

Moving forward



# Create Shareholder Value

Q4 FY18  
Earnings Conference Call

November 6 2018



# Forward-looking statements

NOTE: This presentation contains “forward-looking statements” within the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including statements about earnings guidance, business outlook and investment opportunities. These forward-looking statements are based on management’s expectations and assumptions as of the date of this presentation and are not guarantees of future performance. While forward-looking statements are made in good faith and based on assumptions, expectations and projections that management believes are reasonable based on currently available information, actual performance and financial results may differ materially from projections and estimates expressed in the forward-looking statements because of many factors, including, without limitation: changes in global or regional economic conditions, supply and demand dynamics in market segments we serve, or in the financial markets; risks associated with having extensive international operations, including political risks, risks associated with unanticipated government actions and risks of investing in developing markets; project delays, contract terminations or customer cancellations or postponement of projects and sales; future financial and operating performance of major customers and joint venture partners; our ability to develop, implement, and operate new technologies, or to execute the projects in our backlog; tariffs, economic sanctions and regulatory activities in jurisdictions in which we and our affiliates and joint ventures operate; the impact of environmental, tax or other legislation, as well as regulations affecting our business and related compliance requirements, including regulations related to global climate change; changes in tax rates and other changes in tax law; the timing, impact and other uncertainties relating to acquisitions and divestitures, including our ability to integrate acquisitions and separate divested businesses, respectively; risks relating to cybersecurity incidents, including risks from the interruption, failure or compromise of our information systems; catastrophic events, such as natural disasters, acts of war, or terrorism; the impact of price fluctuations in natural gas and disruptions in markets and the economy due to oil price volatility; costs and outcomes of legal or regulatory proceedings and investigations; asset impairments due to economic conditions or specific events; significant fluctuations in interest rates and foreign currency exchange rates from those currently anticipated; damage to facilities, pipelines or delivery systems, including those we own or operate for third parties; availability and cost of raw materials; the success of productivity and operational improvement programs; and other risk factors described in the Company’s Form 10-K for its fiscal year ended September 30, 2017. Except as required by law, the Company disclaims any obligation or undertaking to update or revise any forward-looking statements contained herein to reflect any change in the assumptions, beliefs, or expectations or any change in events, conditions, or circumstances upon which any such forward-looking statements are based.

# Safety results

	<b>FY14</b>	<b>FY18</b>	<b>FY18 vs FY14</b>
Employee Lost Time Injury Rate	0.24	0.07	71% Better
Employee Recordable Injury Rate	0.58	0.29	50% Better

# Our Goal

Air Products will be the **safest,**  
**most diverse** and **most profitable**  
industrial gas company in the world,  
providing excellent service to our  
customers

# Creating shareholder value

## Management philosophy

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**Shareholder Value** Cash is king; cash flow drives long-term value. What counts in the long term is the increase in **per share value** of our stock, not size or growth.

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**CEO Focus** Capital allocation is the most important job of the CEO.

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**Operating Model** Decentralized organization releases entrepreneurial energy and keeps both costs and politics (“bureaucracy”) down.

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# Five Point Plan: Moving Forward

Sustain the lead 	Deploy capital 	Evolve portfolio 	Change culture 	Belong and Matter 
Safest, most diverse, and most profitable	Strategically invest significant available capacity	Grow onsite portion	4S	Inclusion
Best-in-class performance	Win profitable growth projects globally	Energy, environment and emerging markets	Committed and motivated	Enjoyable work environment
Productivity			Positive attitudes and open minds	Proud to innovate and solve challenges

# FY18 Success

- Major project execution
  - BPCL India Hydrogen – Successful 1<sup>st</sup> year operation
  - Jazan Saudi Arabia ASU – Mechanical Completion
  - Lu'An China ASU/Gasifier JV – Fully Onstream
  - Texas CO and Hydrogen – Fully Onstream
  - Nanjing China ASU – Fully Onstream
- New major projects
  - Jinmei China ASU asset buyback ~\$100MM
  - Samsung – Pyeongtaek Korea, Tangjung Korea, Xian China, Giheung Korea
  - BPCL India Phase 2 Syngas
  - Louisiana CO and Hydrogen
  - Texas liquid Hydrogen
  - ACP Europe CO2 M&A
  - Eastman ASUs
- Engineering & Technology Investment
  - Saudi Arabia
  - Pune, India
  - Shanghai, China
- Dividend
  - +16% to \$4.40/share (annualized)
  - 36 consecutive years of increase



# Executing our gasification strategy

## Energy, Environmental, Emerging Markets



**GE Gasification Technology Announcement (November 2018)**



**Shell Gasification Technology acquisition (May 2018)**



**Large ASUs for China coal gasification**



**Lu'An JV  
\$1.5B  
2018**



**Jazan ASUs JV  
\$2B  
2019**



**Jazan Gasifier/Power JV  
\$8B  
2019**



**Yankuang JV  
\$3.5B  
2022**



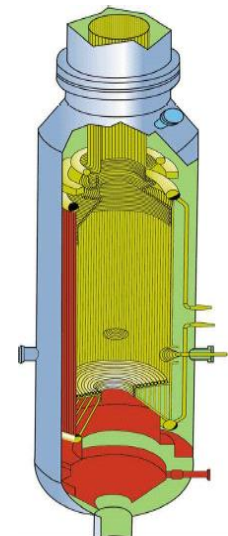
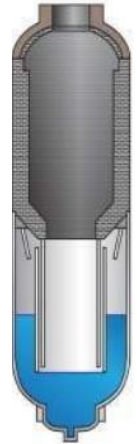
**Juitai  
100% APD  
\$0.65B  
2022**



# Shell & GE Gasification Technologies

*Two leading technologies in the industry*

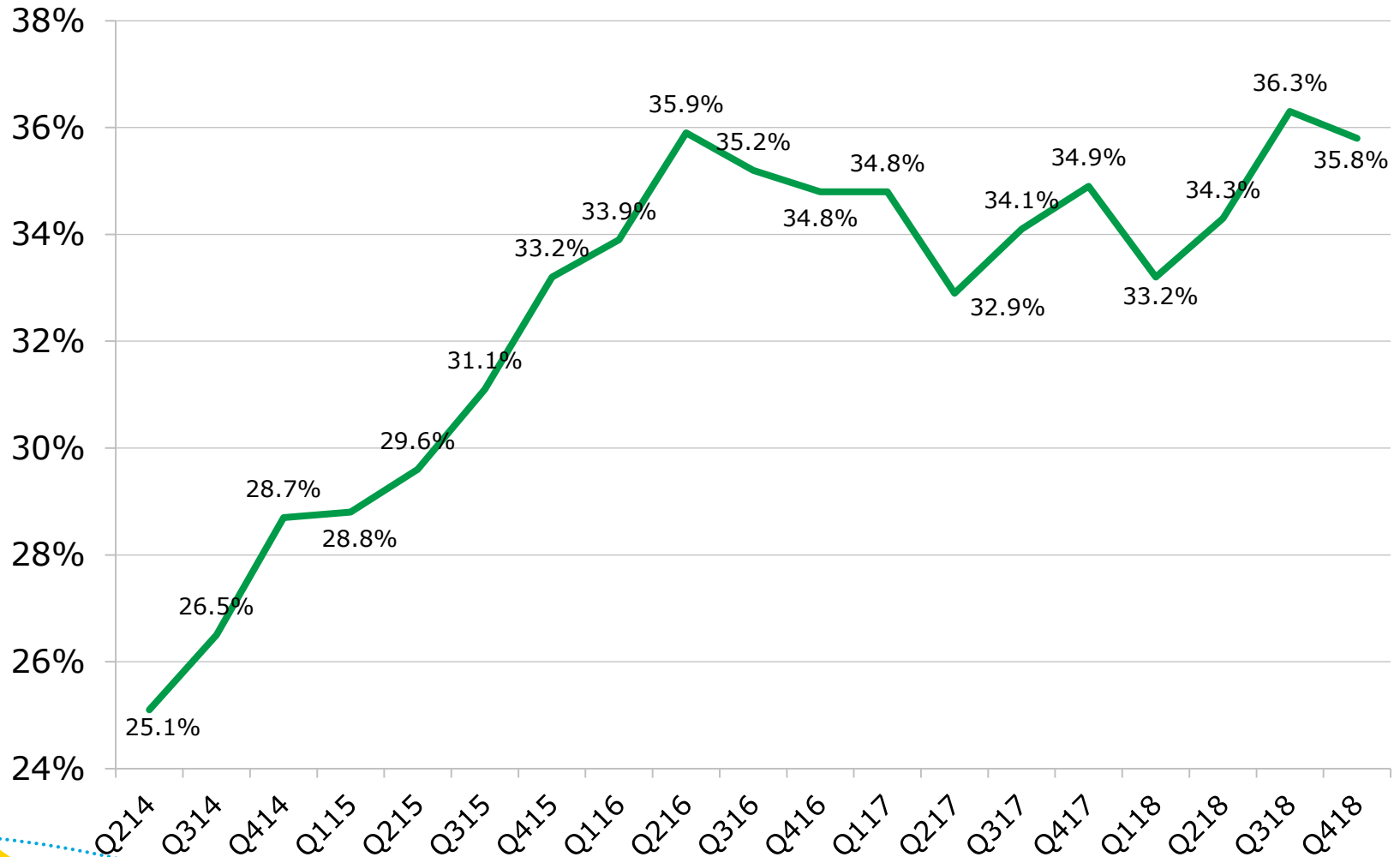
- GE Gasification (formerly Texaco)
  - Nearly 300 gasifiers operating and under construction
  - Adaptable to wide range of feedstocks
  - Coal = Slurry feed
- Shell Gasification
  - Solid (Coal/Petcoke) - Air Products owns 100%
    - Coal = Dry Feed
  - Liquid (Oil Resid) - Air Products 50/50 with Shell
  - Built 170+ liquid and 30+ coal gasifiers since 1950s
  - Currently 120 gasifiers in operation (96 liquid, 24 coal)



# Our key profitability metrics

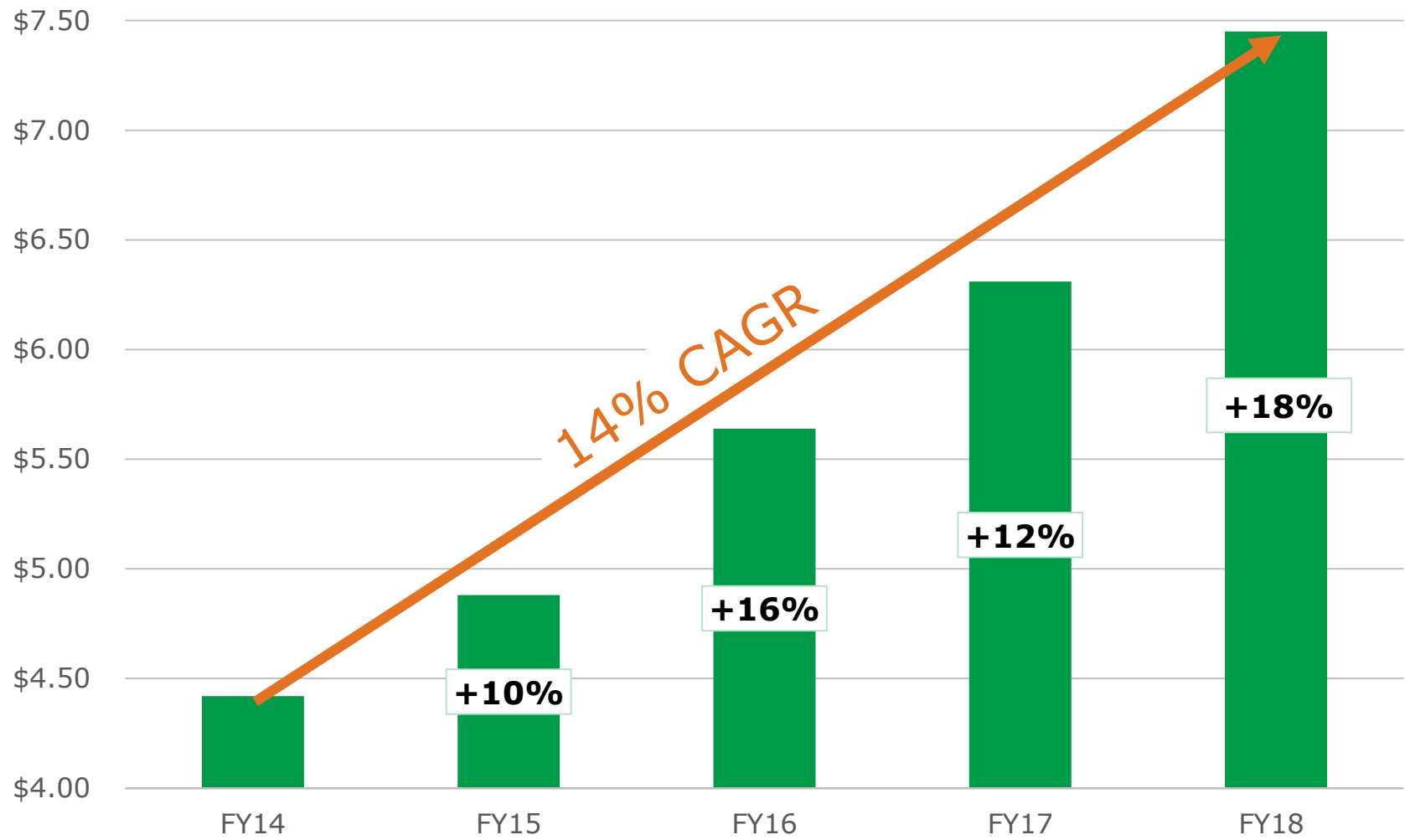
	<b>Q4 FY18</b>	<b>Full Year FY18</b>
EBITDA % margin	35.8%	34.9%
Operating % margin	22.2%	21.7%
ROCE		12.4%

# EBITDA Margin Trend



Non-GAAP measures, see appendix for reconciliation and pro forma adjustments

# Air Products EPS



Based on continuing ops, non-GAAP measures, see appendix for reconciliation



# Fiscal Year Results

(\$ million)	FY17	FY18	Change
Sales	\$8,188	\$8,930	9%
- Volume			6%
- Price			1%
- Energy/Raw Mat'l pass-thru			-%
- Currency			2%
EBITDA	\$2,799	\$3,116	11%
- EBITDA Margin	34.2%	34.9%	70bp
Operating Income	\$1,774	\$1,942	9%
- Operating Margin	21.7%	21.7%	-bp
Net Income	\$1,386	\$1,645	19%
GAAP EPS (\$/share)	\$5.16	\$6.59	28%
Adjusted EPS (\$/share)	\$6.31	\$7.45	18%
ROCE	12.1%	12.4%	30bp

- Strong volume growth across all three regions – volume up 10% ex-Jazan
- Record EBITDA margin up 70bp and record EPS up 18%

# Fiscal Year EPS Analysis

	<b>FY17</b>	<b>FY18</b>	<b>Change</b>
As reported cont ops EPS	\$5.16	\$6.59	
less non-GAAP items	<u>(1.15)</u>	<u>(0.86)</u>	
NonGAAP cont ops EPS	\$6.31	\$7.45	\$1.14
Volume			0.71
Price / raw materials			0.16
Cost			<u>(0.45)</u>
			\$0.42
Currency/FX			\$0.16
Equity affiliate income			0.15
Tax rate			0.44
Non-controlling interest			(0.05)
Other (non-op inc +8c, interest -3c, shares -3c)			<u>0.02</u>
			<u>\$0.56</u>

# Fiscal Year Cash Flow Focus

(\$ million)	FY17	FY18	Change
EBITDA	\$2,799	\$3,116	\$317
Interest, net	(94)	(81)	13
Cash Tax	(400)	(365)	35
Maintenance Capex	<u>(377)</u>	<u>(421)</u>	<u>(44)</u>
Distributable Cash Flow	\$1,928 \$8.77/share	\$2,249 \$10.19/share	\$321
Dividends	<u>(788)</u>	<u>(898)</u>	<u>(110)</u>
Investable Cash Flow	\$1,140	\$1,351	\$211

- Higher Distributable & Investable Cash Flow driven by strong business performance
- Paid about 40% of Distributable Cash Flow as dividends

# Capital deployment scorecard

## FY18 – FY22

<b>Spent</b>		<b>\$ 1.5</b>	Growth capex plus M&A
<b>Commitments</b>		<b>\$ 6.4</b>	Remaining to be spent
<b>Total Spent + Committed</b>		<b>\$ 7.9</b>	
<b>Available now</b>	Total Debt Capacity	\$ 9.3	Assuming 3 x LTM EBITDA
	Net Debt	<u>\$ 0.8</u>	Debt minus cash
	<b>Additional Available</b>	<b>\$ 8.5</b>	
<b>Available in future</b>	<b>Investable Cash Flow</b>	<b>\$ 5.4</b>	LTM / 4 years remaining
<b>Total Available</b>		<b>\$ 13.9</b>	
<b>FY18 - FY22 Capacity</b>		<b>\$ 15.4</b>	Spent plus Total Available
% Spent		10%	
% Spent + Committed		51%	



# Q4 Results

(\$ million)	Q4FY18	Fav/(Unfav) vs.	
		Q4FY17	Q3FY18
Sales	\$2,299	4%	2%
- Volume		3%	3%
- Price		1%	1%
- Energy cost pass-through		1%	1%
- Currency		(1%)	(3%)
EBITDA	\$822	7%	-%
- <i>EBITDA Margin</i>	<i>35.8%</i>	<i>90bp</i>	<i>(50bp)</i>
Operating Income	\$510	3%	(1%)
- <i>Operating Margin</i>	<i>22.2%</i>	<i>(20bp)</i>	<i>(60bp)</i>
Net Income	\$442	14%	3%
GAAP EPS (\$/share)	\$2.05	(5%)	5%
Adjusted EPS (\$/share)	\$2.00	14%	3%
ROCE	12.4%	30bp	20bp

- Overall volume up 6% excluding Jazan
- Record EPS up 14%

# Q4 EPS Analysis

	Q4FY17	Q4FY18	Change
As reported cont ops EPS	\$2.15	\$2.05	
less non-GAAP items	<u>0.39</u>	<u>0.05</u>	
NonGAAP cont ops EPS	\$1.76	\$2.00	\$0.24
Volume			0.23
Price / raw materials			0.02
Cost			<u>(0.16)</u>
			\$0.09
Currency/FX			(\$0.03)
Equity affiliate income			0.04
Tax rate			0.15
Non-controlling interest			0.00
Other (interest, shares, non-op inc.)			<u>(0.01)</u>
			\$0.18

# Gases Asia

	<b>Q4FY18</b>	<b>Fav/(Unfav) vs.</b>	
		<b>Q4FY17</b>	<b>Q3FY18</b>
Sales	\$633	15%	1%
- Volume		14%	4%
- Price		3%	2%
- Energy cost pass-through		(1%)	-%
- Currency		(1%)	(5%)
EBITDA	\$271	21%	-%
- <i>EBITDA Margin</i>	<i>42.8%</i>	<i>210bp</i>	<i>(50bp)</i>
Operating Income	\$180	18%	(3%)
- <i>Operating Margin</i>	<i>28.5%</i>	<i>90bp</i>	<i>(120bp)</i>

- New plants, primarily Lu'An, drive volume growth
- Continued strength in China merchant lifts pricing
- Lu'An successfully brought on stream

# Gases Americas

	Q4FY18	Fav/(Unfav) vs.	
		Q4FY17	Q3FY18
Sales	\$987	4%	4%
- Volume		4%	3%
- Price		1%	1%
- Energy cost pass-through		-%	1%
- Currency		(1%)	(1%)
EBITDA	\$398	(1%)	4%
- <i>EBITDA Margin</i>	40.4%	(160bp)	20bp
Operating Income	\$251	(5%)	6%
- <i>Operating Margin</i>	25.5%	(230bp)	50bp

- Strong hydrogen demand in the US Gulf Coast
- Positive merchant price and volume
- Improved equity affiliate income
- EBITDA growth from volume and price offset by higher costs

# Gases EMEA

	<b>Q4FY18</b>	<b>Fav/(Unfav) vs.</b>	
		<b>Q4FY17</b>	<b>Q3FY18</b>
Sales	\$555	8%	(1%)
- Volume		2%	(1%)
- Price		1%	-%
- Energy cost pass-through		7%	3%
- Currency		(2%)	(3%)
EBITDA	\$174	(5%)	(6%)
- <i>EBITDA Margin</i>	<i>31.4%</i>	<i>(410bp)</i>	<i>(180bp)</i>
Operating Income	\$106	(12%)	(11%)
- <i>Operating Margin</i>	<i>19.1%</i>	<i>(430bp)</i>	<i>(210bp)</i>

- Better merchant demand improved both volume and price
- Sharp rise in natural gas price increased energy pass-through
- Surge in power cost impacted the merchant market
- EBITDA margin down 180bp excluding energy cost pass-through

# Global Gases

	Q4FY18	Fav/(Unfav) vs. Q4FY17
Sales	\$100	(\$71)
EBITDA	\$15	(\$1)
Operating Income	\$13	\$-

- Sales decreased on lower Jazan activity

# Corporate

	Q4FY18	Fav/(Unfav) vs. Q4FY17
Sales	\$24	\$12
EBITDA	(\$36)	\$18
Operating Income	(\$40)	\$16

- Results improved due to higher LNG activities

# Outlook

<b>Q1 EPS</b>	<b>vs PY</b>	<b>FY EPS</b>	<b>vs PY</b>
\$1.85 - \$1.90	+3% to +6%*	\$8.05 to \$8.30	+8% to +11%

FY19 Capital Spending = \$2.3 - \$2.5 billion  
*(Does not include Jazan Gasification/Power JV)*

Commitments (Projects plus M&A) = ~\$7B

\*Q1 guidance up 10% at midpoint versus last year, excluding plant sale in Q1FY18



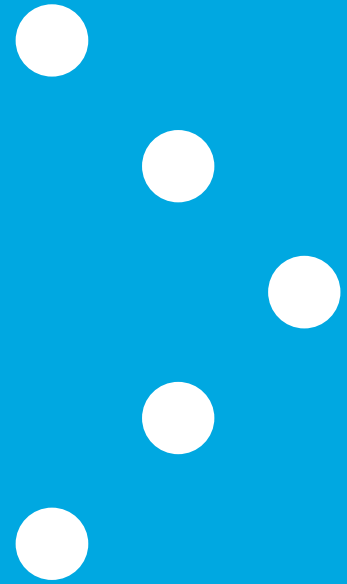
# Our competitive advantage

The only sustainable element  
of long-term competitive  
advantage is the degree of

**commitment** and **motivation**

of the people in the enterprise

# Appendix Slides



# Major Projects

\* Multiple Phases

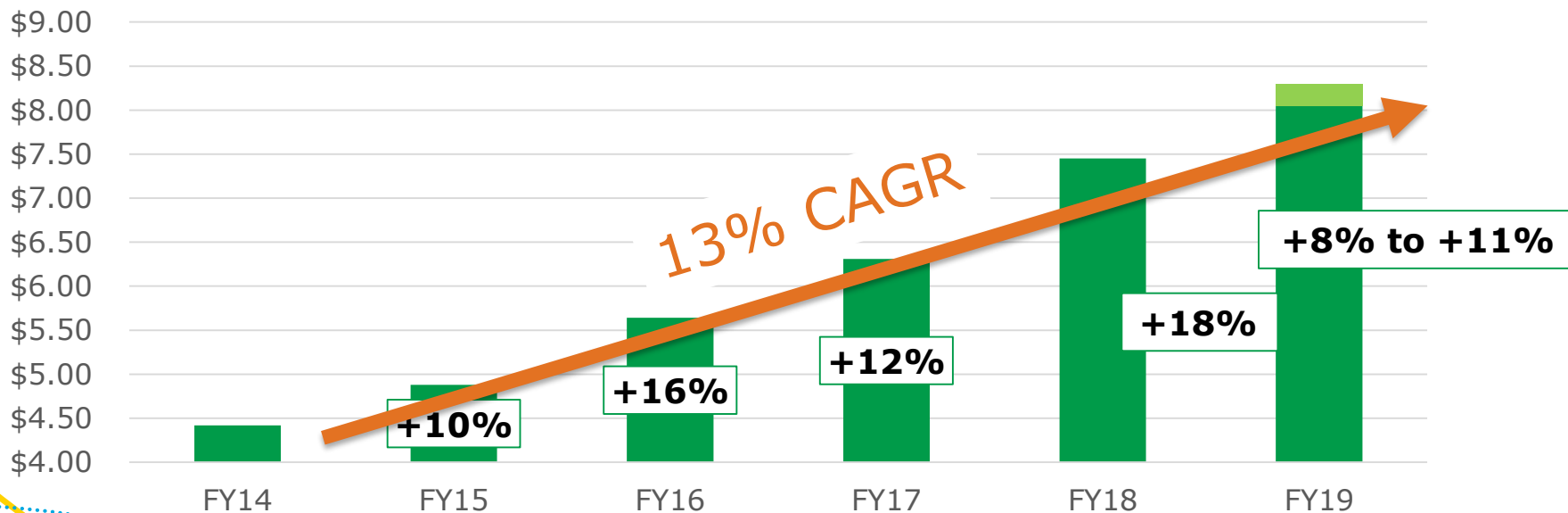
Plant	Customer/Location	Capacity	Timing	Market
<b>ONSTREAM (last five quarters)</b>				
ASU	PKEDZ, Nanjing, China	World Scale	OS Q118	Electronics
ASU	Pyeongtaek, Korea – Ph 2	World Scale	OS Q118	Electronics
H2/CO	Baytown, Texas	125 MM H2+CO	OS Q318	Pipeline
ASU/Gasifier	AP(60%)/Lu’An JV - Shanxi, China	10,000 TPD O2, ~\$1.5B total JV	OS Q418*	Gasif to Chemicals
<b>PROJECT BACKLOG</b>				
ASU/Liquid	Ulsan, Korea	1750 TPD	Q1 FY19	Pipeline
ASU – Ph 3/4	Samsung Pyeongtaek, Korea	World Scale	Q1 FY19*	Electronics
Liquid	Middletown, Ohio	400 TPD	Q1 FY19	Merchant
ASU/LAR	Chemours, Tennessee	Not disclosed	Q1 FY19	Chemicals
Liquid	Glenmont, NY	1100 TPD LXNLAR	2H FY19	Merchant
ASU/H2/Air	Samsung Xi’an, China	World Scale	2H FY19*	Electronics
ASU/H2	Samsung Giheung, Korea	World Scale	FY 20	Electronics
Syngas	BPCL Ph 2, India	Not disclosed	FY 20	Chemicals
H2/CO	Geismar, Louisiana	50MMH2+6.5MMCO	FY 20	Chem/Pipeline
Liquid H2	LaPorte, TX	~30 tons per day	2021	Merchant
ASU/Liquid	Eastman, Kingsport, Tennessee	Not disclosed	2021	Gasifier/Merchant
ASU: AP SOE + JV SOG	AP(25%)/ACWA JV – Jazan, Saudi Arabia	75,000 TPD O2/N2, \$2B total JV	2019*	Gasifier/Refinery
Gasifier/Power	AP(~60%)/SA/ACWA JV – Jazan, Saudi Arabia	\$8B total JV	2019*	Gasif to Refinery
ASU/Gasifier	AP(~60%)/YK-SFEC - Shaanxi, China	40,000 TPD O2, \$3.5B total JV	2022*	Gasif to Chemicals
ASU/Gasifier	AP 100% - Jiutai – Hohhot, China	\$0.65B investment	2022*	Gasif to Chemicals

# Q4 Cash Flow Focus

(\$ million)	Q4FY17	Q4FY18	Change
EBITDA	\$769	\$822	\$53
Interest, net	(22)	(20)	2
Cash Tax	(43)	(53)	(10)
Maintenance Capex	<u>(87)</u>	<u>(92)</u>	<u>(5)</u>
Distributable Cash Flow	\$617	\$657	\$40
Dividends	<u>(207)</u>	<u>(241)</u>	<u>(34)</u>
Investable Cash Flow	\$410	\$416	\$6

# Air Products EPS

FY14	FY15	FY16	FY17	FY18	FY19
		Q1	\$1.47	\$1.79	\$1.85 - \$1.90
		Q2	\$1.43	\$1.71	
		Q3	\$1.65	\$1.95	
		Q4	\$1.76	\$2.00	
<b>\$4.42</b>	<b>\$4.88</b>	<b>\$5.64</b>	<b>\$6.31</b>	<b>\$7.45</b>	<b>\$8.05 - \$8.30</b>



# Capital Expenditure

<b>FY</b>	<b>\$MM</b>
2019 Forecast	\$2.3 - \$2.5 billion
2018	\$1,934
2017	\$1,066
2016	\$935
2015	\$1,299
2014	\$1,495
2013	\$1,740
2012	\$1,749

Non-GAAP - includes Capital Expenditures - GAAP basis, plus Capital Lease expenditures and Purchase of non-controlling interests. Excludes \$0.7B in 2012 and \$0.3B in 2015 for Indura equity. 2012-2014 are estimates

# Q4FY18 Non-GAAP items

\$MM or \$/Share	<u>Op Inc.</u>	<u>Equity Affil. Inc.</u>	<u>Non Op. Income</u>	<u>Tax</u>	<u>Net Inc.</u>	<u>EPS</u>
<b>Change in inventory valuation method</b>	(24.1)			(6.6)	(17.5)	(0.08)
<b>Pension Settlement loss</b>			43.7	10.5	33.2	0.15
<b>Tax reform repatriation</b>		(4.0)		(28.1)	24.1	0.11
<b>Tax reform benefit related to deemed foreign dividends</b>				56.2	(56.2)	(0.25)
<b>Tax Reform rate change and other</b>				(2.2)	2.2	0.01
<b>Tax restructuring</b>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(3.1)</u>	<u>3.1</u>	<u>0.01</u>
<b>Total Q418</b>	(24.1)	(4.0)	43.7	26.7	(11.1)	(0.05)

Positive numbers on this slide represent losses. Based on continuing ops, non-GAAP measures, see appendix for reconciliation

# Appendix: Q418 Results



(\$ Millions, except per share data)

	GAAP Measure				Non GAAP Adjusts.		Non GAAP Measure				
	Q418	Q417	\$ Change	% Change	Q418 (2)	Q417 (3)	Q418	Q417	\$ Change	% Change	
<b>Q418 vs. Q417 - Total Company</b>											
Sales	2,298.9	2,203.1	95.8	4%			2,298.9	2,203.1	95.8	4%	
Operating Income	533.7	457.4	76.3	17%	(24.1)	36.2	509.6	493.6	16.0	3%	
Operating Margin	23.2%	20.8%		240bp			22.2%	22.4%		(20)bp	
Income from Cont. Ops. (1)	452.9	474.2	(21.3)	(4%)	(11.1)	(87.5)	441.8	386.7	55.1	14%	
Diluted EPS - Cont. Ops. (1)	\$2.05	\$2.15	(\$0.10)	(5%)	(0.05)	(0.39)	\$2.00	\$1.76	\$0.24	14%	
<b>Q418 vs. Q318 - Total Company</b>											
Sales	2,298.9	2,259.0	39.9	2%	(24.1)		2,298.9	2,259.0	39.9	2%	
Operating Income	533.7	515.8	17.9	3%	(24.1)		509.6	515.8	(6.2)	(1%)	
Operating Margin	23.2%	22.8%		40bp			22.2%	22.8%		(60)bp	
Income from Cont. Ops. (1)	452.9	430.7	22.2	5%	(11.1)		441.8	430.7	11.1	3%	
Diluted EPS - Cont. Ops. (1)	\$2.05	\$1.95	\$0.10	5%	(0.05)		\$2.00	\$1.95	\$0.05	3%	
<b>FY18 vs. FY17 - Total Company</b>											
Sales	8,930.2	8,187.6	742.6	9%	(24.1)	(333.8)	8,930.2	8,187.6	742.6	9%	
Operating Income	1,965.6	1,440.0	525.6	37%	(24.1)	333.8	1,941.5	1,773.8	167.7	9%	
Operating Margin	22.0%	17.6%		440bp			21.7%	21.7%		-	
Income from Cont. Ops. (1)	1,455.6	1,134.4	321.2	28%	189.1	251.5	1,644.7	1,385.9	258.8	19%	
Diluted EPS - Cont. Ops. (1)	\$6.59	\$5.16	\$1.43	28%	0.86	1.15	\$7.45	\$6.31	\$1.14	18%	

(1) Attributable to Air Products

(2) Non GAAP Adjustments - FY18

	Q118			Q218			Q318			Q418			FY18		
	Op Inc	Inc From Cont Ops	EPS	Op Inc	Inc From Cont Ops	EPS	Op Inc	Inc From Cont Ops	EPS	Op Inc	Inc From Cont Ops	EPS	Op Inc	Inc From Cont Ops	EPS
Change in inventory valuation method										(24.1)	(17.5)	(0.08)	(24.1)	(17.5)	(0.08)
Pension settlement loss											33.2	0.15	-	33.2	0.15
Tax reform repatriation		453.0	2.06								24.1	0.11	-	477.1	2.16
Tax reform rate change and other		(214.0)	(0.97)								2.2	0.01	-	(211.8)	(0.96)
Tax restructuring					(38.8)	(0.18)					3.1	0.01	-	(35.7)	(0.16)
Tax reform benefit related to deemed foreign dividends	-	-	-	-	-	-	-	-	-	-	(56.2)	(0.25)	-	(56.2)	(0.25)
Total Adjustments	-	239.0	1.09	-	(38.8)	(0.18)	-	-	-	(24.1)	(11.1)	(0.05)	(24.1)	189.1	0.86

(3) Non GAAP Adjustments - FY17

	Q117			Q217			Q317			Q417			FY17		
	Op Inc	Inc From Cont Ops	EPS	Op Inc	Inc From Cont Ops	EPS	Op Inc	Inc From Cont Ops	EPS	Op Inc	Inc From Cont Ops	EPS	Op Inc	Inc From Cont Ops	EPS
Business separation costs	32.5	26.5	0.12										32.5	26.5	0.12
Tax benefit associated with business separation		2.7	0.01					(8.2)	(0.04)				-	(5.5)	(0.02)
Cost reduction and asset actions	50.0	41.2	0.19	10.3	7.2	0.03	42.7	30.0	0.14	48.4	30.9	0.14	151.4	109.3	0.49
Goodwill and intangible impairment charge							162.1	154.1	0.70				162.1	154.1	0.70
Gain on land sale										(12.2)	(7.6)	(0.03)	(12.2)	(7.6)	(0.03)
Equity method investment impairment charge									79.5	0.36			-	79.5	0.36
Pension settlement loss					2.6	0.01			3.4	0.02		0.6	-	6.6	0.03
Tax election benefit	-	-	-	-	-	-	-	-	-	-	(111.4)	(0.50)	-	(111.4)	(0.50)
Total Adjustments	82.5	70.4	0.32	10.3	9.8	0.04	204.8	258.8	1.18	36.2	(87.5)	(0.39)	333.8	251.5	1.15



# Appendix: Adjusted EBITDA Trend

\$ Millions	Q117	Q217	Q317	Q417	FY17	Q118	Q218	Q318	Q418	FY18	Q418 vs PY		Q418 vs PQ		FY18 vs FY17	
											\$	%	\$	%	\$	%
Income From Continuing Operations	258.2	310.1	106.4	480.5	1,155.2	162.7	423.6	444.7	459.7	1,490.7						
Add: Interest expense	29.5	30.5	29.8	30.8	120.6	29.8	30.4	34.9	35.4	130.5						
Less: Other non-operating income (expense), net	(0.2)	5.3	3.7	7.8	16.6	9.8	11.1	12.8	(28.6)	5.1						
Add: Income tax provision (benefit)	78.4	94.5	89.3	(1.3)	260.9	291.8	56.2	107.1	69.2	524.3						
Add: Depreciation and amortization	206.1	211.8	216.9	231.0	865.8	227.9	240.0	245.6	257.2	970.7						
Add Non GAAP pre-tax adjustments (1)	<u>82.5</u>	<u>10.3</u>	<u>284.3</u>	<u>36.2</u>	<u>413.3</u>	<u>32.5</u>	<u>0.0</u>	<u>0.0</u>	<u>(28.1)</u>	<u>4.4</u>						
Adjusted EBITDA	654.9	651.9	723.0	769.4	2,799.2	734.9	739.1	819.5	822.0	3,115.5	52.6	7%	2.5	0%	316.3	11%
Sales	1,882.5	1,980.1	2,121.9	2,203.1	8,187.6	2,216.6	2,155.7	2,259.0	2,298.9	8,930.2						
Adjusted EBITDA Margin	34.8%	32.9%	34.1%	34.9%	34.2%	33.2%	34.3%	36.3%	35.8%	34.9%	90bp		(50)bp		70bp	

## (1) Non GAAP Pre-Tax Adjustments

	Q117	Q217	Q317	Q417	FY17	Q118	Q218	Q318	Q418	FY18
Change in inventory valuation method	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(24.1)	(24.1)
Business separation costs	32.5	0.0	0.0	0.0	32.5	0.0	0.0	0.0	0.0	0.0
Cost reduction and asset actions	50.0	10.3	42.7	48.4	151.4	0.0	0.0	0.0	0.0	0.0
Goodwill and intangible asset impairment charge	0.0	0.0	162.1	0.0	162.1	0.0	0.0	0.0	0.0	0.0
Equity method investment impairment charge	0.0	0.0	79.5	0.0	79.5	0.0	0.0	0.0	0.0	0.0
Gain on land sale	0.0	0.0	0.0	(12.2)	(12.2)	0.0	0.0	0.0	0.0	0.0
Tax reform repatriation	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>32.5</u>	<u>0.0</u>	<u>0.0</u>	<u>(4.0)</u>	<u>28.5</u>
Non GAAP pre-tax adjustments	<u>82.5</u>	<u>10.3</u>	<u>284.3</u>	<u>36.2</u>	<u>413.3</u>	<u>32.5</u>	<u>0.0</u>	<u>0.0</u>	<u>(28.1)</u>	<u>4.4</u>

# Appendix: Adjusted EBITDA by Segment

\$ Millions	Q117	Q217	Q317	Q417	FY17	Q118	Q218	Q318	Q418	FY18	Q418 vs PY		Q418 vs PQ		FY18 vs FY17		
											\$	%	\$	%	\$	%	
<b>Gases - Americas</b>																	
Operating Income	223.3	223.2	234.9	264.7	946.1	217.2	222.3	237.1	251.3	927.9							
Add: Depreciation and amortization	111.8	116.0	117.0	119.6	464.4	117.8	122.3	120.5	124.7	485.3							
Add Equity Affiliates' Income	<u>14.7</u>	<u>13.0</u>	<u>14.1</u>	<u>16.3</u>	<u>58.1</u>	<u>18.6</u>	<u>16.9</u>	<u>24.1</u>	<u>22.4</u>	<u>82.0</u>							
Adjusted EBITDA	349.8	352.2	366.0	400.6	1,468.6	353.6	361.5	381.7	398.4	1,495.2	(2.2)	(1%)	16.7	4%	26.6	2%	
Adjusted EBITDA Margin	40.5%	39.6%	39.4%	42.0%	40.4%	38.9%	39.6%	40.2%	40.4%	39.8%		(160)bp		20bp		(60)bp	
<b>Gases - EMEA</b>																	
Operating Income	90.0	88.6	96.2	120.7	395.5	104.5	116.7	118.8	105.8	445.8							
Add: Depreciation and amortization	42.2	41.6	45.1	48.2	177.1	49.1	50.7	49.8	49.0	198.6							
Add Equity Affiliates' Income	<u>9.5</u>	<u>8.3</u>	<u>15.7</u>	<u>13.6</u>	<u>47.1</u>	<u>13.1</u>	<u>11.1</u>	<u>17.5</u>	<u>19.4</u>	<u>61.1</u>							
Adjusted EBITDA	141.7	138.5	157.0	182.5	619.7	166.7	178.5	186.1	174.2	705.5	(8.3)	(5%)	(11.9)	(6%)	85.8	14%	
Adjusted EBITDA Margin	35.5%	33.4%	34.8%	35.5%	34.8%	32.3%	31.8%	33.2%	31.4%	32.2%		(410)bp		(180)bp		(260)bp	
<b>Gases - Asia</b>																	
Operating Income	118.4	112.3	149.5	152.4	532.6	175.5	148.7	185.5	180.2	689.9							
Add: Depreciation and amortization	46.7	49.3	49.6	57.6	203.2	56.8	62.6	69.5	76.9	265.8							
Add Equity Affiliates' Income	<u>13.5</u>	<u>12.9</u>	<u>12.5</u>	<u>14.6</u>	<u>53.5</u>	<u>14.2</u>	<u>15.4</u>	<u>15.1</u>	<u>13.6</u>	<u>58.3</u>							
Adjusted EBITDA	178.6	174.5	211.6	224.6	789.3	246.5	226.7	270.1	270.7	1,014.0	46.1	21%	0.6	0%	224.7	28%	
Adjusted EBITDA Margin	40.7%	40.0%	39.3%	40.7%	40.2%	38.3%	40.7%	43.3%	42.8%	41.3%		210bp		(50)bp		110bp	
<b>Gases - Global</b>																	
Operating Income	8.2	22.7	27.8	12.4	71.1	9.5	12.1	19.8	12.5	53.9							
Add: Depreciation and amortization	2.0	1.7	2.3	2.9	8.9	1.6	1.9	2.3	2.3	8.1							
Add Equity Affiliates' Income	<u>0.3</u>	<u>0.0</u>	<u>0.3</u>	<u>0.3</u>	<u>0.9</u>	<u>0.4</u>	<u>0.3</u>	<u>1.4</u>	<u>(0.2)</u>	<u>1.9</u>							
Adjusted EBITDA	10.5	24.4	30.4	15.6	80.9	11.5	14.3	23.5	14.6	63.9	(1.0)		(8.9)		(17.0)		
<b>Corporate/Other</b>																	
Operating Income	(29.1)	(40.9)	(44.9)	(56.6)	(171.5)	(46.0)	(44.4)	(45.4)	(40.2)	(176.0)							
Add: Depreciation and amortization	3.4	3.2	2.9	2.7	12.2	2.6	2.5	3.5	4.3	12.9							
Add Equity Affiliates' Income	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>							
Adjusted EBITDA	(25.7)	(37.7)	(42.0)	(53.9)	(159.3)	(43.4)	(41.9)	(41.9)	(35.9)	(163.1)	18.0		6.0		(3.8)		

# Appendix: ROCE

Moving forward



\$Millions	Q1 16	Q2 16	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17	Q118	Q218	Q318	Q418
<b>Numerator</b>												
GAAP Net Income from continuing operations attributable to Air Products		278.9	250.3	289.4	251.6	304.4	104.2	474.2	155.6	416.4	430.7	452.9
<b>Add Interest Expense Impact</b>												
Before tax interest expense		25.7	35.1	32.2	29.5	30.5	29.8	30.8	29.8	30.4	34.9	35.4
Interest expense tax impact		(6.3)	(12.7)	(8.0)	(6.9)	(7.1)	(13.6)	0.1	(19.1)	(3.6)	(6.8)	(4.6)
Net interest expense Impact		19.4	22.4	24.2	22.6	23.4	16.2	30.9	10.7	26.8	28.1	30.8
Add Net income attributable to noncontrolling interests (cont. ops.)		5.8	5.4	5.0	6.6	5.7	2.2	6.3	7.1	7.2	14.0	6.8
<b>GAAP Earnings After Tax</b>		<b>304.1</b>	<b>278.1</b>	<b>318.6</b>	<b>280.8</b>	<b>333.5</b>	<b>122.6</b>	<b>511.4</b>	<b>173.4</b>	<b>450.4</b>	<b>472.8</b>	<b>490.5</b>
<b>Disclosed Items, after-tax</b>												
Business separation costs		8.9	6.5	19.3	26.5	-	-	-	-	-	-	-
Tax (benefit) costs associated with business separation		-	47.7	4.1	2.7	-	(8.2)	-	-	-	-	-
Cost reduction and asset actions		8.8	8.7	7.2	41.2	7.2	30.0	30.9	-	-	-	-
Pension settlement loss		1.3	0.6	1.4	-	2.6	3.4	0.6	-	-	-	33.2
Gain on land sales		-	-	-	-	-	-	(7.6)	-	-	-	-
Loss on extinguishment of debt		-	-	4.3	-	-	-	-	-	-	-	-
Goodwill and intangible asset impairment charge		-	-	-	-	-	154.1	-	-	-	-	-
Equity method investment impairment charge		-	-	-	-	-	79.5	-	-	-	-	-
Tax election benefit		-	-	-	-	-	-	(111.4)	-	-	-	-
Tax reform repatriation		-	-	-	-	-	-	-	453.0	-	-	24.1
Tax reform rate change and other		-	-	-	-	-	-	-	(214.0)	-	-	2.2
Tax restructuring		-	-	-	-	-	-	-	-	(38.8)	-	3.1
Tax reform benefit related to deemed foreign dividends		-	-	-	-	-	-	-	-	-	-	(56.2)
Change in inventory valuation method		-	-	-	-	-	-	-	-	-	-	(17.5)
<b>Subtotal Items</b>		<b>19.0</b>	<b>63.5</b>	<b>36.3</b>	<b>70.4</b>	<b>9.8</b>	<b>258.8</b>	<b>(87.5)</b>	<b>239.0</b>	<b>(38.8)</b>	<b>0.0</b>	<b>(11.1)</b>
<b>Non-GAAP Earnings After-Tax</b>		<b>323.1</b>	<b>341.6</b>	<b>354.9</b>	<b>351.2</b>	<b>343.3</b>	<b>381.4</b>	<b>423.9</b>	<b>412.4</b>	<b>411.6</b>	<b>472.8</b>	<b>479.4</b>
<b>Denominator</b>												
Total Debt	5,795.5	5,799.0	5,666.0	5,210.9	4,318.4	3,843.2	3,926.0	3,962.8	3,513.3	3,566.5	3,871.2	3,812.6
Air Products Shareholders' Equity	7,499.0	7,053.1	7,180.2	7,213.4	7,261.1	9,420.2	9,509.9	10,185.5	10,321.2	10,693.2	10,810.0	11,176.3
Noncontrolling interests of discontinued operations	(32.1)	(33.0)	(32.9)	(33.9)	-	-	-	-	-	-	-	-
Less: Assets of discontinued operations	(2,599.2)	(1,707.1)	(1,762.0)	(1,968.5)	(860.2)	(9.8)	(9.8)	(10.2)	(10.2)	0.0	0.0	0.0
<b>Total Capital</b>	<b>10,663.2</b>	<b>11,112.0</b>	<b>11,051.3</b>	<b>10,421.9</b>	<b>10,719.3</b>	<b>13,253.6</b>	<b>13,426.1</b>	<b>14,138.1</b>	<b>13,824.3</b>	<b>14,259.7</b>	<b>14,681.2</b>	<b>14,988.9</b>
<b>Calculation</b>												
GAAP earnings after-tax - 4 qtr trailing					1,181.6	1,211.0	1,055.5	1,248.3	1,140.9	1,257.8	1,608.0	1,587.1
Five-quarter average total capital					10,793.5	11,311.6	11,774.4	12,391.8	13,072.3	13,780.4	14,065.9	14,378.4
<b>ROCE - GAAP items</b>					<b>10.9%</b>	<b>10.7%</b>	<b>9.0%</b>	<b>10.1%</b>	<b>8.7%</b>	<b>9.1%</b>	<b>11.4%</b>	<b>11.0%</b>
Non-GAAP earnings after-tax - 4 qtr trailing					1,370.8	1,391.0	1,430.8	1,499.8	1,561.0	1,629.3	1,720.7	1,776.2
Five-quarter average total capital					10,793.5	11,311.6	11,774.4	12,391.8	13,072.3	13,780.4	14,065.9	14,378.4
<b>ROCE - Non-GAAP items</b>					<b>12.7%</b>	<b>12.3%</b>	<b>12.2%</b>	<b>12.1%</b>	<b>11.9%</b>	<b>11.8%</b>	<b>12.2%</b>	<b>12.4%</b>

# Appendix: FY19 EPS Outlook

<u>Q119 Guidance vs Prior Year</u>	<u>Diluted EPS (1)</u>
Q118 GAAP	\$0.70
Tax reform repatriation	\$2.06
Tax reform rate change and other	<u>(\$0.97)</u>
Q118 Non GAAP	<u>\$1.79</u>
Plant sale	<u>(\$0.08)</u>
Q118 Non GAAP - ex plant sale	<u>\$1.71</u>
Q119 Guidance (2)	\$1.85-\$1.90
Q119 Guidance midpoint (2)	\$1.88
% Change FY19 guidance vs FY18 Non GAAP	3%-6%
% Change FY19 guidance at midpoint vs FY18 Non GAAP - ex plant sale	10%
 <u>FY19 Guidance vs Prior Year</u>	
FY18 GAAP	\$6.59
Change in inventory valuation method	(\$0.08)
Pension settlement loss	\$0.15
Tax reform repatriation	\$2.16
Tax reform benefit related to deemed foreign dividends	(\$0.25)
Tax reform rate change and other	(\$0.96)
Tax Restructuring	<u>(\$0.16)</u>
FY18 Non GAAP	<u>\$7.45</u>
FY19 Guidance (2)	<u>\$8.05-\$8.30</u>
% Change	8%-11%

(1) Continuing operations, attributable to Air Products

(2) Guidance excludes the impact of certain items, if applicable, that we believe are not representative of our underlying business

Moving forward



Thank you  
tell me more

