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## Credit Suisse 28<sup>th</sup> Annual Basic Materials Conference

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Sergey Vasnetsov

SVP, Strategic Planning and Transactions

September 16, 2015

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# Cautionary Statement



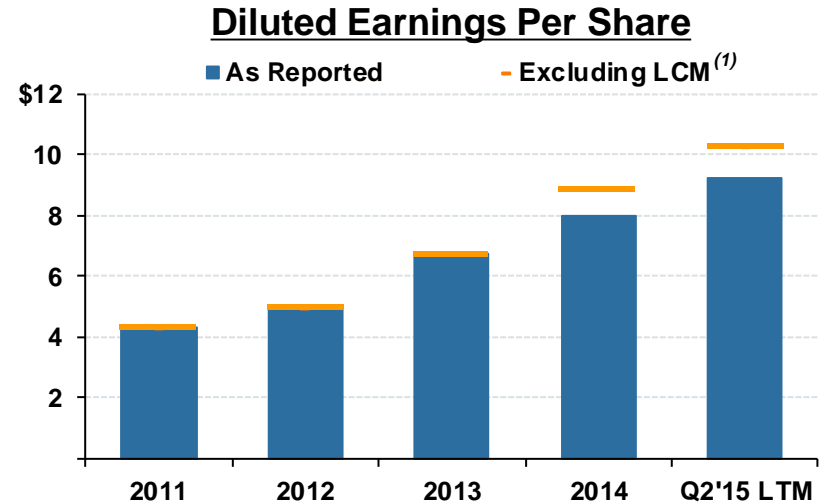
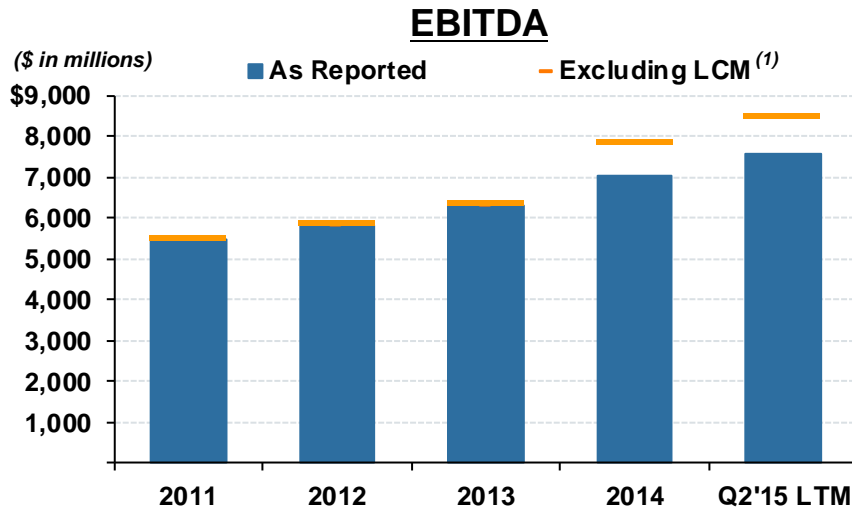
The statements in this presentation relating to matters that are not historical facts are forward-looking statements. These forward-looking statements are based upon assumptions of management which are believed to be reasonable at the time made and are subject to significant risks and uncertainties. Actual results could differ materially based on factors including, but not limited to, the business cyclicality of the chemical, polymers and refining industries; the availability, cost and price volatility of raw materials and utilities, particularly the cost of oil, natural gas, and associated natural gas liquids; competitive product and pricing pressures; labor conditions; our ability to attract and retain key personnel; operating interruptions (including leaks, explosions, fires, weather-related incidents, mechanical failure, unscheduled downtime, supplier disruptions, labor shortages, strikes, work stoppages or other labor difficulties, transportation interruptions, spills and releases and other environmental risks); the supply/demand balances for our and our joint ventures' products, and the related effects of industry production capacities and operating rates; our ability to achieve expected cost savings and other synergies; our ability to successfully execute projects and growth strategies; legal and environmental proceedings; tax rulings, consequences or proceedings; technological developments, and our ability to develop new products and process technologies; potential governmental regulatory actions; political unrest and terrorist acts; risks and uncertainties posed by international operations, including foreign currency fluctuations; and our ability to comply with debt covenants and service our debt. Additional factors that could cause results to differ materially from those described in the forward-looking statements can be found in the "Risk Factors" section of our Form 10-K for the year ended December 31, 2014, which can be found at [www.lyondellbasell.com](http://www.lyondellbasell.com) on the Investor Relations page and on the Securities and Exchange Commission's website at [www.sec.gov](http://www.sec.gov).

The illustrative results or returns of growth projects are not in any way intended to be, nor should they be taken as, indicators or guarantees of performance. The assumptions on which they are based are not projections and do not necessarily represent the Company's expectations and future performance. You should not rely on illustrated results or returns or these assumptions as being indicative of our future results or returns.

This presentation contains time sensitive information that is accurate only as of the date hereof. Information contained in this presentation is unaudited and is subject to change. We undertake no obligation to update the information presented herein except as required by law.

Reconciliations and other information concerning our non-GAAP measures can be found in the Appendix.

# Earnings Growth



LTM EBITDA in Excess of \$8 Billion<sup>(2)</sup>

• EPS Growth is ~140% since 2011<sup>(2)</sup>

- 5 consecutive years of earnings growth
- 11 consecutive quarters of year over year EPS growth

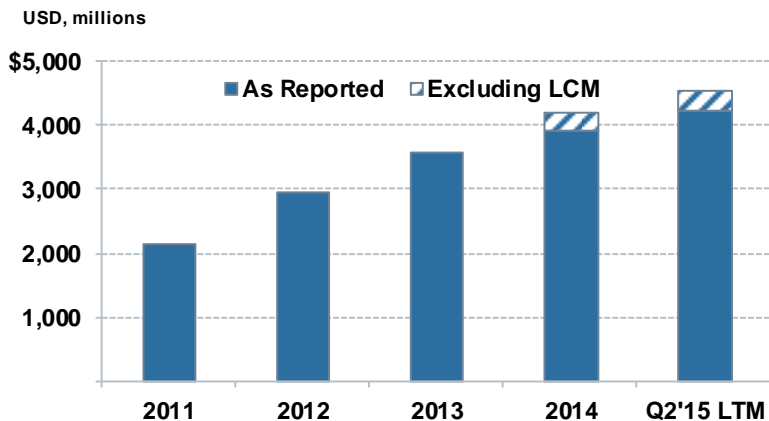
(1) LCM stands for "lower of cost or market." An explanation of LCM and why we have excluded it from our financial information in this presentation can be found on page 27 of this presentation under "Information Related to Financial Measures."

(2) Calculations exclude the impacts of the LCM adjustments

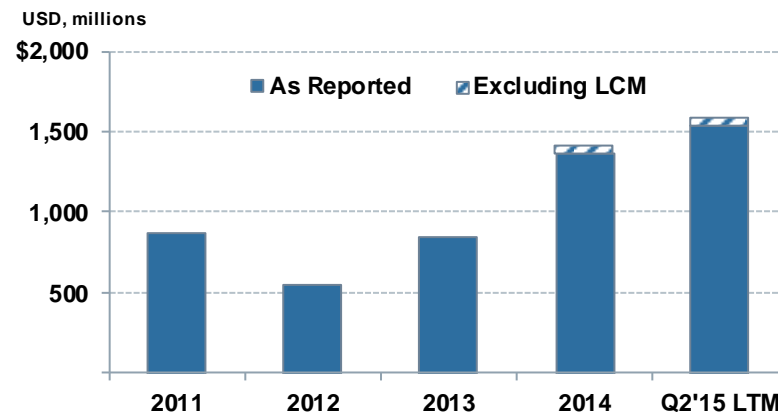


# A High Performing Portfolio: EBITDA Across Time

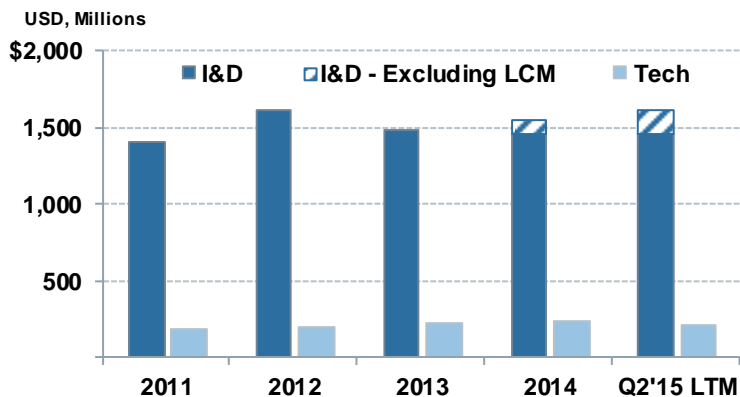
## Olefins & Polyolefins - Americas



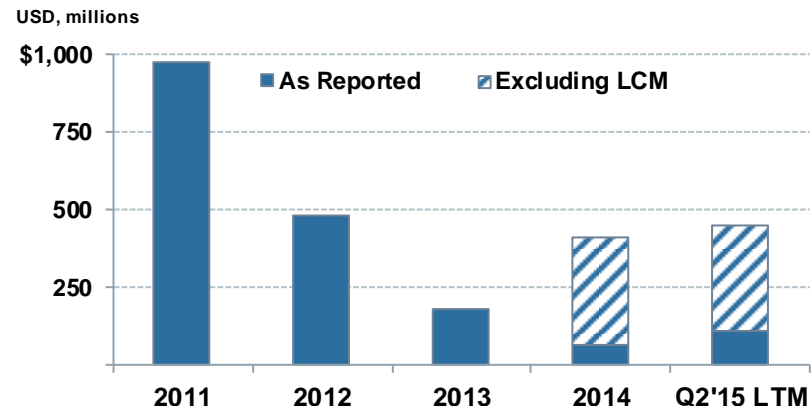
## Olefins & Polyolefins - EAI



## Intermediates and Derivatives and Technology



## Refining



# Portfolio Stability



Portfolio % at 2014 EBITDA	Examples	Characteristics
<p><b>Cyclical</b></p>	<ul style="list-style-type: none"> <li>▪ Ethylene (naphtha)</li> <li>▪ PE – Blow molding</li> <li>▪ PP – Homopolymer</li> <li>▪ Refining</li> </ul>	<ul style="list-style-type: none"> <li>▪ Naphtha-based ethylene production: currently the highest cost feedstock</li> <li>▪ Dependent on the cyclical nature of industry supply/demand</li> </ul>
<p><b>U.S. Shale Advantage</b></p>	<ul style="list-style-type: none"> <li>▪ Ethylene (ethane)</li> <li>▪ Oxyfuels</li> <li>▪ Methanol</li> </ul>	<ul style="list-style-type: none"> <li>▪ Benefit from the favorable oil to gas ratio</li> <li>▪ Low price of natural gas and NGLs</li> </ul>
<p><b>Differentiated / Stable</b></p>	<ul style="list-style-type: none"> <li>▪ Propylene Oxide</li> <li>▪ Differentiated PE/PP</li> <li>▪ Catalloy &amp; PB-1</li> <li>▪ PP Compounds</li> <li>▪ Technology Segment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Proprietary technology advantages</li> <li>▪ Steady margins from diverse end uses</li> <li>▪ Favorable market structure</li> <li>▪ Long-term contracts</li> </ul>

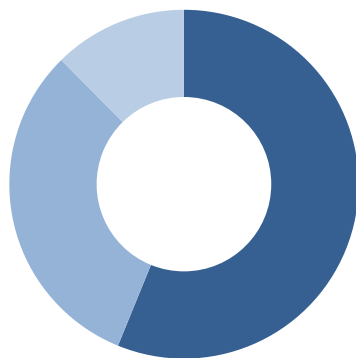
- Differentiated businesses provide a solid foundation
- Cyclical products represent a minority of 2014 earnings

Source: Internal LYB Estimates



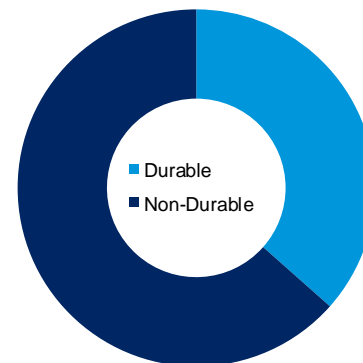
# Geography and End Uses Provide Balance

## Geographic Diversity: 2014 Revenue<sup>(1)</sup>

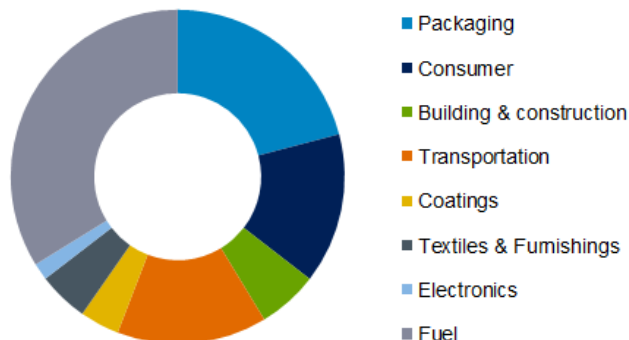


■ N. America ■ Europe ■ Rest of the World

## Durable / Non-Durable Revenue<sup>(1 / 2)</sup>



## Revenue by End Use<sup>(1 / 2)</sup>



- Earnings weighted toward North America where LYB has advantaged positions
- Revenue weighted toward non-durable goods providing less volatility

Source: Internal LYB Estimates

(1) Based on 2014 annual revenues.

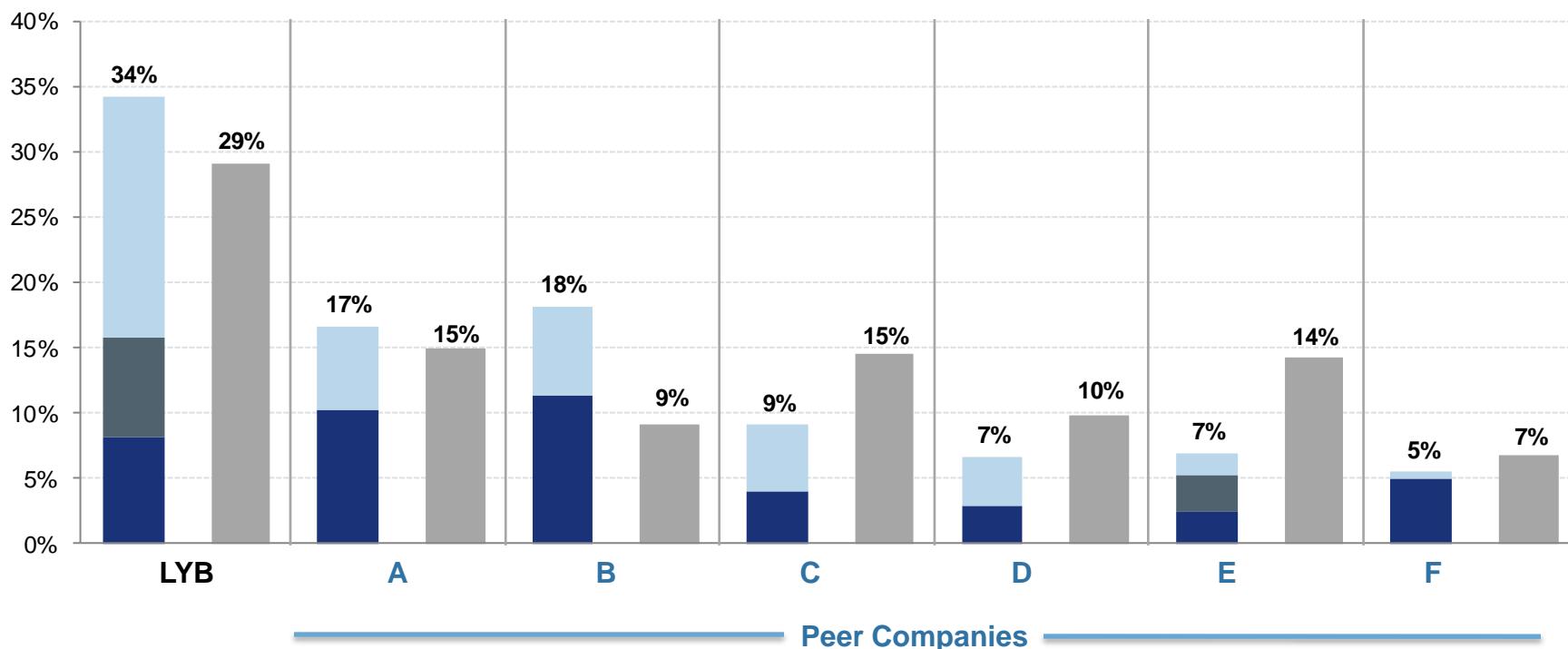
(2) Excludes Technology segment revenues.

# Industry Leading Cash Returns to Shareholders



## 2011 - Q2'15 Shareholder Returns of Capital as % of Enterprise Value

■ Regular Dividend ■ Special Dividend ■ Share Repurchase ■ Free Cash Flow



**Exceeding peers in absolute cash returned and as a percentage of enterprise value**

Source: SEC filings, Bloomberg, CapitalIQ

Enterprise Value as per CapitalIQ as of June 30, 2015.

Peer Companies include Celanese, Dow, DuPont, Eastman, Huntsman, Westlake and are listed here alphabetically and not in order of the chart above

# Each Business is Operated to Maximize Results



<u>Segment</u>	<u>LYB Market Position</u>	<u>Priority</u>	<u>Q2'15 LTM EBITDA</u> <u>(ex. LCM)</u>
Olefins & Polyolefins – Americas	<ul style="list-style-type: none"> <li>▪ NGL advantage</li> <li>▪ Increasing capacity</li> </ul>	Invest	\$4.5 B
Olefins & Polyolefins – EAI	<ul style="list-style-type: none"> <li>▪ Commodities – naphtha based, with cyclical upside</li> <li>▪ Advantaged feedstock</li> <li>▪ Differentiated polymers</li> </ul>	Optimize	\$1.6 B
Intermediates & Derivatives (I&D)	<ul style="list-style-type: none"> <li>▪ Proprietary technologies</li> <li>▪ Natural gas advantage</li> </ul>	Invest	\$1.6 B
Refining	<ul style="list-style-type: none"> <li>▪ Large, heavy crude refinery</li> <li>▪ Processing Canadian crude</li> </ul>	Optimize	\$0.5 B
Technology	<ul style="list-style-type: none"> <li>▪ Strong technology position</li> <li>▪ Maintain leadership</li> </ul>	Focus	\$0.2 B <sup>(1)</sup>

(1) The Technology Segment was not impacted by the LCM adjustment.



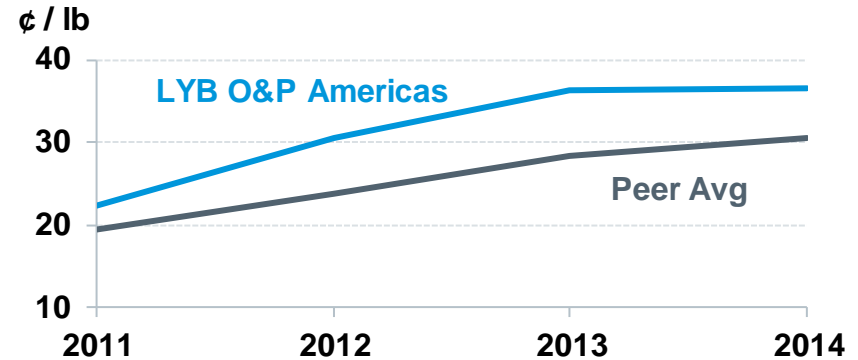
# O&P - Americas and EAI

## Our Strategy is Generating Differential Results

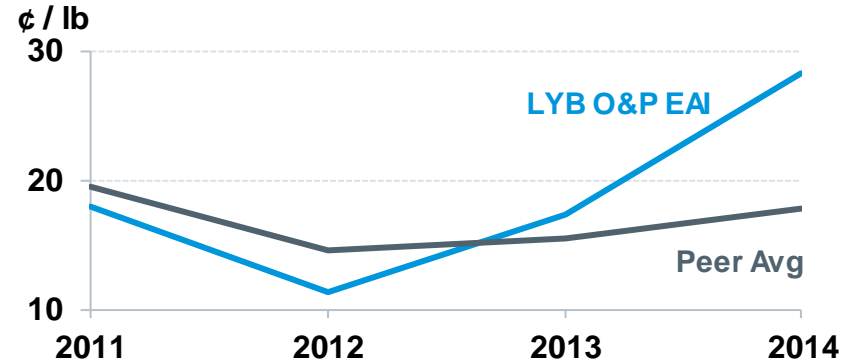


- **Safe & Reliable Operations**
- **Cost Focused**
- **Feedstock Advantaged and Flexibility**
- **Differentiated Products**

### O&P Americas vs. Americas Peers EBITDA per Pound of Ethylene Capacity



### O&P EAI vs. EAI Peers EBITDA per Pound of Ethylene Capacity



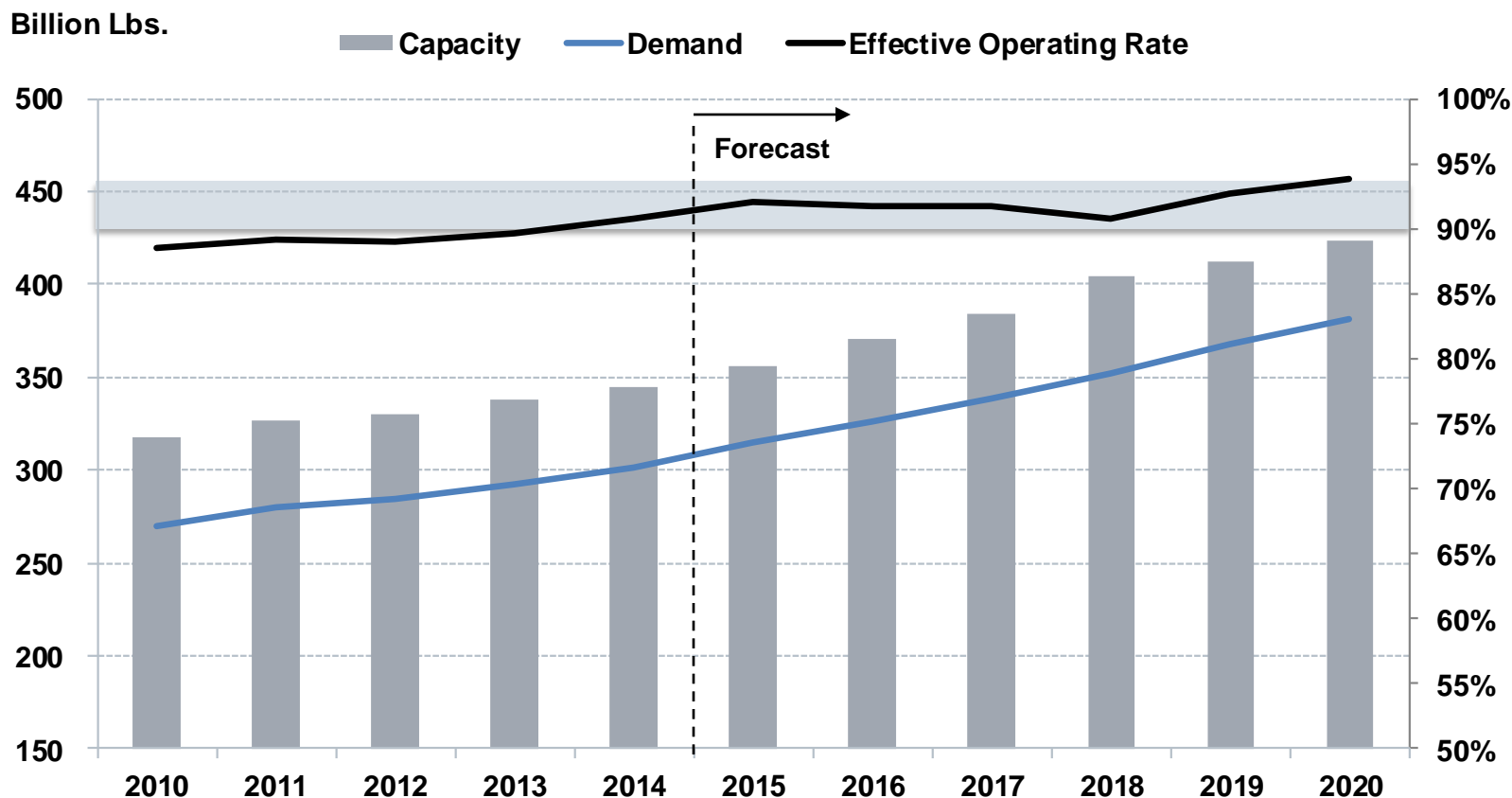
Source: Company Filings, Capital IQ, IHS, and LYB Estimates.

Capacities: Ethylene capacities include pro-rata JV capacities and are based on company reports and IHS.

Americas EBITDA: CP Chemical O&P is income before taxes + depreciation – equity income. Westlake Olefins is operating income + depreciation. INEOS O&P North America is as reported EBITDA before exceptional/extraordinary items. LYB O&P Americas and Dow Performance Plastics EBITDA are as reported not adjusted for extraordinary items.

EAI EBITDA: INEOS O&P Europe is as reported EBITDA before exceptional/extraordinary items. Borealis is operating income plus depreciation plus equity income. LYB O&P EAI EBITDA is as reported.

# Global Ethylene Supply/Demand Outlook



Based on third party consultants and our own outlook, we believe that operating rates will exceed 90% going forward

Source: LYB, IHS

Note: Effective Operating Rate is calculated assuming 4% industry downtime.

# O&P - Americas and EAI

## Naphtha Remains the Global Ethylene Price Setter

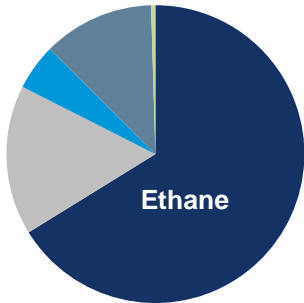


### Industry Feedstock Mix by Region

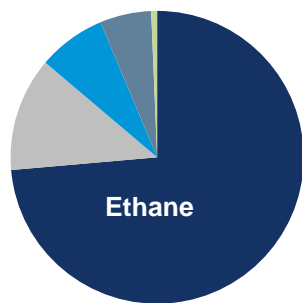
■ Ethane ■ Propane ■ Butane ■ Naphtha ■ MTO/CTO ■ Other

#### Gas-based

##### Middle East

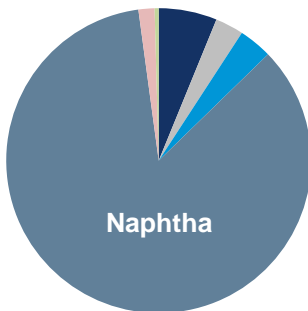


##### North America

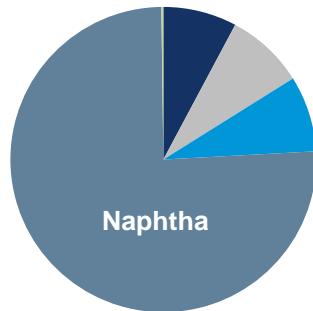


#### Oil-based

##### Asia

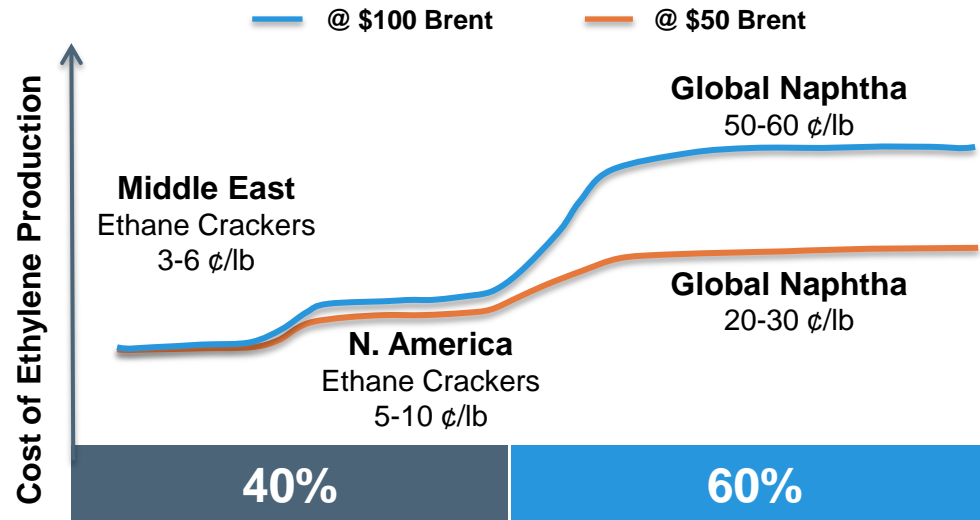


##### Western Europe



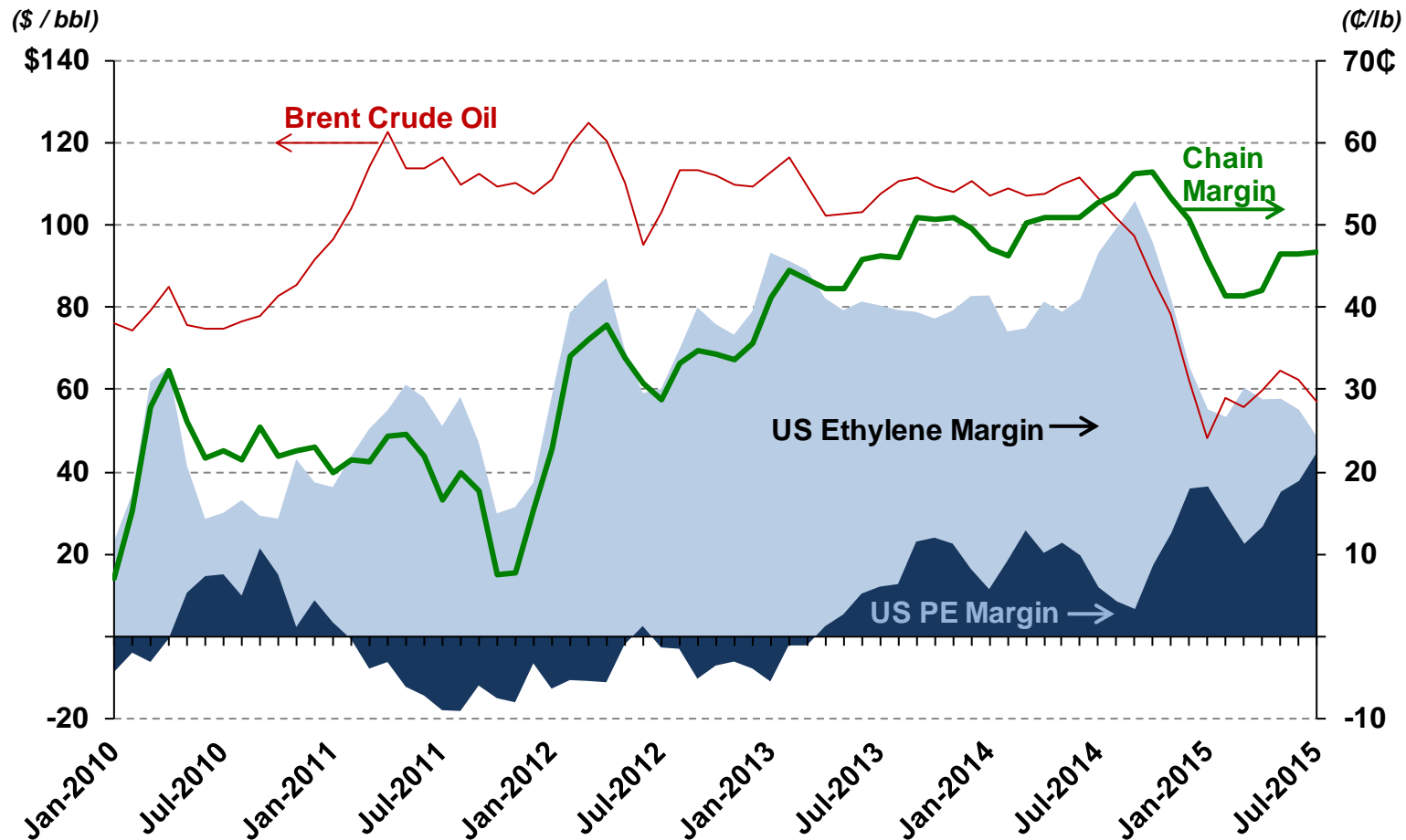
Source: LYB, IHS at the end of 2014.

### Ethylene Cost Curve



- N.A. position remains advantaged with ~90% of ethylene coming from NGLs
- O&P EAI produced ~60% of ethylene from advantaged feedstocks during Q2'15

# Impact of Crude Oil Price Decline on US Olefins and Polyolefins



US ethylene margins declined with Crude Oil prices but have been mostly offset by PE margin expansion, due to tighter supply-demand in 1H 2015

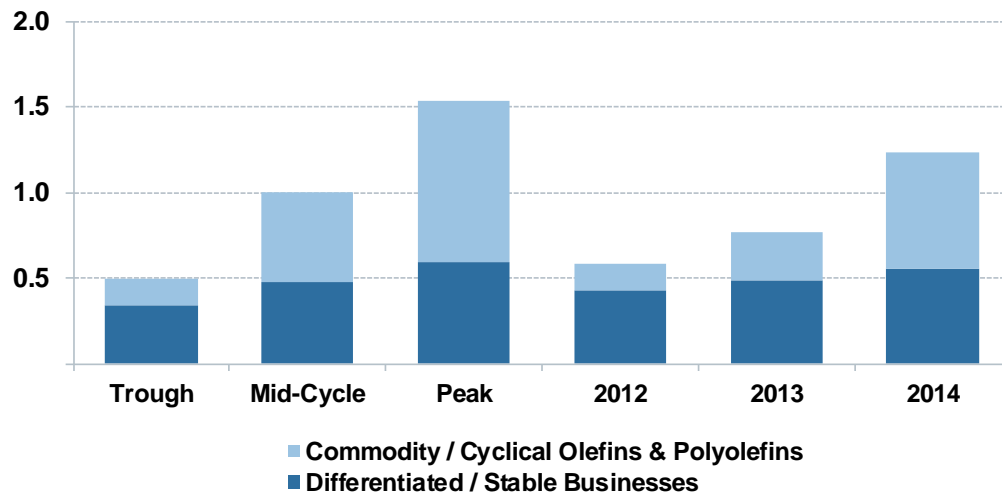
Source: IHS

# O&P – EAI EBITDA Profile



## Indexed O&P EAI EBITDA Scenarios<sup>(1)</sup>

(EBITDA Indexed, Mid-Cycle = 1.0)



Commodity Products	Stable/Specialty Businesses
EU Olefins	Catalloy
EU Polyethylene	Polybutene-1
EU Polypropylene	PP compounds
	Joint Ventures

- Differentiated businesses and JVs provide stable base of earnings
- Feedstock flexibility and higher than industry operating rates have been primary source of outperformance for EU olefins and polyolefins

Source: LYB

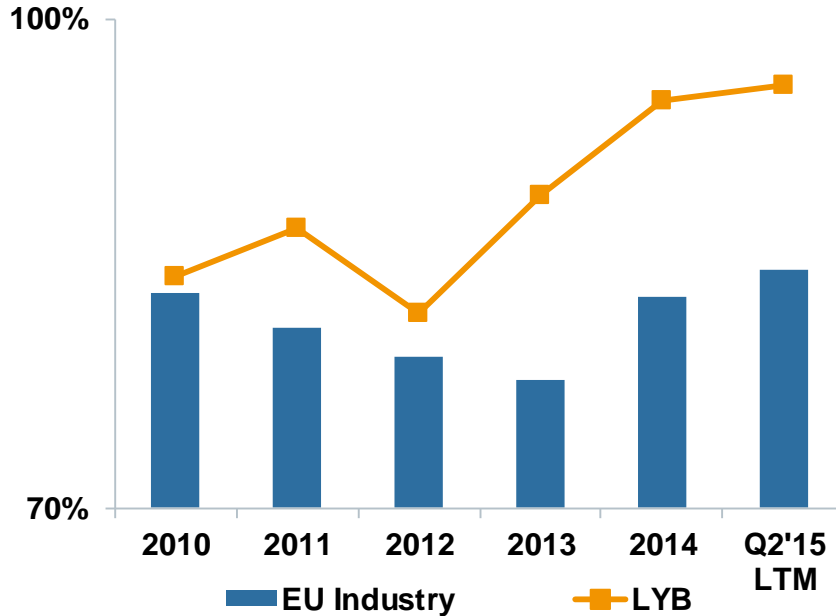
(1) O&P EAI trough, mid-cycle and peak EBITDA values are based on LYB estimates. 2014 EBITDA excludes the impact of the LCM adjustment.

# O&P – EAI

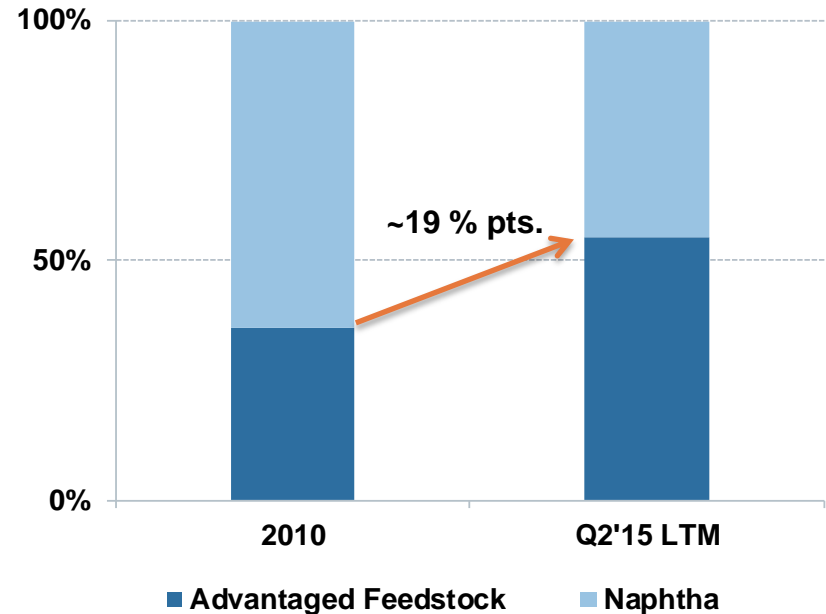
## European LYB Olefins Differential Performance



### Western Europe Olefins Operating Rate



### LYB Advantaged Raw Materials



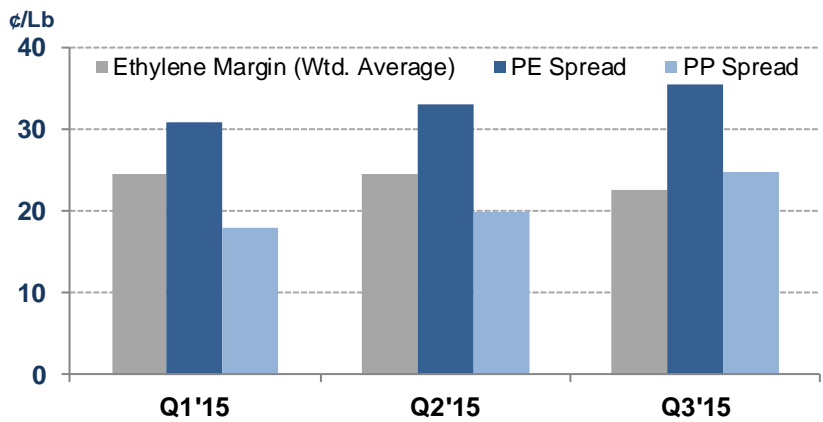
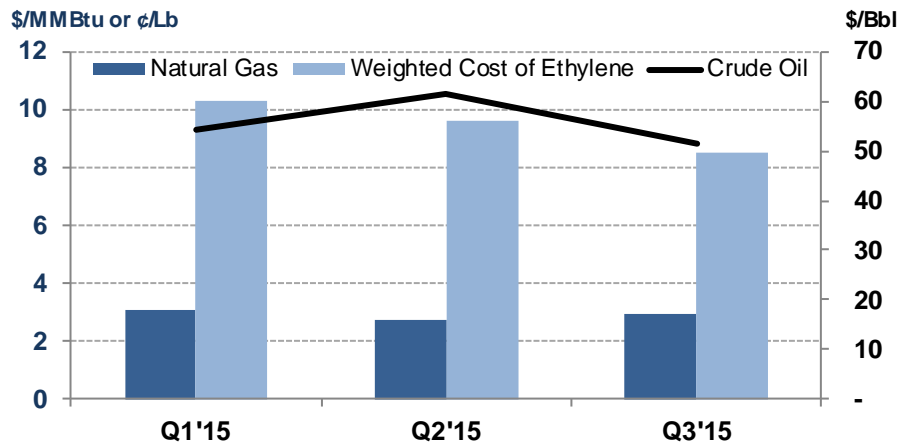
- LYB continues capturing value through both:
  - Above industry operating rates ~\$100 MM at Q2'15 conditions
  - Processing cost advantaged raw materials ~\$160 MM at Q2'15 conditions

Source: LYB, IHS

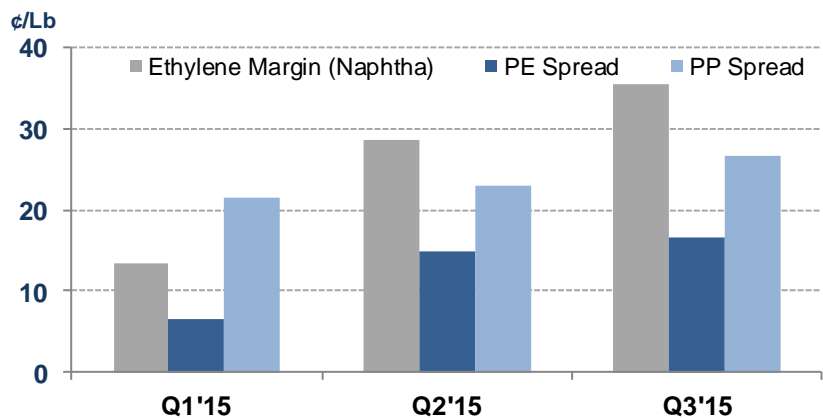
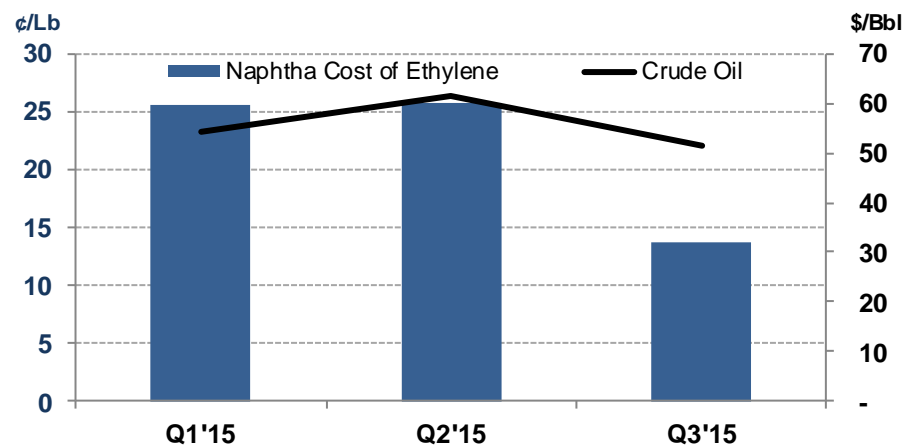
# Q3'15 Industry Forecasts Not Unlike 1H'15



## North America



## Europe

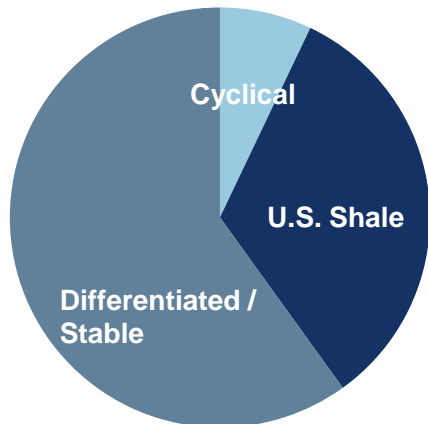


Source: IHS as of August 31

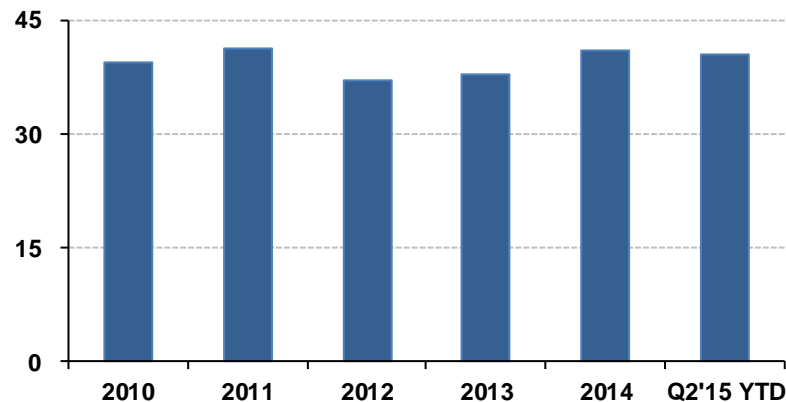
# Segment Diversity: a Platform for Stable Profitability



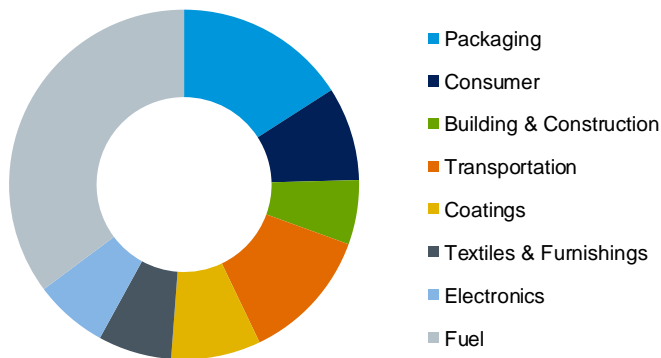
## Differentiated Proprietary Technology (2014 EBITDA)



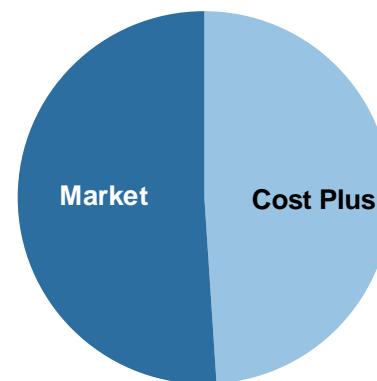
## Propylene Glycol Raw Material Margin



## Diverse End Uses<sup>(1)</sup>



## Contracting Strategy



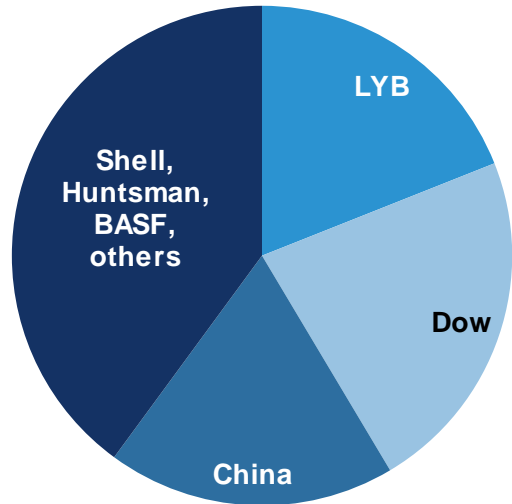
Source: LYB, Chemical Data (PG Raw Material Margin)

(1) Internal LYB estimates derived from third party sales and estimated end uses, 2014.



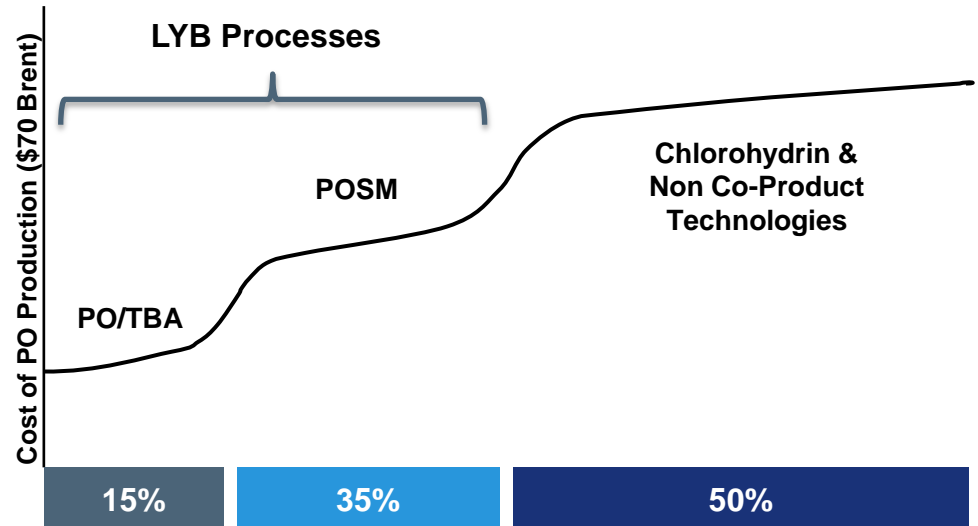


### Global PO Capacity<sup>(1)</sup>



**Total Global Capacity: ~21 B Lbs.**

### PO Cost Curve



- LYB's PO production capacity is approximately a 50/50 split between PO/TBA and POSM technologies, the two lowest cost technologies
- LYB capacity represents about ~45% of the low-cost PO/TBA and POSM capacity

Sources: LYB, IHS

(1) LYB includes 100% of owned and operated capacity, including joint ventures.

# Refining Response to Market Trends



## Market Trends

- Canadian heavy crude and U.S. crude oil growth provide an advantage for U.S. refiners
- Growing supplies of heavy Latin American crudes must compete for declining share of U.S. imports
- Global refined product demand creates export opportunities



## Response

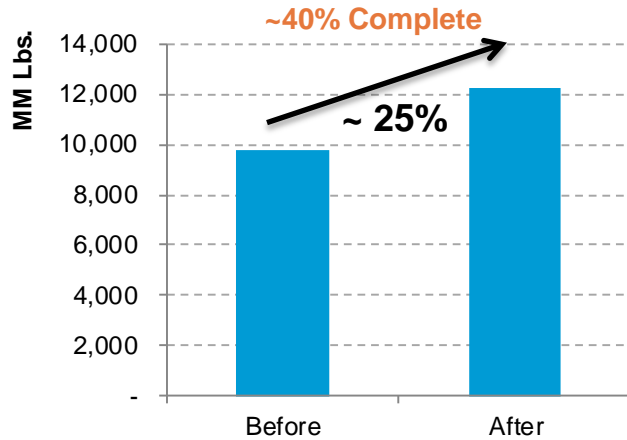
- Focusing on operations
  - Expanding operating windows (more sulfur capacity, increased light ends recovery)
  - Capital and cost discipline, improving reliability
- Diversifying our crude supply
  - Secured lowest cost pipeline space to deliver tar sands oils to Houston
  - Replaced Venezuelan supply with other Latin American barrels
- Expanding product export capability

Business focused on maximizing free cash flow

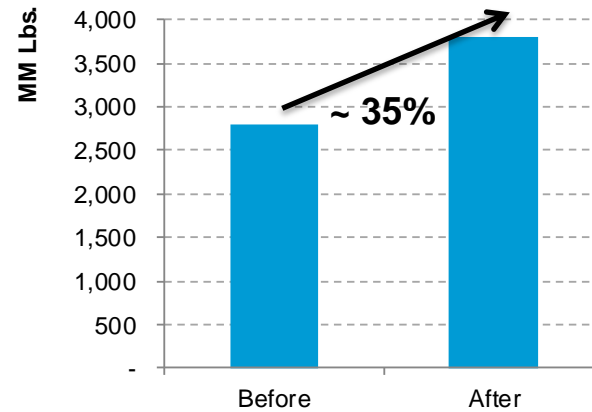
# We are expanding our advantaged positions significantly



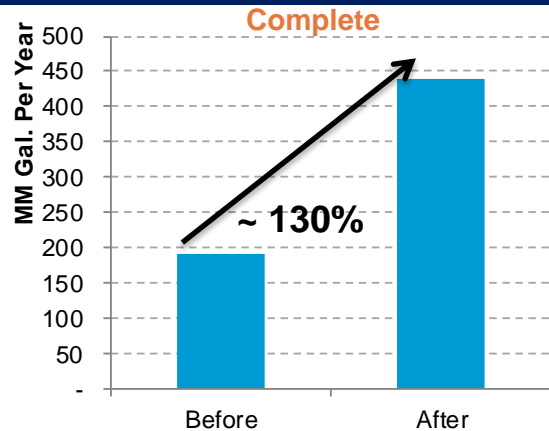
## U.S. Ethylene



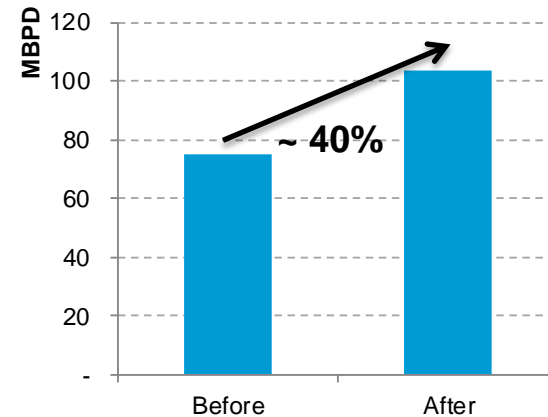
## Propylene Oxide



## Methanol



## MTBE Equivalent



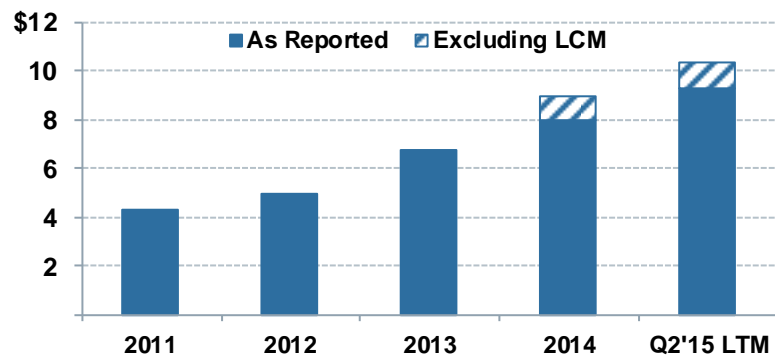
Note: "Before" refers to the capacity prior to the initiation of our growth program

# Outperformance coupled with a shareholder friendly approach



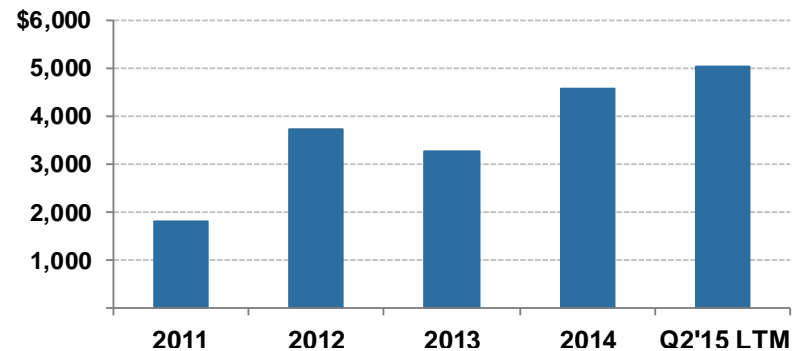
## Diluted Earnings Per Share

per share

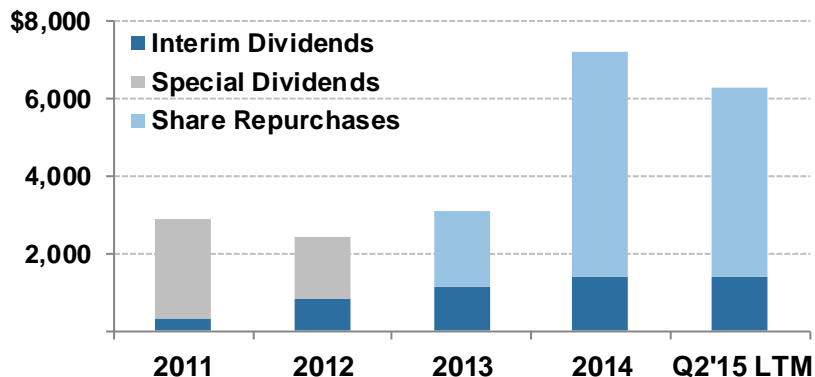


## Free Cash Flow

\$ millions



## Dividends and Share Repurchases



## Multiples

Multiples (trailing 12 months as of 6/30/15)	LYB	S&P Chemical Index	S&P 500
EV/EBITDA <sup>(1)</sup>	6.3x	11.6x	10.4x
PE <sup>(2)</sup>	9.2x	17.8x	21.6x

Industry leading performance and statistics at a lagging multiple

Source: Capital IQ, Bloomberg, LYB

(1) EV/EBITDA = Enterprise Value / Earnings Before Interest, Taxes and D&A as calculated by Capital IQ and Bloomberg, except for LYB, which is based on reported EBITDA for the trailing 12 months.

(2) PE = Price to Earnings as calculated by Capital IQ and Bloomberg, except for LYB, which is based on as reported earnings for the trailing 12 months.



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## Appendix

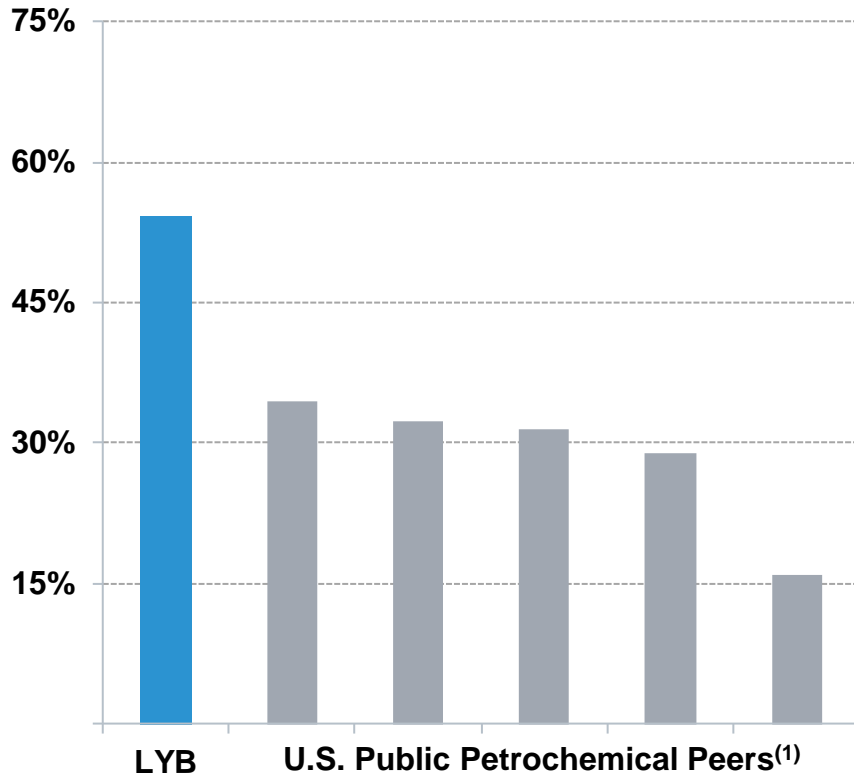
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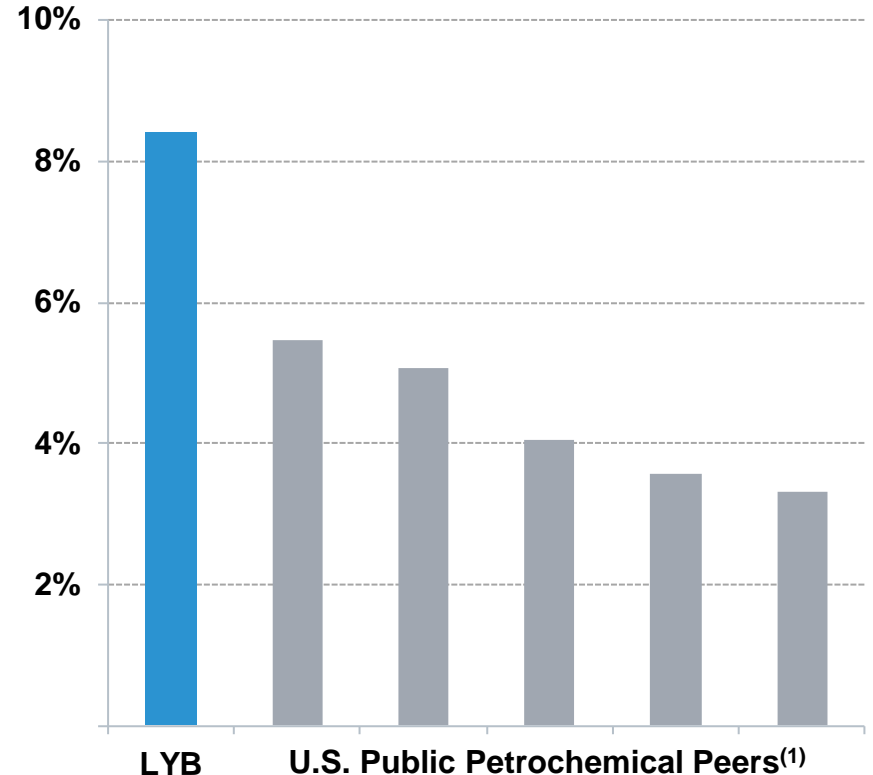


# LYB Delivers More Cash to the Bottom Line

**'11 - '14 Free Cash Flow<sup>(1)</sup> as % of EBITDA<sup>(2)</sup>**



**'11 - '14 Average Annual Free Cash Flow<sup>(1)</sup> as % of 2014 Year-End Market Cap**



**LYB free cash flow generation significantly exceeds comparable U.S. public peer group**

Source: Company filings, Capital IQ

Notes: LYB calculations are based on as reported line items and using Capital IQ market capitalization. Peer calculations are based on Capital IQ calculated line items.

(1) For definitions and peer group definitions, please see the Glossary in the Appendix to this presentation.

(2) For purposes of peer comparison, LYB EBITDA is as reported. Peer EBITDA = Revenue – COGS – SG&A – R&D + D&A + equity income as calculated by Capital IQ.

# Cash Deployment Hierarchy



		2014	Comments
<b>Foundation</b>	Base Capex	~ \$700 million	<ul style="list-style-type: none"> <li>First priorities for cash</li> </ul>
	Interest Expense	~ \$350 million	
	Interim Dividend	~ \$1.4 billion	<ul style="list-style-type: none"> <li>Fund through the cycle with cash flow from operations</li> </ul>
<b>Discretionary Opportunities</b>	Growth Capex	~ \$800 million	<ul style="list-style-type: none"> <li>High-return in advantaged businesses</li> </ul>
	Share Repurchases / Special Dividend / Acquisitions	Balance of cash generated ~ \$3 billion	<ul style="list-style-type: none"> <li>Discretionary cash returned to shareholders</li> <li>M&amp;A if strategic and meaningfully accretive</li> </ul>

Source: LYB

# Status of Growth Projects



Project	Scope (million Lbs.)	Start-up	Cost (\$ million)	Potential EBITDA <sup>(1)</sup> (\$ million / year)	
				2011-14 Avg. Margins	Q2'15 YTD Margins
Increase Ethane Capability	500	2012	~\$25	\$80 – 100	\$30 – 50
Midwest Ethylene / PE	120	2012	~\$25	\$30 – 40	\$20 – 30
EU Butadiene Expansion <sup>(2)</sup>	155	Mid 2013	~\$100	\$40 – 50	\$40 – 50
Methanol Restart	250 MM Gal.	Dec. 2013	~\$180	\$200 – 230	\$190 – 210
PE Debottleneck	220	Early 2014	~\$20	\$5 – 10	\$30 – 40
La Porte Expansion	800	Mid 2014	~\$500	\$220 – 280	\$170 – 230
Channelview Expansion (I)	250	Mid 2015	~\$200	\$70 – 90	\$50 – 70
Corpus Christi Expansion	800	2016	~\$600	\$220 – 280	\$170 – 230
Channelview Expansion (II)	550	2017	~\$300	\$150 – 190	\$120 – 160
New PO/TBA Plant	1,000 PO 29 MBPD Oxyfuels	2020	TBD	\$500 – 550	\$460 – 510
PE / Metathesis Capacity	~1,000	TBD	TBD	TBD	TBD
<b>Total</b>			<b>~\$1,950</b>	<b>\$1,515 – 1,820</b>	<b>\$1,280 – 1,580</b>

Source: LYB, Chemical Data and IHS.

(1) Potential EBITDA assumes 100% utilization and is based on third party consultant industry margins through the first half of 2015, and 2011-2014 average as of July 28, 2015.

(2) The EU Butadiene expansion benefits from a fixed margin and thus the potential EBITDA benefit has not changed.





# Outsized Performance in Perspective

## Cash Flow and Shareholder Returns

- 2014 Cash Flow from Operating Activities: \$6.0 B, or 13% of revenue
- 2014 Free Cash Flow<sup>(1)</sup>: \$4.6 B, or 10% of revenue
- Dividend Yield<sup>(2)</sup>: 3.0%
- Share Repurchases: on-going

## Global Product Positions

Product	Capacity	Expansions
N.A. Ethylene	#2	+25%
Propylene Oxide	#2	+35%
MTBE Equivalent	#1	+40%

Multiples (trailing 12 months as of 6/30/15)	LYB	S&P Chemical Index	S&P 500
EV/EBITDA <sup>(3)</sup>	6.3x	11.6x	10.4x
PE <sup>(4)</sup>	9.2x	17.8x	21.6x

- Cash flow, shareholder friendly behavior, and growth at below market multiples
- We like the value – ~20% of outstanding shares purchased<sup>(5)</sup>

Source: Capital IQ, Bloomberg, LYB

(1) Free Cash Flow = EBITDA – Capex.

(2) Dividend yield as of 6/30/15.

(3) EV/EBITDA = Enterprise Value / Earnings Before Interest, Taxes and D&A as calculated by Capital IQ and Bloomberg, except for LYB, which is based on reported EBITDA for the trailing 12 months.

(4) PE = Price to Earnings as calculated by Capital IQ and Bloomberg, except for LYB, which is based on as reported earnings for the trailing 12 months.

(5) ~20% of shares outstanding have been repurchased through June 30, 2015 since the share repurchase program was first authorized in 2013.

# Glossary



- **D&A:** Depreciation and Amortization
- **EBITDA (as used for peers):** Earnings before Interest, Taxes and Depreciation and Amortization = Revenue - COGS - SG&A - R&D + D&A + Equity Income
- **Operating Income** = Revenue - COGS - SG&A - R&D
- **R&D:** Research and Development
- **SG&A:** Sales, General and Administrative

\* See reconciliations in the Appendix

# Information Related to Financial Measures



This presentation makes reference to certain “non-GAAP” financial measures as defined in Regulation G of the U.S. Securities Exchange Act of 1934, as amended. The non-GAAP measures we have presented include income from continuing operations excluding LCM, diluted earnings per share excluding LCM, EBITDA and EBITDA excluding LCM. LCM stands for “lower of cost or market,” which is an accounting rule consistent with GAAP related to the valuation of inventory. Our inventories are stated at the lower of cost or market. Cost is determined using the last-in, first-out (“LIFO”) inventory valuation methodology, which means that the most recently incurred costs are charged to cost of sales and inventories are valued at the earliest acquisition costs. Market is determined based on an assessment of the current estimated replacement cost and selling price of the inventory. In periods where the market price of our inventory declines substantially, cost values of inventory may be higher than the market value, which results in us writing down the value of inventory to market value in accordance with the LCM rule, consistent with GAAP. This adjustment is somewhat unique to our 2010 company formation when all assets and liabilities were measured at fair value, our use of LIFO accounting, and the recent volatility in pricing for many of our raw material and finished goods inventories. We report our financial results in accordance with U.S. generally accepted accounting principles, but believe that certain non-GAAP financial measures, such as EBITDA and earnings and EBITDA excluding LCM, provide useful supplemental information to investors regarding the underlying business trends and performance of the company's ongoing operations and are useful for period-over-period comparisons of such operations. Non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, or superior to, the financial measures prepared in accordance with GAAP.

EBITDA, as presented herein, may not be comparable to a similarly titled measure reported by other companies due to differences in the way the measure is calculated. We calculate EBITDA as income from continuing operations plus interest expense (net), provision for (benefit from) income taxes, and depreciation & amortization. EBITDA should not be considered an alternative to profit or operating profit for any period as an indicator of our performance, or as an alternative to operating cash flows as a measure of our liquidity. We have also presented financial information herein exclusive of adjustments for LCM.

While we also believe that free cash flow is a measure commonly used by investors. Free cash flow, as presented herein, may not be comparable to similarly titled measures reported by other companies due to differences in the way the measures are calculated. For purposes of this presentation, free cash flow means net cash provided by operating activities minus capital expenditures.

Reconciliations for our non-GAAP measures can be found on the following slides.

# EBITDA Excluding LCM Adjustments 2011 - 2014



## Reconciliation of EBITDA Excluding LCM Adjustments to EBITDA - 2011 Through 2014

In Million of Dollars	For the Twelve Months Ended December 31,				Incremental Change from 2011
	2011	2012	2013	2014	
<b>EBITDA Excluding LCM Adjustments:</b>					
Olefins & Polyolefins - Americas	\$ 2,137	\$ 2,968	\$ 3,573	\$ 4,190	\$ 2,053
Olefins & Polyolefins - EAI	865	548	839	1,410	545
Intermediates & Derivatives	1,410	1,621	1,492	1,552	142
Refining	977	481	182	409	(568)
Technology	191	197	232	232	41
Other	(111)	(7)	(7)	17	128
Total	5,469	5,808	6,311	7,810	2,341
<b>Less:</b>					
<b>LCM Adjustments:</b>					
Olefins & Polyolefins - Americas	-	-	-	279	279
Olefins & Polyolefins - EAI	-	-	-	44	44
Intermediates & Derivatives	-	-	-	93	93
Refining	-	-	-	344	344
Technology	-	-	-	-	-
Other	-	-	-	-	-
Total	-	-	-	760	760
<b>EBITDA:</b>					
Olefins & Polyolefins - Americas	2,137	2,968	3,573	3,911	1,774
Olefins & Polyolefins - EAI	865	548	839	1,366	501
Intermediates & Derivatives	1,410	1,621	1,492	1,459	49
Refining	977	481	182	65	(912)
Technology	191	197	232	232	41
Other	(111)	(7)	(7)	17	128
Total	\$ 5,469	\$ 5,808	\$ 6,311	\$ 7,050	\$ 1,581

# EBITDA Excluding LCM Adjustments Last Twelve Months



## Reconciliation of EBITDA Excluding LCM Adjustments to EBITDA

In Million of Dollars	Three Months Ended				2014	Three Months Ended		Six Months Ended		2014	Six Months Ended		Last Twelve Months
	March 31,	June 30,	September	December		March 31,	June 30,	June 30,	June 30,		June 30,	June 30,	June 30,
	2014	2014	30, 2014	31, 2014		2015	2015	2015	2014		2015	2015	2015
<b>EBITDA Excluding LCM Adjustments:</b>													
Olefins & Polyolefins - Americas	\$ 736	\$ 978	\$ 1,202	\$ 1,274	\$ 4,190	\$ 1,074	\$ 993	\$ 2,067	\$ 1,714	\$ 4,190	\$ (1,714)	\$ 2,067	\$ 4,543
Olefins & Polyolefins - EAI	356	319	343	392	1,410	357	492	849	675	1,410	(675)	849	1,584
Intermediates & Derivatives	375	430	383	364	1,552	381	483	864	805	1,552	(805)	864	1,611
Refining	129	137	110	33	409	154	154	308	266	409	(266)	308	451
Technology	76	71	41	44	232	76	57	133	147	232	(147)	133	218
Other	(4)	6	1	14	17	2	(2)	-	2	17	(2)	-	15
Total	1,668	1,941	2,080	2,121	7,810	2,044	2,177	4,221	3,609	7,810	(3,609)	4,221	8,422
<b>Less:</b>													
<b>LCM Adjustments:</b>													
Olefins & Polyolefins - Americas	-	-	45	234	279	43	(21)	22	-	279	-	22	301
Olefins & Polyolefins - EAI	-	-	-	44	44	-	-	-	-	44	-	-	44
Intermediates & Derivatives	-	-	-	93	93	44	17	61	-	93	-	61	154
Refining	-	-	-	344	344	5	(5)	-	-	344	-	-	344
Technology	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	45	715	760	92	(9)	83	-	760	-	83	843
<b>EBITDA:</b>													
Olefins & Polyolefins - Americas	736	978	1,157	1,040	3,911	1,031	1,014	2,045	1,714	3,911	(1,714)	2,045	4,242
Olefins & Polyolefins - EAI	356	319	343	348	1,366	357	492	849	675	1,366	(675)	849	1,540
Intermediates & Derivatives	375	430	383	271	1,459	337	466	803	805	1,459	(805)	803	1,457
Refining	129	137	110	(311)	65	149	159	308	266	65	(266)	308	107
Technology	76	71	41	44	232	76	57	133	147	232	(147)	133	218
Other	(4)	6	1	14	17	2	(2)	-	2	17	(2)	-	15
Total	\$ 1,668	\$ 1,941	\$ 2,035	\$ 1,406	\$ 7,050	\$ 1,952	\$ 2,186	\$ 4,138	\$ 3,609	\$ 7,050	\$ (3,609)	\$ 4,138	\$ 7,579

# Net Income to EBITDA

## 2011 - 2014



### Reconciliation of Net Income to EBITDA

<u>In Million of Dollars</u>	<u>For the Twelve Months Ended December 31,</u>			
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Net Income	\$ 2,140	\$ 2,834	\$ 3,853	\$ 4,168
(Income) Loss from Discontinued Operations	332	24	7	4
LCM Adjustments, After Tax	-	-	-	483
Income from Continuing Operations Excluding LCM Adjustments	2,472	2,858	3,860	4,655
Less:				
LCM Adjustments, After Tax	-	-	-	(483)
Income from Continuing Operations	2,472	2,858	3,860	4,172
Provision for Income Taxes	1,059	1,327	1,136	1,540
Depreciation and Amortization	931	983	1,021	1,019
Interest expense, net	1,007	640	294	319
Add:				
LCM Adjustments, Before Tax	-	-	-	760
EBITDA Excluding LCM Adjustments	5,469	5,808	6,311	7,810
Less:				
LCM Adjustments, Before Tax	-	-	-	760
EBITDA	\$ 5,469	\$ 5,808	\$ 6,311	\$ 7,050

# Last Twelve Months Net Income to EBITDA Diluted EPS Excluding LCM to Diluted EPS



## Reconciliation of Net Income To EBITDA

In Million of Dollars	Three Months Ended					Three Months Ended		Six Months Ended		Six Months Ended			Last Twelve Months
	March 31, 2014	June 30, 2014	September 30, 2014	December 31, 2014	2014	March 31 2015	June 30, 2015	June 30, 2015	June 30, 2014	2014	June 30, 2014	June 30, 2015	June 30, 2015
Net Income	\$ 944	\$ 1,176	\$ 1,257	\$ 791	\$ 4,168	\$ 1,164	\$ 1,329	\$ 2,493	\$ 2,120	\$ 4,168	\$ (2,120)	\$ 2,493	\$ 4,541
(Income) Loss from Discontinued Operations	(1)	(3)	3	5	4	3	(3)	-	(4)	4	4	-	8
LCM Adjustments, After Tax	-	-	28	455	483	58	(6)	52	-	483	-	52	535
Income from Continuing Operations Excluding LCM Adjustments	943	1,173	1,288	1,251	4,655	1,225	1,320	2,545	2,116	4,655	(2,116)	2,545	5,084
Less:													
LCM Adjustments, After Tax	-	-	(28)	(455)	(483)	(58)	6	(52)	-	(483)	-	(52)	(535)
Income from Continuing Operations	943	1,173	1,260	796	4,172	1,167	1,326	2,493	2,116	4,172	(2,116)	2,493	4,549
Provision for Income Taxes	383	425	434	298	1,540	440	541	981	808	1,540	(808)	981	1,713
Depreciation and Amortization	256	254	262	247	1,019	287	247	534	510	1,019	(510)	534	1,043
Interest expense, net	86	89	79	65	319	58	72	130	175	319	(175)	130	274
Add:													
LCM Adjustments, Pre Tax	-	-	45	715	760	92	(9)	83	-	760	-	83	843
EBITDA Excluding LCM Adjustments	1,668	1,941	2,080	2,121	7,810	2,044	2,177	4,221	3,609	7,810	(3,609)	4,221	8,422
Less:													
LCM Adjustments, Pre Tax	-	-	45	715	760	92	(9)	83	-	760	-	83	843
EBITDA	\$ 1,668	\$ 1,941	\$ 2,035	\$ 1,406	\$ 7,050	\$ 1,952	\$ 2,186	\$ 4,138	\$ 3,609	\$ 7,050	\$ (3,609)	\$ 4,138	\$ 7,579

## Reconciliation of Diluted EPS Excluding LCM Adjustments to Diluted EPS

	Three Months Ended					Three Months Ended		Six Months Ended		Last Twelve Months
	March 31, 2014	June 30, 2014	September 30, 2014	December 31, 2014	2014	March 31 2015	June 30, 2015	June 30, 2015	June 30, 2014	June 30, 2015
Diluted Earnings Per Share Excluding LCM Adjustments	\$ 1.72	\$ 2.22	\$ 2.51	\$ 2.48	\$ 8.92	\$ 2.54	\$ 2.79	\$ 5.33	\$ 3.93	\$ 10.32
Less:										
LCM Adjustments	-	-	0.05	0.91	0.92	0.12	(0.02)	0.11	-	1.08
Diluted Earnings Per Share	\$ 1.72	\$ 2.22	\$ 2.46	\$ 1.57	\$ 8.00	\$ 2.42	\$ 2.81	\$ 5.22	\$ 3.93	\$ 9.24

# Free Cash Flow to Net Cash and as a Percent of EBITDA



## Reconciliation of Free Cash Flow as a Percent of EBITDA - 2011 Through 2014

<u>In Million of Dollars</u>	<u>For the Years Ended December 31,</u>				<u>Average</u>
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2011 - 2014</u>
Net Cash Provided by Operating Activities	\$ 2,860	\$ 4,787	\$ 4,835	\$ 6,048	\$ 4,633
Less:					
Capital Expenditures	1,050	1,060	1,561	1,499	1,293
Free Cash Flow	<u>\$ 1,810</u>	<u>\$ 3,727</u>	<u>\$ 3,274</u>	<u>\$ 4,549</u>	<u>\$ 3,340</u>
EBITDA	<u>\$ 5,469</u>	<u>\$ 5,808</u>	<u>\$ 6,311</u>	<u>\$ 7,050</u>	<u>\$ 6,160</u>
Free Cash Flow as a Percent of EBITDA	<u>33%</u>	<u>64%</u>	<u>52%</u>	<u>65%</u>	<u>54%</u>



# Free Cash Flow to Net Cash Provided by Operating Activities



## Reconciliation of Free Cash Flow to Net Cash Provided by Operating Activities

<u>In Million of Dollars</u>	<u>For the Years Ended December 31,</u>				<u>Three Months Ended</u>		<u>Three Months Ended</u>		<u>For the Year</u>	<u>Six Months Ended</u>		<u>Last</u>
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>March 31,</u>	<u>June 30,</u>	<u>March 31,</u>	<u>June 30,</u>	<u>Ended</u>	<u>June 30,</u>	<u>June 30,</u>	<u>Twelve</u>
					<u>2015</u>	<u>2015</u>	<u>2014</u>	<u>2014</u>	<u>December 31,</u>	<u>2014</u>	<u>2015</u>	<u>Months</u>
									<u>2014</u>			<u>June 30,</u>
												<u>2015</u>
Free Cash Flow	\$ 1,810	\$ 3,727	\$ 3,274	\$ 4,549	\$ 1,162	\$ 1,168	\$ 458	\$ 1,382	\$ 4,549	\$ (1,840)	\$ 2,330	\$ 5,039
Add:												
Capital Expenditures	1,050	1,060	1,561	1,499	306	278	343	415	1,499	(758)	584	1,325
Net Cash Provided by Operating Activities	<u>\$ 2,860</u>	<u>\$ 4,787</u>	<u>\$ 4,835</u>	<u>\$ 6,048</u>	<u>\$ 1,468</u>	<u>\$ 1,446</u>	<u>\$ 801</u>	<u>\$ 1,797</u>	<u>\$ 6,048</u>	<u>\$ (2,598)</u>	<u>\$ 2,914</u>	<u>\$ 6,364</u>

# Free Cash Flow as a Percent of 2014 Market Capitalization



## Reconciliation of Free Cash Flow as a Percent of 2014 Market Capitalization - 2011 Through 2014

<u>In Million of Dollars</u>	<u>For the Years Ended December 31,</u>				<u>Average</u>
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2011 - 2014</u>
Net Cash Provided by Operating Activities	\$ 2,860	\$ 4,787	\$ 4,835	\$ 6,048	\$ 4,633
Less:					
Capital Expenditures	1,050	1,060	1,561	1,499	1,293
Free Cash Flow	<u>\$ 1,810</u>	<u>\$ 3,727</u>	<u>\$ 3,274</u>	<u>\$ 4,549</u>	<u>\$ 3,340</u>
Market Capitalization at December 31, 2014					<u>\$ 39,748</u>
Average 2014 Market Capitalization				<u>\$ 49,123</u>	
Free Cash Flow as a Percent of Market Capitalization				<u>9%</u>	<u>8%</u>

# EBITDA per Pound of Ethylene Capacity



## Reconciliation of EBITDA per Pound of Ethylene Capacity

<u>In Million of Dollars Unless Otherwise Indicated</u>	<u>For the Years Ended December 31,</u>			
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
EBITDA:				
O&P–Americas	\$ 2,137	\$ 2,968	\$ 3,573	\$ 3,911
O&P–EAI	865	548	839	1,366
Annual Ethylene Capacity (Millions of Pounds):				
O&P–Americas	9,590	9,750	9,870	10,670
O&P–EAI	4,829	4,829	4,829	4,829
EBITDA per Pounds of Ethylene Capacity:				
O&P–Americas	22.3¢	30.4¢	36.2¢	36.7¢
O&P–EAI	17.9¢	11.3¢	17.4¢	28.3¢

# LYB Enterprise Value to EBITDA



## Calculation of Ratio of LYB Enterprise Value (EV) to EBITDA

### In Million of Dollars except for common shares outstanding

Common Shares Outstanding, June 30, 2015	468,081,718
Multiplied by:	
Closing Share Price, June 30, 2015	<u>\$ 103.52</u>
Market Capitalization	\$ 48,456
Add:	
Current Maturities of Long-Term Debt	3
Short-Term Debt	582
Long-Term Debt	7,728
Less:	
Cash	1,325
Short-Term Investments	<u>1,989</u>
Net Debt	4,999
Non-Controlling Interests	<u>23</u>
Enterprise Value	53,478
Divided by:	
Last 12 Months EBITDA	<u>8,422</u>
Ratio of Enterprise Value to EBITDA	<u><u>6.3</u></u>