

JP Morgan Aviation, Transportation & Industrials Conference

Bob Patel - CEO

March 6, 2019

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 crude 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; any proposed business combination, the expected timetable for completing any proposed transactions and the receipt of any required governmental approvals, future financial and operating results, benefits and synergies of any proposed transactions, future opportunities for the combined company; 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, 2018, which can be found at www.LyondellBasell.com on the Investor Relations page and on the Securities and Exchange Commission's website at 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 for our non-GAAP measures can be found in the Appendix to this presentation or on our website at www.LyondellBasell.com/investorrelations.

LyondellBasell

A Strong, Global Company Delivering Outstanding Performance

GLOBAL

\$40 billion enterprise value⁽¹⁾

Manufacturing in **24** countries and our products are sold in more than **100** countries

LEADING⁽²⁾



GROWING

OLEFINS & POLYOLEFINS

Expanded polypropylene compounds capacity in **China, India** and **Europe**

Building the first world-scale **Hyperzone HDPE plant**

Acquired A. Schulman

INTERMEDIATES & DERIVATIVES

Building the world's largest **PO/TBA plant**

(1) Enterprise value means market capitalization plus preferred equity (non-controlling interests), total debt and minority interest less cash and cash equivalents and short term investments as of December 31, 2018.

(2) Source IHS, LYB. 2018 ranking as of Dec. 31, 2018

LyondellBasell in 2018



\$ 4.7 billion
Net Income

\$ 6.9 billion
EBITDA

10.8%
Free Cash Flow
Yield⁽¹⁾

27%
Return on Invested
Capital

Completed acquisition of
A. Schulman

Premium Polyolefin
Recycling JV with Suez

Building the first world scale
Hyperzone HDPE plant

Building the world's largest
PO/TBA plant

Evaluation of
Braskem opportunity

Capturing margin
from improved markets
and contracting in I&D

Creating value from
innovation by licensing
and deploying technology

**Opportunistic share
repurchases**
totaling \$1.9 billion

1. Free cash flow yield is the ratio of the net cash provided by operating activities minus capital expenditures to market capitalization as of December 31, 2018.

LYB Portfolio Diversity Increases Earnings Resiliency

Stable:

Global Portfolio

Improved:

I&D performance

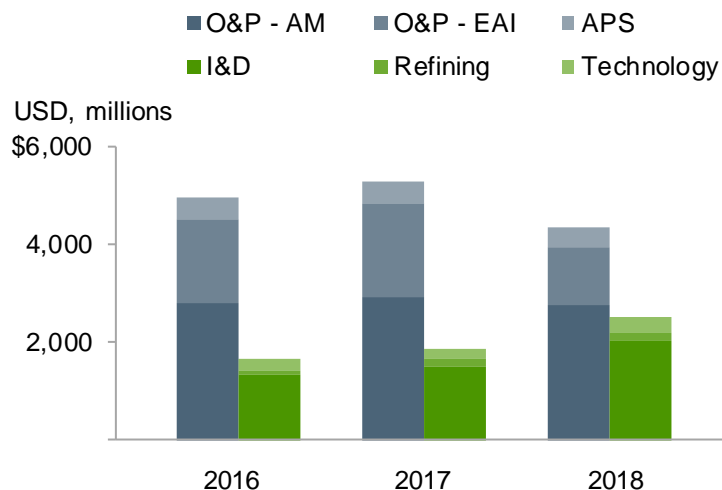
Refining operations

Growing:

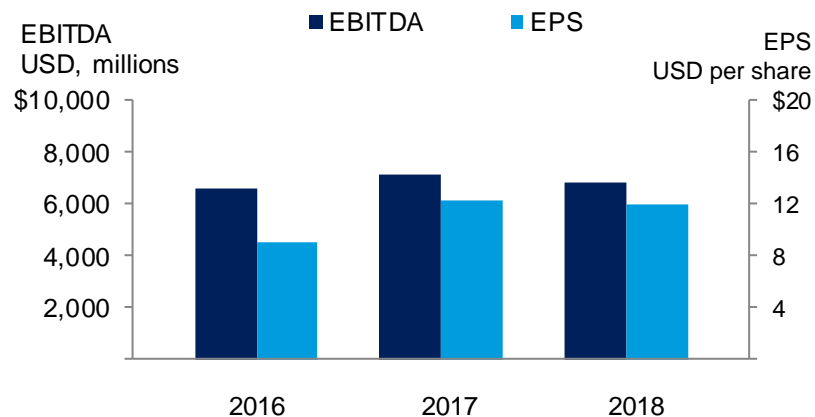
Acquisition of A. Schulman

Technology licensing

Segment EBITDA



LyondellBasell Profitability



Positive Global Outlook for 2019 Despite Market Volatility

North American feedstock volatility:

Mont Belvieu ethane has retreated with volatility expected from new cracker demand

Cycle impacts softened:

New industry ethylene cracker additions continue to be delayed

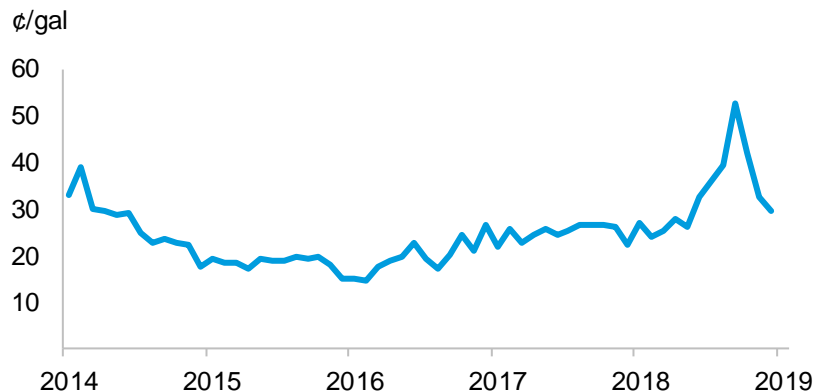
Midstream infrastructure will provide increased feedstock supply

Global polyethylene demand growth:

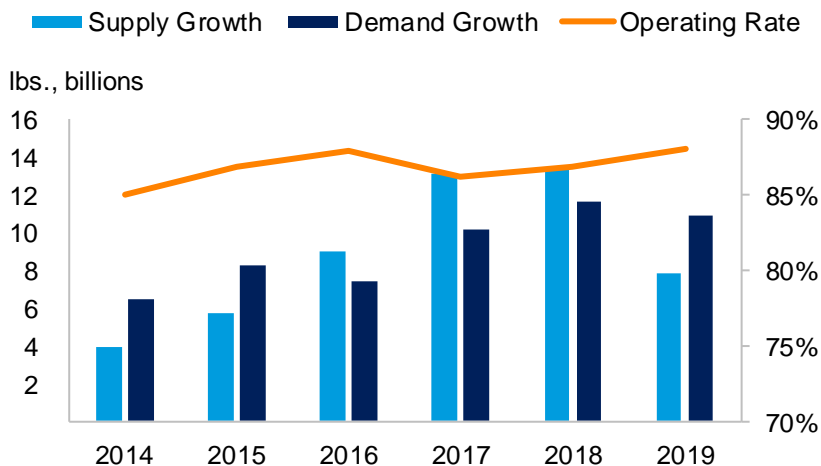
Stable at historical levels

Absorbing new North American industry capacity additions

Mont Belvieu Ethane



Global Polyethylene Supply and Demand



Source: IHS

LyondellBasell's *Hyperzone* HDPE Technology A New Platform for Growth

1.1 billion pounds per year

Estimated investment: **~\$725 million**

Start-up: **3Q 2019**

Estimated EBITDA⁽¹⁾: **\$170 - \$210 million/year**



La Porte, Texas

(1) For the purpose of this slide, estimated EBITDA for *Hyperzone* Polyethylene is volume times average 2014-2018 margins.

Intermediates and Derivatives

Business Improvement Reducing the Effects of Market Moderation

Delivering strong results in 2018:

Capturing strong market margins

Improved contracting strategies

Market conditions moderating:

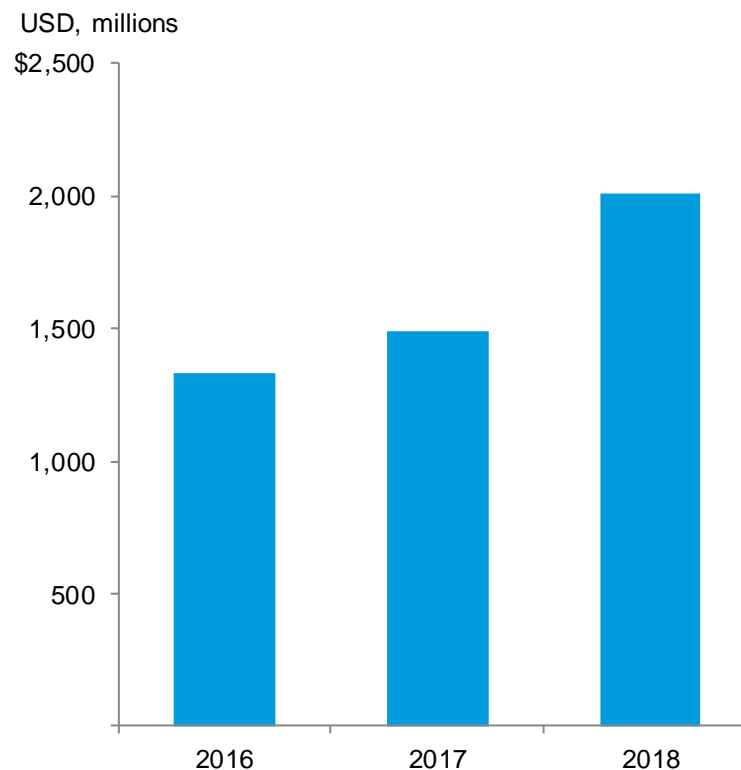
Higher industry operating rates likely in 2019

LyondellBasell business improvement:

Contracting improvements adding ~\$100-130 MM⁽¹⁾ EBITDA annually, starting mid-2019

New PO/TBA plant adding ~\$400-450 MM⁽¹⁾ EBITDA annually, starting 2H 2021

EBITDA



(1) Estimated EBITDA is volume times 2014-2018 average margins.

Advancing Our Leading PO/TBA Technology and Market Position

- 1.0 billion pounds Propylene Oxide, 2.2 billion pounds TBA
- Estimated investment: ~\$2.4 billion
- Groundbreaking: August 2018
- Start-up: 2021
- Estimated EBITDA⁽¹⁾: \$400 - \$450 MM/year

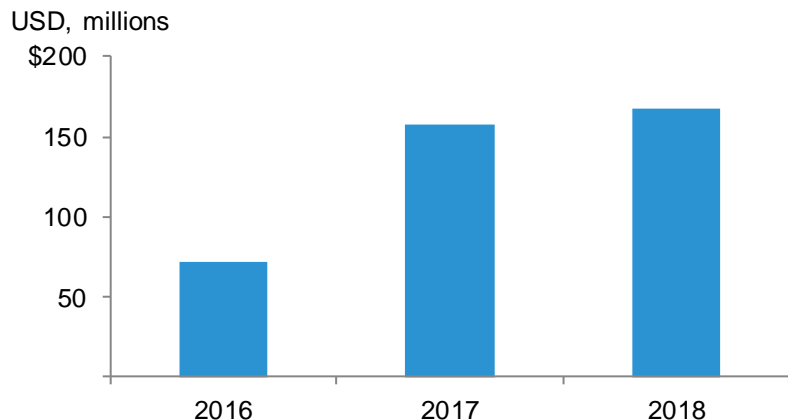


Value-driven growth supported by advantaged feedstocks and technology

(1) For the purpose of this slide, estimated EBITDA for Propylene Oxide / TBA is volume times 2014-2018 average margins.

Refining: Improved Reliability Producing Results

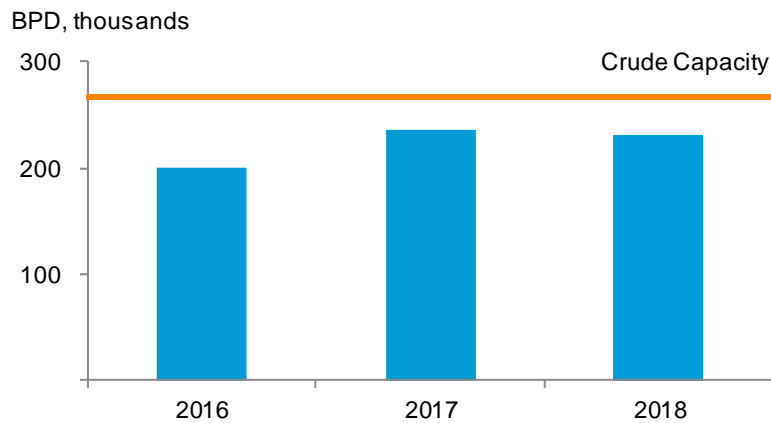
EBITDA



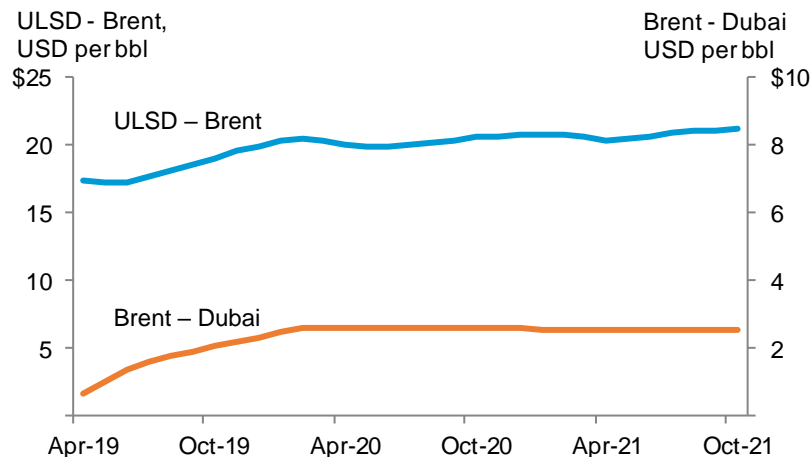
Refinery Outlook

- Improved reliability since 2017
- Increased profitability driven by strong diesel demand and improved heavy/light crude differentials
- Full capability to meet Tier 3 gasoline sulfur specifications
- Poised to benefit from the January 2020 IMO marine fuel oil sulfur regulations

Refining Throughput



Indicative Forward Curves⁽¹⁾



(1) Source: NYMEX as of February 4, 2018

A New Global Alliance Spanning the Value Chain



A new **global, CEO led, cross-sector, not-for-profit organization** with a clear mission to develop, accelerate & deploy solutions, catalyze public & private investment and engage communities to help end plastic waste in the environment



INFRASTRUCTURE

Catalyze investment in **enhanced waste infrastructure** to prevent plastic from reaching the environment



INNOVATION

Innovate **new materials, designs, technologies and business models** based on science and economics



EDUCATION

Engage and collaborate with governments, businesses and consumers to **drive effective solutions**

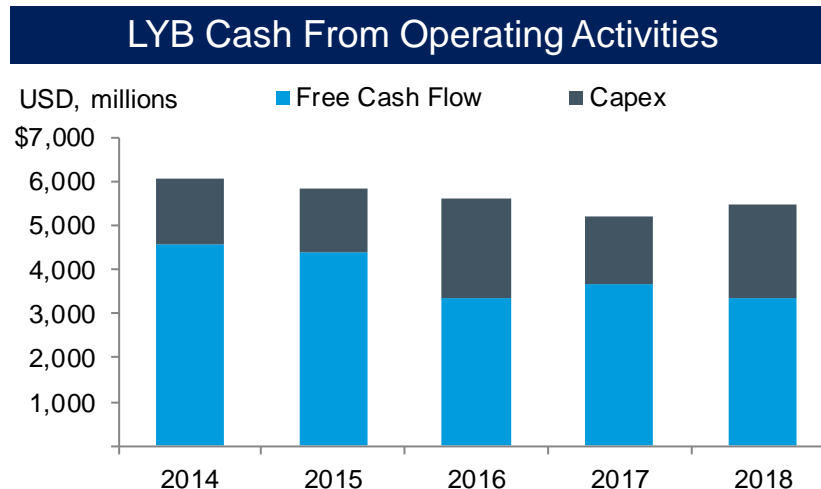


CLEAN UP

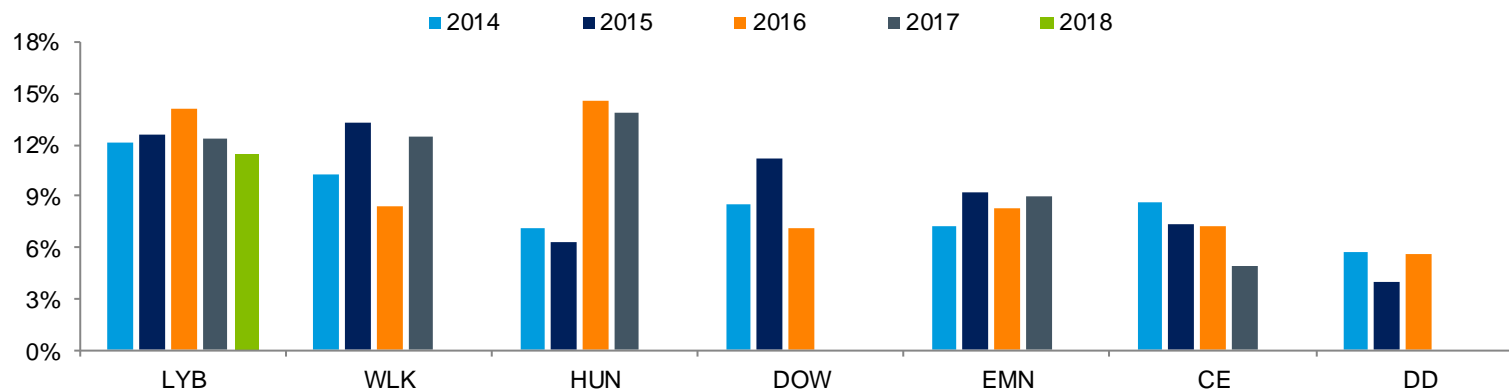
Develop solutions to address and clean up areas of existing plastic waste in the environment

Strong, Consistent Cash Generation

- 2018 Capex: \$2.1 billion
- 2018 Free Cash Flow⁽¹⁾: \$3.4 billion
- 2018 Ending Total Liquidity⁽²⁾: \$4.4 billion



Cash From Operating Activities as a Percent of Average Enterprise Value⁽³⁾



- (1) Free Cash Flow is calculated as cash from operating activities less capital expenditures.
- (2) Total liquidity includes cash and cash equivalents, restricted cash and restricted cash equivalents, short term investments, repurchase agreements, and availability under our Senior Revolving Credit Facility and U.S. Receivables Facility as of December 31, 2018.
- (3) Source: CapIQ, LYB. Cash from operating activities is as of December 31 for each full year. Average enterprise value means average market capitalization plus preferred equity, total debt and minority interest less cash and cash equivalents and short term investments. Market capitalization is based upon the average daily closing share price for the respective period. Preferred equity, total debt, minority interest, cash and cash equivalents and short-term investments are as of the last day of the respective period.

Cash Generation Funding Growth Investments and Shareholder Returns

2018 Cash from Operating Activities: **\$5.5 B**

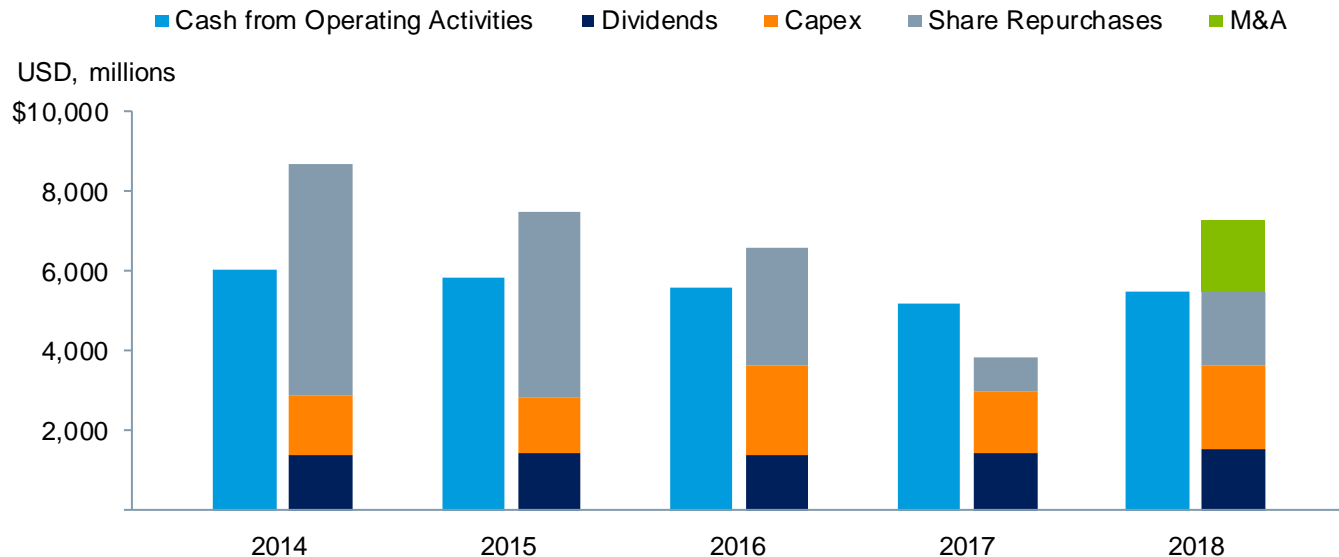


Growing through investment:

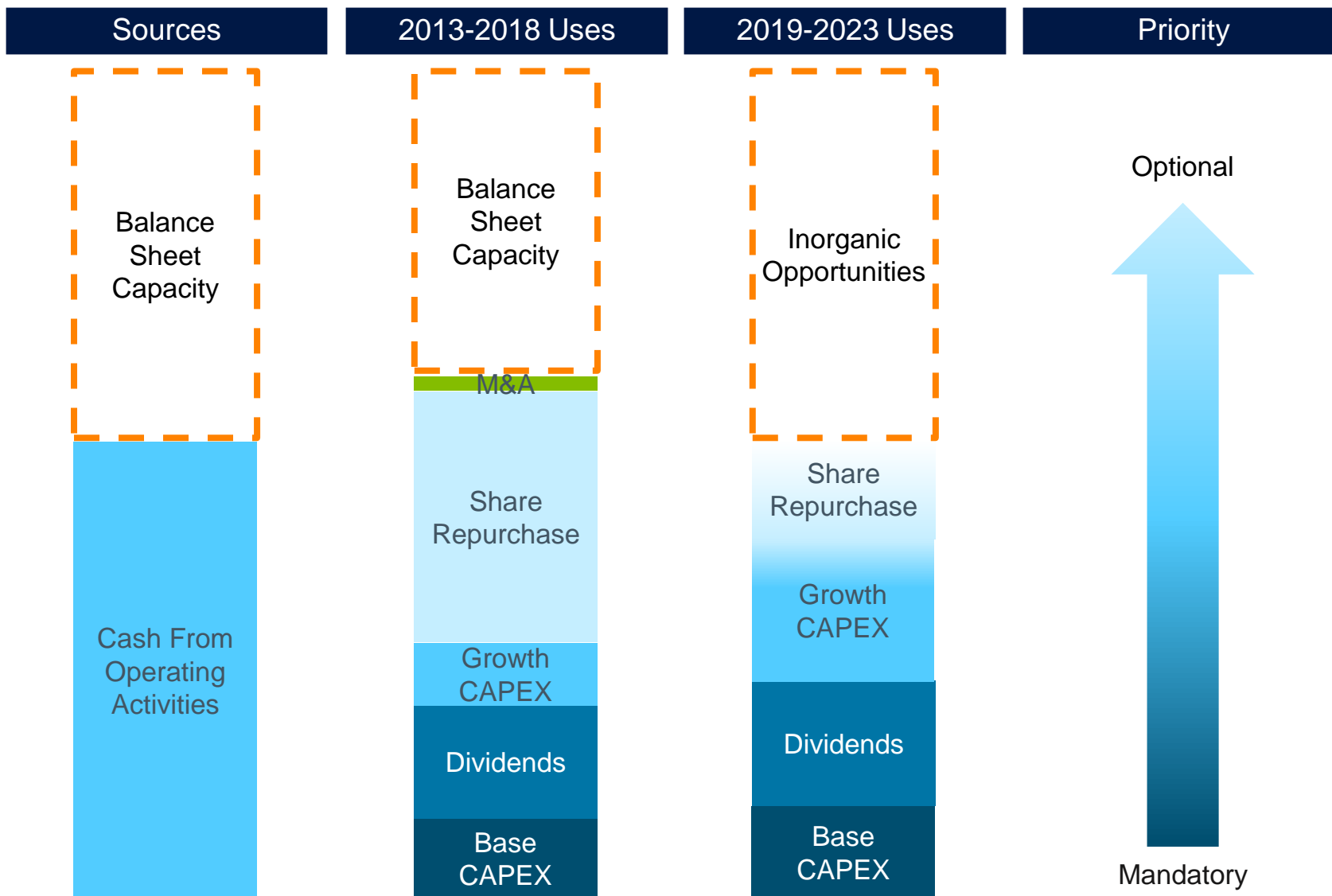
- \$2.1 B in capex
- Acquired A. Schulman

Returning value to shareholders:

- \$3.4 B in dividends & share repurchases
- 19.2 million shares repurchased



Our Capital Deployment Strategy Remains Consistent



Note: Graphic for illustrative purposes only.

Tangible Earnings Growth Over the Next Twelve Months



Acquisition of A. Schulman

Vertical Integration

End-to-End Customer Solutions

Diverse and Growing Market

Hyperzone HDPE

Poised to Capture HDPE Demand

Increased Capture of Ethylene Chain Margin

Serving a Balanced Global Market

I&D Improvement

Sustainable Contract Improvements

Improved Capture of Market Upside

Robust Global Demand

Refinery Reliability

Increased Focus on Operational Excellence

Eight Consecutive Quarters of Stable Operation⁽¹⁾

Improved Margin Capture

Refining Markets

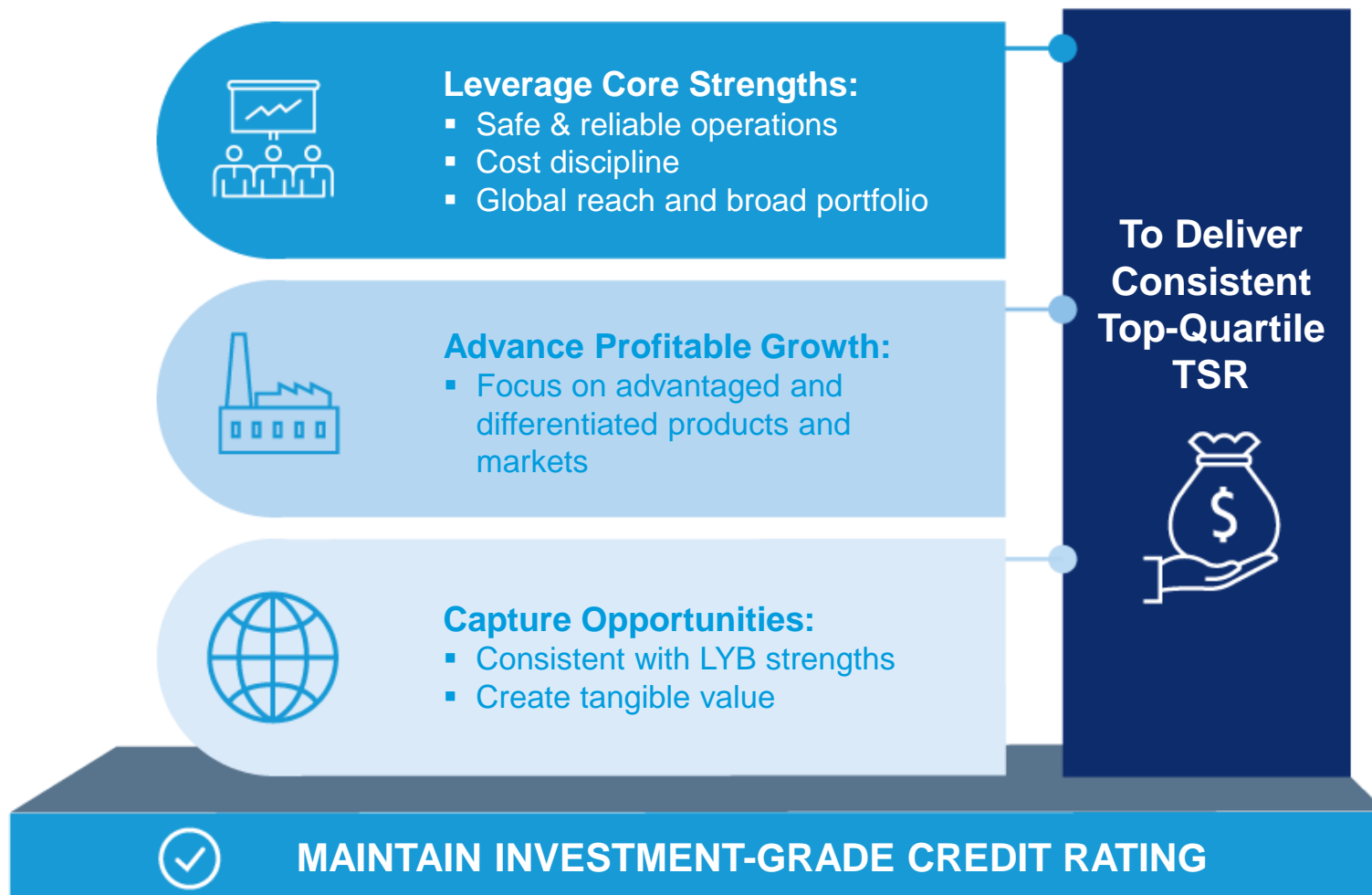
Well Positioned for IMO Sulfur Regulations

Improved Maya 2-1-1 Spread

Potential for Substantial Profitability

1. Excludes impact of planned maintenance and Hurricane Harvey.

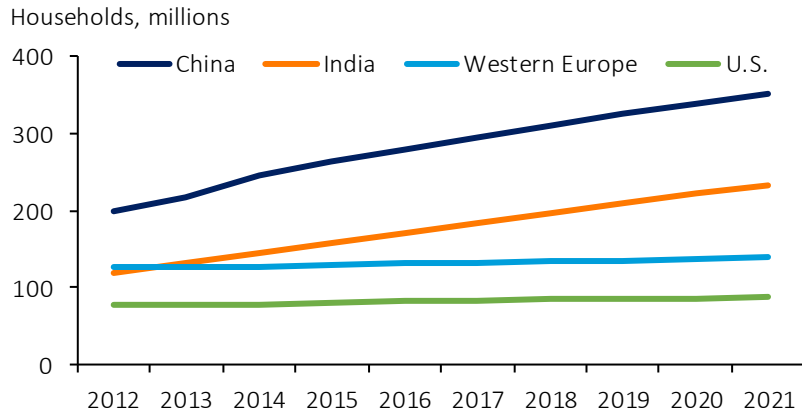
Strategic Goals to Guide our Growth



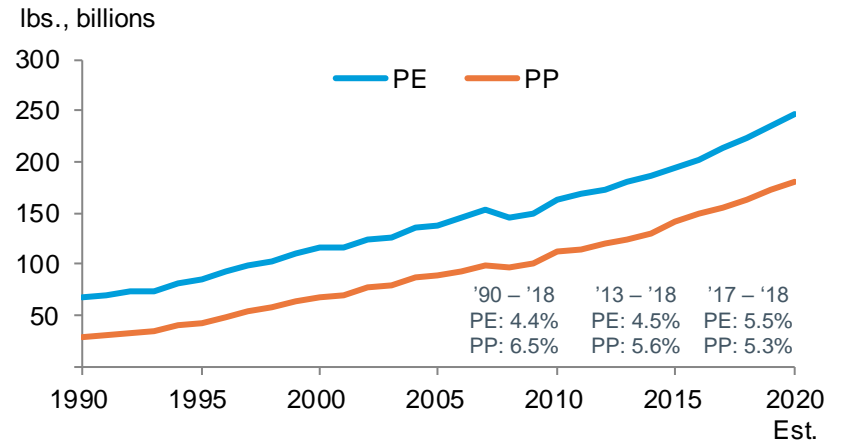
Appendix

Global Macro Trends - Demographics Driving Demand

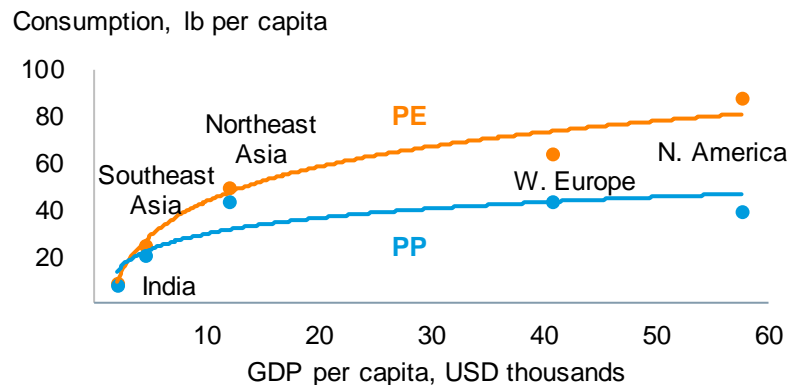
Upper/Middle Class Households



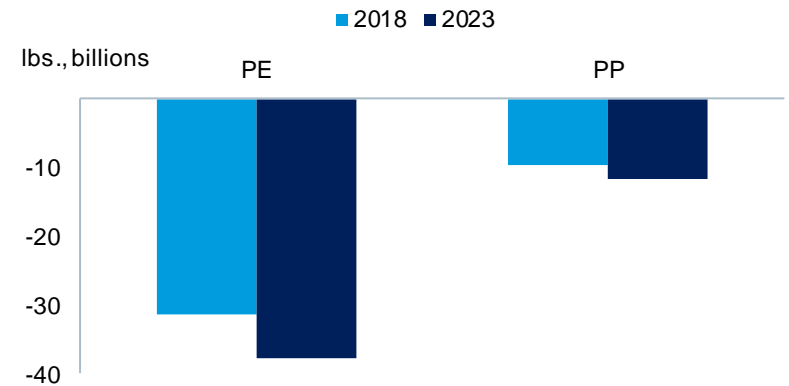
World PE and PP Demand



2018 Polyolefins Consumption



China Polyolefin Trade Deficit⁽¹⁾



Source: IHS.

1. China polyolefin trade deficit is production less domestic demand.

Cracker Flexibility & Midstream Investment: Expected to Reduce Ethane Price Volatility by 2020

2H2018 Mont Belvieu ethane price volatility

~ 25 - 60 ¢/gal

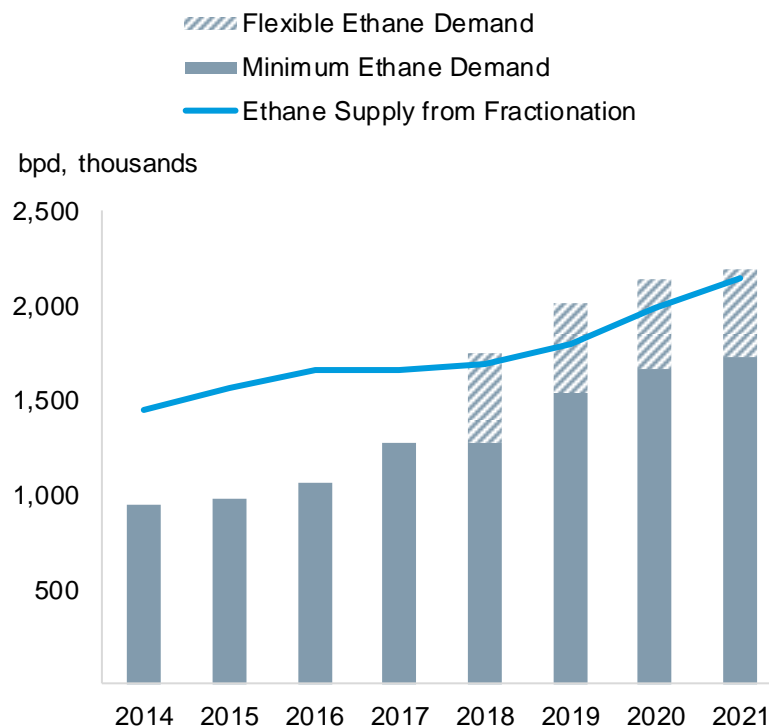
Aggravating factors:

- New ethylene capacity
- Fewer fractionation additions
- Pipeline constraints

Relieving factors:

- Ethylene feedstock flexibility
- New fractionation capacity
- Fewer ethylene capacity additions
- Pipeline builds/expansions/repurposing
- Ethylene industry downtime

Gulf Coast Ethane Demand & Supply from Fractionation



Source: EIA, IHS, Jacobs Consultancy and LYB estimates. Gulf coast data represents PADD 3. Minimum ethane demand includes ethane exports, ethane demand for ethane crackers and minimum ethane demand for flexible crackers. Flexible ethane demand reflects the ability of flexible crackers to switch to alternative feeds similar to levels consumed during 2006-2008.

LyondellBasell Flexibility & Business Portfolio Reduces Ethane Impacts

Advantaged N. American Cracker Fleet:

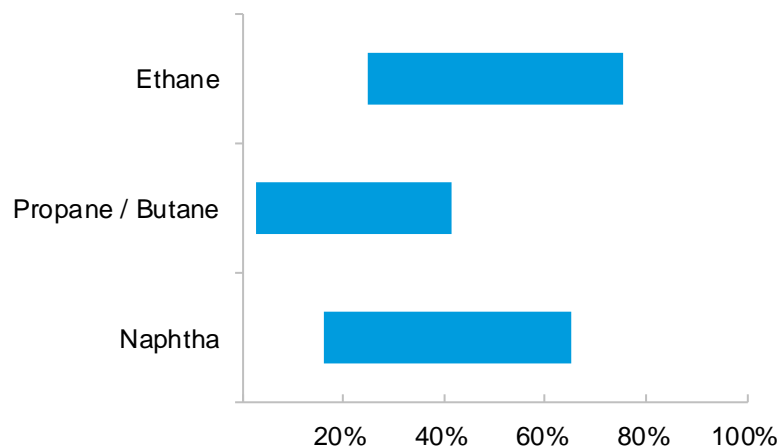
- Gulf Coast crackers
 - High feedstock flexibility
- Midwest crackers
 - Low priced Conway feedstock

Annual EBITDA impact due to a 20 ¢/gal ethane price change⁽²⁾ = **\$380 MM**

Diverse portfolio offers potential pricing offsets:

- Polyethylene
- Styrene
- Ethylene Oxide & Derivatives
- Vinyl Acetate Monomer

LYB U.S. Gulf Coast Feedstock Flexibility⁽¹⁾

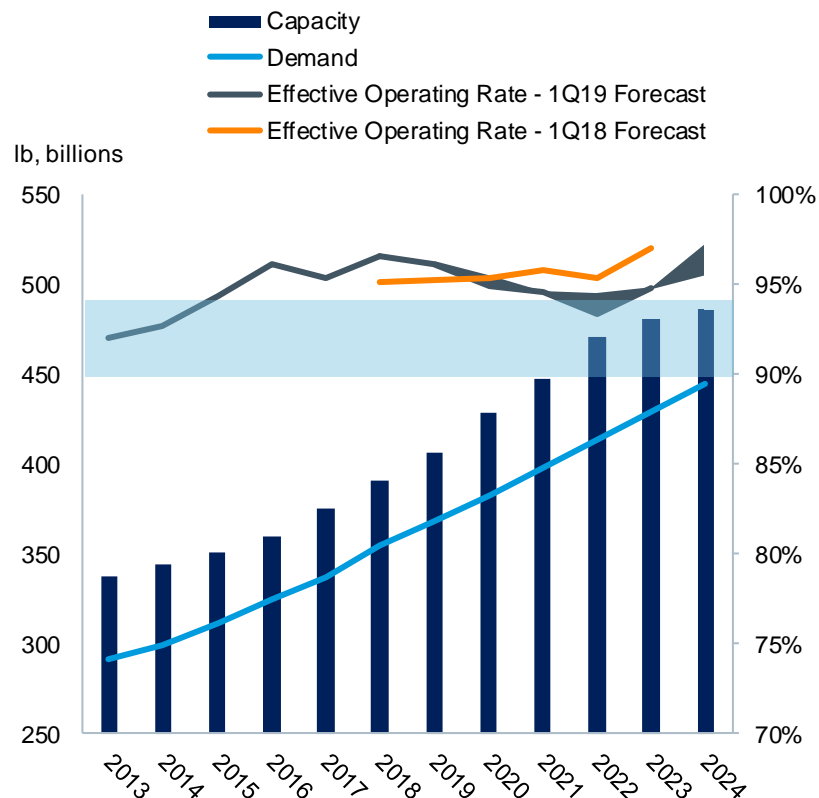


(1) Source: LYB. Data represents the percentage of feedstock used in LYB's U.S. Gulf Coast crackers.

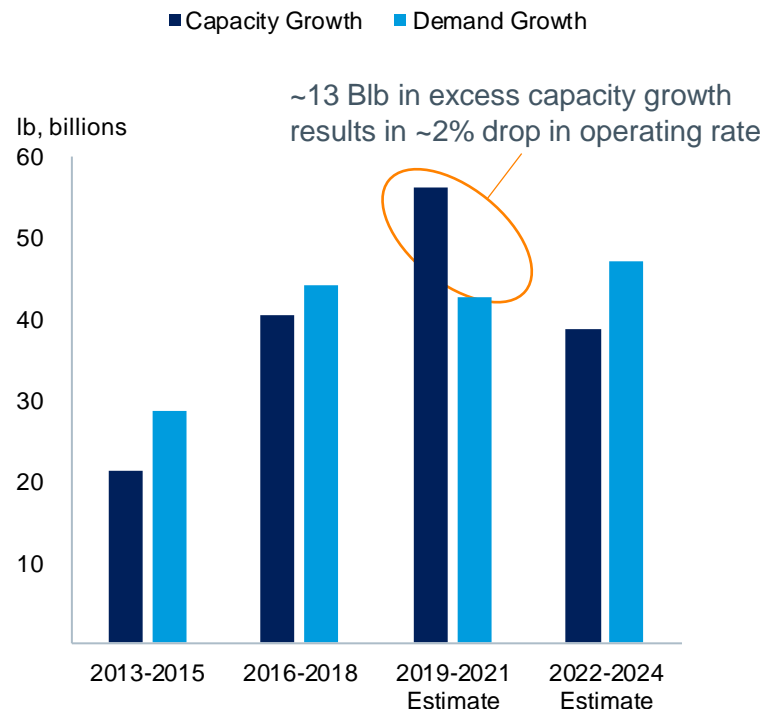
(2) Source: LYB. Basis for ethylene impact is ethylene production, net of metathesis unit consumption. Impact assumes a 20 ¢/gal ethane increase for a full year and ethane representing 80% of LYB's U.S. Gulf Coast cracker feedstocks.

Industry Capacity Additions Serving Strong Global Demand Growth

Global Ethylene Supply & Demand⁽¹⁾



Global Ethylene Supply & Demand Growth⁽¹⁾



Project delays and constrained supply due to Chinese reforms and Hurricane Harvey support a short and shallow downturn thesis

(1) Source: IHS, Wood Mackenzie, LYB estimates, effective operating rate assuming 6% industry downtime. Based on 2018 updated balances.

Majority of New N. American Industry Capacity Already in the Market

Status & Impact of New Capacity

- Ethylene units are running well
- New PE capacity is in the market
- PE exports are expected to increase

2016-2019: N. America Capacity Startups⁽¹⁾

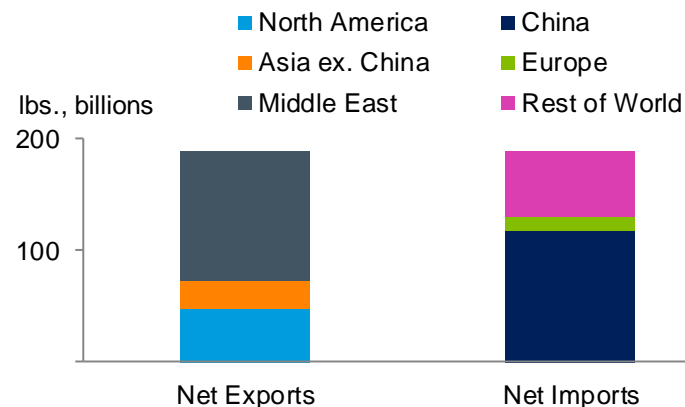
~ 65% of 24 Blbs of Ethylene

~ 70% of 19 Blbs of Polyethylene

2018 : Strong Operations and Markets⁽²⁾

	Ethylene Effective Operating Rate	Polyethylene Domestic Demand Growth
U.S. & Canada	92%	7.2%
Northeast Asia	98%	7.7%
Europe	94%	1.9%

2016-2019: Polyethylene Trade⁽¹⁾

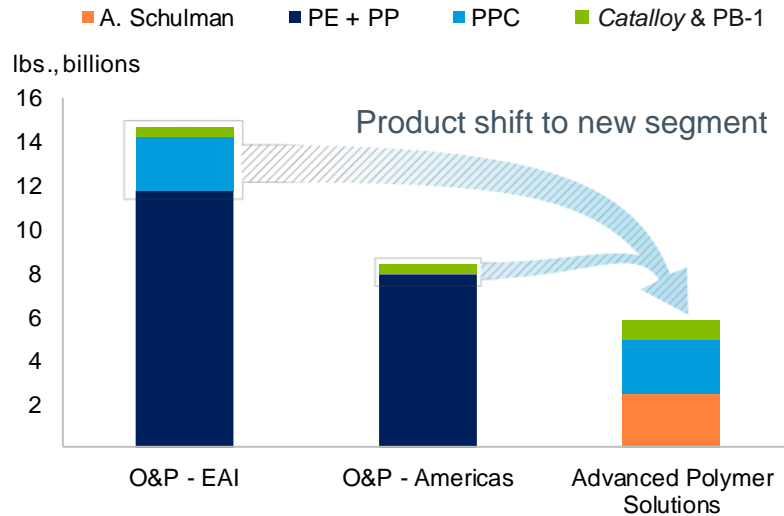


(1) Source: IHS and LYB estimates.

(2) Source: IHS and LYB estimates. Polyethylene domestic demand growth is 2018 compared to 2017. 2018 includes actuals for 3Q18 and IHS forecasts for 4Q18.

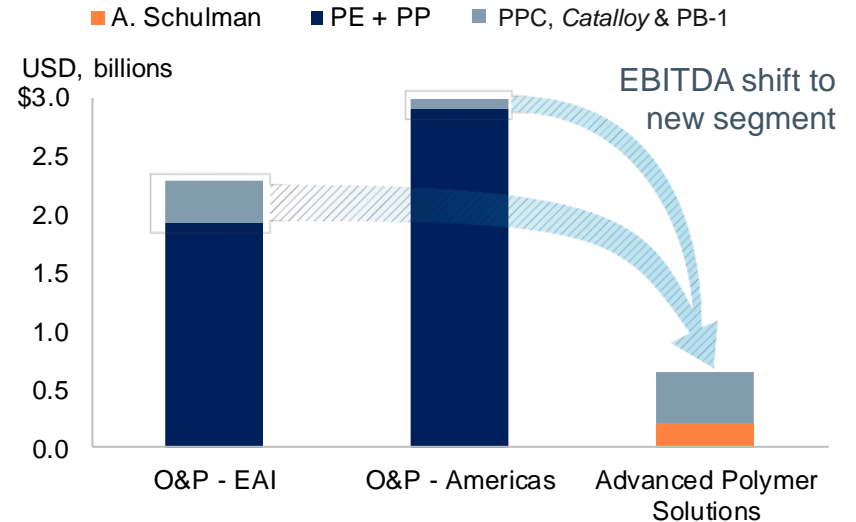
Advanced Polymer Solutions: Creating a New Platform for Growth

2017 Sales Volume⁽¹⁾



- A. Schulman ~ 2.4 Blb
- LyondellBasell ~ 3.4 Blb
 - PP Compounds
 - Catalloy
 - PB-1

2017 EBITDA⁽²⁾



- A. Schulman ~ \$200 MM
- LyondellBasell ~ \$440 MM
 - PP Compounds
 - Catalloy
 - PB-1

(1) 2017 sales volume represents LyondellBasell's third party polyethylene, polypropylene, polypropylene compounds, Catalloy and polybutene-1 sales for the twelve-month period ended December 31, 2017. A. Schulman was acquired on August 21, 2018. A. Schulman information was obtained from publicly available quarterly release data and management estimate for the twelve-month period ended November 30, 2017.

(2) A. Schulman EBITDA is adjusted EBITDA based on publicly available quarterly release data for the twelve-month period ended November 30, 2017.

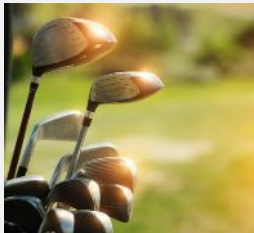
Advanced Polymer Solutions: A New Segment Focusing on Broad and Attractive Markets

Compounding & Solutions

Polypropylene
Compounds



Masterbatch



Engineered
Composites



Engineered
Plastics

Specialty
Powders



Custom
Performance
Colors



Advanced Polymers

Catalloy



Polybutene-1

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 EBITDA. 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 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.

While we also believe that free cash flow (FCF) and free cash flow yield (FCF Yield) are measures commonly used by investors, free cash flow and free cash flow yield, 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 and free cash flow yield means the ratio of free cash flow to market capitalization.

Additionally, total liquidity, enterprise value and the ratio of cash from operating activities to average enterprise value are measures that provide an indicator of value to investors. For purposes of this presentation, total liquidity includes cash and cash equivalents, restricted cash and restricted cash equivalents, short term investments, repurchase agreements, and availability under our Senior Revolving Credit Facility and U.S. Receivables Securitization Facility. Enterprise value means market capitalization plus preferred equity (redeemable non-controlling interests), total debt and non-controlling interests less cash and cash equivalents and short term investments. The ratio of cash from operating activities to average enterprise value means cash from operating activities divided by average enterprise value. Average enterprise value means average market capitalization plus preferred equity (redeemable non-controlling interests), total debt and non-controlling interests less cash and cash equivalents and short term investments.

Reconciliations for our non-GAAP measures can be found on our website at www.lyondellbasell.com/investorrelations.

Enterprise Value

Calculation of LYB Enterprise Value (EV)

In Million of Dollars except for common shares outstanding

Common shares outstanding, December 31, 2018	375,696,661
Multiplied by:	
Closing share price, December 31, 2018	<u>\$ 83.16</u>
Market capitalization	\$ 31,243
Add:	
Current maturities of long-term debt	5
Short-term debt	885
Long-term debt	8,497
Less:	
Cash and cash equivalents	332
Short-term investments	<u>892</u>
Net debt	8,163
Redeemable non-controlling interests	116
Non-controlling interests	<u>23</u>
Enterprise value	<u>\$ 39,545</u>

EBITDA by Segment to EBITDA

Reconciliation of Segment EBITDA to EBITDA

In Millions of Dollars	For the Years Ended December 31,		
	2016	2017	2018
Segment EBITDA:			
Olefins & Polyolefins - Americas	\$ 2,788	\$ 2,899	\$ 2,762
Olefins & Polyolefins - EAI	1,729	1,927	1,163
Intermediates & Derivatives	1,333	1,490	2,011
Advanced Polymer Solutions	427	438	400
Refining	72	157	167
Technology	262	223	328
Other	(9)	-	36
Total EBITDA	<u>\$ 6,602</u>	<u>\$ 7,134</u>	<u>\$ 6,867</u>

Net Income to EBITDA

Reconciliation of Net Income To EBITDA

<u>In Millions of Dollars</u>	<u>For the Years Ended December 31,</u>		
	<u>2016</u>	<u>2017</u>	<u>2018</u>
Net income	\$ 3,837	\$ 4,877	\$ 4,690
Loss from discontinued operations	10	18	8
Income from continuing operations	3,847	4,895	4,698
Provision for income taxes	1,386	598	613
Depreciation and amortization	1,064	1,174	1,241
Interest expense, net	305	467	315
EBITDA	<u>\$ 6,602</u>	<u>\$ 7,134</u>	<u>\$ 6,867</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 Millions of Dollars</u>	<u>Years Ended December 31,</u>				
	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Free cash flow	\$ 4,549	\$ 4,402	\$ 3,363	\$ 3,659	\$ 3,366
Add:					
Capital expenditures	1,499	1,440	2,243	1,547	2,105
Net cash provided by operating activities	<u>\$ 6,048</u>	<u>\$ 5,842</u>	<u>\$ 5,606</u>	<u>\$ 5,206</u>	<u>\$ 5,471</u>

Free Cash Flow Yield

Calculation of Free Cash Flow Yield

<u>In Millions of Dollars (except share data)</u>	<u>Year Ended December 31, 2018</u>
Net cash provided by operating activities	\$ 5,471
Less:	
Capital expenditures	2,105
Free cash flow	\$ 3,366
Divided by:	
Market capital:	
Common stock outstanding	375,696,661
Closing share price, end of period	\$ 83.16
Market capital	\$ 31,243
Free cash flow yield	<u>10.8%</u>

Return on Invested Capital

Calculation of LYB Return on Invested Capital (ROIC)

<u>In Million of Dollars</u>	Years Ended December 31,		
	2016	2017	2018
Income from continuing operations		\$ 4,895	\$ 4,698
Less:			
Tax benefit due to change in tax law from U.S. Tax Cuts and Jobs Act		819	
Non-cash tax settlement (2Q18)			346
Add:			
Interest expense, net		467	315
Effective tax rate (excluding tax benefits)		25.8%	18%
Interest expense, net, after tax		347	258
Adjusted income from continuing operations		4,423	4,610
Divided by:			
Average invested capital:			
Property, plant & equipment, net	10,137	10,997	12,477
Current assets	9,599	11,738	10,566
Less:			
Current liabilities	4,540	4,777	5,513
Cash and cash equivalents	875	1,523	332
	\$ 14,321	16,435	17,198
Average invested capital		\$ 15,378	\$ 16,817
Return on invested capital		29%	27%

Cash and Liquid Investments and Total Liquidity

Components of Cash and Liquid Investments and Total Liquidity

<u>In Millions of Dollars</u>	<u>December 31, 2018</u>
Cash and cash equivalents and restricted cash and cash equivalents	\$ 401
Short-term investments	892
Repurchase agreements	<u>544</u>
Cash and liquid investments	1,837
Availability under Senior Revolving Credit Facility	1,688
Availability under U.S Receivables Facility	<u>829</u>
Total liquidity	<u>\$ 4,354</u>

Dividends and Share Repurchases

Schedule of Spending for Dividends and Share Repurchases

<u>In Millions of Dollars</u>	<u>For the Year Ended</u>				
	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Dividends	\$ 1,403	\$ 1,410	\$ 1,395	\$ 1,415	\$ 1,554
Repurchases of ordinary shares	5,788	4,656	2,938	866	1,854
Total	<u>\$ 7,191</u>	<u>\$ 6,066</u>	<u>\$ 4,333</u>	<u>\$ 2,281</u>	<u>\$ 3,408</u>

Cash from Operating Activities as a Percent of Average Enterprise Value

Cash from Operating Activities as a Percent of Average Enterprise Value

<u>In Millions of Dollars, except share amounts</u>	<u>For the Years Ended December 31,</u>				
	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Cash from operating activities	\$ 6,048	\$ 5,842	\$ 5,606	\$ 5,206	\$ 5,471
Average enterprise value:					
Common shares outstanding	486,969,402	440,150,069	404,046,331	394,512,054	375,696,661
Daily average closing price	\$ 93.66	\$ 91.47	\$ 81.00	\$ 92.00	105.57
Market capitalization	45,610	40,261	32,728	36,295	39,662
Current maturities of long-term debt	4	4	2	2	5
Short-term debt	346	353	594	68	885
Long-term debt	6,695	7,671	8,385	8,549	8,497
Less:					
Cash and cash equivalents	1,031	924	875	1,523	332
Short-term investments	1,593	1,064	1,147	1,307	892
Net debt	4,421	6,040	6,959	5,789	8,163
Redeemable non-controlling interests					116
Non-controlling interests	30	24	25	1	23
Enterprise value	\$ 50,061	\$ 46,325	\$ 39,712	\$ 42,085	\$ 47,964
Cash from operating activities as a percent of enterprise value	12%	13%	14%	12%	11%