

# Economic Analysis of Technological Processes

## Lecture 7 Financial Statement

# Lecture 7: Financial statement

## Group income statement

For the year ended 31 December		\$ million		
	Note	2017	2016	2015
Sales and other operating revenues	4	240,208	183,008	222,894
Earnings from joint ventures – after interest and tax	14	1,177	966	(28)
Earnings from associates – after interest and tax	15	1,330	994	1,839
Interest and other income	5	657	506	611
Gains on sale of businesses and fixed assets	3	1,210	1,132	666
<b>Total revenues and other income</b>		<b>244,582</b>	<b>186,606</b>	<b>225,982</b>
Purchases	17	179,716	132,219	164,790
Production and manufacturing expenses*		24,229	29,077	37,040
Production and similar taxes	4	1,775	683	1,036
Depreciation, depletion and amortization	4	15,584	14,505	15,219
Impairment and losses on sale of businesses and fixed assets	3	1,216	(1,664)	1,909
Exploration expense	6	2,080	1,721	2,353
Distribution and administration expenses		10,508	10,495	11,553
Profit (loss) before interest and taxation		9,474	(430)	(7,918)
Finance costs*	5	2,074	1,675	1,347
Net finance expense relating to pensions and other post-retirement benefits	22	220	190	306
Profit (loss) before taxation		7,180	(2,295)	(9,571)
Taxation*	7	3,712	(2,467)	(3,171)
<b>Profit (loss) for the year</b>		<b>3,468</b>	<b>172</b>	<b>(6,400)</b>
Attributable to				
BP shareholders		3,389	115	(6,482)
Non-controlling interests		79	57	82
		<b>3,468</b>	<b>172</b>	<b>(6,400)</b>
Earnings per share				
Profit (loss) for the year attributable to BP shareholders				
Per ordinary share (cents)				
Basic	9	17.20	0.61	(35.39)
Diluted	9	17.10	0.60	(35.39)
Per ADS (dollars)				
Basic	9	1.03	0.04	(2.12)
Diluted	9	1.03	0.04	(2.12)

\* See Note 2 for information on the impact of the Gulf of Mexico oil spill on these income statement line items.

# Lecture 7: Financial statement

## Group balance sheet

At 31 December

\$ million

	Note	2017	2016
<b>Non-current assets</b>			
Property, plant and equipment	10	129,471	129,757
Goodwill	12	11,551	11,194
Intangible assets	13	18,355	18,183
Investments in joint ventures	14	7,994	8,609
Investments in associates	15	16,991	14,092
Other investments	16	1,245	1,033
Fixed assets		185,607	182,868
Loans		646	532
Trade and other receivables	18	1,434	1,474
Derivative financial instruments	28	4,110	4,359
Prepayments		1,112	945
Deferred tax assets	7	4,469	4,741
Defined benefit pension plan surpluses	22	4,169	584
		201,547	195,503
<b>Current assets</b>			
Loans		190	259
Inventories	17	19,011	17,655
Trade and other receivables	18	24,849	20,675
Derivative financial instruments	28	3,032	3,016
Prepayments		1,414	1,486
Current tax receivable		761	1,194
Other investments	16	125	44
Cash and cash equivalents	23	25,586	23,484
		74,968	67,813
<b>Total assets</b>		<b>276,515</b>	<b>263,316</b>

# Lecture 7: Financial statement

Current liabilities			
Trade and other payables	20	44,209	37,915
Derivative financial instruments	28	2,808	2,991
Accruals		4,960	5,136
Finance debt	24	7,739	6,634
Current tax payable		1,686	1,666
Provisions	21	3,324	4,012
		<b>64,726</b>	<b>58,354</b>
Non-current liabilities			
Other payables	20	13,889	13,946
Derivative financial instruments	28	3,761	5,513
Accruals		505	469
Finance debt	24	55,491	51,666
Deferred tax liabilities	7	7,982	7,238
Provisions	21	20,620	20,412
Defined benefit pension plan and other post-retirement benefit plan deficits	22	9,137	8,875
		<b>111,385</b>	<b>108,119</b>
Total liabilities		<b>176,111</b>	<b>166,473</b>
Net assets		<b>100,404</b>	<b>96,843</b>
Equity			
BP shareholders' equity	30	98,491	95,286
Non-controlling interests	30	1,913	1,557
Total equity	30	<b>100,404</b>	<b>96,843</b>

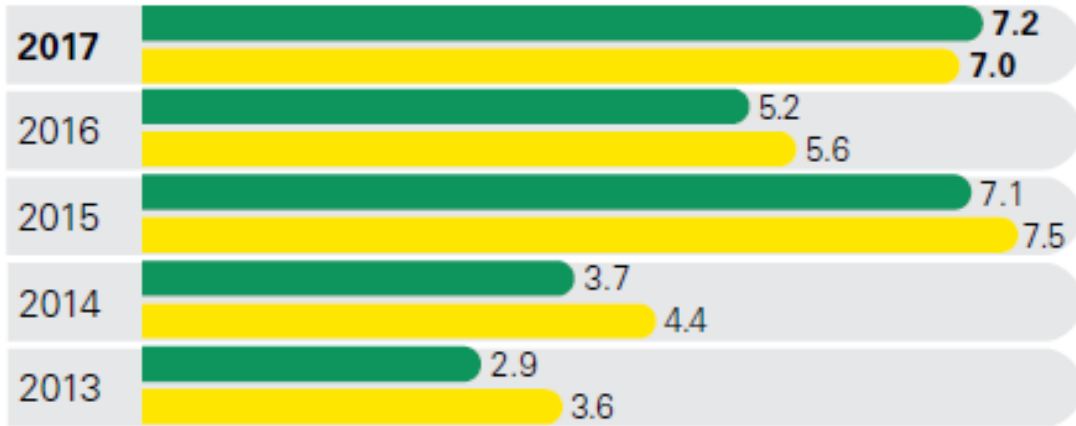
# Lecture 7: Financial statement

Other property, plant and equipment is depreciated on a straight-line basis over its expected useful life. The typical useful lives of the group's other property, plant and equipment are as follows:

Land improvements	15 to 25 years
Buildings	20 to 50 years
Refineries	20 to 30 years
Petrochemicals plants	20 to 30 years
Pipelines	10 to 50 years
Service stations	15 years
Office equipment	3 to 7 years
Fixtures and fittings	5 to 15 years

# Lecture 7: Financial statement

## Downstream profitability (\$ billion)



- Replacement cost (RC) profit before interest and tax★
- Underlying RC profit before interest and tax★

44%

of lubricant sales  
were premium grade

(2016 43%)

# Lecture 7: COGS

**Aim: to define how much a product costs, set the price**

**Parts of them:**

- **Raw materials**
- **FX**
- **Manufacturing: machinery, energy and labour**
- **Storage & Handling**
- **Primary transportation**
- **Rebates**
- **Tax**
- **Efficiency**
- **Head office**

# Lecture 7: COGS

- Define the product and its components
- Define the exact ratio of the components
- Prepare a unit of it and observe technology requirements & costs
- Monitor market demand
- Set up plan for minimum efficiency scale production and sales
- Measure regularly COGS