

**Table 1 - Reconciliation of Segment Information to Consolidated Financial Information**

<b>Millions of dollars</b>	<b>2018</b>					<b>2019</b>		
	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Total</b>	<b>Q1</b>	<b>Q2</b>	<b>Total</b>
Sales and other operating revenues:								
Olefins & Polyolefins - Americas	\$ 2,646	\$ 2,542	\$ 2,770	\$ 2,450	\$ 10,408	\$ 2,111	\$ 2,114	\$ 4,225
Olefins & Polyolefins - EAI	2,960	2,900	2,643	2,335	10,838	2,535	2,505	5,040
Intermediates & Derivatives	2,343	2,584	2,509	2,152	9,588	1,894	2,062	3,956
Advanced Polymer Solutions	838	833	1,039	1,314	4,024	1,339	1,258	2,597
Refining	2,257	2,569	2,499	1,832	9,157	1,882	2,180	4,062
Technology	115	182	171	115	583	141	173	314
Other/Eliminations	(1,392)	(1,404)	(1,476)	(1,322)	(5,594)	(1,124)	(1,244)	(2,368)
Continuing operations	<u>\$ 9,767</u>	<u>\$ 10,206</u>	<u>\$ 10,155</u>	<u>\$ 8,876</u>	<u>\$ 39,004</u>	<u>\$ 8,778</u>	<u>\$ 9,048</u>	<u>\$ 17,826</u>
Operating income (loss):								
Olefins & Polyolefins - Americas	\$ 629	\$ 543	\$ 572	\$ 507	\$ 2,251	\$ 384	\$ 504	\$ 888
Olefins & Polyolefins - EAI	281	245	141	15	682	186	226	412
Intermediates & Derivatives	408	569	431	308	1,716	314	372	686
Advanced Polymer Solutions	114	112	48	55	329	119	91	210
Refining	15	58	38	(139)	(28)	(59)	(110)	(169)
Technology	46	100	88	50	284	73	96	169
Other	1	(1)	(1)	(2)	(3)	—	(2)	(2)
Continuing operations	<u>\$ 1,494</u>	<u>\$ 1,626</u>	<u>\$ 1,317</u>	<u>\$ 794</u>	<u>\$ 5,231</u>	<u>\$ 1,017</u>	<u>\$ 1,177</u>	<u>\$ 2,194</u>
Depreciation and amortization:								
Olefins & Polyolefins - Americas	\$ 106	\$ 109	\$ 111	\$ 116	\$ 442	\$ 115	\$ 117	\$ 232
Olefins & Polyolefins - EAI	56	52	50	50	208	53	52	105
Intermediates & Derivatives	73	72	71	71	287	72	74	146
Advanced Polymer Solutions	8	9	22	30	69	29	30	59
Refining	46	46	45	55	192	43	44	87
Technology	10	12	10	11	43	10	11	21
Continuing operations	<u>\$ 299</u>	<u>\$ 300</u>	<u>\$ 309</u>	<u>\$ 333</u>	<u>\$ 1,241</u>	<u>\$ 322</u>	<u>\$ 328</u>	<u>\$ 650</u>
EBITDA: <sup>(a)</sup>								
Olefins & Polyolefins - Americas	\$ 756	\$ 671	\$ 704	\$ 631	\$ 2,762	\$ 516	\$ 635	\$ 1,151
Olefins & Polyolefins - EAI	419	355	262	127	1,163	296	331	627
Intermediates & Derivatives	486	642	504	379	2,011	390	448	838
Advanced Polymer Solutions	123	121	70	86	400	148	120	268
Refining	63	104	84	(84)	167	(15)	(66)	(81)
Technology	56	113	98	61	328	83	107	190
Other	10	4	10	12	36	10	4	14
Continuing operations	<u>\$ 1,913</u>	<u>\$ 2,010</u>	<u>\$ 1,732</u>	<u>\$ 1,212</u>	<u>\$ 6,867</u>	<u>\$ 1,428</u>	<u>\$ 1,579</u>	<u>\$ 3,007</u>
Capital, turnarounds and IT deferred spending:								
Olefins & Polyolefins - Americas	\$ 242	\$ 311	\$ 247	\$ 279	\$ 1,079	\$ 276	\$ 257	\$ 533
Olefins & Polyolefins - EAI	58	40	58	92	248	64	39	103
Intermediates & Derivatives	68	80	100	161	409	179	238	417
Advanced Polymer Solutions	15	10	16	21	62	16	11	27
Refining	36	45	47	122	250	43	53	96
Technology	8	9	12	19	48	17	17	34
Other	2	1	2	4	9	4	7	11
Continuing operations	<u>\$ 429</u>	<u>\$ 496</u>	<u>\$ 482</u>	<u>\$ 698</u>	<u>\$ 2,105</u>	<u>\$ 599</u>	<u>\$ 622</u>	<u>\$ 1,221</u>

(a) See Table 7 for the reconciliation of EBITDA to net income.

**Table 2 - Selected Segment Operating Information**

	2018					2019		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Total
<b>Olefins and Polyolefins - Americas</b>								
<i>Volumes (kilotons)</i>								
Ethylene produced	1,120	1,126	1,126	1,126	4,498	1,096	1,110	2,206
Propylene produced	280	272	339	371	1,262	332	308	640
Polyethylene sold	664	654	657	630	2,605	637	634	1,271
Polypropylene sold	229	231	224	205	889	219	232	451
<i>Benchmark Market Prices</i>								
West Texas Intermediate crude oil (USD per barrel)	62.94	67.99	69.71	59.09	64.93	54.90	59.80	57.35
Light Louisiana Sweet ("LLS") crude oil (USD per barrel)	65.84	73.14	74.27	66.57	69.96	62.38	66.94	64.67
Houston Ship Channel natural gas (USD per million BTUs)	3.12	2.88	2.97	3.84	3.20	2.86	2.46	2.66
U.S. weighted average cost of ethylene production (USD per metric ton)	326	341	455	381	376	362	262	312
U.S. ethylene (USD per metric ton)	669	582	663	660	644	614	535	574
U.S. polyethylene [high density] (USD per metric ton)	1,382	1,389	1,367	1,345	1,371	1,168	1,235	1,202
U.S. propylene (USD per metric ton)	1,168	1,146	1,323	1,117	1,189	838	823	830
U.S. polypropylene [homopolymer] (USD per metric ton)	1,609	1,639	1,830	1,624	1,676	1,323	1,308	1,315
<b>Olefins and Polyolefins - Europe, Asia, International</b>								
<i>Volumes (kilotons)</i>								
Ethylene produced	461	467	414	301	1,643	408	456	864
Propylene produced	276	287	247	176	986	239	274	513
Polyethylene sold	656	658	594	576	2,484	678	562	1,240
Polypropylene sold	763	727	659	647	2,796	752	729	1,481
<i>Benchmark Market Prices (€ per metric ton)</i>								
Western Europe weighted average cost of ethylene production	493	637	649	473	563	466	493	480
Western Europe ethylene	1,064	1,101	1,135	1,102	1,100	995	1,065	1,030
Western Europe polyethylene [high density]	1,239	1,216	1,220	1,189	1,216	1,126	1,191	1,159
Western Europe propylene	923	970	1,041	1,030	991	933	983	958
Western Europe polypropylene [homopolymer]	1,308	1,297	1,314	1,280	1,300	1,222	1,268	1,245
<b>Intermediates and Derivatives</b>								
<i>Volumes (kilotons)</i>								
Propylene oxide and derivatives	362	385	367	334	1,448	363	343	706
Intermediate Chemicals:								
Ethylene oxide and derivatives	127	139	146	127	539	120	133	253
Styrene monomer	416	449	419	423	1,707	372	392	764
Acetyls	243	373	391	357	1,364	296	358	654
Oxyfuels and Related Products:								
TBA intermediates	187	183	166	140	676	160	177	337
MTBE/ETBE	713	826	827	749	3,115	677	819	1,496
<i>Benchmark Market Margins (USD per metric ton)</i>								
MTBE - Northwest Europe	205	224	189	161	195	126	295	211
<b>Advanced Polymer Solutions</b>								
<i>Volumes (kilotons)</i>								
Compounding & Solutions	289	280	360	476	1,405	503	475	978
Advanced Polymers	110	123	111	103	447	104	104	208
<b>Refining</b>								
<i>Volumes (thousands of barrels per day)</i>								
Heavy crude oil processing rates	252	259	232	184	231	259	261	260
<i>Benchmark Market Margins</i>								
Light crude oil - 2-1-1	12.62	15.03	13.15	8.33	12.35	9.92	14.12	12.03
Light crude oil - Maya differential	8.10	10.91	8.28	2.56	7.50	3.63	4.87	4.26

Source: LYB and third party consultants

Note: Benchmark market prices for U.S. and Western Europe polyethylene and polypropylene reflect discounted prices. Volumes presented represent third party sales of selected key products.

**Table 3 - Unaudited Income Statement Information**

<b>Millions of dollars</b>	<b>2018</b>					<b>2019</b>		
	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Total</b>	<b>Q1</b>	<b>Q2</b>	<b>Total</b>
Sales and other operating revenues	\$ 9,767	\$ 10,206	\$ 10,155	\$ 8,876	\$ 39,004	\$ 8,778	\$ 9,048	\$ 17,826
Cost of sales	8,012	8,290	8,499	7,728	32,529	7,446	7,542	14,988
Selling, general and administrative expenses <sup>(a)</sup>	233	261	309	326	1,129	287	302	589
Research and development expenses	28	29	30	28	115	28	27	55
Operating income	1,494	1,626	1,317	794	5,231	1,017	1,177	2,194
Income from equity investments	96	68	89	36	289	64	64	128
Interest expense, net	(80)	(76)	(76)	(83)	(315)	(86)	(76)	(162)
Other income, net <sup>(b)</sup>	24	16	17	49	106	25	10	35
Income from continuing operations before income taxes <sup>(b)</sup>	1,534	1,634	1,347	796	5,311	1,020	1,175	2,195
Provision for (benefit from) income taxes <sup>(c)</sup>	303	(21)	232	99	613	203	169	372
Income from continuing operations <sup>(d)</sup>	1,231	1,655	1,115	697	4,698	817	1,006	1,823
Loss from discontinued operations, net of tax	—	(1)	(2)	(5)	(8)	—	(3)	(3)
Net income <sup>(d)</sup>	1,231	1,654	1,113	692	4,690	817	1,003	1,820
Dividends on A. Schulman Special Stock	—	—	—	(2)	(2)	(2)	(1)	(3)
Net income attributable to Company shareholders <sup>(d)</sup>	\$ 1,231	\$ 1,654	\$ 1,113	\$ 690	\$ 4,688	\$ 815	\$ 1,002	\$ 1,817

(a) The third quarter of 2018 includes pre-tax charges of \$53 million of acquisition-related transaction and integration costs associated with our acquisition of A. Schulman. The fourth quarter of 2018, first quarter of 2019 and second quarter of 2019 include integration costs of \$20 million, \$16 million and \$19 million, respectively.

(b) Includes a pre-tax gain of \$36 million in the fourth quarter of 2018 on the sale of our carbon black subsidiary in France.

(c) The second quarter of 2018 includes a \$346 million benefit related to \$288 million of previously unrecognized tax benefits and the release of \$58 million of associated accrued interest.

(d) The third quarter of 2018, fourth quarter of 2018, first quarter of 2019 and second quarter of 2019 include after-tax charges of \$42 million, \$15 million, \$12 million and \$15 million respectively, for acquisition-related transaction and integration costs associated with our acquisition of A. Schulman.

**Table 4 - Charges (Benefits) Included in Net Income**

<u>Millions of dollars (except share data)</u>	2018					2019		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Total
Pretax charges (benefits):								
Tax benefit from release of previously unrecognized tax benefits and associated accrued interest	\$ —	\$ (346)	\$ —	\$ —	\$ (346)	\$ —	\$ —	\$ —
Acquisition-related costs - A. Schulman	—	—	53	20	73	16	19	35
Total pretax charges (benefits)	—	(346)	53	20	(273)	16	19	35
Benefit from income taxes related to these items	—	—	(11)	(5)	(16)	(4)	(4)	(8)
After-tax effect of net charges (benefits)	\$ —	\$ (346)	\$ 42	\$ 15	\$ (289)	\$ 12	\$ 15	\$ 27
Effect on diluted earnings per share	\$ —	\$ 0.88	\$ (0.11)	\$ (0.04)	\$ 0.74	\$ (0.03)	\$ (0.04)	\$ (0.07)

**Table 5 - Unaudited Cash Flow Information**

<u>Millions of dollars</u>	2018					2019		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Total
Net cash provided by operating activities	\$ 1,006	\$ 1,727	\$ 1,441	\$ 1,297	\$ 5,471	\$ 657	\$ 1,186	\$ 1,843
Net cash used in investing activities <sup>(a)</sup>	(189)	(400)	(2,312)	(658)	(3,559)	(178)	(278)	(456)
Net cash used in financing activities	(520)	(745)	(977)	(766)	(3,008)	(521)	39	(482)

(a) The third quarter of 2018 includes a cash outflow of \$1,776 million for the acquisition of A. Schulman, net of cash acquired and a liability deemed as a component of the purchase price.

**Table 6 - Unaudited Balance Sheet Information**

<u>Millions of dollars</u>	<u>March 31, 2018</u>	<u>June 30, 2018</u>	<u>September 30, 2018</u>	<u>December 31, 2018</u>	<u>March 31, 2019</u>	<u>June 30, 2019</u>
Cash and cash equivalents	\$ 1,840	\$ 2,384	\$ 521	\$ 332	\$ 339	\$ 1,279
Restricted cash	—	2	11	69	19	29
Short-term investments	1,042	933	944	892	423	52
Accounts receivable, net	3,859	3,889	4,087	3,503	3,680	3,758
Inventories	4,257	4,096	4,596	4,515	4,496	4,685
Prepaid expenses and other current assets	1,070	1,045	1,224	1,255	1,329	1,285
Total current assets	<u>12,068</u>	<u>12,349</u>	<u>11,383</u>	<u>10,566</u>	<u>10,286</u>	<u>11,088</u>
Operating lease assets <sup>(a)</sup>	—	—	—	—	1,534	1,560
Property, plant and equipment, net	11,249	11,310	12,022	12,477	12,797	13,285
Investments and long-term receivables:						
Investment in PO joint ventures	424	429	440	469	464	489
Equity investments	1,767	1,599	1,688	1,611	1,650	1,599
Other investments and long-term receivables	22	22	20	23	23	24
Goodwill	578	562	1,819	1,814	1,803	1,848
Intangible assets, net	567	528	982	965	945	892
Other assets	221	224	342	353	387	386
Total assets	<u>\$ 26,896</u>	<u>\$ 27,023</u>	<u>\$ 28,696</u>	<u>\$ 28,278</u>	<u>\$ 29,889</u>	<u>\$ 31,171</u>
Current maturities of long-term debt	\$ 5	\$ 974	\$ 984	\$ 5	\$ 5	\$ 4
Short-term debt	77	76	214	885	2,377	2,812
Accounts payable	3,010	3,095	3,555	3,087	3,187	3,115
Accrued liabilities <sup>(a)</sup>	1,506	1,306	1,489	1,536	1,443	1,607
Total current liabilities	<u>4,598</u>	<u>5,451</u>	<u>6,242</u>	<u>5,513</u>	<u>7,012</u>	<u>7,538</u>
Long-term debt	8,531	7,490	7,471	8,497	7,522	7,586
Operating lease liabilities <sup>(a)</sup>	—	—	—	—	1,282	1,304
Other liabilities <sup>(a)</sup>	2,350	1,805	2,017	1,897	1,830	1,876
Deferred income taxes	1,688	1,674	1,774	1,975	1,967	2,008
Commitments and contingencies						
Redeemable non-controlling interests	—	—	123	116	116	116
Stockholders' equity	9,728	10,602	11,044	10,257	10,138	10,721
Non-controlling interests	1	1	25	23	22	22
Total liabilities, redeemable non-controlling interests and equity	<u>\$ 26,896</u>	<u>\$ 27,023</u>	<u>\$ 28,696</u>	<u>\$ 28,278</u>	<u>\$ 29,889</u>	<u>\$ 31,171</u>

(a) In the first quarter of 2019, we adopted ASC 842, *Leases* and related amendments using the modified retrospective method and recognized Operating lease assets of \$1,533 million and Operating lease liabilities of \$1,533 million. We also reduced Accrued liabilities by \$2 million and Other liabilities by \$18 million. Comparative financial information has not been restated and continues to be reported under the accounting standards in effect for those periods.

## Non-GAAP Reconciliations

**Table 7 - Reconciliation of Net Income to EBITDA**

<b>Millions of dollars</b>	<b>Three Months Ended</b>					<b>Three Months Ended</b>			<b>Six Months Ended</b>		<b>Last Twelve Months</b>
	<b>March 31, 2018</b>	<b>June 30, 2018</b>	<b>September 30, 2018</b>	<b>December 31, 2018</b>	<b>Year Ended 2018</b>	<b>March 31, 2019</b>	<b>June 30, 2019</b>	<b>Year Ended 2018</b>	<b>June 30, 2018</b>	<b>June 30, 2019</b>	<b>June 30, 2019</b>
Net income <sup>(a)(b)</sup>	\$ 1,231	\$ 1,654	\$ 1,113	\$ 692	\$ 4,690	\$ 817	\$ 1,003	\$ 4,690	\$ 2,885	\$ 1,820	\$ 3,625
Loss from discontinued operations, net of tax	—	1	2	5	8	—	3	8	1	3	10
Income from continuing operations <sup>(a)(b)</sup>	1,231	1,655	1,115	697	4,698	817	1,006	4,698	2,886	1,823	3,635
Provision for (benefit from) income taxes <sup>(b)</sup>	303	(21)	232	99	613	203	169	613	282	372	703
Depreciation and amortization	299	300	309	333	1,241	322	328	1,241	599	650	1,292
Interest expense, net	80	76	76	83	315	86	76	315	156	162	321
EBITDA <sup>(c)</sup>	\$ 1,913	\$ 2,010	\$ 1,732	\$ 1,212	\$ 6,867	\$ 1,428	\$ 1,579	\$ 6,867	\$ 3,923	\$ 3,007	\$ 5,951

Note: Last twelve months June 30, 2019 is calculated as year ended December 31, 2018 plus six months ended June 30, 2019 and minus six months ended June 30, 2018.

(a) The third quarter of 2018, fourth quarter of 2018, first quarter of 2019 and second quarter of 2019 include after-tax charges of \$42 million, \$15 million, \$12 million and \$15 million, respectively, for acquisition-related transaction and integration costs associated with our acquisition of A. Schulman.

(b) The second quarter of 2018 includes a \$346 million non-cash benefit from the release of unrecognized tax benefits and associated accrued interest.

(c) EBITDA for the third quarter of 2018, fourth quarter of 2018, first quarter of 2019 and second quarter of 2019 include pre-tax charges of \$53 million, \$20 million, \$16 million, and \$19 million, respectively, for acquisition-related transaction and integration costs associated with our acquisition of A. Schulman.



**Table 8 - EBITDA by Segment**

<u>Millions of dollars</u>	Three Months Ended					
	<u>March 31, 2018</u>	<u>June 30, 2018</u>	<u>September 30, 2018</u>	<u>December 31, 2018</u>	<u>March 31, 2019</u>	<u>June 30, 2019</u>
<b>EBITDA:</b>						
Olefins & Polyolefins - Americas	\$ 756	\$ 671	\$ 704	\$ 631	\$ 516	\$ 635
Olefins & Polyolefins - EAI	419	355	262	127	296	331
Intermediates & Derivatives	486	642	504	379	390	448
Advanced Polymer Solutions	123	121	70	86	148	120
Refining	63	104	84	(84)	(15)	(66)
Technology	56	113	98	61	83	107
Other	10	4	10	12	10	4
Continuing Operations	<u>\$ 1,913</u>	<u>\$ 2,010</u>	<u>\$ 1,732</u>	<u>\$ 1,212</u>	<u>\$ 1,428</u>	<u>\$ 1,579</u>

**Table 9 - Components of Cash and Liquid Investments and Total Liquidity**

<u>Millions of dollars</u>	December 31,				March 31,	June 30,
	2015	2016	2017	2018	2019	2019
Cash and cash equivalents and restricted cash	\$ 931	\$ 878	\$ 1,528	\$ 401	\$ 358	\$ 1,308
Short-term investments	1,064	1,147	1,307	892	423	52
Repurchase agreements	387	369	570	544	534	541
<b>Cash and liquid investments</b>	<b>2,382</b>	<b>2,394</b>	<b>3,405</b>	<b>1,837</b>	<b>1,315</b>	<b>1,901</b>
Availability under Three-Year Term Loan	—	—	—	—	4,000	4,000
Availability under Senior Revolving Credit Facility	1,631	1,973	2,500	1,688	2,240	1,813
Availability under U.S. Receivables Facility	748	737	900	829	797	832
Availability under European Receivables Facility	483	—	—	—	—	—
<b>Total liquidity</b>	<b>\$ 5,244</b>	<b>\$ 5,104</b>	<b>\$ 6,805</b>	<b>\$ 4,354</b>	<b>\$ 8,352</b>	<b>\$ 8,546</b>

**Table 10 - Reconciliation of Free Operating Cash Flow to Net Cash Provided by Operating Activities**

<u>Millions of dollars</u>	<u>Years Ended December 31,</u>				<u>Year Ended</u>	<u>Six Months Ended</u>		<u>Last</u>
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>December 31,</u> <u>2018</u>	<u>June 30,</u> <u>2018</u>	<u>June 30,</u> <u>2019</u>	<u>Twelve</u> <u>Months</u> <u>June 30,</u> <u>2019</u>
Free operating cash flow	\$ 5,027	\$ 4,497	\$ 4,187	\$ 4,419	\$ 4,419	\$ 2,227	\$ 1,389	\$ 3,581
Add:								
Sustaining (maintenance and HSE) capital expenditures	815	1,109	1,019	1,052	1,052	506	454	1,000
Net cash provided by operating activities	<u>\$ 5,842</u>	<u>\$ 5,606</u>	<u>\$ 5,206</u>	<u>\$ 5,471</u>	<u>\$ 5,471</u>	<u>\$ 2,733</u>	<u>\$ 1,843</u>	<u>\$ 4,581</u>