

## **Second Quarter 2018 Earnings**

August 3, 2018

## **Cautionary Statement and Information Related to Financial Measures**

### **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. Additiona

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.

Additionally, this communication includes forward-looking statements relating to the proposed merger between LYB and A. Schulman, Inc. ("Schulman"), including financial estimates and statements as to the expected timing, completion and effects of the proposed merger. These estimates and statements are subject to risks and uncertainties, and actual results might differ materially. Such estimates and statements include, but are not limited to, statements about the benefits of the merger, including future financial and operating results, the combined company's plans, expectations and intentions, and other statements that are not historical facts. Such statements are based upon the current beliefs and expectations of the management of LYB and Schulman and are subject to significant risks and uncertainties outside of our control. Actual results could differ materially based on factors including, but not limited to, the occurrence of any event, change or other circumstances that could give rise to the termination of the Merger Agreement, the risk that the necessary regulatory approvals may not be obtained or may be obtained subject to conditions that are not anticipated, failure to realize the benefits expected from the proposed merger and the effect of the announcement of the proposed merger on the ability of LYB and Schulman to retain customers and retain and hire key personnel and maintain relationships with their suppliers, and on their operating results and businesses generally. Discussions of additional risks and uncertainties are contained in LYB's and Schulman's fillings with the Securities and Exchange Commission. Neither LYB nor Schulman is under any obligation, and each expressly disclaim any obligation, to update, alter, or otherwise revise any forward-looking statements, whether written or oral, that may be made from time to time, whether as a result of new information, future events, or otherwise. Persons reading this communication are cautioned not to place undue reliance on these forward-looking state

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.

### 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.

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) 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.

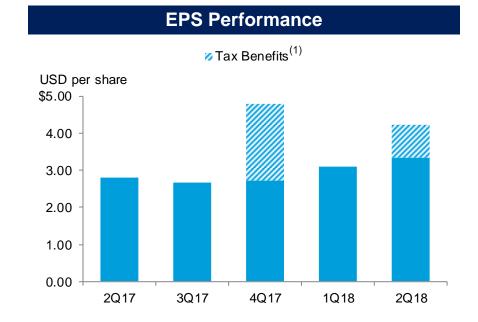
Additionally, diluted earnings per share excluding certain tax adjustments and the ratio of total debt to LTM EBITDA are measures that provides an indicator of value to investors. For purposes of this presentation, diluted earnings per share excluding certain tax adjustments means diluted earnings per share less a non-cash benefit due to change in tax law from the U.S. Tax Cuts and Jobs Act and a non-cash benefit from the settlement of prior year tax positions. The ratio of total debt to LTM EBITDA means total debt at period end divided by EBITDA for the last twelve months.

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

## **Second Quarter 2018 Highlights**

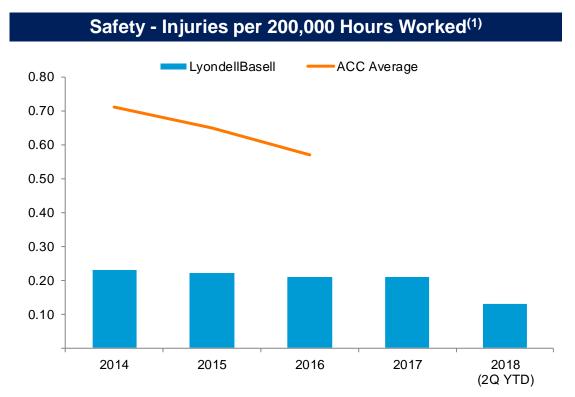
- Diluted EPS: \$4.22
  - Record after excluding tax benefits<sup>(1)</sup>
- Record quarterly EBITDA:
  - Intermediates and Derivatives
  - Technology
- Strong Cash from Operating Activities:
  - \$1.7 billion
  - 11% increase relative to 2Q17
- Approved new 10% share repurchase program
- Advancing growth:
  - Exclusive negotiations with Odebrecht S.A.
  - Expanding PP JV portfolio in S. Korea
  - A. Schulman acquisition on track
  - Hyperzone HDPE construction on track
  - PO/TBA project on track

Financial Highlights						
(\$ in millions, except per share data)	2Q17	1Q18	<b>2Q18</b> <sup>(1)</sup>			
EBITDA	\$1,970	\$1,913	\$2,010			
Net Income	\$1,130	\$1,231	\$1,654			
Diluted Earnings (\$ / share)	\$2.81	\$3.11	\$4.22			



<sup>(1) 4</sup>Q17 results include a one time, non-cash benefit from the U.S. tax reform that increased earnings by \$2.07 per share. 2Q18 results include a non-cash benefit from the settlement of prior-year tax positions of \$346 million that increased earnings by \$0.88 per share.

## Improving Upon LyondellBasell's Industry Leading Safety Performance



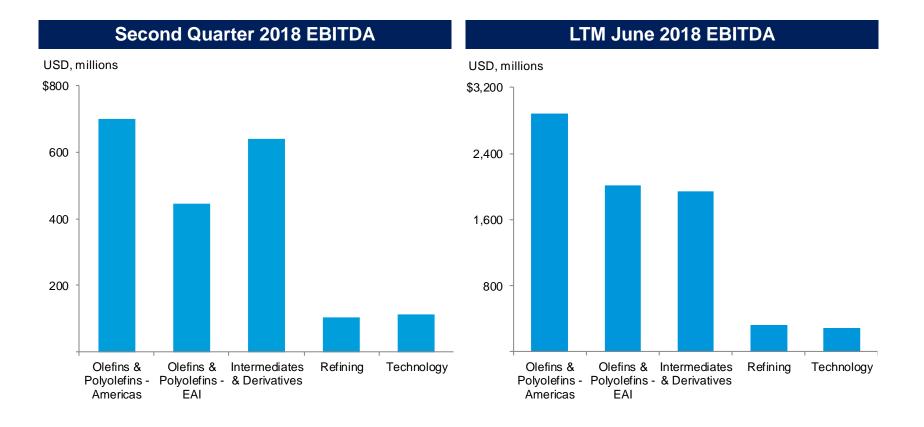


## First half 2018 - 38% improvement in YTD worker safety

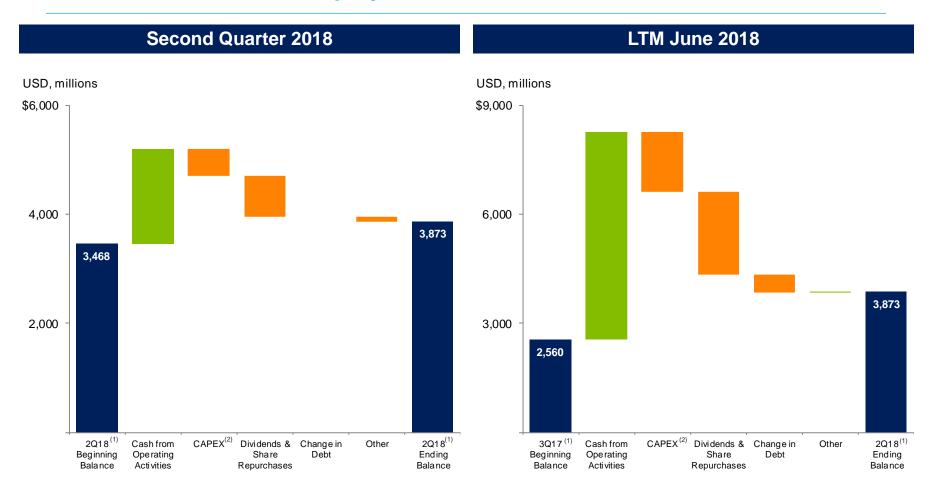
(1) Source: American Chemistry Council (ACC), LYB. ACC data includes all available periods. Number of hours worked includes employees and contractors.

## **Second Quarter 2018 and LTM Segment EBITDA**

Second Quarter 2018		LTM June 2018			
(USD, millions)	EBITDA	Net Income	(USD, millions)	EBITDA	Net Income
As Reported	\$2,010	\$1,654	As Reported	\$7,470	\$5,835



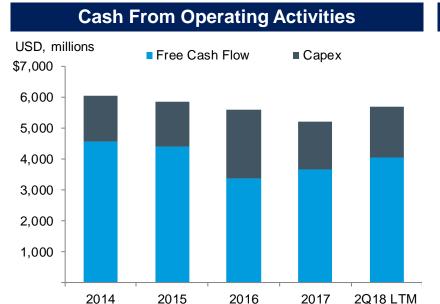
## **Cash Generation and Deployment**

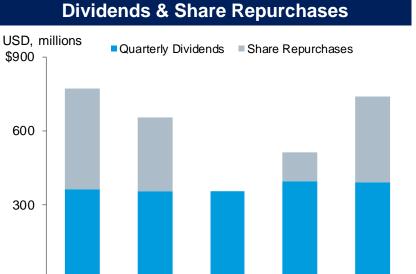


## ~ \$5.7 billion in cash from operating activities over the last 12 months

- (1) Beginning and ending cash balances include cash, restricted cash, and liquid investments.
- (2) Includes capital and maintenance turnaround spending.

## **Strong Cash Generation, Dividends & Share Repurchases**





## Snapshot - June 30, 2018

■ LTM Free Cash Flow<sup>(1)</sup>: \$4.1 billion

■ LTM Capex: \$1.6 billion

■ Cash<sup>(2)</sup>: \$3.9 billion

■ Total Debt/LTM EBITDA: 1.1x

## **Second Quarter 2018**

4Q17

1Q18

2Q18

■ 3.6% dividend yield<sup>(3)</sup>

2Q17

3.2 million shares repurchased

3Q17

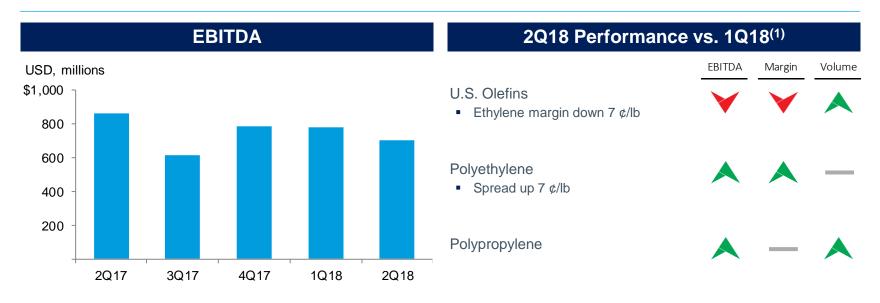
\$743 million in dividends and share repurchases

<sup>(1)</sup> Free Cash Flow = (Cash from operating activities – capital expenditures).

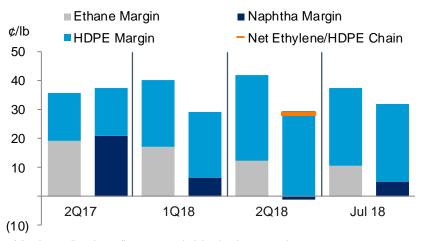
<sup>(2)</sup> Cash balances include cash, restricted cash, and liquid investments.

<sup>(3)</sup> Dividend yield is as of June 30, 2018 and assumes a \$4.00 annual dividend per share.

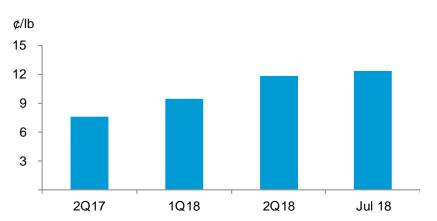
## Olefins and Polyolefins – Americas A Tight Market Supports Polyolefin Margins



## U.S. Industry Ethylene Chain Margins<sup>(2)</sup>



## U.S. Industry Polypropylene Margins<sup>(2)</sup>



- (1) Arrow direction reflects our underlying business metrics.
- (2) Source: Quarterly and July 30, 2018 month-to-date average IHS industry data.

## Majority of New N. America Industry Capacity Already in the Market

## **Status & Impact of New Capacity**

2016-2019: N. America Capacity Startups<sup>(1)</sup>

Ethylene units are running well

~ 65% of 24 Blbs of Ethylene

Not all PE units are operating at full rates

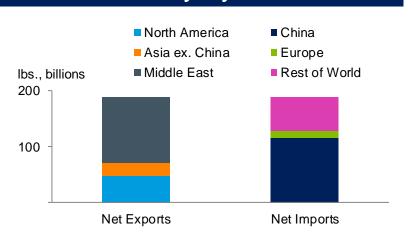
~ 65% of 19 Blbs of Polyethylene

PE exports are expected to increase

## 2018 YTD: Strong Operations and Markets<sup>(2)</sup>

## Ethylene<br/>Effective<br/>Operating RatePolyethylene<br/>Domestic Demand<br/>GrowthU.S. & Canada95%4.6%Northeast Asia97%6.6%Europe96%1.2%

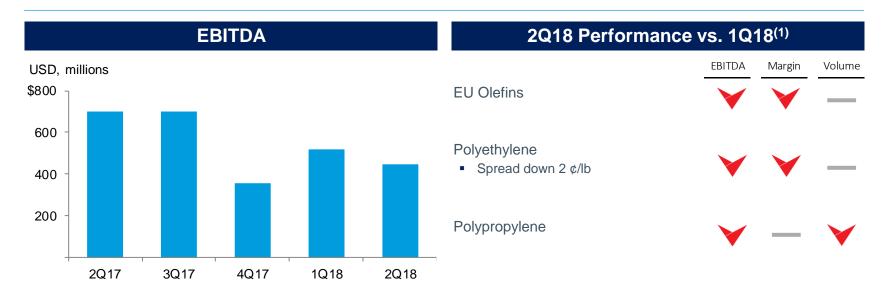
## 2016-2019: Polyethylene Trade<sup>(1)</sup>



<sup>(1)</sup> Source: IHS and LYB estimates.

<sup>(2)</sup> Source: IHS and LYB estimates. Polyethylene domestic demand growth is YTD 2018 compared to YTD 2017. YTD 2018 includes actuals for 1Q18 and IHS forecasts for 2Q18.

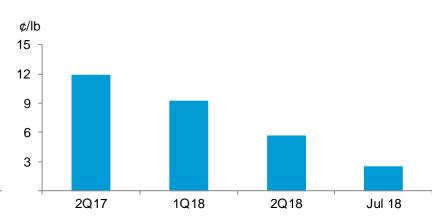
## Olefins and Polyolefins – Europe, Asia, and International Ethylene Chain Margin Compression with Increasing Cost of Feedstocks



## **EU Industry Ethylene Chain Margins**(2)

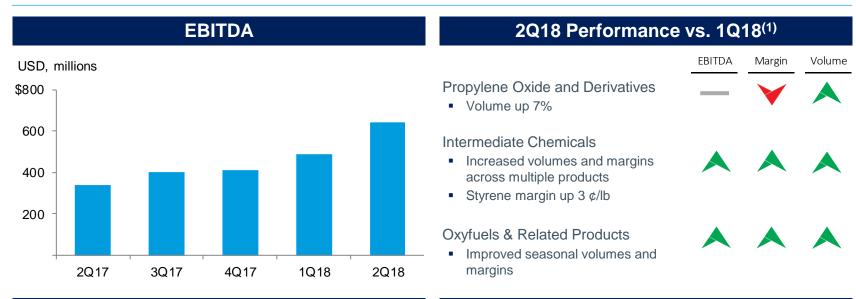
# ©/Ib Naphtha Margin HDPE Margin - Ethylene/HDPE Chain 50 40 30 20 10 2Q17 1Q18 2Q18 Jul 18

## **EU Industry Polypropylene Margins**<sup>(2)</sup>

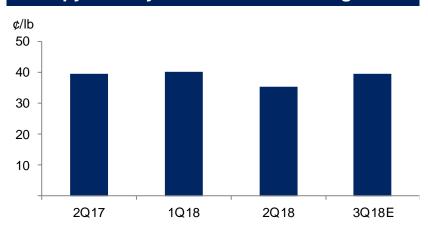


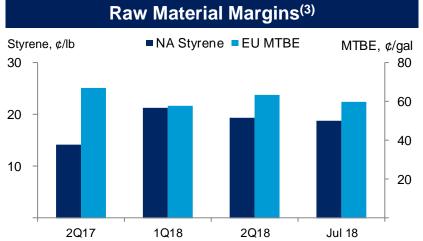
- Arrow direction reflects our underlying business metrics.
- (2) Source: Quarterly and July 30, 2018 month-to-date average IHS industry data.

## **Intermediates and Derivatives Record Quarterly EBITDA Performance**









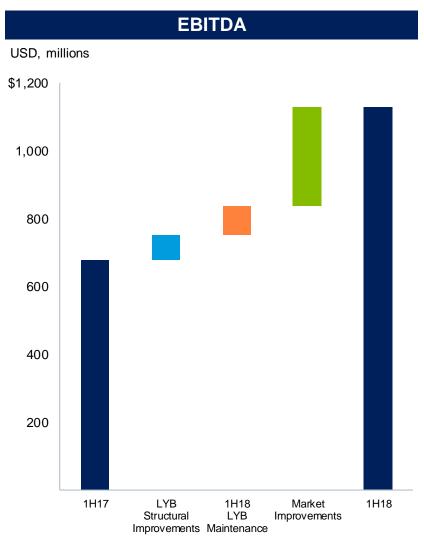
- (1) Arrow direction reflects our underlying business metrics.
- (2) Source: ChemData July 2018 Report
- (3) Source: Platts quarterly and July 30, 2018 month-to-date averages.

## Intermediates and Derivatives Structural Changes and Reliable Operations Capturing Opportunities

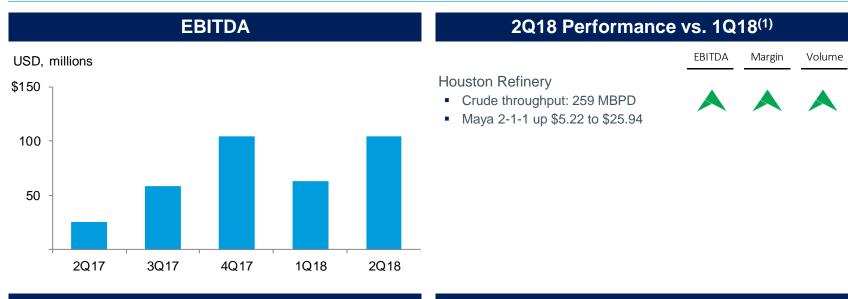
## EBITDA increases \$450 MM 1H18 vs. 1H17

- Structural improvements ~ 15%
  - Improved contracting strategies
  - Return to typical reliability
- 1H18 LYB maintenance schedule ~ 20%
  - Less planned downtime
  - Reduced catalyst expense
- Capturing strong market margins ~ 65%
  - Styrene margins: + ~60%
  - MTBE margins: + ~20%
  - VAM margins: + ~100%
  - Ethylene glycol margins: + ~50%





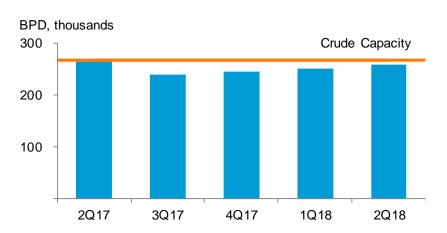
## Refining Reliable Operations Capturing Improved Margins



## Refining Spreads<sup>(2)</sup>

# USD per bbl \$30 25 - 20 - 15 - 10 - 5 - 2Q17 1Q18 2Q18 Jul 18

## **Refining Throughput**



- Arrow direction reflects our underlying business metrics.
- (2) Light Louisiana Sweet (LLS) is the referenced light crude. Data represents quarterly and July 30, 2018 month-to-date average per Platts.

## A. Schulman Acquisition: Creating a Platform for Growth

## **Strategic Rationale**

- Vertical integration
- New growth platform for organic and inorganic opportunities
- End-to-end customer solutions
- Diverse and growing markets

## Financial Metrics<sup>(1)</sup>

- Purchase price = \$2.25 billion
- 6.3x LTM 1Q18 Adjusted EBITDA, including synergies
- Accretive to earnings within 1 year of closing, including synergies



## DETAILED SYNERGY & IMPLEMENTATION PLANNING

## IMPLEMENTATION & SYNERGY CAPTURE

<sup>(1)</sup> LTM Adjusted EBITDA as presented by A. Schulman obtained from publicly available quarterly release data. LTM 1Q18 refers to the twelve-month period ended November 30, 2017. Includes estimated run-rate cost synergies of \$150 million.

## **Tangible Earnings Growth Over the Next Twelve Months**











Acquisition of A. Schulman

Hyperzone HDPE I&D Improvement Refinery Reliability Refining Markets

Vertical Integration Poised to Capture HDPE Demand

Sustainable Contract Improvements Increased Focus on Operational Excellence

Well Positioned for IMO Sulfur Regulations

End-to-End Customer Solutions Increased Capture of Ethylene Chain Margin Improved Capture of Market Upside Five Consecutive Quarters of Stable Operation Improved Maya 2-1-1 Spread

Diverse and Growing Market

Serving a Balanced Global Market Robust Global Demand Improved Margin Capture

Potential for Substantial Profitability

## **Second Quarter Summary and Outlook**

## **Summary**

## **Outlook**



Diluted earnings per share: \$4.22



Continued robust global demand



**Record** quarterly EBITDA: Intermediates & Derivatives Technology



**Stabilizing** market conditions after industry capacity comes online



**Strong** cash from operating activities **\$5.7 billion** for LTM 2Q18



Continued **reliable operations** at Houston Refinery

## **Advancing Growth**



Exclusive negotiations - Odebrecht S.A.

Expanding PP JV portfolio in S. Korea

Acquisition of A. Schulman on track



Hyperzone construction on track

PO/TBA project on track