

Novartis Fourth Quarter and Full Year 2021

Condensed financial report – supplementary data

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Group

Key Figures

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc ¹
Net sales to third parties	13 229	12 770	4	6	51 626	48 659	6	4
Divisional operating income	2 854	2 758	3	6	12 288	10 215	20	18
Corporate income and expense, net	-292	-114	-156	-154	-599	-63	nm	nm
Operating income	2 562	2 644	-3	-1	11 689	10 152	15	13
<i>As % of net sales</i>	<i>19.4</i>	<i>20.7</i>			<i>22.6</i>	<i>20.9</i>		
Income from associated companies	14 621	141	nm	nm	15 339	673	nm	nm
Interest expense	-206	-201	-2	-3	-811	-869	7	6
Other financial income and expense	-26	-25	-4	28	-80	-78	-3	44
Income taxes	-645	-460	-40	-41	-2 119	-1 807	-17	-17
Net income	16 306	2 099	nm	nm	24 018	8 071	198	195
Basic earnings per share (USD)	7.29	0.92	nm	nm	10.71	3.55	202	200
Cash flows from operating activities	3 884	4 005	-3		15 071	13 650	10	
Free cash flow¹	3 027	3 342	-9		13 282	11 691	14	
Core¹								
Core operating income	3 819	3 501	9	12	16 588	15 416	8	6
<i>As % of net sales</i>	<i>28.9</i>	<i>27.4</i>			<i>32.1</i>	<i>31.7</i>		
Core net income	3 135	3 034	3	6	14 094	13 158	7	5
Core basic earnings per share (USD)	1.40	1.34	4	7	6.29	5.78	9	7

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 50. Unless otherwise noted, all growth rates in this Release refer to same period in prior year.

nm = not meaningful

Strategy Update

Novartis is a focused medicines company. During 2021 we continued to build depth in five core therapeutic areas (Cardio-Renal, Immunology, Neuroscience, Oncology and Hematology), strength in technology platforms (Targeted Protein Degradation, Cell Therapy, Gene Therapy, Radioligand Therapy, and xRNA), and have a balanced geographic footprint. Our confidence to grow sales in the near-term is driven by multi-billion-dollar sales from: *Cosentyx*, *Entresto*, *Kesimpta*, *Zolgensma*, *Kisqali* and *Leqvio*. To fuel further growth through 2030 and beyond, we have 20+ new assets with at least USD 1 billion sales potential, that could be approved by 2026. Novartis is also pioneering the shift to advanced technology platforms.

Novartis sold its investment in Roche Holding AG (Roche), in a single bilateral transaction for USD 20.7 billion, consistent with our strategy as a focused medicines company.

The strategic review of Sandoz is progressing, we expect to provide an update, at the latest, by the end of 2022. The review will explore all options, ranging from retaining the business to separation, in order to determine how to best maximize value for our shareholders.

We remain disciplined and shareholder focused in our capital allocation as we balance investing in our business, through organic investments and value-creating bolt-ons, with returning capital to shareholders via our growing annual dividend and share buybacks.

Novartis continued to make significant strides in building trust with society. We committed to carbon neutral emissions: Scope 1 and 2 by 2025, Scope 1, 2 and 3 by 2030, and net zero emissions across our value chain by 2040. Novartis ESG efforts have been recognized by upgrades from several third party ESG rating agencies. Our culture journey towards an inspired, curious and unbossed organization continues, in order to drive performance and competitiveness in the long-term.

Financials

Fourth quarter

Net sales

Net sales were USD 13.2 billion (+4%, +6% cc) in the fourth quarter driven by volume growth of 11 percentage points, including 1 percentage point relating to a reclassification of contract manufacturing from other revenues to sales. Volume growth was partly offset by price erosion of 3 percentage points and the negative impact from generic competition of 2 percentage points.

Corporate income and expense, net

Corporate income and expense, which includes the cost of Group headquarter and coordination functions, amounted to an expense of USD 292 million, compared to an expense of USD 114 million in prior year, mainly driven by prior year fair value adjustment on contingent receivables related to intellectual property rights, adjustments to provisions on M&A transactions, partially offset by higher contributions from the Novartis Venture Fund.

Operating income

Operating income was USD 2.6 billion (-3%, -1% cc) as higher sales were more than offset by higher M&S and R&D investments and lower gains from divestments, financial assets, and contingent considerations.

Core operating income was USD 3.8 billion (+9%, +12% cc) driven by higher sales, partly offset by higher investments in M&S and R&D. Core operating income margin was 28.9% of net sales, increasing by 1.5 percentage points (+1.6 percentage points cc).

Income from associated companies

Income from associated companies increased to USD 14.6 billion in the current year from USD 141 million in the prior year, an increase of USD 14.5 billion. This increase was mainly due to the gain of USD 14.6 billion recognized on the divestment of our investment in Roche. As a result of the decision to divest our investment in Roche, the Group discontinued the recognition of its share of income of Roche from November 3, 2021.

Excluding the divestment gain from our investment in Roche, income from associated companies decreased to USD 65 million, compared to USD 141 million in prior year, mainly due to the discontinuance of the recognition of the Group's share of income of Roche from November 3, 2021.

Core income from associated companies decreased to USD 93 million from USD 229 million in the prior year due to a lower estimated core income contribution from Roche for the current period. This decrease was also driven by the discontinuance of the recognition of the Group's share of income of Roche from November 3, 2021, as a result of the decision to divest our investment in Roche.

Interest expense and other financial income/expense

Interest expense amounted to USD 206 million and other financial income and expense amounted to a net expense of USD 26 million both in line with prior year.

Core interest expense amounted to USD 206 million and core other financial income and expense amounted to a net expense of USD 24 million both in line with prior year.

Income taxes

The tax rate was 3.8% compared to 18.0% in the prior year. In the current year period the tax rate decreased due to the impact of the divestment gain recognized on the sale of our investment in Roche, partly offset by uncertain tax positions and prior-year items. The prior year tax rate increased due to impact of uncertain tax positions and the effect of adjusting to the full year tax rate, which was higher than previously estimated.

Excluding these impacts, the rate would have been 15.9% compared to 15.6% in the prior year. The increase from prior year was mainly the result of a change in profit mix.

The core tax rate (core taxes as a percentage of core income before tax from continuing operations) was 14.9% compared to 13.5% in the prior year. The current and prior year period core tax rate were both impacted by the effect of adjusting to the full year core tax rate, which was less than previously estimated.

Net income, EPS and free cash flow

Net income was USD 16.3 billion, benefiting from the Roche divestment gain of USD 14.6 billion. EPS was USD 7.29.

Core net income was USD 3.1 billion (+3%, +6% cc), mainly driven by growth in core operating income, partly offset by lower income from associated companies due to the divestment of our investment in Roche and a higher tax rate. Core EPS was USD 1.40 (+4%, +7% cc), growing ahead of core net income.

Free cash flow amounted to USD 3.0 billion (-9% USD), compared to USD 3.3 billion in the prior year quarter. Higher operating income adjusted for non-cash items and other adjustments was more than offset by higher income taxes paid and lower divestment proceeds.

Full year

Net sales

Net sales were USD 51.6 billion (+6%, +4% cc) in the full year. Volume contributed 8 percentage points to sales growth, partly offset by price erosion of 2 percentage points and the negative impact from generic competition of 2 percentage points.

Corporate income and expense, net

Corporate income and expense, which includes the cost of Group headquarter and coordination functions, amounted to an expense of USD 599 million, compared to an expense of USD 63 million in prior year, mainly driven by royalty settlement gains related to intellectual property rights in the prior year, lower contributions from the Novartis Venture Fund, prior year fair value adjustment on contingent receivables related to intellectual property rights and adjustments to provision on M&A transactions.

Operating income

Operating income was USD 11.7 billion (+15%, +13% cc), mainly driven by higher sales and lower legal expenses, partly offset by increased M&S and R&D investments and higher amortization.

Core operating income was USD 16.6 billion (+8%, +6% cc) benefiting from higher sales, partly offset by increased M&S and R&D investments. Core operating income margin was 32.1% of net sales, increasing by 0.4 percentage points (+0.5 percentage points cc).

Income from associated companies

Income from associated companies increased to USD 15.3 billion in the current year from USD 673 million in the prior year, an increase of USD 14.7 billion. This increase was mainly due to the gain of USD 14.6 billion recognized on the divestment of our investment in Roche. As a result of the decision to divest our investment in Roche, the Group discontinued the recognition of its share of income of Roche from November 3, 2021.

Excluding the divestment gain from our investment in Roche, income from associated companies increased to USD 783 million, compared to USD 673 million in prior year, mainly due to the increase in the share of income from Roche. The estimated income for Roche through November 3, 2021, net of amortization, was USD 745 million compared to USD 741 million in prior full year period. A positive prior year true up of USD 40 million has been recognized in the first quarter of 2021, compared to a negative true up of USD 64 million in the first quarter of 2020.

Core income from associated companies decreased to USD 1.0 billion from USD 1.1 billion in prior year due to a lower estimated core income contribution from Roche Holding AG for the current period due to the discontinuance of the recognition of the Group's share of income of Roche from November 3, 2021, as a result of the decision to divest our investment in Roche.

Interest expense and other financial income/expense

Interest expense decreased to USD 811 million from USD 869 million in prior year, mainly due to lower interest expense on financial debts.

Other financial income and expense amounted to a net expense of USD 80 million in line with a net expense of USD 78 million in the prior year.

Core interest expense decreased to USD 811 million from USD 869 million in prior year, mainly due to lower interest expense on financial debts.

Core other financial income and expense amounted to a net expense of USD 41 million compared to a net expense of USD 83 million in the prior year mainly due to lower currency losses.

Income taxes

The tax rate was 8.1% compared to 18.3% in the prior year. In the current year, the tax rate decreased due to the impact of the divestment gain recognized on the sale of our investment in Roche, partially offset by uncertain tax positions and prior-year items. The prior year tax rate was impacted by the effect of non-deductible legal charges and uncertain tax positions.

Excluding these impacts, the rate would have been 15.7% compared to 15.6% in the prior year. The increase from prior year was mainly the result of a change in profit mix.

The core tax rate (core taxes as a percentage of core income before tax from continuing operations) was 15.8% compared to 15.4% in the prior year. The increase from prior year was mainly the result of a change in profit mix.

Net income, EPS and free cash flow

Net income was USD 24.0 billion, benefiting from the USD 14.6 billion gain from the divestment of our investment in Roche. EPS was USD 10.71.

Core net income was USD 14.1 billion (+7%, +5% cc). Core EPS was USD 6.29 (+9%, +7% cc), growing faster than core net income and benefiting from lower weighted average number of shares outstanding.

Free cash flow amounted to USD 13.3 billion (+14% USD), compared to USD 11.7 billion in 2020. This increase was mainly driven by higher operating income adjusted for non-cash items and other adjustments, and lower payments out of provisions, mainly due to legal matters in the prior year, partly offset by USD 650 million upfront payment to in-license tislelizumab from an affiliate of BeiGene, Ltd.

Innovative Medicines

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Net sales	10 704	10 233	5	7	41 995	39 013	8	6
Operating income	2 468	2 386	3	6	10 688	9 172	17	15
<i>As % of net sales</i>	<i>23.1</i>	<i>23.3</i>			<i>25.5</i>	<i>23.5</i>		
Core operating income	3 596	3 212	12	15	15 215	13 645	12	10
<i>As % of net sales</i>	<i>33.6</i>	<i>31.4</i>			<i>36.2</i>	<i>35.0</i>		

Fourth quarter

Net sales

Net sales were USD 10.7 billion (+5%, +7% cc) with volume contributing 11 percentage points to growth, including 1 percentage point relating to contract manufacturing revenue reclassification. Generic competition had a negative impact of 3 percentage points, mainly due to *Afinitor*, *Gleevec/Glivec*, *DuoTrav/Travatan*, *Exforge* and *Ciprodex*. Net pricing had a negative impact of 1 percentage point on sales growth.

In the US (USD 3.9 billion) sales grew +8% driven by *Entresto*, *Kesimpta* and *Cosentyx*. In Europe (USD 3.8 billion, +4%, +8% cc) sales growth was driven by *Kisqali* and *Entresto*. Emerging Growth Markets grew +9% (+11% cc), despite China sales of USD 0.6 billion (0%, -4% cc) due to bi-annual National Reimbursement Drug List (NRDL) pricing reductions on certain products.

Pharmaceuticals BU sales were USD 6.8 billion (+7%, +9% cc) with continued strong growth from *Entresto* (USD 949 million, +33%, +34% cc), *Cosentyx* (USD 1.2 billion, +12%, +13% cc), *Kesimpta* (USD 147 million), *Zolgensma* (USD 342 million, +35%, +36% cc) and *Ilaris* (USD 284 million, +18%, +23% cc), partly offset by generic competition mainly for *DuoTrav/Travatan*, *Exforge* and *Ciprodex*. The USD 108 million reclassification of contract manufacturing revenue recognized in Established Medicines contributed 2 percentage points to Pharmaceuticals BU sales growth.

Oncology BU sales were USD 3.9 billion (+1%, +3% cc), driven by strong performance from *Kisqali* (USD 285 million, +55%, +58% cc), *Tafinlar+Mekinist* (USD 458 million, +12%, +14% cc), *Promacta/Revolade* (USD 518 million, +10%, +12% cc) and *Jakavi* (USD 408 million, +9%, +12% cc) partly offset by generic competition mainly for *Afinitor*, *Gleevec/Glivec* and *Exjade*.

Operating income

Operating income was USD 2.5 billion (+3%, +6% cc), mainly driven by strong sales growth, partly offset by higher spend and lower gains from divestments and financial assets. Operating income margin was 23.1% of net sales, decreasing 0.2 percentage points (-0.1 percentage points in cc).

Core adjustments were USD 1.1 billion, mainly due to amortization, compared to USD 0.8 billion in prior year. Core adjustments increased compared to prior year mainly due to lower gains from divestments and financial assets.

Core operating income was USD 3.6 billion (+12%, +15% cc) mainly driven by higher sales and productivity, partly offset by higher spend. Core operating income margin was 33.6% of net sales, increasing 2.2 percentage points (+2.4 percentage points cc). Core gross margin as a percentage of sales increased by 0.7 percentage points (cc) mainly driven by productivity. Core R&D expenses as a percentage of net sales decreased by 0.3 percentage points (cc). Core SG&A expenses as a percentage of net sales decreased by 0.8 percentage points (cc). Core Other Income and Expense net increased the margin by 0.6 percentage points (cc).

Full year

Net sales

Net sales were USD 42.0 billion (+8%, +6% cc). Volume contributed 9 percentage points to growth. Generic competition had a negative impact of 3 percentage points. Pricing had a negligible impact on sales growth.

In the US (USD 15.0 billion) sales grew +5% driven by *Entresto*, *Cosentyx* and *Kesimpta*. In Europe (USD 14.9 billion, +11%, +8% cc) sales growth was driven by *Zolgensma*, *Entresto*, *Kisqali*, *Jakavi*, and *Lucentis*. Emerging Growth

Markets grew +12% (+11% cc) driven by China sales of USD 2.8 billion (+18%, +10% cc) with the launches of *Entresto* and *Cosentyx*.

Pharmaceuticals BU grew +9% (+7% cc) driven by *Entresto* (USD 3.5 billion, +42%, +40% cc), *Cosentyx* (USD 4.7 billion, +18%, +17% cc), *Zolgensma* (USD 1.4 billion, +47%, +46% cc) and *Kesimpta* (USD 372 million), partly offset by generic competition mainly for *Ciprodex* and *Diovan*. Growth drivers and launches, contributed 52% of sales, up from 43% in the prior year.

Oncology BU grew +5% (+4% cc) driven by *Promacta/Revolade* (USD 2.0 billion, +16%, +15% cc), *Kisqali* (USD 937 million, +36%, +36% cc), *Jakavi* (USD 1.6 billion, +19%, +16% cc), *Tafinlar+Mekinist* (USD 1.7 billion, +10%, +8% cc) and *Kymriah* (USD 587 million, +24%, +22% cc), partly offset by generic competition mainly for *Afinitor*, *Gleevec/Glivec* and *Exjade*. Growth drivers and launches, contributed 51% of sales, up from 45% in the prior year.

Operating income

Operating income was USD 10.7 billion (+17%, +15% cc), mainly driven by sales growth, lower impairments and lower legal expenses, partly offset by higher spend, amortization and restructuring. Operating income margin was 25.5% of net sales, increasing 2.0 percentage points (+2.0 percentage points in cc).

Core adjustments were USD 4.5 billion, mainly due to amortization. Core adjustments were in line with prior year (USD 4.5 billion) as lower impairments and lower legal expenses were offset by higher amortization and restructuring.

Core operating income was USD 15.2 billion (+12%, +10% cc) mainly driven by sales growth and productivity, partly offset by higher spend. Core operating income margin was 36.2% of net sales, increasing 1.2 percentage points (+1.3 percentage points cc). Core gross margin increased by 0.6 percentage points (cc). Core R&D expenses as a percentage of net sales decreased by 0.2 percentage points (cc). Core SG&A expenses as a percentage of net sales decreased by 0.6 percentage points (cc). Core Other Income and Expense net decreased the margin by 0.1 percentage points (cc).

ONCOLOGY BUSINESS UNIT (Q4 UPDATES)

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Hematology								
<i>Tasigna</i>	508	513	-1	1	2 060	1 958	5	4
<i>Promacta/Revolade</i>	518	471	10	12	2 016	1 738	16	15
<i>Jakavi</i>	408	376	9	12	1 595	1 339	19	16
<i>Gleevec/Glivec</i>	233	291	-20	-19	1 024	1 188	-14	-15
<i>Kymriah</i>	143	141	1	4	587	474	24	22
<i>Exjade/Jadenu</i>	129	156	-17	-15	563	653	-14	-16
<i>Adakveo</i>	43	34	26	27	164	105	56	56
Other	90	93	-3	-3	354	327	8	6
Total Hematology	2 072	2 075	0	2	8 363	7 782	7	6
Solid Tumor								
<i>Tafinlar + Mekinist</i> ¹	458	408	12	14	1 693	1 542	10	8
<i>Sandostatin</i>	345	363	-5	-4	1 413	1 439	-2	-3
<i>Afinitor/Votubia</i>	174	259	-33	-31	938	1 083	-13	-14
<i>Kisqali</i>	285	184	55	58	937	687	36	36
<i>Votrient</i>	139	147	-5	-4	577	635	-9	-10
<i>Lutathera</i>	115	109	6	6	475	445	7	6
<i>Piqray</i>	87	84	4	3	329	320	3	3
<i>Tabrecta</i>	27	17	59	57	90	35	157	155
Other	159	171	-7	-5	661	743	-11	-13
Total Solid Tumor	1 789	1 742	3	4	7 113	6 929	3	2
Total Novartis Oncology business unit	3 861	3 817	1	3	15 476	14 711	5	4

¹ Majority of sales for *Mekinist* and *Tafinlar* are combination, but both can be used as monotherapy

HEMATOLOGY

Tasigna (USD 508 million, -1%, +1% cc) sales growth was mainly driven by US and Emerging Growth Markets, partially offset by a decline in Europe and Japan.

Promacta/Revolade (USD 518 million, +10%, +12% cc) showed growth across all regions, driven by increased use in chronic immune thrombocytopenia (ITP) and as first-line treatment for severe aplastic anemia (SAA).

Jakavi (USD 408 million, +9%, +12% cc) showed double-digit growth, which was driven by strong demand in the myelofibrosis and polycythemia vera indications. Regulatory filings based on the REACH2 and REACH3 trials in steroid-resistant/dependent graft-versus-host disease (GvHD) are under review and approvals are expected in 2022.

Gleevec/Glivec (USD 233 million, -20%, -19% cc) declined due to increased generic competition.

Kymriah (USD 143 million, +1%, +4% cc) sales grew in Japan, US and Emerging Growth Markets, partially offset by a decline in Europe. Coverage continued to expand, with more than 350 qualified treatment centers in 30 countries having coverage for at least one indication. Regulatory submissions for *Kymriah* in follicular lymphoma in the US and EU were completed in October 2021.

Exjade/Jadenu (USD 129 million, -17%, -15% cc) declined across all regions due to pressure from generic competition.

Adakveo (USD 43 million, +26%, +27% cc) launch continued to progress worldwide with continuous double-digit growth in cumulative patients in the US in 2021, despite COVID-19 challenges. In the UK, NICE recommendation was received in October 2021.

SOLID TUMORS

Tafinlar + Mekinist (USD 458 million, +12%, +14% cc) saw growth driven by BRAF+ adjuvant melanoma and NSCLC indications, while maintaining demand in the highly competitive metastatic melanoma market. *Tafinlar + Mekinist* is approved in over 80 countries and remains the worldwide targeted therapy leader in BRAF+ melanoma.

Sandostatin (USD 345 million, -5%, -4% cc) declined mainly in Europe due to ongoing competitive pressure, including generics impact.

Afinitor/Votubia (USD 174 million, -33%, -31% cc) declined due to generic competition. In the US, generic competition for the 10mg and disperse formulation entered in October 2021.

Kisqali (USD 285 million, +55%, +58% cc) sales grew across all geographies driven by the longest overall survival benefit reported in HR+/HER2- advanced breast cancer. It is the only CDK4/6 inhibitor with proven OS benefit across all three Phase III trials of the MONALEESA program with different endocrine therapy partners, regardless of menopausal status or line of therapy. *Kisqali* is approved in 96 countries and is currently used to treat more than 44,000 patients worldwide. Novartis is in US ANDA litigation with generic manufacturers.

Votrient (USD 139 million, -5%, -4% cc) declined due to increased competition in US and Japan.

Lutathera (USD 115 million, +6%, +6% cc) sales grew in all regions with approximately 450 centers now actively treating patients globally.

Piqray (USD 87 million, +4%, +3% cc) sales grew in Europe and Emerging Growth Markets. *Piqray* is the first and only therapy specifically developed for the approximately 40% of HR+/HER2- advanced breast cancer patients who have a PIK3CA mutation, which is associated with poor prognosis. *Piqray* is approved in more than 60 countries and is currently used to treat more than 3,100 patients with the PIK3CA mutation.

Tabrecta (USD 27 million, +59%, +57% cc) US launch continues to progress well. *Tabrecta* is the first and only therapy approved by the US FDA to specifically target metastatic NSCLC with a mutation that leads to MET exon 14 skipping (METex14), as detected by an FDA-approved test using tissue and blood. *Tabrecta* is approved in 9 countries.

PHARMACEUTICAL BUSINESS UNIT (Q4 UPDATES)

IMMUNOLOGY, HEPATOLOGY AND DERMATOLOGY

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Immunology, Hepatology and Dermatology								
<i>Cosentyx</i>	1 243	1 109	12	13	4 718	3 995	18	17
<i>Ilaris</i>	284	240	18	23	1 059	873	21	22
Total Immunology, Hepatology and Dermatology	1 527	1 349	13	15	5 777	4 868	19	18

Xolair sales for all indications are reported in the Respiratory and Allergy franchise

Cosentyx (USD 1.2 billion, +12%, +13% cc) saw strong growth driven by continued underlying demand across indications in the US and Europe and strong volume growth in China following National Reimbursement Drug List (NRDL) listing in Q1 2021. On December 22, 2021 *Cosentyx* received US FDA approval for the treatment of active enthesitis-related arthritis (ERA) in patients aged four years and older, and active juvenile psoriatic arthritis (JPsA) in patients two years and older. *Cosentyx* is the only biologic treatment approved for children and adolescents for both ERA and PsA (two years of age and older) in the US.

Ilaris (USD 284 million, +18%, +23% cc) strong sales were driven by continued growth across most regions. Contributors to continuing growth include the launch of adult-onset Still's disease, the other adult rheumatology indications in the US and Periodic Fever Syndromes (PFS) indications in Europe.

NEUROSCIENCE

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Neuroscience								
<i>Gilenya</i>	656	760	-14	-12	2 787	3 003	-7	-9
<i>Zolgensma</i>	342	254	35	36	1 351	920	47	46
<i>Kesimpta</i>	147	14	nm	nm	372	15	nm	nm
<i>Mayzent</i>	81	57	42	46	281	170	65	65
<i>Aimovig</i>	59	56	5	6	215	164	31	27
Other	12	12	0	-17	46	51	-10	-14
Total Neuroscience	1 297	1 153	12	14	5 052	4 323	17	15

nm = not meaningful

Gilenya (USD 656 million, -14%, -12% cc) sales declined due to increased competition. Novartis has been in US patent litigation with manufacturers of generic and other tablet forms of *Gilenya*. In January 2022, the US Court of Appeals for the Federal Circuit affirmed an earlier decision by the US District Court in Delaware finding the dosage regimen patent valid and infringing.

Zolgensma (USD 342 million, +35%, +36% cc) had a strong fourth quarter driven by expanding access in Europe and Emerging Growth Markets, combined with steady US sales. *Zolgensma* is now approved in 42 countries.

Kesimpta (USD 147 million) sales were driven by launch uptake, strong access and increased demand based on a superior risk-benefit profile. To initiate access, *Kesimpta* is being provided free of charge for US patients who are eligible for reimbursement until they are covered by their insurance. The share of Novartis free goods is decreasing as reimbursement progresses. *Kesimpta* is now approved in 64 countries.

Mayzent (USD 81 million, +42%, +46% cc) continued to grow, driven by fulfilling an important unmet need in MS patients showing signs of progression despite being on other treatments. *Mayzent* is the first and only oral disease modifying therapy (DMT) studied and proven to delay disease progression in a broad SPMS patient population. *Mayzent* is now approved in 67 countries.

Aimovig (USD 59 million, ex-US, ex-Japan +5%, +6% cc). Effective January 1, 2022, Novartis and Amgen reached an agreement to settle all remaining claims in the litigation. Novartis returns its *Aimovig* US rights to Amgen who is now exclusively commercializing *Aimovig* in the US. Novartis' ex-US rights remain unaffected and Novartis will continue to commercialize *Aimovig* in the rest of the world, with the exception of Japan. Amgen will no longer pay royalties to Novartis on sales of *Aimovig* in the United States, and the parties' cost sharing for commercialization of *Aimovig* in the United States ceases. The parties will continue to share development expenses worldwide in accordance with the relevant agreements. Other terms of the settlement are confidential. *Aimovig* has been prescribed to over 620,000 patients worldwide in the post-trial setting.

OPHTHALMOLOGY

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Ophthalmology								
<i>Lucentis</i>	508	530	-4	-2	2 160	1 933	12	8
<i>Xiidra</i>	134	108	24	24	468	376	24	24
<i>Beovu</i>	51	37	38	41	186	190	-2	-3
Other	361	450	-20	-18	1 516	1 911	-21	-22
Total Ophthalmology	1 054	1 125	-6	-4	4 330	4 410	-2	-4

Lucentis (USD 508 million, -4%, -2% cc) sales declined versus prior year mainly in Emerging Growth Markets and Japan, partly offset by growth in Europe.

Xiidra (USD 134 million, +24%, +24% cc) showed strong double-digit growth, benefiting from a larger multi-channel direct-to-consumer campaign in the US and increasing educational engagement with the health community, all of which has increased brand awareness among diagnosed patients suffering from symptoms of Dry Eye Disease. In the US, Novartis is in ANDA litigation with generic manufacturers.

Beovu (USD 51 million, +38%, +41% cc) sales grew mainly in Europe, Emerging Growth Markets and Japan following continued geographic expansion. *Beovu* is now approved in 73 countries.

Other ophthalmology products declined mainly due to generic impacts in the US, primarily for *Travatan* and *Ciprodex*.

CARDIOVASCULAR, RENAL AND METABOLISM

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Cardiovascular, Renal and Metabolism								
<i>Entresto</i>	949	716	33	34	3 548	2 497	42	40
<i>Leqvio</i>	4		nm	nm	12		nm	nm
Other						1	nm	nm
Total Cardiovascular, Renal and Metabolism	953	716	33	35	3 560	2 498	43	40

nm = not meaningful

Entresto (USD 949 million, +33%, +34% cc) sustained strong growth with increased patient share across markets, driven by demand as the essential first choice therapy for HF patients (with reduced ejection fraction). Sales in the US continue to benefit from the FDA approval of an expanded indication in patients with left ventricular ejection fraction (LVEF) below normal, making *Entresto* the first therapy indicated for HFrEF and the majority of HFpEF patients. In China, *Entresto* has been listed in the National Reimbursement Drug List (NRDL) for both HFrEF and Hypertension, effective Jan 2022. In the US, Novartis is in ANDA litigation with generic manufacturers.

Leqvio (USD 4 million) was approved on December 22, 2021 in the US as an adjunct to diet and maximally tolerated statin therapy for the treatment of adults with heterozygous familial hypercholesterolemia (HeFH) or clinical atherosclerotic cardiovascular disease (ASCVD), who require additional lowering of low-density lipoprotein cholesterol (LDL-C). *Leqvio* is now approved in more than 50 countries, with most awaiting reimbursement. Novartis has obtained global rights to develop, manufacture and commercialize *Leqvio* under a license and collaboration agreement with Alnylam Pharmaceuticals.

RESPIRATORY AND ALLERGY

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Respiratory and Allergy								
<i>Xolair</i>	373	335	11	15	1 428	1 251	14	12
<i>Ultibro</i> Group	148	160	-8	-5	584	623	-6	-10
Other	17	10	70	107	53	26	104	102
Total Respiratory and Allergy	538	505	7	10	2 065	1 900	9	6

Xolair sales for all indications are reported in the Respiratory and Allergy franchise

Xolair (USD 373 million, +11%, +15% cc) continued growth, driven by the chronic spontaneous urticaria and severe allergic asthma indications. The indication of nasal polyps has been approved and launched in the US, Germany, Canada and several other countries. *Xolair* for self-injection was launched in the US in Q2 2021. Novartis co-promotes *Xolair* with Genentech in the US and shares a portion of operating income, but does not record any US sales.

Ultibro Group (USD 148 million, -8%, -5% cc) sales declined mainly in Europe due to competition. *Ultibro* Group consists of *Ultibro Breezhaler*, *Seebri Breezhaler* and *Onbrez Breezhaler*.

ESTABLISHED MEDICINES

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Established Medicines								
<i>Galvus</i> Group	278	293	-5	0	1 092	1 199	-9	-8
<i>Exforge</i> Group	197	247	-20	-20	901	980	-8	-11
<i>Diovan</i> Group	189	224	-16	-14	773	1 003	-23	-25
<i>Zortress/Certican</i>	110	112	-2	3	431	452	-5	-6
<i>Voltaren/Cataflam</i>	97	95	2	5	373	360	4	3
<i>Neoral/Sandimmun(e)</i>	89	103	-14	-11	368	393	-6	-8
Contract manufacturing	108		nm	nm	108		nm	nm
Other	406	494	-18	-16	1 689	1 916	-12	-13
Total Established Medicines	1 474	1 568	-6	-3	5 735	6 303	-9	-10

nm = not meaningful

Galvus Group (USD 278 million, -5%, 0% cc) sales were in line (cc) with prior year.

Exforge Group (USD 197 million, -20%, -20% cc) declined mainly due to generic competition and the impact of Volume-Based Procurement in China.

Diovan Group (USD 189 million, -16%, -14% cc) declined mainly due to generic competition and the impact of Volume-Based Procurement in China.

Zortress/Certican (USD 110 million, -2%, +3% cc) grew mainly in Europe and Japan.

Voltaren/Cataflam (USD 97 million, +2%, +5% cc) grew in Emerging Growth Markets, partly offset by decline in Europe and Japan.

Neoral/Sandimmun(e) (USD 89 million, -14%, -11% cc) declined across all markets due to generic competition.

Sandoz

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc
Net sales	2 525	2 537	0	2	9 631	9 646	0	-2
Operating income	386	372	4	4	1 600	1 043	53	48
<i>As % of net sales</i>	<i>15.3</i>	<i>14.7</i>			<i>16.6</i>	<i>10.8</i>		
Core operating income	528	528	0	0	2 064	2 334	-12	-14
<i>As % of net sales</i>	<i>20.9</i>	<i>20.8</i>			<i>21.4</i>	<i>24.2</i>		

COVID-19 impacts

We continue to see an impact of COVID-19, particularly for the Retail Generics and third-party Anti-Infectives businesses. However, the effects have been more moderate in recent months and the Sandoz business is continuing to normalize.

Fourth quarter

Net sales

Sandoz net sales were USD 2.5 billion (0%, +2% cc), with volume contributing 11 percentage points to growth, including 1 percentage point relating to contract manufacturing revenue reclassification. Pricing had a negative impact of 9 percentage points. Ex US sales grew by +4% in cc.

Sales in Europe were USD 1.4 billion (+1%, +4% cc), in the US USD 475 million (-8%), in Asia / Africa / Australasia USD 452 million (+2%, +5% cc) and in Canada and Latin America USD 216 million (+6%, +5% cc).

Retail sales were USD 1.9 billion (-2%, 0% cc), growing across most regions. The sales decline in the US was mainly due to the negative price effect in the Retail Generics business, especially oral solids. Total Anti-Infectives sales were USD 337 million (+5%, +7% cc) amid initial signs of a cough and cold season normalization.

Global sales of Biopharmaceuticals (biosimilars, biopharmaceutical contract manufacturing and *Glatopa*) grew to USD 555 million (+8%, +11% cc) across all regions.

Operating income

Operating income was USD 386 million (+4%, +4% cc), mainly driven by lower impairments partly offset by lower divestments. Operating income margin increased by 0.3 percentage points in constant currencies. Currency had a positive impact of 0.3 percentage points, resulting in a net increase of 0.6 percentage points to 15.3% of net sales.

Core adjustments were USD 142 million, including USD 61 million of amortization. Prior year core adjustments were USD 156 million. The change in core adjustments compared to prior year was driven by lower impairments partly offset by lower divestments.

Core operating income was USD 528 million (+0%, +0% cc). Core operating income margin was 20.9% of net sales, increasing 0.1 percentage points (-0.4 percentage points cc) compared to prior year. Core gross margin as a percentage of sales decreased by 0.5 percentage points (cc), due to product and geographic mix. Core R&D expenses as a percentage of net sales decreased by 0.3 percentage points (cc). Core SG&A had no impact (cc). Core Other Income and Expense decreased the margin by 0.2 percentage points (cc).

Full year

Net sales

Sandoz net sales were USD 9.6 billion (0%, -2% cc). Volume increased by 7 percentage points, from growth in Biopharmaceuticals and 1 percentage point relating to contract manufacturing revenue reclassification, partly offset by the impact of softer Retail demand, with a weak cough and cold season in the first half. Volume growth was more than offset by a negative price effect of 9 percentage points mainly due to increasing competition and the impact of prior year off-contract sales in the US.

Sales in Europe were USD 5.3 billion (+1%, -2% cc), in the US USD 1.8 billion (-15%), in Asia / Africa / Australasia USD 1.7 billion (+11%, +9% cc) and in Canada and Latin America USD 872 million (+13%, +10% cc). Sales in Europe declined due to the impact of COVID-19 on the Retail Generics business. The sales decline in the US was due to the negative price effect in the Retail Generics business, especially oral solids, which were additionally impacted by partnership terminations, as well as prior year Biopharmaceuticals off-contract sales.

Retail sales were USD 7.1 billion (-2%, -4% cc), declining due to the above-mentioned factors. Total Anti-Infectives sales were USD 1.1 billion (-3%, -5% cc), impacted by softer retail demand.

Global sales of Biopharmaceuticals (biosimilars, biopharmaceutical contract manufacturing and *Glatopa*) grew to USD 2.1 billion (+10%, +7% cc), driven by continued growth ex-US and *Ziextenzo* (pegfilgrastim) US.

Operating income

Operating income was USD 1.6 billion (+53%, +48% cc), mainly driven by lower legal settlements, lower impairments and lower amortization partly offset by unfavorable gross margin and lower sales. Operating income margin increased by 5.6 percentage points in constant currencies. Currency had a positive impact of 0.2 percentage points, resulting in a net increase of 5.8 percentage points to 16.6% of net sales.

Core adjustments were USD 464 million, including USD 236 million of amortization. Prior year core adjustments were USD 1.3 billion. The change in core adjustments compared to prior year was driven by lower legal settlements, lower impairments and lower amortization.

Core operating income was USD 2.1 billion (-12%, -14% cc), declining due to unfavorable gross profit and lower sales. Core operating income margin was 21.4% of net sales, decreasing 2.8 percentage points (-2.9 percentage points cc) versus prior year. Core gross margin as a percentage of sales decreased by 2.4 percentage points (cc), due to unfavorable price effects and product and geographic mix. Core R&D expenses as a percentage of net sales increased by 0.4 percentage points (cc) driven by biopharmaceutical pipeline investments. Core SG&A expenses increased by 0.3 percentage points (cc) mainly due to lower sales. Core Other Income and Expense increased the margin by 0.2 percentage points (cc) driven by higher divestment income.

Group Cash Flow and Balance Sheet

Cash Flow

Fourth quarter

Net cash flows from operating activities amounted to USD 3.9 billion, compared to USD 4.0 billion in the prior year quarter. Higher net income adjusted for non-cash items and other adjustments, including divestment gains, was more than offset by higher income taxes paid and unfavorable hedging results.

Net cash inflows from investing activities from continuing operations amounted to USD 4.6 billion, compared to net cash outflows of USD 0.6 billion in the prior year quarter.

The current year quarter cash inflows were driven by proceeds of USD 20.7 billion from the divestment of our investment in Roche; USD 0.7 billion from the sale of marketable securities, commodities and time deposits; and USD 0.2 billion from the sale of intangible assets, financial assets and property, plant and equipment. These cash inflows were partly offset mainly by USD 15.6 billion cash outflows for purchases of marketable securities and time deposits, mainly due to the investment of a portion of the proceeds from the divestment of our investment in Roche; USD 0.3 billion for acquisitions and divestments of businesses, net (including the acquisition of GSK's cephalosporin antibiotics business for USD 351 million); and USD 1.0 billion for purchases of intangible assets, financial assets and of property, plant and equipment.

In the prior year quarter, net cash outflows used in investing activities from continuing operations of USD 0.6 billion were mainly driven by purchases of property, plant and equipment, intangible and financial assets of USD 1.1 billion. These cash outflows were partly offset by cash inflows of USD 0.3 billion from the sale of financial assets and USD 0.3 billion from the sale of property, plant and equipment and intangible assets.

Net cash outflows used in financing activities from continuing operations amounted to USD 3.3 billion, compared to USD 2.9 billion in the prior year quarter.

The current year quarter cash outflows were driven by USD 2.4 billion net decrease in current financial debts; USD 0.7 billion for the repayment of a bond denominated in euro (notional amount of EUR 0.6 billion) at maturity; and USD 0.1 billion for net treasury share transactions. Payments of lease liabilities, net, amounted to USD 0.1 billion.

In the prior year quarter, net cash outflows used in financing activities from continuing operations of USD 2.9 billion were driven by USD 1.9 billion for net treasury share transactions and USD 0.9 billion for net repayments of current financial debts. Payments of lease liabilities, net, amounted to USD 0.1 billion.

Free cash flow amounted to USD 3.0 billion (-9% USD), compared to USD 3.3 billion in the prior year quarter. Higher operating income adjusted for non-cash items and other adjustments was more than offset by higher income taxes paid and lower divestment proceeds.

Full year

Net cash flows from operating activities amounted to USD 15.1 billion, compared to USD 13.6 billion in 2020. This increase was mainly driven by higher net income adjusted for non-cash items and other adjustments, including divestment gains, and lower payments out of provisions, mainly due to legal matters in the prior year. This was partly offset by unfavorable hedging results.

Net cash inflows from investing activities from continuing operations amounted to USD 4.2 billion, compared to net cash outflows of USD 13.1 billion in 2020.

The current year cash inflows were driven by proceeds of USD 20.7 billion from the divestment of our investment in Roche; USD 2.3 billion from the sale of marketable securities, commodities and time deposits; and USD 1.4 billion from the sale of intangible assets, financial assets and property, plant and equipment. These cash inflows were partly offset by USD 16.4 billion cash outflows for purchases of marketable securities and time deposits, mainly due to the investment of a portion of the proceeds from the divestment of our investment in Roche; USD 1.6 billion for purchases of intangible assets (including the upfront payment to in-license tislelizumab from an affiliate of BeiGene, Ltd); USD 1.4 billion for purchases of property, plant and equipment; USD 0.6 billion for acquisitions and divestments of businesses, net (including the acquisition of GSK's cephalosporin antibiotics business for USD 351 million); and USD 0.2 billion for purchases of financial assets.

In 2020, net cash outflows used in investing activities from continuing operations of USD 13.1 billion were mainly driven by USD 10.0 billion for acquisitions and divestments of businesses, net (including the acquisition of The Medicines Company for USD 9.5 billion, net of cash acquired USD 0.1 billion, and the acquisition of the Japanese business of Aspen Global Incorporated for USD 0.3 billion); USD 1.4 billion for net purchases of marketable securities, commodities and time deposits; USD 1.3 billion for purchases of property, plant and equipment; and USD 1.3 billion for purchases of intangible assets. These cash outflows were partly offset by cash inflows of USD 0.7 billion from the sale of financial assets (including USD 0.3 billion proceeds from the sale of Alcon Inc. shares) and USD 0.4 billion from the sale of intangible assets.

Net cash outflows used in financing activities from continuing operations amounted to USD 16.3 billion, compared to USD 2.2 billion in 2020.

The current year cash outflows were driven by USD 7.4 billion for the dividend payment; USD 3.0 billion for net treasury share transactions; USD 3.5 billion net decrease in current financial debts; and USD 2.2 billion for the repayment of two bonds denominated in euro (notional amount of EUR 1.25 billion and of EUR 0.6 billion) at maturity. Payments of lease liabilities and other financing cash flows resulted in a net cash outflow of USD 0.2 billion.

In 2020, net cash outflows used in financing activities from continuing operations of USD 2.2 billion were driven by USD 7.0 billion for the dividend payment; USD 2.1 billion for net treasury share transactions; USD 2.0 billion for the repayment of two US dollar bonds at maturity; USD 0.3 billion net payments for lease liabilities; and USD 0.2 billion for other financing cash outflows, net. These cash outflows were partly offset by cash inflows of USD 7.1 billion from the increase in non-current financial debts, mainly consisting of USD 4.9 billion from the issuance of bonds denominated in US dollars (notional amount of USD 5.0 billion) and USD 2.1 billion from the issuance of a sustainability-linked bond denominated in euro (notional amount of EUR 1.85 billion); and USD 2.3 billion from the net increase in current financial debts.

Free cash flow amounted to USD 13.3 billion (+14% USD), compared to USD 11.7 billion in 2020. This increase was mainly driven by higher operating income adjusted for non-cash items and other adjustments, and lower payments out of provisions, mainly due to legal matters in the prior year, partly offset by USD 650 million upfront payment to in-license tislelizumab from an affiliate of BeiGene, Ltd.

Balance sheet

Assets

Total non-current assets of USD 86.1 billion at December 31, 2021, decreased by USD 12.0 billion compared to December 31, 2020.

Intangible assets other than goodwill decreased by USD 2.6 billion as net additions (including the in-licensing of tislelizumab from an affiliate of BeiGene, Ltd) and acquisitions were more than offset by amortization, unfavorable currency translation adjustments and impairments.

Goodwill decreased by USD 0.4 billion, mainly due to unfavorable currency translation adjustments, only partially offset by additions.

Property, plant and equipment decreased by USD 0.7 billion, as net additions were more than offset by depreciation, unfavorable currency translation adjustments and net impairments.

Investments in associated companies decreased by USD 9.4 billion mainly due to the divestment of our investment in Roche.

These decreases were partly offset by an increase in other non-current assets of USD 1.3 billion, driven by an increase in the prepaid post-employment benefit plans of USD 1.2 billion, resulting from actuarial gains primarily from valuation impact on plan assets and changes in the discount rates used to calculate the actuarial defined benefit obligations.

Right of use assets, deferred tax assets and financial assets were broadly in line with December 31, 2020.

Total current assets of USD 45.7 billion at December 31, 2021 increased by USD 16.0 billion compared to December 31, 2020.

Cash and cash equivalents increased by USD 2.7 billion and marketable securities, commodities, time deposits and derivative financial instruments increased by USD 14.0 billion, mainly driven by the cash generated through

operating activities and the proceeds of USD 20.7 billion from the divestment of our investment in Roche, partially offset by the dividend payment, the purchase of treasury shares and the repayment of a financial debt.

Inventories, trade receivables, other current assets and income tax receivables were broadly in line with December 31, 2020.

Liabilities

Total non-current liabilities of USD 33.8 billion decreased by USD 4.3 billion compared to December 31, 2020.

Non-current financial debts decreased by USD 3.4 billion mainly due to the reclassification of USD 2.6 billion from non-current to current financial debts, primarily two USD denominated bonds with notional amounts of USD 1.0 billion and USD 1.5 billion maturing in 2022, and favorable currency translation adjustments of USD 0.8 billion.

Provisions and other non-current liabilities decreased by USD 0.8 billion, mainly due to a USD 0.9 billion decrease in accrued defined benefit plan liabilities mainly due to actuarial gains primarily from valuation impact on plan assets and the changes in discount rates used to calculate the actuarial defined benefit obligations.

Non-current lease liabilities and deferred tax liabilities were broadly in line with December 31, 2020.

Total current liabilities of USD 30.2 billion decreased by USD 2.9 billion compared to December 31, 2020.

Provisions and other current liabilities increased by USD 0.5 billion mainly due to an increase in the treasury share repurchase obligation of USD 1.0 billion, which was partially offset by a decrease of USD 0.4 billion in other current provisions.

Current financial debts and derivative financial instruments decreased by USD 3.5 billion mainly due to the repayment of a USD 1.5 billion bond denominated in euro (notional amount of EUR 1.25 billion) and USD 0.7 billion bond denominated in euro (notional amount of EUR 0.6 billion) at maturity, repayments of current financial debts of USD 3.5 billion and favorable currency translation adjustments of USD 0.3 billion, partly offset by the reclassification from non-current to current financial debts of USD 2.6 billion.

Current lease liabilities, current income tax liabilities and trade payables were broadly in line with December 31, 2020.

Equity

The Group's equity increased by USD 11.2 billion to USD 67.8 billion at December 31, 2021 compared to December 31, 2020.

This increase was mainly due to the net income of USD 24.0 billion, net actuarial gains of USD 1.8 billion, equity-based compensation of USD 0.7 billion and the net favorable fair value adjustments on financial instruments of USD 0.2 billion.

This was partially offset by the cash-dividend payment of USD 7.4 billion, purchase of treasury shares of USD 2.9 billion, the increase of the treasury share repurchase obligation of USD 1.0 billion and unfavorable currency translation differences of USD 4.8 billion.

Net debt and debt/equity ratio

The Group's liquidity amounted to USD 28.3 billion at December 31, 2021, compared to USD 11.6 billion at December 31, 2020. Total non-current and current financial debts, including derivatives, amounted to USD 29.2 billion at December 31, 2021, compared to USD 36.0 billion at December 31, 2020.

The debt/equity ratio decreased to 0.43:1 at December 31, 2021, compared to 0.64:1 at December 31, 2020. As of December 31, 2021 the net debt was USD 0.9 billion, compared to USD 24.5 billion at December 31, 2020.

Innovation Review

Benefiting from our continued focus on innovation, Novartis has one of the industry's most innovative and inventive pipelines with more than 160 projects in clinical development.

Selected Innovative Medicines approvals: US, EU and Japan in Q4

Product	Active ingredient/ Descriptor	Indication	Region
<i>Scemblix</i>	asciminib	3L Chronic myeloid leukemia	US – Oct
<i>Cosentyx</i>	secukinumab	JPsA & ERA	US – Dec
<i>Leqvio</i>	inclisiran	Hyperlipidemia	US – Dec

Selected Innovative Medicines projects awaiting regulatory decisions

Product	Indication	Completed submissions			News update
		US	EU	Japan	
<i>Cosentyx</i>	JPsA & ERA	Approved	Q2 2021		
<i>Cosentyx</i>	<i>Cosentyx</i> 300mg auto-injector and pre-filled syringe	Q4 2020	Approved	Q3 2021	– CRL issued by FDA
<i>Jakavi</i>	Acute graft-versus-host disease (GvHD)		Q1 2021	Q1 2021	– US filing by Incyte
	Chronic GvHD		Q1 2021	Q1 2021	– US filing by Incyte
ABL001 (asciminib)	3L Chronic myeloid leukemia	Approved	Q2 2021	Q3 2021	
<i>Beovu</i>	Diabetic macular edema	Q3 2021	Q3 2021	Q3 2021	
¹⁷⁷ Lu-PSMA-617	Metastatic castration-resistant prostate cancer, post-taxane	Q3 2021	Q4 2021		– FDA priority review
VDT482 (tislelizumab)	2L Esophageal cancer (ESCC)	Q3 2021			– BLA submitted by BeiGene to FDA
<i>Kymriah</i>	Relapsed/refractory follicular lymphoma	Q3 2021	Q3 2021	Q4 2021	– FDA priority review granted
BYL719 (alpelisib)	PIK3CA-related overgrowth spectrum	Q4 2021			– US filing based on RWE data – FDA priority review granted

Selected Innovative Medicines pipeline projects

Compound/ product	Potential indication/ Disease area	First planned submissions	Current Phase	News update
ABL001 (asciminib)	1L Chronic myeloid leukemia	2025	3	
ACZ885 (canakinumab)	Adjuvant NSCLC	2023	3	– Enrollment completed
<i>Aimovig</i>	Migraine, pediatrics	≥2026	3	
AVXS-101 (OAV101)	Spinal muscular atrophy (IT formulation)	2025	3	– Pivotal confirmatory study initiating
<i>Beovu</i>	Diabetic retinopathy	2025	3	
BYL719 (alpelisib)	Triple negative breast cancer	2023	3	
	Human epidermal growth factor receptor 2-positive (HER2+) advanced breast cancer	2025	3	
CEE321	Ovarian cancer	2023	3	
	Atopic dermatitis		1	– Program discontinued unfavorable benefit/risk profile
CFZ533 (iscalimab)	Liver transplantation	≥2026	2	
	Sjögren's syndrome	≥2026	2	
<i>Coartem</i>	Malaria, uncomplicated (<5 kg patients)	2024	3	– Submission planned in Switzerland

Compound/ product	Potential indication/ Disease area	First planned submissions	Current Phase	News update
Cosentyx	Ankylosing spondylitis head-to-head study versus Sandoz biosimilar Hyrimoz (adalimumab)	2022	3	
	Hidradenitis suppurativa	2022	3	
	Giant cell arteritis	2024	3	
	Lichen planus	2025	2	
	Lupus nephritis	≥2026	3	
	Psoriatic arthritis (IV formulation)	2022	3	
	Ankylosing spondylitis (IV formulation)	2023	3	
CPK850	Retinitis pigmentosa	≥2026	2	
CSJ117	Asthma	≥2026	2	
JDQ443	Non-small cell lung cancer, 2/3L	2024	3	- Ph3 to be initiated in H2 2022
	Non-small cell lung cancer (combos)	≥2026	2	
KAE609 (cipargamin)	Malaria, uncomplicated	≥2026	2	
	Malaria, severe	≥2026	2	
KAF156 (ganaplacide)	Malaria, uncomplicated	≥2026	2	
Kisqali + endocrine therapy	Hormone receptor-positive (HR+)/human epidermal growth factor receptor 2-negative (HER2-) early breast cancer (adjuvant)	2023	3	
Leqvio	Secondary prevention of cardiovascular events in patients with elevated levels of LDL-C	≥2026	3	- Ph3 VICTORION-2P initiated
LJN452 (tropifexor + licogliflozin)	Nonalcoholic steatohepatitis	≥2026	2	
LMI070 (branaplam)	Huntington's disease	≥2026	2	- FDA Orphan Drug designation - FDA Fast Track designation granted
LNA043	Osteoarthritis	≥2026	2	- FDA Fast Track designation
LNP023 (iptacopan)	Paroxysmal nocturnal hemoglobinuria	2023	3	- FDA, EU Orphan Drug designation - FDA Breakthrough Therapy designation
	IgA nephropathy	2023	3	- EU Orphan Drug designation
	C3 glomerulopathy	2023	3	- EU Orphan Drug designation - EU PRIME designation - FDA Rare Pediatric designation
	Membranous nephropathy	≥2026	2	
	Atypical haemolytic uraemic syndrome	2025	3	
LOU064 (remibrutinib)	Chronic spontaneous urticaria	2024	3	- Ph3 initiated
	Multiple sclerosis	2025	3	- Ph3 initiated
	Sjögren's syndrome	≥2026	2	
Lutathera	Gastroenteropancreatic neuroendocrine tumors, 1 st line in G2/3 tumors	2023	3	
¹⁷⁷ Lu-PSMA-617	Metastatic castration-resistant prostate cancer pre-taxane	2023	3	
	Metastatic hormone sensitive prostate cancer	2024	3	
¹⁷⁷ Lu-NeoB	Multiple solid tumors	≥2026	1	
LXE408	Visceral leishmaniasis	≥2026	2	
MBG453 (sabatolimab)	Myelodysplastic syndrome	2022/2023	3	- FDA Fast Track designation - EU Orphan Drug designation
	Unfit acute myeloid leukemia	2024	2	
MIJ821	Depression	≥2026	2	
NIS793	1L Pancreatic cancer	2025	3	- FDA Orphan Drug designation

Compound/ product	Potential indication/ Disease area	First planned submissions	Current Phase	News update
QBW251 (icenticaftor)	Chronic obstructive pulmonary disease	2025	2	
QGE031 (ligelizumab)	Chronic spontaneous urticaria	TBD	3	- FDA Breakthrough Therapy designation - Ligelizumab demonstrated superiority compared with placebo PEARL 1 and PEARL 2 trials, but not versus omalizumab further evaluating PEARL data
	Chronic inducible urticaria	2025	3	- Ph3 initiated
	Food allergy	2025	3	- Ph3 initiated
SAF312 (libvatrep)	Chronic ocular surface pain	≥2026	2	
SKO136 (ensovibep)	Corona virus infection	2022	2	- Positive topline data from Ph2
TQJ230 (pelacarsen)	Secondary prevention of cardiovascular events in patients with elevated levels of lipoprotein(a)	2025	3	- Enrollment ongoing - FDA Fast Track designation - China Breakthrough Therapy designation
UNR844	Presbyopia	2024	2	
VAY736 (ianalumab)	Auto-immune hepatitis	≥2026	2	
	Sjögren's syndrome	≥2026	2	- FDA Fast Track designation
VDT482 (tislelizumab)	NSCLC	2022	3	
	1L Nasopharyngeal carcinoma	2022	3	
	1L Gastric cancer	2023	3	
	1L ESCC	2023	3	
	Localized ESCC	2023	3	
	1L Hepatocellular carcinoma	2023	3	
	1L Small cell lung cancer	2024	3	
	1L Bladder urothelial cell carcinoma	2024	3	
VPM087 (gevokizumab)	Colorectal cancer, 1 st line	≥2026	1	
<i>Xolair</i>	Food allergy	2023	3	
YTB323	2L Diffuse large B-cell lymphoma	2024	3	- Ph3 to be initiated in 2022

Selected Sandoz approvals and pipeline projects

Project/ Compound	Potential indication/ Disease area	News update
GP2411 (denosumab)	Osteoporosis (same as originator)	- In Ph3
SOK583 (afilibercept)	Ophthalmology (same as originator)	- In Ph3
Insulin glargine, lispro, aspart	Diabetes	- Collaboration with Gan & Lee
Natalizumab	Multiple sclerosis and Crohn's disease	- Collaboration Polpharma Biologics
Trastuzumab	HER2-positive cancer tumors	- Collaboration EirGenix
Bevacizumab	Solid tumors	- Bio-Thera Solutions

Condensed Consolidated Financial Statements

Consolidated income statements

Fourth quarter (unaudited)

(USD millions unless indicated otherwise)

	Note	Q4 2021	Q4 2020
Net sales to third parties	9	13 229	12 770
Other revenues	9	293	260
Cost of goods sold		-3 976	-4 217
Gross profit		9 546	8 813
Selling, general and administration		-3 985	-3 924
Research and development		-2 409	-2 333
Other income		371	643
Other expense		-961	-555
Operating income		2 562	2 644
Income from associated companies	3	14 621	141
Interest expense		-206	-201
Other financial income and expense		-26	-25
Income before taxes		16 951	2 559
Income taxes		-645	-460
Net income		16 306	2 099
<i>Attributable to:</i>			
Shareholders of Novartis AG		16 308	2 094
Non-controlling interests		-2	5
Weighted average number of shares outstanding – Basic (million)		2 237	2 265
Basic earnings per share (USD) ¹		7.29	0.92
Weighted average number of shares outstanding – Diluted (million)		2 253	2 282
Diluted earnings per share (USD) ¹		7.24	0.92

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 2021	FY 2020
Net sales to third parties	9	51 626	48 659
Other revenues	9	1 251	1 239
Cost of goods sold		-15 867	-15 121
Gross profit		37 010	34 777
Selling, general and administration		-14 886	-14 197
Research and development		-9 540	-8 980
Other income		1 852	1 742
Other expense		-2 747	-3 190
Operating income		11 689	10 152
Income from associated companies	3	15 339	673
Interest expense		-811	-869
Other financial income and expense		-80	-78
Income before taxes		26 137	9 878
Income taxes		-2 119	-1 807
Net income		24 018	8 071
<i>Attributable to:</i>			
Shareholders of Novartis AG		24 021	8 072
Non-controlling interests		-3	-1
Weighted average number of shares outstanding – Basic (million)		2 243	2 277
Basic earnings per share (USD) ¹		10.71	3.55
Weighted average number of shares outstanding – Diluted (million)		2 260	2 296
Diluted earnings per share (USD) ¹		10.63	3.52

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 2021	Q4 2020
Net income	16 306	2 099
Other comprehensive income		
Items that are or may be recycled into the consolidated income statement		
Novartis share of other comprehensive income recognized by associated companies, net of taxes	3	
Net investment hedge, net of taxes	89	-103
Currency translation effects, net of taxes	-2 699	1 701
Total of items that are or may be recycled	-2 607	1 598
Items that will never be recycled into the consolidated income statement		
Actuarial gains from defined benefit plans, net of taxes	6	625
Fair value adjustments on equity securities, net of taxes	-48	204
Total of items that will never be recycled	-42	829
Total comprehensive income	13 657	4 526
<i>Attributable to:</i>		
Shareholders of Novartis AG	13 660	4 521
Non-controlling interests	-3	5

Full year (audited)

(USD millions)	FY 2021	FY 2020
Net income	24 018	8 071
Other comprehensive income		
Items that are or may be recycled into the consolidated income statement		
Novartis share of other comprehensive income recognized by associated companies, net of taxes	46	-56
Net investment hedge, net of taxes	216	-201
Currency translation effects, net of taxes	-4 762	3 194
Total of items that are or may be recycled	-4 500	2 937
Items that will never be recycled into the consolidated income statement		
Actuarial gains from defined benefit plans, net of taxes	1 809	143
Fair value adjustments on equity securities, net of taxes	194	250
Total of items that will never be recycled	2 003	393
Total comprehensive income	21 521	11 401
<i>Attributable to:</i>		
Shareholders of Novartis AG	21 528	11 403
Non-controlling interests	-7	-2

Consolidated balance sheets

(USD millions)	Note	Dec 31, 2021 (audited)	Dec 31, 2020 (audited) ¹
Assets			
Non-current assets			
Property, plant and equipment	9	11 545	12 263
Right-of-use assets		1 561	1 676
Goodwill	9	29 595	29 999
Intangible assets other than goodwill	9	34 182	36 809
Investments in associated companies	3	205	9 632
Deferred tax assets		3 743	3 933
Financial assets		3 036	2 901
Other non-current assets		2 210	892
Total non-current assets		86 077	98 105
Current assets			
Inventories		6 666	7 131
Trade receivables		8 005	8 217
Income tax receivables		278	239
Marketable securities, commodities, time deposits and derivative financial instruments		15 922	1 905
Cash and cash equivalents		12 407	9 658
Other current assets		2 440	2 523
Total current assets		45 718	29 673
Total assets		131 795	127 778
Equity and liabilities			
Equity			
Share capital		901	913
Treasury shares		-48	-53
Reserves		66 802	55 738
Equity attributable to Novartis AG shareholders		67 655	56 598
Non-controlling interests		167	68
Total equity		67 822	56 666
Liabilities			
Non-current liabilities			
Financial debts		22 902	26 259
Lease liabilities		1 621	1 719
Deferred tax liabilities		3 070	3 141
Provisions and other non-current liabilities		6 172	6 934
Total non-current liabilities		33 765	38 053
Current liabilities			
Trade payables		5 553	5 403
Financial debts and derivative financial instruments		6 295	9 785
Lease liabilities		275	286
Current income tax liabilities		2 415	2 458
Provisions and other current liabilities		15 670	15 127
Total current liabilities		30 208	33 059
Total liabilities		63 973	71 112
Total equity and liabilities		131 795	127 778

¹ The December 31, 2020 deferred tax assets and deferred tax liabilities balances have been adjusted to conform with the 2021 presentation, see Note 4 for additional disclosures.

Consolidated statements of changes in equity

Fourth quarter (unaudited)

(USD millions)	Note	Share capital	Treasury shares	Reserves		Issued share capital and reserves attributable to Novartis shareholders	Non-controlling interests	Total equity
				Retained earnings	Total value adjustments			
Total equity at October 1, 2021		901	-47	57 437	-1 520	56 771	166	56 937
Net income				16 308		16 308	-2	16 306
Other comprehensive income				3	-2 651	-2 648	-1	-2 649
Total comprehensive income				16 311	-2 651	13 660	-3	13 657
Purchase of treasury shares			-1	-224		-225		-225
Equity-based compensation				247		247		247
Taxes on treasury share transactions				1		1		1
Increase of treasury share repurchase obligation under a share buyback trading plan	5.1			-2 809		-2 809		-2 809
Transaction costs, net of taxes	5.2			2		2		2
Fair value adjustments on financial assets sold				-46	46			
Fair value adjustments related to divestments				62	-62			
Impact of change in ownership of consolidated entities				-3		-3	4	1
Other movements	5.3			11		11		11
Total of other equity movements			-1	-2 759	-16	-2 776	4	-2 772
Total equity at December 31, 2021		901	-48	70 989	-4 187	67 655	167	67 822

(USD millions)	Note	Share capital	Treasury shares	Reserves		Issued share capital and reserves attributable to Novartis shareholders	Non-controlling interests	Total equity
				Retained earnings	Total value adjustments			
Total equity at October 1, 2020		913	-44	57 403	-3 788	54 484	70	54 554
Net income				2 094		2 094	5	2 099
Other comprehensive income					2 427	2 427	0	2 427
Total comprehensive income				2 094	2 427	4 521	5	4 526
Purchase of treasury shares			-9	-1 587		-1 596		-1 596
Repurchase of options				-89		-89		-89
Equity-based compensation			0	177		177		177
Shares delivered to Alcon employees as a result of the Alcon spin-off			0	1		1		1
Taxes on treasury share transactions				1		1		1
Increase of treasury share repurchase obligation under a share buyback trading plan	5.1			-912		-912		-912
Fair value adjustments on financial assets sold				59	-59			
Fair value adjustments related to divestments				-2	2			
Impact of change in ownership of consolidated entities				7	-1	6	-7	-1
Other movements	5.3			5		5		5
Total of other equity movements			-9	-2 340	-58	-2 407	-7	-2 414
Total equity at December 31, 2020		913	-53	57 157	-1 419	56 598	68	56 666

Consolidated statements of changes in equity

Full year (audited)

(USD millions)	Note	Share capital	Treasury shares	Reserves		Issued share capital and reserves attributable to Novartis shareholders	Non-controlling interests	Total equity
				Retained earnings	Total value adjustments			
Total equity at January 1, 2021		913	-53	57 157	-1 419	56 598	68	56 666
Net income				24 021		24 021	-3	24 018
Other comprehensive income				46	-2 539	-2 493	-4	-2 497
Total comprehensive income				24 067	-2 539	21 528	-7	21 521
Dividends				-7 368		-7 368		-7 368
Purchase of treasury shares			-18	-2 902		-2 920		-2 920
Reduction of share capital		-12	18	-6				
Exercise of options and employee transactions			0	39		39		39
Equity-based compensation			5	740		745		745
Shares delivered to Alcon employees as a result of the Alcon spin-off			0	17		17		17
Taxes on treasury share transactions				1		1		1
Increase of treasury share repurchase obligation under a share buyback trading plan	5.1			-1 040		-1 040		-1 040
Transaction costs, net of taxes	5.2			12		12		12
Changes in non-controlling interests							-1	-1
Fair value adjustments on financial assets sold				164	-164			
Fair value adjustments related to divestments				65	-65			
Impact of change in ownership of consolidated entities				-5	0	-5	107	102
Other movements	5.3			48		48		48
Total of other equity movements		-12	5	-10 235	-229	-10 471	106	-10 365
Total equity at December 31, 2021		901	-48	70 989	-4 187	67 655	167	67 822

(USD millions)	Note	Share capital	Treasury shares	Reserves		Issued share capital and reserves attributable to Novartis shareholders	Non-controlling interests	Total equity
				Retained earnings	Total value adjustments			
Total equity at January 1, 2020		936	-80	59 275	-4 657	55 474	77	55 551
Net income				8 072		8 072	-1	8 071
Other comprehensive income				-56	3 387	3 331	-1	3 330
Total comprehensive income				8 016	3 387	11 403	-2	11 401
Dividends				-6 987		-6 987		-6 987
Purchase of treasury shares			-18	-3 038		-3 056		-3 056
Reduction of share capital		-23	31	-8				
Exercise of options and employee transactions			8	798		806		806
Repurchase of options				-89		-89		-89
Equity-based compensation			6	724		730		730
Shares delivered to Alcon employees as a result of the Alcon spin-off			0	30		30		30
Taxes on treasury share transactions				32		32		32
Increase of treasury share repurchase obligation under a share buyback trading plan	5.1			-1 769		-1 769		-1 769
Fair value adjustments on financial assets sold				150	-150			
Fair value adjustments related to divestments				-2	2			
Impact of change in ownership of consolidated entities				7	-1	6	-7	-1
Other movements	5.3			18		18		18
Total of other equity movements		-23	27	-10 134	-149	-10 279	-7	-10 286
Total equity at December 31, 2020		913	-53	57 157	-1 419	56 598	68	56 666

Consolidated statements of cash flows

Fourth quarter (unaudited)

(USD millions)	Note	Q4 2021	Q4 2020
Net income		16 306	2 099
<i>Adjustments to reconcile net income to net cash flows from operating activities</i>			
Reversal of non-cash items and other adjustments	7.1	-11 941	1 997
Dividends received from associated companies and others		2	1
Interest received		5	5
Interest paid		-206	-221
Other financial receipts			176
Other financial payments		14	-11
Income taxes paid	7.2	-883	-618
Net cash flows from operating activities before working capital and provision changes		3 297	3 428
Payments out of provisions and other net cash movements in non-current liabilities		-589	-645
Change in net current assets and other operating cash flow items		1 176	1 222
Net cash flows from operating activities		3 884	4 005
Purchases of property, plant and equipment		-460	-521
Proceeds from sale of property, plant and equipment		74	82
Purchases of intangible assets		-517	-502
Proceeds from sale of intangible assets		84	176
Purchases of financial assets		-67	-105
Proceeds from sale of financial assets		34	256
Purchases of other non-current assets		-5	-7
Proceeds from sale of other non-current assets		0	2
Divestments and acquisitions of interests in associated companies, net	7.3	20 675	-1
Acquisitions and divestments of businesses, net	7.4	-343	54
Purchases of marketable securities, commodities and time deposits		-15 567	-55
Proceeds from sale of marketable securities, commodities and time deposits		655	52
Net cash flows from/used in investing activities from continuing operations		4 563	-569
Net cash flows used in investing activities from discontinued operations			-2
Net cash flows from/used in investing activities		4 563	-571
Acquisitions of treasury shares		-148	-1 768
Proceeds from exercised options and other treasury share transactions, net			-98
Increase in non-current financial debts		16	
Repayments of non-current financial debts		-696	-1
Change in current financial debts		-2 350	-935
Payments of lease liabilities, net		-80	-95
Impact of change in ownership of consolidated entities		1	-2
Other financing cash flows, net		6	-24
Net cash flows used in financing activities from continuing operations		-3 251	-2 923
Net cash flows used in financing activities from discontinued operations			-13
Net cash flows used in financing activities		-3 251	-2 936
Net change in cash and cash equivalents before effect of exchange rate changes		5 196	498
Effect of exchange rate changes on cash and cash equivalents		0	166
Net change in cash and cash equivalents		5 196	664
Cash and cash equivalents at October 1		7 211	8 994
Cash and cash equivalents at December 31		12 407	9 658

Consolidated statements of cash flows

Full year (audited)

(USD millions)	Note	FY 2021	FY 2020
Net income		24 018	8 071
<i>Adjustments to reconcile net income to net cash flows from operating activities</i>			
Reversal of non-cash items and other adjustments	7.1	-5 299	9 881
Dividends received from associated companies and others		525	490
Interest received		13	47
Interest paid		-664	-703
Other financial receipts			464
Other financial payments		-302	-39
Income taxes paid	7.2	-2 342	-1 833
Net cash flows from operating activities before working capital and provision changes		15 949	16 378
Payments out of provisions and other net cash movements in non-current liabilities		-1 119	-2 437
Change in net current assets and other operating cash flow items		241	-291
Net cash flows from operating activities		15 071	13 650
Purchases of property, plant and equipment		-1 378	-1 275
Proceeds from sale of property, plant and equipment		240	88
Purchases of intangible assets		-1 593	-1 310
Proceeds from sale of intangible assets		748	380
Purchases of financial assets		-191	-230
Proceeds from sale of financial assets		442	723
Purchases of other non-current assets		-61	-61
Proceeds from sale of other non-current assets		4	2
Divestments and acquisitions of interests in associated companies, net	7.3	20 669	-7
Acquisitions and divestments of businesses, net	7.4	-567	-9 957
Purchases of marketable securities, commodities and time deposits		-16 403	-1 900
Proceeds from sale of marketable securities, commodities and time deposits		2 298	492
Net cash flows from/used in investing activities from continuing operations		4 208	-13 055
Net cash flows used in investing activities from discontinued operations			-127
Net cash flows from/used in investing activities		4 208	-13 182
Dividends paid to shareholders of Novartis AG		-7 368	-6 987
Acquisitions of treasury shares		-3 057	-2 842
Proceeds from exercised options and other treasury share transactions, net		53	748
Increase in non-current financial debts		16	7 126
Repayments of non-current financial debts		-2 162	-2 003
Change in current financial debts		-3 524	2 261
Payments of lease liabilities, net		-316	-312
Impact of change in ownership of consolidated entities		-3	-2
Other financing cash flows, net		97	-147
Net cash flows used in financing activities from continuing operations		-16 264	-2 158
Net cash flows used in financing activities from discontinued operations			-50
Net cash flows used in financing activities		-16 264	-2 208
Net change in cash and cash equivalents before effect of exchange rate changes		3 015	-1 740
Effect of exchange rate changes on cash and cash equivalents		-266	286
Net change in cash and cash equivalents		2 749	-1 454
Cash and cash equivalents at January 1		9 658	11 112
Cash and cash equivalents at December 31		12 407	9 658

Notes to the Condensed Consolidated Financial Statements for the three-month interim period (unaudited) and year ended December 31, 2021 (audited)

1. Basis of preparation

These Condensed Consolidated Financial Statements for the three-month and year ended December 31, 2021, were prepared in accordance with International

Accounting Standard 34 *Interim Financial Reporting* and accounting policies set out in the 2021 Annual Report published on February 2, 2022.

2. Selected critical accounting policies

The Group's principal accounting policies are set out in Note 1 to the Consolidated Financial Statements in the 2021 Annual Report and conform with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board.

The preparation of financial statements requires management to make certain estimates and assumptions, either at the balance sheet date or during the year, which affect the reported amounts of revenues, expenses, assets, liabilities and contingent amounts.

Estimates are based on historical experience and other assumptions that are considered reasonable under the given circumstances and are continually monitored. Actual outcomes and results could differ from those

estimates and assumptions. Revisions to estimates are recognized in the period in which the estimate is revised.

As disclosed in the 2021 Annual Report, goodwill, 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.

3. Significant transactions

The Group applied the acquisition method of accounting for businesses acquired, and did not elect to apply the optional concentration test to account for acquired business as an asset separately acquired.

Significant transactions in 2021

Sandoz – acquisition of GSK's cephalosporin antibiotics business

On February 10, 2021, Sandoz entered into an agreement with certain subsidiaries of GlaxoSmithKline plc (GSK) for the acquisition of the GSK's cephalosporin antibiotics business.

Under the agreement, Sandoz acquired the global rights to three established brands (Zinnat®, Zinacef® and Fortum®) in more than 100 markets. It excluded the rights in the US, Australia and Germany to certain of those brands, which were previously divested by GSK, and the rights in India, Pakistan, Egypt, Japan (to certain of the brands) and China, which will be retained by GSK. The transaction closed on October 8, 2021.

The purchase price consisted of a USD 350 million upfront payment paid at closing and potential milestone payments up to USD 150 million, which GSK will be eligible to receive upon the achievement of certain annual sales milestones for the portfolio.

The fair value of the total purchase consideration was USD 415 million. The amount consisted of a payment of USD 351 million, including purchase price adjustments, and the fair value of contingent consideration of USD 64 million, which GSK is eligible to receive upon the achievement of specified milestones. The purchase price allocation resulted in net identifiable assets of USD 308 million, consisting of USD 292 million intangible assets and USD 16 million deferred tax assets. Goodwill amounted to USD 107 million.

The results of operations since the date of acquisition are not material.

Corporate – divestment of the investment in Roche Holding AG

On November 3, 2021, Novartis entered into a Share Repurchase Agreement with Roche Holding AG under which Novartis agreed to sell 53.3 million (approximately 33.3%) bearer shares of Roche Holding AG voting shares in a bilateral transaction to Roche Holding AG for a total consideration of USD 20.7 billion. As a result, Novartis discontinued the use of equity method accounting starting from November 3, 2021.

The transaction closed on December 6, 2021. Novartis realized a gain of USD 14.6 billion, recorded in income from associated companies.

Significant pending transactions

Innovative Medicines – acquisition of Gyroscope Therapeutics Holdings plc

On December 22, 2021, Novartis entered into an agreement to acquire Gyroscope Therapeutics Holdings plc (Gyroscope), a UK-based ocular gene therapy company. Gyroscope focuses on the discovery and development of gene therapy treatments for retinal indications.

The purchase price will consist of a cash payment of USD 0.8 billion, subject to certain purchase adjustments, and potential additional milestone payments of up to USD 0.7 billion, upon achievement of specified milestones.

The acquisition is expected to close in the first quarter of 2022. Completion of the acquisition is subject to customary closing conditions.

Significant transactions in 2020

Innovative Medicines – acquisition of The Medicines Company

On November 23, 2019, Novartis entered into an agreement and plan of merger (the Merger Agreement) with The Medicines Company, a US-based pharmaceutical company headquartered in Parsippany, New Jersey, USA. Pursuant to the Merger Agreement, on December 5, 2019, Novartis, through a subsidiary, commenced a tender offer to acquire all outstanding shares of The Medicines Company for USD 85 per share, or a total consideration of approximately USD 9.6 billion in cash on a fully diluted basis, including the equivalent share value related to The Medicines Company's convertible notes, in accordance with their terms. The tender offer expired on January 3, 2020, and on January 6, 2020, the

acquiring subsidiary merged with and into The Medicines Company, resulting in The Medicines Company becoming an indirect wholly owned subsidiary of Novartis. Novartis financed the transaction through available cash, and short- and long-term borrowings.

The Medicines Company is focused on the development of inclisiran, a potentially first-in-class, twice yearly therapy that allows administration during patients' routine visits to their healthcare professionals and will potentially contribute to improved patient adherence and sustained lower LDL-C levels.

The fair value of the total purchase consideration was USD 9.6 billion. The purchase price allocation resulted in net identifiable assets of approximately USD 7.1 billion, consisting of USD 8.5 billion intangible assets, USD 1.4 billion net deferred tax liabilities and goodwill of approximately USD 2.5 billion.

The 2020 results of operations since the date of acquisition were not material.

Sandoz – acquisition of the Japanese business of Aspen Global Incorporated

On November 11, 2019, Sandoz entered into an agreement for the acquisition of the Japanese business of Aspen Global Incorporated (AGI), a wholly owned subsidiary of Aspen Pharmacare Holdings Limited. Under the agreement, Sandoz acquired the shares in Aspen Japan K.K. and associated assets held by AGI. The transaction closed on January 31, 2020.

Aspen's portfolio in Japan consisted of off-patent medicines with a focus on anesthetics and specialty brands. The acquisition enabled Sandoz to expand its presence in the third-largest worldwide generics marketplace.

The purchase price consisted of EUR 274 million (USD 303 million) upfront payment, less customary purchase price adjustment of EUR 27 million (USD 30 million), plus potential milestone payments of up to EUR 70 million (USD 77 million), which AGI is eligible to receive upon the achievement of specified milestones.

The fair value of the total purchase consideration was EUR 294 million (USD 324 million). The amount consisted of a cash payment of EUR 247 million (USD 273 million) and the fair value of contingent consideration of EUR 47 million (USD 51 million), which AGI is eligible to receive upon the achievement of specified milestones. The purchase price allocation resulted in net identifiable assets of USD 238 million, consisting of USD 196 million intangible assets, USD 26 million other net assets and USD 16 million net deferred tax assets. Goodwill amounted to USD 86 million.

The 2020 results of operations since the date of acquisition were not material.

Sandoz – retention of US dermatology business and generic US oral solids portfolio, previously planned to be divested

On September 6, 2018, Novartis announced that it entered into a stock and asset purchase agreement (SAPA) with Aurobindo Pharma USA Inc. (Aurobindo) for the sale of selected portions of its Sandoz US portfolio, specifically the Sandoz US dermatology business and generic US oral solids portfolio, for USD 0.8 billion in

cash and potential earnouts. The closing was conditional on obtaining regulatory approval.

In March 2020, Novartis took the decision to retain the Sandoz US generic oral solids and dermatology businesses and on April 2, 2020 entered into a mutual agreement with Aurobindo to terminate the transaction. The decision was taken as approval from the US Federal Trade Commission for the transaction was not obtained within the agreed timelines.

The cumulative amount of the depreciation on property, plant and equipment (USD 38 million) and amortization on intangible assets (USD 102 million), not recorded in the consolidated income statement since the date of

classification as held for sale was recognized in the consolidated income statement in the first quarter of 2020. In addition, an impairment of currently marketed products of USD 42 million was recognized in the first quarter of 2020 consolidated income statement.

As at March 31, 2020, the assets and liabilities of the Sandoz US generic oral solids and dermatology businesses were reclassified out of assets and liabilities of disposal group held for sale. The prior year balance sheet was not required to be restated.

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

4. Deferred tax assets and liabilities

The December 31, 2020, presentation of deferred tax liabilities and deferred tax assets on the consolidated balance sheet has been adjusted. This adjustment was made to conform with the December 31, 2021 presentation to offset all deferred tax liabilities and deferred tax assets within the same tax jurisdiction and when a legally enforceable right to offset current tax assets against current tax liabilities exists.

In the December 31, 2020, consolidated balance sheet, deferred tax liabilities and deferred tax assets were presented on gross basis and not fully netted as required for presentation in the consolidated balance sheet, because only certain portions of deferred tax amounts were offset.

The correction resulted in a decrease in the previously reported December 31, 2020, deferred tax liabilities, total non-current liabilities, total liabilities, and total equity and liabilities by USD 4.3 billion and a corresponding USD 4.3 billion decrease in deferred tax assets, total non-current assets, and total assets. The correction resulted only in the net presentation of these deferred tax amounts in the consolidated balance sheet, with no impact to the consolidated income statement, statement of comprehensive income, statement of changes in equity and statement of cash flows, and management concluded the item was not material to the previously issued consolidated financial statements.

5. Summary of equity attributable to Novartis AG shareholders

	Note	Number of outstanding shares (in millions)		Issued share capital and reserves attributable to Novartis AG shareholders (in USD millions)	
		2021	2020	FY 2021	FY 2020
Balance at beginning of year		2 256.8	2 265.0	56 598	55 474
Shares acquired to be canceled		-30.7	-32.6	-2 775	-2 897
Other share purchases		-1.5	-1.7	-145	-159
Exercise of options and employee transactions		0.6	14.7	39	806
Repurchase of options					-89
Equity-based compensation		9.6	11.0	745	730
Shares delivered to Alcon employees as a result of the Alcon spin-off		0.1	0.4	17	30
Taxes on treasury share transactions				1	32
Increase of treasury share repurchase obligation under a share buyback trading plan	5.1			-1 040	-1 769
Dividends				-7 368	-6 987
Net income of the period attributable to shareholders of Novartis AG				24 021	8 072
Other comprehensive income attributable to shareholders of Novartis AG				-2 493	3 331
Transaction costs, net of taxes	5.2			12	
Impact of change in ownership of consolidated entities				-5	6
Other movements	5.3			48	18
Balance at December 31		2 234.9	2 256.8	67 655	56 598

5.1. In December 2021, 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 15.0 billion share buyback. Novartis is able to cancel this arrangement at any time but could 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 liability under this arrangement amounted to USD 2.8 billion as of December 31, 2021.

In June 2021, Novartis entered into an irrevocable, non-discretionary arrangement with a bank to repurchase Novartis shares to mitigate dilution related to participation plans of associates. Novartis would have been able to cancel this arrangement at any time but would have been subject to a 90-day waiting period.

This trading plan commitment was fully executed and expired in June 2021, and as a consequence, there is no liability related to this plan recognized as of December 31, 2021.

In November 2020, 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 2.5 billion share buyback. Novartis would have been able to cancel this arrangement at any time but would have been subject to a 90-day waiting period. The commitment under this arrangement therefore reflected 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 1.8 billion as of December 31, 2020. This trading plan commitment was fully executed and expired in March 2021, and as a consequence, there is no liability related to this plan recognized as of December 31, 2021.

5.2. Transaction costs that were directly attributable to the distribution (spin-off) of Alcon Inc. to Novartis AG shareholders and that would otherwise have been avoided, were recorded to equity.

5.3. Other movements include, for subsidiaries in hyper-inflationary economies, the impact of the restatement of the non-monetary assets and liabilities with the general price index at the beginning of the period as well as the restatement of the equity balances of the current year.

6. Financial instruments

Fair value by hierarchy

The following table illustrates the three hierarchical levels for valuing financial instruments at fair value as of December 31, 2021, and December 31, 2020. For additional information on the hierarchies and other matters, please refer to the Consolidated Financial Statements in the 2021 Annual Report, published on February 2, 2022.

(USD millions)	Level 1		Level 2		Level 3		Total	
	Dec 31, 2021	Dec 31, 2020	Dec 31, 2021	Dec 31, 2020	Dec 31, 2021	Dec 31, 2020	Dec 31, 2021	Dec 31, 2020
Cash and cash equivalents								
Debt securities	2 010						2 010	
Total cash and cash equivalents	2 010						2 010	
Marketable securities								
Debt securities	2 719		22	26			2 741	26
Total marketable securities	2 719		22	26			2 741	26
Derivative financial instruments			105	159			105	159
Total marketable securities and derivative financial instruments	2 719		127	185			2 846	185
Long-term financial investments								
Debt and equity securities	1 080	1 153			617	460	1 697	1 613
Fund investments	28	30			338	336	366	366
Contingent consideration receivables					641	625	641	625
Total long-term financial investments	1 108	1 183			1 596	1 421	2 704	2 604
Associated companies at fair value through profit or loss					192	211	192	211
Contingent consideration payables					-1 075	-1 046	-1 075	-1 046
Other financial liabilities					-19	-23	-19	-23
Derivative financial instruments			-68	-194			-68	-194
Total financial liabilities at fair value			-68	-194	-1 094	-1 069	-1 162	-1 263

In 2021, there was a transfer of equity security from level 1 to level 3 of USD 29 million due to de-listing. During the fourth quarter of 2021, there were four non-significant transfers of equity securities from level 3 to level 1 totaling USD 6 million due to Initial Public Offerings.

The fair value of straight bonds amounted to USD 27.1 billion at December 31, 2021 (USD 31.4 billion at December 31, 2020) compared to the balance sheet value of USD 25.3 billion at December 31, 2021 (USD 28.3 billion at December 31, 2020). 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 total long-term financial investments of USD 2.7 billion at December 31, 2021 (USD 2.6 billion at December 31, 2020) is included in the line "Financial assets" of the consolidated balance sheets.

In 2021, in accordance with the consolidated foundations' Alcon Inc. share divestment plans, Alcon Inc. shares with a fair value of USD 9 million (2020: USD 331 million) were sold, or otherwise disposed of, and the USD 1 million gain on disposal (2020: USD 13 million gain on disposal) was transferred from other comprehensive income to retained earnings (Q4 2021: nil).

In the first quarter of 2021, Novartis repaid a USD 1.5 billion (nominal amount of EUR 1.25 billion) bond, at maturity in accordance with its terms.

In the fourth quarter of 2021, Novartis repaid a USD 700 million (nominal amount of EUR 600 million) bond, at maturity in accordance with its terms.

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.

Interest Rate Benchmark Reform – Phase 2, Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 became effective from January 1, 2021. These amendments address issues that might affect financial reporting when an existing interest rate benchmark (i.e. Interbank offered rate – IBOR) is replaced with an alternative benchmark interest rate. The effects of interest rate benchmark reform on the Group's financial instruments and risk management strategies did not have a material impact on the Group's consolidated financial statements and are not expected to have a significant impact in future periods.

7. Details to the consolidated statements of cash flows

7.1. Reversal of non-cash items and other adjustments

(USD millions)	Q4 2021	Q4 2020
Depreciation, amortization and impairments on:		
Property, plant and equipment	440	353
Right-of-use assets	80	94
Intangible assets	999	1 170
Financial assets ¹	12	-69
Change in provisions and other non-current liabilities	100	75
Gains on disposal and other adjustments on property, plant and equipment; intangible assets; financial assets; and other non-current assets, net	-23	-330
Equity-settled compensation expense	195	159
Income from associated companies ²	-14 621	-141
Income taxes	645	460
Net financial expense	232	226
Total	-11 941	1 997

¹ Includes fair value adjustments

² The fourth quarter 2021 includes the gain of USD 14.6 billion recognized from the divestment of the Group's investment in Roche (see Note 3).

(USD millions)	FY 2021	FY 2020
Depreciation, amortization and impairments on:		
Property, plant and equipment	1 489	1 758
Right-of-use assets	318	330
Intangible assets	4 306	4 376
Financial assets ¹	-38	-335
Change in provisions and other non-current liabilities	896	1 411
Gains on disposal and other adjustments on property, plant and equipment; intangible assets; financial assets; and other non-current assets, net	-677	-478
Equity-settled compensation expense	736	738
Income from associated companies ²	-15 339	-673
Income taxes	2 119	1 807
Net financial expense	891	947
Total	-5 299	9 881

¹ Includes fair value adjustments

² 2021 includes the gain of USD 14.6 billion recognized from the divestment of the Group's investment in Roche (see Note 3).

7.2. Total amount of income taxes paid

In 2021, the total amount of income taxes paid was USD 2.3 billion (Q4 2021: USD 883 million), which was included within "Net cash flows from operating activities."

In 2020, the total amount of income taxes paid was USD 1.9 billion (Q4 2020: USD 618 million), of which USD 1.8 billion (Q4 2020: USD 618 million) was included within "Net cash flows from operating activities," and USD 88 million (Q4 2020: nil) was included within "Net cash flows used in investing activities from discontinued operations."

7.3. Cash flows arising from divestments and acquisitions of interests in associated companies, net

In 2021, divestments and acquisitions of interests in associated companies, net included USD 20.7 billion (Q4 2021: USD 20.7 billion) proceeds from the divestment of the Group's investment in Roche (see Note 3).

7.4. Cash flows arising from acquisitions and divestments of businesses, net

The following table is a summary of the cash flow impact of acquisitions and divestments of businesses. The most significant transactions are described in Note 3.

(USD millions)	Q4 2021	Q4 2020	FY 2021	FY 2020
Net assets recognized as a result of acquisitions of businesses	-415		-735	-10 173
Fair value of previously held equity interests		1	42	7
Contingent consideration payable, net	59		59	98
Payments, deferred consideration and other adjustments, net	-2	26	1	62
Cash flows used for/from acquisitions of businesses	-358	27	-633	-10 006
Cash flows from divestments of businesses, net ¹	15	27	66	49
Cash flows used for/from acquisitions and divestments of businesses, net	-343	54	-567	-9 957

¹ In 2021, USD 66 million (Q4 2021: USD 15 million) included USD 52 million (Q4 2021: USD 15 million) net cash inflows from divestments in previous years, and a USD 14 million (Q4 2021: nil) net cash inflow from a business divestment in 2021, comprised of an intangible asset.

In 2020, USD 49 million (Q4 2020: USD 27 million) represented the net cash inflows from divestments in previous years.

Notes 3 and 8 provide further information regarding acquisitions and divestments of businesses. All acquisitions were for cash.

8. Acquisition of businesses

Fair value of assets and liabilities arising from acquisitions of businesses:

(USD millions)	FY 2021	FY 2020
Property, plant and equipment		26
Right-of-use assets		32
Currently marketed products	292	196
Acquired research and development	262	8 600
Other intangible assets	98	218
Deferred tax assets	28	476
Non-current financial and other assets		49
Inventories		84
Trade receivables and financial and other current assets	1	109
Cash and cash equivalents	10	76
Deferred tax liabilities	-74	-1 977
Current and non-current financial debts	-1	-32
Current and non-current lease liabilities		-44
Trade payables and other liabilities	-4	-144
Net identifiable assets acquired	612	7 669
Acquired cash and cash equivalents	-10	-76
Non-controlling interests	-105	
Goodwill	238	2 580
Net assets recognized as a result of acquisitions of businesses	735	10 173

Note 3 details significant acquisitions of businesses, specifically, the acquisition of the cephalosporin antibiotics business from GSK in 2021; The Medicines Company and the Japanese business of AGI in 2020. The goodwill arising out of these acquisitions is attributable to the

buyer-specific synergies, the assembled workforce, and the accounting for deferred tax liabilities on the acquired assets. Goodwill of USD 107 million in 2021 (2020: USD 74 million) is tax deductible.

9. 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 20 to the Consolidated Financial Statements in our 2020 Annual Report and 2020 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 February 1, 2022, of significant developments in those proceedings, as well as any new significant proceedings commenced since the date of the 2020 Annual Report and 2020 Form 20-F.

Investigations and related litigations

Government generic pricing antitrust investigations, antitrust class actions

Since 2016, Sandoz Inc. has received a grand jury subpoena and a civil investigative demand and interrogatories from the Antitrust and Civil Divisions of the US Department of Justice (DOJ) in connection with those agencies' investigation into alleged price fixing and market allocation of generic drugs in the United States as well as alleged federal False Claims Act (FCA) violations. In 2020, Sandoz Inc. reached a resolution with the DOJ Antitrust Division, pursuant to which Sandoz Inc. paid USD 195 million and entered into a deferred prosecution agreement. The Sandoz Inc. resolution related to instances of misconduct at the company between 2013 and 2015 with regard to certain generic drugs sold in the United States. At the same time, Sandoz Inc. reached an agreement in principle with the DOJ Civil Division to resolve potential related damages claims arising out of the same conduct and products on behalf of US federal health programs under the FCA for USD 185 million and fully provisioned for this resolution. In 2021, Sandoz Inc. finalized the resolution with the DOJ Civil Division, which resolved those claims. In October 2021, Sandoz Inc. paid USD 185 million plus interest from the date of the agreement in principle to settle, and entered into a corporate integrity agreement (CIA) with the Office of Inspector General (OIG) of the US Department of Health and Human Services (HHS), under which Sandoz Inc. will implement additional controls. This resolution with the DOJ Civil Division resolves all federal government matters related to price fixing allegations and HHS will not seek to exclude Sandoz Inc. from specified federal healthcare programs.

Other investigations and cases relating to this matter are described in the "Investigations and related litigations – Government generic pricing antitrust investigations, antitrust class actions" entry in Note 20 to the 2020 Annual Report and 2020 Form 20-F.

340B Drug Pricing Program investigation

In February 2021, Novartis Pharmaceuticals Corporation (NPC) received a civil investigative subpoena from the Office of the Attorney General of the State of Vermont. The subpoena requests the production of documents and information concerning NPC's participation in the 340B Drug Pricing Program in Vermont. NPC provided documents and information to the Office of the Attorney General. In May 2021, NPC received a notification from the US Health Resources and Services Administration (HRSA) which stated that HRSA believes NPC's contract pharmacy policy violates the 340B statute and threatened potential enforcement action. NPC subsequently sued HRSA in the U.S. District Court ("USDC") for the District of Columbia to challenge HRSA's determination and to enjoin HRSA from taking action with respect to NPC's contract pharmacy policy. HRSA then referred the matter regarding NPC's contract pharmacy policy to OIG, which could result in the imposition of civil monetary penalties on NPC. In November 2021, the USDC issued a decision rejecting HRSA's interpretation of the 340B statute, vacated the violation notification and remanded the matter to HRSA. HRSA has filed an appeal.

Entresto matter

In September 2021, NPC received a civil investigative demand from the DOJ seeking information from 2016 to the present regarding the marketing and pricing of *Entresto*, including remuneration provided to healthcare professionals. NPC is cooperating with the DOJ's inquiry.

Japan investigation

In 2015, a trial started against a former Novartis Pharma K.K. (NPKK) employee, and also against NPKK under the dual liability concept in Japanese law, over allegations brought by the Tokyo District Public Prosecutor Office for alleged manipulation of data in sub-analysis publications of the Kyoto Heart Study regarding valsartan. The charges against NPKK were subject to a maximum total fine of JPY 4 million. In 2018, the Tokyo High Court upheld a not-guilty ruling of the Tokyo District Court in 2017 for both the former NPKK employee and NPKK, and that ruling was appealed to the Supreme Court of Japan. In June 2021, the Supreme Court issued its decision dismissing the prosecutors' appeal and upholding the Tokyo District Court's not-guilty ruling. This matter is now concluded.

Aimovig–Amgen dispute

In 2015 and 2017, Novartis and Amgen entered into agreements regarding the development and commercialization of *Aimovig*, which the companies co-commercialized in the US and to which Novartis has exclusive rights in all territories outside the US, excluding Japan. Amgen issued a termination notice in April 2019 based on an alleged material breach of the collaboration agreements, and this notice, as well as other ancillary matters, were the subject of legal proceedings between Novartis and Amgen. Novartis disputed Amgen's allegations vigorously. In 2020, the court ruled that Amgen did not have grounds to terminate the 2017 agreement and dismissed

that portion of their lawsuit. In January 2022, the parties reached a confidential agreement to settle all remaining claims in the litigation. Novartis returned its *Aimovig* US rights to Amgen, which is now exclusively commercializing *Aimovig* in the US. Novartis will continue to commercialize *Aimovig* in the rest of the world, with the exception of Japan. This matter is now concluded.

In addition to the matters described above, there have been other developments in the other legal matters described in Note 20 to the Consolidated Financial

Statements contained in our 2020 Annual Report and 2020 Form 20-F.

Novartis believes that its total provisions for investigations, product liability, arbitration and other legal matters are adequate based upon currently available information. However, given the inherent difficulties in estimating liabilities, there can be no assurance that additional liabilities and costs will not be incurred beyond the amounts provided.

10. Segmentation of key figures

The businesses of Novartis are divided operationally on a worldwide basis into two identified reporting segments, Innovative Medicines and Sandoz. 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.

The reporting segments are as follows:

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 franchises Hematology and Solid Tumor, and Novartis Pharmaceuticals consists of the global business franchises Immunology, Hepatology and Dermatology; Neuroscience; Ophthalmology; Cardiovascular, Renal and Metabolism; Respiratory and Allergy; 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 small molecule pharmaceuticals to third parties across a broad range of therapeutic areas, as well as finished dosage form of anti-infectives sold to third parties. In Anti-Infectives, Sandoz manufactures and supplies active pharmaceutical ingredients and intermediates, mainly antibiotics, for the Retail Generics business franchise and for sale to third-party companies. In Biopharmaceuticals, Sandoz develops, manufactures and markets protein- or other biotechnology-based products, including biosimilars, and provides biotechnology manufacturing services to other companies.

Corporate includes the costs of the Group headquarters and those of corporate coordination functions in major countries, and items that are not specific to one segment.

Our divisions are supported by Novartis Institutes for BioMedical Research, Global Drug Development, Novartis Technical Operations and Customer & Technology Solutions (formerly named Novartis Business Services).

Further details are provided in Note 3 to the Consolidated Financial Statements of the 2021 Annual Report.

Segmentation – Consolidated income statements

Fourth quarter

(USD millions)	Innovative Medicines		Sandoz		Corporate (including eliminations)		Group	
	Q4 2021	Q4 2020	Q4 2021	Q4 2020	Q4 2021	Q4 2020	Q4 2021	Q4 2020
Net sales to third parties	10 704	10 233	2 525	2 537			13 229	12 770
Sales to other segments	184	190	42	52	-226	-242		
Net sales	10 888	10 423	2 567	2 589	-226	-242	13 229	12 770
Other revenues	281	246	10	8	2	6	293	260
Cost of goods sold	-2 873	-3 097	-1 341	-1 383	238	263	-3 976	-4 217
Gross profit	8 296	7 572	1 236	1 214	14	27	9 546	8 813
Selling, general and administration	-3 274	-3 211	-568	-572	-143	-141	-3 985	-3 924
Research and development	-2 169	-2 082	-240	-251			-2 409	-2 333
Other income	186	422	50	93	135	128	371	643
Other expense	-571	-315	-92	-112	-298	-128	-961	-555
Operating income	2 468	2 386	386	372	-292	-114	2 562	2 644
as % of net sales	23.1%	23.3%	15.3%	14.7%			19.4%	20.7%
Income from associated companies	4				14 617	141	14 621	141
Interest expense							-206	-201
Other financial income and expense							-26	-25
Income before taxes							16 951	2 559
Income taxes							-645	-460
Net income							16 306	2 099

Full year

(USD millions)	Innovative Medicines		Sandoz		Corporate (including eliminations)		Group	
	FY 2021	FY 2020	FY 2021	FY 2020	FY 2021	FY 2020	FY 2021	FY 2020
Net sales to third parties	41 995	39 013	9 631	9 646			51 626	48 659
Sales to other segments	795	792	180	189	-975	-981		
Net sales	42 790	39 805	9 811	9 835	-975	-981	51 626	48 659
Other revenues	1 179	1 018	61	53	11	168	1 251	1 239
Cost of goods sold	-11 751	-10 927	-5 147	-5 252	1 031	1 058	-15 867	-15 121
Gross profit	32 218	29 896	4 725	4 636	67	245	37 010	34 777
Selling, general and administration	-12 306	-11 657	-2 062	-2 076	-518	-464	-14 886	-14 197
Research and development	-8 641	-8 118	-899	-862			-9 540	-8 980
Other income	1 149	922	233	176	470	644	1 852	1 742
Other expense	-1 732	-1 871	-397	-831	-618	-488	-2 747	-3 190
Operating income	10 688	9 172	1 600	1 043	-599	-63	11 689	10 152
as % of net sales	25.5%	23.5%	16.6%	10.8%			22.6%	20.9%
Income from associated companies	5	1	2	2	15 332	670	15 339	673
Interest expense							-811	-869
Other financial income and expense							-80	-78
Income before taxes							26 137	9 878
Income taxes							-2 119	-1 807
Net income							24 018	8 071

Segmentation – Additional consolidated balance sheets and income statements disclosure

(USD millions)	Innovative Medicines		Sandoz		Corporate (including eliminations)		Group	
	Dec 31, 2021	Dec 31, 2020	Dec 31, 2021	Dec 31, 2020	Dec 31, 2021	Dec 31, 2020	Dec 31, 2021	Dec 31, 2020
Total assets¹	79 220	83 112	16 192	16 825	36 383	27 841	131 795	127 778
Total liabilities¹	-15 929	-15 472	-3 632	-3 786	-44 412	-51 854	-63 973	-71 112
Total equity							67 822	56 666
Net debt ²					868	24 481	868	24 481
Net operating assets	63 291	67 640	12 560	13 039	-7 161	468	68 690	81 147

Included in net operating assets are:

Property, plant and equipment	9 168	9 863	1 901	1 849	476	551	11 545	12 263
Goodwill	21 562	21 718	8 026	8 274	7	7	29 595	29 999
Intangible assets other than goodwill	32 357	35 121	1 577	1 543	248	145	34 182	36 809

¹ The December 31, 2020 total assets and total liabilities have been adjusted from the previously reported amounts due to a change in the presentation of the deferred tax assets and deferred tax liabilities on the consolidated balance sheet, to conform with the 2021 presentation (see Note 4 for additional disclosures).

² See page 59 for additional disclosures related to net debt.

The following tables show the property, plant and equipment impairment charges and reversals, and the intangible asset impairment charges:

Fourth quarter

(USD millions)	Innovative Medicines		Sandoz		Corporate		Group	
	Q4 2021	Q4 2020	Q4 2021	Q4 2020	Q4 2021	Q4 2020	Q4 2021	Q4 2020
Property, plant and equipment impairment charges	-131	-33	-8	-4	-1		-140	-37
Property, plant and equipment impairment reversal	1		1				2	
Intangible assets impairment charges	-5	-191	-9	-51	-7	-5	-21	-247

Full year

(USD millions)	Innovative Medicines		Sandoz		Corporate		Group	
	FY 2021	FY 2020	FY 2021	FY 2020	FY 2021	FY 2020	FY 2021	FY 2020
Property, plant and equipment impairment charges	-315	-326	-68	-121	-1		-384	-447
Property, plant and equipment impairment reversal	44	2	59	5			103	7
Intangible assets impairment charges ¹	-367	-768	-28	-141	-8	-5	-403	-914

¹ 2021 includes an impairment of USD 201 million in Innovative Medicines related to the write-down of IPR&D related to cessation of clinical development program GTX312.

2020 includes an impairment of USD 485 million in Innovative Medicines related to the write-down of IPR&D related to cessation of clinical development program ZPL389 for atopic dermatitis and USD 181 million related to a partial write-down of the *Votrient* currently marketed product.

In the fourth quarter and full year period of 2021, there were no reversals of prior-year impairment charges on intangible assets (Q4 2020 and FY 2020: nil).

Segmentation – Net sales by region¹

Fourth quarter

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc ²	Q4 2021 % of total	Q4 2020 % of total
Innovative Medicines						
Europe	3 795	3 663	4	8	35	36
US	3 945	3 653	8	8	37	36
Asia/Africa/Australasia	2 246	2 263	-1	1	21	22
Canada and Latin America	718	654	10	13	7	6
Total	10 704	10 233	5	7	100	100
<i>Of which in Established Markets</i>	8 082	7 821	3	5	76	76
<i>Of which in Emerging Growth Markets</i>	2 622	2 412	9	11	24	24
Sandoz						
Europe	1 382	1 375	1	4	55	54
US	475	517	-8	-8	19	20
Asia/Africa/Australasia	452	441	2	5	18	17
Canada and Latin America	216	204	6	5	8	9
Total	2 525	2 537	0	2	100	100
<i>Of which in Established Markets</i>	1 774	1 843	-4	-2	70	73
<i>Of which in Emerging Growth Markets</i>	751	694	8	11	30	27
Group						
Europe	5 177	5 038	3	7	39	39
US	4 420	4 170	6	6	33	33
Asia/Africa/Australasia	2 698	2 704	0	2	20	21
Canada and Latin America	934	858	9	11	8	7
Total	13 229	12 770	4	6	100	100
<i>Of which in Established Markets</i>	9 856	9 664	2	4	75	76
<i>Of which in Emerging Growth Markets</i>	3 373	3 106	9	11	25	24

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

² Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 50.

Segmentation – Net sales by region¹

Full year

	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc ²	FY 2021 % of total	FY 2020 % of total
Innovative Medicines						
Europe	14 919	13 484	11	8	36	35
US	14 999	14 342	5	5	36	37
Asia/Africa/Australasia	9 304	8 718	7	4	22	22
Canada and Latin America	2 773	2 469	12	14	6	6
Total	41 995	39 013	8	6	100	100
<i>Of which in Established Markets</i>	31 459	29 643	6	4	75	76
<i>Of which in Emerging Growth Markets</i>	10 536	9 370	12	11	25	24
Sandoz						
Europe	5 278	5 231	1	-2	55	54
US	1 819	2 142	-15	-15	19	22
Asia/Africa/Australasia	1 662	1 501	11	9	17	16
Canada and Latin America	872	772	13	10	9	8
Total	9 631	9 646	0	-2	100	100
<i>Of which in Established Markets</i>	6 855	7 089	-3	-6	71	73
<i>Of which in Emerging Growth Markets</i>	2 776	2 557	9	8	29	27
Group						
Europe	20 197	18 715	8	5	39	38
US	16 818	16 484	2	2	33	34
Asia/Africa/Australasia	10 966	10 219	7	5	21	21
Canada and Latin America	3 645	3 241	12	13	7	7
Total	51 626	48 659	6	4	100	100
<i>Of which in Established Markets</i>	38 314	36 732	4	2	74	75
<i>Of which in Emerging Growth Markets</i>	13 312	11 927	12	11	26	25

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

² Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 50.

Segmentation – Net sales by business franchise

Innovative Medicines Division net sales by business franchise

Fourth quarter

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc ²
Hematology				
<i>Tasigna</i>	508	513	-1	1
<i>Promacta/Revolade</i>	518	471	10	12
<i>Jakavi</i>	408	376	9	12
<i>Gleevec/Glivec</i>	233	291	-20	-19
<i>Kymriah</i>	143	141	1	4
<i>Exjade/Jadenu</i>	129	156	-17	-15
<i>Adakveo</i>	43	34	26	27
Other	90	93	-3	-3
Total Hematology	2 072	2 075	0	2
Solid Tumor				
<i>Tafinlar + Mekinist</i>	458	408	12	14
<i>Sandostatin</i>	345	363	-5	-4
<i>Afinitor/Votubia</i>	174	259	-33	-31
<i>Kisqali</i>	285	184	55	58
<i>Votrient</i>	139	147	-5	-4
<i>Lutathera</i>	115	109	6	6
<i>Piqray</i>	87	84	4	3
<i>Tabrecta</i>	27	17	59	57
Other	159	171	-7	-5
Total Solid Tumor	1 789	1 742	3	4
Total Novartis Oncology business unit	3 861	3 817	1	3
Immunology, Hepatology and Dermatology				
<i>Cosentyx</i>	1 243	1 109	12	13
<i>Ilaris</i>	284	240	18	23
Total Immunology, Hepatology and Dermatology	1 527	1 349	13	15
Neuroscience				
<i>Gilenya</i>	656	760	-14	-12
<i>Zolgensma</i>	342	254	35	36
<i>Kesimpta</i>	147	14	nm	nm
<i>Mayzent</i>	81	57	42	46
<i>Aimovig</i>	59	56	5	6
Other	12	12	0	-17
Total Neuroscience	1 297	1 153	12	14
Ophthalmology				
<i>Lucentis</i>	508	530	-4	-2
<i>Xiidra</i>	134	108	24	24
<i>Beovu</i>	51	37	38	41
Other	361	450	-20	-18
Total Ophthalmology	1 054	1 125	-6	-4
Cardiovascular, Renal and Metabolism				
<i>Entresto</i>	949	716	33	34
<i>Leqvio</i>	4		nm	nm
Total Cardiovascular, Renal and Metabolism	953	716	33	35
Respiratory and Allergy				
<i>Xolair</i> ¹	373	335	11	15
<i>Ultibro Group</i>	148	160	-8	-5
Other	17	10	70	107
Total Respiratory and Allergy	538	505	7	10
Established Medicines				
<i>Galvus Group</i>	278	293	-5	0
<i>Exforge Group</i>	197	247	-20	-20
<i>Diovan Group</i>	189	224	-16	-14
<i>Zortress/Certican</i>	110	112	-2	3
<i>Voltaren/Cataflam</i>	97	95	2	5
<i>Neoral/Sandimmun(e)</i>	89	103	-14	-11
Contract manufacturing	108		nm	nm
Other	406	494	-18	-16
Total Established Medicines	1 474	1 568	-6	-3
Total Novartis Pharmaceuticals business unit	6 843	6 416	7	9
Total division net sales	10 704	10 233	5	7

¹ Net sales reflect *Xolair* sales for all indications.

² Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 50.

Innovative Medicines Division net sales by business franchise

Full year

	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc ²
Hematology				
<i>Tasigna</i>	2 060	1 958	5	4
<i>Promacta/Revolade</i>	2 016	1 738	16	15
<i>Jakavi</i>	1 595	1 339	19	16
<i>Gleevec/Glivec</i>	1 024	1 188	-14	-15
<i>Kymriah</i>	587	474	24	22
<i>Exjade/Jadenu</i>	563	653	-14	-16
<i>Adakveo</i>	164	105	56	56
Other	354	327	8	6
Total Hematology	8 363	7 782	7	6
Solid Tumor				
<i>Tafinlar + Mekinist</i>	1 693	1 542	10	8
<i>Sandostatin</i>	1 413	1 439	-2	-3
<i>Afinitor/Votubia</i>	938	1 083	-13	-14
<i>Kisqali</i>	937	687	36	36
<i>Votrient</i>	577	635	-9	-10
<i>Lutathera</i>	475	445	7	6
<i>Piqray</i>	329	320	3	3
<i>Tabrecta</i>	90	35	157	155
Other	661	743	-11	-13
Total Solid Tumor	7 113	6 929	3	2
Total Novartis Oncology business unit	15 476	14 711	5	4
Immunology, Hepatology and Dermatology				
<i>Cosentyx</i>	4 718	3 995	18	17
<i>Ilaris</i>	1 059	873	21	22
Total Immunology, Hepatology and Dermatology	5 777	4 868	19	18
Neuroscience				
<i>Gilenya</i>	2 787	3 003	-7	-9
<i>Zolgensma</i>	1 351	920	47	46
<i>Kesimpta</i>	372	15	nm	nm
<i>Mayzent</i>	281	170	65	65
<i>Aimovig</i>	215	164	31	27
Other	46	51	-10	-14
Total Neuroscience	5 052	4 323	17	15
Ophthalmology				
<i>Lucentis</i>	2 160	1 933	12	8
<i>Xiidra</i>	468	376	24	24
<i>Beovu</i>	186	190	-2	-3
Other	1 516	1 911	-21	-22
Total Ophthalmology	4 330	4 410	-2	-4
Cardiovascular, Renal and Metabolism				
<i>Entresto</i>	3 548	2 497	42	40
<i>Leqvio</i>	12		nm	nm
Other		1	nm	nm
Total Cardiovascular, Renal and Metabolism	3 560	2 498	43	40
Respiratory and Allergy				
<i>Xolair</i> ¹	1 428	1 251	14	12
<i>Ultibro Group</i>	584	623	-6	-10
Other	53	26	104	102
Total Respiratory and Allergy	2 065	1 900	9	6
Established Medicines				
<i>Galvus Group</i>	1 092	1 199	-9	-8
<i>Exforge Group</i>	901	980	-8	-11
<i>Diovan Group</i>	773	1 003	-23	-25
<i>Zortress/Certican</i>	431	452	-5	-6
<i>Voltaren/Cataflam</i>	373	360	4	3
<i>Neoral/Sandimmun(e)</i>	368	393	-6	-8
Contract manufacturing	108		nm	nm
Other	1 689	1 916	-12	-13
Total Established Medicines	5 735	6 303	-9	-10
Total Novartis Pharmaceuticals business unit	26 519	24 302	9	7
Total division net sales	41 995	39 013	8	6

¹ Net sales reflect *Xolair* sales for all indications.

² Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 50.

nm = not meaningful

Net sales of the top 20 Innovative Medicines Division products in 2021

Fourth quarter

Brands	Business franchise	Key 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>Cosentyx</i>	Immunology, Hepatology and Dermatology	Psoriasis, ankylosing spondylitis, psoriatic arthritis and non-radiographic axial spondyloarthritis	770	12	473	12	15	1 243	12	13
<i>Entresto</i>	Cardiovascular, Renal and Metabolism	Chronic heart failure	520	44	429	21	24	949	33	34
<i>Gilenya</i>	Neuroscience	Relapsing multiple sclerosis	345	-9	311	-18	-15	656	-14	-12
<i>Lucentis</i>	Ophthalmology	Age-related macular degeneration			508	-4	-2	508	-4	-2
<i>Tasigna</i>	Hematology	Chronic myeloid leukemia	230	4	278	-5	-1	508	-1	1
<i>Promacta/Revolade</i>	Hematology	Immune thrombocytopenia (ITP), severe aplastic anemia (SAA)	246	10	272	10	14	518	10	12
<i>Tafinlar + Mekinist</i>	Solid Tumor	BRAF V600+ metastatic and adjuvant melanoma; advanced non-small cell lung cancer (NSCLC)	161	8	297	15	18	458	12	14
<i>Jakavi</i>	Hematology	Myelofibrosis (MF), polycythemia vera (PV)			408	9	12	408	9	12
<i>Xolair</i> ¹	Respiratory and Allergy	Severe allergic asthma (SAA), chronic spontaneous urticaria (CSU) and nasal polyps			373	11	15	373	11	15
<i>Sandostatin</i>	Solid Tumor	Carcinoid tumors and acromegaly	208	-1	137	-10	-8	345	-5	-4
<i>Zolgensma</i>	Neuroscience	Spinal muscular atrophy (SMA)	118	11	224	51	58	342	35	36
<i>Galvus Group</i>	Established Medicines	Type 2 diabetes			278	-5	0	278	-5	0
<i>Ilaris</i>	Immunology, Hepatology and Dermatology	Auto-inflammatory (CAPS, TRAPS, HIDS/MKD, FMF, SJA, AOSD and gout)	145	28	139	9	17	284	18	23
<i>Gleevec/Glivec</i>	Hematology	Chronic myeloid leukemia and GIST	61	-13	172	-22	-20	233	-20	-19
<i>Afinitor/Votubia</i>	Solid Tumor	Breast cancer/TSC	74	-53	100	-2	4	174	-33	-31
<i>Kisqali</i>	Solid Tumor	HR+/HER2- metastatic breast cancer	98	20	187	83	88	285	55	58
<i>Exforge Group</i>	Established Medicines	Hypertension	4	33	193	-21	-20	197	-20	-20
<i>Diovan Group</i>	Established Medicines	Hypertension	11	-65	178	-8	-6	189	-16	-14
<i>Kymriah</i>	Hematology	r/r pediatric and young adults ALL, DLBCL	58	9	85	-3	0	143	1	4
<i>Ultibro Group</i>	Respiratory and Allergy	Chronic obstructive pulmonary disease (COPD)			148	-8	-5	148	-8	-5
Top 20 products total			3 049	7	5 190	3	6	8 239	5	7
Rest of portfolio			896	11	1 569	1	4	2 465	4	6
Total division sales			3 945	8	6 759	3	6	10 704	5	7

¹ Net sales reflect *Xolair* sales for all indications.

² Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 50.

Net sales of the top 20 Innovative Medicines Division products in 2021

Full year

Brands	Business franchise	Key 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>Cosentyx</i>	Immunology, Hepatology and Dermatology	Psoriasis, ankylosing spondylitis, psoriatic arthritis and non-radiographic axial spondyloarthritis	2 883	15	1 835	24	20	4 718	18	17
<i>Entresto</i>	Cardiovascular, Renal and Metabolism	Chronic heart failure	1 712	34	1 836	50	45	3 548	42	40
<i>Gilenya</i>	Neuroscience	Relapsing multiple sclerosis	1 427	-9	1 360	-6	-8	2 787	-7	-9
<i>Lucentis</i>	Ophthalmology	Age-related macular degeneration			2 160	12	8	2 160	12	8
<i>Tasigna</i>	Hematology	Chronic myeloid leukemia	882	3	1 178	7	5	2 060	5	4
<i>Promacta/Revolade</i>	Hematology	Immune thrombocytopenia (ITP), severe aplastic anemia (SAA)	947	14	1 069	18	17	2 016	16	15
<i>Tafinlar + Mekinist</i>	Solid Tumor	BRAF V600+ metastatic and adjuvant melanoma; advanced non-small cell lung cancer (NSCLC)	606	7	1 087	12	9	1 693	10	8
<i>Jakavi</i>	Hematology	Myelofibrosis (MF), polycythemia vera (PV)			1 595	19	16	1 595	19	16
<i>Xolair</i> ¹	Respiratory and Allergy	Severe allergic asthma (SAA), chronic spontaneous urticaria (CSU) and nasal polyps			1 428	14	12	1 428	14	12
<i>Sandostatin</i>	Solid Tumor	Carcinoid tumors and acromegaly	843	1	570	-5	-8	1 413	-2	-3
<i>Zolgensma</i>	Neuroscience	Spinal muscular atrophy (SMA)	469	2	882	91	90	1 351	47	46
<i>Galvus Group</i>	Established Medicines	Type 2 diabetes			1 092	-9	-8	1 092	-9	-8
<i>Ilaris</i>	Immunology, Hepatology and Dermatology	Auto-inflammatory (CAPS, TRAPS, HIDS/MKD, FMF, SJA, AOSD and gout)	501	25	558	18	19	1 059	21	22
<i>Gleevec/Glivec</i>	Hematology	Chronic myeloid leukemia and GIST	263	-17	761	-13	-15	1 024	-14	-15
<i>Afinitor/Votubia</i>	Solid Tumor	Breast cancer/TSC	521	-19	417	-5	-6	938	-13	-14
<i>Kisqali</i>	Solid Tumor	HR+/HER2- metastatic breast cancer	339	7	598	62	61	937	36	36
<i>Exforge Group</i>	Established Medicines	Hypertension	14	-13	887	-8	-11	901	-8	-11
<i>Diovan Group</i>	Established Medicines	Hypertension	51	-59	722	-18	-20	773	-23	-25
<i>Kymriah</i>	Hematology	r/r pediatric and young adults ALL, DLBCL	230	12	357	33	30	587	24	22
<i>Ultibro Group</i>	Respiratory and Allergy	Chronic obstructive pulmonary disease (COPD)			584	-6	-10	584	-6	-10
Top 20 products total			11 688	7	20 976	12	9	32 664	10	8
Rest of portfolio			3 311	-3	6 020	2	0	9 331	0	-1
Total division sales			14 999	5	26 996	9	7	41 995	8	6

¹ Net sales reflect *Xolair* sales for all indications.

² Constant currencies (cc) is a non-IFRS measure. A definition of non-IFRS measures used by Novartis can be found starting on page 50.

Sandoz Division net sales by business franchise

Fourth quarter

	Q4 2021 USD m	Q4 2020 USD m	% change USD	% change cc ²
Retail Generics ¹	1 853	1 887	-2	0
Biopharmaceuticals	555	514	8	11
Anti-Infectives ¹	117	136	-14	-13
Total division net sales	2 525	2 537	0	2

¹ Sandoz total anti-infectives net sales amounted to USD 337 million (Q4 2020: USD 320 million), of which USD 220 million (Q4 2020: USD 184 million) is sold through the Retail Generics business franchise and USD 117 million (Q4 2020: USD 136 million) is sold to other third-party companies through the Anti-Infectives business 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 50.

Full year

	FY 2021 USD m	FY 2020 USD m	% change USD	% change cc ²
Retail Generics ¹	7 092	7 244	-2	-4
Biopharmaceuticals	2 116	1 928	10	7
Anti-Infectives ¹	423	474	-11	-12
Total division net sales	9 631	9 646	0	-2

¹ Sandoz total anti-infectives net sales amounted to USD 1.1 billion (2020: USD 1.2 billion), of which USD 707 million (2020: USD 694 million) is sold through the Retail Generics business franchise and USD 423 million (2020: USD 474 million) is sold to other third-party companies through the Anti-Infectives business 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 50.

The product portfolio of Sandoz is widely spread in 2021 and 2020.

Segmentation – Other revenue

Fourth quarter

(USD millions)	Innovative Medicines		Sandoz		Corporate		Group	
	Q4 2021	Q4 2020	Q4 2021	Q4 2020	Q4 2021	Q4 2020	Q4 2021	Q4 2020
Profit sharing income	236	210					236	210
Royalty income	14	27	6	6	2	6	22	39
Milestone income	9	2	24				33	2
Other ¹	22	7	-20	2			2	9
Total other revenues	281	246	10	8	2	6	293	260

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

Full year

(USD millions)	Innovative Medicines		Sandoz		Corporate		Group	
	FY 2021	FY 2020	FY 2021	FY 2020	FY 2021	FY 2020	FY 2021	FY 2020
Profit sharing income	873	835					873	835
Royalty income	74	107	24	25	11	168	109	300
Milestone income	127	39	28	11			155	50
Other ¹	105	37	9	17			114	54
Total other revenues	1 179	1 018	61	53	11	168	1 251	1 239

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

11. Commitments and contingencies

Research and development commitments

The Group has entered into long-term research and development agreements with various institutions related to intangible assets, which provide for potential milestone payments by Novartis. As of December 31, 2021, the Group's commitments to make payments under those agreements, and their estimated timing, were as follows:

(USD millions)	2021
2022	602
2023	1 088
2024	472
2025	629
2026	113
Thereafter	3 839
Total	6 743

12. Events subsequent to the December 31, 2021, consolidated balance sheet date

***Aimovig*–Amgen dispute**

On January 31, 2022 Novartis and Amgen entered into a settlement agreement related to *Aimovig* litigation. For additional information see Note 9.

Dividend proposal for 2021 and approval of the Group's 2021 consolidated financial statements

On February 1, 2022, the Novartis AG Board of Directors proposed the acceptance of the 2021 consolidated financial statements of the Novartis Group for approval by the Annual General Meeting on March 4, 2022. Furthermore, also on February 1, 2022, the Board proposed a dividend of CHF 3.10 per share to be approved at the Annual General Meeting on March 4, 2022. If approved, total dividend payments would amount to approximately USD 7.6 billion (2020: USD 7.4 billion), using the CHF/USD December 31, 2021, exchange rate.

Supplementary information (unaudited)

Non-IFRS disclosures

Novartis uses certain non-IFRS metrics when measuring performance, especially when measuring current-year results against prior periods, including core results, constant currencies, free cash flow and net debt.

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 their usefulness to investors.

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

As an internal measure of Group performance, these non-IFRS measures have limitations, and the Group's performance management process is not solely restricted to these metrics.

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- and divestment-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, and 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 since, core measures exclude items that can vary significantly from year to year, they 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.

As an internal measure of Group performance, the core results measures have limitations, and the Group's performance management process is not solely restricted to these metrics. A limitation of the core results 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, impairments to property, plant and equipment and restructurings and related items.

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
- 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 that 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.

Free cash flow

Novartis defines free cash flow as net cash flows from operating activities and cash flows from investing activities associated with purchases and sales of property, plant and equipment, of intangible assets, of financial assets and of other non-current assets. Excluded from free cash flow are cash flows from investing activities associated with acquisitions and divestments of businesses and of interests in associated companies, purchases and sales of marketable securities, commodities,

time deposits and net cash flows from financing activities.

Free cash flow is a non-IFRS measure and is not intended to be a substitute measure for net cash flows from operating activities as determined under IFRS. 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 investment in strategic opportunities, returning to shareholders and for debt repayment. Free cash flow is a non-IFRS measure, which means it should not be interpreted as a measure determined under IFRS.

Net debt

Novartis calculates net debt as current financial debts and derivative financial instruments plus non-current financial debts less cash and cash equivalents and marketable securities, commodities, time deposits and derivative financial instruments.

Net debt is a non-IFRS measure, which means it should not be interpreted as a measure 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.

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

Fourth quarter

(USD millions unless indicated otherwise)	Innovative Medicines		Sandoz		Corporate		Group	
	Q4 2021	Q4 2020	Q4 2021	Q4 2020	Q4 2021	Q4 2020	Q4 2021	Q4 2020
IFRS operating income	2 468	2 386	386	372	-292	-114	2 562	2 644
Amortization of intangible assets	877	827	61	66			938	893
Impairments								
Intangible assets		192	8	51			8	243
Property, plant and equipment related to the Group-wide rationalization of manufacturing sites	125	28	7	4			132	32
Other property, plant and equipment	-2						-2	
Total impairment charges	123	220	15	55			138	275
Acquisition or divestment of businesses and related items								
- Income		-2			-11	-6	-11	-8
- Expense		17			89	10	89	27
Total acquisition or divestment of businesses and related items, net		15			78	4	78	19
Other items								
Divestment gains	-57	-170		-27	-9	12	-66	-185
Financial assets – fair value adjustments	39	-91			-27	21	12	-70
Restructuring and related items								
- Income	-11	-22	-12	-11	-1	-7	-24	-40
- Expense	154	169	70	64	12	9	236	242
Legal-related items								
- Income								
- Expense		15	6	8			6	23
Additional income	-115	-130	2	-1	-84	-219	-197	-350
Additional expense	118	-7		2	18	55	136	50
Total other items	128	-236	66	35	-91	-129	103	-330
Total adjustments	1 128	826	142	156	-13	-125	1 257	857
Core operating income	3 596	3 212	528	528	-305	-239	3 819	3 501
as % of net sales	33.6%	31.4%	20.9%	20.8%			28.9%	27.4%
Income from associated companies	4				14 617	141	14 621	141
Core adjustments to income from associated companies, net of tax					-14 528	88	-14 528	88
Interest expense							-206	-201
Other financial income and expense							-26	-25
Core adjustments to other financial income and expense							2	5
Income taxes, adjusted for above items (core income taxes)							-547	-475
Core net income							3 135	3 034
Core net income attributable to shareholders of Novartis AG							3 137	3 029
Core basic EPS (USD)¹							1.40	1.34

¹ 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)	Innovative Medicines		Sandoz		Corporate		Group	
	FY 2021	FY 2020	FY 2021	FY 2020	FY 2021	FY 2020	FY 2021	FY 2020
IFRS operating income	10 688	9 172	1 600	1 043	-599	-63	11 689	10 152
Amortization of intangible assets	3 528	2 999	236	366			3 764	3 365
Impairments								
Intangible assets	360	759	27	141			387	900
Property, plant and equipment related to the Group-wide rationalization of manufacturing sites	219	321	7	112			226	433
Other property, plant and equipment	40			2			40	2
Total impairment charges	619	1 080	34	255			653	1 335
Acquisition or divestment of businesses and related items								
- Income	-2	-5			-64	-73	-66	-78
- Expense	1	107		22	106	89	107	218
Total acquisition or divestment of businesses and related items, net	-1	102		22	42	16	41	140
Other items								
Divestment gains	-649	-348	-4	-27	-75	-39	-728	-414
Financial assets – fair value adjustments	-43	-153			5	-183	-38	-336
Restructuring and related items								
- Income	-32	-36	-36	-30	-6	-28	-74	-94
- Expense	833	484	193	252	32	35	1 058	771
Legal-related items								
- Income			-11				-11	
- Expense	170	555	53	406		-26	223	935
Additional income	-139	-264	-1	-6	-138	-361	-278	-631
Additional expense	241	54		53	48	86	289	193
Total other items	381	292	194	648	-134	-516	441	424
Total adjustments	4 527	4 473	464	1 291	-92	-500	4 899	5 264
Core operating income	15 215	13 645	2 064	2 334	-691	-563	16 588	15 416
as % of net sales	36.2%	35.0%	21.4%	24.2%			32.1%	31.7%
Income from associated companies	5	1	2	2	15 332	670	15 339	673
Core adjustments to income from associated companies, net of tax					-14 346	424	-14 346	424
Interest expense							-811	-869
Other financial income and expense							-80	-78
Core adjustments to other financial income and expense							39	-5
Income taxes, adjusted for above items (core income taxes)							-2 635	-2 403
Core net income							14 094	13 158
Core net income attributable to shareholders of Novartis AG							14 097	13 159
Core basic EPS (USD)¹							6.29	5.78

¹ 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 2021 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items ³	Other items ⁴	Q4 2021 Core results	Q4 2020 Core results
Gross profit	9 546	908	1		-25	10 430	9 956
Operating income	2 562	938	138	78	103	3 819	3 501
Income before taxes	16 951	966	138	-14 494	121	3 682	3 509
Income taxes ⁵	-645					-547	-475
Net income	16 306					3 135	3 034
Basic EPS (USD)⁶	7.29					1.40	1.34

The following are adjustments to arrive at core gross profit

Cost of goods sold	-3 976	908	1		-25	-3 092	-3 074
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The following are adjustments to arrive at core operating income

Selling, general and administration	-3 985				1	-3 984	-3 908
Research and development	-2 409	30	7		3	-2 369	-2 297
Other income	371		1	-11	-243	118	15
Other expense	-961		129	89	367	-376	-265

The following are adjustments to arrive at core income before taxes

Income from associated companies	14 621	28		-14 556		93	229
Other financial income and expense	-26			-16	18	-24	-20

¹ Amortization of intangible assets: cost of goods sold includes the amortization of acquired rights to currently marketed products and other production-related intangible assets; research and development includes the amortization of acquired rights for technologies; income from associated companies includes USD 28 million for the Novartis share of the estimated Roche core items

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

³ Acquisition or divestment of businesses and related items, including restructuring and integration charges: other income includes adjustments to portfolio transformation accruals; other expense includes transitional service fee expenses related to the Alcon distribution and adjustments to accruals; income from associated companies includes the gain related to the divestment of our investment in Roche; other financial income and expense includes other financial gains related to the divestment of our investment in Roche

⁴ Other items: cost of goods sold, research and development and other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; research and development, other income and other expense include other restructuring income and charges and related items; selling, general and administration includes adjustments to provisions; cost of goods sold, research and development and other expense include adjustments to contingent considerations and provisions; other income includes net gains from the divestment of products; other income and other expense include fair value adjustments and divestment gains and losses on financial assets and adjustments to environmental provisions; other expense also includes legal-related items; other financial income and expense includes a charge related to the monetary loss due to hyperinflation in Argentina and Venezuela and a revaluation impact of a financial liability incurred through the Alcon distribution

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 13.3 billion to arrive at the core results before tax amounts to USD 98 million. Excluding the gain on the divestment of our investment in Roche, the tax on the total adjustments of USD 1.3 billion to arrive at the core results before tax amounts to USD 98 million and the average tax rate on the adjustments was 7.5%.

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 2021 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items ³	Other items ⁴	FY 2021 Core results	FY 2020 Core results
Gross profit	37 010	3 655	18		414	41 097	38 663
Operating income	11 689	3 764	653	41	441	16 588	15 416
Income before taxes	26 137	3 974	653	-14 531	496	16 729	15 561
Income taxes ⁵	-2 119					-2 635	-2 403
Net income	24 018					14 094	13 158
Basic EPS (USD)⁶	10.71					6.29	5.78

The following are adjustments to arrive at core gross profit

Cost of goods sold	-15 867	3 655	18		414	-11 780	-11 099
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The following are adjustments to arrive at core operating income

Selling, general and administration	-14 886				71	-14 815	-14 093
Research and development	-9 540	109	369		21	-9 041	-8 484
Other income	1 852		-100	-66	-1 265	421	323
Other expense	-2 747		366	107	1 200	-1 074	-993

The following are adjustments to arrive at core income before taxes

Income from associated companies	15 339	210		-14 556		993	1 097
Other financial income and expense	-80			-16	55	-41	-83

¹ Amortization of intangible assets: cost of goods sold includes the amortization of acquired rights to currently marketed products and other production-related intangible assets; research and development includes the amortization of acquired rights for technologies; income from associated companies includes USD 210 million for the Novartis share of the estimated Roche core items

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

³ Acquisition or divestment of businesses and related items, including restructuring and integration charges: other income includes adjustments to portfolio transformation and Alcon spin-off accruals; other income and other expense include transitional service-fee income and expenses related to the Alcon distribution; other expense also includes adjustments to provisions; income from associated companies includes the gain related to the divestment of our investment in Roche; other financial income and expense includes other financial gains related to the divestment of our investment in Roche

⁴ Other items: cost of goods sold, research and development, 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, other income and other expense include other restructuring income and charges and related items; cost of goods sold, research and development, other income and other expense also include adjustments to contingent considerations; selling, general and administration, research and development, other income and other expense include adjustments to provisions; other income and other expense also include gains and losses from the divestment of products and financial assets and fair value adjustments on financial assets, adjustments to environmental provisions and legal-related items; other financial income and expense includes a charge related to the monetary loss due to hyperinflation in Argentina and Venezuela and a revaluation impact of a financial liability incurred through the Alcon distribution

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 9.4 billion to arrive at the core results before tax amounts to USD 516 million. Excluding the gain on the divestment of our investment in Roche, the tax on the total adjustments of USD 5.2 billion to arrive at the core results before tax amounts to USD 516 million and the average tax rate on the adjustments was 10.0%.

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 2021 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items	Other items ³	Q4 2021 Core results	Q4 2020 Core results
Gross profit	8 296	847			-59	9 084	8 589
Operating income	2 468	877	123		128	3 596	3 212

The following are adjustments to arrive at core gross profit

Cost of goods sold	-2 873	847			-59	-2 085	-2 080
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The following are adjustments to arrive at core operating income

Selling, general and administration	-3 274				-1	-3 275	-3 199
Research and development	-2 169	30			3	-2 136	-2 055
Other income	186		-2		-65	119	51
Other expense	-571		125		250	-196	-174

¹ Amortization of intangible assets: cost of goods sold includes the amortization of acquired rights to currently marketed products and other production-related intangible assets; research and development includes the amortization of acquired rights for technologies

² Impairments: other income and other expense include reversals of impairment charges and impairment charges related to property, plant and equipment

³ Other items: cost of goods sold, research and development and other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; research and development, other income and other expense include other restructuring income and charges and related items; cost of goods sold, research and development and other expense include adjustments to contingent considerations and provisions; selling, general and administration includes adjustments to provisions; other income includes net gains from the divestment of products and financial assets; other income and other expense include fair value adjustments on financial assets; other expense also includes adjustments to environmental provisions

Full year

(USD millions)	FY 2021 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items ³	Other items ⁴	FY 2021 Core results	FY 2020 Core results
Gross profit	32 218	3 419			344	35 981	33 275
Operating income	10 688	3 528	619	-1	381	15 215	13 645

The following are adjustments to arrive at core gross profit

Cost of goods sold	-11 751	3 419			344	-7 988	-7 548
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The following are adjustments to arrive at core operating income

Selling, general and administration	-12 306				71	-12 235	-11 583
Research and development	-8 641	109	360		22	-8 150	-7 636
Other income	1 149		-45	-2	-837	265	229
Other expense	-1 732		304	1	781	-646	-640

¹ Amortization of intangible assets: cost of goods sold includes the amortization of acquired rights to currently marketed products and other production-related intangible assets; research and development includes the amortization of acquired rights for technologies

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

³ 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 related to the Alcon distribution

⁴ Other items: cost of goods sold, research and development, 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, other income and other expense include other restructuring income and charges and related items; cost of goods sold, research and development and other expense include adjustments to contingent considerations; selling, general and administration, research and development and other expense include adjustments to provisions; other income and other expense include gains and losses from the divestment of products and financial assets and fair value adjustments on financial assets; other expense also includes legal-related items and adjustments to environmental provisions

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

Fourth quarter

(USD millions)	Q4 2021 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items	Other items ³	Q4 2021 Core results	Q4 2020 Core results
Gross profit	1 236	61	1		34	1 332	1 340
Operating income	386	61	15		66	528	528

The following are adjustments to arrive at core gross profit

Cost of goods sold	-1 341	61	1		34	-1 245	-1 257
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The following are adjustments to arrive at core operating income

Selling, general and administration	-568				2	-566	-568
Research and development	-240		7			-233	-242
Other income	50		3		-12	41	54
Other expense	-92		4		42	-46	-56

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

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

³ Other items: cost of goods sold and other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; selling, general and administration includes adjustments to provisions; other income and other expense include other restructuring income and charges and related items; other expense also includes legal-related items

Full year

(USD millions)	FY 2021 IFRS results	Amortization of intangible assets ¹	Impairments ²	Acquisition or divestment of businesses and related items	Other items ³	FY 2021 Core results	FY 2020 Core results
Gross profit	4 725	236	18		70	5 049	5 279
Operating income	1 600	236	34		194	2 064	2 334

The following are adjustments to arrive at core gross profit

Cost of goods sold	-5 147	236	18		70	-4 823	-4 609
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The following are adjustments to arrive at core operating income

Research and development	-899		9		-1	-891	-848
Other income	233		-55		-51	127	109
Other expense	-397		62		176	-159	-160

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

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

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 and other restructuring income and charges and related items; research and development includes adjustments to provisions; other income includes net gains from the divestment of a product; other income and other expense include legal-related items

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

Fourth quarter

(USD millions)	Q4 2021 IFRS results	Amortization of intangible assets	Impairments	Acquisition or divestment of businesses and related items ¹	Other items ²	Q4 2021 Core results	Q4 2020 Core results
Gross profit	14					14	27
Operating loss	-292			78	-91	-305	-239

The following are adjustments to arrive at core operating loss

Other income	135			-11	-166	-42	-90
Other expense	-298			89	75	-134	-35

¹ Acquisition or divestment of businesses and related items, including restructuring and integration charges; other income includes adjustments to portfolio transformation accruals; other expense includes transitional service fee expenses related to the Alcon distribution and adjustments to accruals

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

Full year

(USD millions)	FY 2021 IFRS results	Amortization of intangible assets	Impairments	Acquisition or divestment of businesses and related items ¹	Other items ²	FY 2021 Core results	FY 2020 Core results
Gross profit	67					67	109
Operating loss	-599			42	-134	-691	-563

The following are adjustments to arrive at core operating loss

Other income	470			-64	-377	29	-15
Other expense	-618			106	243	-269	-193

¹ Acquisition or divestment of businesses and related items, including restructuring and integration charges; other income includes adjustments to portfolio transformation and Alcon spin-off accruals; other income and other expense include transitional service fee income and expenses related to the Alcon distribution; other expense also includes adjustments to provisions

² Other items: other income includes an adjustment to a contingent consideration receivable; other income and other expense include fair value adjustments and divestment gains and losses on financial assets, adjustments to environmental provisions and restructuring income and charges and related items

Income from associated companies

(USD millions)	Q4 2021	Q4 2020	FY 2021	FY 2020
Share of estimated Roche reported results	69	187	815	913
Prior-year adjustment			40	-64
Amortization of fair value adjustments relating to intangible assets	-6	-45	-70	-172
Gain on divestment of investment in Roche Holding AG	14 556		14 556	
Net income effect from Roche Holding AG	14 619	142	15 341	677
Others	2	-1	-2	-4
Income from associated companies	14 621	141	15 339	673

Core income from associated companies

(USD millions)	Q4 2021	Q4 2020	FY 2021	FY 2020
Income from associated companies	14 621	141	15 339	673
Share of estimated Roche core adjustments	28	88	210	322
Roche prior year adjustment				102
Gain on divestment of investment in Roche Holding AG	-14 556		-14 556	
Core income from associated companies	93	229	993	1 097

Net debt

Condensed consolidated changes in net debt

Fourth quarter

(USD millions)	Q4 2021	Q4 2020
Change in cash and cash equivalents	5 196	664
Change in marketable securities, commodities, time deposits, financial debts and derivatives financial instruments	18 212	209
Change in net debt	23 408	873
Net debt at October 1	-24 276	-25 354
Net debt at December 31	-868	-24 481

Condensed consolidated changes in net debt

Full year

(USD millions)	FY 2021	FY 2020
Change in cash and cash equivalents	2 749	-1 454
Change in marketable securities, commodities, time deposits, financial debts and derivatives financial instruments	20 864	-7 089
Change in net debt	23 613	-8 543
Net debt at January 1	-24 481	-15 938
Net debt at December 31	-868	-24 481

Components of net debt

(USD millions)	Dec 31, 2021	Dec 31, 2020
Non-current financial debts	-22 902	-26 259
Current financial debts and derivative financial instruments	-6 295	-9 785
Total financial debts	-29 197	-36 044
Less liquidity		
Cash and cash equivalents	12 407	9 658
Marketable securities, commodities, time deposits and derivative financial instruments	15 922	1 905
Total liquidity	28 329	11 563
Net debt at end of period	-868	-24 481

Share information

	Dec 31, 2021	Dec 31, 2020
Number of shares outstanding	2 234 939 948	2 256 822 048
Registered share price (CHF)	80.28	83.65
ADR price (USD)	87.47	94.43
Market capitalization (USD billions) ¹	196.1	214.3
Market capitalization (CHF billions) ¹	179.4	188.8

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 quarter end CHF/USD exchange rate.

Free cash flow

The following table is a reconciliation of the three major categories of the IFRS consolidated statements of cash flows to free cash flow:

Fourth quarter

(USD millions)	Q4 2021			Q4 2020		
	IFRS cash flow	Adjustments	Free cash flow	IFRS cash flow	Adjustments	Free cash flow
Net cash flows from operating activities	3 884		3 884	4 005		4 005
Net cash flows from/used in investing activities from continuing operations^{1,2}	4 563	-5 420	-857	-569	-94	-663
Net cash flows used in investing activities from discontinued operations ³				-2	2	0
Net cash flows from/used in investing activities	4 563	-5 420	-857	-571	-92	-663
Net cash flows used in financing activities from continuing operations⁴	-3 251	3 251	0	-2 923	2 923	0
Net cash flows used in financing activities from discontinued operations ³				-13	13	0
Net cash flows used in financing activities	-3 251	3 251	0	-2 936	2 936	0
Free cash flow			3 027			3 342

¹ Excluded from the free cash flow are cash flows from investing activities associated with acquisitions and divestments of businesses and of interest in associated companies, purchases and sales of marketable securities, commodities and time deposits.

² For the fourth quarter of 2020 free cash flow, proceeds from the sale of financial assets exclude the cash inflows from the sale of a portion of the Alcon Inc. shares received by certain consolidated foundations through the Alcon spin-off, which amounted to USD 44 million.

³ Net cash flows used in investing activities from discontinued operations are activities associated with acquisitions and divestments of businesses which are excluded from the free cash flow. Net cash flows used in financing activities from discontinued operations are excluded from free cash flow. Free cash flow from discontinued operations in the fourth quarter of 2021 and 2020 was nil.

⁴ Net cash flows used in financing activities are excluded from the free cash flow.

Full year

(USD millions)	FY 2021			FY 2020		
	IFRS cash flow	Adjustments	Free cash flow	IFRS cash flow	Adjustments	Free cash flow
Net cash flows from operating activities	15 071		15 071	13 650		13 650
Net cash flows from/used in investing activities from continuing operations^{1,2}	4 208	-5 997	-1 789	-13 055	11 096	-1 959
Net cash flows used in investing activities from discontinued operations ³				-127	127	0
Net cash flows from/used in investing activities	4 208	-5 997	-1 789	-13 182	11 223	-1 959
Net cash flows used in financing activities from continuing operations⁴	-16 264	16 264	0	-2 158	2 158	0
Net cash flows used in financing activities from discontinued operations ³				-50	50	0
Net cash flows used in financing activities	-16 264	16 264	0	-2 208	2 208	0
Free cash flow			13 282			11 691

¹ Excluded from the free cash flow are cash flows from investing activities associated with acquisitions and divestments of businesses and of interest in associated companies, purchases and sales of marketable securities, commodities and time deposits.

² For the free cash flow in 2020, proceeds from the sale of financial assets exclude the cash inflows from the sale of a portion of the Alcon Inc. shares received by certain consolidated foundations through the Alcon spin-off, which amounted to USD 276 million.

³ Net cash flows used in investing activities from discontinued operations are activities associated with acquisitions and divestments of businesses which are excluded from the free cash flow. Net cash flows used in financing activities from discontinued operations are excluded from free cash flow. Free cash flow from discontinued operations was nil in 2021 and 2020.

⁴ Net cash flows used in financing activities are excluded from the free cash flow.

The following table is a summary of the free cash flow:

Fourth quarter

(USD millions)	Q4 2021	Q4 2020
Operating income	2 562	2 644
Adjustments for non-cash items		
Depreciation, amortization and impairments	1 531	1 548
Change in provisions and other non-current liabilities	100	75
Other	172	-171
Operating income adjusted for non-cash items	4 365	4 096
Dividends received from associated companies and others	2	1
Interest and other financial receipts	5	181
Interest and other financial payments	-192	-232
Income taxes paid	-883	-618
Payments out of provisions and other net cash movements in non-current liabilities	-589	-645
Change in inventory and trade receivables less trade payables	893	1 000
Change in other net current assets and other operating cash flow items	283	222
Net cash flows from operating activities	3 884	4 005
Purchases of property, plant and equipment	-460	-521
Proceeds from sale of property, plant and equipment	74	82
Purchases of intangible assets	-517	-502
Proceeds from sale of intangible assets	84	176
Purchases of financial assets	-67	-105
Proceeds from sale of financial assets ¹	34	212
Purchases of other non-current assets	-5	-7
Proceeds from sale of other non-current assets	0	2
Free cash flow	3 027	3 342

¹ For the fourth quarter of 2020 free cash flow, proceeds from the sale of financial assets exclude the cash inflows from the sale of a portion of the Alcon Inc. shares received by certain consolidated foundations through the Alcon spin-off, which amounted to USD 44 million.

Full year

(USD millions)	FY 2021	FY 2020
Operating income	11 689	10 152
Adjustments for non-cash items		
Depreciation, amortization and impairments	6 075	6 129
Change in provisions and other non-current liabilities	896	1 411
Other	59	260
Operating income adjusted for non-cash items	18 719	17 952
Dividends received from associated companies and others	525	490
Interest and other financial receipts	13	511
Interest and other financial payments	-966	-742
Income taxes paid	-2 342	-1 833
Payments out of provisions and other net cash movements in non-current liabilities	-1 119	-2 437
Change in inventory and trade receivables less trade payables	-329	-730
Change in other net current assets and other operating cash flow items	570	439
Net cash flows from operating activities	15 071	13 650
Purchases of property, plant and equipment	-1 378	-1 275
Proceeds from sale of property, plant and equipment	240	88
Purchases of intangible assets	-1 593	-1 310
Proceeds from sale of intangible assets	748	380
Purchases of financial assets	-191	-230
Proceeds from sale of financial assets ¹	442	447
Purchases of other non-current assets	-61	-61
Proceeds from sale of other non-current assets	4	2
Free cash flow	13 282	11 691

¹ For the free cash flow in 2020, proceeds from the sale of financial assets exclude the cash inflows from the sale of a portion of the Alcon Inc. shares received by certain consolidated foundations through the Alcon spin-off, which amounted to USD 276 million.

Effects of currency fluctuations

Principal currency translation rates

(USD per unit)	Average rates Q4 2021	Average rates Q4 2020	Average rates FY 2021	Average rates FY 2020	Period-end rates Dec 31, 2021	Period-end rates Dec 31, 2020
1 CHF	1.085	1.106	1.094	1.066	1.093	1.135
1 CNY	0.156	0.151	0.155	0.145	0.157	0.153
1 EUR	1.144	1.192	1.183	1.141	1.131	1.229
1 GBP	1.349	1.320	1.376	1.283	1.351	1.365
100 JPY	0.880	0.957	0.912	0.937	0.868	0.970
100 RUB	1.377	1.312	1.357	1.389	1.336	1.337

Currency impact on key figures

The following table provides a summary of the currency impact on key Group figures due to their conversion into US dollars, the Group's reporting currency, of the financial data from entities reporting in non-US dollars. Constant currency (cc) calculations apply the exchange rates of the prior year period to the current period financial data for entities reporting in non-US dollars.

Fourth quarter

	Change in USD % Q4 2021	Change in constant currencies % Q4 2021	Percentage point currency impact Q4 2021	Change in USD % Q4 2020	Change in constant currencies % Q4 2020	Percentage point currency impact Q4 2020
Total Group						
Net sales to third parties	4	6	-2	3	1	2
Operating income	-3	-1	-2	45	51	-6
Net income	nm	nm	nm	86	93	-7
Basic earnings per share (USD)	nm	nm	nm	84	93	-9
Core operating income	9	12	-3	1	2	-1
Core net income	3	6	-3	2	3	-1
Core basic earnings per share (USD)	4	7	-3	2	3	-1
Innovative Medicines						
Net sales to third parties	5	7	-2	3	1	2
Operating income	3	6	-3	8	12	-4
Core operating income	12	15	-3	3	3	0
Sandoz						
Net sales to third parties	0	2	-2	2	0	2
Operating income	4	4	0	nm	nm	nm
Core operating income	0	0	0	2	3	-1
Corporate						
Operating loss	-156	-154	-2	41	45	-4
Core operating loss	-28	-28	0	-35	-28	-7

nm = not meaningful

Currency impact on key figures

Full year

	Change in USD % FY 2021	Change in constant currencies % FY 2021	Percentage point currency impact FY 2021	Change in USD % FY 2020	Change in constant currencies % FY 2020	Percentage point currency impact FY 2020
Total Group						
Net sales to third parties	6	4	2	3	3	0
Operating income	15	13	2	12	19	-7
Net income	198	195	3	13	20	-7
Basic earnings per share (USD)	202	200	2	14	21	-7
Core operating income	8	6	2	9	13	-4
Core net income	7	5	2	9	12	-3
Core basic earnings per share (USD)	9	7	2	9	13	-4
Innovative Medicines						
Net sales to third parties	8	6	2	3	4	-1
Operating income	17	15	2	-1	4	-5
Core operating income	12	10	2	8	11	-3
Sandoz						
Net sales to third parties	0	-2	2	-1	0	-1
Operating income	53	48	5	89	106	-17
Core operating income	-12	-14	2	11	15	-4
Corporate						
Operating loss	nm	nm	nm	nm	nm	nm
Core operating loss	-23	-20	-3	11	14	-3

nm = not meaningful

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 “continues,” “to advance,” “progressing,” “expected,” “to grow,” “long-term,” “growth,” “looking ahead,” “continue,” “to invest,” “driven,” “pioneering,” “expect,” “will,” “to drive,” “growth drivers,” “remains,” “remain,” “outlook,” “guidance,” “transformative,” “continuing,” “confident,” “to maintain,” “to meet,” “ongoing,” “launch,” “growing,” “to support,” “can,” “pipeline,” “investigational,” “submissions,” “focus,” “innovation,” “focus,” “innovation,” “potential,” “priority,” “prevail,” “proposes,” or similar expressions, or by express or implied discussions regarding potential new products, potential new indications for existing products, potential product launches, or regarding potential future revenues from any such products; or regarding potential future, pending or announced transactions, including the acquisition of Gyroscope Therapeutics; regarding potential future sales or earnings of the Group or any of its divisions; or by discussions of strategy, plans, expectations or intentions; or regarding the Group’s liquidity or cash flow positions and its ability to meet its ongoing financial obligations and operational needs; or regarding the strategic review of Sandoz; or regarding our commitment to carbon neutral emissions by 2030 and net zero emissions by 2040. 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: liquidity or cash flow disruptions affecting our ability to meet our ongoing financial obligations and to support our ongoing business activities; the impact of the COVID-19 pandemic on enrollment in, initiation and completion of our clinical trials in the future, and research and development timelines; the impact of a partial or complete failure of the return to normal global healthcare systems including prescription dynamics; global trends toward healthcare cost containment, including ongoing government, payer and general public pricing and reimbursement pressures and requirements for increased pricing transparency; uncertainties regarding potential significant breaches of data security or data privacy, or disruptions of our information technology systems; regulatory actions or delays or government regulation generally, including potential regulatory actions or delays with respect to the development of the products described in this press release; the potential that the strategic benefits, synergies or opportunities expected from the transactions described, including Gyroscope Therapeutics, may not be realized or may be more difficult or take longer to realize than expected; the uncertainties 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; safety, quality, data integrity, or manufacturing issues; uncertainties involved in the development or adoption of potentially transformational technologies and business models; uncertainties regarding actual or potential legal proceedings, investigations or disputes; our performance on environmental, social and governance measures; general political, economic and business conditions, including the effects of and efforts to mitigate pandemic diseases such as COVID-19; uncertainties regarding future global exchange rates; uncertainties regarding future demand for our products; 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.

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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 nearly 800 million people globally and we are finding innovative ways to expand access to our latest treatments. About 110,000 people of more than 140 nationalities work at Novartis around the world. Find out more at <https://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/event-calendar>.

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/event-calendar>.

Novartis issued its 2021 Annual Report today, and it is available at www.novartis.com. Novartis will also file its 2021 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 Novartis in Society Integrated Report 2021 today, and it is available at www.novartis.com.

Important dates

March 4, 2022	Annual General Meeting
April 26, 2022	First quarter 2022 results
July 19, 2022	Second quarter & Half year 2022 results
October 25, 2022	Third quarter & Nine months 2022 results