

CONDENSED FINANCIAL REPORT – SUPPLEMENTARY DATA
Novartis Q4 and FY 2018 Condensed Financial Report – Supplementary Data

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Novartis Q4 and FY 2018 Condensed Financial Report – Supplementary Data

Key figures	Q4 2018		Q4 2017		% change		FY 2018		FY 2017		% change	
	USD m	USD m	USD	cc ¹	USD	cc ¹	USD m	USD m	USD	cc ¹	USD	cc ¹
Net sales to third parties	13 269	12 915	3	6			51 900	49 109	6	5		
Divisional operating income	1 485	2 034	- 27	- 19			9 009	8 960	1	1		
Corporate income and expense, net	- 186	36	<i>nm</i>	<i>nm</i>			- 840	- 331	- 154	- 148		
Operating income	1 299	2 070	- 37	- 29			8 169	8 629	- 5	- 5		
As % of net sales	9.8	16.0					15.7	17.6				
Income from associated companies	141	416	- 66	- 66			6 438	1 108	<i>nm</i>	<i>nm</i>		
Interest expense	- 254	- 208	- 22	- 23			- 957	- 777	- 23	- 27		
Other financial income and expense	78	23	239	238			185	39	<i>nm</i>	<i>nm</i>		
Taxes	- 70	- 325	78	75			- 1 221	- 1 296	6	5		
Net income	1 194	1 976	- 40	- 32			12 614	7 703	64	64		
Basic earnings per share (USD)	0.52	0.85	-39	-32			5.44	3.28	66	66		
Net cash flows from operating activities	3 766	3 408	11				14 272	12 621	13			
Free cash flow¹	2 939	2 456	20				11 717	10 428	12			
Core¹												
Core operating income	3 387	3 223	5	11			13 823	12 850	8	8		
As % of net sales	25.5	25.0					26.6	26.2				
Core net income	2 881	2 818	2	8			11 938	11 391	5	5		
Basic core earnings per share (USD)	1.25	1.21	3	9			5.15	4.86	6	6		

nm = not meaningful

¹ Constant currencies (cc), core results and free cash flow are non-IFRS measures. An explanation of non-IFRS measures can be found on page 53 of the Condensed Financial Report. Unless otherwise noted, all growth rates in this Release refer to same period in prior year.

Fourth quarter

Net sales

Net sales were USD 13.3 billion (+3%, +6% cc) in the fourth quarter driven by volume growth of 9 percentage points (cc), mainly from *Cosentyx*, *Entresto*, Oncology including AAA, and Alcon. Strong volume growth was partly offset by the negative impacts of pricing (-2 percentage points) and generic competition (-1 percentage point).

Corporate income and expense, net

Corporate income and expense, which includes the cost of Group management and central services, amounted to an expense of USD 186 million in the fourth quarter compared to an income of USD 36 million in prior year mainly due to a sales milestone payment related to the Vaccines divestment to GSK recorded in prior year.

Operating income

Operating income was USD 1.3 billion (-37%, -29% cc) declining mainly due to higher restructuring and impairment charges, and the impacts from M&A transactions and growth investments, partly offset by continued strong sales growth. Operating income margin in constant currencies decreased 5.3 percentage points; currency had a negative impact of 0.9 percentage points, resulting in a net decrease of 6.2 percentage points to 9.8% of net sales. Core adjustments amounted to USD 2.1 billion (2017: USD 1.2 billion).

Core operating income was USD 3.4 billion (+5%, +11% cc) mainly driven by higher Innovative Medicines sales and improved gross margin in all divisions, partly offset by growth and launch investments, including AveXis. Core operating income margin in constant currencies increased by 1.2 percentage points; currency had a negative impact of 0.7 percentage points, resulting in a net increase of 0.5 percentage points to 25.5% of net sales.

Income from associated companies

Income from associated companies amounted to USD 141 million, compared to USD 416 million in prior year, declining due to the discontinuation of income from the GSK consumer healthcare joint venture (see Note 3). The share of income from Roche Holding AG (Roche) amounted to USD 142 million compared to USD 124 million in prior year, mainly due to higher estimated income.

Core income from associated companies decreased to USD 214 million from USD 299 million in prior year, due to the discontinuation of core income from the GSK consumer healthcare joint venture (see Note 3). The core income contribution from Roche amounted to USD 214 million compared to USD 187 million in prior year, the increase of USD 27 million was mainly due to the higher estimated contribution from core income.

Interest expense and other financial income/expense

Interest expense was USD 254 million compared to USD 208 million in prior year, due to increased costs of USD 49 million related to higher level of outstanding debt and partly offset by decreased costs of USD 3 million relating to discounting of long term liabilities.

Other financial income and expense amounted to an income of USD 78 million compared to an income of USD 23 million in prior year, driven by higher interest income of USD 111 million compared to USD 42 million in prior year and partly offset by higher currency losses of USD 29 million compared to currency losses of USD 14 million in prior year.

Taxes

The tax rate in the fourth quarter was 5.5% compared to 14.1% in prior year. The decrease was mainly a result of the effect of adjusting to the full year tax rate, which was less than previously estimated, and a tax charge in the prior year quarter related to US tax reform. The core tax rate was 15.9% compared to 15.6% in prior year.

Net income and EPS

Net income was USD 1.2 billion, (-40%, -32% cc) mainly due to the lower operating income. EPS was USD 0.52 (-39%, -32% cc) due to the lower net income.

Core net income was USD 2.9 billion (+2%, +8% cc) as growth in core operating income was partly offset by the discontinuation of core income from the GSK consumer healthcare joint venture. Core EPS was USD 1.25 (+3%, +9% cc) driven by higher core net income.

Free cash flow amounted to USD 2.9 billion (+20% USD) compared to USD 2.5 billion in prior year mainly driven by higher cash flows from operating activities and lower investments in intangible and financial assets.

Full year

Net sales

Net sales were USD 51.9 billion (+6%, +5% cc) in 2018 driven by volume growth of 9 percentage points (cc), mainly driven by *Cosentyx*, *AAA* and four additional products reaching blockbuster status (*Promacta/Revolade*, *Tafinlar + Mekinist*, *Entresto* and *Xolair*). Strong volume growth was partly offset by the negative impacts of pricing (-2 percentage points) and generic competition (-2 percentage points).

Corporate income and expense, net

Corporate income and expense, which includes the cost of Group management and central services, amounted to an expense of USD 840 million in 2018 compared to USD 331 million in prior year. The increase in net expense compared to prior year was mainly due to lower contributions from the Novartis Venture Fund, lower income from retained vaccines intellectual property, higher NBS restructuring costs and income from a sales milestone in the prior year related to the Vaccines divestment.

Operating income

Operating income was USD 8.2 billion (-5%, -5% cc), mainly due to the impacts from M&A transactions, higher restructuring and net impairment charges, and growth investments, partly offset by higher sales. Operating income margin in constant currencies decreased 1.6 percentage points; negative currency impact was 0.3 percentage points, resulting in a net decrease of 1.9 percentage points to 15.7% of net sales. Core adjustments amounted to USD 5.7 billion (2017: USD 4.2 billion).

Core operating income was USD 13.8 billion (+8%, +8% cc) driven by higher sales and gross margin, partly offset by growth investments, including *AveXis*. Core operating income margin in constant currencies increased by 0.7 percentage points; currency had a negative impact of 0.3 percentage points, resulting in a net increase of 0.4 percentage points to 26.6% of net sales.

Income from associated companies

Income from associated companies increased to USD 6.4 billion from USD 1.1 billion in prior year, an increase of USD 5.3 billion. This increase was mainly due to the pre-tax gain of USD 5.8 billion

recognized on the divestment of the 36.5% stake in the GSK consumer healthcare joint venture. Excluding this divestment gain, income from associated companies amounted to USD 648 million compared to USD 1.1 billion in prior year.

The share of income from Roche was USD 526 million compared to USD 456 million in prior year. The higher estimated income for Roche of USD 130 million in 2018, was partly offset by the net impacts from a negative prior year adjustment of USD 125 million recognized in 2018, compared to a negative prior year adjustment of USD 67 million recognized in 2017. The share of income from the GSK consumer healthcare joint venture decreased by USD 509 million compared to prior year, due to the discontinuation of the recognition of income from April 1, 2018 (see Note 3).

Core income from associated companies amounted to USD 1.1 billion compared to USD 1.3 billion in prior year. The core income contribution from Roche amounted to USD 970 million compared to USD 832 million in prior year, an increase of USD 138 million, mainly due to the higher estimated contribution from core income. The share of core income from GSK consumer healthcare joint venture decreased by USD 338 million compared to prior year, due to the discontinuation of core income from April 1, 2018 (see Note 3).

Interest expense and other financial income/expense

Interest expense was USD 957 million compared to USD 777 million in prior year, an increase of USD 180 million due to higher interest expense of USD 134 million relating to the level of outstanding debt, and higher interest expense of USD 46 million on discounting of long term liabilities.

Other financial income and expense amounted to an income of USD 185 million compared to an income of USD 39 million in prior year, mainly due to higher interest income of USD 294 million compared to USD 110 million in prior year, partly offset by higher currency losses of USD 65 million compared to currency losses of USD 58 million in prior year and higher other financial expenses, net of USD 44 million compared to USD 13 million in prior year.

Taxes

The tax rate in 2018 was 8.8% compared to 14.4% in prior year, due to the impact on taxes of the divestment of the 36.5% stake in the GSK consumer healthcare joint venture. Excluding the impact of the divestment, the tax rate in 2018 would have been 14.4% comparable to 14.4% in prior year, as the benefit from favorable profit mix was offset by the impact from the discontinuation of the recognition of the income from associated companies related to the GSK consumer healthcare joint venture from April 1, 2018 (see Note 3). The core tax rate was 15.7% compared to 15.3% in prior year.

Net income and EPS

Net income was USD 12.6 billion, compared to USD 7.7 billion in prior year, mainly benefiting from a USD 5.7 billion net gain from the divestment of our stake in the GSK consumer healthcare joint venture, in the second quarter. EPS was USD 5.44, compared to USD 3.28 in prior year, driven by higher net income and lower number of shares outstanding.

Core net income was USD 11.9 billion (+5%, +5% cc) driven by growth in core operating income, partly offset by the discontinuation of core income from the GSK consumer healthcare joint venture from April 1, 2018. Core EPS was USD 5.15 (+6%, +6% cc) driven by growth in core net income and the lower number of shares outstanding.

Free cash flow amounted to USD 11.7 billion (+12% USD) compared to USD 10.4 billion in prior year driven by higher cash flows from operating activities, which includes the receipt of a GSK sales milestone from the divested Vaccines business, partly offset by higher net investments in intangible assets.

Innovative Medicines

	Q4 2018	Q4 2017	% change	FY 2018	FY 2017	% change	
	USD m	USD m	USD cc	USD m	USD m	USD cc	
Net sales	9 022	8 559	5 9	34 892	32 278	8 8	
Operating income	1 300	1 757	-26 -19	7 871	7 595	4 4	
As % of net sales	14.4	20.5		22.6	23.5		
Core operating income	2 769	2 590	7 13	11 151	10 019	11 11	
As % of net sales	30.7	30.3		32.0	31.0		

Following the product transfers announced on October 24, 2017 and January 24, 2018, results from the Innovative Medicines Division in 2018 and 2017 exclude the Ophthalmic OTC products and a small portfolio of surgical diagnostic products, transferred to the Alcon Division effective January 1, 2018.

Fourth quarter

Net sales

Net sales were USD 9.0 billion (+5%, +9% cc) in the fourth quarter, as Pharmaceuticals grew 8% (cc) and Oncology grew 11% (cc). Volume contributed 11 percentage points to sales growth. Pricing had a negative impact of 1 percentage point and generic competition a negative impact of 1 percentage point.

Regionally, US (USD 3.2 billion, +12% cc) delivered a strong sales performance driven by *Cosentyx*, *Lutathera*, *Entresto*, and *Promacta/Revolade*. Europe sales (USD 3.1 billion, +8% cc) were driven by continued strong performance of *Cosentyx*, *Entresto*, *Tafinlar* + *Mekinist* and *Lucentis*. Japan sales (USD 0.6 billion, -1% cc) declined, mainly due to the biennial price cut and generic competition. Emerging Growth Markets sales increased 9% (cc) to USD 2.2 billion, including strong growth in China.

Novartis Pharmaceuticals BU sales were USD 5.5 billion (+8% cc). Immunology, Hepatology & Dermatology (USD 962 million, +34% cc) growth was driven by *Cosentyx* (USD 806 million, +33% cc). In Cardio-Metabolic, *Entresto* (USD 318 million, +76% cc) continued strong double-digit growth. Respiratory (USD 456 million, +7% cc) performance was driven by continued growth of *Xolair* (USD 268 million, +14% cc) and *Ultibro* (USD 122 million, +5% cc). In Neuroscience, *Gilenya* (USD 836 million, +4% cc) continued solid growth. Ophthalmology sales (USD 1.1 billion, +2% cc) were driven by strong growth of *Lucentis* (USD 520 million, +12% cc), partly offset by generic erosion across the portfolio.

Novartis Oncology BU sales increased by 11% (cc) to USD 3.5 billion. Growth was mainly driven by AAA brands¹ (USD 135 million), *Promacta/Revolade* (USD 330 million, +32% cc), *Tafinlar* + *Mekinist* (USD 313 million, +31% cc) and *Jakavi* (USD 256 million, +17% cc).

Operating income

Operating income was USD 1.3 billion (-26%, -19% cc) due to higher impairment and restructuring charges and higher growth investments, partly offset by continued strong sales growth. Operating income margin in constant currencies decreased by 5.2 percentage points; currency had a negative impact of 0.9 percentage points, resulting in a net decrease of 6.1 percentage points to 14.4% of net sales.

Core adjustments were USD 1.5 billion. Prior year core adjustments were USD 0.8 billion. Core adjustments increased compared to prior year mainly due to higher impairments and restructuring charges, partly offset by lower amortization of intangible assets. Core operating income was USD 2.8 billion (+7%, +13% cc) mainly driven by strong sales growth and gross margin expansion, partly offset by higher growth investments. Core operating income margin in constant currencies increased by 1.1 percentage points; currency had a negative impact of 0.7 percentage points, resulting in a net increase of 0.4 percentage points to 30.7% of net sales.

Core gross margin as a percentage of net sales increased by 1.4 percentage points (cc) mainly driven by higher revenues from profit sharing. Core R&D expenses decreased by 1.2 percentage points (cc) mainly driven by productivity and portfolio prioritization. Core SG&A expenses increased by 1.3 percentage points (cc) due to growth investments, including AveXis and AAA. Core Other Income and Expense, net, decreased the margin by 0.2 percentage points (cc).

¹ Products from the acquisition of Advanced Accelerator Applications S.A., including *Lutathera* and radiopharmaceutical diagnostic products

Full year

Net sales

Net sales were USD 34.9 billion (+8%, +8% cc) in the full year. Pharmaceuticals BU grew 7% (cc), driven by *Cosentyx* reaching USD 2.8 billion and *Entresto* USD 1.0 billion. Oncology BU grew 9% (cc), driven by AAA including *Lutathera*, both *Promacta/Revolade* and *Tafinlar + Mekinist* reaching USD 1.2 billion and *Jakavi*. Volume contributed 11 percentage points to sales growth. Generic competition had a negative impact of 2 percentage points. Pricing had a negative impact of 1 percentage point.

Regionally, in the US (USD 11.9 billion, +9% cc), the strong performance was driven by *Cosentyx*, *Entresto*, *Promacta/Revolade* and *Lutathera*. Europe sales (USD 12.3 billion, +8% cc) were driven by *Cosentyx*, *Entresto* and *Jakavi*. Japan sales (USD 2.4 billion, -3% cc) declined mainly due to the biennial price cut and generic competition. Emerging Growth Markets sales increased 10% (cc) to USD 8.6 billion, mainly driven by strong growth in China.

Operating income

Operating income was USD 7.9 billion (+4%, +4% cc) mainly driven by higher sales, partly offset by increased growth and launch investments, higher restructuring and net impairment charges. Operating income margin in constant currencies decreased 0.8 percentage points; currency had a negative impact of 0.1 percentage points, resulting in a net decrease of 0.9 percentage points to 22.6% of net sales.

Core adjustments amounted to USD 3.3 billion, including USD 2.2 billion of amortization of intangible assets. Prior year core adjustments were USD 2.4 billion. Core adjustments increased compared to prior year mainly due to higher restructuring and net impairment charges. Core operating income was USD 11.2 billion (+11%, +11% cc) mainly driven by strong sales growth and gross margin expansion, partly offset by higher growth investments. Core operating income margin in constant currencies increased by 1.0 percentage points; currency had a negligible impact, resulting in a net increase of 1.0 percentage points to 32.0% of net sales.

Core gross margin as a percentage of net sales increased by 0.9 percentage points (cc). Core R&D expenses decreased by 0.8 percentage points (cc). Core SG&A expenses increased by 0.7 percentage points (cc) due to launch investments and AveXis and AAA acquisitions. Core Other Income and Expense, net, was in line with prior year.

Innovative Medicines product review

All comments below focus on fourth quarter movements in constant currencies. More information on the products can be found in our annual report.

ONCOLOGY BUSINESS UNIT

	Q4 2018	Q4 2017	% change		FY 2018	FY 2017	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
<i>Tasigna</i>	476	485	-2	0	1 874	1 841	2	1
<i>Sandostatin</i>	399	421	-5	-3	1 587	1 612	-2	-2
<i>Gleevec/Glivec</i>	373	448	-17	-14	1 561	1 943	-20	-20
<i>Afinitor/Votubia</i>	399	407	-2	0	1 556	1 525	2	2
<i>Promacta/Revolade</i>	330	255	29	32	1 174	867	35	35
<i>Tafinlar + Mekinist¹</i>	313	246	27	31	1 155	873	32	31
<i>Exjade/Jadenu</i>	286	281	2	4	1 099	1 059	4	3
<i>Jakavi</i>	256	228	12	17	977	777	26	24
<i>Votrient</i>	198	213	-7	-4	828	808	2	2
<i>Kisqali</i>	60	35	71	71	235	76	209	210
<i>Lutathera</i>	81		nm	nm	167		nm	nm
<i>Kymriah</i>	28	6	nm	nm	76	6	nm	nm
Other	300	218	38	41	1 139	887	28	27
Total Oncology business unit	3 499	3 243	8	11	13 428	12 274	9	9

¹Majority of sales for *Mekinist* and *Tafinlar* are combination, but both can be used as a monotherapy
nm = not meaningful

Tasigna (USD 476 million, 0% cc) was broadly in line with prior year.

Sandostatin (USD 399 million, -3% cc) declined slightly, mainly due to competitive pressure in the US.

Gleevec/Glivec (USD 373 million, -14% cc) continued to decline due to generic competition in most major markets.

Afinitor/Votubia (USD 399 million, 0% cc) was broadly in line as competitive pressure in the breast cancer indication in Europe and Japan was offset by growth mainly in the US.

Promacta/Revolade (USD 330 million, +32% cc) grew at a strong double-digit rate across all regions driven by increased use in chronic immune thrombocytopenia.

Tafinlar + Mekinist (USD 313 million, +31% cc) continued strong double-digit growth due to increased demand in metastatic melanoma and NSCLC across all regions and strong uptake in adjuvant melanoma from our launch in the US and Europe.

Exjade/Jadenu (USD 286 million, +4% cc) grew driven by continued uptake of the new formulation in Europe, Japan and Emerging Growth Markets.

Jakavi (USD 256 million, +17% cc) continued double-digit growth across all regions driven by the myelofibrosis and polycythemia vera indications.

Votrient (USD 198 million, -4% cc) sales declined due to competitive pressure in the US and Europe partly offset by growth in other regions.

Kisqali sales were USD 60 million (+71% cc). In the US, demand is partly driven by the label extension based on the MONALEESA 3/7 trials, also approved in Europe in December. Reimbursement agreements in Europe had a temporary impact on Q4 growth in the region. Additional markets are expected to gain reimbursement over the next 12 months and filings are underway with other health authorities worldwide.

Lutathera (USD 81 million) launch in the US is progressing well, with over 100 centers actively treating. Sales from all AAA brands (including *Lutathera* and radiopharmaceutical diagnostic products) were USD 135 million in the quarter.

Kymriah sales were USD 28 million with the US as the main driver. Progress was made on access in Europe with commercial orders in five countries, and Australia approved both indications in December. EMA approved wider commercial specifications in Q4 and a corresponding FDA submission was completed. Additionally, we are expanding global manufacturing including multiple collaborations and doubling the capacity at Morris Plains. Long term clinical data in pediatric ALL and DLBCL presented at ASH reinforced the clinical benefits of *Kymriah*.

PHARMACEUTICAL BUSINESS UNIT

OPHTHALMOLOGY

	Q4 2018		Q4 2017		% change		FY 2018		FY 2017		% change	
	USD m	USD m	USD	cc	USD	cc	USD m	USD m	USD	cc	USD	cc
<i>Lucentis</i>	520	485	7	12			2 046	1 888	8	7		
Travoprost Group	131	150	-13	-10			517	589	-12	-12		
Topical Olopatadine Group	40	59	-32	-30			247	284	-13	-13		
Other	436	455	-4	-1			1 748	1 860	-6	-6		
Total Ophthalmology	1 127	1 149	-2	2			4 558	4 621	-1	-2		

Lucentis (USD 520 million, +12% cc) delivered double-digit growth driven by strong retina market growth and the implementation of a focused global campaign.

Travoprost Group (USD 131 million, -10% cc) declined mainly due to generic competition in Europe and increased competition in the US.

Topical Olopatadine Group (USD 40 million, -30% cc) declined mainly due to generic competition for *Pataday* in the US.

NEUROSCIENCE

	Q4 2018		Q4 2017		% change		FY 2018		FY 2017		% change	
	USD m	USD m	USD	cc	USD	cc	USD m	USD m	USD	cc	USD	cc
<i>Gilenya</i>	836	825	1	4			3 341	3 185	5	4		
Other	25	25	0	5			88	102	-14	-16		
Total Neuroscience	861	850	1	4			3 429	3 287	4	4		

Gilenya (USD 836 million, +4% cc), with approximately 267,000 patients treated worldwide, continued solid growth, driven by increased demand in Europe and US. Results from the Phase IIIb ASSESS study showed *Gilenya* 0.5mg is the first and only disease modifying therapy to show superiority in reducing relapses vs glatiramer acetate in a controlled, head-to-head trial. Treatment with *Gilenya* 0.5mg resulted in a 40.7% relative reduction in the rate of relapses over one year, compared to patients on glatiramer acetate 20mg. On July 11, 2018, the US Patent Trial and Appeal Board issued a decision upholding the validity of the dosage regimen patent, and that decision is being appealed. On December 7, 2018, the Federal Circuit upheld the validity of the US compound patent, and further proceedings are ongoing. Novartis is taking steps to enforce the US dosage regimen patent against generic manufacturers. A favorable resolution of the dosage regimen patent litigation may enable a longer period of US market exclusivity for *Gilenya*.

Aimovig, with more than 165,000 patients treated worldwide in the post-marketing setting, has now been launched in 25 countries for the preventative treatment of migraine in adults. *Aimovig* was successfully launched in the US, and ex-US launches are now underway, including local reimbursement procedures. Additional regulatory filings are underway with other health authorities worldwide. *Aimovig* is co-commercialized with Amgen in the US, where Amgen records sales, and Novartis has exclusive commercialization rights for all territories excluding US and Japan.

IMMUNOLOGY, HEPATOLOGY and DERMATOLOGY

	Q4 2018		Q4 2017		% change		FY 2018		FY 2017		% change	
	USD m	USD m	USD	cc	USD	cc	USD m	USD m	USD	cc	USD	cc
<i>Cosentyx</i>	806	615	31	33			2 837	2 071	37	36		
<i>Ilaris</i>	155	115	35	40			554	402	38	39		
Other	1		nm	nm			1	1	0	0		
Total Immunology, Hepatology and Dermatology	962	730	32	34			3 392	2 474	37	37		

Xolair sales for all indications are reported in the Respiratory franchise
nm = not meaningful

Cosentyx (USD 806 million, +33% cc) delivered strong volume growth across all indications in the US and EU. In the US sales grew 34%, while in the rest of the world sales grew 32% (cc). In October, Novartis presented five-year data in psoriatic arthritis and ankylosing spondylitis confirming the long-term efficacy and safety benefits of *Cosentyx*. This adds to the results of a Phase III psoriasis study reported in 2017, demonstrating that *Cosentyx* delivers high and long-lasting skin clearance in patients with moderate-to-severe plaque psoriasis with high response rates essentially maintained from year one to year five. These scientific data are reinforcing *Cosentyx*'s unique position as a long-lasting comprehensive treatment across PsO, PsA and AS.

Ilaris (USD 155 million, +40% cc) sales were driven by strong double-digit volume growth, mostly in Europe and the US.

Xolair continued to grow in Chronic Spontaneous Urticaria (CSU, also known as CIU), a severe skin disease, driven by increasing disease awareness. The Asthma indication is managed by the Respiratory franchise which reports all *Xolair* sales.

RESPIRATORY

	Q4 2018		Q4 2017		% change		FY 2018		FY 2017		% change	
	USD m	USD m	USD	cc	USD	cc	USD m	USD m	USD	cc	USD	cc
<i>Ultibro Breezhaler</i>	122	120	2	5			454	411	10	8		
<i>Seebri Breezhaler</i>	37	42	-12	-9			148	151	-2	-4		
<i>Onbrez Breezhaler</i>	23	29	-21	-14			101	112	-10	-10		
Subtotal COPD Portfolio	182	191	-5	-1			703	674	4	2		
<i>Xolair</i> ¹	268	247	9	14			1 039	920	13	12		
Other	6	7	-14	-13			25	23	9	4		
Total Respiratory	456	445	2	7			1 767	1 617	9	8		

¹*Xolair* sales for all indications are reported in the Respiratory franchise

Ultibro Breezhaler (USD 122 million, +5% cc) an inhaled LABA/LAMA, showed continued growth, driven by positive FLAME and CLAIM study results as well as the GOLD Strategy 2018 Report and further supported by the published SUNSET study results.

Seebri Breezhaler (USD 37 million, -9% cc) an inhaled LAMA, declined due to competition in Europe and a focus of resources on *Ultibro Breezhaler*.

Onbrez Breezhaler (USD 23 million, -14% cc) an inhaled LABA, declined due to a focus of resources on *Ultibro Breezhaler*.

Xolair (USD 268 million, +14% cc) continued to grow in both indications, Severe Allergic Asthma (SAA) and CSU, and reached the USD 1.0 billion milestone for the full year 2018. Growth in SAA was mainly driven by strong performance in Emerging Growth Markets and Europe.

CARDIO-METABOLIC

	Q4 2018		Q4 2017		% change		FY 2018		FY 2017		% change	
	USD m	USD m	USD	cc	USD	cc	USD m	USD m	USD	cc	USD	cc
<i>Entresto</i>	318	185	72	76			1 028	507	103	102		
Other	6	5	20	30			22	17	29	33		
Total Cardio-Metabolic	324	190	71	75			1 050	524	100	100		

Entresto (USD 318 million, +76% cc) continued strong sales growth across all regions and reached the USD 1.0 billion milestone for the full year 2018. New data from the landmark PIONEER-HF trial presented in November at American Heart Association 2018 and published in the NEJM reconfirms the superiority of *Entresto* over enalapril as demonstrated in PARADIGM-HF. The PIONEER trial shows that initiating *Entresto* in the hospital setting in a wide range of HFrEF patients stabilized soon after an acute decompensated heart failure event is safe and provides better outcomes than enalapril.

ESTABLISHED MEDICINES

	Q4 2018		Q4 2017		% change		FY 2018		FY 2017		% change	
	USD m	USD m	USD	cc	USD	cc	USD m	USD m	USD	cc	USD	cc
<i>Galvus</i> Group	327	327	0	6			1 284	1 233	4	6		
<i>Diovan</i> Group	260	244	7	12			1 023	957	7	7		
<i>Exforge</i> Group	251	249	1	5			1 002	960	4	4		
<i>Zortress/Certican</i>	120	116	3	8			464	414	12	12		
<i>Neoral/Sandimmun(e)</i>	114	124	-8	-5			463	488	-5	-6		
<i>Voltaren/Cataflam</i>	112	119	-6	-1			445	465	-4	-3		
Other	609	773	-21	-18			2 587	2 964	-13	-12		
Total Established Medicines	1 793	1 952	-8	-4			7 268	7 481	-3	-3		

Galvus Group (USD 327 million, +6% cc) continues to grow driven by solid performance in Emerging Growth Markets including China.

Diovan Group (USD 260 million, +12% cc) grew strongly in Europe and Emerging Growth Markets mainly due to the recall of generic products.

Exforge Group (USD 251 million, +5% cc) saw strong growth in Emerging Growth Markets partly offset by decline in Europe, US and Japan due to generics.

Zortress/Certican (USD 120 million, +8% cc) continued to show growth across almost all regions.

Neoral/Sandimmun(e) (USD 114 million, -5% cc) declined due to generic competition and mandatory price reductions.

Voltaren/Cataflam (USD 112 million, -1% cc) was broadly in line with prior year.

Sandoz

	Q4 2018	Q4 2017	% change		FY 2018	FY 2017	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Net sales	2 459	2 595	-5	-2	9 859	10 060	-2	-3
Operating income	237	305	-22	-12	1 332	1 368	-3	-2
As % of net sales	9.6	11.8			13.5	13.6		
Core operating income	482	543	-11	-5	2 002	2 080	-4	-3
As % of net sales	19.6	20.9			20.3	20.7		

Sandoz US Generics Transaction

Novartis announced on September 6, 2018 that it has agreed to sell selected portions of its Sandoz US portfolio, specifically the Sandoz US dermatology business and US oral solids portfolio, to Aurobindo Pharma USA Inc. This transaction is expected to be completed during 2019.

Fourth quarter

Net sales

Sandoz net sales were USD 2.5 billion (-5%, -2% cc) in the fourth quarter with 7 percentage points of price erosion mainly in the US, partially offset by volume growth of 5 percentage points. Excluding the US, net sales grew 3% (cc).

Sales in the US were USD 693 million (-13% cc), mainly due to continued industry-wide pricing pressure. Sales in Europe were USD 1.2 billion (+4% cc). Sales in Asia / Africa / Australasia were USD 333 million (-9% cc), mainly due to lower sales in the Middle East. Sales in Canada and Latin America were USD 203 million (+18% cc).

Global sales of Biopharmaceuticals (biosimilars, biopharmaceutical contract manufacturing and *Glatopa*) grew 29% (cc) to USD 390 million, driven by both Europe and US. By region, Europe growth was mainly driven by *Rixathon* (rituximab), *Erelzi* (etanercept) and the recent launch of *Hyrimoz* (adalimumab). Additionally *Zessly* (infliximab) and *Ziextenzo* (pegfilgrastim) launched during the quarter. In the US growth was mainly driven by *Zarxio* (filgrastim).

Retail sales were USD 1.9 billion (-7% cc), due to the decline in the US (-20% cc). Total Anti-Infectives franchise sales were USD 344 million (-4% cc), including finished dosage forms sold under the Sandoz name and Anti-Infectives sold to third parties for sale under their own name (USD 136 million, +1% cc).

Operating income

Operating income was USD 237 million (-22%, -12% cc) mainly due to impairment charges related to the Sandoz US Generics Transaction, and lower sales, partly offset by continued gross margin expansion and lower amortization. Operating income margin declined by 1.2 percentage points in constant currencies, currency had a negative impact of 1.0 percentage point, resulting in a net decrease of 2.2 percentage points to 9.6% of net sales.

Core adjustments were USD 245 million, broadly in line with prior year (USD 238 million). Core operating income was USD 482 million (-11%, -5% cc) mainly due to the sales decline, R&D and ex-US M&S investments mainly supporting Biopharmaceuticals launches, partially offset by continued core gross margin expansion. Core operating income margin decreased by 0.6 percentage points, currency had a negative impact of 0.7 percentage points, resulting in a net decrease of 1.3 percentage points to 19.6% of net sales.

Core gross margin as a percentage of net sales increased by 1.9 percentage points (cc), mainly driven by productivity gains and favorable product and geographic mix. Core R&D expenses increased by 1.2 percentage points (cc). Core SG&A expenses increased by 1.1 percentage points (cc), mainly due to higher M&S investments in Biopharmaceuticals and key ex-US markets. Core Other Income and Expense decreased the margin by 0.2 percentage points (cc).

Full Year

Net sales

Sandoz net sales were USD 9.9 billion (-2%, -3% cc) in 2018 with 8 percentage points of price erosion mainly in the US, partially offset by volume growth of 5 percentage points. Excluding the US, net sales grew by 4% (cc).

Sales in the US were USD 2.8 billion (-16% cc), mainly due to continued industry-wide pricing pressure. Sales in Europe were USD 5.0 billion (+5% cc), with growth in biosimilars mainly in Germany, France, UK and Italy. Sales in Asia / Africa / Australasia were USD 1.4 billion (-2% cc). Sales in Canada and Latin America were USD 779 million (+8% cc).

Global sales of Biopharmaceuticals grew 24% (cc) to USD 1.4 billion, driven by both Europe and US. By region, Europe continued double-digit growth driven by *Rixathon* (rituximab) and *Erelzi* (etanercept). In the US growth was mainly driven by *Zarxio* (now the leading filgrastim in the US market).

Retail sales were USD 7.9 billion (-7% cc) due to the decline in the US (-22% cc). Total Anti-Infectives franchise sales were USD 1.4 billion (-3% cc), including finished dosage forms sold under the Sandoz name and Anti-Infectives sold to third parties for sale under their own name (USD 543 million, +3% cc).

Operating income

Operating income was USD 1.3 billion (-3%, -2% cc) mainly driven by impairment charges related to the Sandoz US Generics Transaction, and lower sales, partly offset by continued gross margin expansion and lower amortization. Operating income margin was broadly in line with prior year.

Core adjustments amounted to USD 670 million, including USD 363 million of amortization. Prior year core adjustments were USD 712 million. Core adjustments declined compared to prior year driven by net changes in legal provisions and lower amortization partially offset by impairment charges related to the Sandoz US Generics Transaction. Core operating income was USD 2.0 billion (-4%, -3% cc), mainly due to the sales decline and ex-US M&S investments, partially offset by continued core gross margin expansion. Core operating income margin decreased by 0.1 percentage points, currency had a negative impact of 0.3 percentage points, resulting in a net decrease of 0.4 percentage points to 20.3% of net sales.

Core gross margin as a percentage of net sales increased by 2.4 percentage points (cc), mainly driven by productivity gains and favorable product and geographic mix. Core R&D expenses increased by 0.4 percentage points (cc). Core SG&A expenses increased by 2.2 percentage points (cc), mainly due to higher M&S investments in key ex-US markets. Core Other Income and Expense increased the margin by 0.1 percentage points (cc).

Alcon

	Q4 2018	Q4 2017	% change		FY 2018	FY 2017	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Net sales	1 788	1 761	2	4	7 149	6 771	6	5
Operating loss	-52	-28	-86	-8	-194	-3	nm	nm
As % of net sales	-2.9	-1.6			-2.7	0.0		
Core operating income	280	302	-7	0	1 279	1 168	10	10
As % of net sales	15.7	17.1			17.9	17.3		

nm = not meaningful

Following the product transfers announced on October 24, 2017 and January 24, 2018, results from the Alcon Division in 2018 and 2017 include the Ophthalmic OTC products and a small portfolio of surgical diagnostic products, transferred from the Innovative Medicines Division effective January 1, 2018.

Fourth quarter

Net sales

Net sales were USD 1.8 billion (+2%, +4% cc) in the fourth quarter. Surgical growth of 6% (cc) was driven by continued double-digit growth of advanced technology IOLs (AT-IOLs), as well as continued growth in consumables. Vision Care sales grew 3% (cc), including continued double-digit growth of *Dailies Total1* and strong *Systane* performance.

Sales in the US grew 4% (cc), Asia / Africa / Australia grew 9% (cc) and Europe grew 2% (cc). Emerging Growth Markets grew 10% (cc).

Operating income/loss

Operating loss was USD 52 million compared to a loss of USD 28 million in the prior year, as higher sales and gross margin were offset by investments in key growth drivers, including direct to consumer advertising for *Dailies Total1* and *Systane*. Operating income margin in constant currency was in line with prior year; currency had a negative impact of 1.3 percentage points, resulting in a net decrease of 1.3 percentage points to negative 2.9% of net sales.

Core adjustments amounted to USD 332 million, in line with prior year (USD 330 million). Core operating income was USD 280 million (-7%, 0% cc) as higher sales and gross margin were offset by investments in key growth drivers. Core operating income margin in constant currencies declined by 0.7 percentage points; currency had a negative impact of 0.7 percentage points, resulting in a net decrease of 1.4 percentage points to 15.7% of net sales.

Core gross margin as a percentage of net sales increased 2.4 percentage points (cc) including production efficiencies, favorable price and product mix. Core R&D expenses increased 0.2 percentage points. Core SG&A expenses increased by 3.6 percentage points (cc), driven by increased investment in consumer advertising and operational investments. Core Other Income and Expense increased the margin by 0.7 percentage points (cc).

Full year

Net sales

Net sales were USD 7.1 billion (+6%, +5% cc) for the full year. Surgical sales grew 7% (cc), with growth across all key product categories, driven mainly by AT-IOLs and consumables. Vision Care sales grew 3% (cc), mainly driven by growth in contact lenses with continued double-digit growth of *Dailies Total1*.

Operating income/loss

Operating loss was USD 194 million for the full year, compared to a loss of USD 3 million in prior year, as higher sales were more than offset by the voluntary withdrawal of *CyPass* (USD 0.3 billion) and higher investments in growth drivers. Operating income margin in constant currencies decreased 2.5 percentage points; currency had a negative impact of 0.2 percentage points, resulting in a net decrease of 2.7 percentage points to negative 2.7% of net sales.

Core adjustments increased to USD 1.5 billion compared to USD 1.2 billion in the prior year, primarily due to the voluntary withdrawal of *CyPass*. Core operating income was USD 1.3 billion (+10%, +10% cc)

as higher sales and improved gross margin were partly offset by investments in growth drivers. Core operating income margin in constant currencies increased by 0.8 percentage points; currency had a negative impact of 0.2 percentage points, resulting in a net increase of 0.6 percentage points to 17.9% of net sales.

Core gross margin as a percentage of net sales increased by 1.4 percentage points (cc). Core R&D expenses decreased 0.2 percentage points (cc). Core SG&A expenses increased by 0.9 percentage points (cc) reflecting higher growth and operational investments. Core Other Income and Expense increased the margin by 0.1 percentage points (cc).

Alcon product review

All comments below focus on fourth quarter movements in constant currencies.

SURGICAL

	Q4 2018	Q4 2017	% change		FY 2018	FY 2017	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Consumables	579	556	4	6	2 227	2 097	6	6
Implantables	290	286	1	6	1 136	1 034	10	11
Equipment/Other	157	159	-1	3	636	594	7	8
Total Surgical	1 026	1 001	2	6	3 999	3 725	7	7

Surgical sales were USD 1.0 billion (+6% cc) in the fourth quarter, primarily driven by growth in implantables and consumables. Implantables grew 6% (cc) due to continued strong performance in advanced technology intraocular lenses (AT-IOLs). Consumables grew 6% (cc), benefiting from a strong cataract installed equipment base. Equipment/Other grew 3% (cc), driven primarily by growth in equipment service revenues.

VISION CARE

	Q4 2018	Q4 2017	% change		FY 2018	FY 2017	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Contact lenses	450	443	2	4	1 928	1 833	5	4
Ocular health	312	317	-2	1	1 222	1 213	1	1
Total Vision Care	762	760	0	3	3 150	3 046	3	3

Ocular Health includes contact lens care, dry eye and other over the counter eye care products.

Vision Care sales were USD 762 million (+3% cc) in the fourth quarter, primarily driven by strong growth in contact lenses. Contact lenses grew 4% (cc) as a result of continued double-digit growth of *Dailies Total1*, including multifocal lenses to treat presbyopia. Ocular health grew 1% (cc), driven by continued growth of *Systane* in North America following the second-quarter launch of *Systane Complete*, while contact lens care sales were in line with prior year.

GROUP CASH FLOW AND BALANCE SHEET

Cash flow

Fourth quarter

Net cash flows from operating activities amounted to USD 3.8 billion in the fourth quarter, compared to USD 3.4 billion in prior year. The increase was mainly driven by higher net income adjusted for non-cash items and other adjustments, including divestment gains, as well as favorable hedging results.

Net cash flows used in investing activities amounted to USD 4.9 billion, compared to USD 1.0 billion in prior year. The current year period includes the cash outflows for the acquisition of Endocyte, Inc. of USD 1.8 billion (USD 2.1 billion, net of cash acquired USD 0.3 billion), as well as for net purchases of marketable securities and commodities of USD 2.0 billion. Cash outflows for the purchase of property, plant and equipment of USD 0.7 billion, for intangible assets of USD 0.3 billion, for financial assets and other non-current assets of USD 0.1 billion were partly offset by cash inflows from the sale of property, plant and equipment, intangible and financial assets of total USD 0.2 billion.

In prior year, net cash flows used in investing activities mainly related to cash outflows for purchase of property, plant and equipment of USD 0.6 billion, intangible assets of USD 0.3 billion and financial assets of USD 0.2 billion. This was partly offset by cash inflows from the sale of property, plant and equipment, intangible assets and financial assets of USD 0.2 billion.

Net cash flows from financing activities amounted to an inflow of USD 0.5 billion, compared to a cash outflow of USD 2.4 billion in the prior year quarter. The current year period mainly includes the net increase in current financial debt of USD 0.5 billion.

In prior year, net cash flows used in financing activities included cash outflows of USD 1.4 billion for the net repayments of current financial debts and for net treasury share transactions of USD 0.9 billion.

Free cash flow amounted to USD 2.9 billion (+20% USD) compared to USD 2.5 billion in prior year quarter mainly driven by higher cash flows from operating activities and lower investments in intangible and financial assets.

Full year

Net cash flows from operating activities amounted to USD 14.3 billion, compared to USD 12.6 billion in 2017. The increase was mainly driven by higher net income adjusted for non-cash items and other adjustments, including divestment gains, as well as favorable hedging results and working capital, which includes the receipt of a GSK sales milestone from the divested Vaccines business.

Net cash flows used in investing activities amounted to USD 5.6 billion, compared to USD 3.1 billion in 2017. The current year includes cash inflows of USD 13.0 billion from the divestment of our 36.5% stake in the GSK consumer healthcare and of USD 1.1 billion for the proceeds from sales of property, plant and equipment, intangible and financial assets. This was offset by cash outflows for the acquisitions of businesses of USD 13.9 billion, mainly Advanced Accelerator Applications S.A. of USD 3.5 billion, net (USD 3.9 billion, net of cash acquired USD 0.4 billion), AveXis, Inc. of USD 8.3 billion, net (USD 8.7 billion, net of cash acquired USD 0.4 billion) and Endocyte, Inc. of USD 1.8 billion, net (USD 2.1 billion, net of cash acquired USD 0.3 billion), as well as for the purchase of property, plant and equipment of USD 1.8 billion and for the purchase of intangible assets of USD 1.6 billion. Net purchases of marketable securities and commodities amounted to USD 2.0 billion.

In 2017, net cash flows used in investing activities mainly related to cash outflows for the purchase of property, plant and equipment of USD 1.7 billion, intangible assets of USD 1.1 billion, financial assets and other non-current assets of USD 0.5 billion, and for acquisitions and divestments of businesses, net (including the Ziaco Group Limited and Encore Vision, Inc. acquisitions) of USD 0.8 billion. This was partly offset by cash inflows from the sale of property, plant and equipment, intangible assets and financial assets of USD 1.1 billion.

Net cash flows used in financing activities amounted to USD 4.2 billion, compared to USD 7.7 billion in 2017. The current year mainly includes the cash outflows for the dividend payment of USD 7.0 billion and for net treasury share transactions of USD 1.3 billion, partly offset by a net increase in current and non-current financial debt of USD 4.2 billion. This increase was mainly from the issuance of euro bonds totaling USD 2.8 billion (notional amount EUR 2.25 billion) and the net increase in current financial debts of USD 1.7 billion, partly offset by repayments of non-current financial debts of USD 0.4 billion.

In 2017, net cash flows used in financing activities included cash outflows for the dividend payment of USD 6.5 billion and for net treasury share transactions of USD 5.2 billion. The net cash inflows from current and non-current financial debts of USD 4.0 billion were mainly from the issuance of bonds denominated in US dollar and euro for a notional amount of USD 3.0 billion and EUR 1.85 billion (USD 2.0 billion), respectively, partially offset by the repayment of current and non-current financial debt of USD 0.9 billion.

Free cash flow amounted to USD 11.7 billion (+12% USD) compared to USD 10.4 billion in prior year driven by higher cash flows from operating activities, which includes the receipt of a GSK sales milestone from the divested Vaccines business, partly offset by higher net investments in intangible assets.

Balance sheet

Assets

Total non-current assets of USD 110.0 billion at December 31, 2018 increased by USD 5.1 billion compared to December 31, 2017. Property, plant and equipment decreased by USD 0.8 billion to USD 15.7 billion, mainly due to unfavorable currency translation adjustments and depreciation and impairments which more than offset net additions. Goodwill increased by USD 3.5 billion to USD 35.3 billion, and intangible assets other than goodwill increased by USD 8.7 billion to USD 38.7 billion. These increases were mainly due to the acquisitions of Advanced Accelerator Applications S.A., AveXis, Inc. and Endocyte, Inc. These acquisitions were also the main drivers for the increase of deferred tax assets by USD 0.5 billion to USD 8.7 billion. Investments in associated companies decreased by USD 7.0 billion to USD 8.4 billion, mainly due to the divestment of the 36.5% stake in the GSK consumer healthcare joint venture to GSK in 2018.

Total current assets of USD 35.6 billion at December 31, 2018 increased by USD 7.4 billion, compared to December 31, 2017, mainly due to an increase in cash and cash equivalents of USD 4.4 billion and marketable securities, commodities, time deposits and derivative financial instruments of USD 2.1 billion. Trade receivables increased slightly by USD 0.1 billion to USD 8.7 billion whereas inventories and income tax receivables remained flat compared to the previous year end. This was offset by a decrease in other current assets of USD 0.1 billion.

Assets of disposal group held for sale of USD 0.8 billion include net assets related to the pending divestment of the Sandoz US dermatology business and generic US oral solids portfolio to Aurobindo Pharma USA Inc., as announced on September 6, 2018 (see Note 3).

Liabilities

Total non-current liabilities of USD 37.3 billion at December 31, 2018 increased by USD 1.8 billion compared to December 31, 2017. Long-term financial debts decreased by USD 0.8 billion to USD 22.5 billion, mainly driven by foreign exchange translation adjustments, as the issuance of a euro bond of USD 2.8 billion (notional amount EUR 2.25 billion) was offset by the reclassification to current financial debts of a US dollar bond of USD 3.0 billion. Deferred tax liabilities increased by USD 2.3 billion to USD 7.5 billion mainly due to the acquisitions of Advanced Accelerator Applications S.A., AveXis, Inc. and Endocyte, Inc. Provisions and other non-current liabilities increased by USD 0.3 billion to USD 7.3 billion, mainly due to an increase of the pension liabilities of USD 0.4 billion resulting from actuarial losses.

Total current liabilities of USD 29.6 billion at December 31, 2018 increased by USD 6.2 billion compared to December 31, 2017. Trade payables of USD 5.6 billion increased slightly by USD 0.4 billion. Current financial debts and derivatives of USD 9.7 billion increased by USD 4.4 billion, due to higher net short-term borrowings and the reclassification of the US dollar bond of USD 3.0 billion from non-current financial debts. Current income tax liabilities of USD 2.0 billion increased by USD 0.3 billion and provisions and other current liabilities of USD 12.3 billion by USD 1.1 billion, mainly on account of accruals for revenue deduction and restructuring provision.

Group equity

The Group's equity of USD 78.7 billion at December 31, 2018 increased by USD 4.5 billion compared to USD 74.2 billion at December 31, 2017. The increase was mainly due to net income of USD 12.6 billion, partially offset by the dividend payment of USD 7.0 billion. The increase in equity from the exercise of options and employee transactions, equity-based compensation and sale of treasury shares of USD 1.5 billion was more than offset by the net purchase of treasury shares of USD 2.0 billion. Treasury share repurchase obligation under a share buyback trading plan decreased equity by USD 0.3 billion.

Net debt and debt/equity ratio

The net debt decreased to USD 16.2 billion at December 31, 2018 compared to USD 19.0 billion at December 31, 2017.

The Group's liquidity amounted to USD 16.0 billion at December 31, 2018 compared to USD 9.5 billion at December 31, 2017, and the total of the non-current and current financial debt, including derivatives, amounted to USD 32.1 billion at December 31, 2018, compared to USD 28.5 billion at December 31, 2017. The debt/equity ratio increased to 0.41:1 at December 31, 2018 compared to 0.38:1 at December 31, 2017.

Innovation Review

Benefitting from our continued focus on innovation, Novartis has one of the industry's most competitive pipelines with more than 200 projects in clinical development.

Selected Innovative Medicines approvals: US, EU and Japan

Product	Active ingredient/ Descriptor	Indication	Approval date
<i>Gilenya</i>	fingolimod	Pediatric multiple sclerosis	EU – November
<i>Luxturna</i>	voretigene neparvovec	Inherited Retinal Dystrophy caused by bi-allelic mutations of the RPE65 gene	EU – November
<i>Promacta/ Revolade</i>	eltrombopag	Severe aplastic anemia, 1 st line	US – November
<i>Kisqali</i> + tamoxifen + goserelin or NSAI + goserelin	ribociclib	HR+/HER2- premenopausal advanced or metastatic BC 1 st line	EU – December
<i>Kisqali</i> + fulvestrant	ribociclib	HR+/HER2- postmenopausal advanced or metastatic BC 1 st /2 nd line	EU – December

Selected Innovative Medicines projects awaiting regulatory decisions

Product	Indication	Completed submissions			News update
		US	EU	Japan	
ACZ885 (canakinumab)	Secondary prevention of cardiovascular events	Withdrawn	Withdrawn		
AVXS-101	Spinal Muscular Atrophy Type 1 (IV Formulation)	Q3 2018	Q3 2018	Q4 2018	- Priority review granted by FDA Dec 2018
BAF312	Secondary Progressive Multiple Sclerosis	Q3 2018	Q3 2018		- US with priority review voucher used
BYL719 (alpelisib) + fulvestrant	PIK3CA mutant HR+/HER2- postmenopausal advanced or metastatic BC	Q4 2018	Q4 2018		
<i>Kymriah</i> (tisagenlecleucel)	Pediatric/young adult acute lymphoblastic leukemia	Approved	Approved	Q2 2018	
	r/r Diffuse Large B-Cell Lymphoma	Approved	Approved	Q2 2018	
LCI699	Cushing's disease		Q4 2018		- US Planned for Q1 2019
<i>Lucentis</i>	Retinopathy of prematurity		Q4 2018		
	Diabetic retinopathy		Q4 2018		
<i>Promacta/ Revolade</i>	Severe aplastic anemia, 1 st line	Approved	Q2 2018	Approved	

Selected Innovative Medicines pipeline projects

Project/ Compound	Potential indication/ Disease area	First planned submissions	Current Phase	News update
ABL001	Chronic myeloid leukemia 3 rd line	2021	III	
	Chronic myeloid leukemia 1 st line	≥2023	I	
ACZ885 (canakinumab)	Adjuvant NSCLC	2022	III	- Phase III study enrollment started
	1 st Line NSCLC	2021	III	
	2 nd Line NSCLC	2021	III	

AVXS-101	Spinal Muscular Atrophy Type 2/3 (IT formulation)	2020	I	STRONG Study ongoing
AVXS-201	Rett Syndrome	2022	I	
CAD106	Alzheimer's disease	≥2023	II / III	
CFZ533 (iscalimab)	Solid organ transplantation	≥2023	II	- Enrollment has started in the Ph2b de novo and maintenance kidney transplant study
	Sjogren's syndrome	≥2023	II	
CNP520	Alzheimer's disease	≥2023	II / III	
<i>Cosentyx</i>	Non-radiographic axial spondyloarthritis	2019	III	
	Psoriatic arthritis head-to-head vs. adalimumab	2020	III	
	Ankylosing spondylitis head-to-head vs. adalimumab	2022	III	
	Hidradenitis suppurativa	2022	III	
CSJ117	Severe asthma	≥2023	II	
ECF843	Dry eye	2022	II	
EMA401	Peripheral neuropathic pain	≥2023	II	- Granted Fast Track designation status
<i>Entresto</i>	Chronic heart failure with preserved ejection fraction	2019	III	- PARAGON-HF continues as planned following IA, topline results mid-2019
	Post-acute myocardial infarction	2020	III	
HDM201	Acute myeloid leukemia	≥2023	II	
INC280 (capmatinib)	NSCLC (cMET amp and mut)	2019	II	
	NSCLC (EGFRm) + EGF816	2022	II	
<i>Jakavi</i>	Acute graft-versus-host disease (GvHD)	2020	III	
	Chronic graft-versus-host disease (GvHD)	2020	III	
KAE609	Malaria	≥2023	II	
KAF156 (ganaplacide)	Malaria	≥2023	II	
<i>Kisqali</i> (LEE011) + endocrine therapy	HR+/HER2- EBC (adjuvant)	≥2023	III	- Translational Research In Oncology (TRIO) is collaborating with Novartis on an upcoming phase III clinical trial (called NATALEE)
<i>Kymriah</i> (tisagenlecleucel)	r/r Follicular lymphoma	2021	II	
	Chronic lymphocytic leukemia	2022	II	
	r/r DLBCL in 1 st relapse	2021	III	
+ pembrolizumab	r/r DLBCL	≥2023	I	
LAM320	Multi-drug resistant tuberculosis	2021	III	- Submission for WHO pre-qualification planned in Q1 2019
LJC242	Non-alcoholic steatohepatitis (NASH)	≥2023	II	
LJN452 (tropifexor)	Non-alcoholic steatohepatitis (NASH)	≥2023	II	- FDA Fast Track designation
LMI070	Spinal muscular atrophy	≥2023	II	- FDA Orphan designation, EMA Orphan status obtained - Dose ranging study ongoing
LNP023	IgA nephropathy	≥2023	II	
	Membranous nephropathy	≥2023	II	
LOU064	Chronic spontaneous urticaria	≥2023	II	
¹⁷⁷ Lu-PSMA-617	Metastatic castration-resistant prostate cancer	2020	III	

MOR106	Atopic dermatitis	≥2023	II	
OMB157 (ofatumumab)	Relapsing multiple sclerosis	2019	III	- Phase III ASCLEPIOS studies fully recruited and on track for 2019 readout
PDR001 + <i>Tafinlar</i> + <i>Mekinist</i>	Metastatic BRAF V600+ melanoma	2019	III	
PDR001 Combo	Metastatic melanoma	2022	II	- CPDR001J2201 enrollment started
QAW039 (fevipiprant)	Asthma	2020	III	- Phase III LUSTER (1 and 2) studies enrollment completed
QBW251	COPD	≥2023	II	
QGE031 (ligelizumab)	Chronic spontaneous urticaria / chronic idiopathic urticaria	2021	III	- Phase III trials initiated enrollment
QMF149	Asthma	2019	III	
QVM149	Asthma	2019	III	- Phase III IRIDIUM, PALLADIUM and QUARTZ studies enrollment completed
RTH258 (brolucizumab)	nAMD	2019	III	
	Diabetic macular edema	2020	III	- DME trial started
	Retinal vein occlusion	2022	III	
<i>Rydapt</i> (PKC412)	Acute myeloid leukemia (FLT3 wild type)	2022	III	
SEG101	Sickle cell pain crises	2019	II	
UNR844	Presbyopia	2022	II	
VAY736 (lanalumab)	Auto-immune hepatitis	≥2023	II	
	Primary Sjogren's syndrome	≥2023	II	- FDA Fast Track designation - PhII DRF study fully recruited
VAY785 (emricasan)	Non-alcoholic steatohepatitis (NASH)	≥2023	II	- Conatus issued press release on Dec. 5, 2018 regarding results of their Hepatic Venous pressure gradient study
VPM087	1st line colorectal cancer / 1st line renal cell carcinoma	≥2023	I	
<i>Xolair</i>	Nasal polyps	2019	III	
ZPL389 (adriforant)	Atopic dermatitis	2022	II	- Phase IIb trial enrollment initiated

Selected Sandoz approvals and pipeline projects (biosimilars)

Project/ Compound	Potential indication/ Disease area	Submission status	Current Phase	News update
GP2017 (adalimumab)	Arthritides (rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis), plaque psoriasis and others (same as originator)	US EU	Approved Approved	- US Approval received November 2018 - EU Approval received July 2018
LA-EP2006 (pegfilgrastim)	Chemotherapy-induced neutropenia and others (same as originator)	US EU	III Approved	- Resubmission planned for 2019 to address FDA complete response letter - EU – approval November 2018

Selected Alcon pipeline projects

Project/ Compound	Potential indication/ Disease area	Planned submissions	Current Phase	News update
SURGICAL				
<i>AcrySof IQ</i> <i>PanOptix</i> IOL	Trifocal IOL	US 2019	Advanced	- Received CE Mark in Europe in Q2 2015 - Submitted in Japan in Q3 2018
<i>AcrySof IQ</i> <i>PanOptix</i> Toric IOL	Trifocal IOL for astigmatism	US 2019	Advanced	- Received CE Mark in Europe in Q4 2016 - Submitted in Japan in Q3 2018
A02238	Mid-tier phacoemulsification device	US 2019	Advanced	- Received CE Mark in Europe in Q4 2018
<i>Clareon</i> IOL with <i>AutonoMe</i> pre-loaded delivery device	Next-generation IOL	US 2019	Advanced	- Received CE Mark in Europe in Q2 2017 - Received Japan Approval in Q3 2018
A02062	Non-diffractive presbyopia correcting IOL	US 2019 EU 2019	Advanced	
A02972	Digital visualization system connected with <i>Constellation</i>		Advanced	- Received CE Mark in Europe in Q3 2018 - Received US Approval in Q3 2018 - Submitted in Japan in Q3 2018
VISION CARE				
A00717	Daily disposable line extension		Advanced	- Received US Approval in Jan 2019 - Received CE Mark in Europe in Q4 2018 - Submitted in Japan in Q4 2018
A01660	New daily disposable lens	JP 2019	Advanced	- Received US Approval in Q4 2018
A02491	New monthly disposable lens	EU 2021 US 2021	Advanced	

CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Consolidated income statements

Fourth quarter (unaudited)

(USD millions unless indicated otherwise)	Note	Q4 2018	Q4 2017	Change
Net sales to third parties	9	13 269	12 915	354
Other revenues	9	395	249	146
Cost of goods sold		-4 926	-4 489	-437
Gross profit		8 738	8 675	63
Selling, general & administration		-4 404	-4 041	-363
Research and development		-2 399	-2 502	103
Other income		151	620	-469
Other expense		-787	-682	-105
Operating income		1 299	2 070	-771
Income from associated companies		141	416	-275
Interest expense		-254	-208	-46
Other financial income and expense		78	23	55
Income before taxes		1 264	2 301	-1 037
Taxes		-70	-325	255
Net income		1 194	1 976	-782
<i>Attributable to:</i>				
<i>Shareholders of Novartis AG</i>		<i>1 195</i>	<i>1 976</i>	<i>-781</i>
<i>Non-controlling interests</i>		<i>-1</i>	<i>0</i>	<i>-1</i>
Weighted average number of shares outstanding – Basic (million)		2 310	2 322	-12
Basic earnings per share (USD)¹		0.52	0.85	-0.33
Weighted average number of shares outstanding – Diluted (million)		2 336	2 348	-12
Diluted earnings per share (USD) ¹		0.51	0.84	-0.33

¹ Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

Consolidated income statements

Full year (audited)

(USD millions unless indicated otherwise)

	Note	FY 2018	FY 2017	Change
Net sales to third parties	9	51 900	49 109	2 791
Other revenues	9	1 266	1 026	240
Cost of goods sold		-18 407	-17 175	-1 232
Gross profit		34 759	32 960	1 799
Selling, general & administration		-16 471	-14 997	-1 474
Research and development		-9 074	-8 972	-102
Other income		1 690	1 969	-279
Other expense		-2 735	-2 331	-404
Operating income		8 169	8 629	-460
Income from associated companies		6 438	1 108	5 330
Interest expense		-957	-777	-180
Other financial income and expense		185	39	146
Income before taxes		13 835	8 999	4 836
Taxes		-1 221	-1 296	75
Net income		12 614	7 703	4 911
<i>Attributable to:</i>				
Shareholders of Novartis AG		12 611	7 703	4 908
Non-controlling interests		3	0	3
Weighted average number of shares outstanding – Basic (million)		2 319	2 346	-27
Basic earnings per share (USD)¹		5.44	3.28	2.16
Weighted average number of shares outstanding – Diluted (million)		2 344	2 371	-27
Diluted earnings per share (USD) ¹		5.38	3.25	2.13

¹ Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

Consolidated statements of comprehensive income

Fourth quarter (unaudited)

(USD millions)	Q4 2018	Q4 2017	Change
Net income	1 194	1 976	-782
<i>Other comprehensive income to be eventually recycled into the consolidated income statement:</i>			
Fair value adjustments on marketable securities, net of taxes ¹		-107	107
Fair value adjustments on debt securities, net of taxes	2	-2	4
Fair value adjustments on deferred cash flow hedges, net of taxes	3		3
Total fair value adjustments on financial instruments, net of taxes	5	-109	114
Novartis share of other comprehensive income recognized by associated companies, net of taxes		-203	203
Net investment hedge	35	-30	65
Currency translation effects	-279	-99	-180
Total of items to eventually recycle	-239	-441	202
<i>Other comprehensive income never to be recycled into the consolidated income statement:</i>			
Actuarial (losses)/gains from defined benefit plans, net of taxes	-933	-230	-703
Fair value adjustments on equity securities, net of taxes	-189		-189
Total of items never to be recycled	-1 122	-230	-892
Total comprehensive income	-167	1 305	-1 472
<i>Attributable to:</i>			
Shareholders of Novartis AG	-166	1 304	-1 470
Non-controlling interests	-1	1	-2

¹ In 2017, the fair value adjustments on marketable securities exclude debt securities.

Consolidated statements of comprehensive income

Full year (audited)

(USD millions)	FY 2018	FY 2017	Change
Net income	12 614	7 703	4 911
<i>Other comprehensive income to be eventually recycled into the consolidated income statement:</i>			
Fair value adjustments on marketable securities, net of taxes ¹		39	-39
Fair value adjustments on debt securities, net of taxes		-1	1
Fair value adjustments on deferred cash flow hedges, net of taxes	12	12	
Total fair value adjustments on financial instruments, net of taxes	12	50	-38
Novartis share of other comprehensive income recognized by associated companies, net of taxes ²	-482	-37	-445
Net investment hedge	95	-237	332
Currency translation effects ³	315	2 210	-1 895
Total of items to eventually recycle	-60	1 986	-2 046
<i>Other comprehensive income never to be recycled into the consolidated income statement:</i>			
Actuarial (losses)/gains from defined benefit plans, net of taxes	-359	851	-1 210
Fair value adjustments on equity securities, net of taxes	13		13
Total of items never to be recycled	-346	851	-1 197
Total comprehensive income	12 208	10 540	1 668
<i>Attributable to:</i>			
Shareholders of Novartis AG	12 210	10 538	1 672
Non-controlling interests	-2	2	-4

¹ In 2017, the fair value adjustments on marketable securities exclude debt securities.

² In 2018, Novartis share of other comprehensive income recognized by associated companies, net of taxes of USD 511 million was recycled into the consolidated income statement as a result of the divestment of the investment in GSK Consumer Healthcare Holdings Ltd. (see Note 3). No Novartis share of other comprehensive income recognized by associated companies, net of taxes was recycled into the consolidated income statement in 2017.

³ In 2018, cumulative currency translation losses of USD 946 million were recycled into the consolidated income statement as a result of the divestment of the investment in GSK Consumer Healthcare Holdings Ltd. (see Note 3). No currency translation losses or gains were recycled into the consolidated income statement in 2017.

Consolidated balance sheets

(USD millions)	Note	Dec 31, 2018 (audited)	Dec 31, 2017 (audited)	Change
Assets				
Non-current assets				
Property, plant and equipment	9	15 696	16 464	-768
Goodwill	9	35 294	31 750	3 544
Intangible assets other than goodwill	9	38 719	29 997	8 722
Investments in associated companies		8 352	15 370	-7 018
Deferred tax assets		8 699	8 229	470
Financial assets		2 345	2 243	102
Other non-current assets		895	818	77
Total non-current assets		110 000	104 871	5 129
Current assets				
Inventories		6 956	6 867	89
Trade receivables		8 727	8 600	127
Income tax receivables		248	202	46
Marketable securities, commodities, time deposits and derivative financial instruments		2 693	625	2 068
Cash and cash equivalents		13 271	8 860	4 411
Other current assets		2 861	3 054	-193
Total current assets without disposal group		34 756	28 208	6 548
Assets of disposal group held for sale	3	807		807
Total current assets		35 563	28 208	7 355
Total assets		145 563	133 079	12 484
Equity and liabilities				
Equity				
Share capital		944	969	-25
Treasury shares		-69	-100	31
Reserves		77 739	73 299	4 440
Issued share capital and reserves attributable to Novartis AG shareholders		78 614	74 168	4 446
Non-controlling interests		78	59	19
Total equity		78 692	74 227	4 465
Liabilities				
Non-current liabilities				
Financial debts		22 470	23 224	-754
Deferred tax liabilities		7 475	5 168	2 307
Provisions and other non-current liabilities		7 319	7 057	262
Total non-current liabilities		37 264	35 449	1 815
Current liabilities				
Trade payables		5 556	5 169	387
Financial debts and derivative financial instruments		9 678	5 308	4 370
Current income tax liabilities		2 038	1 723	315
Provisions and other current liabilities		12 284	11 203	1 081
Total current liabilities without disposal group		29 556	23 403	6 153
Liabilities of disposal group held for sale	3	51		51
Total current liabilities		29 607	23 403	6 204
Total liabilities		66 871	58 852	8 019
Total equity and liabilities		145 563	133 079	12 484

Consolidated statements of changes in equity

Fourth quarter (unaudited)

(USD millions)	Share capital	Treasury shares	Retained earnings	Total value adjustments	Issued share capital and reserves attributable to Novartis shareholders	Non-controlling interests	Total equity
Total equity at October 1, 2018	944	-69	80 155	-3 092	77 938	81	78 019
Net income			1 195		1 195	-1	1 194
Other comprehensive income				-1 361	-1 361		-1 361
Total comprehensive income			1 195	-1 361	-166	-1	-167
Purchase of treasury shares		-2	-180		-182		-182
Other share sales		2	261		263		263
Equity-based compensation			201		201		201
Decrease of treasury share repurchase obligation under a share buyback trading plan			605		605		605
Transaction costs ¹			-40		-40		-40
Fair value adjustments on financial assets sold			-1	1			
Impact of change in ownership of consolidated entities			-14		-14	-2	-16
Other movements ²			9		9		9
Total of other equity movements			841	1	842	-2	840
Total equity at December 31, 2018	944	-69	82 191	-4 452	78 614	78	78 692

¹ Transaction costs directly attributable to the potential distribution (spin-off) of Alcon to Novartis shareholders (see Note 2).

² Impact of hyperinflationary economies (see Note 2).

(USD millions)	Share capital	Treasury shares	Retained earnings	Total value adjustments	Issued share capital and reserves attributable to Novartis shareholders	Non-controlling interests	Total equity
Total equity at October 1, 2017	969	-95	75 308	-3 871	72 311	59	72 370
Net income			1 976		1 976		1 976
Other comprehensive income			-203	-469	-672	1	-671
Total comprehensive income			1 773	-469	1 304	1	1 305
Purchase of treasury shares		-6	-878		-884		-884
Exercise of options and employee transactions			20		20		20
Equity-based compensation		1	104		105		105
Decrease of treasury share repurchase obligation under a share buyback trading plan			1 312		1 312		1 312
Changes in non-controlling interests						-1	-1
Total of other equity movements		-5	558		553	-1	552
Total equity at December 31, 2017	969	-100	77 639	-4 340	74 168	59	74 227

Consolidated statements of changes in equity

Full year (audited)

(USD millions)	Note	Share capital	Treasury shares	Retained earnings	Total value adjustments	Issued share capital and reserves attributable to Novartis shareholders	Non-controlling interests	Total equity
Total equity at January 1, 2018, as previously reported		969	-100	77 639	-4 340	74 168	59	74 227
Impact of change in accounting policies	8			237	-177	60		60
Restated equity at January 1, 2018	8	969	-100	77 876	-4 517	74 228	59	74 287
Net income				12 611		12 611	3	12 614
Other comprehensive income				-482	81	-401	-5	-406
Total comprehensive income				12 129	81	12 210	-2	12 208
Dividends				-6 966		-6 966		-6 966
Purchase of treasury shares			-13	-1 960		-1 973		-1 973
Reduction of share capital		-25	34	-9				
Exercise of options and employee transactions			4	430		434		434
Other share sales			2	261		263		263
Equity-based compensation			4	752		756		756
Increase of treasury share repurchase obligation under a share buyback trading plan				-284		-284		-284
Transaction costs ¹				-79		-79		-79
Changes in non-controlling interests							-1	-1
Fair value adjustments on financial assets sold				16	-16			
Impact of change in ownership of consolidated entities				-13		-13	22	9
Other movements ²				38		38		38
Total of other equity movements		-25	31	-7 814	-16	-7 824	21	-7 803
Total equity at December 31, 2018		944	-69	82 191	-4 452	78 614	78	78 692

¹ Transaction costs directly attributable to the potential distribution (spin-off) of Alcon to Novartis shareholders (see Note 2).

² Impact of hyperinflationary economies (see Note 2).

(USD millions)	Share capital	Treasury shares	Retained earnings	Total value adjustments	Issued share capital and reserves attributable to Novartis shareholders	Non-controlling interests	Total equity
Total equity at January 1, 2017	972	-76	81 148	-7 212	74 832	59	74 891
Net income			7 703		7 703		7 703
Other comprehensive income			-37	2 872	2 835	2	2 837
Total comprehensive income			7 666	2 872	10 538	2	10 540
Dividends			-6 495		-6 495		-6 495
Purchase of treasury shares		-36	-5 538		-5 574		-5 574
Reduction of share capital	-3	5	-2				
Exercise of options and employee transactions			2	253	255		255
Equity-based compensation			5	607	612		612
Changes in non-controlling interests						-2	-2
Total of other equity movements	-3	-24	-11 175		-11 202	-2	-11 204
Total equity at December 31, 2017	969	-100	77 639	-4 340	74 168	59	74 227

Consolidated statements of cash flows

Fourth quarter (unaudited)

(USD millions)	Note	Q4 2018	Q4 2017	Change
Net income		1 194	1 976	-782
<i>Adjustments to reconcile net income to net cash flows from operating activities</i>				
Reversal of non-cash items and other adjustments	6	2 689	1 678	1 011
Dividends received from associated companies and others			121	-121
Interest received		88	29	59
Interest paid		-275	-238	-37
Other financial receipts		72		72
Other financial payments		-9	-100	91
Taxes paid ¹		-426	-486	60
Net cash flows from operating activities before working capital and provision changes		3 333	2 980	353
Payments out of provisions and other net cash movements in non-current liabilities		-150	-372	222
Change in net current assets and other operating cash flow items		583	800	-217
Net cash flows from operating activities		3 766	3 408	358
Purchase of property, plant and equipment		-650	-638	-12
Proceeds from sales of property, plant and equipment		47	30	17
Purchase of intangible assets		-259	-332	73
Proceeds from sales of intangible assets		121	100	21
Purchase of financial assets		-98	-179	81
Proceeds from sales of financial assets		23	57	-34
Purchase of other non-current assets		-13	12	-25
Proceeds from sales of other non-current assets		2	-2	4
Divestments and acquisitions of interests in associated companies, net ¹		-65	0	-65
Acquisitions and divestments of businesses, net		-2 043	-24	-2 019
Purchase of marketable securities and commodities		-2 138	-142	-1 996
Proceeds from sales of marketable securities and commodities		138	135	3
Net cash flows used in investing activities from continuing operations		-4 935	-983	-3 952
Net cash flows used in investing activities from discontinued operations			-13	13
Total net cash flows used in investing activities		-4 935	-996	-3 939
Acquisition of treasury shares		-249	-926	677
Proceeds from exercise options and other treasury share transactions		266	19	247
Change in current financial debts		477	-1 449	1 926
Impact of change in ownership of consolidated entities		-5		-5
Transaction costs payments ²		-16		-16
Dividends paid to non-controlling interests and other financing cash flows		-20	-40	20
Net cash flows from/used in financing activities		453	-2 396	2 849
Effect of exchange rate changes on cash and cash equivalents		-13	34	-47
Net change in cash and cash equivalents		-729	50	-779
Cash and cash equivalents at October 1		14 000	8 810	5 190
Cash and cash equivalents at December 31		13 271	8 860	4 411

¹ In Q4 2018, the total net tax payment amounted to USD 490 million, of which USD 64 million is included in the line "Divestments and acquisitions of interests in associated companies, net."

² Transaction costs payments directly attributable to the potential distribution (spin-off) of the Alcon Division to Novartis shareholders (see Note 2)

Consolidated statements of cash flows

Full year (audited)

(USD millions)	Note	FY 2018	FY 2017	Change
Net income		12 614	7 703	4 911
<i>Adjustments to reconcile net income to net cash flows from operating activities</i>				
Reversal of non-cash items and other adjustments	6	3 171	7 058	-3 887
Dividends received from associated companies and others		719	987	-268
Interest received		243	97	146
Interest paid		-826	-708	-118
Other financial receipts		218		218
Other financial payments		-32	-272	240
Taxes paid ¹		-1 670	-1 611	-59
Net cash flows from operating activities before working capital and provision changes		14 437	13 254	1 183
Payments out of provisions and other net cash movements in non-current liabilities		-664	-877	213
Change in net current assets and other operating cash flow items		499	244	255
Net cash flows from operating activities		14 272	12 621	1 651
Purchase of property, plant and equipment		-1 773	-1 696	-77
Proceeds from sales of property, plant and equipment		102	92	10
Purchase of intangible assets		-1 582	-1 050	-532
Proceeds from sales of intangible assets		823	640	183
Purchase of financial assets		-262	-468	206
Proceeds from sales of financial assets		167	330	-163
Purchase of other non-current assets		-39	-42	3
Proceeds from sales of other non-current assets		9	1	8
Divestments and acquisitions of interests in associated companies, net ¹		12 854	29	12 825
Acquisitions and divestments of businesses, net		-13 922	-784	-13 138
Purchase of marketable securities and commodities		-2 440	-580	-1 860
Proceeds from sales of marketable securities and commodities		472	549	-77
Net cash flows used in investing activities from continuing operations		-5 591	-2 979	-2 612
Net cash flows used in investing activities from discontinued operations			-140	140
Total net cash flows used in investing activities		-5 591	-3 119	-2 472
Dividends paid to shareholders of Novartis AG		-6 966	-6 495	-471
Acquisition of treasury shares		-2 036	-5 490	3 454
Proceeds from exercise options and other treasury share transactions		700	252	448
Increase in non-current financial debts		2 856	4 933	-2 077
Repayments of non-current financial debts		-366	-188	-178
Change in current financial debts		1 681	-755	2 436
Impact of change in ownership of consolidated entities		-19		-19
Transaction costs payments ²		-57		-57
Dividends paid to non-controlling interests and other financing cash flows		-37	10	-47
Net cash flows used in financing activities		-4 244	-7 733	3 489
Effect of exchange rate changes on cash and cash equivalents		-26	84	-110
Net change in cash and cash equivalents		4 411	1 853	2 558
Cash and cash equivalents at January 1		8 860	7 007	1 853
Cash and cash equivalents at December 31		13 271	8 860	4 411

¹ In 2018, the total net tax payment amounted to USD 1 809 million, of which USD 139 million is included in the line "Divestments and acquisitions of interests in associated companies, net."

² Transaction costs payments directly attributable to the potential distribution (spin-off) of the Alcon Division to Novartis shareholders (see Note 2)

Notes to the Condensed Interim Consolidated Financial Statements for the three month period (unaudited) and year ended December 31, 2018 (audited)

1. Basis of preparation

These Condensed Interim Consolidated Financial Statements for the three month period and year ended December, 31, 2018, were prepared in accordance with International Accounting Standard 34 *Interim Financial Reporting* and accounting policies set out in the Annual Report 2018 published on January 30, 2019.

2. Selected critical accounting policies

The Group's principal accounting policies are set out in Note 1 to the Consolidated Financial Statements in the Annual Report 2018 and conform with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board. The presentation of financial statements requires management to make subjective and complex judgments that affect the reported amounts. Because of the inherent uncertainties, actual outcomes and results may differ from management's assumptions and estimates.

As discussed in the Annual Report 2018, goodwill, Alcon brand name and acquired In-Process Research & Development projects are reviewed for impairment at least annually and these, as well as all other investments in intangible assets, are reviewed for impairment whenever an event or decision occurs that raises concern about their balance sheet carrying value. The amount of goodwill and other intangible assets on the Group's consolidated balance sheet has risen significantly in recent years, primarily from acquisitions. Impairment testing may lead to potentially significant impairment charges in the future that could have a materially adverse impact on the Group's results of operations and financial condition.

Transaction costs recorded in Equity

Transaction costs that are directly attributable to the potential distribution (spin-off) of Alcon to the Novartis shareholders, and that would otherwise have been avoided, are recorded as a deduction from equity. If the spin-off does not occur, the cost will be recycled into the consolidated income statement.

Foreign currencies

The consolidated financial statements of Novartis are presented in US dollars (USD). The functional currency of subsidiaries is generally the local currency of the respective entity. The functional currency used for the reporting of certain Swiss and foreign finance entities is USD instead of their respective local currencies. This reflects the fact that the cash flows and transactions of these entities are primarily denominated in these currencies.

For subsidiaries not operating in hyperinflationary economies, the subsidiary's results, financial position and cash flows that do not have USD as their functional currency are translated into USD using the following exchange rates:

- Income, expense and cash flows using for each month the average exchange rate with the US dollar values for each month being aggregated during the year
- Balance sheets using year-end exchange rates
- Resulting exchange rate differences are recognized in other comprehensive income

The hyperinflationary economies in which Novartis operates are Argentina and Venezuela. Argentina became hyperinflationary effective July 1, 2018, requiring retroactive implementation of hyperinflation accounting as of 1 January 2018.

The impact of the restatement of the non-monetary assets and liabilities with the general price index at the beginning of the period is recorded in retained earnings in equity. The subsequent gains or

losses resulting from the restatement of non-monetary assets are recorded in “Other financial income and expense” in the income statement.

Impact of adopting significant new IFRS standards in 2018

The following new IFRS standards have been adopted by Novartis from January 1, 2018:

IFRS 9 FINANCIAL INSTRUMENTS

Novartis implemented IFRS 9 Financial Instruments as of January 1, 2018, which substantially changes the classification and measurement of financial instruments. The new standard requires impairments to be based on a forward-looking model, changes the approach to hedging financial exposures and related documentation, changes the recognition of certain fair value changes and amends disclosures requirements.

The impairment of financial assets, including trade and lease receivables, is now assessed using an expected credit loss model; previously, the incurred loss model was used. Given the nature of Novartis financial assets, the Group had no significant impact to its provisions for doubtful accounts or impairments from this change.

The new hedge accounting model introduced by the standard requires hedge accounting relationships to be based upon the Group’s own risk management strategy and objectives, and to be discontinued only when the relationships no longer qualify for hedge accounting. There was no impact upon adoption of the new standard, as the Group’s existing hedge relationships continue to be designated as such under the new hedge accounting requirements.

The most significant impact to the Group, upon adoption of IFRS 9, relates to the treatment of the unrealized gains and losses from changes in fair value on certain of the Group’s financial instruments, which were previously classified as available-for-sale marketable securities and financial investments. The unrealized gains and losses (to the extent of previous recognized unrealized gains), which the Group recognized previously in the consolidated statement of other comprehensive income, are from January 1, 2018 recognized in the consolidated income statement. This approach is applied to equity securities where the fair value through other comprehensive income irrevocable option is not applied.

The Group applied the modified retrospective method upon adoption of IFRS 9 on January 1, 2018. This method requires the recognition of the cumulative effect of initially applying IFRS 9 to retained earnings and not to restate prior years. The cumulative effect recorded at January 1, 2018 was an increase to retained earnings of USD 177 million.

IFRS 15 REVENUE FROM CONTRACTS WITH CUSTOMERS

Novartis implemented the new standard IFRS 15 Revenue from Contracts with Customers as of January 1, 2018. The new standard amends revenue recognition requirements and establishes principles for reporting information about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The standard replaces IAS 18 Revenue and IAS 11 Construction contracts and related interpretations.

The impacts of adoption of the new standard are summarized below:

- The Group’s “Net sales” are derived from the sale of drug substances, vision care products, surgical equipment, other products and services, where control transfers to our customers and our performance obligations are satisfied at the time of shipment to or receipt of the products by the customer or when the services are performed. The adoption of IFRS 15 did not significantly change the timing or amount of revenue recognized under these arrangements.
- The Group’s “Other revenue” consists of royalty income from the out-licensing of intellectual property (IP), which is recognized as earned, and from manufacturing and other services, where revenue is recognized when control transfers to the third party and our performance obligations are satisfied. The adoption of IFRS 15 did not significantly change the timing or amount of revenue recognized from these manufacturing and other services arrangements, nor did it change accounting for these royalty arrangements, as the standard’s royalty exception is

applied for IP licenses. “Other revenue” also includes revenue from profit sharing arrangements with our collaboration partners. Furthermore, the Group receives milestone payments related to the out-licensing of IP. The adoption of IFRS 15 did not significantly change the timing or amount of revenue recognized under these arrangements.

The Group applied the modified retrospective method upon adoption of IFRS 15 on January 1, 2018. This method requires the recognition of the cumulative effect of initially applying IFRS 15 to retained earnings and not to restate prior years. The cumulative effect recorded at January 1, 2018 was an increase to retained earnings of USD 60 million.

For further information on the impact of adoption of IFRS 9 Financial Instruments and IFRS 15 Revenue from Contracts with Customers see Note 8.

For the Group’s updated accounting policies, effective January 1, 2018, upon adoption of IFRS 9 Financial Instruments and IFRS 15 Revenue from Contracts with Customers see Annual Report 2018 published on January 30, 2019.

3. Significant transactions

Significant transactions in 2018

Innovative Medicines – Acquisition of Advanced Accelerator Applications S.A.

On October 30, 2017, Novartis entered into a binding memorandum of understanding with Advanced Accelerator Applications S.A. (AAA), a company headquartered in Saint-Genis-Pouilly, France, under which Novartis agreed to commence a tender offer for 100% of the share capital of AAA subject to certain conditions. Novartis commenced the tender offer on December 7, 2017, to purchase all of the outstanding ordinary shares for a price of USD 41 per share and USD 82 per American Depositary Share (ADS), each representing two ordinary shares of AAA, which expired on January 19, 2018. The offer valued AAA's equity at USD 3.9 billion, on a fully diluted basis.

As of January 19, 2018, the expiration date of the tender offer, approximately 97% of the then-outstanding fully diluted ordinary shares, including ordinary shares represented by ADSs (hereinafter collectively referred to as "the outstanding shares"), were validly tendered. On January 22, 2018, Novartis accepted and paid USD 3.9 billion for the outstanding shares tendered in the offer. On January 22, 2018, Novartis commenced a subsequent offering period that expired on January 31, 2018. As of the expiration of the subsequent offering period, an additional 1.8% of the outstanding shares were validly tendered. Novartis accepted and paid approximately USD 60 million, resulting in an increase in Novartis ownership in AAA to 98.7%.

The fair value of the total purchase consideration was USD 3.9 billion. The purchase price allocation resulted in net identifiable assets of approximately USD 1.9 billion, consisting of USD 2.5 billion intangible assets, USD 0.6 billion net deferred tax liabilities, and goodwill of approximately USD 2.0 billion. In 2018, from the date of the acquisition the business generated net sales of USD 0.4 billion. Management estimates net sales for the entire year 2018 would have amounted to USD 0.4 billion had AAA been acquired at the beginning of 2018. The 2018 results from operations since the acquisition were not material.

As of December 31, 2018, Novartis held 99.1% of the then-outstanding fully diluted ordinary shares, including ordinary shares represented by ADSs.

AAA is a radiopharmaceutical company that develops, produces and commercializes molecular nuclear medicines – including Lutathera (USAN: lutetium Lu 177 dotatate/INN: lutetium (177Lu) oxodotretotide), a first-in-class radioligand therapy product for neuroendocrine tumors – and a portfolio of diagnostic products. Radiopharmaceuticals, such as Lutathera, are unique medicinal formulations containing radioisotopes, which are used clinically for both diagnosis and therapy.

Innovative Medicines – Acquisition of AveXis, Inc.

On April 6, 2018, Novartis entered into an agreement and plan of merger with AveXis, Inc., a US-based clinical stage gene therapy company, under which Novartis commenced on April 17, 2018, a tender offer to purchase all outstanding common stock of AveXis, Inc. for USD 218 per share in cash. On May 15, 2018, Novartis completed the acquisition of the common stock of AveXis, Inc. and paid a total of USD 8.7 billion.

The fair value of the total purchase consideration was USD 8.7 billion. The purchase price allocation resulted in net identifiable assets of approximately USD 7.2 billion, consisting of USD 8.5 billion intangible assets, USD 1.6 billion net deferred tax liabilities and other net assets of USD 0.3 billion, and goodwill of approximately USD 1.5 billion. Results of operations since the date of acquisition were not material.

AveXis, Inc. is focused on developing and commercializing novel treatments for patients suffering from rare and life-threatening neurological genetic diseases. AveXis, Inc.'s initial product candidate, AVXS-101, is a proprietary gene therapy currently in development for the treatment of spinal muscular atrophy (SMA) type 1 – the leading genetic cause of infant mortality – and SMA types 2 and 3. In addition, AveXis, Inc. has a pipeline of other novel treatments for rare neurological diseases, including Rett syndrome (RTT) and a genetic form of amyotrophic lateral sclerosis (ALS) caused by mutations in the superoxide dismutase 1 (SOD1) gene.

Innovative Medicines – acquisition of Endocyte, Inc.

On October 18, 2018, Novartis entered into an agreement and plan of merger with Endocyte, a US-based bio-pharmaceutical company focused on developing targeted therapeutics for cancer treatment. The transaction was completed on December 21, 2018. Under the terms of the agreement, Novartis acquired all outstanding shares of Endocyte common stock for USD 24 per share. The total consideration amounted to USD 2.1 billion.

The fair value of the total purchase consideration was USD 2.1 billion. The preliminary purchase price allocation resulted in net identifiable assets of approximately USD 1.5 billion, consisting of USD 1.5 billion intangible assets, USD 0.3 billion net deferred tax liabilities and other net assets of USD 0.3 billion, and goodwill of approximately USD 0.6 billion. The purchase price allocation is preliminary as the transaction closed on December 21, 2018, which is close to the Group's year-end and therefore not providing sufficient time to complete the valuation of the intangible assets, deferred taxes, assumed liabilities and goodwill. If new information is obtained within 12 months from December 21, 2018, about facts and circumstances that existed at the date of the acquisition identifies adjustments to the above amounts, or any additional provisions that existed at the date of acquisition, then the accounting for the acquisition will be revised. The Group currently does not expect such potential revisions to be material.

Endocyte uses drug conjugation technology to develop targeted therapies with companion imaging agents, including 177Lu-PSMA-617, a potential first-in-class investigational radioligand therapy for the treatment of metastatic castration-resistant prostate cancer (mCRPC).

Corporate – Divestment of 36.5% stake in GlaxoSmithKline Consumer Healthcare Holdings Ltd.

On March 27, 2018, Novartis entered into an agreement with GlaxoSmithKline plc (GSK) to divest its 36.5% stake in GlaxoSmithKline Consumer Healthcare Holdings Ltd. to GSK for USD 13.0 billion in cash. As a result, Novartis discontinued the use of equity method accounting starting from April 1, 2018.

On June 1, 2018, the transaction closed and Novartis realized a pre-tax gain of USD 5.8 billion, recorded in income from associated companies.

Significant pending transaction

Sandoz – Divestment of US dermatology business and generic US oral solids portfolio

On September 6, 2018, Novartis announced it has agreed to sell selected portions of its Sandoz US portfolio, specifically the Sandoz US dermatology business and generic US oral solids portfolio, to Aurobindo Pharma USA Inc.(Aurobindo), for USD 0.8 billion in cash and potential earn-outs.

The Sandoz US portfolios to be sold to Aurobindo include approximately 300 products as well as additional development projects. The sale includes the Sandoz US generic and branded dermatology businesses as well as its dermatology development center. As part of the transaction, Aurobindo will acquire the manufacturing facilities in Wilson, North Carolina, and in Hicksville and Melville, New York.

The transaction is expected to close in the course of 2019 following the completion of customary closing conditions. As the fair value of the consideration (USD 0.8 billion) less costs to sell is below the carrying value of the divested business (USD 1.0 billion, which includes an allocation of Sandoz goodwill of USD 0.2 billion), an impairment of the net assets to be divested in the amount of USD 0.2 billion was recognized as a reduction to goodwill.

In the Group's consolidated balance sheet at December 31, 2018, the business assets and liabilities are separately shown as assets and liabilities of disposal group held for sale.

The disposal group, assets and liabilities classified as held for sale consist of the following:

(USD millions)	Dec 31, 2018
Assets of disposal group classified as held for sale	
Property, plant & equipment	148
Intangible assets other than goodwill	478
Deferred tax assets	8
Other non-current assets	1
Inventories	165
Other current assets	7
Total	807
Liabilities of disposal group classified as held for sale	
Deferred tax liabilities	2
Provisions and other non-current liabilities	4
Provisions and other current liabilities	45
Total	51

There are no cumulative income or expenses included in other comprehensive income relating to the disposal group.

Significant transactions in 2017

Innovative Medicines – Acquisition of Ziarc Group Limited

On January 20, 2017, Novartis acquired Ziarc Group Limited, a privately held company in the United Kingdom, focused on the development of novel treatments in dermatology. This acquisition adds a once daily oral H4 receptor antagonist in development for atopic dermatitis (AD), commonly known as eczema, to complement the Novartis dermatology portfolio and pipeline. The fair value of the total purchase consideration was USD 420 million. The amount consisted of an initial cash payment of USD 325 million and the net present value of the contingent consideration of USD 95 million, due to the Ziarc shareholders, which they are eligible to receive upon achievement of specified development milestones. The purchase price allocation resulted in net identifiable assets of USD 395 million and goodwill of USD 25 million. The 2017 results of operations since the date of acquisition were not material.

Innovative Medicines – Acquisition of Encore Vision, Inc.

On January 20, 2017, Novartis acquired Encore Vision, Inc., a privately-held company in Fort Worth, Texas, USA, focused on the development of a novel treatment in presbyopia. The fair value of the total purchase consideration was USD 456 million. The amount consisted of an initial cash payment of USD 366 million and the net present value of the contingent consideration of USD 90 million, due to the Encore shareholders, which they are eligible to receive upon achievement of specified development and commercialization milestones. The purchase price allocation resulted in net identifiable assets of USD 389 million and goodwill of USD 67 million. The 2017 results of operations since the date of acquisition were not material.

4. Summary of equity attributable to Novartis AG shareholders

	Number of outstanding shares (in millions)			Issued share capital and reserves attributable to Novartis AG shareholders (in USD millions)		
	2018	2017	Change	FY 2018	FY 2017	Change
Balance at beginning of year	2 317.5	2 374.1	-56.6	74 168	74 832	-664
Impact of change in accounting policy ¹				60		60
Restated equity at January 1, 2018				74 228	74 832	-604
Shares acquired to be cancelled	-23.3	-66.2	42.9	-1 859	-5 270	3 411
Other share purchases	-1.2	-3.8	2.6	-114	-304	190
Exercise of options and employee transactions	7.8	4.6	3.2	434	255	179
Other share sales	3.0		3.0	263		263
Equity-based compensation	7.4	8.8	-1.4	756	612	144
Increase of treasury share repurchase obligation under a share buyback trading plan				-284		-284
Transaction costs ²				-79		-79
Dividends to shareholders of Novartis AG				-6 966	-6 495	-471
Net income of the period attributable to shareholders of Novartis AG				12 611	7 703	4 908
Other comprehensive income attributable to shareholders of Novartis AG				-401	2 835	-3 236
Impact of change in ownership of consolidated entities				-13		-13
Other movements ³				38		38
Balance at September 30	2 311.2	2 317.5	-6.3	78 614	74 168	4 446

¹ The impact of change in accounting policy includes USD 60 million relating to IFRS 15 implementation and USD 177 million relating to IFRS 9 implementation (see Note 2 and Note 8).

² Transaction costs directly attributable to the potential distribution (spin-off) of Alcon to Novartis shareholders (see Note 2).

³ Impact of hyperinflationary economies (see Note 2).

In 2018, Novartis entered into an irrevocable, non-discretionary arrangement with a bank to repurchase Novartis shares on the second trading line under its up-to USD 5 billion share buyback. Novartis can cancel this arrangement at any time but may be subject to a 90-day waiting period. The commitment under this arrangement therefore reflects the obligated purchases by the bank under such trading plan over a rolling 90-day period, or if shorter, until the maturity date of such trading plan. The commitment under this arrangement amounted to USD 284 million as of December 31, 2018.

5. Financial instruments

Fair value by hierarchy

The following table illustrates the three hierarchical levels for valuing financial instruments at fair value and those measured at amortized cost as of December 31, 2018 and December 31, 2017. For additional information on the hierarchies and other matters, please refer to the Consolidated Financial Statements in the 2018 Annual Report, published on January 30, 2019.

(USD millions)	Level 1		Level 2		Level 3		Valued at amortized cost or cost		Total	
	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017
Debt securities	302	303	23	25					325	328
Fund investments	35	34							35	34
Total marketable securities	337	337	23	25					360	362
Time deposits and short term investments with original maturity more than 90 days							2 087	125	2 087	125
Derivative financial instruments			130	31					130	31
Accrued interest on debt securities							12	1	12	1
Total marketable securities, time deposits and derivative financial instruments	337	337	153	56			2 099	126	2 589	519
Financial investments and long-term loans										
Financial investments	698	672			488	437			1 186	1 109
Fund investments					251	166			251	166
Contingent consideration receivables					396	394			396	394
Long-term loans and receivables from customers and finance lease, advances, security deposits							512	574	512	574
Financial investments and long-term loans	698	672			1 135	997	512	574	2 345	2 243
Associated companies at fair value through profit or loss		28							145	216
Contingent consideration receivables short-term										450
Contingent consideration payables					-907	-852			-907	-852
Other financial liabilities					-10	-72			-10	-72
Derivative financial instruments			-58	-107					-58	-107
Total financial liabilities at fair value			-58	-107	-917	-924			-975	-1 031

There were no significant transfers from one level to the other and no significant transactions associated with level 3 financial instruments. During the fourth quarter of 2018, there were several individually non-significant transfers of equity securities from level 3 to level 1 for USD 43 million due to Initial Public Offerings.

The fair value of straight bonds amounted to USD 25.4 billion at December 31, 2018 (USD 23.8 billion at December 31, 2017) compared to the balance sheet value of USD 25.2 billion at December 31, 2018 (USD 23.0 billion at December 31, 2017). For all other financial assets and liabilities, the carrying amount is a reasonable approximation of the fair value. The carrying amount of financial assets included in the line financial investments and long-term loans of USD 2.3 billion at December 31, 2018 (USD 2.2 billion at December 31, 2017) is included in line "financial and other non-current assets" of the consolidated balance sheets.

The Group's exposure to financial risks has not changed significantly during the period and there have been no major changes to the risk management department or in any risk management policies.

As of January 1, 2018, the Group implemented IFRS 9 Financial Instruments, refer to Note 2 and Note 8 for further details on the implementation impacts.

6. Details to the consolidated statements of cash flows

Reversal of non-cash items and other adjustments

(USD millions)	Q4 2018	Q4 2017	Change
Depreciation, amortization and impairments on:			
Property, plant & equipment	538	500	38
Intangible assets	1 421	1 043	378
Financial assets ¹	80	181	-101
Non-cash change in provisions and other non-current liabilities	474	157	317
Gains on disposal and other adjustments on property, plant & equipment; intangible assets; financial assets; and other non-current assets, net	-124	-496	372
Equity-settled compensation expense	195	199	-4
Income from associated companies	-141	-416	275
Taxes	70	325	-255
Net financial expense	176	185	-9
Total	2 689	1 678	1 011

¹ Includes fair value adjustments

(USD millions)	FY 2018	FY 2017	Change
Depreciation, amortization and impairments on:			
Property, plant and equipment	2 021	1 677	344
Intangible assets	4 871	4 399	472
Financial assets ¹	-11	256	-267
Non-cash change in provisions and other non-current liabilities	876	160	716
Gains on disposal and other adjustments on property, plant & equipment; intangible assets; financial assets; and other non-current assets, net	-900	-1 043	143
Equity-settled compensation expense	759	683	76
Income from associated companies ²	-6 438	-1 108	-5 330
Taxes	1 221	1 296	-75
Net financial expense	772	738	34
Total	3 171	7 058	-3 887

¹ Includes fair value adjustments

² 2018 includes a reversal of a pre-tax gain (USD 5.8 billion) recognized from the divestment of the investment in GSK Consumer Healthcare Holdings Ltd. (see Note 3). The cash proceed of USD 13.0 billion from the divestment is included in the consolidated statements of cash flows on line "Divestments and acquisitions of interests in associated companies, net."

7. Legal proceedings update

A number of Novartis companies are, and will likely continue to be, subject to various legal proceedings, including litigations, arbitrations and governmental investigations, that arise from time to time. Legal proceedings are inherently unpredictable. As a result, the Group may become subject to substantial liabilities that may not be covered by insurance and may in the future incur judgments or enter into settlements of claims that could have a material adverse effect on its results of operations or cash flow. Note 19 to the Consolidated Financial Statements in our 2017 Annual Report and 2017 Form 20-F contains a summary as of the date of these reports of significant legal proceedings to which Novartis or its subsidiaries were a party. The following is a summary as of January 29, 2019 of significant developments in those proceedings, as well as any new significant proceedings commenced since the date of the 2017 Annual Report and 2017 Form 20-F. Reference is also made to Note 19 to the Consolidated Financial Statements in our 2018 Annual Report and 2018 Form 20-F for a summary of significant legal proceedings.

INVESTIGATIONS AND RELATED LITIGATIONS

Greece investigation

Novartis is investigating allegations of potentially inappropriate economic benefits to healthcare professionals, government officials and others in Greece. Novartis is providing information to the Greek authorities investigating these allegations, including the Greek Coordinating Body for Inspection and Control and the Greek Body of Prosecution of Financial Crime, from which it received a summons in 2018. Novartis is also responding to a subpoena and document requests from the US Securities and Exchange Commission and the US Department of Justice that it received in 2016 and 2017 in connection with such allegations and is cooperating with their investigation.

In addition to the matter described above, there have been other developments in the other legal matters described in Note 19 to the Consolidated Financial Statements contained in our 2017 Annual Report and 2017 Form 20-F. These do not significantly affect the assessment of management concerning the adequacy of the total provisions recorded for legal proceedings.

8. Impacts of adoption of new IFRS standards

Note 2 explains the changes and new accounting policies introduced on January 1, 2018 resulting from the adoption of the new accounting standards IFRS 9 Financial Instruments and IFRS 15 Revenue from Contracts with Customers.

The most significant impact from the adoption of IFRS 15 Revenue from Contracts with Customers relates to the timing of the recognition of income from upfront and milestone payments received under co-marketing and co-promotion agreements. Under IFRS 15, as these agreements are accounted for as a right to use license of IP, and the performance obligation to transfer the licenses to the counterparty to the agreement (the licensee) has been satisfied, revenue is recognized at the point in time when the upfront payment is received and when the milestone criteria is highly probable to be met. Under IAS 18, upfront and milestone payments received under co-marketing and co-promotion agreements were deferred and amortized to other revenue over the term of the agreements. Therefore, upon adoption of IFRS 15, the deferred revenue and related deferred taxes, in relation to the upfront payments and milestone payments received, have been derecognized and the impact accordingly recognized to retained earnings in the amount of USD 60 million.

The following table shows the changes to the line items of the January 1, 2018 consolidated balance sheet by the adoption of IFRS 15:

(USD millions)	January 1, 2018	Adjustment IFRS 15	Adjusted January 1, 2018
Assets			
Non-current assets			
Deferred tax assets	8 229	-4	8 225
Total non-current assets	104 871	-4	104 867
Total assets	133 079	-4	133 075
Equity and liabilities			
Equity			
Reserves	73 299	60	73 359
Total equity	74 227	60	74 287
Non-current liabilities			
Deferred tax liabilities	5 168	12	5 180
Provision and other non-current liabilities	7 057	-69	6 988
Total non-current liabilities	35 449	-57	35 392
Current liabilities			
Provision and other current liabilities	11 203	-7	11 196
Total current liabilities	23 403	-7	23 396
Total equity and liabilities	133 079	-4	133 075

The amount by which the line items in the December 31, 2018 consolidated income statement and consolidated statement of cash flow were affected by the application of IFRS 15 Revenue from Contracts with Customers, as compared to IAS 18 Revenues and related interpretations was not significant.

The adoption of IFRS 9 Financial Instruments had no impact to the line items of the January 1, 2018 consolidated balance sheet.

The transition impact of IFRS 9 Financial Instruments was from the previously recognized unrealized gains accumulated in Other Comprehensive Income (OCI) in equity related to fund investments (USD 75 m) and on equity securities held by the Novartis Venture Fund (USD 102 m). The total amount of USD 177 million was transferred from OCI reserves into retained earnings on January 1, 2018. With the adoption of IFRS 9, from January 1, 2018, these investments are measured at fair value through profit and loss (formerly under IAS 39 measured at fair value through OCI (FVOCI), with impairments recognized in profit and loss and gains recycled out of OCI to profit and loss at the date the financial instrument was divested).

There was no transition impact on financial instruments held for long-term purposes, recorded as long-term financial assets on the consolidated balance sheet, where the irrevocable FVOCI option was applied, as they continue to be measured at fair value through OCI. In subsequent periods, upon a divestment of these investments, the OCI reserves amount will be transferred directly to retained earnings. Prior to the adoption of IFRS 9, unrealized gains recognized in OCI reserves were recycled to profit and loss.

There is no significant impact from the new expected credit loss (ECL) impairment model under IFRS 9 to the Group's allowances and provisions for trade receivable, finance lease receivables and other short- and long-term receivables.

The following table shows the changes to the line items of the January 1, 2018 consolidated statement of changes in equity by the adoption of IFRS 9 and IFRS 15:

(USD millions)	January 1, 2018	Adjustment IFRS 9	Adjustment IFRS 15	Adjusted January 1, 2018
Retained earnings	77 639	177	60	77 876
Total fair value adjustments	-4 340	-177		-4 517
Total equity	74 227		60	74 287

The following condensed table shows the changes to the line items of the January 1, 2018 financial instruments additional disclosures table by the adoption of IFRS 9:

(USD millions)	Carrying value January 1, 2018	Reclassi- fications	Adjusted carrying value January 1, 2018	Retained earnings effect January 1, 2018	OCI reserves effect January 1, 2018
Cash and cash equivalents	8 860		8 860		
Financial assets – measured at fair value through other comprehensive income					
<i>Marketable securities</i>					
Debt securities	328		328		
Fund investments	34	-34			
Total marketable securities	362	-34	328		
<i>Long-term financial investments</i>					
Equity securities	1 073	-386	687	102	-102
Debt securities	36		36		
Fund investments	166	-166		75	-75
Total long-term financial investments	1 275	-552	723	177	-177
Total financial assets – measured at fair value through other comprehensive income	1 637	-586	1 051	177	-177
Financial assets – measured at amortized costs	11 350		11 350		
Financial assets – measured at fair value through the consolidated income statement	1 091	586	1 677		
Total financial assets	22 938		22 938	177	-177
Financial liabilities – measured at amortized costs	33 594		33 594		
Financial liabilities – measured at fair value through the consolidated income statement	1 031		1 031		
Total financial liabilities	34 625		34 625		

9. Segmentation of key figures

The businesses of Novartis are divided operationally on a worldwide basis into three identified reporting segments, Innovative Medicines, Sandoz and Alcon. In addition, we separately report Corporate activities.

Reporting segments are presented in a manner consistent with the internal reporting to the chief operating decision maker which is the Executive Committee of Novartis. The reporting segments are managed separately because they each research, develop, manufacture, distribute and sell distinct products that require differing marketing strategies.

The Executive Committee of Novartis is responsible for allocating resources and assessing the performance of the reporting segments.

Effective January 1, 2018, following an internal reorganization, the reporting of the financial results of the reporting segments Innovative Medicines and Alcon have been adapted. The restatements reflect, in all years presented, the transfer of the Innovative Medicine Division ophthalmic over-the-counter products together with a small portfolio of surgical diagnostics products to the Alcon Division. In the prior year, the Alcon brand name intangible asset was reported in Corporate, as it was used to market products of the Alcon Division and products within the Ophthalmology business franchise of the Innovative Medicines Division. In connection with the planned spin-off of the Alcon Division (see Note 30), it is the intention of the Group to transfer the full rights of the Alcon brand name to the Alcon Division. As a result, the Innovative Medicines Division started the process to rebrand the products within its Ophthalmology business franchise and will no longer use the Alcon brand name. As a result, the Alcon brand name intangible asset is reported in the Alcon Division. To comply with IFRS, Novartis has restated its consolidated income statement and balance sheet disclosures by segment to reflect the internal reorganization and the reclassification of the Alcon brand name. This restatement had no impact on the reported financial results of the Sandoz Division or the total Group.

Innovative Medicines researches, develops, manufactures, distributes and sells patented prescription medicines. The Innovative Medicines Division is organized into two global business units: Novartis Oncology and Novartis Pharmaceuticals. Novartis Oncology consists of the global business franchise Oncology, and Novartis Pharmaceuticals consists of the global business franchises Ophthalmology; Neuroscience; Immunology, Hepatology and Dermatology; Respiratory; Cardio-Metabolic; and Established Medicines.

Sandoz develops, manufactures and markets finished dosage form medicines as well as intermediary products including active pharmaceutical ingredients. Sandoz is organized globally into three franchises: Retail Generics, Anti-Infectives and Biopharmaceuticals. In Retail Generics, Sandoz develops, manufactures and markets active ingredients and finished dosage forms of pharmaceuticals to third parties. Retail Generics includes the areas of cardiovascular, central nervous system, dermatology, gastrointestinal and hormonal therapies, metabolism, oncology, ophthalmics, pain and respiratory, as well as finished dosage form anti-infectives sold to third parties. In Anti-Infectives, Sandoz manufactures and supplies active pharmaceutical ingredients and intermediates, mainly antibiotics, for internal use by Retail Generics and for sale to third-party customers. In Biopharmaceuticals, Sandoz develops, manufactures and markets protein- or other biotechnology-based products, including biosimilars, and provides biotechnology manufacturing services to other companies.

Alcon researches, discovers, develops, manufactures, distributes and sells a broad range of eye care products. Alcon is the leading eye care devices company globally. Alcon is organized into two global business franchises: Surgical and Vision Care. Surgical researches, develops, manufactures, distributes and sells ophthalmic products for cataract surgery, vitreoretinal surgery, refractive laser surgery and glaucoma surgery. The Surgical portfolio also includes implantables, consumables and surgical equipment required for these procedures and supports the end-to-end procedure needs of the ophthalmic surgeon. Vision Care researches, develops, manufactures, distributes and sells daily disposable, reusable, and color-enhancing contact lenses and a comprehensive portfolio of ocular health products, including products for dry eye, contact lens care and ocular allergies, as well as ocular vitamins and redness relievers. Alcon also provides services, training, education and technical support for both the Surgical and Vision Care businesses.

The divisions are supported by Novartis Institutes for BioMedical Research, Global Drug Development, Novartis Technical Operations and Novartis Business Services. Corporate activities include Group headquarter functions and items that are not specific to one segment. Further details are provided in Note 3 to the Consolidated Financial Statements of the Annual Report 2018.

Segmentation – Consolidated income statement – Fourth quarter

(USD millions)	Innovative Medicines		Sandoz		Alcon		Corporate (including eliminations)		Group	
	Q4 2018	Q4 2017 restated ¹	Q4 2018	Q4 2017	Q4 2018	Q4 2017 restated ¹	Q4 2018	Q4 2017	Q4 2018	Q4 2017
Net sales to third parties	9 022	8 559	2 459	2 595	1 788	1 761			13 269	12 915
Sales to other segments	190	166	37	36	1		-228	-202		
Net sales	9 212	8 725	2 496	2 631	1 789	1 761	-228	-202	13 269	12 915
Other revenues	381	220	14	10				19	395	249
Cost of goods sold	-2 897	-2 248	-1 364	-1 514	-910	-941	245	214	-4 926	-4 489
Gross profit	6 696	6 697	1 146	1 127	879	820	17	31	8 738	8 675
Selling, general and administration	-2 960	-2 690	-576	-581	-727	-637	-141	-133	-4 404	-4 041
Research and development	-2 010	-2 158	-224	-198	-165	-146			-2 399	-2 502
Other income	115	223	79	83	-15	9	-28	305	151	620
Other expense	-541	-315	-188	-126	-24	-74	-34	-167	-787	-682
Operating income	1 300	1 757	237	305	-52	-28	-186	36	1 299	2 070
<i>as % of net sales</i>	<i>14.4%</i>	<i>20.5%</i>	<i>9.6%</i>	<i>11.8%</i>	<i>-2.9%</i>	<i>-1.6%</i>			<i>9.8%</i>	<i>16.0%</i>
Income from associated companies	1			1			140	415	141	416
Interest expense									-254	-208
Other financial income and expense, net									78	23
Income before taxes									1 264	2 301
Taxes									-70	-325
Net income									1 194	1 976

¹ Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018

Segmentation – Consolidated income statement – Full year

(USD millions)	Innovative Medicines		Sandoz		Alcon		Corporate (including eliminations)		Group	
	FY 2018	FY 2017 restated ¹	FY 2018	FY 2017	FY 2018	FY 2017 restated ¹	FY 2018	FY 2017	FY 2018	FY 2017
Net sales to third parties	34 892	32 278	9 859	10 060	7 149	6 771			51 900	49 109
Sales to other segments	741	668	177	118	4	3	-922	-789		
Net sales	35 633	32 946	10 036	10 178	7 153	6 774	-922	-789	51 900	49 109
Other revenues	1 188	898	62	37		3	16	88	1 266	1 026
Cost of goods sold	-9 870	-8 650	-5 530	-5 800	-3 983	-3 588	976	863	-18 407	-17 175
Gross profit	26 951	25 194	4 568	4 415	3 170	3 189	70	162	34 759	32 960
Selling, general and administration	-10 907	-9 887	-2 305	-2 126	-2 754	-2 532	-505	-452	-16 471	-14 997
Research and development	-7 675	-7 615	-814	-774	-585	-583			-9 074	-8 972
Other income	977	1 027	505	204	58	47	150	691	1 690	1 969
Other expense	-1 475	-1 124	-622	-351	-83	-124	-555	-732	-2 735	-2 331
Operating income	7 871	7 595	1 332	1 368	-194	-3	-840	-331	8 169	8 629
<i>as % of net sales</i>	<i>22.6%</i>	<i>23.5%</i>	<i>13.5%</i>	<i>13.6%</i>	<i>-2.7%</i>	<i>0.0%</i>			<i>15.7%</i>	<i>17.6%</i>
Income from associated companies	1	-1	5	23			6 432	1 086	6 438	1 108
Interest expense									-957	-777
Other financial income and expense, net									185	39
Income before taxes									13 835	8 999
Taxes									-1 221	-1 296
Net income									12 614	7 703

¹ Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018

Segmentation – Additional balance sheet disclosure

(USD millions)	Innovative Medicines		Sandoz		Alcon		Corporate (including eliminations)		Group	
	Dec 31, 2018	Dec 31, 2017 restated ¹	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017 restated ¹	Dec 31, 2018	Dec 31, 2017	Dec 31, 2018	Dec 31, 2017
Net operating assets	53 999	41 200	13 951	14 772	24 007	24 519			94 876	93 274
Included in net operating assets are:										
Property, plant and equipment	10 098	10 857	2 159	2 525	2 878	2 403	561	679	15 696	16 464
Goodwill	18 551	14 637	7 837	8 210	8 899	8 895	7	8	35 294	31 750
Intangible assets other than goodwill	26 042	15 517	1 875	2 783	10 679	11 678	123	19	38 719	29 997

¹ Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018, and the Alcon brand name reclassification from Corporate to the Alcon Division. These restatements had no impact on Sandoz or the total Group.

Segmentation – Net sales by region¹ – Fourth quarter

	Q4 2018	Q4 2017	% change		Q4 2018	Q4 2017
	USD m	restated ² USD m	USD	cc ³	% of total	% of total
Innovative Medicines						
Europe	3 065	2 967	3	8	34	35
US	3 186	2 848	12	12	35	33
Asia/Africa/Australasia	2 119	2 069	2	5	23	24
Canada and Latin America	652	675	-3	10	8	8
Total	9 022	8 559	5	9	100	100
<i>Of which in Established Markets</i>	6 867	6 407	7	9	76	75
<i>Of which in Emerging Growth Markets</i>	2 155	2 152	0	9	24	25
Sandoz						
Europe	1 230	1 235	0	4	50	48
US	693	796	-13	-13	28	31
Asia/Africa/Australasia	333	377	-12	-9	14	15
Canada and Latin America	203	187	9	18	8	6
Total	2 459	2 595	-5	-2	100	100
<i>Of which in Established Markets</i>	1 816	1 901	-4	-3	74	73
<i>Of which in Emerging Growth Markets</i>	643	694	-7	0	26	27
Alcon						
Europe	449	462	-3	2	25	26
US	730	706	3	4	41	40
Asia/Africa/Australasia	456	429	6	9	26	24
Canada and Latin America	153	164	-7	3	8	10
Total	1 788	1 761	2	4	100	100
<i>Of which in Established Markets</i>	1 349	1 330	1	3	75	76
<i>Of which in Emerging Growth Markets</i>	439	431	2	10	25	24
Group						
Europe	4 744	4 664	2	6	36	36
US	4 609	4 350	6	6	35	34
Asia/Africa/Australasia	2 908	2 875	1	4	22	22
Canada and Latin America	1 008	1 026	-2	10	7	8
Total	13 269	12 915	3	6	100	100
<i>Of which in Established Markets</i>	10 032	9 638	4	6	76	75
<i>Of which in Emerging Growth Markets</i>	3 237	3 277	-1	7	24	25

¹ Net sales from operations by location of third-party customer. Emerging Growth Markets comprise all markets other than the Established Markets of the US, Canada, Western Europe, Japan, Australia and New Zealand.

² Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018. This restatement had no impact on Sandoz or the total Group.

³ Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 53.

Segmentation – Net sales by region¹ – Full year

	FY 2018	FY 2017	% change		FY 2018	FY 2017
	USD m	restated ² USD m	USD	cc ³	% of total	% of total
Innovative Medicines						
Europe	12 296	11 127	11	8	35	34
US	11 864	10 857	9	9	34	34
Asia/Africa/Australasia	8 097	7 702	5	4	23	24
Canada and Latin America	2 635	2 592	2	11	8	8
Total	34 892	32 278	8	8	100	100
<i>Of which in Established Markets</i>	26 258	24 174	9	7	75	75
<i>Of which in Emerging Growth Markets</i>	8 634	8 104	7	10	25	25
Sandoz						
Europe	4 963	4 633	7	5	50	46
US	2 754	3 278	-16	-16	28	33
Asia/Africa/Australasia	1 363	1 391	-2	-2	14	14
Canada and Latin America	779	758	3	8	8	7
Total	9 859	10 060	-2	-3	100	100
<i>Of which in Established Markets</i>	7 233	7 383	-2	-4	73	73
<i>Of which in Emerging Growth Markets</i>	2 626	2 677	-2	1	27	27
Alcon						
Europe	1 805	1 732	4	2	25	26
US	2 942	2 800	5	5	41	41
Asia/Africa/Australasia	1 781	1 625	10	9	25	24
Canada and Latin America	621	614	1	7	9	9
Total	7 149	6 771	6	5	100	100
<i>Of which in Established Markets</i>	5 395	5 153	5	4	75	76
<i>Of which in Emerging Growth Markets</i>	1 754	1 618	8	11	25	24
Group						
Europe	19 064	17 492	9	6	37	36
US	17 560	16 935	4	4	34	34
Asia/Africa/Australasia	11 241	10 718	5	4	22	22
Canada and Latin America	4 035	3 964	2	10	7	8
Total	51 900	49 109	6	5	100	100
<i>Of which in Established Markets</i>	38 886	36 710	6	4	75	75
<i>Of which in Emerging Growth Markets</i>	13 014	12 399	5	8	25	25

¹ Net sales from operations by location of third-party customer. Emerging Growth Markets comprise all markets other than the Established Markets of the US, Canada, Western Europe, Japan, Australia and New Zealand.

² Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018. This restatement had no impact on Sandoz or the total Group.

³ Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 53.

Segmentation – Net sales by business franchise

Innovative Medicines net sales by business franchise – Fourth quarter

	Q4 2018 USD m	Q4 2017 restated ¹ USD m	% change USD	% change cc ⁴
Oncology				
<i>Tasigna</i>	476	485	-2	0
<i>Sandostatin</i>	399	421	-5	-3
<i>Gleevec/Glivec</i>	373	448	-17	-14
<i>Afinitor/Votubia</i>	399	407	-2	0
<i>Promacta/Revolade</i>	330	255	29	32
<i>Tafinlar + Mekinist</i>	313	246	27	31
<i>Exjade/Jadenu</i>	286	281	2	4
<i>Jakavi</i>	256	228	12	17
<i>Votrient</i>	198	213	-7	-4
<i>Kisqali</i>	60	35	71	71
<i>Lutathera</i>	81	0	nm	nm
<i>Kymriah</i>	28	6	nm	nm
Other	300	218	38	41
Total Oncology business unit	3 499	3 243	8	11
Ophthalmology				
<i>Lucentis</i>	520	485	7	12
Travoprost Group	131	150	-13	-10
Topical Olopatadine Group	40	59	-32	-30
Other	436	455	-4	-1
Total Ophthalmology	1 127	1 149	-2	2
Neuroscience				
<i>Gilenya</i>	836	825	1	4
Other	25	25	0	5
Total Neuroscience	861	850	1	4
Immunology, Hepatology and Dermatology				
<i>Cosentyx</i>	806	615	31	33
<i>Ilaris</i>	155	115	35	40
Other	1	0	nm	nm
Total Immunology, Hepatology and Dermatology	962	730	32	34
Respiratory				
<i>Ultibro Breezhaler</i>	122	120	2	5
<i>Seebri Breezhaler</i>	37	42	-12	-9
<i>Onbrez Breezhaler</i>	23	29	-21	-14
Subtotal COPD² portfolio	182	191	-5	-1
<i>Xolair³</i>	268	247	9	14
Other	6	7	-14	-13
Total Respiratory	456	445	2	7
Cardio-Metabolic				
<i>Entresto</i>	318	185	72	76
Other	6	5	20	30
Total Cardio-Metabolic	324	190	71	75
Established Medicines				
<i>Galvus Group</i>	327	327	0	6
<i>Diovan Group</i>	260	244	7	12
<i>Exforge Group</i>	251	249	1	5
<i>Zortress/Certican</i>	120	116	3	8
<i>Neoral/Sandimmun(e)</i>	114	124	-8	-5
<i>Voltaren/Cataflam</i>	112	119	-6	-1
Other	609	773	-21	-18
Total Established Medicines	1 793	1 952	-8	-4
Total Pharmaceuticals business unit	5 523	5 316	4	8
Total Division net sales	9 022	8 559	5	9

¹ Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018

² Chronic Obstructive Pulmonary Disease

³ Net sales reflect *Xolair* sales for all indications (e.g. including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology, Hepatology and Dermatology franchise).

⁴ Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 53.

nm = not meaningful

Innovative Medicines net sales by business franchise – Full year

	FY 2018 USD m	FY 2017 restated ¹ USD m	% change USD	% change cc ⁴
Oncology				
<i>Tasigna</i>	1 874	1 841	2	1
<i>Sandostatin</i>	1 587	1 612	-2	-2
<i>Gleevec/Glivec</i>	1 561	1 943	-20	-20
<i>Afinitor/Votubia</i>	1 556	1 525	2	2
<i>Promacta/Revolade</i>	1 174	867	35	35
<i>Tafinlar + Mekinist</i>	1 155	873	32	31
<i>Exjade/Jadenu</i>	1 099	1 059	4	3
<i>Jakavi</i>	977	777	26	24
<i>Votrient</i>	828	808	2	2
<i>Kisqali</i>	235	76	209	210
<i>Lutathera</i>	167	0	nm	nm
<i>Kymriah</i>	76	6	nm	nm
Other	1 139	887	28	27
Total Oncology business unit	13 428	12 274	9	9
Ophthalmology				
<i>Lucentis</i>	2 046	1 888	8	7
Travoprost Group	517	589	-12	-12
Topical Olopatadine Group	247	284	-13	-13
Other	1 748	1 860	-6	-6
Total Ophthalmology	4 558	4 621	-1	-2
Neuroscience				
<i>Gilenya</i>	3 341	3 185	5	4
Other	88	102	-14	-16
Total Neuroscience	3 429	3 287	4	4
Immunology, Hepatology and Dermatology				
<i>Cosentyx</i>	2 837	2 071	37	36
<i>Ilaris</i>	554	402	38	39
Other	1	1	0	-100
Total Immunology, Hepatology and Dermatology	3 392	2 474	37	37
Respiratory				
<i>Ultibro Breezhaler</i>	454	411	10	8
<i>Seebri Breezhaler</i>	148	151	-2	-4
<i>Onbrez Breezhaler</i>	101	112	-10	-10
Subtotal COPD² portfolio	703	674	4	2
<i>Xolair³</i>	1 039	920	13	12
Other	25	23	9	4
Total Respiratory	1 767	1 617	9	8
Cardio-Metabolic				
<i>Entresto</i>	1 028	507	103	102
Other	22	17	29	33
Total Cardio-Metabolic	1 050	524	100	100
Established Medicines				
<i>Galvus Group</i>	1 284	1 233	4	6
<i>Diovan Group</i>	1 023	957	7	7
<i>Exforge Group</i>	1 002	960	4	4
<i>Zortress/Certican</i>	464	414	12	12
<i>Neoral/Sandimmun(e)</i>	463	488	-5	-6
<i>Voltaren/Cataflam</i>	445	465	-4	-3
Other	2 587	2 964	-13	-12
Total Established Medicines	7 268	7 481	-3	-3
Total Pharmaceuticals business unit	21 464	20 004	7	7
Total Division net sales	34 892	32 278	8	8

¹ Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018

² Chronic Obstructive Pulmonary Disease

³ Net sales reflect *Xolair* sales for all indications (e.g. including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology, Hepatology and Dermatology franchise).

⁴ Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 53.

nm = not meaningful

Net sales of the top 20 Innovative Medicines products in 2018 – Fourth quarter

Brands	Business franchise	Indication	US		Rest of world			Total		
			USD m	% change USD/cc ²	USD m	% change USD	% change cc ²	USD m	% change USD	% change cc ²
<i>Gilenya</i>	Neuroscience	Relapsing multiple sclerosis	444	3	392	0	5	836	1	4
<i>Cosentyx</i>	Immunology, Hepatology and Dermatology	Psoriasis, ankylosing spondylitis and psoriatic arthritis	487	34	319	27	32	806	31	33
<i>Lucentis</i>	Ophthalmology	Age-related macular degeneration			520	7	12	520	7	12
<i>Tasigna</i>	Oncology	Chronic myeloid leukemia	206	-2	270	-1	2	476	-2	0
<i>Sandostatin</i>	Oncology	Carcinoid tumors and acromegaly	204	-5	195	-6	0	399	-5	-3
<i>Gleevec/Glivec</i>	Oncology	Chronic myeloid leukemia and GIST	111	-14	262	-18	-14	373	-17	-14
<i>Afinitor/Votubia</i>	Oncology	Breast cancer/TSC	249	15	150	-21	-18	399	-2	0
<i>Galvus Group</i>	Established Medicines	Diabetes			327	0	6	327	0	6
<i>Promacta/Revolade</i>	Oncology	Immune thrombocytopenic purpura	167	30	163	28	34	330	29	32
<i>Tafinlar + Mekinist</i>	Oncology	Melanoma	122	31	191	25	31	313	27	31
<i>Exjade/Jadenu</i>	Oncology	Chronic iron overload	140	1	146	3	7	286	2	4
<i>Xolair</i> ¹	Respiratory	Asthma			268	9	14	268	9	14
<i>Entresto</i>	Cardio-Metabolic	Chronic heart failure	167	67	151	78	86	318	72	76
<i>Diovan Group</i>	Established Medicines	Hypertension	17	-29	243	10	16	260	7	12
<i>Exforge Group</i>	Established Medicines	Hypertension	5	0	246	1	6	251	1	5
<i>Jakavi</i>	Oncology	Myelofibrosis			256	12	17	256	12	17
<i>Votrient</i>	Oncology	Renal cell carcinoma	98	-4	100	-10	-5	198	-7	-4
<i>Ilaris</i>	Immunology, Hepatology and Dermatology	Auto-inflammatory (CAPS, TRAPS, HIDS/MKD, FMF, SJIA, AOSD and gout)	76	36	79	34	42	155	35	40
Travoprost Group	Ophthalmology	Reduction of elevated intraocular pressure	50	-9	81	-15	-10	131	-13	-10
Zortress/Certican	Established Medicines	Transplantation	40	11	80	0	6	120	3	8
Top 20 products total			2 583	12	4 439	5	10	7 022	7	11
Rest of portfolio			603	11	1 397	-5	0	2 000	-1	3
Total division sales			3 186	12	5 836	2	7	9 022	5	9

¹ Net sales reflect *Xolair* sales for all indications (e.g., including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology, Hepatology and Dermatology franchise).

² Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 53.

Net sales of the top 20 Innovative Medicines products in 2018 – Full year

Brands	Business franchise	Indication	US			Rest of world			Total		
			USD m	% change USD/cc ²		USD m	% change USD	% change cc ²	USD m	% change USD	% change cc ²
<i>Gilenya</i>	Neuroscience	Relapsing multiple sclerosis	1 765	3		1 576	7	5	3 341	5	4
<i>Cosentyx</i>	Immunology, Hepatology and Dermatology	Psoriasis, ankylosing spondylitis and psoriatic arthritis	1 674	31		1 163	46	44	2 837	37	36
<i>Lucentis</i>	Ophthalmology	Age-related macular degeneration				2 046	8	7	2 046	8	7
<i>Tasigna</i>	Oncology	Chronic myeloid leukemia	806	0		1 068	4	3	1 874	2	1
<i>Sandostatin</i>	Oncology	Carcinoid tumors and acromegaly	817	-2		770	-1	-1	1 587	-2	-2
<i>Gleevec/Glivec</i>	Oncology	Chronic myeloid leukemia and GIST	440	-30		1 121	-15	-16	1 561	-20	-20
<i>Afinitor/Votubia</i>	Oncology	Breast cancer/TSC	929	13		627	-11	-12	1 556	2	2
<i>Galvus Group</i>	Established Medicines	Diabetes				1 284	4	6	1 284	4	6
<i>Promacta/Revolade</i>	Oncology	Immune thrombocytopenic purpura	581	30		593	41	40	1 174	35	35
<i>Tafinlar + Mekinist</i>	Oncology	Melanoma	457	35		698	31	29	1 155	32	31
<i>Exjade/Jadenu</i>	Oncology	Chronic iron overload	521	1		578	6	5	1 099	4	3
<i>Xolair</i> ¹	Respiratory	Asthma				1 039	13	12	1 039	13	12
<i>Entresto</i>	Cardio-Metabolic	Chronic heart failure	556	87		472	125	124	1 028	103	102
<i>Diovan Group</i>	Established Medicines	Hypertension	84	-3		939	8	8	1 023	7	7
<i>Exforge Group</i>	Established Medicines	Hypertension	19	-32		983	5	5	1 002	4	4
<i>Jakavi</i>	Oncology	Myelofibrosis				977	26	24	977	26	24
<i>Votrient</i>	Oncology	Renal cell carcinoma	404	-1		424	6	5	828	2	2
<i>Ilaris</i>	Immunology, Hepatology and Dermatology	Auto-inflammatory (CAPS, TRAPS, HIDS/MKD, FMF, SJIA, AOSD and gout)	262	34		292	42	44	554	38	39
Travoprost Group	Ophthalmology	Reduction of elevated intraocular pressure	194	-10		323	-13	-13	517	-12	-12
<i>Zortress/Certican</i>	Established Medicines	Transplantation	145	12		319	12	12	464	12	12
Top 20 products total			9 654	11		17 292	10	9	26 946	10	10
Rest of portfolio			2 210	4		5 736	0	0	7 946	1	1
Total division sales			11 864	9		23 028	8	7	34 892	8	8

¹ Net sales reflect *Xolair* sales for all indications (e.g., including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology, Hepatology and Dermatology franchise).

² Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 53.

Sandoz net sales by business franchise – Fourth quarter

	Q4 2018 USD m	Q4 2017 USD m
Retail Generics ¹	1 933	2 149
Biopharmaceuticals	390	309
Anti-Infectives	136	137
Total Division net sales	2 459	2 595

¹ Of which USD 208 million (2017: USD 233 million) represents Anti-Infectives sold under Sandoz name

Sandoz net sales by business franchise – Full year

	FY 2018 USD m	FY 2017 USD m
Retail Generics ¹	7 880	8 409
Biopharmaceuticals	1 436	1 135
Anti-Infectives	543	516
Total Division net sales	9 859	10 060

¹ Of which USD 826 million (2017: USD 880 million) represents Anti-Infectives sold under Sandoz name

Alcon net sales by business franchise – Fourth quarter

	Q4 2018 USD m	Q4 2017 restated ¹ USD m
Surgical		
Consumables	579	556
Implantables	290	286
Equipment/Other	157	159
Total Surgical	1 026	1 001
Vision Care		
Contact lenses	450	443
Ocular health	312	317
Total Vision Care	762	760
Total Division net sales	1 788	1 761

¹ Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018

Alcon net sales by business franchise – Full year

	FY 2018 USD m	FY 2017 restated ¹ USD m
Surgical		
Consumables	2 227	2 097
Implantables	1 136	1 034
Equipment/Other	636	594
Total Surgical	3 999	3 725
Vision Care		
Contact lenses	1 928	1 833
Ocular health	1 222	1 213
Total Vision Care	3 150	3 046
Total Division net sales	7 149	6 771

¹ Restated to reflect the product transfers between the Innovative Medicines and Alcon Divisions that was effective as of January 1, 2018

The product portfolio of Sandoz and Alcon is widely spread in 2018 and 2017.

Segmentation – Other revenue – Fourth quarter

(USD millions)	Innovative Medicines		Sandoz		Alcon		Corporate		Group	
	Q4 2018	Q4 2017	Q4 2018	Q4 2017	Q4 2018	Q4 2017	Q4 2018	Q4 2017	Q4 2018	Q4 2017
Profit sharing income	310	163	1	1					311	164
Royalty income	41	44	3	6				19	44	69
Milestone income	21	4	9						30	4
Other ¹	9	9	1	3					10	12
Total other revenues	381	220	14	10				19	395	249

¹ Other includes revenue from activities such as manufacturing or other services rendered, to the extent such revenue is not recorded under net sales.

Segmentation – Other revenue – Full year

(USD millions)	Innovative Medicines		Sandoz		Alcon		Corporate		Group	
	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017
Profit sharing income	874	648	3	4					877	652
Royalty income	162	186	10	24		3	16	88	188	301
Milestone income	128	28	45						173	28
Other ¹	24	36	4	9					28	45
Total other revenues	1 188	898	62	37		3	16	88	1 266	1 026

¹ Other includes revenue from activities such as manufacturing or other services rendered, to the extent such revenue is not recorded under net sales.

SUPPLEMENTARY INFORMATION (unaudited)

Non-IFRS disclosures

Core results

The Group's core results – including core operating income, core net income and core earnings per share – exclude fully the amortization and impairment charges of intangible assets, excluding software, net gains and losses on fund investments and equity securities valued at fair value through profit and loss, and certain acquisition related items. The following items that exceed a threshold of USD 25 million are also excluded: integration and divestment related income and expenses, divestment gains and losses, restructuring charges/releases and related items, legal related items, impairments of property, plant and equipment and financial assets, as well as income and expense items that management deems exceptional and that are or are expected to accumulate within the year to be over a USD 25 million threshold.

Novartis believes that investor understanding of the Group's performance is enhanced by disclosing core measures of performance because, since they exclude items which can vary significantly from year to year, the core measures enable better comparison of business performance across years. For this same reason, Novartis uses these core measures in addition to IFRS and other measures as important factors in assessing the Group's performance.

The following are examples of how these core measures are utilized:

- In addition to monthly reports containing financial information prepared under International Financial Reporting Standards (IFRS), senior management receives a monthly analysis incorporating these core measures.
- Annual budgets are prepared for both IFRS and core measures.

Despite the use of these measures by management in setting goals and measuring the Group's performance, these are non-IFRS measures that have no standardized meaning prescribed by IFRS. As a result, such measures have limits in usefulness to investors.

Because of their non-standardized definitions, the core measures (unlike IFRS measures) may not be comparable to the calculation of similar measures of other companies. These core measures are presented solely to permit investors to more fully understand how the Group's management assesses underlying performance. These core measures are not, and should not be viewed as, a substitute for IFRS measures.

As an internal measure of Group performance, these core measures have limitations, and the Group's performance management process is not solely restricted to these metrics. A limitation of the core measures is that they provide a view of the Group's operations without including all events during a period, such as the effects of an acquisition, divestment, or amortization/impairments of purchased intangible assets and restructurings.

Constant currencies

Changes in the relative values of non-US currencies to the US dollar can affect the Group's financial results and financial position. To provide additional information that may be useful to investors, including changes in sales volume, we present information about our net sales and various values relating to operating and net income that are adjusted for such foreign currency effects.

Constant currency calculations have the goal of eliminating two exchange rate effects so that an estimate can be made of underlying changes in the consolidated income statement excluding the impact of fluctuations in exchange rates:

- the impact of translating the income statements of consolidated entities from their non-USD functional currencies to USD; and

- the impact of exchange rate movements on the major transactions of consolidated entities performed in currencies other than their functional currency.

We calculate constant currency measures by translating the current year's foreign currency values for sales and other income statement items into USD using the average exchange rates from the prior year and comparing them to the prior year values in USD.

We use these constant currency measures in evaluating the Group's performance, since they may assist us in evaluating our ongoing performance from year to year. However, in performing our evaluation, we also consider equivalent measures of performance which are not affected by changes in the relative value of currencies.

Growth rate calculation

For ease of understanding, Novartis uses a sign convention for its growth rates such that a reduction in operating expenses or losses compared to the prior year is shown as a positive growth.

Net debt and free cash flow

Net debt and free cash flow are non-IFRS financial measures, which means they should not be interpreted as measures determined under IFRS. Net debt is presented as additional information because management believes it is a useful supplemental indicator of the Group's ability to pay dividends, to meet financial commitments and to invest in new strategic opportunities, including strengthening its balance sheet. Free cash flow is presented as additional information because management believes it is a useful supplemental indicator of the Group's ability to operate without reliance on additional borrowing or use of existing cash. Free cash flow is a measure of the net cash generated that is available for debt repayment, investment in strategic opportunities and for returning to shareholders. Cash flows in connection with the acquisition or divestment of subsidiaries, associated companies and non-controlling interests in subsidiaries are not taken into account to determine free cash flow. Free cash flow is not intended to be a substitute measure for net cash flows from operating activities as determined under IFRS.

CORE RESULTS – Reconciliation from IFRS results to core results – Group – Fourth quarter

	Innovative Medicines		Sandoz		Alcon		Corporate		Group	
	Q4 2018	Q4 2017 restated ¹	Q4 2018	Q4 2017	Q4 2018	Q4 2017 restated ¹	Q4 2018	Q4 2017	Q4 2018	Q4 2017
(USD millions unless indicated otherwise)										
IFRS operating income	1 300	1 757	237	305	-52	-28	-186	36	1 299	2 070
Amortization of intangible assets	478	612	80	114	246	256			804	982
Impairments										
Intangible assets	480	25	105	10	2				587	35
Property, plant and equipment related to the Group-wide rationalization of manufacturing sites	71	8	19	14					90	22
Other property, plant and equipment	23	74		-1					23	73
Financial assets ²						9		125		134
Total impairment charges	574	107	124	23	2	9		125	700	264
Acquisition or divestment of businesses and related items										
- Income							-2	-20	-2	-20
- Expense	27	14					2	16	29	30
Total acquisition or divestment of businesses and related items, net	27	14						-4	27	10
Other items										
Divestment gains	8						-1		7	
Financial assets – fair value adjustments ²	15				25		40		80	
Restructuring and related items										
- Income	-14	-21	-10	-1	-2	-2		-1	-26	-25
- Expense	337	71	80	102	33	17	22	10	472	200
Legal-related items										
- Income		-19								-19
- Expense	6	10			7	51			13	61
Additional income	-35	-21	-29			-1	-19	-335	-83	-357
Additional expense	73	80			21			-43	94	37
Total other items	390	100	41	101	84	65	42	-369	557	-103
Total adjustments	1 469	833	245	238	332	330	42	-248	2 088	1 153
Core operating income	2 769	2 590	482	543	280	302	-144	-212	3 387	3 223
<i>as % of net sales</i>	<i>30.7%</i>	<i>30.3%</i>	<i>19.6%</i>	<i>20.9%</i>	<i>15.7%</i>	<i>17.1%</i>			<i>25.5%</i>	<i>25.0%</i>
Income from associated companies	1			1			140	415	141	416
Core adjustments to income from associated companies, net of tax							73	-117	73	-117
Interest expense									-254	-208
Other financial income and expense									78	23
Taxes, adjusted for above items (core taxes)									-544	-519
Core net income									2 881	2 818
Core net income attributable to shareholders of Novartis AG									2 882	2 818
Core basic EPS (USD)³									1.25	1.21

¹ Restated to reflect the product transfers between Innovative Medicines and Alcon that was effective as of January 1, 2018

² For financial instruments accounted for as fair value through profit and loss, as of January 1, 2018, unrealized gains/losses on financial assets are shown under "Financial assets – fair value adjustments", due to the change in IFRS 9 (see Note 2)

³ Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

CORE RESULTS – Reconciliation from IFRS results to core results – Group – Full year

	Innovative Medicines		Sandoz		Alcon		Corporate		Group	
	FY 2018	FY 2017 restated ¹	FY 2018	FY 2017	FY 2018	FY 2017 restated ¹	FY 2018	FY 2017	FY 2018	FY 2017
(USD millions unless indicated otherwise)										
IFRS operating income	7 871	7 595	1 332	1 368	-194	-3	-840	-331	8 169	8 629
Amortization of intangible assets	2 158	2 119	363	454	1 007	1 025			3 528	3 598
Impairments										
Intangible assets	592	591	249	61	391	57			1 232	709
Property, plant and equipment related to the Group-wide rationalization of manufacturing sites	170	7	63	60					233	67
Other property, plant and equipment	65	77		13					65	90
Financial assets ²						29		197		226
Total impairment charges	827	675	312	134	391	86		197	1 530	1 092
Acquisition or divestment of businesses and related items										
- Income		-2					-21	-115	-21	-117
- Expense	126	32					29	130	155	162
Total acquisition or divestment of businesses and related items, net	126	30					8	15	134	45
Other items										
Divestment gains	-482	-368	-78				-56		-616	-368
Financial assets – fair value adjustments ²	-107				-18		113		-12	
Restructuring and related items										
- Income	-25	-53	-12	-7	-4	-4	-2	-1	-43	-65
- Expense	665	268	179	134	45	34	133	29	1 022	465
Legal-related items										
- Income	-1	-21	-63						-64	-21
- Expense	36	35	90		28	61			154	96
Additional income	-73	-534	-171	-3	-66	-51	-19	-372	-329	-960
Additional expense	156	273	50		90	20	54	46	350	339
Total other items	169	-400	-5	124	75	60	223	-298	462	-514
Total adjustments	3 280	2 424	670	712	1 473	1 171	231	-86	5 654	4 221
Core operating income	11 151	10 019	2 002	2 080	1 279	1 168	-609	-417	13 823	12 850
<i>as % of net sales</i>	<i>32.0%</i>	<i>31.0%</i>	<i>20.3%</i>	<i>20.7%</i>	<i>17.9%</i>	<i>17.3%</i>			<i>26.6%</i>	<i>26.2%</i>
Income from associated companies	1	-1	5	23			6 432	1 086	6 438	1 108
Core adjustments to income from associated companies, net of tax		1					-5 325	226	-5 325	227
Interest expense									-957	-777
Other financial income and expense									185	39
Taxes, adjusted for above items (core taxes)									-2 226	-2 056
Core net income									11 938	11 391
Core net income attributable to shareholders of Novartis AG									11 935	11 391
Core basic EPS (USD)³									5.15	4.86

¹ Restated to reflect the product transfers between Innovative Medicines and Alcon that was effective as of January 1, 2018

² For financial instruments accounted for as fair value through profit and loss, as of January 1, 2018, unrealized gains/losses on financial assets are shown under "Financial assets – fair value adjustments", due to the change in IFRS 9 (see Note 2)

³ Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

CORE RESULTS – Reconciliation from IFRS results to core results – Group – Fourth quarter

(USD millions unless indicated otherwise)	Q4 2018 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items ³	Other items ⁴	Q4 2018 Core results	Q4 2017 Core results
Gross profit	8 738	789	443	2	151	10 123	9 613
Operating income	1 299	804	700	27	557	3 387	3 223
Income before taxes	1 264	876	700	28	557	3 425	3 337
Taxes ⁵	-70					-544	-519
Net income	1 194					2 881	2 818
Basic EPS (USD)⁶	0.52					1.25	1.21

The following are adjustments to arrive at core gross profit

Cost of goods sold	-4 926	789	443	2	151	-3 541	-3 551
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The following are adjustments to arrive at core operating income

Selling, general and administration	-4 404		2	6	10	-4 386	-4 044
Research and development	-2 399	15	66	6	-7	-2 319	-2 251
Other income	151			-2	15	164	208
Other expense	-787		189	15	388	-195	-303

The following are adjustments to arrive at core income before taxes

Income from associated companies	141	72		1		214	299
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¹ Amortization of intangible assets: cost of goods sold includes amortization of acquired rights to in-market products, and other production-related intangible assets; research and development includes the amortization of acquired rights, including technology platforms; income from associated companies includes USD 72 million for the Novartis share of the estimated Roche core items

² Impairments: cost of goods sold, selling, general and administration and research and development include impairment charges related to intangible assets; research and development also includes impairment reversals of property, plant and equipment; other expense includes impairment charges on property, plant and equipment; cost of goods sold and other expense also include impairment charges related to a disposal group held for sale for goodwill and currently marketed products

³ Acquisition or divestment of businesses and related items, including restructuring and integration charges: cost of goods sold, selling, general and administration, research and development and other expense include charges related to acquisitions; other income and other expense also include transitional service fee income and expenses, and other items related to the portfolio transformation

⁴ Other items: cost of goods sold and selling, general and administration include charges related to a product's voluntary market withdrawal; cost of goods sold, other income and other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; cost of goods sold, selling, general and administration, research and development, other income and other expense include other restructuring income and charges and related items; cost of goods sold also includes inventory write-off and other product recall-related costs; cost of goods sold, research and development and other income include fair value adjustments of contingent consideration liabilities; research and development also includes amortization of option rights; other income and other expense include fair value adjustments and divestment gains and losses on financial assets; other income also includes product divestment gains and releases of accruals; other expense includes legal-related items and restructuring charges

⁵ Taxes on the adjustments between IFRS and core results take into account, for each individual item included in the adjustment, the tax rate that will finally be applicable to the item based on the jurisdiction where the adjustment will finally have a tax impact. Generally, this results in amortization and impairment of intangible assets and acquisition-related restructuring and integration items having a full tax impact. There is usually a tax impact on other items, although this is not always the case for items arising from legal settlements in certain jurisdictions. Adjustments related to income from associated companies are recorded net of any related tax effect. Due to these factors and the differing effective tax rates in the various jurisdictions, the tax on the total adjustments of USD 2.2 billion to arrive at the core results before tax amounts to USD 474 million. The average tax rate on the adjustments is 21.9%.

⁶ Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

CORE RESULTS – Reconciliation from IFRS results to core results – Group – Full year

(USD millions unless indicated otherwise)	FY 2018 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items ³	Other items ⁴	FY 2018 Core results	FY 2017 Core results
Gross profit	34 759	3 338	877	5	439	39 418	36 578
Operating income	8 169	3 528	1 530	134	462	13 823	12 850
Income before taxes	13 835	3 972	1 530	-5 656	483	14 164	13 447
Taxes ⁵	-1 221					-2 226	-2 056
Net income	12 614					11 938	11 391
Basic EPS (USD)⁶	5.44					5.15	4.86

The following are adjustments to arrive at core gross profit

Cost of goods sold	-18 407	3 338	877	5	439	-13 748	-13 557
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The following are adjustments to arrive at core operating income

Selling, general and administration	-16 471		2	28	12	-16 429	-15 000
Research and development	-9 074	190	167	23	13	-8 681	-8 313
Other income	1 690			-21	-1 073	596	778
Other expense	-2 735		484	99	1 071	-1 081	-1 193

The following are adjustments to arrive at core income before taxes

Income from associated companies	6 438	444		-5 790	21	1 113	1 335
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¹ Amortization of intangible assets: cost of goods sold includes amortization of acquired rights to in-market products, and other production-related intangible assets; research and development includes the amortization of acquired rights, including technology platforms; income from associated companies includes USD 444 million for the Novartis share of the estimated Roche core items

² Impairments: cost of goods sold, selling, general and administration and research and development include impairment charges related to intangible assets; research and development also includes impairment reversals of property, plant and equipment; other expense includes impairment charges related to property, plant and equipment; cost of goods sold and other expense include impairment charges related to a disposal group held for sale for goodwill and currently marketed products

³ Acquisition or divestment of businesses and related items, including restructuring and integration charges: cost of goods sold, selling, general and administration, research and development and other expense include charges related to acquisitions; other income and other expense include transitional service fee income and expenses, and other items related to the portfolio transformation; income from associated companies includes the pre-tax gain of USD 5.8 billion on the sale of the 36.5% investment in GSK Consumer Healthcare Holdings Ltd.

⁴ Other items: cost of goods sold, selling, general and administration and research and development include charges and reversal of charges related to a product's voluntary market withdrawal; cost of goods sold, other income and other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; cost of goods sold, selling, general and administration, research and development, other income and other expense include other restructuring income and charges and related items; cost of goods sold and other expense include charges related to changes in a contractual agreement; cost of goods sold also includes inventory write-off and other product recall-related costs; selling, general and administration includes a reversal of a provision; research and development includes fair value adjustments of contingent consideration liabilities, a charge for onerous contracts, and amortization of option rights; other income and other expense include fair value adjustments and divestment gains and losses on financial assets; other income also includes product divestment gains, divestment gains on property, plant and equipment, releases of accruals and a legal settlement gain; other expense includes legal-related items and restructuring charges; income from associated companies includes an adjustment of USD 21 million for the Novartis share of the estimated GSK Consumer Healthcare Holdings Ltd. core items

⁵ Taxes on the adjustments between IFRS and core results take into account, for each individual item included in the adjustment, the tax rate that will finally be applicable to the item based on the jurisdiction where the adjustment will finally have a tax impact. Generally, this results in amortization and impairment of intangible assets and acquisition-related restructuring and integration items having a full tax impact. There is usually a tax impact on other items, although this is not always the case for items arising from legal settlements in certain jurisdictions. Adjustments related to income from associated companies are recorded net of any related tax effect. Due to these factors and the differing effective tax rates in the various jurisdictions, the tax on the total adjustments of USD 329 million to arrive at the core results before tax amounts to USD -1.0 billion. Excluding the gain on the sale of the 36.5% investment in GSK Consumer Healthcare Holdings Ltd., the tax on the total adjustments of USD 6.1 billion to arrive at the core results before tax amounts to USD 1.1 billion. The average tax rate on the adjustments excluding this transaction is 17.4%

⁶ Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

CORE RESULTS – Reconciliation from IFRS results to core results – Innovative Medicines – Fourth quarter

(USD millions)	Q4 2018 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items ³	Other items ⁴	Q4 2018 Core results	Q4 2017 restated Core results ⁵
Gross profit	6 696	466	412	2	130	7 706	7 197
Operating income	1 300	478	574	27	390	2 769	2 590

The following are adjustments to arrive at core gross profit

Cost of goods sold	-2 897	466	412	2	130	-1 887	-1 748
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The following are adjustments to arrive at core operating income

Selling, general and administration	-2 960			6	-6	-2 960	-2 693
Research and development	-2 010	12	66	6	-26	-1 952	-1 918
Other income	115					115	171
Other expense	-541		96	13	292	-140	-167

¹ Amortization of intangible assets: cost of goods sold includes amortization of acquired rights to in-market products and other production-related intangible assets; research and development includes the amortization of acquired rights, including technology platforms

² Impairments: cost of goods sold and research and development include impairment charges related to intangible assets; research and development also includes impairment reversal of property, plant and equipment; other expense includes impairment charges related to property, plant and equipment

³ Acquisition or divestment of businesses and related items, including restructuring and integration charges: cost of goods sold, selling, general and administration, research and development and other expense include charges related to acquisitions; other expense includes items related to the portfolio transformation

⁴ Other items: cost of goods sold and other expense include restructuring and other charges related to the Group-wide rationalization of manufacturing sites; cost of goods sold, research and development, other income and other expense include other restructuring income and charges and related items; cost of goods sold and research and development also include fair value adjustments of contingent consideration liabilities; selling, general and administration includes a reversal of a provision; other income and other expense include fair value adjustments on financial assets; other income also includes gains from product and financial asset divestments and releases of accruals; other expense includes legal-related items

⁵ Restated to reflect the product transfers between Innovative Medicines and Alcon that was effective as of January 1, 2018

CORE RESULTS – Reconciliation from IFRS results to core results – Innovative Medicines – Full year

(USD millions)	FY 2018 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items ³	Other items ⁴	FY 2018 Core results	FY 2017 restated Core results ⁵
Gross profit	26 951	1 979	423	5	329	29 687	27 213
Operating income	7 871	2 158	827	126	169	11 151	10 019

The following are adjustments to arrive at core gross profit

Cost of goods sold	-9 870	1 979	423	5	329	-7 134	-6 631
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The following are adjustments to arrive at core operating income

Selling, general and administration	-10 907			28	-11	-10 890	-9 890
Research and development	-7 675	179	167	23	-34	-7 340	-7 034
Other income	977				-671	306	351
Other expense	-1 475		237	70	556	-612	-621

¹ Amortization of intangible assets: cost of goods sold includes amortization of acquired rights to in-market products and other production-related intangible assets; research and development includes the amortization of acquired rights, including technology platforms

² Impairments: cost of goods sold and research and development include impairment charges related to intangible assets; research and development also includes impairment reversals of property, plant and equipment; other expense includes impairment charges related to property, plant and equipment

³ Acquisition or divestment of businesses and related items, including restructuring and integration charges: cost of goods sold, selling, general and administration, research and development and other expense include charges related to acquisitions; other expense also includes items related to the portfolio transformation

⁴ Other items: cost of goods sold and other expense include restructuring and other charges related to the Group-wide rationalization of manufacturing sites and charges related to changes in a contractual agreement; cost of goods sold, research and development, other income and other expense include other restructuring income and charges and related items; cost of goods sold and research and development also include fair value adjustments of contingent consideration liabilities; cost of goods sold also includes an inventory write-off; selling, general and administration includes a reversal of a provision; research and development includes a charge for onerous contracts; other income and other expense include fair value adjustments on financial assets and legal-related items; other income also includes product divestment gains and releases of accruals

⁵ Restated to reflect the product transfers between Innovative Medicines and Alcon that was effective as of January 1, 2018

CORE RESULTS – Reconciliation from IFRS results to core results – Sandoz – Fourth quarter

(USD millions)	Q4 2018 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items	Other items ³	Q4 2018 Core results	Q4 2017 Core results
Gross profit	1 146	80	31		19	1 276	1 311
Operating income	237	80	124		41	482	543

The following are adjustments to arrive at core gross profit

Cost of goods sold	-1 364	80	31		19	-1 234	-1 330
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The following are adjustments to arrive at core operating income

Selling, general and administration	-576				3	-573	-581
Other income	79				-10	69	82
Other expense	-188		93		29	-66	-71

¹ Amortization of intangible assets: cost of goods sold includes amortization of acquired rights to in-market products and other production-related intangible assets

² Impairments: cost of goods sold includes impairment charges related to intangible assets and impairment charges for currently marketed products related to a disposal group held for sale; other expense includes impairment charges related to property, plant and equipment and goodwill impairment charges related to a disposal group held for sale

³ Other items: cost of goods sold, other income and other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; cost of goods sold also includes inventory write-off and other product recall-related costs; selling, general and administration and other expense include other restructuring income and charges and related items; other income includes fair value adjustments of contingent consideration liabilities, other expense includes legal-related items and restructuring charges

CORE RESULTS – Reconciliation from IFRS results to core results – Sandoz – Full year

(USD millions)	FY 2018 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items	Other items ³	FY 2018 Core results	FY 2017 Core results
Gross profit	4 568	363	65		133	5 129	4 999
Operating income	1 332	363	312		-5	2 002	2 080

The following are adjustments to arrive at core gross profit

Cost of goods sold	-5 530	363	65		133	-4 969	-5 216
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The following are adjustments to arrive at core operating income

Selling, general and administration	-2 305				10	-2 295	-2 126
Other income	505				-295	210	194
Other expense	-622		247		147	-228	-213

¹ Amortization of intangible assets: cost of goods sold includes amortization of acquired rights to in-market products and other production-related intangible assets

² Impairments: cost of goods sold includes impairment charges related to intangible assets and impairment charges for currently marketed products related to a disposal group held for sale; other expense includes impairment charges related to property, plant and equipment, and goodwill impairment charges related to a disposal group held for sale

³ Other items: cost of goods sold, other income and other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; cost of goods sold also includes inventory write-off and other product recall-related costs; cost of goods sold, selling, general and administration, other income and other expense include other restructuring income and charges and related items; other income also includes product divestment gains, a legal settlement gain and fair value adjustments of contingent consideration liabilities; other expense includes legal-related items and restructuring charges

CORE RESULTS – Reconciliation from IFRS results to core results – Alcon – Fourth quarter

(USD millions)	Q4 2018 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items	Other items ³	Q4 2018 Core results	Q4 2017 restated Core results ⁴
Gross profit	879	243			2	1 124	1 074
Operating income	-52	246	2		84	280	302

The following are adjustments to arrive at core gross profit

Cost of goods sold	-910	243			2	-665	-687
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The following are adjustments to arrive at core operating income

Selling, general and administration	-727		2		13	-712	-637
Research and development	-165	3			19	-143	-135
Other income	-15				23	8	6
Other expense	-24				27	3	-6

¹ Amortization of intangible assets: cost of goods sold includes amortization of acquired rights to in-market products and other production-related intangible assets; research and development includes the amortization of acquired rights for technology platforms

² Impairments: selling, general and administration includes impairment charges related to intangible assets

³ Other items: cost of goods sold and selling, general and administration include charges related to a product's voluntary market withdrawal; research and development also includes amortization of option rights; cost of goods sold, selling, general and administration, research and development, other income and other expense include other restructuring income and charges and related items; other income also includes fair value adjustments on a financial asset; other expense includes legal-related items

⁴ Restated to reflect the product transfers between Innovative Medicines and Alcon that was effective as of January 1, 2018

CORE RESULTS – Reconciliation from IFRS results to core results – Alcon – Full year

(USD millions)	FY 2018 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items	Other items ³	FY 2018 Core results	FY 2017 restated Core results ⁴
Gross profit	3 170	996	389		-23	4 532	4 204
Operating income	-194	1 007	391		75	1 279	1 168

The following are adjustments to arrive at core gross profit

Cost of goods sold	-3 983	996	389		-23	-2 621	-2 573
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The following are adjustments to arrive at core operating income

Selling, general and administration	-2 754		2		13	-2 739	-2 532
Research and development	-585	11			47	-527	-505
Other income	58				-23	35	30
Other expense	-83				61	-22	-29

¹ Amortization of intangible assets: cost of goods sold includes amortization of acquired rights to in-market products and other production-related intangible assets; research and development includes the amortization of acquired rights for technology platforms

² Impairments: cost of goods sold and selling, general and administration includes impairment charges related to intangible assets

³ Other items: cost of goods sold, selling, general and administration and research and development include charges and reversal of charges related to a product's voluntary market withdrawal; cost of goods sold, selling, general and administration, research and development, other income and other expense also include other restructuring income and charges and related items; research and development also includes amortization of option rights and a fair value adjustment of a contingent consideration liability; other income includes fair value adjustments on a financial asset; other expense includes legal-related items

⁴ Restated to reflect the product transfers between Innovative Medicines and Alcon that was effective as of January 1, 2018

CORE RESULTS – Reconciliation from IFRS results to core results – Corporate – Fourth quarter

(USD millions)	Q4 2018 IFRS results	Amortization of intangible assets	Impairments	Acquisition or divestment of businesses and related items ¹	Other items ²	Q4 2018 Core results	Q4 2017 Core results
Gross profit	17					17	31
Operating income/loss	-186				42	-144	-212
The following are adjustments to arrive at core operating loss							
Other income	-28			-2	2	-28	-51
Other expense	-34			2	40	8	-59

¹ Acquisition or divestment of businesses and related items, including restructuring and integration charges: other income and other expense include transitional service fee income and expenses, and other items related to the portfolio transformation

² Other items: other income and other expense include fair value adjustments and divestment gains and losses on financial assets, as well as restructuring charges and related items

CORE RESULTS – Reconciliation from IFRS results to core results – Corporate – Full year

(USD millions)	FY 2018 IFRS results	Amortization of intangible assets	Impairments	Acquisition or divestment of businesses and related items ¹	Other items ²	FY 2018 Core results	FY 2017 Core results
Gross profit	70					70	162
Operating loss	-840			8	223	-609	-417

The following are adjustments to arrive at core operating loss

Other income	150			-21	-84	45	203
Other expense	-555			29	307	-219	-330

¹ Acquisition or divestment of businesses and related items, including restructuring and integration charges: other income and other expense include transitional service fee income and expenses, and other items related to the portfolio transformation

² Other items: other income and other expense include fair value adjustments and divestment gains and losses on financial assets, as well as restructuring income and charges and related items; other income also includes divestment gains on property, plant and equipment

Income from associated companies

(USD millions)	Q4 2018	Q4 2017	FY 2018	FY 2017
<i>Share of estimated Roche reported results</i>	178	160	799	669
<i>Prior-year adjustment</i>			-125	-67
<i>Amortization of additional intangible assets recognized by Novartis on initial accounting for the equity interest</i>	-36	-36	-148	-146
Net income effect from Roche Holding AG	142	124	526	456
<i>Share of estimated GSK Consumer Healthcare Holdings Ltd. reported results¹</i>		293	119	589
<i>Prior-year adjustment</i>			4	47
<i>Amortization of additional intangible assets recognized by Novartis on initial accounting for the equity interest</i>		-2	-3	-7
<i>Gain on divestment of GSK Consumer Healthcare Holdings Ltd., pre-tax¹</i>	-1		5 790	
Net income effect from GlaxoSmithKline Consumer Healthcare Holdings Ltd.	-1	291	5 910	629
Others		1	2	23
Income from associated companies	141	416	6 438	1 108

¹ On March 27, 2018, Novartis entered into the agreement to divest its 36.5% investment in GSK Consumer Healthcare Holdings Ltd. to GSK. As a result, equity accounting was discontinued starting from April 1, 2018. The transaction closed on June 1, 2018, see Note 3.

Core income from associated companies

(USD millions)	Q4 2018	Q4 2017	FY 2018	FY 2017
Income from associated companies	141	416	6 438	1 108
Share of estimated Roche core adjustments	72	63	311	306
Roche prior year adjustment			133	70
Share of estimated GSK Consumer Healthcare Holdings Ltd. core adjustments ¹		-180	20	-131
GSK Consumer Healthcare Holdings Ltd. prior year adjustment			1	-19
Gain on divestment of GSK Consumer Healthcare Holdings Ltd., pre-tax ¹	1		-5 790	
Others				1
Core income from associated companies	214	299	1 113	1 335

¹ On March 27, 2018, Novartis entered into the agreement to divest its 36.5% investment in GSK Consumer Healthcare Holdings Ltd. to GSK. As a result, equity accounting was discontinued starting from April 1, 2018. The transaction closed on June 1, 2018, see Note 3.

Condensed consolidated changes in net debt

Fourth quarter

(USD millions)	Q4 2018	Q4 2017
Change in cash and cash equivalents	-729	50
Change in marketable securities, commodities, financial debts and financial derivatives	1 617	1 642
Reduction in net debt	888	1 692
Net debt at October 1	-17 072	-20 739
Net debt at December 31	-16 184	-19 047

Full year

(USD millions)	FY 2018	FY 2017
Change in cash and cash equivalents	4 411	1 853
Change in marketable securities, commodities, financial debts and financial derivatives	-1 548	-4 875
Reduction/increase in net debt	2 863	-3 022
Net debt at January 1	-19 047	-16 025
Net debt at December 31	-16 184	-19 047

Components of net debt

(USD millions)	Dec 31, 2018	Dec 31, 2017
Non-current financial debts	-22 470	-23 224
Current financial debts and derivative financial instruments	-9 678	-5 308
Total financial debt	-32 148	-28 532
Less liquidity:		
Cash and cash equivalents	13 271	8 860
Marketable securities, commodities, time deposits and derivative financial instruments	2 693	625
Total liquidity	15 964	9 485
Net debt at December 31	-16 184	-19 047

Share information

	Dec 31, 2018	Dec 31, 2017
Number of shares outstanding	2 311 171 429	2 317 456 499
Registered share price (CHF)	84.04	82.40
ADR price (USD)	85.81	83.96
Market capitalization (USD billions) ¹	197.0	195.5
Market capitalization (CHF billions) ¹	194.2	191.0

¹ Market capitalization is calculated based on the number of shares outstanding (excluding treasury shares). Market capitalization in USD is based on the market capitalization in CHF converted at the year end CHF/USD exchange rate.

Free cash flow

Fourth quarter

(USD millions)

	Q4 2018	Q4 2017	Change
Operating income	1 299	2 070	-771
Adjustments for non-cash items			
Depreciation, amortization and impairments	2 039	1 724	315
Change in provisions and other non-current liabilities	474	157	317
Other	71	-297	368
Operating income adjusted for non-cash items	3 883	3 654	229
Dividends received from associated companies and others		121	-121
Interest and other financial receipts	160	29	131
Interest and other financial payments	-284	-338	54
Taxes paid	-426	-486	60
Payments out of provisions and other net cash movements in non-current liabilities	-150	-372	222
Change in inventory and trade receivables less trade payables	262	478	-216
Change in other net current assets and other operating cash flow items	321	322	-1
Net cash flows from operating activities	3 766	3 408	358
Purchase of property, plant and equipment	-650	-638	-12
Proceeds from sales of property, plant and equipment	47	30	17
Purchase of intangible assets	-259	-332	73
Proceeds from sales of intangible assets	121	100	21
Purchase of financial assets	-98	-179	81
Proceeds from sales of financial assets	23	57	-34
Purchase of other non-current assets	-13	12	-25
Proceeds from sales of other non-current assets	2	-2	4
Free cash flow	2 939	2 456	483

Free cash flow

Full year

(USD millions)

	FY 2018	FY 2017	Change
Operating income	8 169	8 629	-460
Adjustments for non-cash items			
Depreciation, amortization and impairments	6 881	6 332	549
Change in provisions and other non-current liabilities	876	160	716
Other	-141	-360	219
Operating income adjusted for non-cash items	15 785	14 761	1 024
Dividends received from associated companies and others	719	987	-268
Interest and other financial receipts	461	97	364
Interest and other financial payments	-858	-980	122
Taxes paid	-1 670	-1 611	-59
Payments out of provisions and other net cash movements in non-current liabilities	-664	-877	213
Change in inventory and trade receivables less trade payables	-793	-393	-400
Change in other net current assets and other operating cash flow items	1 292	637	655
Net cash flows from operating activities	14 272	12 621	1 651
Purchase of property, plant and equipment	-1 773	-1 696	-77
Proceeds from sales of property, plant and equipment	102	92	10
Purchase of intangible assets	-1 582	-1 050	-532
Proceeds from sales of intangible assets	823	640	183
Purchase of financial assets	-262	-468	206
Proceeds from sales of financial assets	167	330	-163
Purchase of other non-current assets	-39	-42	3
Proceeds from sales of other non-current assets	9	1	8
Free cash flow	11 717	10 428	1 289

Principal currency translation rates

Fourth quarter

	Average rates Q4 2018	Average rates Q4 2017	Period-end rates Dec 31, 2018	Period-end rates Dec 31, 2017
1 CHF	1.004	1.013	1.014	1.024
1 CNY	0.145	0.151	0.145	0.154
1 EUR	1.141	1.178	1.144	1.195
1 GBP	1.286	1.328	1.274	1.347
100 JPY	0.886	0.886	0.907	0.888
100 RUB	1.504	1.711	1.437	1.734

Full year

	Average rates FY 2018	Average rates FY 2017	Period-end rates Dec 31, 2018	Period-end rates Dec 31, 2017
1 CHF	1.023	1.016	1.014	1.024
1 CNY	0.151	0.148	0.145	0.154
1 EUR	1.181	1.129	1.144	1.195
1 GBP	1.336	1.288	1.274	1.347
100 JPY	0.906	0.892	0.907	0.888
100 RUB	1.600	1.715	1.437	1.734

Disclaimer

This press release contains forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995, that can generally be identified by words such as “platforms,” “proposal,” “on track,” “began transformation”, “to be sold,” “toward” “potential,” “launched,” “proposed,” “guidance,” “expected,” “developing,” “launching,” “creating,” “strategic,” “priorities,” “expect,” “exciting,” “subject to,” “strategy,” “long-term,” “positioned,” “sustainable,” “agreed to sell,” “is transforming,” “launch,” “to drive,” “continue our journey,” “will,” “growth drivers,” “Breakthrough Therapy designation,” “submissions,” “filings,” “accelerated assessment,” “Sakigake designation,” “to expand,” “potential,” “outlook,” “would,” “progressing,” “awaiting,” “priority review,” “planned,” “pipeline,” “enrollment,” “ongoing,” “Fast Track designation,” “continues,” “upcoming,” or similar expressions, or by express or implied discussions regarding potential new products, potential new indications for existing products, or regarding potential future revenues from any such products; or regarding the potential outcome, or financial or other impact on Novartis, of the proposed spinoff of our Alcon Division, or of the proposed divestiture of certain portions of our Sandoz Division business in the US; or regarding the potential impact of the share buyback plan; or regarding potential future sales or earnings of the Group or any of its divisions or potential shareholder returns; or regarding potential future credit ratings of the Group; or by discussions of strategy, plans, expectations or intentions. Such forward-looking statements are based on the current beliefs and expectations of management regarding future events, and are subject to significant known and unknown risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those set forth in the forward-looking statements. You should not place undue reliance on these statements. In particular, our expectations could be affected by, among other things: global trends toward healthcare cost containment, including ongoing government, payer and general public pricing and reimbursement pressures and requirements for increased pricing transparency; regulatory actions or delays or government regulation generally, including potential regulatory actions or delays with respect to the proposed transactions or the development of the products described in this Annual Report; the potential that the strategic benefits, synergies or opportunities expected from the proposed transactions may not be realized or may take longer to realize than expected; the inherent uncertainties involved in predicting shareholder returns; the uncertainties inherent in the research and development of new healthcare products, including clinical trial results and additional analysis of existing clinical data; our ability to obtain or maintain proprietary intellectual property protection, including the ultimate extent of the impact on Novartis of the loss of patent protection and exclusivity on key products that commenced in prior years and will continue this year; safety, quality or manufacturing issues; uncertainties regarding actual or potential legal proceedings, including, among others, actual or potential litigation with respect to the proposed transactions, product liability litigation, litigation and investigations regarding sales and marketing practices, intellectual property disputes and government investigations generally; uncertainties involved in the development or adoption of potentially transformational technologies and business models; our performance on environmental, social and governance measures; general political, economic and trade conditions, including uncertainties regarding the effects of ongoing instability in various parts of the world; uncertainties regarding future global exchange rates; uncertainties regarding future demand for our products; uncertainties regarding potential significant breaches of data security or data privacy, or disruptions of our information technology systems; and other risks and factors referred to in Novartis AG’s current Form 20-F on file with the US Securities and Exchange Commission. Novartis is providing the information in this press release as of this date and does not undertake any obligation to update any forward-looking statements as a result of new information, future events or otherwise.

About Novartis

Novartis is reimagining medicine to improve and extend people's lives. As a leading global medicines company, we use innovative science and digital technologies to create transformative treatments in areas of great medical need. In our quest to find new medicines, we consistently rank among the world's top companies investing in research and development. Novartis products reach more than 800 million people globally and we are finding innovative ways to expand access to our latest treatments. About 130,000 people of more than 145 nationalities work at Novartis around the world. To learn more, visit www.Novartis.com

Novartis will conduct a conference call with investors to discuss this news release today at 14:00 Central European time and 8:00 Eastern Time. A simultaneous webcast of the call for investors and other interested parties may be accessed by visiting the Novartis website. A replay will be available after the live webcast by visiting.

<https://www.novartis.com/investors/financial-data/quarterly-results>

Detailed financial results accompanying this press release are included in the condensed financial report at the link below. Additional information is provided on Novartis divisions and pipeline of selected compounds in late stage development and a copy of today's earnings call presentation can be found at.

<https://www.novartis.com/investors/financial-data/quarterly-results>

Novartis issued its 2018 Annual Report today, and it is available at www.novartis.com. Novartis will also file its 2018 Annual Report on Form 20-F with the US Securities and Exchange Commission today, and will post this document on www.novartis.com. Novartis shareholders may receive a hard copy of either of these documents, each of which contains our complete audited financial statements, free of charge, upon request. Novartis also issued its 2018 Novartis in Society report today, and it is available at www.novartis.com.

Important dates

February 28, 2019	Annual General Meeting
April 24, 2019	First quarter results 2019
May 22-23, 2019	Meet Novartis Management investor event in Boston
July 18, 2019	Second quarter results 2019
October 22, 2019	Third quarter results 2019