### **Chapter 11 – Intangible assets**

The following are extracts relating to intangible assets from the financial statements of AstraZeneca plc, a global biopharmaceutical company listed in the UK.

#### Required:

Comment on the information provided in the context of international financial reporting standards relating to intangible assets. Discuss how this information will be used by an equity investor in their interpretation of the financial statements.

	Notes	2016	2015
		\$m	\$m
Product sales	1	21,319	23,641
Externalisation revenue	1	1,683	1,067
Total revenue		23,002	24,708
Cost of sales		(4,126)	(4,646)
Gross profit		18,876	20,062
Distribution costs		(326)	(339)
Research and development expense	2	(5,890)	(5,997)
Selling, general and administrative costs	2	(9,413)	(11,112)
Other operating income and expense	2	1,655	1,500
Operating profit		4,902	4,114
Finance income	3	67	46
Finance expense	3	(1,384)	(1,075)
Share of after tax losses in associates and joint			
ventures	10	(33)	(16)
Profit before tax		3,552	3,069
Taxation	4	(146)	(243)
Profit for the period		3,406	2,826
Other comprehensive income			
Foreign exchange arising on consolidation	21	(1,050)	(528)
Other items of other comprehensive income		(728)	190
Other comprehensive income for the period		(1,778)	(338)
Total comprehensive income for the period		1,628	2,488



	Notes	2016 \$m	2015 \$m
Assets			
Non-current assets			
Property, plant and equipment	7	6,848	6,413
Goodwill	8	11,658	11,800
Intangible assets	9	27,586	22,646
Investments in associates and joint ventures	10	99	85
Other investments	11	727	458
Derivative financial instruments	12	343	446
Other receivables	13	901	907
Deferred tax assets	4	1,102	1,294
		49,264	44,049
Current assets	4.4	2 224	2 4 4 2
Inventories	14	2,334	2,143
Trade and other receivables	15	4,573	6,622
Other investments	11	884	613
Derivative financial instruments	12	27	2
Income tax receivable		426	387
Cash and cash equivalents	16	5,018	6,240
		13,262	16,007
<u>Total assets</u>		62,526	60,056
Liabilities			
Current liabilities			
Interest-bearing loans and borrowings	17	(2,307)	(916)
Trade and other payables	18	(10,486)	(11,663
Derivative financial instruments	12	(18)	(9
Provisions	19	(1,065)	(708
Income tax payable		(1,380)	(1,483
		(15,256)	(14,869
Non-current liabilities			
Interest-bearing loans and borrowings	17	(14,051)	(14,137
Derivative financial instruments	12	(117)	(1
Deferred tax liabilities	4	(3,956)	(2,665
Retirement benefit obligations	20	(2,186)	(1,974
Provisions	19	(353)	(444)
Other payables	18	(9,488)	(7,457
		(30,601)	(26,678
Total liabilities		(45,857)	(41,547
Net assets		16,669	18,509



Equity			
Capital and reserves attributable to equ	uity holders of the Com	pany	
Share capital	22	316	316
Share premium account		4,351	4,304
Capital redemption reserve		153	153
Merger reserve		448	448
Other reserves	21	1,446	1,435
Retained earnings	21	8,140	11,834
		14,854	18,490
Non-controlling interests		1,815	19
Total equity		16,669	18,509

# Accounting policies extract Research and development

Research expenditure is recognised in profit in the year in which it is incurred.

Internal development expenditure is capitalised only if it meets the recognition criteria of IAS 38 'Intangible Assets'. Where regulatory and other uncertainties are such that the criteria are not met, the expenditure is recognised in profit and this is almost invariably the case prior to approval of the drug by the relevant regulatory authority. Where, however, recognition criteria are met, intangible assets are capitalised and amortised on a straight-line basis over their useful economic lives from product launch. At 31 December 2016, no amounts have met recognition criteria.

Payments to in-license products and compounds from third parties for new research and development projects (in process research and development), generally taking the form of upfront payments and milestones, are capitalised. Where payments made to third parties represent future research and development activities, an evaluation is made as to the nature of the payments. Such payments are expensed if they represent compensation for subcontracted research and development services not resulting in a transfer of intellectual property. By contrast, payments are capitalised if they represent compensation for the transfer of intellectual property developed at the risk of the third party. Since acquired products and compounds will only generate sales and cash inflows following launch, our policy is to minimise the period between final approval and launch if it is within AstraZeneca's control to do so. Assets capitalised are amortised, on a straight-line basis, over their useful economic lives from product launch. Under this policy, it is not possible to determine precise economic lives for individual classes of intangible assets. However, lives do not exceed 25 years.

Intangible assets relating to products in development are subject to impairment testing annually. All intangible assets are tested for impairment when there are indications that the carrying value may not be recoverable. Any impairment losses are recognised immediately in profit. Intangible assets relating to products which fail during development (or for which development ceases for other reasons) are tested for impairment at the point of termination and are written down to their recoverable amount (which is usually nil).



If, subsequent to an impairment loss being recognised, development restarts or other facts and circumstances change indicating that the impairment is less or no longer exists, the value of the asset is re-estimated and its carrying value is increased to the recoverable amount, but not exceeding the original value, by recognising an impairment reversal in profit.

Note 9 – Intangible assets

J	Product marketing and Software			
	marketing and distribution Other		developme	nt
	rights	intangibles	costs	Total
	\$m	\$m	\$m	\$m
Cost	γiii	γιιι	γIII	γIII
At 1 January 2015	31,899	2,812	2,026	36,737
Additions through business	•	·	•	•
combinations	3,126	_	_	3,126
Additions – separately acquired	1,341	60	77	1,478
Disposals	(198)	(4)	(14)	(216)
Exchange and other adjustments	(886)	(73)	(70)	(1,029)
At 31 December 2015	35,318	2,795	2,019	40,132
Additions through business				
combinations	7,307	_	_	7,307
Additions – separately acquired	789	32	77	898
Disposals	(339)	(15)	(141)	(495)
Exchange and other adjustments	(1,472)	(232)	(127)	(1,831)
At 31 December 2016	41,603	2,580	1,828	46,011
Amortisation and impairment loss	ses			
At 1 January 2015	12,545	1,653	768	5,643
Amortisation for year	1,718	174	107	1,999
Impairment	143	_	5	148
Disposals	(31)	(2)	(14)	(47)
Exchange and other adjustments	(271)	(52)	(47)	(370)
At 31 December 2015	14,104	1,773	1,609	17,486
Amortisation for year	1,454	162	85	1,701
Impairment	43	1	1	45
Reduction on disposal of subsidiari	ies (25)	(15)	(124)	(164)
Exchange and other adjustments	(481)	(85)	(77)	(643)
At 31 December 2016	15,095	1,836	1,494	18,425
Net book value				
At 31 December 2015	21,214	1,022	410	22,646
At 31 December 2016	26,508	744	334	27,586
	•			

Other intangibles consist mainly of licensing and rights to contractual income streams.



Amortisation charges are recognised in profit as follows:

	Product marketing and		Software	
	distribution	Other	developmen	t
	rights	intangibles	costs	Total
	\$m	\$m	\$m	\$m
Year ended 31 December 2015				
Cost of sales	369	_	_	369
Research and development expense	_	57	_	57
Selling, general and administrative				
costs	1,321	31	107	1,459
Other operating income and expense	e 28	86	_	114
	1,718	174	107	1,999
Year ended 31 December 2016				
Cost of sales	124	_	_	124
Research and development expense	_	48	_	48
Selling, general and administrative				
costs	1,327	31	85	1,443
Other operating income and expense	e 3	83	_	86
	1,454	162	85	1,701

Impairment charges are recognised in profit as follows:

	Product	a d	Software			
		distribution rights	•	Other	development	ent
			intangibles	costs	Total	
		\$m	\$m	<u>\$m</u>		
Year ended 31 December 2015						
Research and development expense	79	_	_	79		
Selling, general and administrative co	osts –	_	5	5		
Other operating income and expense	e 64			64		
	143	_	5	148		
Year ended 31 December 2016						
Research and development expense	32	1	_	33		
Selling, general and administrative co	osts 11		1	12		
	43	1	1	45		

### Impairment charges and reversals

Impairment charges relate to the termination, or reassessment of the likelihood of success, of several individual projects, none of which had significant capitalised values.



## Maynard: Financial Reporting, 2<sup>nd</sup> edition

The write downs in value of intangible assets, other than those arising from termination of R&D activities, were determined based on value in use calculations using discounted risk-adjusted projections of the products' expected post-tax cash flows over a period reflecting the patent-protected lives of the individual products. The full period of projections is covered by internal budgets and forecasts. In arriving at the appropriate discount rate to use for each product, we adjust AstraZeneca's post-tax weighted average cost of capital (7.0% for 2016, 2015 and 2014) to reflect the impact of risks and tax effects specific to the individual products. The weighted average pre-tax discount rate we used was approximately 13% (2015: 13%; 2014: 13%).

By their nature, the value in use calculations are sensitive to the underlying methods, assumptions and estimates. Consistent with prior years, as part of the impairment review process, management has identified that reasonably possible changes in certain key assumptions may cause the carrying amount of the intangible assets to exceed the recoverable amount. At 31 December 2016, the Group held intangible assets for products in development of \$14,261m (2015: \$8,732m; 2014: \$6,598m), for which the most sensitive assumption is the probability of technical success, and intangible assets for launched products of \$12,991m (2015: \$13,504m; 2014: \$13,915m), for which the most sensitive assumptions are the projected market share of the therapeutic area and expected pricing. In particular, where a trial is unsuccessful and there is no alternative use for the development asset, this will result in a full impairment. As detailed in Note 25, we have recognised significant intangible assets for late stage development programmes and launched products on business combinations at their fair value at acquisition. Management has identified that the impairment review calculations on these assets, in particular those from Acerta Pharma, ZS Pharma, BMS's share of the Global Diabetes Alliance and Almirall's respiratory franchise, are especially sensitive to the key assumptions noted above. Given their nature, impairment adjustments triggered by future events that have yet to occur may be material. In addition, there is a significant risk that impairments recognised in any one period may be subject to material adjustments in future periods.

