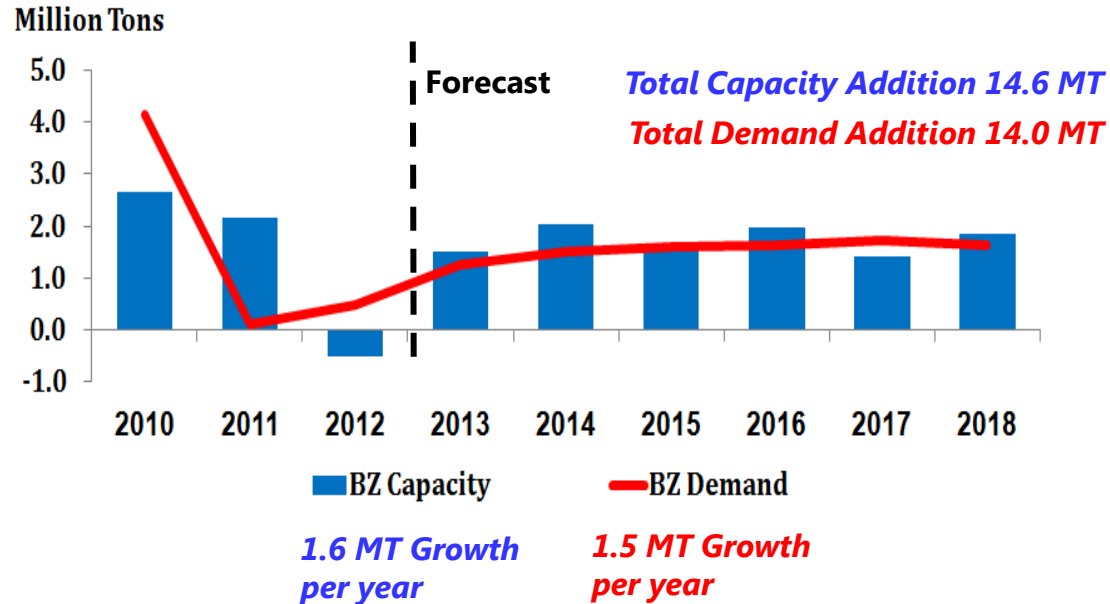
Source: CMAI

- The Asian benzene capacity loss in Q3 is estimated to be at 120 KT lower than Q2.
- Higher BZ supply from olefins crackers in Asia due to higher olefins demand.
- + Relatively high SM margin helps support BZ spread.
- BZ spread in Q3 is expected to be softer due to increasing supply from new olefin cracker (Sinopec, BZ 160 KT). However, improvement in BZ demand amid SM seasonal demand will help limit downside.

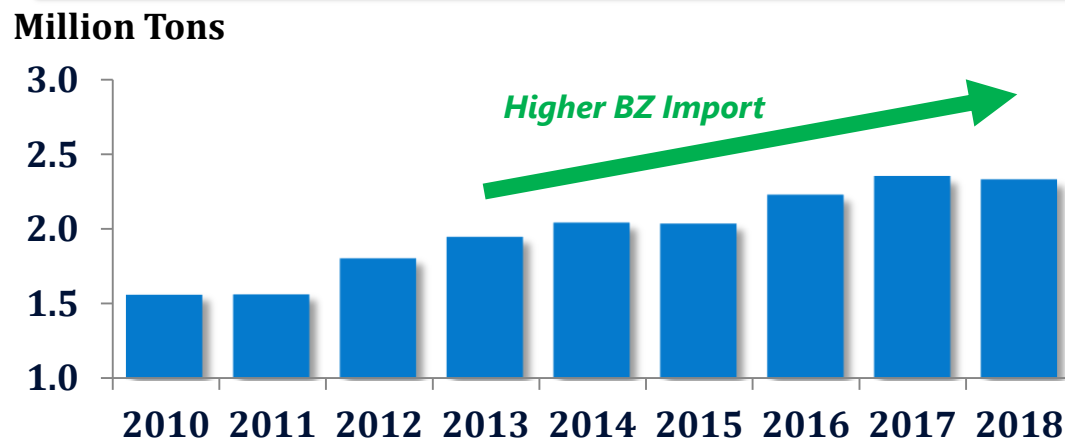


# BZ Demand/Supply Outlook

## "Global BZ Supply And Demand Addition"



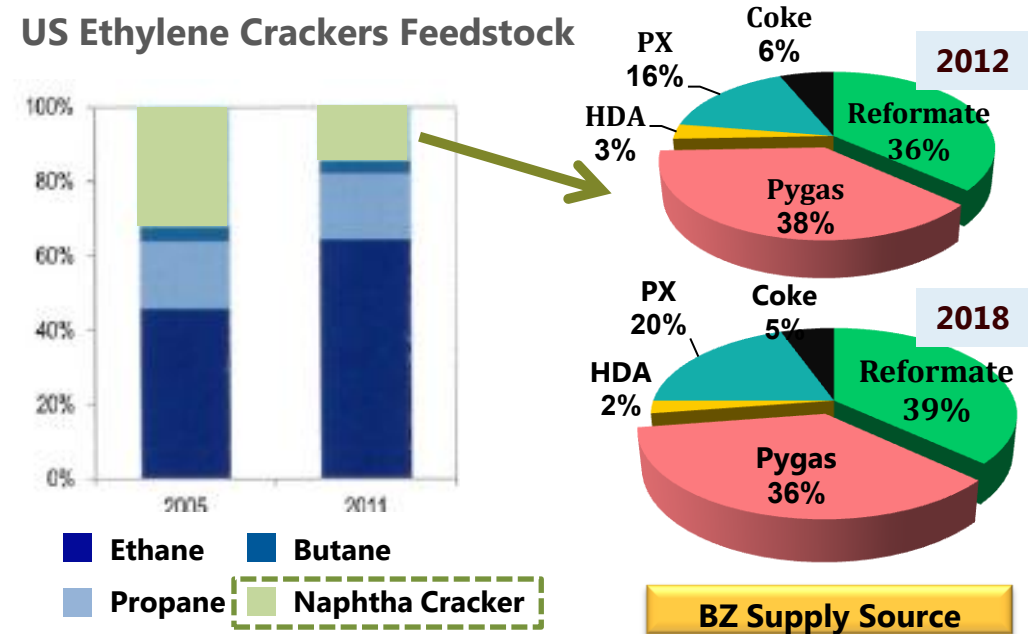
## "BZ Imports from North America"



Source: CMAI

## "Less BZ supply from Pygas"

### US Ethylene Crackers Feedstock



Source: CMAI, Nexant TOP Estimate

- New BZ capacity of 1.6 million tons/year will be added, while demand is expected to grow at 1.5 million tons/year.
- 80 % of additional capacity is from Asia with over 40% from China
- Tighter BZ supply in North America as
  - Refinery will reduce reformate production due to lower gasoline demand
  - Olefin crackers use lighter feed (Shale gas)

## Higher PTA run rate ahead of polyester season

(\$/t)	Q2-13	Q3TD-13	Q3-13*	Q4-13**
PX-ULG95	435	431	↔	↑
BZ-ULG95	305	216	↓	↓
TL-ULG95	138	97	↓	↑

Note: Q2TD as of 23 Aug

\* Compared to Q2-13 \*\* Compared to Q3-13

Note: PX = Paraxylene, BZ = Benzene, TL = Toluene

### What happened in Q3TD ....



- Strong ULG95 price pressured spread



- PX:
- Steady demand on the back of high PTA margin
  - New PTA plant (Polyprima) in Indonesia start-up 500 KTPA



- BZ:
- High BZ production from olefin crackers
- TL:
- High TL inventory in China

### Factor to Watch for Aug-Sep ....



- PX:
- PTA is increasing run rate ahead of polyester demand
  - Tenglong continued to delay start-up to Q4

- BZ:
- High BZ production from olefin crackers
  - New BZ supply from Sinopec Wuhan (160 KTPA)
  - SM seasonal demand will start in late Q3, helping limit downside

- TL:
- Low TL spread due to low season demand for solvent during raining season

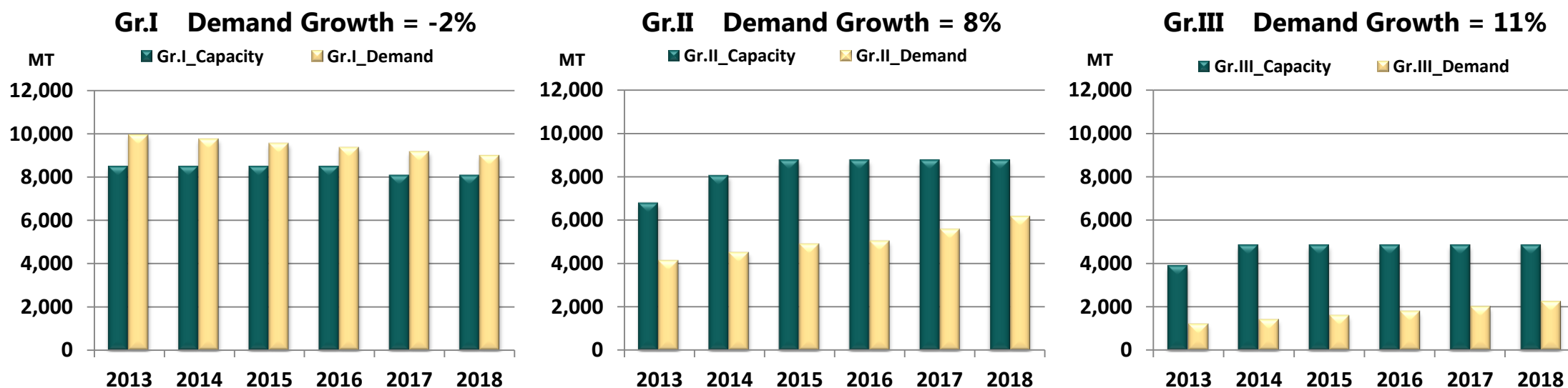


# **Lube Base & Bitumen**

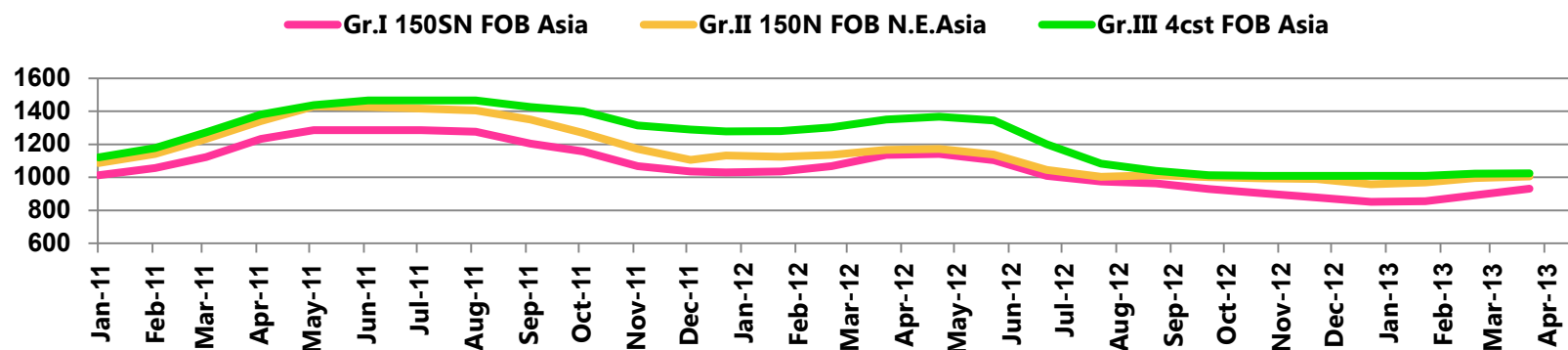
*Firm base oil margin from strong demand of China*

## Flooding of Group II & Group III Supply

- Global base oil demand remain on an uptrend, growing at 1.4% p.a., with the rising of Gr.II & III consumption.
- Fuel economy and emission standard require premium base oil.
- Surplus capacity of Gr.II and Gr.III in Asia Pacific (including ME) will lead to base oil price competition.



Supply-Demand of base oil Gr.I, II and III in Asia Pacific (including ME) region

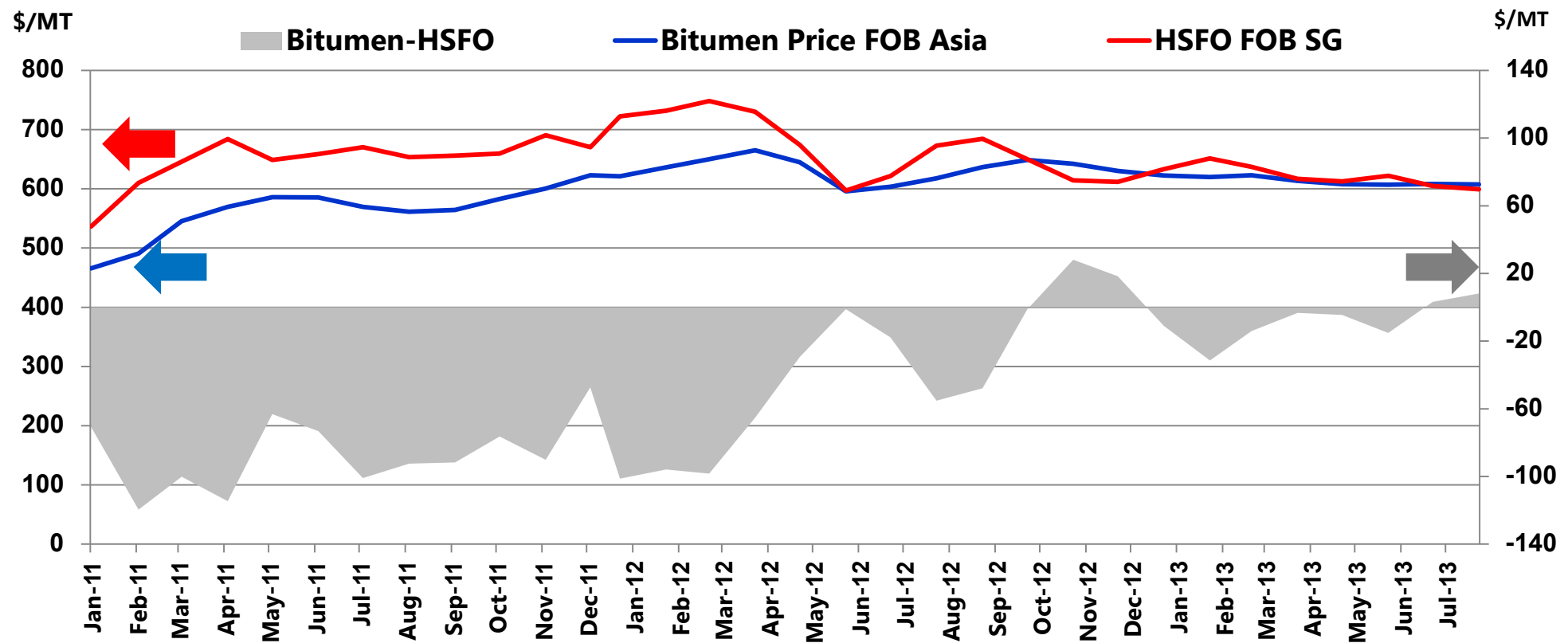


Remark : Assume Gr.I,II and III operate 100% capacity .

Source : TOP Estimate, ICIS –China, Kline, Lube and grease



## Bitumen Market



- Weak HSFO price supported bitumen spread
- Demand from Indonesia, Vietnam and Myanmar supported bitumen market
- Tight budget policy from Chinese government pressure on imported bitumen volume

## Strong demand from China support base oil margin

(\$/t)	Q2-13	Q3TD-13	Q3-13*	Q4-13**
500SN-HSFO	494	516	↑	↓
Bitumen-HSFO	-7	3	↑	↓

Note: Q3TD as of 23 Aug

\* Compared to Q2-13 \*\* Compared to Q3-13

### What happened in Q3TD ....



- Strong demand from China for heavy grade base oil
- Tight supply from heavy plant turnarounds
- Soft fuel oil price supported base oil and bitumen spread



- Rainy season pressure bitumen demand across the region

### Factor to Watch for Aug-Sep ....



- Continue restocking activity ahead of peak autumn season in China
- Return of Australia to bitumen market after winter season end



- Supply ease from return of 1020 KTA S-Oil and plant increase production capacity
- Rainy season pressure bitumen demand across the region



# Conclusion

Q3 & 2H-2013 : Supportive Fundamental

amid Volatile Environment

## Firm Fundamental

### CRUDE &



*"Rising global oil supply & Uncertainty over global economy **pressure crude prices in Q3-13** but limited by **geopolitical risks**"*  
*" **Better Q3-13 GRM** from strong summer demand and refinery outage"*

### AROMATICS



*"Firm PX market from **ongoing delays in new PX capacity**"*  
*"**Seasonal demand for SM** limits downside for BZ"*

### LUBE BASE



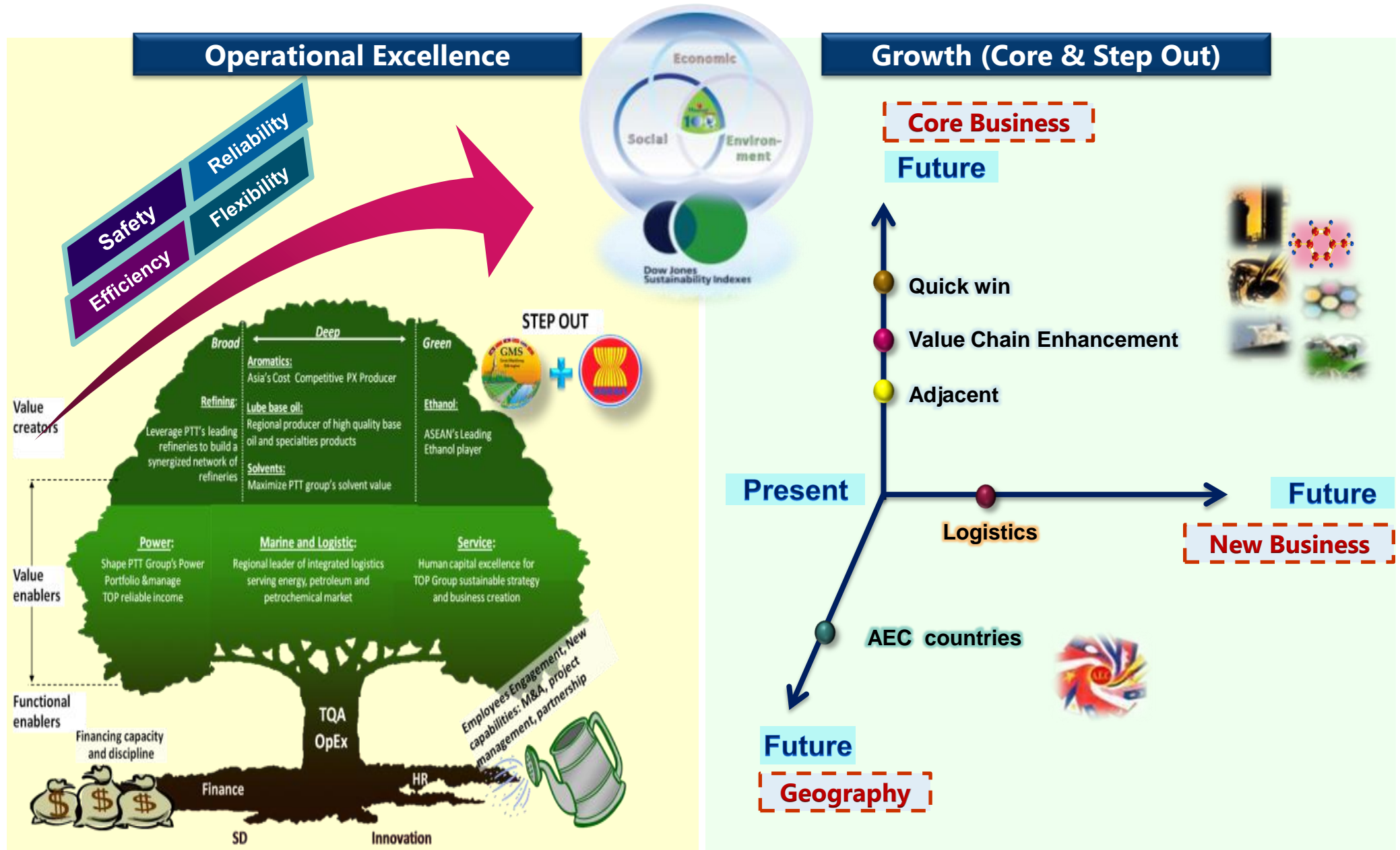
*"**Base oil margin stays firm** from strong Chinese demand amid tight supply from plant turnaround"*  
*"**Indonesia and Malaysia demand** supports bitumen margin"*





**TOP Way Forward**

# Broadening Growth, Capturing Step Out ,Pursuing Sustainability



# 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			
			2013	2014	2015	After 2015
Refinery upgrading	2014	128.2	87.6			
Reliability, efficiency and flexibility improvement	-	382.9	150.0	71.8	18.4	27.2
Environmental and fuel efficiency improvement		352.7*	196.7	60.7	10.1	0.5
Power – 2 SPPs	2016	325.6	0.5	95.4	58.4	171.3
CDU-3 preheat train	2014	69.9*	41.1	2.7		
Aframaxs / Crew boats	2013/14	46.1	21.5	10.0		
Specialty-Wax	2015	35.9		17.9	17.3	
Solvent expansion – SAKC	2014	60.6	32.4	19.7		
Benzene Derivatives - LAB	2015	300.0	100.0	150.0	50.0	
<b>Total</b>		<b>1,701.9</b>	<b>629.8</b>	<b>428.2</b>	<b>154.2</b>	<b>199.0</b>


\$1,411.2m

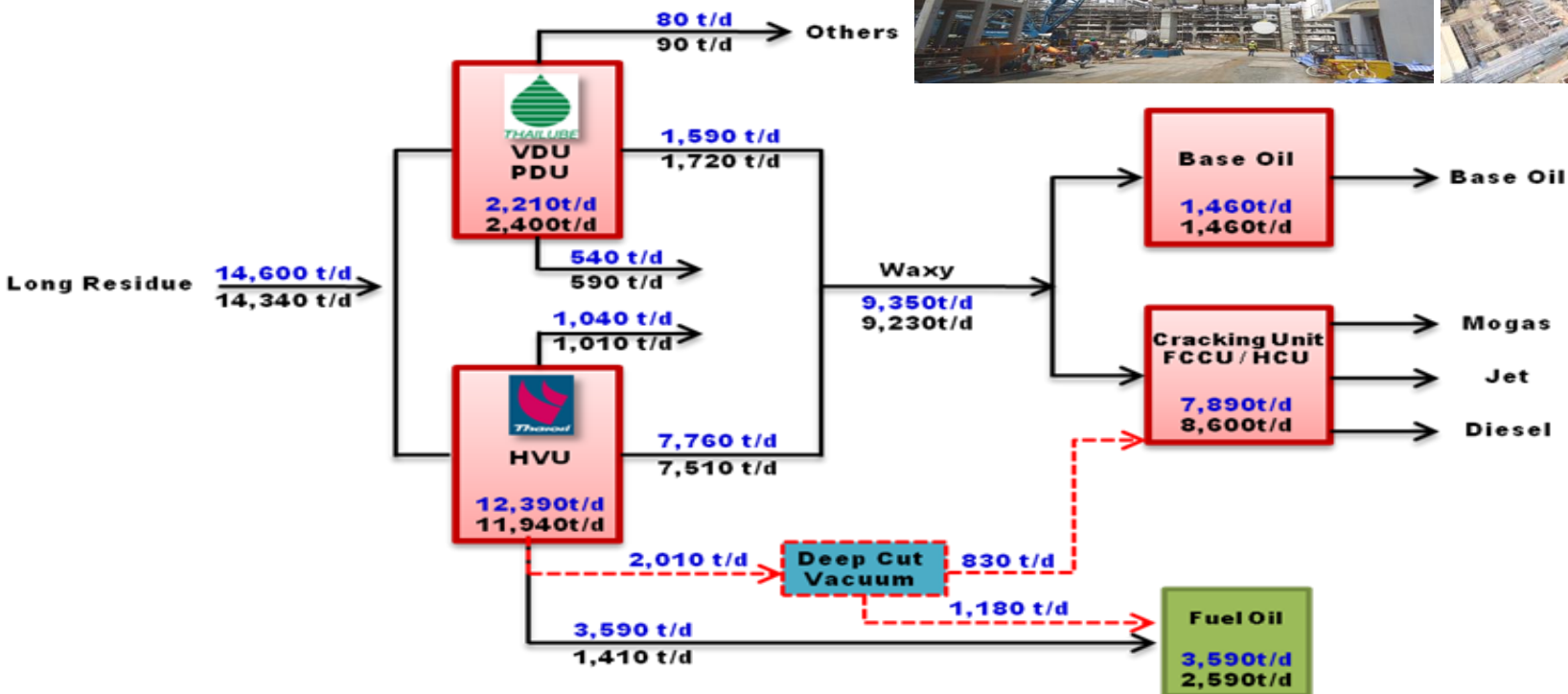
Projects under review/study	COD	Total Project Cost	2013	2014	2015	After 2015
Jetty 7,8	Q1-15	165.4	1.9	85.3	71.4	6.5

Notes: Excluding approximately 40 M\$/year for annual maintenance  
\*anticipated to receive BOI 100% of actual investment cost



# Investment Update

Project	Detail	Progress
 <b>HCU Revamp:</b> <ul style="list-style-type: none"> <li>• Phase I: PSA-3</li> <li>• Phase II: HVU-2 Revamp</li> </ul>	<ul style="list-style-type: none"> <li>• Increase high purity hydrogen production to <i>gain margin from high sulphur crude processing</i></li> <li>• <i>Maximize lube base oil production while increasing Gasoline/Jet/Diesel production</i></li> <li>• CAPEX = 128.2 M\$</li> <li>• COD = 2014</li> </ul>	<ul style="list-style-type: none"> <li>• <b>COMPLETED</b> Basic Design Package (BDP) &amp; Basic Design Engineering Package (BDEP)</li> <li>• EXECUTE Engineering, Procurement &amp; Construction (EPC)</li> </ul>




Max Lube

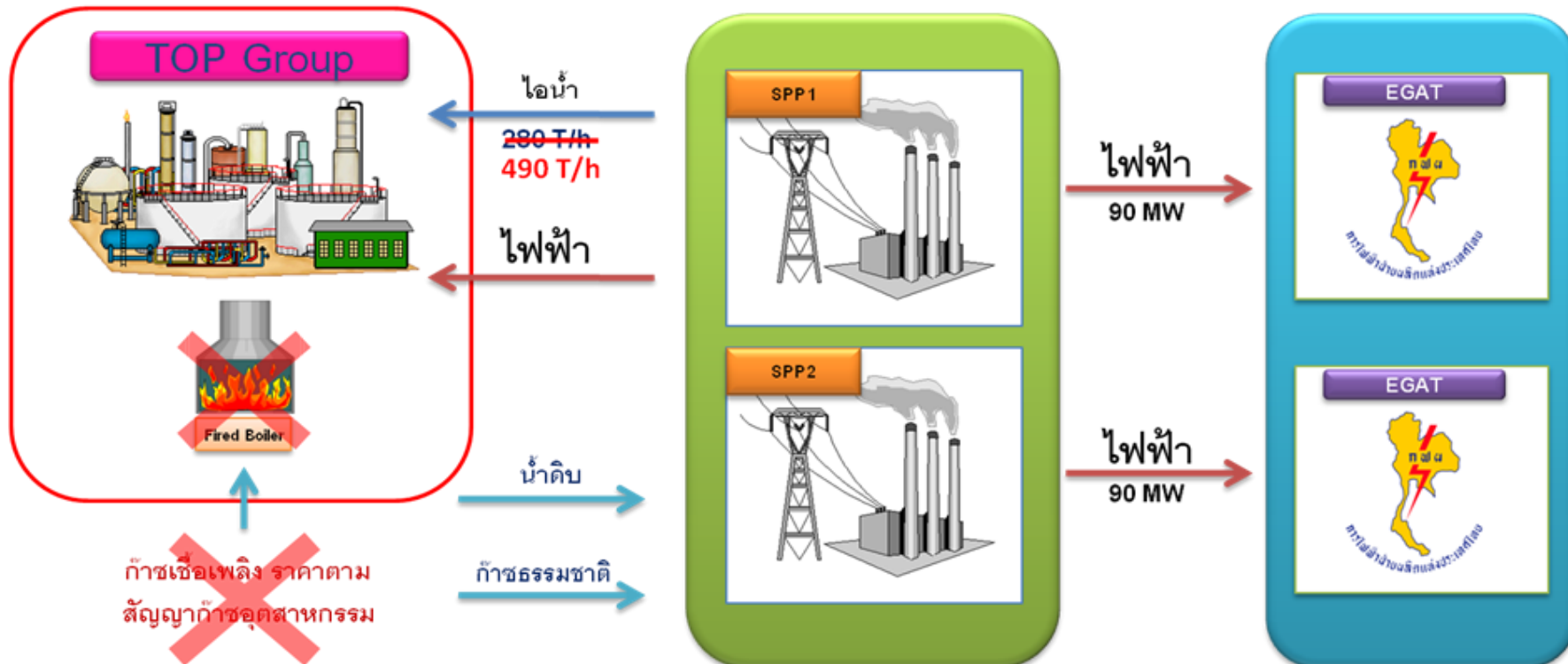
Higher Middle Distillates

Lower Fuel oil




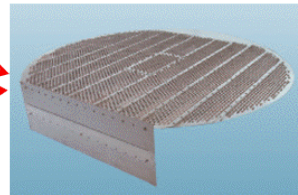
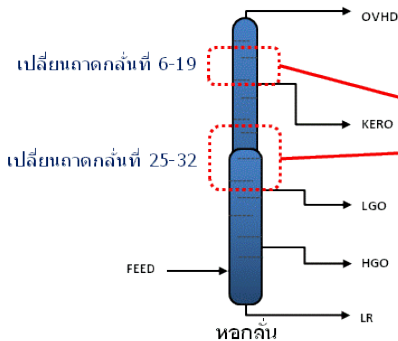
# Investment Update

Project	Detail	Progress
 <b>Power Expansion (2 blocks of SPP)</b>	<ul style="list-style-type: none"> <li>• Low risk power business enhance income stability</li> <li>• To support reliability of electricity and steam supply for TOP Group</li> <li>• Develop 2 new SPP power plants = 220 MW under a firm contract with the government</li> <li>• CAPEX = 325.6 M\$</li> <li>• COD = 2016</li> </ul>	<ul style="list-style-type: none"> <li>• <b>COMPLETED Front End Engineering and Design (FEED)</b></li> <li>• EXECUTE Engineering, Procurement &amp; Construction (EPC) (bidding phase)</li> </ul>



# Investment Update

Project	Detail	Progress
 <b>CDU-3 Crude Preheat Train Improvement</b>	<ul style="list-style-type: none"> <li>• Set up, replace and rearrange heat exchangers in CDU-3 <i>to reduce fuel usage</i></li> <li>• Improve tray &amp; equipment in CDU-3 to enhance refining efficiency by <i>increasing Kerosene production and Crude intake</i></li> <li>• CAPEX = 69.9 M\$</li> <li>• COD = 3Q2014</li> </ul>	<ul style="list-style-type: none"> <li>• <b>COMPLETED</b> Basic Design Package (BDP) &amp; Front End Engineering and Design (FEED)</li> <li>• <b>EXECUTE</b> Engineering, Procurement &amp; Construction (EPC)</li> </ul>



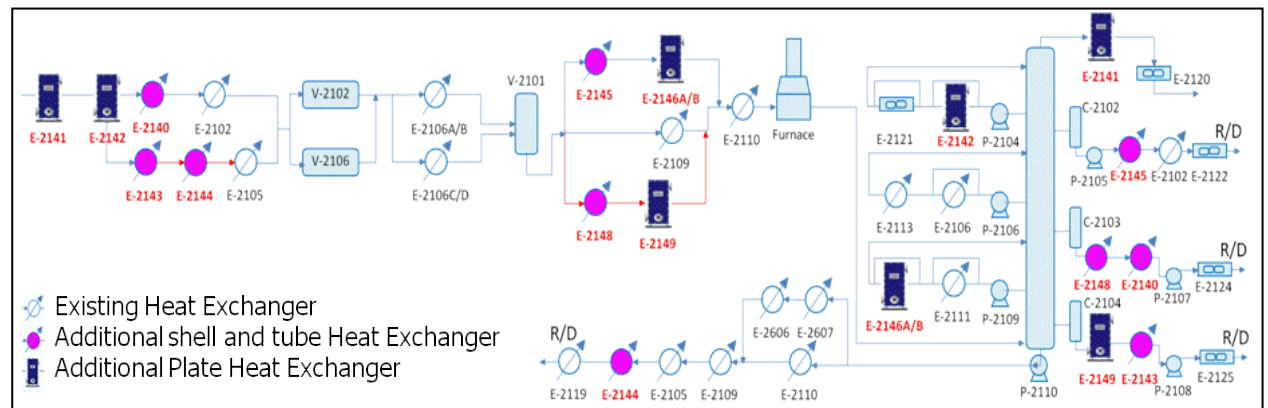
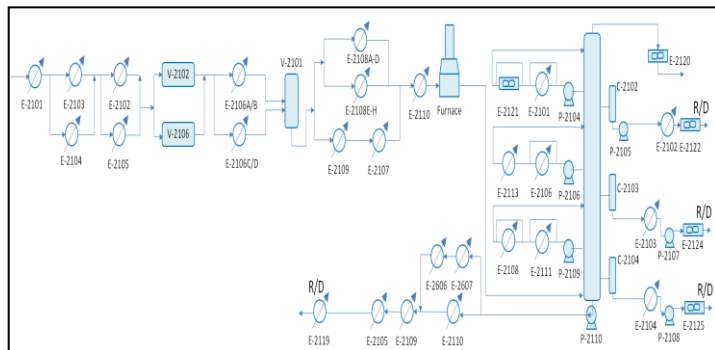
Tray



Plate Heat Exchanger



Shell & Tube Heat Exchanger

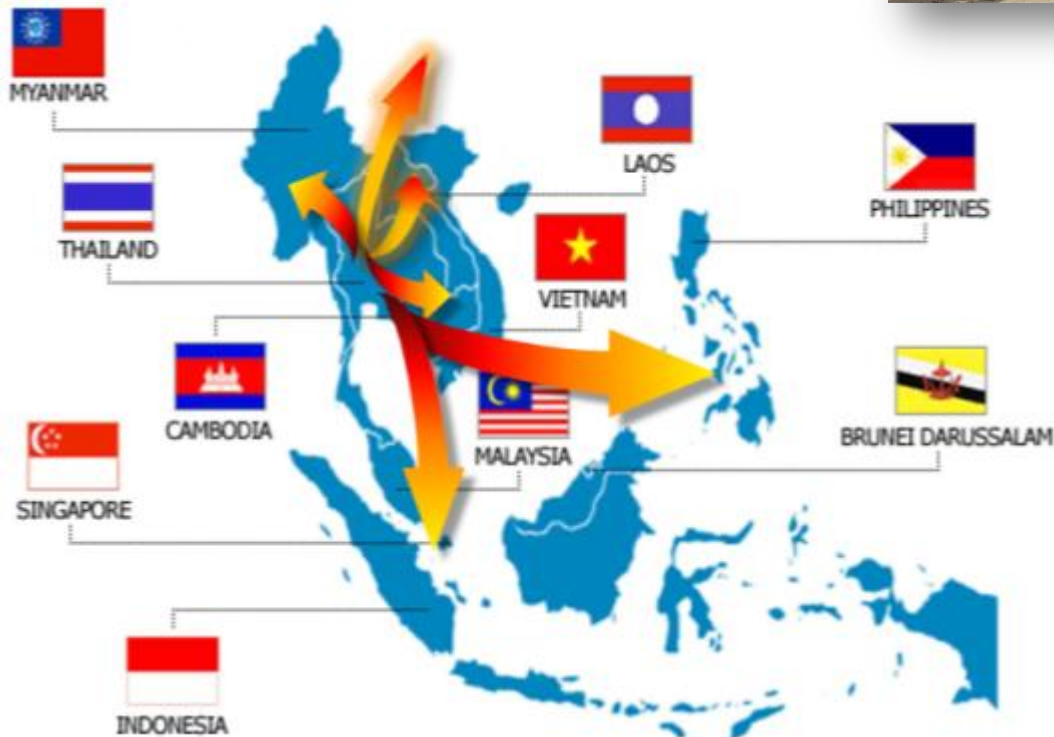


# Investment Update

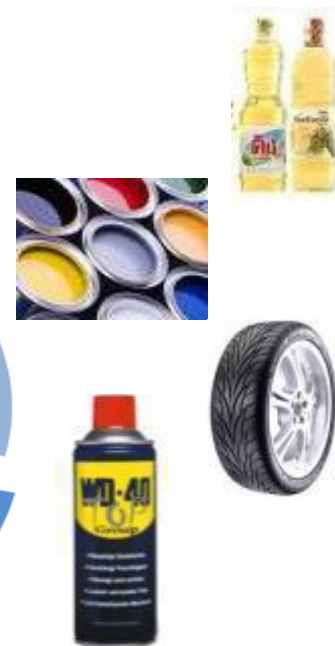
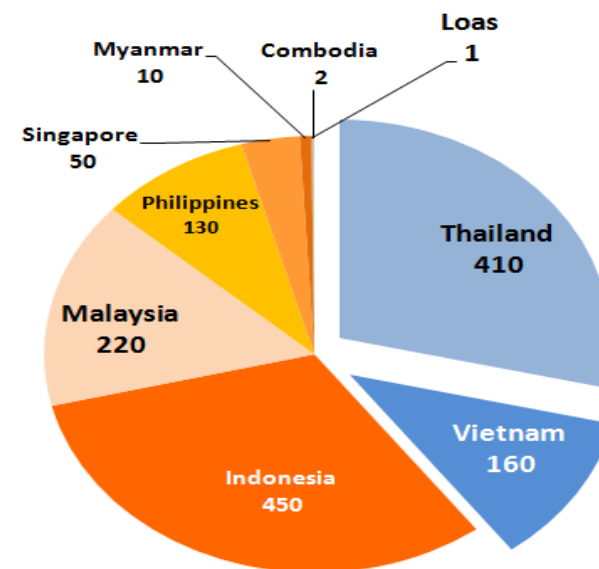
Project	Detail	Progress
 <b>Solvent Expansion (SAKC)</b>	<ul style="list-style-type: none"> <li>To expand solvent capacity to meet the demand growth in Thailand and the region</li> <li>Capacity increase to 141 KTA from 76 KTA</li> <li>CAPEX = 60.6 M\$</li> <li>COD = 2014</li> </ul>	<ul style="list-style-type: none"> <li>CONSTRUCTION PHASE</li> </ul>



## AEC Member Countries



## Market Demand (KTA)





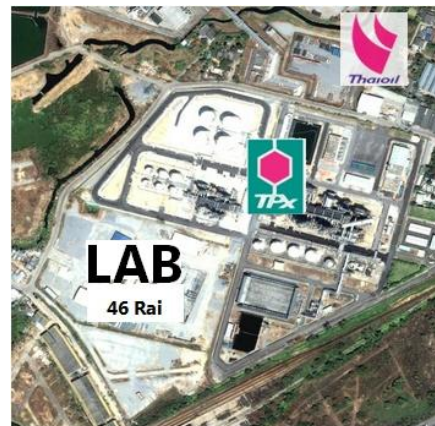
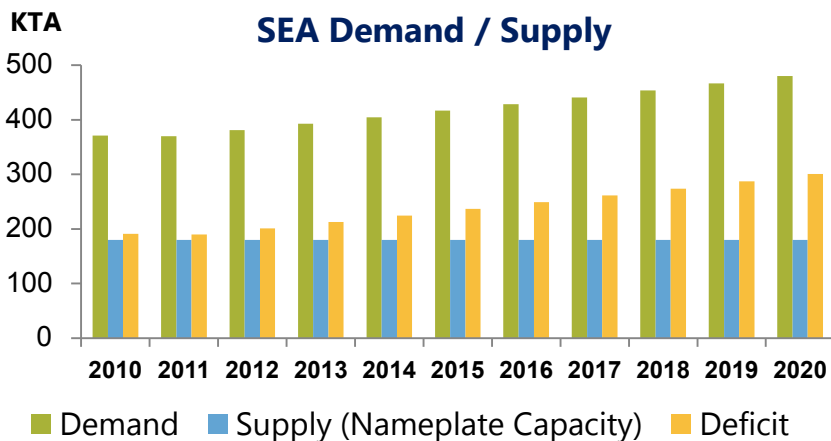
# Investment update

Project	Detail	Progress
<b>LABIX Linear Alkyl Benzene (LAB)</b> TPX JV with Mitsui 75% : 25%	<ul style="list-style-type: none"> <li>• Upgrade existing Benzene and Kerosene into higher valued product; LAB which is an intermediate feedstock in production of surfactant</li> <li>• <b>Capacity: 100 KTA</b> (First Integrated LAB Plant in SEA)</li> <li>• <b>CAPEX = 400 M\$</b></li> <li>• <b>COD = 2015</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>EXECUTE Engineering, Procurement &amp; Construction (EPC) (contract signing)</b></li> </ul>

## LAB in SEA market

- Demand growth rate ~3 % p.a.
- **Net Deficit ; import from NEA**
- Only 1 Producer in Indonesia; Non integrated ~70% Utilization (capacity 180 KTA)
- **Demand in Thailand ~65 KTA (net import)**

**LABIX**  
Established on  
11 Jul 13



	KTA	%
<b>Feedstock</b>		
Kerosene (from TOP)	520	94%
Benzene (from TPX)	33	6%
<b>Product/ By-products</b>		
LAB	100	19%
By-products (mostly Kerosene components) (to TOP)	453	81%



# Question & Answer



# Thank You

**Any queries, please contact:**



**at email: [ir@thaioilgroup.com](mailto:ir@thaioilgroup.com)**

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

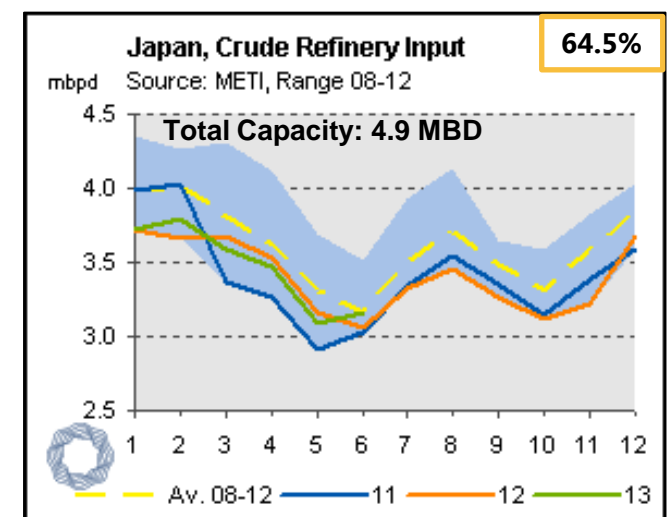
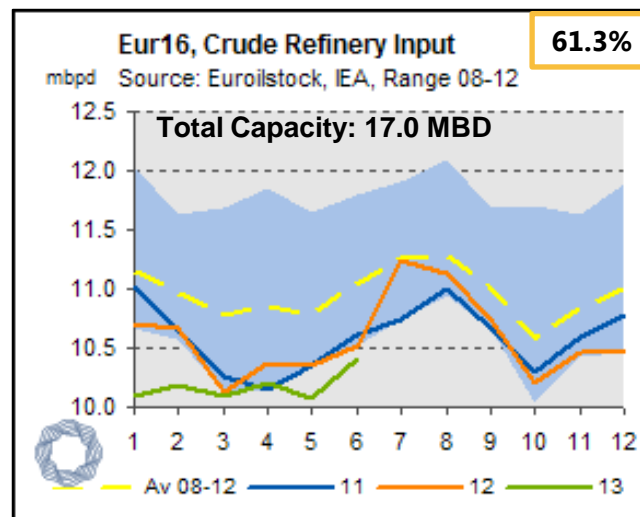
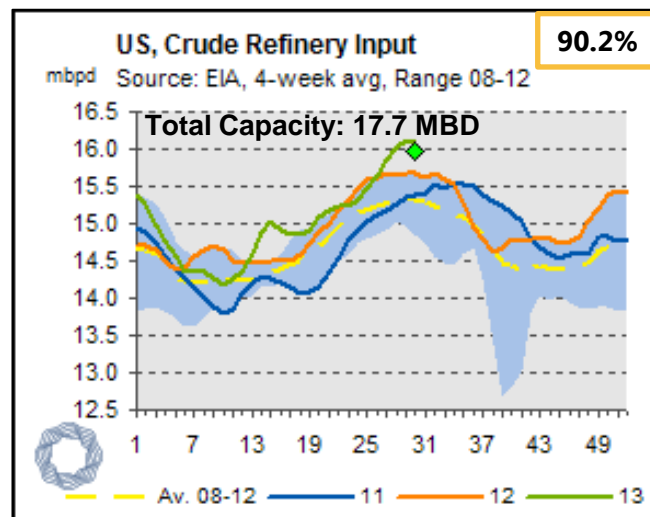
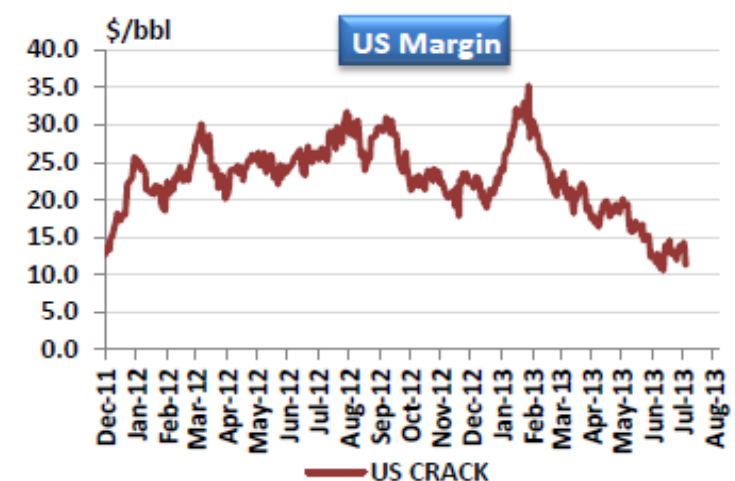
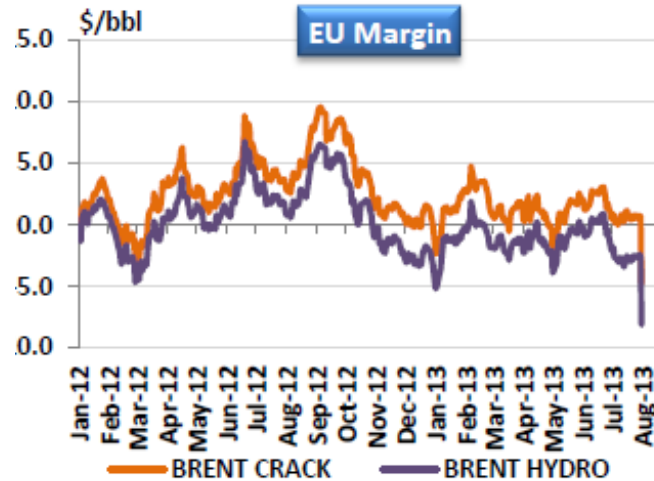
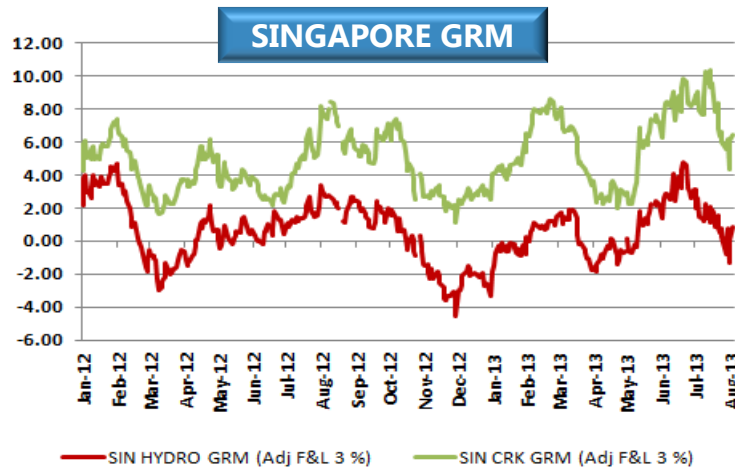
**Fax: 662-797-2976**



# **Appendices**

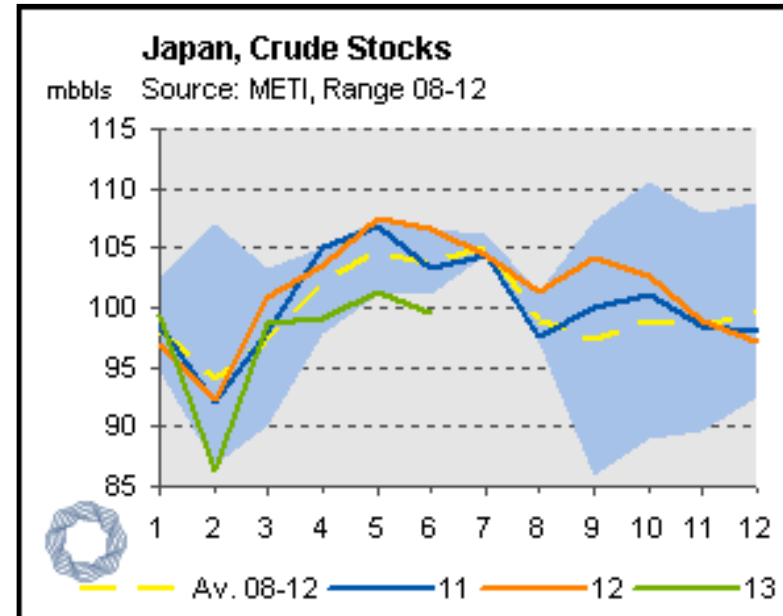
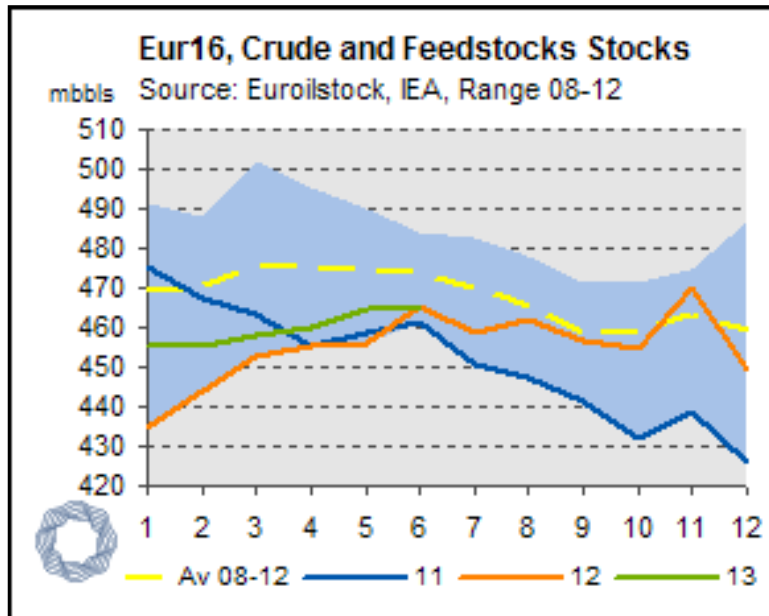
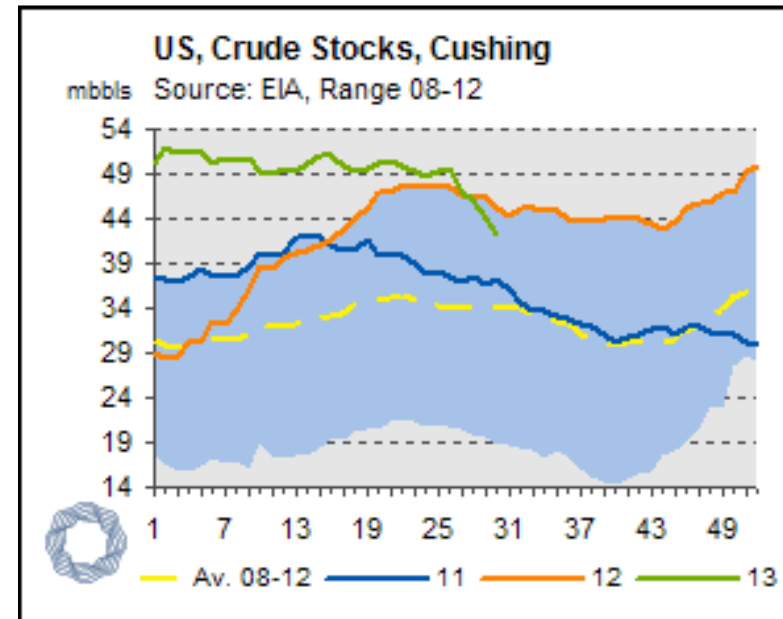
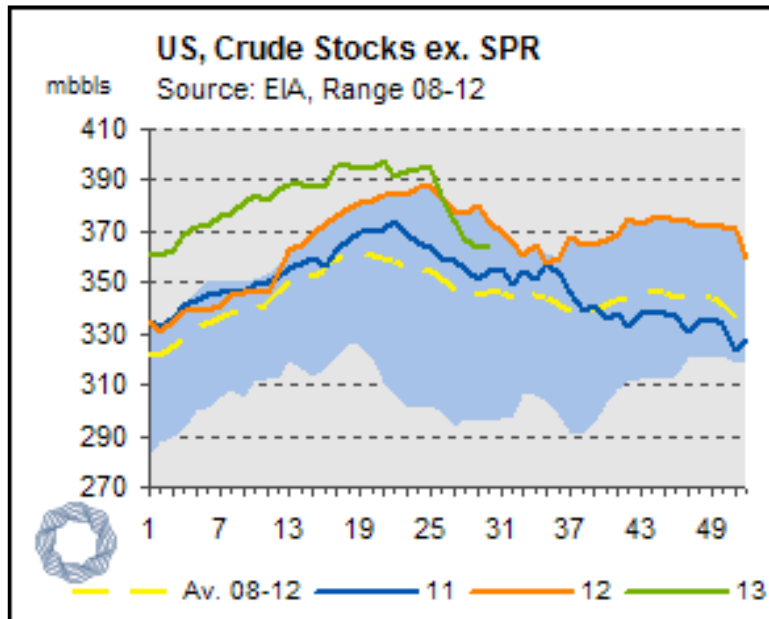


# Asian Margin Vs. US-EU margin

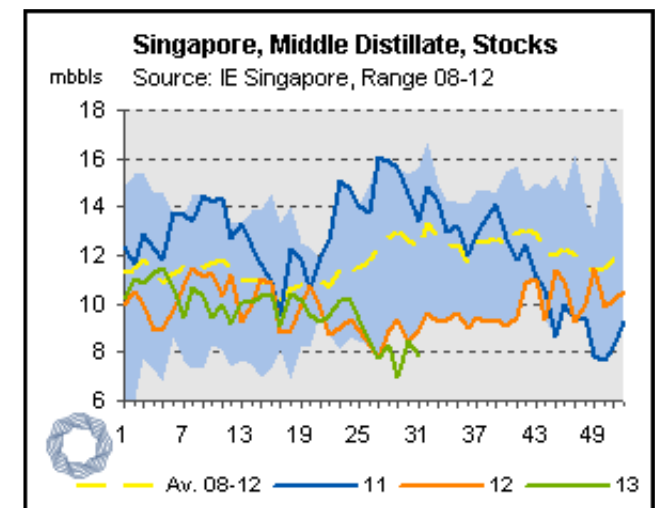
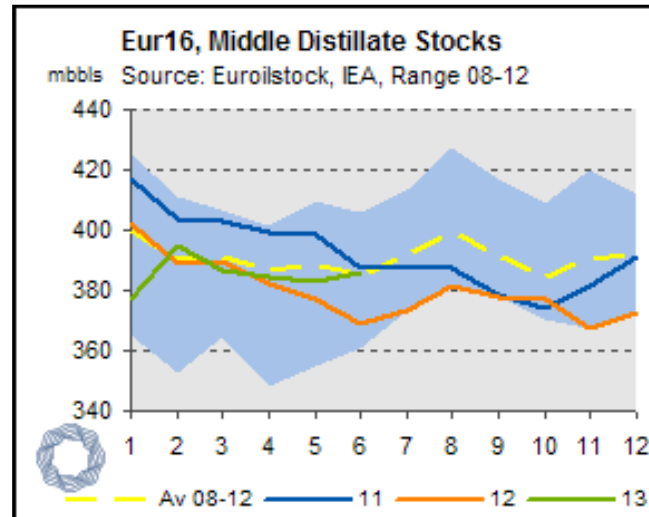
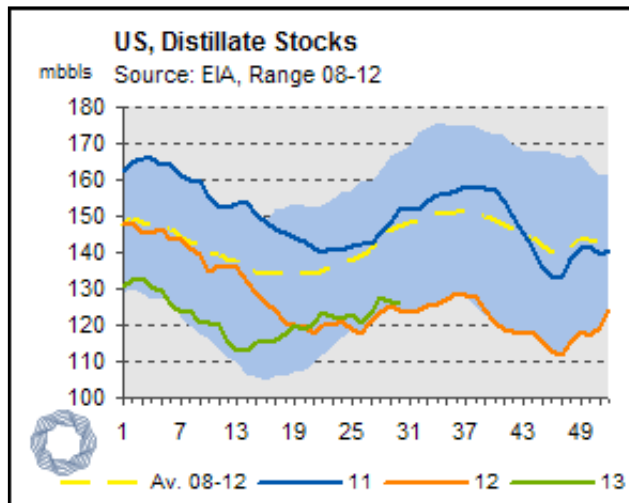
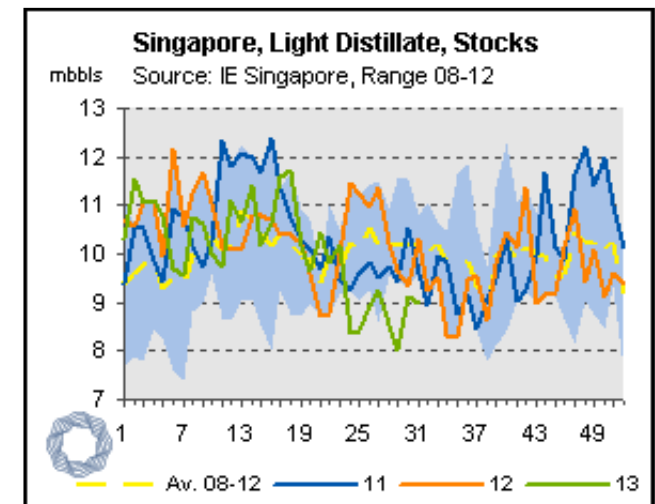
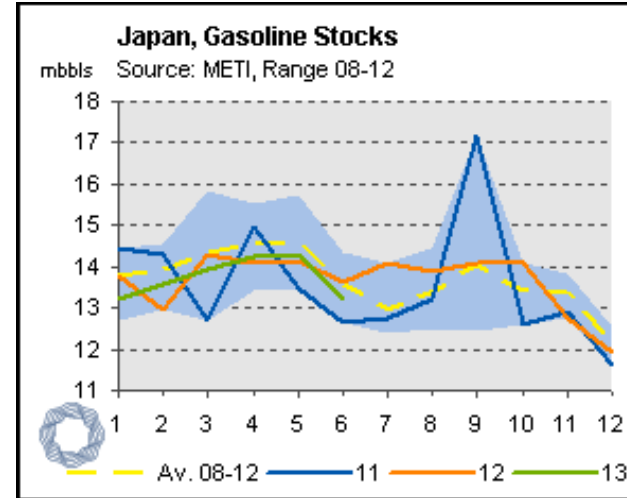
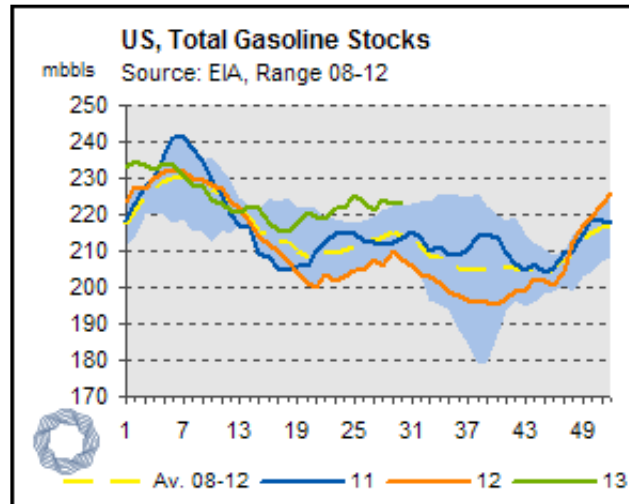




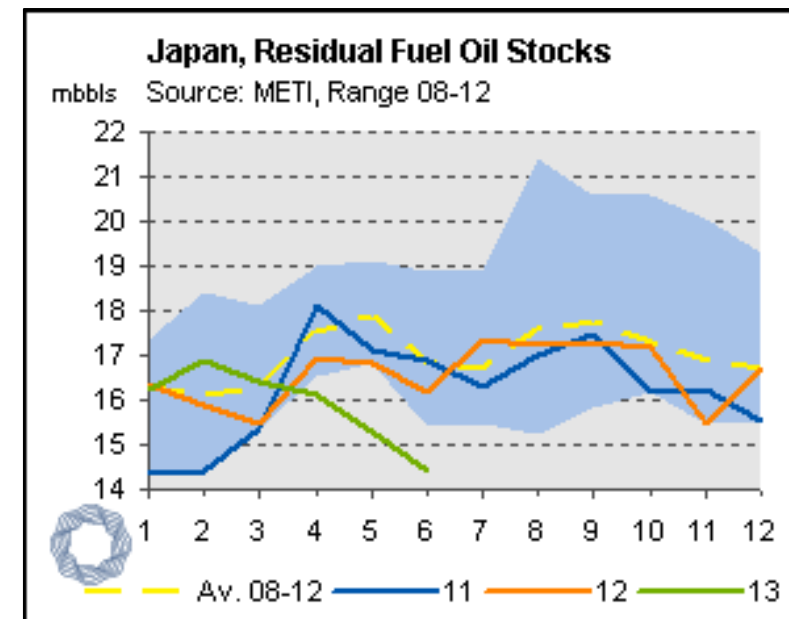
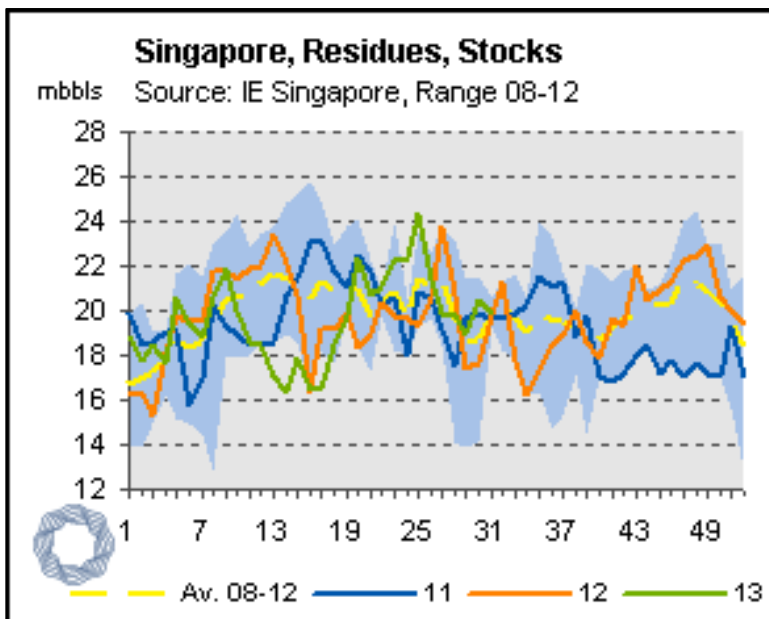
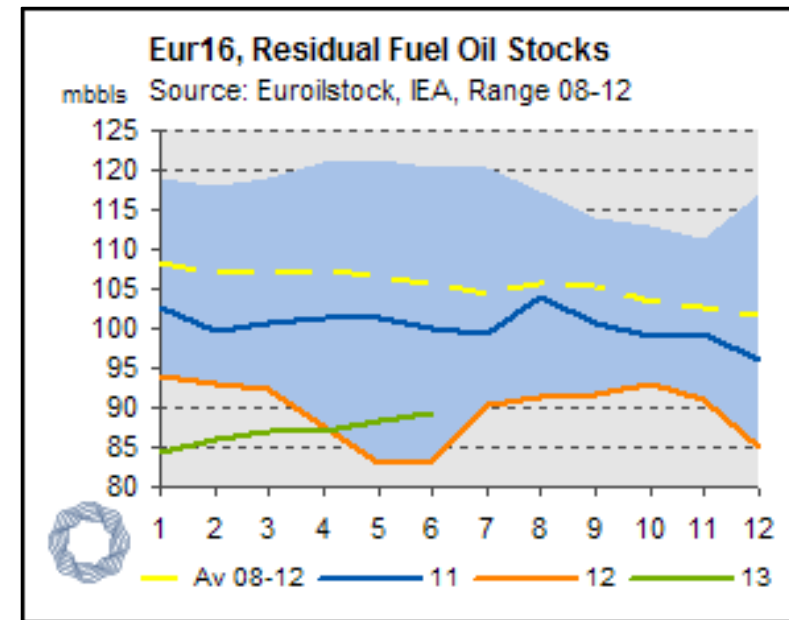
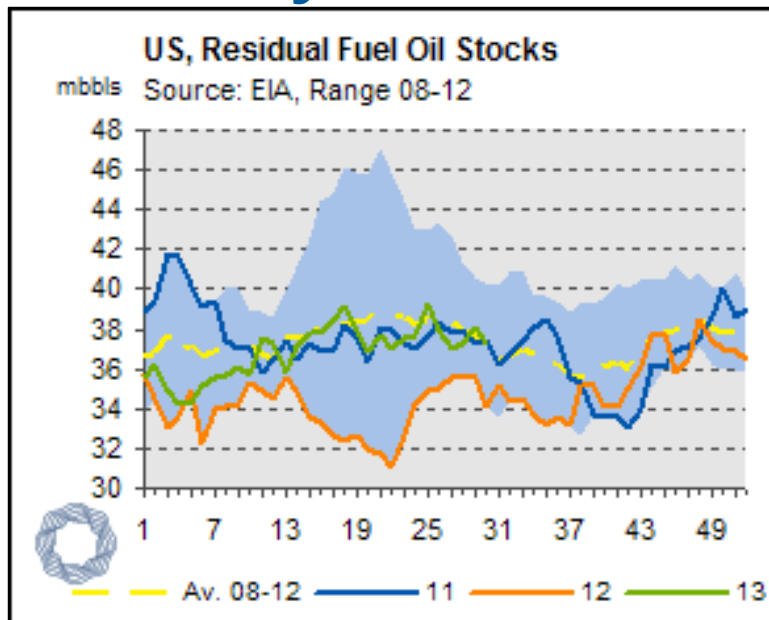
# Crude Inventory



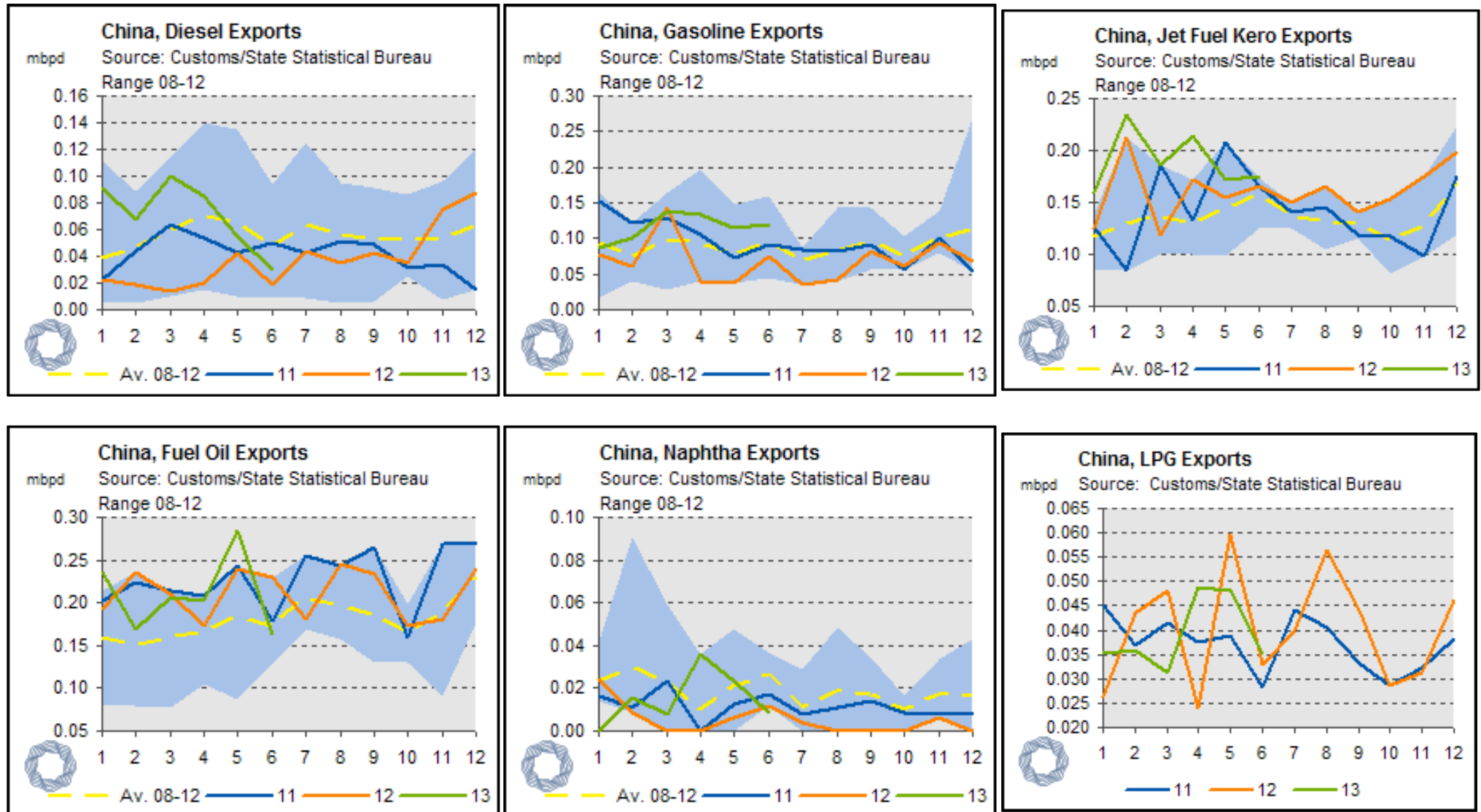
# Global Distillate Inventory



# Fuel Oil Inventory



# China's Product Export

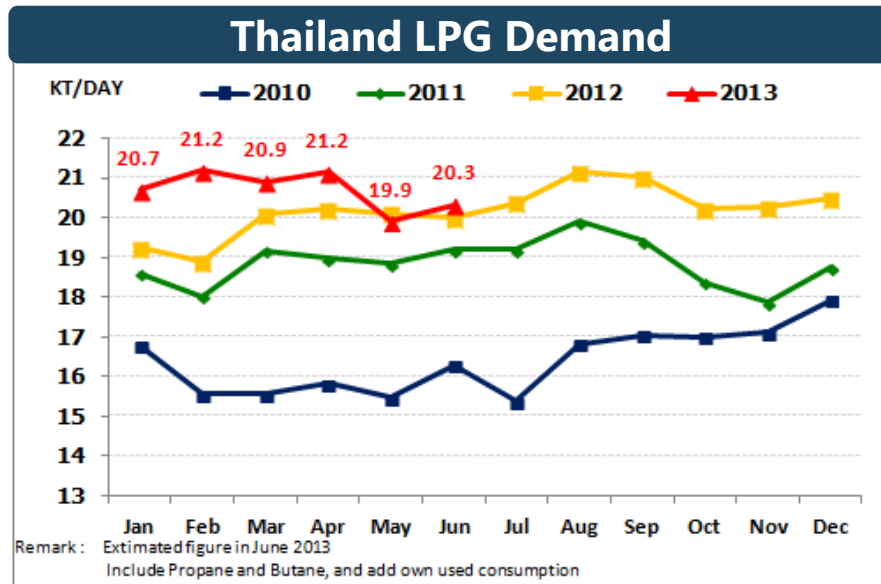




## Benchmark Product Yield

Yield	WTI CRK	BRT CRK	SG DB CRK	SG DB HSK
	Reuters Yield	Reuters Adj F&L	Reuters Adj F&L	Reuters Adj F&L
Mogas	47%	25%	31%	10%
Naphtha	-	-	7%	6%
Jet	25%	25%	18%	17%
GO	11%	23%	16%	16%
FO	13%	18%	22%	46%
LPG	4%	6%	3%	3%
MTBE	-2%	-	-	-
TOTAL	98%	97%	97%	98%

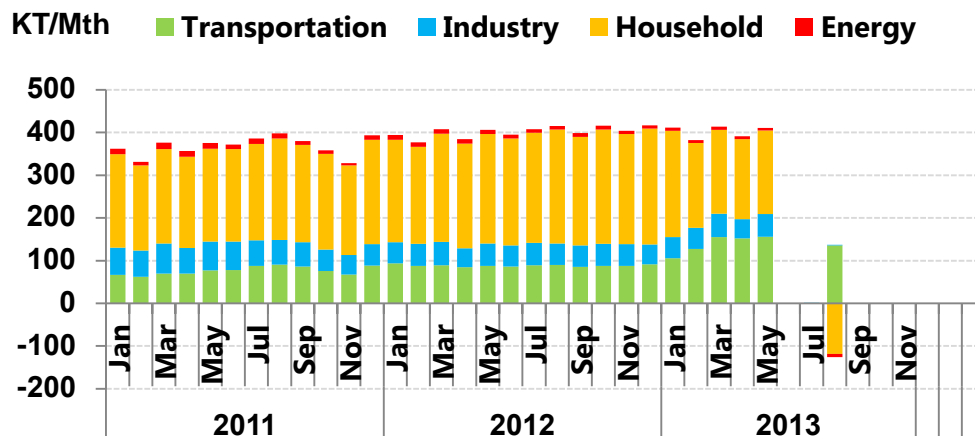
# Domestic LPG Demand



## LPG Demand Highlight

- LPG demand in 2Q-13 slightly increased by 2%YoY owing to automotive sector.
  - Government imposed active measures on gas distributors selling cross sectional LPG from household sector to automotive sector.
  - So, LQP in household consumption declined while LPG in automotive sector rose.

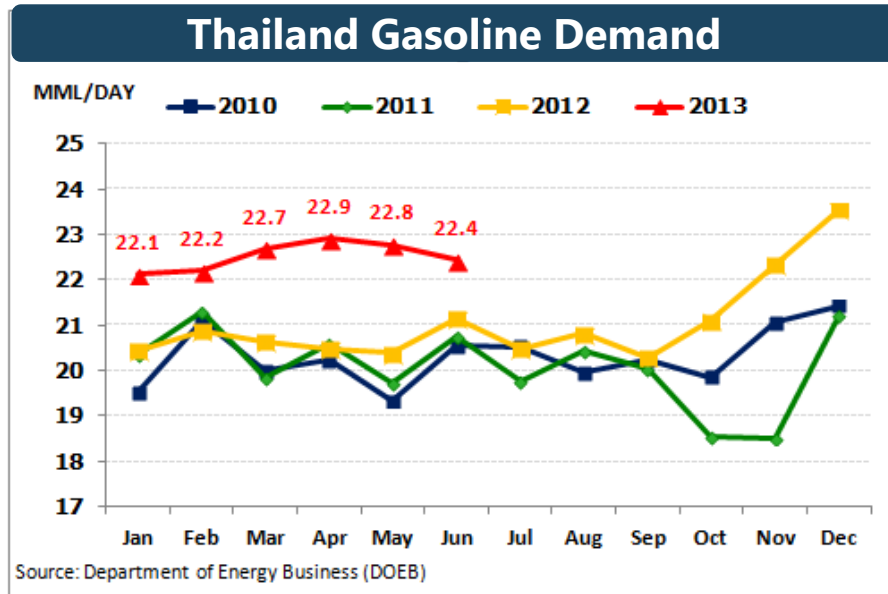
### LPG Demand by Sector



## Outlook 2013

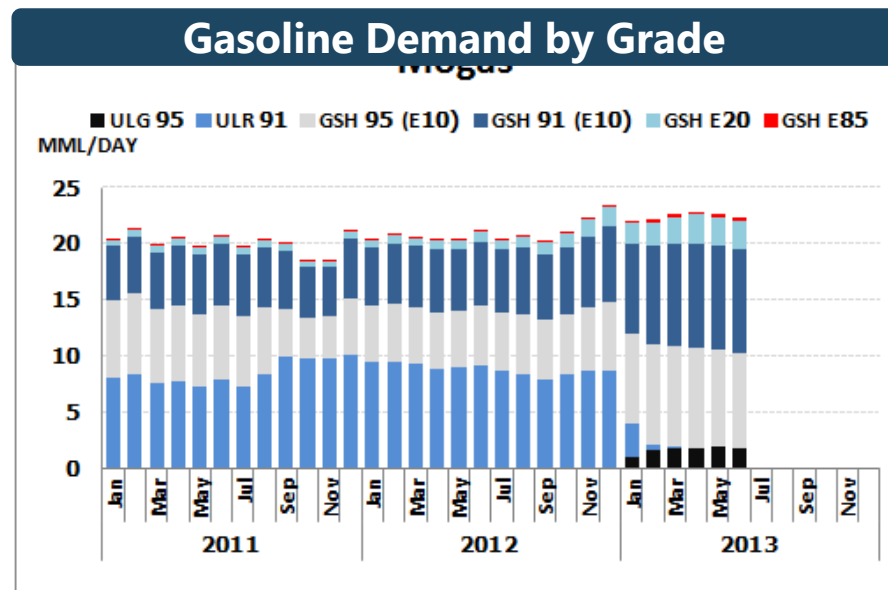
- LPG demand is expected to grow 5% which is slightly slower than prior year as government aims to increase retail price in automotive and household sectors.

# Domestic Gasoline Demand



## GASOLINE Demand Highlight

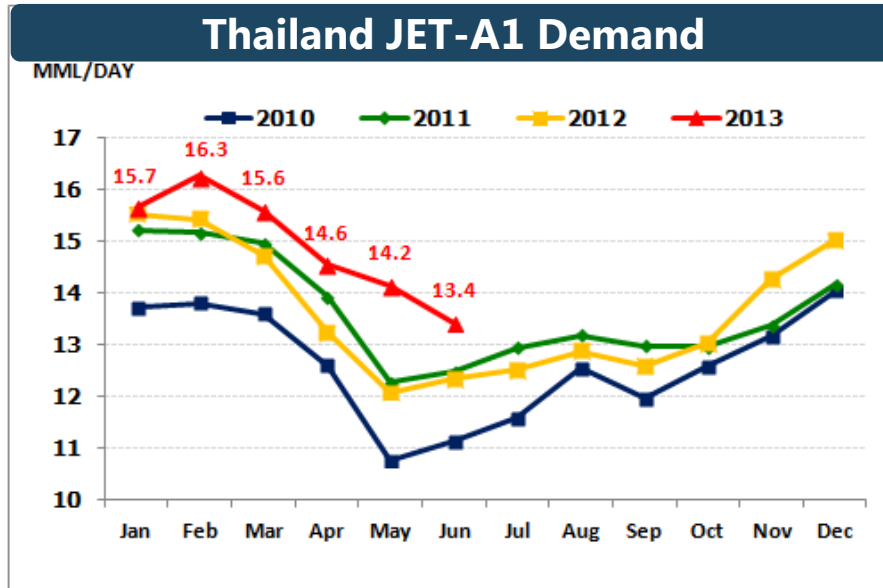
- Gasoline consumption in 2Q-13 grew by 10% YoY.
- GSH portion was 92% of total gasoline/GSH grade, led by 41% of GSH91, 38% of GSH95, 11% of E20 and 2% of E85.
- Ethanol consumption was averaged at 2.58 mml/day in 2Q-13 from only 1.3 mml/day in the same period last year.



## Outlook 2013

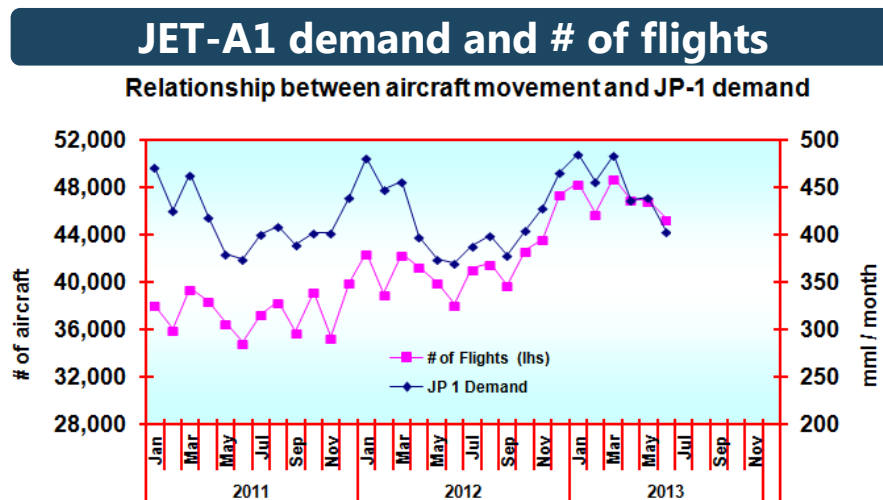
- Gasoline consumption is predicted to robustly grow by 7% YoY thanks to the recorded new car sale from 1<sup>st</sup> car buying program, which was largely delivered in 1H-13.

# Domestic Jet Demand



## JET Demand Highlight

- Jet consumption in 2Q-13 rose by 11% YoY in line with an increase in number of flights as well as a rise in tourists.

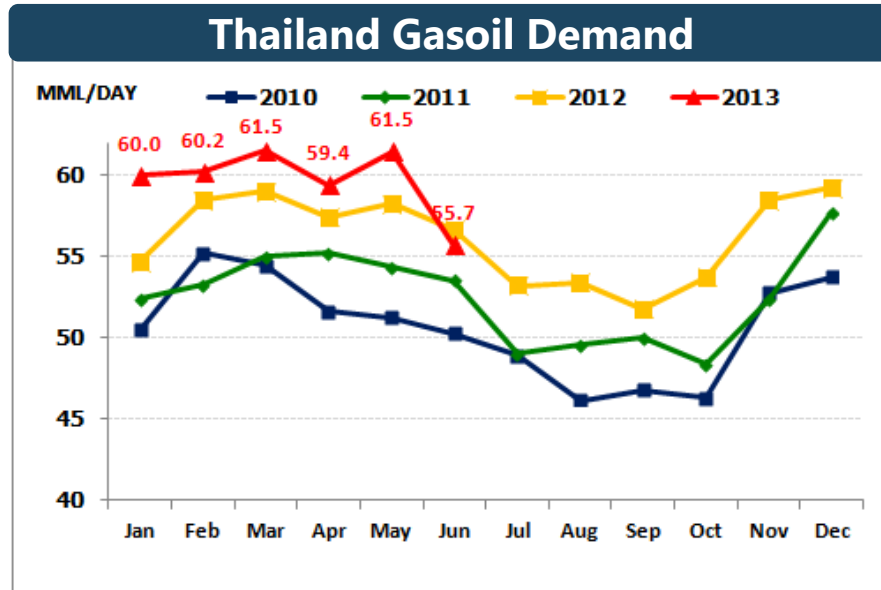


## Outlook 2013

- TOP sees jet demand growth to be around 5% owing to little political risk and healthy tourism.



# Domestic Gasoil Demand

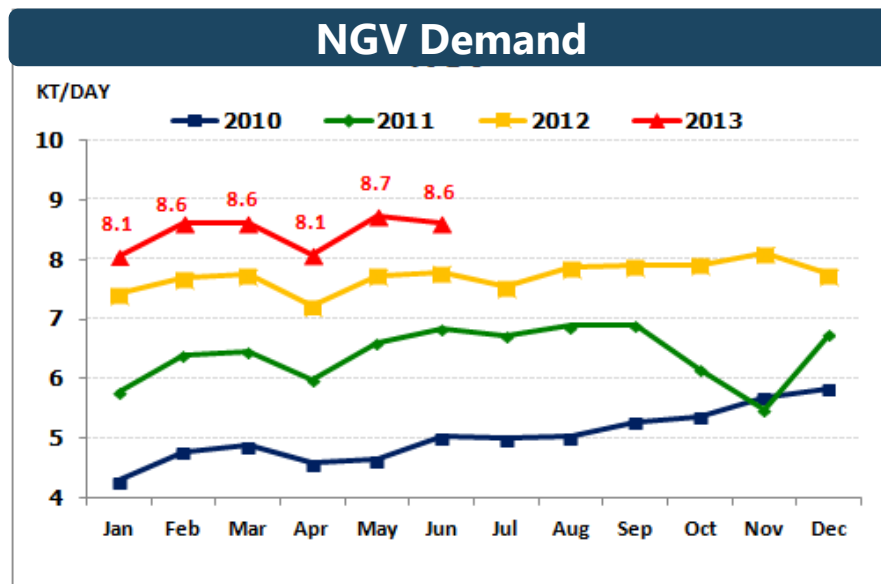


## GASOIL Demand Highlight

- Gas oil demand in 2Q-13 rose by 2%YoY due to continued capped retail price at 30B/litre.

## Outlook 2013

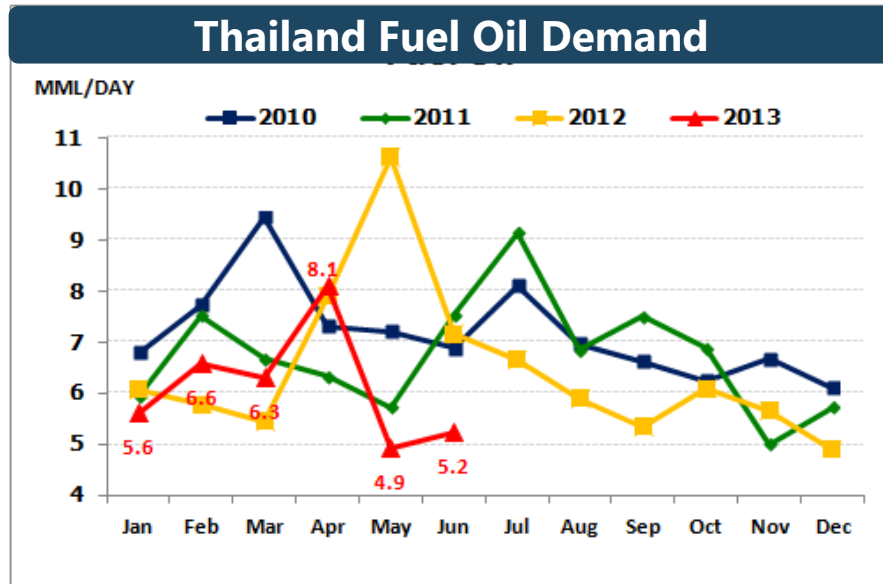
- Gasoil demand is expected to expand 4%YoY supported by 1st car buying program and capped retail price at 30B/litre.



## NGV Demand Highlight

- NGV in 2Q-13 grew robustly by 12%YoY because of attractive retail price. Though NGV price was partially floated, it was still the cheapest fuel. Total NGV cars in Jun-13 stood at 361K units, increased by 19K units from Mar-13.

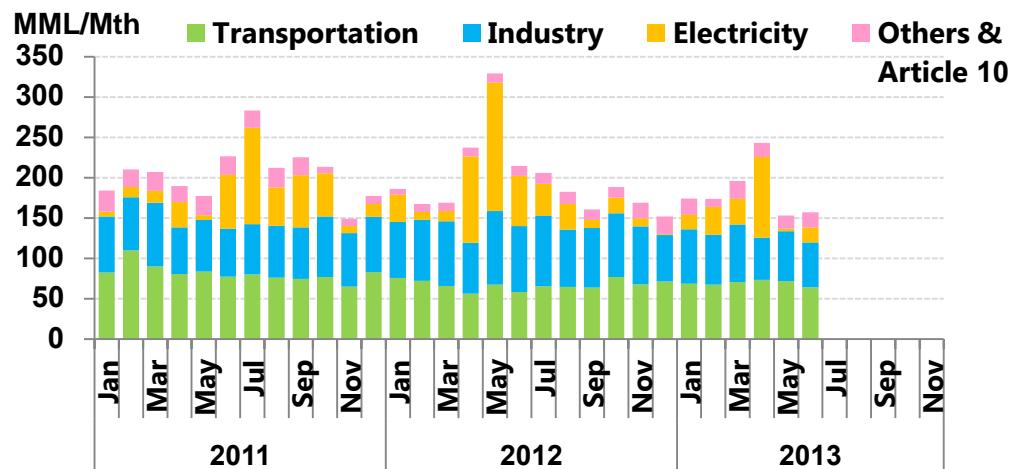
# Domestic Fuel Oil Demand



## FUEL OIL Demand Highlight

- FO demand in 2Q-13 decreased by 29%YoY owing to low consumption of fuel oil for power sector.

### Thailand Fuel Oil Demand by Sector



## Outlook 2013

- Fuel oil demand tends to flat in spite of Myanmar's gas platform shutdown in April 2013. The plan will not boost fuel oil demand, as there was a similar shutdown for maintenance in prior year.

# Thank You

**Any queries, please contact:**



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