

The logo for Huntsman, featuring the word "HUNTSMAN" in a bold, dark blue, sans-serif font. The text is centered between two horizontal red bars of equal length.

Enriching lives through innovation

# Earnings Summary

## Third Quarter 2018

### **Conference Call**

Tuesday, October 30, 2018

11:00 a.m. ET

U.S. Participants: (888) 713 - 4199

International Participants: (617) 213 - 4861

Passcode: 909 665 63#

Webcast: [ir.huntsman.com](http://ir.huntsman.com)

# General Disclosure

This presentation includes “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements include statements concerning our plans, objectives, goals, strategies, future events, future revenue or performance, capital expenditures, financing needs, plans or intentions relating to acquisitions, business trends and other information that is not historical information. When used in this presentation, the words “estimates,” “expects,” “anticipates,” “projects,” “plans,” “intends,” “believes,” “forecasts,” or future or conditional verbs, such as “will,” “should,” “could” or “may,” and variations of such words or similar expressions are intended to identify forward-looking statements. All forward-looking statements, including, without limitation, management’s examination of historical operating trends and data, are based upon our current expectations and various assumptions. Our expectations, beliefs and projections are expressed in good faith, and we believe there is a reasonable basis for them. However, there can be no assurance that management’s expectations, beliefs and projections will be achieved.

The forward-looking statements in this release are subject to uncertainty and changes in circumstances and involve risks and uncertainties that may affect the company's operations, markets, products, services, prices and other factors as discussed in the Huntsman companies' filings with the U.S. Securities and Exchange Commission. Significant risks and uncertainties may relate to, but are not limited to, volatile global economic conditions, cyclical and volatile product markets, disruptions in production at manufacturing facilities, reorganization or restructuring of Huntsman’s operations, including any delay of, or other negative developments affecting the ability to implement cost reductions and manufacturing optimization improvements in Huntsman businesses and realize anticipated cost savings, and other financial, economic, competitive, environmental, political, legal, regulatory and technological factors. Any forward-looking statement should be considered in light of the risks set forth under the caption “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2017.

All forward-looking statements attributable to us or persons acting on our behalf apply only as of the date made. We undertake no obligation to update or revise forward-looking statements which may be made to reflect events or circumstances that arise after the date made or to reflect the occurrence of unanticipated events.

This presentation contains financial measures that are not in accordance with generally accepted accounting principles in the U.S. (“GAAP”), including EBITDA, adjusted EBITDA, adjusted EBITDA from discontinued operations, adjusted net income (loss), adjusted diluted income (loss) per share, free cash flow and net debt. Reconciliations of non-GAAP measures to GAAP are provided in the financial schedules attached to the earnings news release and available on the Company's website at <http://ir.huntsman.com/>.

The Company does not provide reconciliations of forward-looking non-GAAP financial measures to the most comparable GAAP financial measures on a forward-looking basis because the Company is unable to provide a meaningful or accurate calculation or estimation of reconciling items and the information is not available without unreasonable effort. This is due to the inherent difficulty of forecasting the timing and amount of certain items, such as, but not limited to, (a) business acquisition and integration expenses, (b) merger costs, and (c) certain legal and other settlements and related costs. Each of such adjustments has not yet occurred, are out of the Company's control and/or cannot be reasonably predicted. For the same reasons, the Company is unable to address the probable significance of the unavailable information.

# Highlights

<i>(\$ in millions, except per share amounts)</i>	<b>3Q18</b>	<b>3Q17</b>	<b>2Q18</b>
Revenues	\$ 2,444	\$2,169	\$2,404
Net (loss) income	\$ (8)	\$ 179	\$ 623
Adjusted net income	\$ 202	\$ 164	\$ 246
Diluted (loss) income per share	\$ (0.05)	\$ 0.60	\$ 1.71
Adjusted diluted income per share	\$ 0.84	\$ 0.67	\$ 1.01
Adjusted EBITDA	\$ 374	\$ 340	\$ 415
Net cash provided by operating activities from continuing operations	\$ 295	\$ 261	\$ 228
Free cash flow	\$ 226	\$ 227	\$ 174

*Note: Pigments & Additives business is treated as discontinued operations in all periods shown*

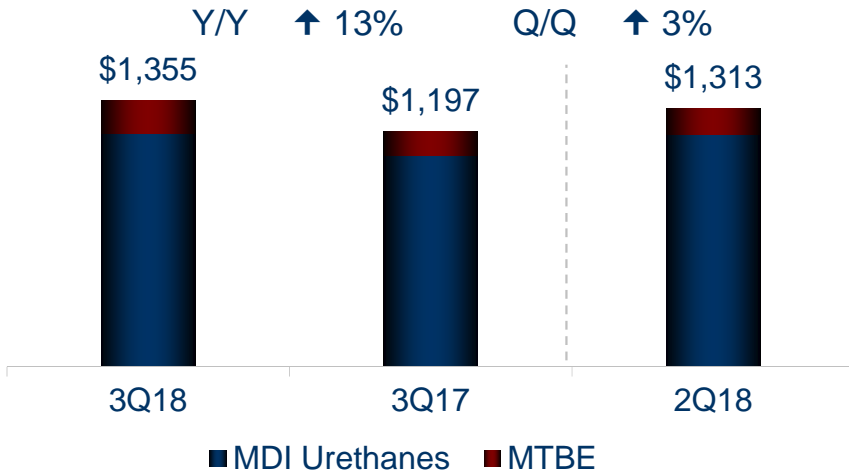
*See Appendix for reconciliations and important explanatory notes*

# Polyurethanes

## Third Quarter 2018

### Revenues

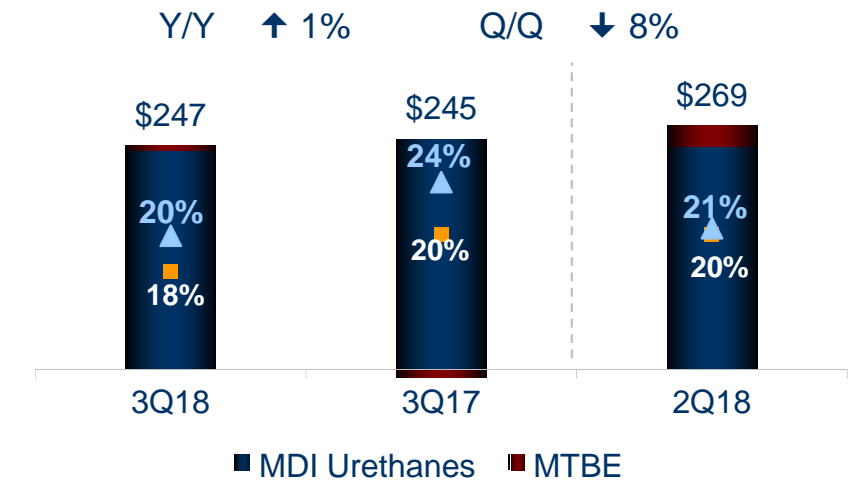
\$ in millions



### Adjusted EBITDA

\$ in millions

▲ Adjusted MDI Urethanes EBITDA Margin<sup>(3)</sup> ■ Adjusted PU EBITDA Margin



### Sales Factors

	Price: Local <sup>(1)</sup>	Price: FX <sup>(1)</sup>	Mix & Other	Volume <sup>(2)</sup>
Y/Y	↑ 5%	---	↓ 2%	↑ 10%
Y/Y <sup>(4)</sup>	↑ 4%	---	↑ 6%	↑ 3%
Q/Q	↓ 2%	↓ 2%	---	↑ 7%
Q/Q <sup>(5)</sup>	↓ 2%	↓ 2%	---	↑ 7%

(1) Excludes sales from tolling, by-products and raw materials.

(2) Excludes sales volumes of by-products and raw materials.

(3) Excludes MTBE.

(4) Pro forma adjusted to exclude the impact from Hurricane Harvey in 3Q17 and 3Q18 Rotterdam outages onset by 3<sup>rd</sup> party constraints..

(5) Pro forma adjusted for the 2Q18 and 3Q18 Rotterdam outages onset by 3<sup>rd</sup> party constraints.

### Highlights

#### Current Quarter

- + Differentiated MDI volumes grew 6%
- + Stable differentiated MDI margins
- Production constraints at Rotterdam impacted EBITDA ~\$20mm

#### Outlook

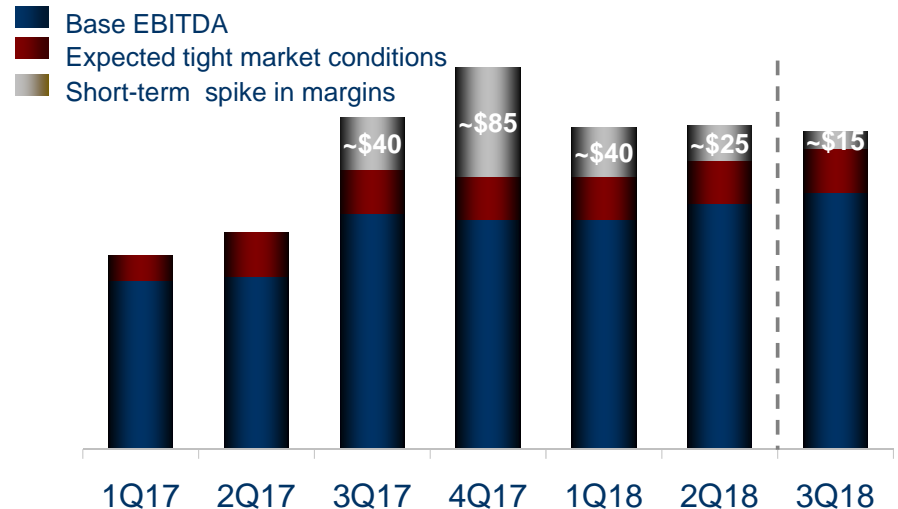
- + Continued stable downstream margins and differentiated growth
- + Volume benefit from China JV expansion
- More pronounced seasonality with certain customer destocking
- Lower component polymeric MDI margins
- Breakeven MTBE margins

# Huntsman MDI Overview

## Industry status

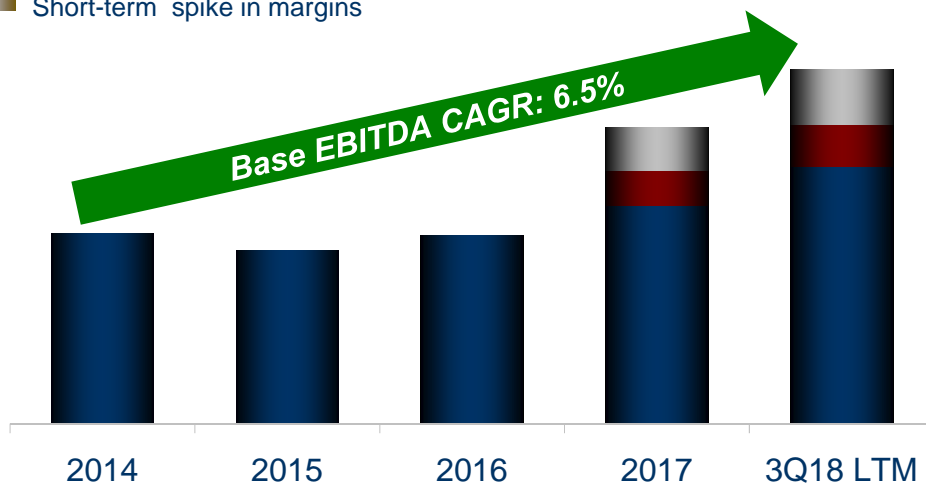
- Current global effective operating rates are ~90%
- Differentiated margins stable and demand solid globally
- Exposure to component pricing is contained to < 30% of our global business
- Component MDI pricing (YoY):
  - China declined by ~25%
  - Europe declined by ~15%
  - US component MDI spot prices decreased in Q3 (minimal exposure for HUN)

## Continued focus on growth in core business



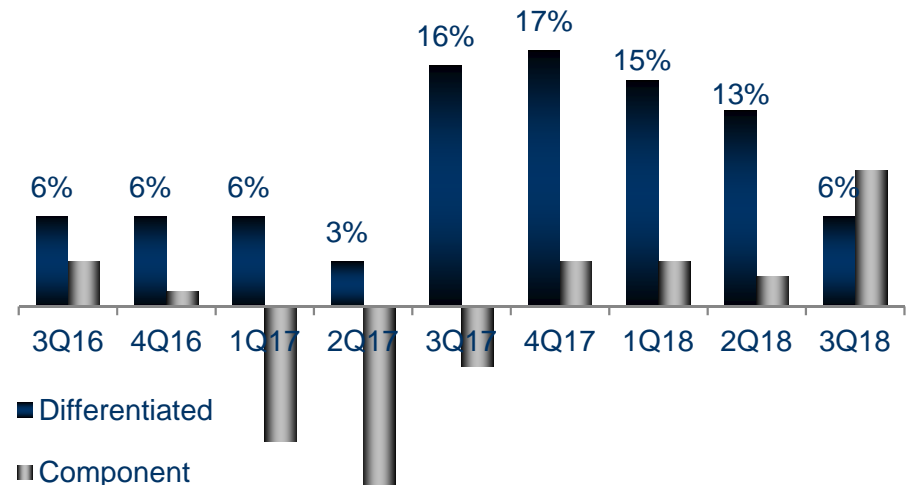
## Consistent strong core EBITDA growth

- Base EBITDA
- Expected tight market conditions
- Short-term spike in margins



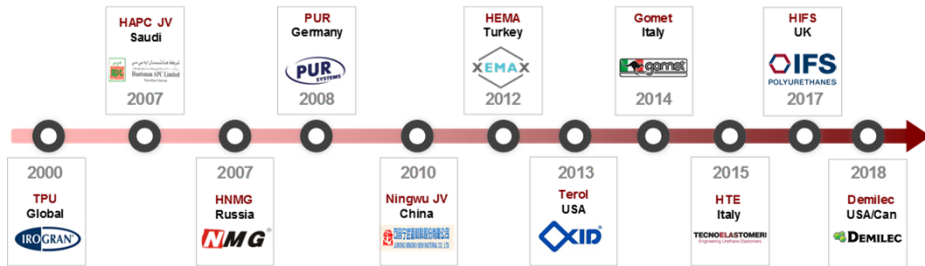
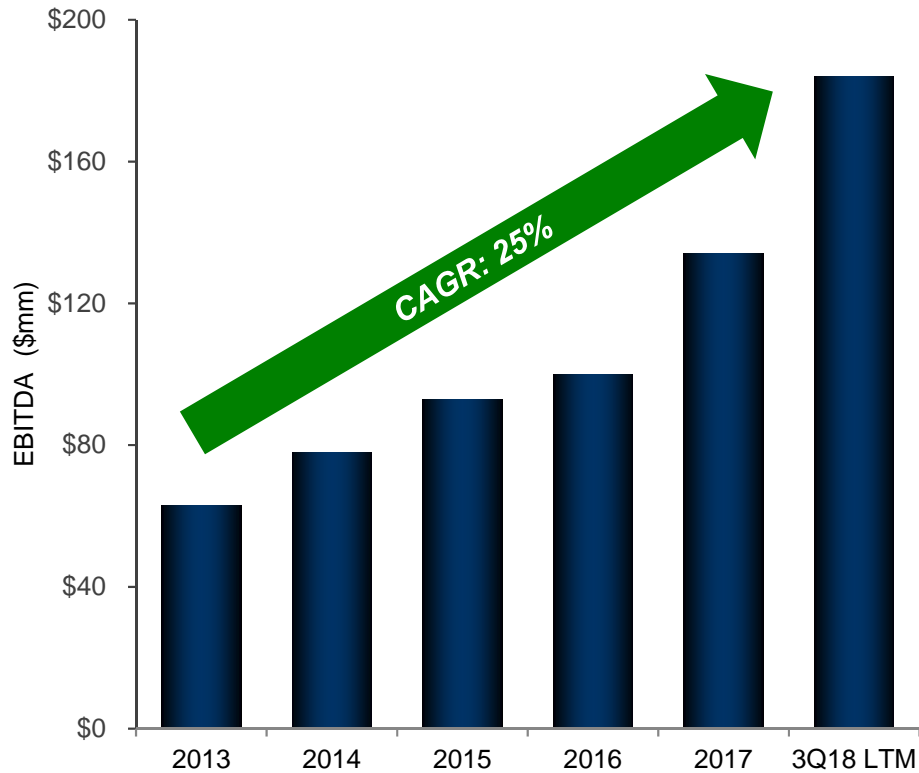
## Focus on differentiated volume growth

Continued volume growth in more stable, high value differentiated business

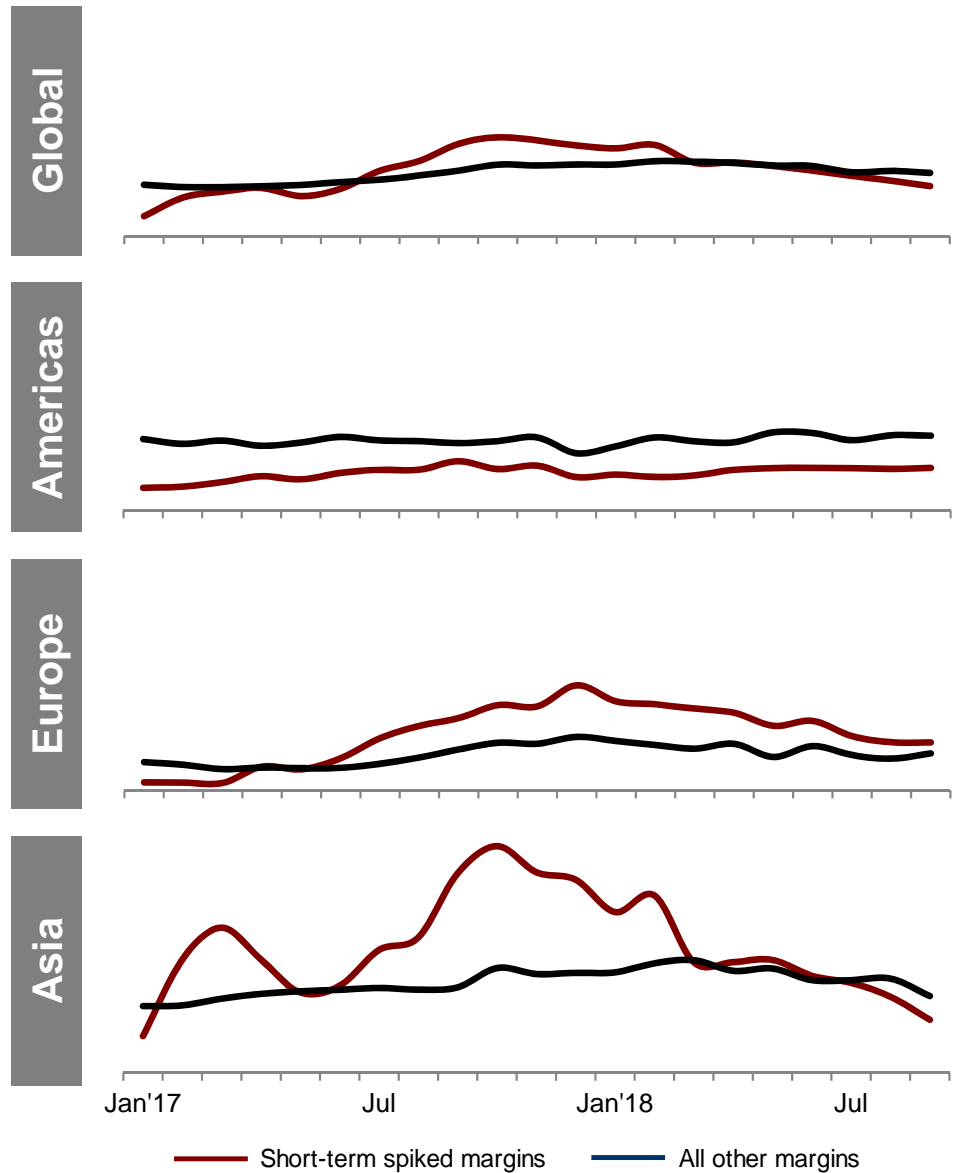


# Stable Downstream Growth and Margins

## EBITDA Growth from Bolt-On Acquisitions



## Strategic Core Remains Stable



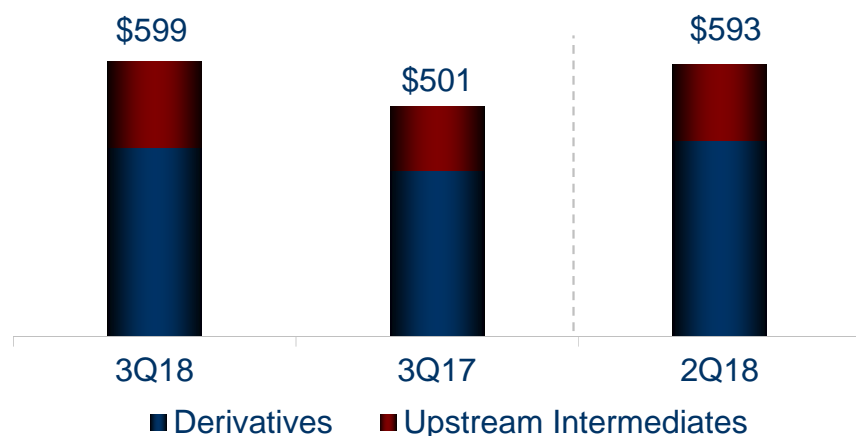
# Performance Products

## Third Quarter 2018

### Revenues

\$ in millions

Y/Y ↑ 20%      Q/Q ↑ 1%



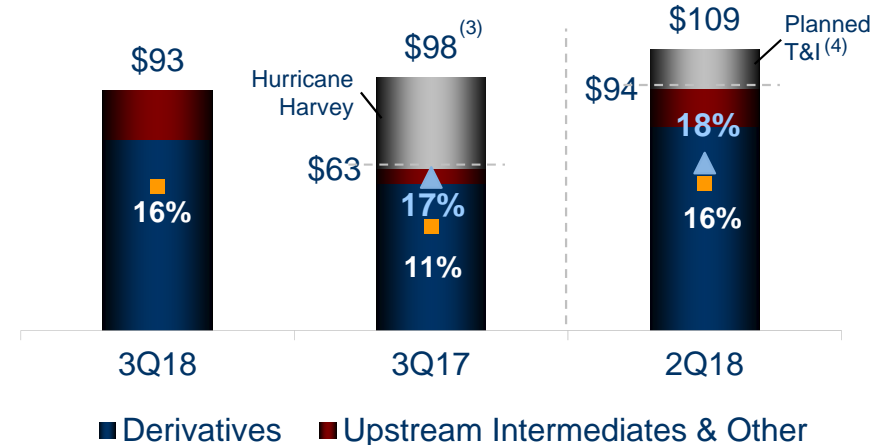
### Adjusted EBITDA

\$ in millions

▲ Pro Forma Adj. EBITDA Margin<sup>(4)</sup>

■ Adjusted EBITDA Margin

Y/Y ↑ 48%      Q/Q ↓ 1%



### Sales Factors

	Price: Local <sup>(1)</sup>	Price: FX <sup>(1)</sup>	Mix & Other	Volume <sup>(2)</sup>
Y/Y	↑ 6%	↓ 1%	↓ 6%	↑ 21%
Y/Y <sup>(3)</sup>	↑ 6%	↓ 1%	↓ 3%	↓ 1%
Q/Q	----	↓ 1%	↓ 5%	↑ 7%
Q/Q <sup>(4)</sup>	----	↓ 1%	↓ 4%	↑ 4%

### Highlights

#### Current Quarter

- + Volume and margin growth in specialty amines and maleic anhydride
- Unplanned outage and ethane spike impacted EBITDA by ~\$7mm

#### Outlook

- + Growth in differentiated derivatives business
- Fourth quarter seasonality

(1) Excludes sales from tolling, by-products and raw materials.

(2) Excludes sales volumes of by-products and raw materials.

(3) Pro forma adjusted to exclude the impact from Hurricane Harvey in 3Q17.

(4) Pro forma adjusted to exclude the impact of the Planned T&I in 2Q18.

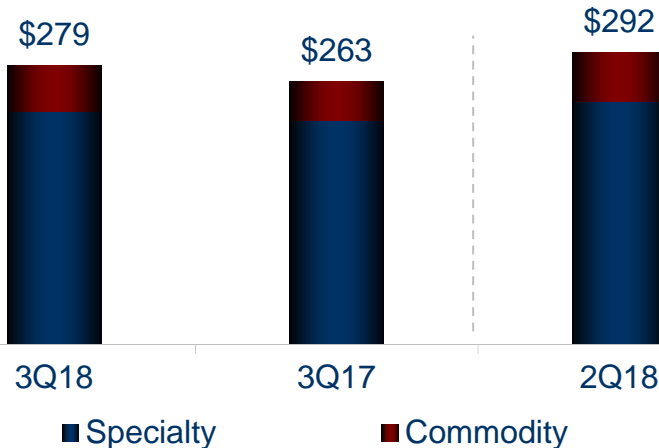
# Advanced Materials

## Third Quarter 2018

### Revenues

\$ in millions

Y/Y ↑ 6%      Q/Q ↓ 4%



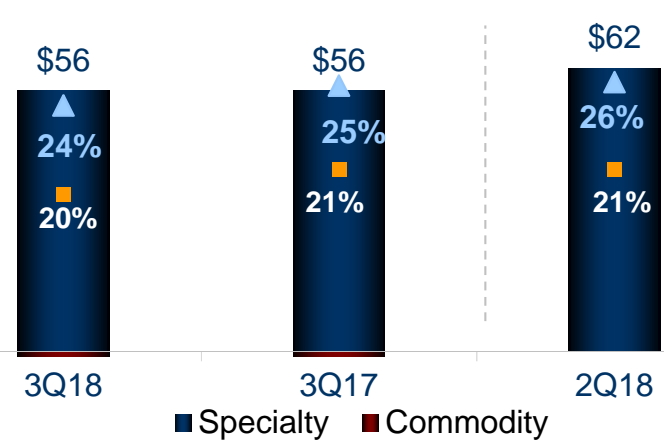
### Adjusted EBITDA

\$ in millions

▲ Adj. EBITDA Margin Specialty & Differentiated

■ Adjusted EBITDA Margin

Y/Y -- %      Q/Q ↓ 10%



### Sales Factors

	Price: Local <sup>(1)</sup>	Price: FX <sup>(1)</sup>	Mix & Other	Volume <sup>(2)</sup>
Y/Y	↑ 5%	↓ 1%	↓ 3%	↑ 5%
Q/Q	---	↓ 3%	---	↓ 1%

### Highlights

#### Current Quarter

+ Specialty volumes grew 2% YOY

#### Outlook

+ Continued growth in specialty business

- More pronounced seasonality with certain customer destocking

(1) Excludes sales from tolling, by-products and raw materials

(2) Excludes sales volumes of by-products and raw materials



# Textile Effects

## Third Quarter 2018

### Revenues

\$ in millions

Y/Y ↑ 6%      Q/Q ↓ 10%



### Adjusted EBITDA

\$ in millions

Adjusted EBITDA Margin

Y/Y ↑ 32%      Q/Q ↓ 14%



### Sales Factors

	Price: Local <sup>(1)</sup>	Price: FX <sup>(1)</sup>	Mix & Other	Volume <sup>(2)</sup>
Y/Y	↑ 12%	↓ 2%	----	↓ 4%
Q/Q	↑ 6%	↓ 3%	----	↓ 13%

(1) Excludes sales from tolling, by-products and raw materials

(2) Excludes sales volumes of by-products and raw materials

### Highlights

#### Current Quarter

- + Specialty products up 9% YOY
- + 12 straight quarters YOY EBITDA growth

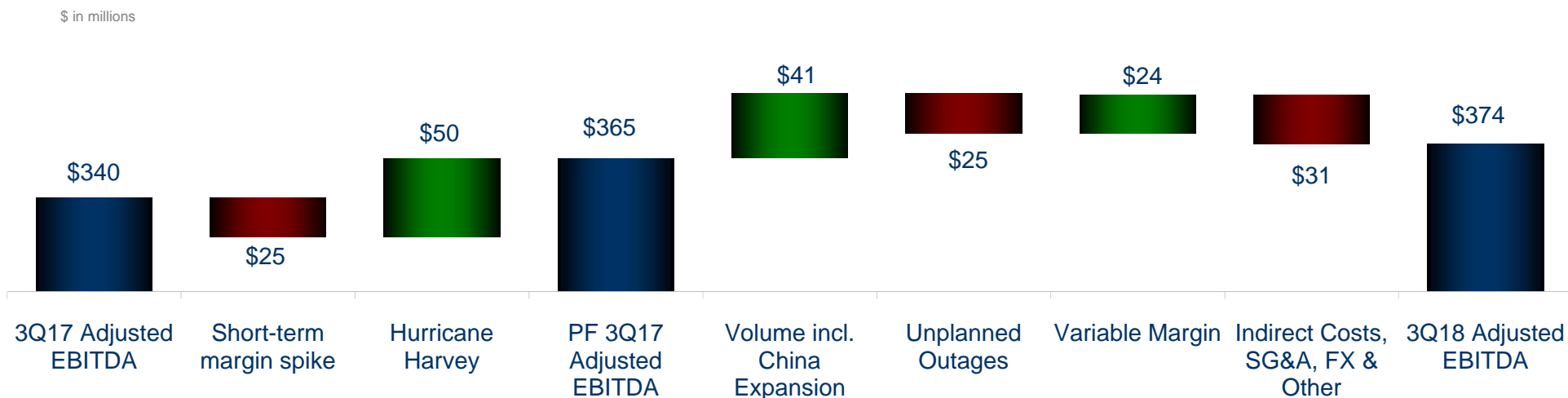
#### Outlook

- + Growth in specialty product lines
- Continued disruption in China raw material supply
- Headwinds in raw materials offset by price increases

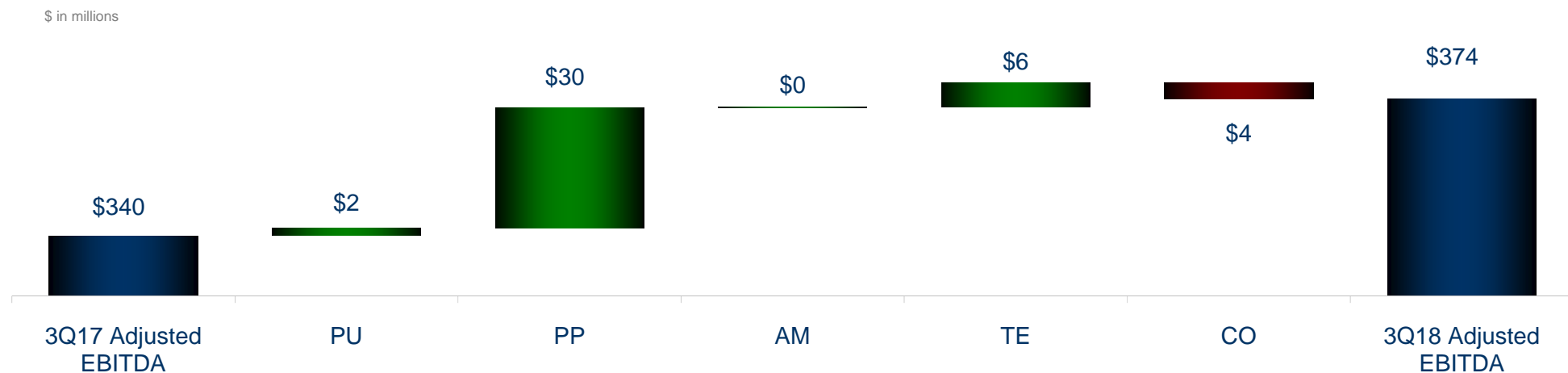
# Adjusted EBITDA Bridge

Third Quarter 2018 – Year / Year

## Year / Year – Total Company



## Year / Year – By Segment



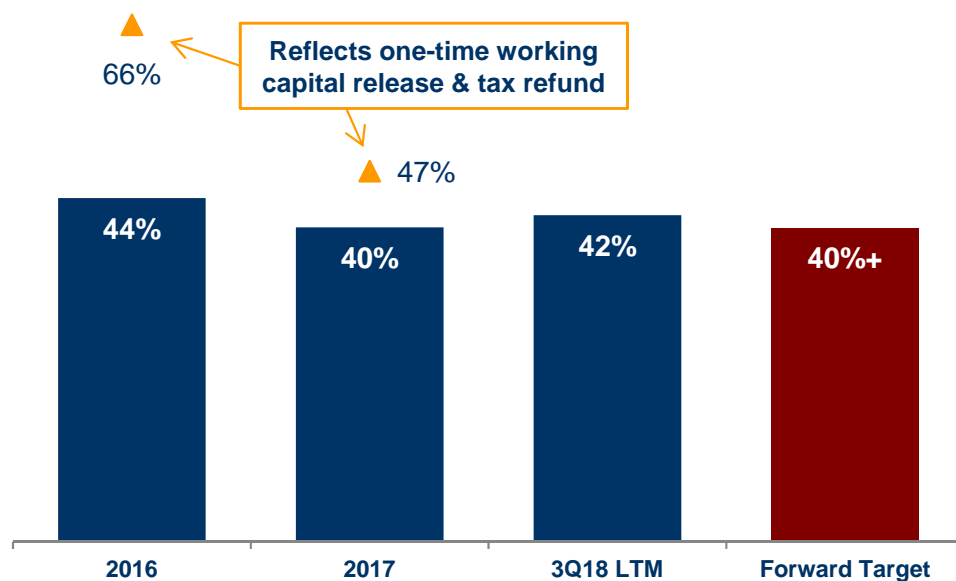
# Finance and Cash Considerations

## Annual free cash flow target of \$550mm-\$625mm

\$ in millions	3Q18	3Q17	'18 YTD	'17 YTD
Adjusted EBITDA	\$ 374	\$ 340	\$ 1,194	\$ 899
Capital expenditures, net	(69)	(58)	(176)	(158)
Cash interest	(14)	(30)	(73)	(122)
Cash income taxes	(40)	(21)	(117)	36
Primary working capital change	(86)	7	(237)	(171)
Restructuring	(1)	(7)	(7)	(26)
Pension	(36)	(48)	(95)	(85)
Maintenance & other	98	44	(33)	31
<b>Free Cash Flow</b>	<b>\$ 226</b>	<b>\$ 227</b>	<b>\$ 456</b>	<b>\$ 404</b>

Note: All periods exclude Pigments & Additives business

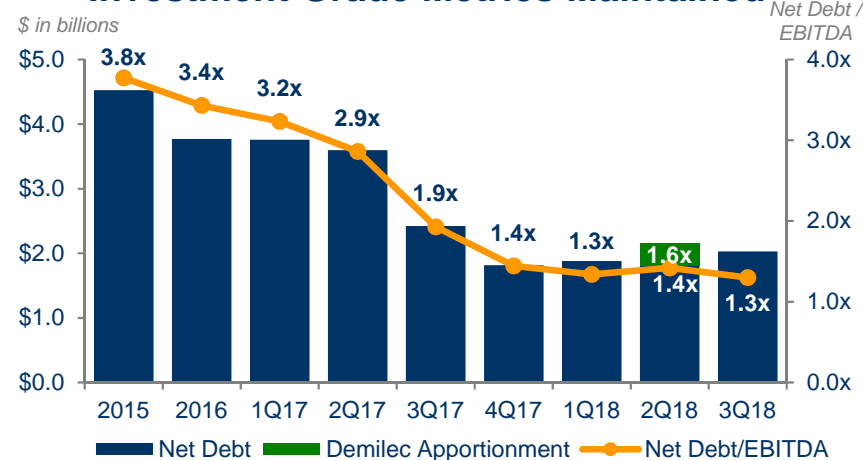
## Consistent Strong Free Cash Flow Conversion



## Liquidity, Debt & Cash Considerations

- Liquidity
  - \$1,529mm combined cash and unused borrowing capacity
  - 2018 expected capital expenditures of between \$300mm and \$320mm
- Taxes
  - 3Q18 Adj. effective tax rate at 20%
  - 2018 effective tax rate 19%-21%, long-term rate 23%-25%
- Other
  - September YTD repurchases ~\$175mm, or approximately 5.9mm shares under \$1bn share repurchase program
  - Noncontrolling interest on the balance sheet includes \$753mm related to Venator

## Investment Grade Metrics Maintained



# Differentiated Adjusted EBITDA<sup>(1)</sup>

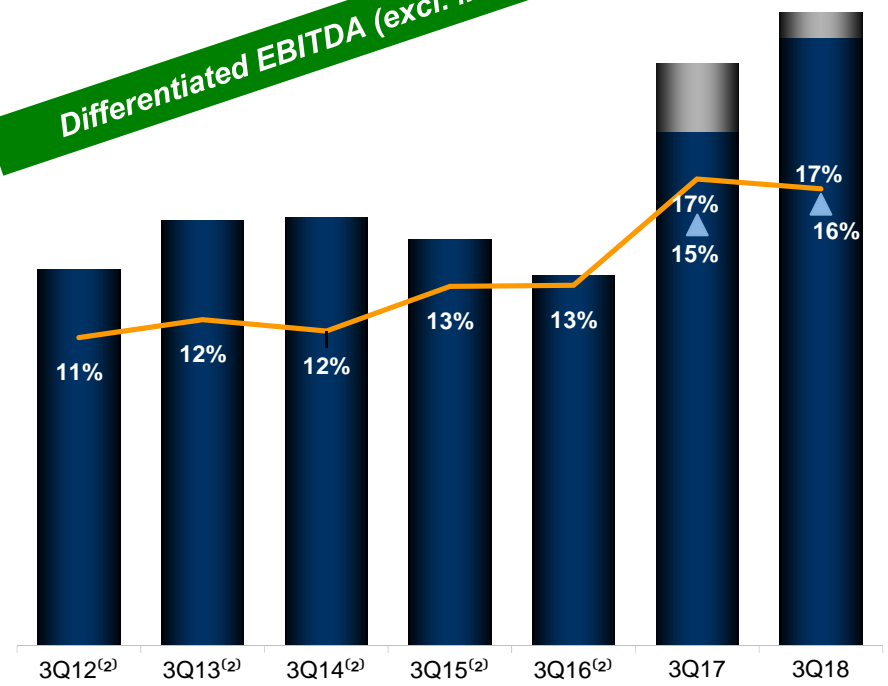
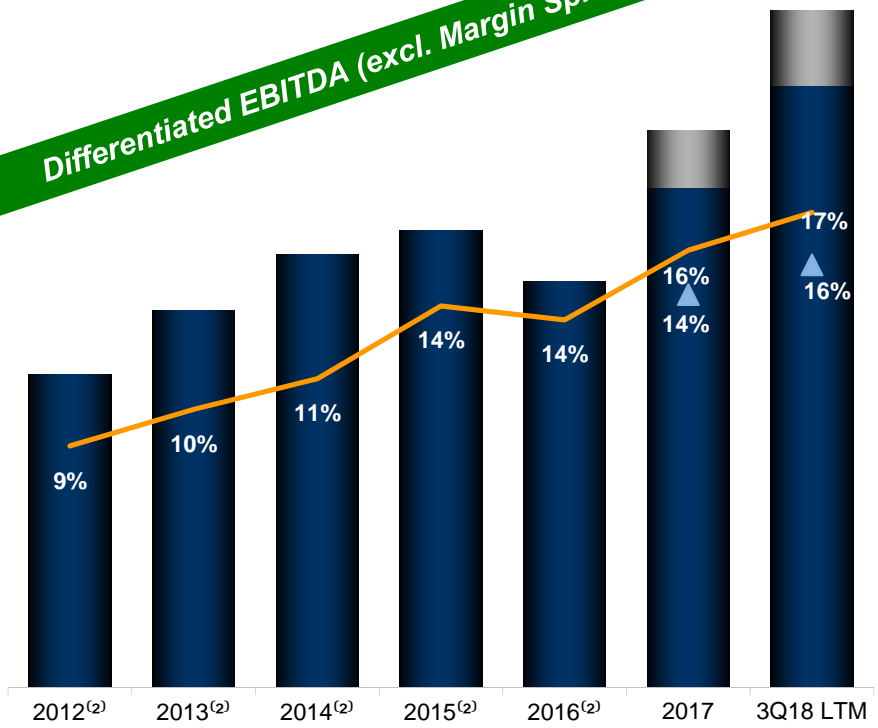
Annual<sup>(1)</sup>

Third Quarter<sup>(1)</sup>

Adjusted EBITDA Margin

Differentiated EBITDA (excl. Margin Spike) CAGR: 10%

Differentiated EBITDA (excl. Margin Spike) CAGR: 8%



Margin Spike  
 Differentiated Adj. EBITDA excl. Margin Spike  
 Adj. EBITDA Margin  
 Adj. EBITDA Margin excl. Margin Spike

Margin Spike  
 Differentiated Adj. EBITDA excl. Margin Spike  
 Adj. EBITDA Margin  
 Adj. EBITDA Margin excl. Margin Spike

(1) Excludes MTBE and Olefins

(2) Excludes European surfactants business, which was sold to Innospec on December 30, 2016

The logo for Huntsman, featuring the word "HUNTSMAN" in a bold, dark blue, sans-serif font. The text is centered and flanked by two horizontal red lines, one above and one below the word.

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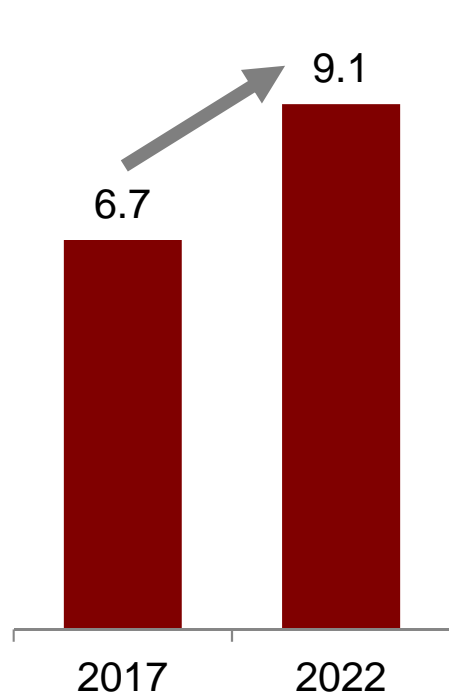
# Appendix

# MDI Industry Capacity Utilization

Over the Next 5 Years Demand Will Continue to Outstrip Supply Additions

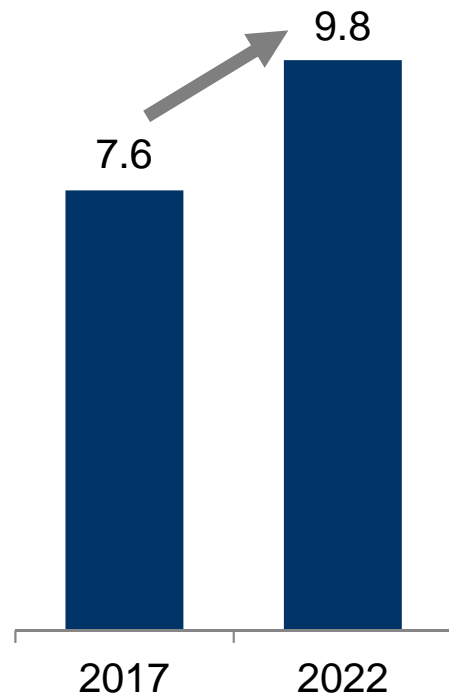
## MDI Demand (‘000s ktes)

**CAGR**  
**6%**



## MDI Capacity (‘000s ktes)

**CAGR**  
**5%**



## New Investments 2018 - 2022

Company	Country	ktes
Wanhua	China	+800
BASF	US	+300
SLIC/HUN	China	+240 (HUN =200/240)
Covestro	Germany	+200
Covestro	China	+140
K.Mitsui	Korea	+100
Wanhua	Hungary	+60
Covestro	Europe	+50

Note: 2022 capacity bar charts to the left include BASF Chongqing and Sadara realization of full capacity.

Note: \* Operating capacity  
Source: Management Estimates

# Adjusted EBITDA Reconciliation

(\$ in millions)

	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18
<b>Net Income (loss)</b>	\$ 64	\$ 137	\$ 92	\$ 183	\$ 179	\$ 287	\$ 350	\$ 623	\$ (8)
Net income attributable to noncontrolling interests	(9)	(9)	(16)	(16)	(32)	(41)	(76)	(209)	(3)
<b>Net income (loss) attributable to Huntsman Corporation</b>	\$ 55	\$ 128	\$ 76	\$ 167	\$ 147	\$ 246	\$ 274	\$ 414	\$ (11)
Interest expense, net	52	50	48	47	39	31	27	29	30
Income tax expense (benefit)	6	44	19	24	35	(14)	53	4	27
Depreciation and amortization	83	80	76	79	80	84	82	83	85
Interest, income taxes, depreciation and amortization in discontinued operations	23	14	33	50	34	37	29	95	(42)
Acquisition and integration expenses, purchase accounting adjustments	6	1	3	4	10	2	1	7	2
EBITDA from discontinued operations	(47)	(18)	(26)	(95)	(97)	(94)	(143)	(429)	279
Noncontrolling interest of discontinued operations	3	3	3	3	12	31	55	188	(21)
U.S. tax reform impact on noncontrolling interest	-	-	-	-	-	(6)	-	-	-
(Gain) loss on disposition of businesses/assets	-	(97)	-	(8)	-	(1)	-	-	-
Loss on early extinguishment of debt	1	-	-	1	35	18	-	3	-
Certain legal and other settlements and related expenses (income)	-	1	-	1	-	(12)	7	1	1
Plant incident remediation costs	-	-	-	-	13	3	-	-	-
Expenses associated with merger	-	-	-	6	12	10	-	1	1
Amortization of pension and postretirement actuarial losses	14	13	19	17	19	18	17	18	18
Restructuring, impairment, plant closing and transition costs (credits)	38	(9)	9	3	1	7	3	1	5
<b>Adjusted EBITDA</b>	<u>234</u>	<u>210</u>	<u>260</u>	<u>299</u>	<u>340</u>	<u>360</u>	<u>405</u>	<u>415</u>	<u>374</u>
Sale of European differentiated surfactants business <sup>(2)</sup>	(7)	(6)	-	-	-	-	-	-	-
<b>Proforma adjusted EBITDA</b>	<u>\$ 227</u>	<u>\$ 204</u>	<u>\$ 260</u>	<u>\$ 299</u>	<u>\$ 340</u>	<u>\$ 360</u>	<u>\$ 405</u>	<u>\$ 415</u>	<u>\$ 374</u>

	2012	2013	2014	2015	2016	2017	3Q18 LTM
<b>Net Income</b>	\$ 373	\$ 149	\$ 345	\$ 126	\$ 357	\$ 741	\$ 1,252
Net income attributable to noncontrolling interests	(10)	(21)	(22)	(33)	(31)	(105)	(329)
<b>Net income attributable to Huntsman Corporation</b>	\$ 363	\$ 128	\$ 323	\$ 93	\$ 326	\$ 636	\$ 923
Interest expense, net	226	190	205	205	203	165	117
Income tax expense	104	109	59	60	109	64	70
Depreciation and amortization	350	364	358	298	318	319	334
Interest, income taxes, depreciation and amortization in discontinued operations	144	98	77	85	89	154	119
Loss on initial consolidation of subsidiaries	4	-	-	-	-	-	-
Acquisition and integration expenses, purchase accounting adjustments	5	11	7	9	12	19	12
EBITDA from discontinued operations	(350)	(78)	63	217	(81)	(312)	(387)
Noncontrolling interest of discontinued operations	-	-	1	7	11	49	253
U.S. tax reform impact on noncontrolling interest	-	-	-	-	-	(6)	(6)
(Gain) loss on disposition of businesses/assets	-	-	(2)	1	(97)	(9)	(1)
Loss on early extinguishment of debt	80	51	28	31	3	54	21
Extraordinary loss on the acquisition of a business	(2)	-	-	-	-	-	-
Certain legal and other settlements and related expenses (income)	2	4	-	1	1	(11)	(3)
Plant incident remediation costs	-	-	-	-	-	16	3
Purchase accounting inventory adjustments	-	1	2	-	-	-	-
Expenses associated with merger	-	-	-	-	-	28	12
Amortization of pension and postretirement actuarial losses	33	64	41	66	55	73	71
Restructuring, impairment, plant closing and transition costs	105	160	102	87	48	20	16
<b>Adjusted EBITDA</b>	<u>1,064</u>	<u>1,102</u>	<u>1,264</u>	<u>1,160</u>	<u>997</u>	<u>1,259</u>	<u>1,554</u>
Acquisition of PU Systems house from Rockwood <sup>(1)</sup>	5	6	7	-	-	-	-
Sale of European differentiated surfactants business <sup>(2)</sup>	(13)	(10)	(8)	(21)	(28)	-	-
<b>Proforma adjusted EBITDA</b>	<u>\$ 1,056</u>	<u>\$ 1,098</u>	<u>\$ 1,263</u>	<u>\$ 1,139</u>	<u>\$ 969</u>	<u>\$ 1,259</u>	<u>\$ 1,554</u>

(1) Pro forma adjusted to include the Polyurethanes system house acquired from Rockwood in October 2014.  
(2) Pro forma adjusted for the sale of the European Surfactants business on December 30, 2016.

# Revenue, Adjusted EBITDA & Margin by Segment

(\$ in millions)

	Pro Forma <sup>(2)(3)</sup> 3Q16	Pro Forma <sup>(2)(3)</sup> 4Q16	Pro Forma <sup>(2)</sup> 1Q17	Pro Forma <sup>(2)</sup> 2Q17	3Q17	4Q17	1Q18	2Q18	3Q18
<b>Revenue</b>									
Polyurethanes	\$ 891	\$ 964	\$ 953	\$ 1,022	\$ 1,197	\$ 1,227	\$ 1,222	\$ 1,313	\$ 1,355
Performance Products	451	452	533	561	501	514	603	593	599
Advanced Materials	247	246	259	260	263	258	279	292	279
Textile Effects	184	184	188	205	193	190	200	227	204
Corporate, LIFO and other	-	(5)	(1)	6	15	14	(9)	(21)	7
<b>Total</b>	<b>\$ 1,773</b>	<b>\$ 1,841</b>	<b>\$ 1,932</b>	<b>\$ 2,054</b>	<b>\$ 2,169</b>	<b>\$ 2,203</b>	<b>\$ 2,295</b>	<b>\$ 2,404</b>	<b>\$ 2,444</b>

	Pro Forma <sup>(2)(3)</sup> 2012	Pro Forma <sup>(2)(3)</sup> 2013	Pro Forma <sup>(2)(3)</sup> 2014	Pro Forma <sup>(2)(3)</sup> 2015	Pro Forma <sup>(2)(3)</sup> 2016	Pro Forma <sup>(2)</sup> 2017	3Q18 LTM
<b>Revenue</b>							
Polyurethanes	\$ 4,915	\$ 4,991	\$ 5,053	\$ 3,811	\$ 3,667	\$ 4,399	\$ 5,117
Performance Products	2,574	2,566	2,695	2,251	1,885	2,109	2,309
Advanced Materials	1,325	1,267	1,248	1,103	1,020	1,040	1,108
Textile Effects	752	811	896	804	751	776	821
Corporate, LIFO and other	(285)	(251)	(219)	(80)	(46)	34	(9)
<b>Total</b>	<b>\$ 9,281</b>	<b>\$ 9,384</b>	<b>\$ 9,673</b>	<b>\$ 7,889</b>	<b>\$ 7,277</b>	<b>\$ 8,358</b>	<b>\$ 9,346</b>

(\$ in millions)

	Pro Forma <sup>(2)(3)</sup> 3Q16	Pro Forma <sup>(2)(3)</sup> 4Q16	Pro Forma <sup>(2)</sup> 1Q17	Pro Forma <sup>(2)</sup> 2Q17	3Q17	4Q17	1Q18	2Q18	3Q18
<b>Adjusted EBITDA<sup>(1)</sup></b>									
Polyurethanes	\$ 137	\$ 130	\$ 144	\$ 167	\$ 245	\$ 294	\$ 261	\$ 269	\$ 247
Performance Products	63	62	84	102	63	47	102	94	93
Advanced Materials	55	50	54	56	56	53	59	62	56
Textile Effects	17	14	21	24	19	19	26	29	25
Corporate, LIFO and other	(45)	(52)	(43)	(50)	(43)	(53)	(43)	(39)	(47)
<b>Total</b>	<b>\$ 227</b>	<b>\$ 204</b>	<b>\$ 260</b>	<b>\$ 299</b>	<b>\$ 340</b>	<b>\$ 360</b>	<b>\$ 405</b>	<b>\$ 415</b>	<b>\$ 374</b>

	Pro Forma <sup>(2)(3)</sup> 2012	Pro Forma <sup>(2)(3)</sup> 2013	Pro Forma <sup>(2)(3)</sup> 2014	Pro Forma <sup>(2)(3)</sup> 2015	Pro Forma <sup>(2)(3)</sup> 2016	Pro Forma <sup>(2)</sup> 2017	3Q18 LTM
<b>Adjusted EBITDA<sup>(1)</sup></b>							
Polyurethanes	\$ 793	\$ 746	\$ 728	\$ 573	\$ 569	\$ 850	\$ 1,071
Performance Products	356	393	465	439	288	296	336
Advanced Materials	98	131	199	220	223	219	230
Textile Effects	(20)	16	58	63	73	83	99
Corporate, LIFO and other	(171)	(188)	(187)	(156)	(184)	(189)	(182)
<b>Total</b>	<b>\$ 1,056</b>	<b>\$ 1,098</b>	<b>\$ 1,263</b>	<b>\$ 1,139</b>	<b>\$ 969</b>	<b>\$ 1,259</b>	<b>\$ 1,554</b>

	Pro Forma <sup>(2)(3)</sup> 3Q16	Pro Forma <sup>(2)(3)</sup> 4Q16	Pro Forma <sup>(2)</sup> 1Q17	Pro Forma <sup>(2)</sup> 2Q17	3Q17	4Q17	1Q18	2Q18	3Q18
<b>Adj. EBITDA Margin</b>									
Polyurethanes	15%	13%	15%	16%	20%	24%	21%	20%	18%
Performance Products	14%	14%	16%	18%	13%	9%	17%	16%	16%
Advanced Materials	22%	20%	21%	22%	21%	21%	21%	21%	20%
Textile Effects	9%	8%	11%	12%	10%	10%	13%	13%	12%
<b>Total</b>	<b>13%</b>	<b>11%</b>	<b>13%</b>	<b>15%</b>	<b>16%</b>	<b>16%</b>	<b>18%</b>	<b>17%</b>	<b>15%</b>

	Pro Forma <sup>(2)(3)</sup> 2012	Pro Forma <sup>(2)(3)</sup> 2013	Pro Forma <sup>(2)(3)</sup> 2014	Pro Forma <sup>(2)(3)</sup> 2015	Pro Forma <sup>(2)(3)</sup> 2016	Pro Forma <sup>(2)</sup> 2017	3Q18 LTM
<b>Adj. EBITDA Margin</b>							
Polyurethanes	16%	15%	14%	15%	16%	19%	21%
Performance Products	14%	15%	17%	20%	15%	14%	15%
Advanced Materials	7%	10%	16%	20%	22%	21%	21%
Textile Effects	-3%	2%	6%	8%	10%	11%	12%
<b>Total</b>	<b>11%</b>	<b>12%</b>	<b>13%</b>	<b>14%</b>	<b>13%</b>	<b>15%</b>	<b>17%</b>

(1) For a reconciliation see previous page.  
(2) Pro forma adjusted to exclude the Pigments & Additives business (Venator), which is treated as discontinued operations.  
(3) Pro forma adjusted for the sale of the European Surfactants business on December 30, 2016.