

Supplementary Information

The information below has been provided to enhance understanding of the terminology and performance measures that have been used in the accompanying presentations.

Group measures

Replacement cost profit or loss, underlying replacement cost profit or loss and underlying business replacement cost profit or loss

Replacement cost (RC) profit or loss reflects the replacement cost of inventories sold in the period and is arrived at by excluding inventory holding gains and losses from profit or loss. RC profit or loss is the measure of profit or loss that is required to be disclosed for each operating segment under International Financial Reporting Standards (IFRS). RC profit or loss for the group is not a recognized GAAP measure. Management believes this measure is useful to illustrate to investors the fact that crude oil and product prices can vary significantly from period to period and that the impact on our reported result under IFRS can be significant. Inventory holding gains and losses vary from period to period due to changes in prices as well as changes in underlying inventory levels. In order for investors to understand the operating performance of the group excluding the impact of price changes on the replacement of inventories, and to make comparisons of operating performance between reporting periods, BP's management believes it is helpful to disclose this measure.

Underlying RC profit or loss is RC profit or loss after adjusting for non-operating items and fair value accounting effects. Underlying RC profit or loss and fair value accounting effects are not recognized GAAP measures.

Reconciliation of profit (loss) before interest and tax for the group to underlying replacement cost profit attributable to BP shareholders

Total Group						\$million				
	Q1	Q2	Q3	Q4	2015	Q1	Q2	Q3	Q4	2016
Profit (loss) before interest and tax	2,634	(8,248)	1,339	(3,643)	(7,918)	(425)	(2,916)	-	-	(3,341)
Inventory holding (gains) losses	(756)	(627)	1,726	1,546	1,889	132	(1,188)	-	-	(1,056)
Replacement cost profit (loss) before interest and tax	1,878	(8,875)	3,065	(2,097)	(6,029)	(293)	(4,104)	-	-	(4,397)
Less non-operating items:										
- Gulf of Mexico oil spill response	(323)	(10,747)	(311)	(328)	(11,709)	(794)	(5,106)	-	-	(5,900)
- Other non-operating items	(223)	(412)	(222)	(2,515)	(3,372)	(171)	(73)	-	-	(244)
	(546)	(11,159)	(533)	(2,843)	(15,081)	(965)	(5,179)	-	-	(6,144)
Less fair value accounting effects	(102)	(147)	255	255	261	(322)	(216)	-	-	(538)
Underlying replacement cost profit before interest and tax	2,526	2,431	3,343	491	8,791	994	1,291	-	-	2,285
Finance costs and net finance expense relating to pensions and other post-retirement benefits	(358)	(364)	(474)	(457)	(1,653)	(440)	(460)	-	-	(900)
Less finance costs relating to Gulf of Mexico oil spill response	(9)	(8)	(115)	(115)	(247)	(123)	(123)	-	-	(246)
	(349)	(356)	(359)	(342)	(1,406)	(317)	(337)	-	-	(654)
Taxation on an underlying replacement cost basis	449	(722)	(1,155)	30	(1,398)	(120)	(205)	-	-	(325)
Non-controlling interests	(49)	(40)	(10)	17	(82)	(25)	(29)	-	-	(54)
Underlying replacement cost profit attributable to BP shareholders	2,577	1,313	1,819	196	5,905	532	720	-	-	1,252

Reconciliation of replacement cost profit (loss) before interest and tax for segments to underlying replacement cost profit (loss) before interest and tax

Upstream						\$million				
	Q1	Q2	Q3	Q4	2015	Q1	Q2	Q3	Q4	2016
Replacement cost profit (loss) before interest and tax	372	228	743	(2,280)	(937)	(1,205)	(109)	-	-	(1,314)
Less non-operating items	(242)	(236)	(118)	(1,639)	(2,235)	(355)	7	-	-	(348)
Less fair value accounting effects	10	(30)	38	87	105	(103)	(145)	-	-	(248)
Underlying replacement cost profit before interest and tax	604	494	823	(728)	1,193	(747)	29	-	-	(718)
Downstream										
Replacement cost profit before interest and tax	2,083	1,628	2,562	838	7,111	1,880	1,405	-	-	3,285
Less non-operating items	37	(122)	43	(548)	(590)	286	(37)	-	-	249
Less fair value accounting effects	(112)	(117)	217	168	156	(219)	(71)	-	-	(290)
Underlying replacement cost profit before interest and tax	2,158	1,867	2,302	1,218	7,545	1,813	1,513	-	-	3,326
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Replacement cost profit before interest and tax	183	510	382	235	1,310	66	246	-	-	312
Less non-operating items	-	-	-	-	-	-	-	-	-	-
Less fair value accounting effects	-	-	-	-	-	-	-	-	-	-
Underlying replacement cost profit before interest and tax	183	510	382	235	1,310	66	246	-	-	312
Other businesses and corporate^a										
Replacement cost profit (loss) before interest and tax	(631)	(11,202)	(689)	(955)	(13,477)	(1,074)	(5,525)	-	-	(6,599)
Less non-operating items	(341)	(10,801)	(458)	(656)	(12,256)	(896)	(5,149)	-	-	(6,045)
Less fair value accounting effects	-	-	-	-	-	-	-	-	-	-
Underlying replacement cost profit (loss) before interest and tax	(290)	(401)	(231)	(299)	(1,221)	(178)	(376)	-	-	(554)

^aIncludes costs related to the Gulf of Mexico oil spill.

Inventory holding gains and losses

Inventory holding gains and losses represent the difference between the cost of sales calculated using the replacement cost of inventory and the cost of sales calculated on the first-in first-out (FIFO) method after adjusting for any changes in provisions where the net realizable value of the inventory is lower than its cost. Under the FIFO method, which we use for IFRS reporting, the cost of inventory charged to the income statement is based on its historical cost of purchase or manufacture, rather than its replacement cost. In volatile energy markets, this can have a significant distorting effect on reported income. The amounts disclosed represent the difference between the charge to the income statement for inventory on a FIFO basis (after adjusting for any related movements in net realizable value provisions) and the charge that would have arisen based on the replacement cost of inventory. For this purpose, the replacement cost of inventory is calculated using data from each operation's production and manufacturing system, either on a monthly basis, or separately for each transaction where the system allows this approach. The amounts disclosed are not separately reflected in the financial statements as a gain or loss. No adjustment is made in respect of the cost of inventories held as part of a trading position and certain other temporary inventory positions.

Non-operating items

Non-operating items are charges and credits included in the financial statements that BP discloses separately because it considers such disclosures to be meaningful and relevant to investors. They are items that management considers not to be part of underlying business operations and are disclosed in order to enable investors better to understand and evaluate the group's reported financial performance. Non-operating items within equity-accounted earnings are reported net of incremental income tax reported by the equity-accounted entity.

Fair value accounting effects

Fair value accounting effects are non-GAAP adjustments to our IFRS profit (loss) relating to certain physical inventories, pipelines and storage capacity. Management uses a fair-value basis to value these items which, under IFRS, are accounted for on an accruals basis with the exception of trading inventories, which are valued using spot prices. The adjustments have the effect of aligning the valuation basis of the physical positions with that of any associated derivative instruments, which are required to be fair valued under IFRS, in order to provide a more representative view of the ultimate economic value. Further information and a reconciliation to GAAP information is provided on page 28 of our second-quarter 2016 results announcement.

Net debt

Net debt and net debt ratio are non-GAAP measures. Net debt is calculated as gross finance debt, as shown in the balance sheet, plus the fair value of associated derivative financial instruments that are used to hedge foreign currency exchange and interest rate risks relating to finance debt, for which hedge accounting is applied, less cash and cash equivalents. The net debt ratio is defined as the ratio of net debt to the total of net debt plus shareholders' equity. All components of equity are included in the denominator of the calculation. BP believes these measures provide useful information to investors. Net debt enables investors to see the economic effect of gross debt, related hedges and cash and cash equivalents in total. The net debt ratio enables investors to see how significant net debt is relative to equity from shareholders. The derivatives are reported on the balance sheet within the headings 'Derivative financial instruments'.

The table below presents BP's debt to debt plus equity ratio on a gross basis as net debt is not a recognized GAAP measure:

	\$ million, except ratios							
	Q1	Q2	Q3	2015 Q4	Q1	Q2	Q3	2016 Q4
Gross debt	57,731	57,104	57,405	53,168	54,012	55,727	-	-
Fair value (asset) liability of hedges related to finance debt	(174)	315	(57)	379	(967)	(1,279)	-	-
	57,557	57,419	57,348	53,547	53,045	54,448	-	-
Less: cash and cash equivalents	32,434	32,589	31,702	26,389	23,049	23,517	-	-
Net debt	25,123	24,830	25,646	27,158	29,996	30,931	-	-
Equity	111,509	107,351	102,599	98,387	97,289	94,108	-	-
Gross debt to gross debt-plus-equity ratio	34.1%	34.7%	35.9%	35.1%	35.7%	37.2%	-	-
Net debt to net debt-plus-equity ratio	18.4%	18.8%	20.0%	21.6%	23.6%	24.7%	-	-

Cash costs or controllable cash costs are a subset of production and manufacturing expenses plus distribution and administration expenses. They represent the substantial majority of the expenses in these line items but exclude certain costs that are variable, primarily with volumes (such as freight costs). They are the principal operating and overhead costs that management considers to be most directly under their control although they include certain foreign exchange and commodity price effects.

Free cash flow is equal to operating cash flow less net cash used in investing activities, as presented in the group cash flow statement.

Inorganic capital expenditure (Inorganic Capex) is equal to business combinations and certain other significant investments made by the group. See page 26 of our second quarter 2016 results announcement.

Organic capital expenditure (Organic Capex) Organic capital expenditure excludes business combinations and other inorganic capital expenditure. An analysis of capital expenditure by segment and region is shown on page 26 of our second-quarter 2016 results announcement.

Operating cash flow

The terms 'operating cash' and 'operating cash flow' are defined as 'net cash provided by (used in) operating activities' as stated in the group cash flow statement. When used in the context of a segment rather than the group, the terms refer to the segment's share thereof.

Organic free cash flow

Organic free cash flow is operating cash flow less organic capital expenditure. Organic free cash flow excludes any impacts from the Gulf of Mexico oil spill.

Organic Sources and Uses of cash

Organic sources (or inflows) represents operating cash flow excluding any impacts from the Gulf of Mexico oil spill. Organic uses (or outflows) of cash are organic capex and cash dividend as stated in the group cash flow statement.

Organic cash balance/imbalance

Organic cash balance/imbalance is the difference between the organic sources of cash and the organic uses of cash.

Underlying operating cash flow

Underlying operating cash flow is net cash provided by operating activities excluding pre-tax amounts related to the Gulf of Mexico oil spill.

	\$million	
	Q2	2016 1H
Net cash provided by operating activities	3,883	5,755
Add back: Pre-tax amounts related to the Gulf of Mexico oil spill	1,611	2,736
Underlying operating cash flow	<u>5,494</u>	<u>8,491</u>

Upstream measures

Plant reliability

Plant reliability is calculated taking 100% less the ratio of total unplanned plant deferrals divided by installed production capacity. Unplanned plant deferrals are associated with the topside plant and where applicable the subsea equipment (excluding wells and reservoir). Unplanned plant deferrals include breakdowns and weather.

Production cost per barrel of oil equivalent (boe)

Production cost is a subset of production and manufacturing expenses. It includes the costs incurred to operate and maintain wells and related equipment and facilities, excluding ad valorem and severance taxes. Production cost per boe is calculated as production costs divided by production volumes in the relevant period.

Downstream measures

Cost efficiencies

Cost efficiency is measured as the difference in cash costs between defined time periods, adjusted for inflation and changes in foreign exchange translation, energy prices, portfolio, costs in direct support of growth activities and relative turnaround activity.

Utilization

Refinery utilization is annual throughput (thousands of barrels per day) divided by the average crude distillation capacity, expressed as a percentage.

Pre-tax earnings

Pre-tax earnings is defined as underlying replacement cost (RC) profit before interest and tax.

Pre-tax returns

Pre-tax returns is the ratio of underlying RC profit before interest and tax to Downstream's average operating capital employed, including goodwill, for the period.

Pre-tax returns	2013	2014	2015	Rolling to 2Q'16
Numerator for pre-tax returns				
Underlying RCP before interest and tax	3,632	4,441	7,545	6,846
Denominator for pre-tax returns				
Average operating capital employed for Downstream (exc. Goodwill)	50,280	47,278	39,123	36,756
Average goodwill for Downstream	4,212	4,222	3,850	3,591
Average operating capital employed for Downstream (incl. Goodwill)	54,492	51,500	42,973	40,347
Downstream pre-tax returns	6.7%	8.6%	17.6%	17.0%

Pre-tax returns at constant 2014 environment

Pre-tax returns at constant 2014 environment is the ratio of underlying RC profit before interest and tax to Downstream's average operating capital employed, including goodwill, for the period after adjusting the numerator to the 2014 refining environment.

Pre-tax returns at constant 2014 environment	2013	2014	2015	Rolling to 2Q'16
Refining Marker Margin	15.4	14.4	17.0	14.4
Adjustment to 2014 RMM (ROT of \$1/bbl = \$500m)	-504	0	-1,297	-14
Underlying RCP before interest and tax at 2014 environment	3,128	4,441	6,248	6,832
Downstream pre-tax returns at 2014 RMM environment	5.7%	8.6%	14.5%	16.9%

Net income per barrel

Net income per barrel is calculated by taking underlying RC profit before interest and tax, deducting tax at an assumed 30% effective tax rate on underlying RC profit and then dividing this notional post-tax underlying RC profit by the Downstream segment's total refining capacity.

Net Income per bbl	2012				2013				2014				2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Underlying RCP before interest and tax	927	1,133	3,009	1,394	1,641	1,201	720	70	1,011	733	1,484	1,213	2,158	1,867	2,302	1,218	1,813	1,513		
Taxation (assumed at 30%)	-278	-340	-903	-418	-492	-360	-216	-21	-303	-220	-445	-364	-647	-560	-691	-365	-544	-454		
Underlying RC after tax	649	793	2,106	976	1,149	841	504	49	708	513	1,039	849	1,511	1,307	1,611	853	1,269	1,059		
Days	91	91	92	92	90	91	92	92	90	91	92	92	90	91	92	92	91	91		
Capacity (kbd)	2,679	2,679	2,679	2,681	2,370	2,118	1,940	1,955	1,955	1,955	1,955	1,957	1,957	1,855	1,855	1,854	1,859	1,859		
Capacity (m bbls)	244	244	246	247	213	193	178	180	176	178	180	180	176	169	171	171	169	169		
Net Income/bbl - spot	2.66	3.25	8.55	3.96	5.39	4.36	2.82	0.27	4.02	2.88	5.78	4.72	8.58	7.74	9.44	5.00	7.50	6.26		
Net Income/bbl - Rolling 4Q				4.60	5.29	5.56	4.13	3.21	2.87	2.50	3.24	4.35	5.49	6.70	7.62	7.69	7.42	7.05		