

Bristol Myers Squibb
2021 Financial Report

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MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Management’s discussion and analysis of financial condition and results of operations is provided as a supplement to and should be read in conjunction with the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K to enhance the understanding of our results of operations, financial condition and cash flows.

The comparison of 2020 to 2019 results has been omitted from this Annual Report on Form 10-K and is incorporated by reference in our Form 10-K for the year ended December 31, 2020—“Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” filed on February 10, 2021.

EXECUTIVE SUMMARY

Bristol-Myers Squibb Company is a global biopharmaceutical company whose mission is to discover, develop and deliver innovative medicines that help patients prevail over serious diseases. Refer to the Summary of Abbreviated Terms at the end of this 2021 Annual Report on Form 10-K for terms used throughout the document.

In 2021, we obtained more than 20 approvals for new medicines and additional indications and formulations of currently marketed medicines in major markets (the U.S., EU and Japan), including regulatory approvals of *Breyanzi* and *Abecma* in hematology malignancies, the first approvals of our cell therapy portfolio. In support of our continued investment in our cell therapy portfolio, we are expanding our manufacturing capabilities through the construction of new state-of-the-art cell therapy manufacturing facilities in Devens, Massachusetts, and Leiden, Netherlands. We continue to see momentum in our immuno-oncology portfolio with additional approvals for both *Opdivo* and *Opdivo+Yervoy* in various indications (e.g. adjuvant bladder, gastric cancer, gastroesophageal junction cancer, esophageal adenocarcinoma and RCC) and the return to growth of *Opdivo*. Our portfolio in immunology has expanded with the FDA approval of *Zeposia* for the treatment of adults with moderately to severely active UC and we have an important opportunity for deucravacitinib, our TYK2 inhibitor, for the treatment of psoriasis and other immune-mediated diseases. We bolstered our leading cardiovascular franchise by adding mavacamten with the acquisition of MyoKardia in 2020. In 2021, the FDA accepted the NDA for mavacamten for patients with symptomatic obstructive HCM and assigned a revised PDUFA goal date of April 28, 2022.

In 2021, our revenues increased 9%, due to *Eliquis*, *Opdivo/Yervoy*, our recently launched new products, *Revlimid* and foreign exchange. The GAAP EPS of \$3.12 in 2021 as compared to the GAAP loss per share of \$3.99 in 2020 was primarily due to (i) IPRD and other charges resulting from the MyoKardia asset acquisition in 2020, (ii) other specified items including lower unwinding of inventory purchase price adjustments and other income related to equity investments and contingent value rights and (iii) internal transfers of certain intangible and other assets to streamline our legal entity structure subsequent to the Celgene acquisition resulting in a tax benefit in 2021 and a tax charge in 2020. After adjusting for specified items, non-GAAP EPS increased \$1.07 due to higher revenues, partially offset by higher expenses to support product launches and the overall portfolio.

Highlights

The following table summarizes our financial information:

Dollars in Millions, except per share data	Year Ended December 31,	
	2021	2020
Total Revenues	\$ 46,385	\$ 42,518
Diluted Earnings/(Loss) Per Share		
GAAP	\$ 3.12	\$ (3.99)
Non-GAAP	7.51	6.44

Our non-GAAP financial measures, including non-GAAP earnings and related EPS information, are adjusted to exclude specified items that represent certain costs, expenses, gains and losses and other items impacting the comparability of financial results. For a detailed listing of all specified items and further information and reconciliations of non-GAAP financial measures refer to “—Non-GAAP Financial Measures.”

Economic and Market Factors

COVID-19

In response to the COVID-19 pandemic, international, federal, state and local public health and governmental authorities have taken, and continue to take, a number of actions to limit the spread of COVID-19 and address related disruptions in the U.S. and global economy. While we continue to experience impacts on revenues from COVID-19 primarily due to lower new patient starts and patient visits, the pandemic has not significantly impacted our results of operations. The situation remains dynamic and it is difficult to reasonably assess or predict the full extent of the negative impact that the COVID-19 pandemic may have on our business, financial condition, results of operations and cash flows. The future financial and operational impact of the COVID-19 pandemic on BMS will depend on future developments such as the ultimate duration and the severity of the spread of COVID-19 and any variant strains in the U.S. and globally, the effectiveness and outreach of vaccines, the effectiveness of federal, state, local and international government's mitigation actions, the pandemic's impact on the U.S. and global economies, changes in the behavior of patients and medical professionals and the timing for resumption to our normal operations, as well as developments affecting healthcare and the delivery of medicines to patients. See risk factor on the Company's risk factors resulting from the COVID-19 pandemic included in our most recently filed 2021 Form 10-K under "Part I—Item 1A. Risk Factors—General Risks—The COVID-19 pandemic is affecting our business and could have a material adverse effect on us."

As the COVID-19 pandemic affected global healthcare systems as well as major economic and financial markets, we adopted several procedures focused on ensuring the continued supply of our medicines to our patients and protecting the health, wellbeing and safety of our workforce:

Workplace and Community

- We are maintaining our steadfast commitment to protecting our workforce, communities and patients, and ensuring the continued supply of life-saving medicines.
- As a science-based company, we have a social responsibility to help reduce the spread of the virus. Vaccinations are required for generally all of our employees in the U.S. and Puerto Rico subject to any local regulations which limit or restrict vaccine mandates, and we are encouraged that as of January 5, 2022 approximately 99% of our employees in these regions are vaccinated against COVID-19. Requests for medical or religious accommodations are also considered on an individual basis. Although local regulations and conditions in other ex-U.S. jurisdictions may limit or restrict vaccine mandates, we are committed to implementing similar requirements in other markets wherever possible.
- As we return workers to the office, we will continue to assess the need to require weekly asymptomatic testing, mask wearing, and physical distancing of all colleagues onsite at our facilities in the U.S. and Puerto Rico. We also keep our workforce safe by conducting regular deep cleaning of our sites.
- Our manufacturing sites have remained open throughout the pandemic supported by on site personnel. We have taken a thoughtful and phased approach to bringing the rest of our workforce back to our 195 plus sites around the world, guided by the following principles:
 - Serving the needs of our patients and customers
 - Prioritizing health and safety
 - Following medical advice and government direction
 - Leading with compassion and flexibility
 - Modeling key learnings
- No single approach fits for every site or market – our timelines and circumstances have varied across the globe. We are monitoring local conditions and government direction closely and adjusting our plans as appropriate.

Supply of Our Medicines and Support to Patients, Physicians and Advocacy Groups

- An important element of keeping our promise to patients, their families and our healthcare providers is to ensure that our supply chain is robust and carefully managed. Our clinical and commercial supply chain teams have proactively used mitigation plans to ensure our products reach our markets, clinical sites and patients over the past months. Thanks to these efforts, we have not seen any significant disruptions in our clinical or commercial supply chain due to the pandemic.
- We recognize this remains a challenging time for everyone, and we know patients may be facing additional hardships. Our existing patient support programs are available to help eligible patients in the U.S. who have been prescribed a Bristol Myers Squibb medicine and have lost employment and health insurance due to the COVID-19 pandemic. Under these programs, eligible patients are provided certain Bristol Myers Squibb medicines for free.
- All of our U.S. and Puerto Rico personnel are currently required to be vaccinated to interact with customers, vendors and people at our clinical trial sites. We are also continuing to employ remote interactions as appropriate to ensure continued support for healthcare professionals, patient care, and access to our medicines across our global markets.

Our Clinical Trials and Research

- We are working with health authorities and investigators to protect our trial participants and personnel at BMS and our clinical trial sites, while ensuring regulatory compliance and the integrity of our science.
- We have provided clinical trial investigators with overarching principles and guidance regarding the conduct of BMS clinical trials worldwide in light of COVID-19, and are taking into account guidance from health authorities, where applicable.

Governmental Actions

Our products continue to be subject to increasing pressures across the portfolio from pharmaceutical market access and pricing controls and discounting, changes to tax and importation laws and other restrictions in the U.S., the EU and other regions around the world that result in lower prices, lower reimbursement rates and smaller populations for whom payers will reimburse, which can negatively impact our results of operations (including intangible asset impairment charges), operating cash flow, liquidity and financial flexibility. For example, Congress is currently considering a number of different proposals that would potentially: (i) allow the government to set or negotiate prices for prescription drugs, including benchmarking those prices to prices paid in other countries, (ii) penalize manufacturers for price increases beyond inflationary measures, (iii) redesign the Part D benefit with new out of pocket limits for patients and new mandated discounts for manufacturers, and (iv) change U.S. income tax laws resulting in an increase to our income tax expense, including through increased taxation of our international operations. The outcome of these Congressional actions remains highly uncertain. In addition, the OECD recently reached agreement on a global minimum tax pursuant to which countries are expected to implement changes to their tax laws and updates to international tax treaties. See the Company's risk factors included in our most recently filed 2021 Form 10-K under "Part I—Item 1A. Risk Factors—Product, Industry and Operational Risks—Increased pricing pressure and other restrictions in the U.S. and abroad continue to negatively affect our revenues and profit margins" and "—Changes to tax regulations could negatively impact our earnings."

Significant Product and Pipeline Approvals

The following is a summary of the significant approvals received in 2021:

Product	Date	Approval
<i>Orencia</i>	December 2021	FDA approval of <i>Orencia</i> for the prevention, of aGvHD, in combination with a calcineurin inhibitor and methotrexate, in adults and pediatric patients two years of age and older undergoing hematopoietic stem cell transplantation from a matched or one allele-mismatched unrelated donor.
<i>Opdivo</i>	December 2021	Japan's Ministry of Health, Labour and Welfare approval of <i>Opdivo</i> for the treatment of cancer of unknown primary.
<i>Opdivo</i>	November 2021	Japan's Ministry of Health, Labour and Welfare approval of <i>Opdivo</i> for the first-line treatment of unresectable advanced or recurrent gastric cancer in combination with chemotherapy.
<i>Opdivo</i>	November 2021	Japan's Ministry of Health, Labour and Welfare approval of <i>Opdivo</i> for the adjuvant treatment of esophageal cancer.
<i>Zeposia</i>	November 2021	EC approval for <i>Zeposia</i> for the treatment of adults with moderately to severely active UC.
<i>Opdivo</i>	October 2021	EC approval of <i>Opdivo</i> in combination with fluoropyrimidine- and platinum-based combination chemotherapy for the first-line treatment of adult patients with HER2-negative advanced or metastatic gastric, gastroesophageal junction, or esophageal adenocarcinoma whose tumors express PD-L1 with a combined positive score ≥ 5 .
<i>Opdivo</i>	September 2021	Japan's Ministry of Health, Labour and Welfare approval of <i>Opdivo</i> for first line gastric cancer and adjuvant esophageal cancer.
<i>Opdivo</i>	August 2021	Japan's Ministry of Health, Labour and Welfare approval of <i>Opdivo</i> for the treatment of pediatric patients with recurrent or refractory classical Hodgkin lymphoma.
<i>Opdivo</i>	August 2021	Japan's Ministry of Health, Labour and Welfare approval of the combination therapy <i>Opdivo</i> and <i>CABOMETYX</i> * for the treatment of unresectable or metastatic RCC.
<i>Opdivo</i>	August 2021	FDA approval of <i>Opdivo</i> for the adjuvant treatment of patients with urothelial carcinoma who are at high risk of recurrence after undergoing radical resection, regardless of prior neoadjuvant chemotherapy, nodal involvement or PD-L1 status.

Product	Date	Approval
<i>Abecma</i>	August 2021	EC approval for <i>Abecma</i> for the treatment of adult patients with relapsed and refractory multiple myeloma, who have received at least three prior therapies, including an immunomodulatory agent, a proteasome inhibitor and an anti-CD38 antibody and have demonstrated disease progression on the last therapy.
<i>Opdivo</i>	July 2021	EC approval of <i>Opdivo</i> for the adjuvant treatment of adult patients with esophageal or gastroesophageal junction cancer who have residual pathologic disease following prior neoadjuvant chemoradiotherapy.
<i>Opdivo+Yervoy</i>	June 2021	EC approval of <i>Opdivo</i> plus <i>Yervoy</i> for the treatment of adult patients with mismatch repair deficient or microsatellite instability-high metastatic CRC after prior fluoropyrimidine-based combination chemotherapy.
<i>Onureg</i>	June 2021	EC approval of <i>Onureg</i> as a maintenance therapy in adult patients with AML who achieved complete remission or complete remission with incomplete blood count recovery following induction therapy with or without consolidation treatment and who are not candidates for, including those who choose not to proceed to, hematopoietic stem cell transplantation.
<i>Opdivo+Yervoy</i>	June 2021	EC approval of <i>Opdivo</i> plus <i>Yervoy</i> for the first-line treatment of adults with unresectable malignant pleural mesothelioma.
<i>Zeposia</i>	May 2021	FDA approval of <i>Zeposia</i> for the treatment of adults with moderately to severely active UC.
<i>Opdivo+Yervoy</i>	May 2021	Japan's Ministry of Health, Labour and Welfare approval of <i>Opdivo</i> and <i>Yervoy</i> in combination therapy for the first-line treatment of unresectable advanced or recurrent malignant pleural mesothelioma.
<i>Opdivo</i>	May 2021	FDA approval of <i>Opdivo</i> for the adjuvant treatment of patients with completely resected esophageal or gastroesophageal junction cancer with residual pathologic disease after neoadjuvant chemoradiotherapy.
<i>Opdivo</i>	April 2021	FDA approval of <i>Opdivo</i> in combination with chemotherapy for patients with advanced or metastatic gastric cancer, gastroesophageal junction cancer, and esophageal adenocarcinoma, regardless of PD-L1 expression status.
<i>Opdivo</i>	April 2021	EC approval of <i>Opdivo</i> in combination with <i>CABOMETYX*</i> for the first-line treatment of patients with advanced RCC.
<i>Abecma</i>	March 2021	FDA approval of <i>Abecma</i> for the treatment of adult patients with relapsed or refractory multiple myeloma after four or more prior lines of therapy, including an immunomodulatory agent, a proteasome inhibitor, and an anti-CD38 monoclonal antibody.
<i>Breyanzi</i>	March 2021	Japan's Ministry of Health, Labour and Welfare approval of <i>Breyanzi</i> for the treatment of patients with relapsed or refractory large B-cell lymphoma and relapsed or refractory follicular lymphoma.
<i>Inrebic</i>	February 2021	EC approval of <i>Inrebic</i> for the treatment of disease-related splenomegaly or symptoms in adult patients with primary myelofibrosis, post-polycythaemia vera myelofibrosis or post-essential thrombocythaemia myelofibrosis, who are Janus Associated Kinase inhibitor naïve or have been treated with ruxolitinib.
<i>Breyanzi</i>	February 2021	FDA approval of <i>Breyanzi</i> for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy.
<i>Opdivo</i>	January 2021	FDA approval of <i>Opdivo</i> in combination with <i>CABOMETYX*</i> for the first-line treatment of patients with advanced RCC.

The following is a summary of the significant approvals received in 2022:

- In January 2022, Japan's Ministry of Health, Labour and Welfare approved *Abecma* for the treatment of adult patients with relapsed or refractory multiple myeloma, who have received at least three prior therapies.

Refer to “—Product and Pipeline Developments” for all of the developments in our marketed products and late-stage pipeline in 2021 and in early 2022.

Strategy

Our principal strategy is to combine the resources, scale and capability of a pharmaceutical company with the speed and focus on innovation of the biotech industry. Our focus as a biopharmaceutical company is on discovering, developing and delivering transformational medicines for patients facing serious diseases in areas where we believe that we have an opportunity to make a meaningful difference: oncology (both solid tumors and hematology), immunology, cardiovascular and neurology. Our priorities are to continue to renew and diversify our portfolio through launching our new product portfolio, advancing our early, mid and late-stage pipeline, and executing disciplined business development. We remain committed to reducing our debt and returning capital to shareholders.

We are developing new medicines in the following core therapeutic areas: (i) oncology with a priority in certain tumor types; (ii) hematology with opportunities to broaden our franchise and potentially sustain a leadership position in multiple myeloma; (iii) immunology with priorities in relapsing multiple sclerosis, psoriasis, psoriatic arthritis, lupus, RA and inflammatory bowel disease; (iv) cardiovascular disease and; (v) fibrotic disease with priorities in lung and liver. We continue to advance the next wave of innovative medicines by investing significantly in our pipeline both internally and through business development activities. We have expanded our oncology, hematology and immunology portfolios with several near-term assets and additional external partnerships. We have invested in our oncology portfolio by pursuing both monotherapy and combination approaches and advancing our next wave of early assets and to explore new collaboration opportunities across our therapeutic areas of focus. We remain focused and well-resourced in our cancer development programs and seek to broaden the use of *Opdivo* in earlier lines of therapy, expand into new tumors, accelerate next wave oncology mechanisms and develop treatment options for refractory oncology patients. We are further strengthening our IO portfolio with another opportunity of relatlimab in a fixed dose combination with nivolumab for the treatment of melanoma and expanded opportunities in adjuvant melanoma, lung, liver and CRC. For hematology, we have opportunities to launch several new medicines in the near-term with additional pipeline opportunities in the longer term. There is a broad effort to continue to address the unmet medical need in multiple myeloma and we are working across multiple modalities and mechanisms of action such as cereblon modulators (“CELMoDs”), T-cell Engagers and CAR T-cell therapies.

Beyond cancer, we continue to advance our early stage portfolio in immunology, cardiovascular and neuroscience diseases and strengthen our partnerships with a diverse group of companies and academic institutions in new and expanded research activities. We believe our differentiated internal and external focus contributes to the advancing of our pipeline of potentially transformational medicines. For immunology with deucravacitinib, our selective TYK2, there is opportunity to be a medicine that could treat multiple immune-mediated diseases. The FDA has accepted our NDA for deucravacitinib for the treatment of adults with moderate to severe plaque psoriasis and has set a PDUFA goal date of September 10, 2022. We are expanding our portfolio for cardiovascular disease with our alliance partnership with Janssen where we are advancing a next-generation antithrombotic medicine in milvexian. Additionally, through the acquisition of MyoKardia, we have added mavacamten, which has the potential to be a first-in-class medicine to treat the underlying cause of obstructive HCM. The FDA has accepted the NDA for mavacamten for this indication and assigned a revised PDUFA goal date of April 28, 2022.

Our commercial model has been successful with revenues from our key brands continuing to grow, which demonstrates strong execution of our strategy. We continue to drive adoption of *Opdivo* by expanding into additional indications and tumor types both as a monotherapy and in combination with *Yervoy* and other anti-cancer agents. *Eliquis* continues to grow, leveraging its best in class clinical profile and extensive real world data and is now the number one novel oral anticoagulant in total prescriptions globally. *Revlimid* and *Pomalyst* have not only transformed the treatment of multiple myeloma, but as we gained deeper understanding of the mechanism of action of *Revlimid* and *Pomalyst*, we have leveraged that knowledge to intentionally design novel CELMoD agents, iberdomide and CC-92480, to improve upon these earlier treatments. We are able to leverage our leading capabilities in hematological malignancies and our robust pipeline to provide opportunities for long-term growth to offset the impact of future patent expires for *Revlimid* and *Pomalyst*. We are building on the continued success of our other key brands and remain strongly committed to *Orencia* and *Sprycel*. We are also optimistic on the future growth and near-term opportunities of *Reblozyl*, *Inrebic*, *Zeposia*, *Onureg*, *Breyanzi* and *Abecma*. Through our operating model transformation, our commercial infrastructure is leveraged for potential growth.

We expect the growth in our in-line and new product portfolio will enable us to more than offset the expected decline in *Revlimid*, *Abraxane* and other products revenues due to their loss of market exclusivity through 2025.

Our operating model continues to evolve and we have been successful in focusing commercial, R&D and manufacturing resources on key brands and markets, strengthening our R&D capabilities in tumor biology, patient selection and new biomarkers, delivering leaner administrative functions and streamlining our manufacturing network to reflect the importance of biologics in our current and future portfolio. The evolution in our operating model, which focuses on maintaining a disciplined approach in marketing, selling and administrative expenses, will enable us to deliver the necessary strategic, financial and operational flexibility to invest in the highest priority opportunities within our portfolio. Through our Celgene acquisition restructuring activities, we expect to realize approximately \$3.0 billion of synergies resulting from cost savings and avoidance through 2022 and our integration efforts across general and administrative, manufacturing, R&D, procurement and streamlining the Company's pricing and information technology infrastructure.

Looking ahead, we will continue to implement our biopharma strategy by driving the growth of key brands, executing product launches, investing in our diverse and innovative pipeline, aided by strategic business development, focusing on prioritized markets, increasing investments in our biologics manufacturing capabilities and maintaining a culture of continuous improvement.

Acquisitions, Divestitures, Licensing and Other Arrangements

Significant acquisitions, divestitures, licensing and other arrangements during 2021 are summarized below. Refer to “Consolidated Financial Statements—Note 3. Alliances” and “—Note 4. Acquisitions, Divestitures, Licensing and Other Arrangements” for further information.

Agenus - We obtained a global exclusive license to Agenus’ proprietary bispecific antibody program, AGEN1777, that blocks TIGIT and an additional target. AGEN1777 is currently in a Phase I clinical trial.

Eisai - We commenced an exclusive global strategic collaboration with Eisai for the co-development and co-commercialization of MORAb-202, a selective folate receptor alpha antibody-drug conjugate being investigated in endometrial, ovarian, lung and breast cancers. MORAb-202 is currently in Phase I/II clinical trials for solid tumors.

Prothena - We exercised our option under the global neuroscience research and development collaboration for the exclusive U.S. rights to PRX005, an anti-tau antibody that specifically targets an area within the microtubule binding region for the potential treatment of Alzheimer’s disease. PRX005 is currently in a Phase I clinical trial.

Rockefeller University - We obtained a global exclusive license to develop, manufacture and commercialize Rockefeller University’s novel monoclonal antibody duo treatment that neutralizes the SARS-CoV-2 virus for treatment and potentially for prevention of COVID-19. Phase I clinical trials to assess dosing for IV and subcutaneous formulations and to assess safety have been completed by Rockefeller University. In May 2021, enrollment initiated in the Phase II study within the NIH ACTIV-2 protocol at a network of sites within the U.S. Phase II enrollment was completed in August 2021 and topline data is expected in the first quarter of 2022.

RESULTS OF OPERATIONS**Regional Revenues**

The composition of the changes in revenues was as follows:

Dollars in Millions	Year Ended December 31,		2021 vs. 2020	
	2021	2020	% Change	Foreign Exchange ^(b)
United States	\$ 29,214	\$ 26,577	10 %	—
Europe	10,687	9,853	8 %	3 %
Rest of the World	5,632	5,457	3 %	1 %
Other ^(a)	852	631	35 %	—
Total	\$ 46,385	\$ 42,518	9 %	1 %

(a) Other revenues include royalties and alliance-related revenues for products not sold by our regional commercial organizations.

(b) Foreign exchange impacts were derived by applying the prior period average currency rates to the current period revenues.

United States

- U.S. revenues in 2021 increased due to *Eliquis*, our recently launched new products, *Revlimid* and *Opdivo/Yervoy*. Average net selling prices increased by approximately 2% in 2021 compared to the same period a year ago.

Europe

- Europe revenues in 2021 increased due to *Eliquis*, *Revlimid*, *Opdivo/Yervoy* and foreign exchange, partially offset by lower demand for Mature and other brands. Average net selling prices were lower in 2021 compared to the same period a year ago.

Rest of the World

- Rest of the World revenues in 2021 increased due to *Opdivo/Yervoy*, *Pomalyst/Imnovid* and *Eliquis*, partially offset by lower revenues for *Abraxane*, due to manufacturing delays, and Mature and other brands. Average net selling prices were lower in 2021 compared to the same period a year ago.

No single country outside the U.S. contributed more than 10% of total revenues in 2021 and 2020. Our business is typically not seasonal.

GTN Adjustments

We recognize revenue net of GTN adjustments that are further described in “—Critical Accounting Policies.”

The activities and ending reserve balances for each significant category of GTN adjustments were as follows:

Dollars in Millions	Year Ended December 31, 2021			
	Charge-Backs and Cash Discounts	Medicaid and Medicare Rebates	Other Rebates, Returns, Discounts and Adjustments	Total
Balance at January 1, 2021	\$ 645	\$ 2,595	\$ 3,093	\$ 6,333
Provision related to sales made in:				
Current period	7,251	9,581	6,329	23,161
Prior period	2	(207)	(114)	(319)
Payments and returns	(7,158)	(8,763)	(5,963)	(21,884)
Foreign currency translation and other	(17)	—	(152)	(169)
Balance at December 31, 2021	\$ 723	\$ 3,206	\$ 3,193	\$ 7,122

The reconciliation of gross product sales to net product sales by each significant category of GTN adjustments was as follows:

Dollars in Millions	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
Gross product sales	\$ 67,897	\$ 60,016	13 %
GTN Adjustments			
Charge-backs and cash discounts	(7,253)	(5,827)	24 %
Medicaid and Medicare rebates	(9,374)	(7,595)	23 %
Other rebates, returns, discounts and adjustments	(6,215)	(5,273)	18 %
Total GTN Adjustments	(22,842)	(18,695)	22 %
Net product sales	\$ 45,055	\$ 41,321	9 %
GTN adjustments percentage	33 %	31 %	2 %
U.S.	40 %	37 %	3 %
Non-U.S.	17 %	16 %	1 %

Reductions to provisions for product sales made in prior periods resulting from changes in estimates were \$319 million and \$106 million for 2021 and 2020, respectively. The reductions to provisions in 2021 was primarily related to *Eliquis* coverage gap discounts. GTN adjustments are primarily a function of product sales volume, regional and payer channel mix, contractual or legislative discounts and rebates. U.S. GTN adjustments percentage increased primarily due to higher government channel mix, which has higher GTN adjustment percentages.

Product Revenues

Dollars in Millions	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
<i>Revlimid</i>	\$ 12,821	\$ 12,106	6 %
U.S.	8,695	8,291	5 %
Non-U.S.	4,126	3,815	8 %
<i>Eliquis</i>	10,762	9,168	17 %
U.S.	6,456	5,485	18 %
Non-U.S.	4,306	3,683	17 %
<i>Opdivo</i>	7,523	6,992	8 %
U.S.	4,202	3,945	7 %
Non-U.S.	3,321	3,047	9 %
<i>Pomalyst/Imnovid</i>	3,332	3,070	9 %
U.S.	2,249	2,136	5 %
Non-U.S.	1,083	934	16 %
<i>Orencia</i>	3,306	3,157	5 %
U.S.	2,410	2,268	6 %
Non-U.S.	896	889	1 %
<i>Sprycel</i>	2,117	2,140	(1) %
U.S.	1,297	1,295	—
Non-U.S.	820	845	(3) %
<i>Yervoy</i>	2,026	1,682	20 %
U.S.	1,265	1,124	13 %
Non-U.S.	761	558	36 %
<i>Abraxane</i>	1,181	1,247	(5) %
U.S.	898	873	3 %
Non-U.S.	283	374	(24) %
<i>Reblozyl</i>	551	274	**
U.S.	485	259	87 %
Non-U.S.	66	15	**
<i>Empliciti</i>	334	381	(12) %
U.S.	200	230	(13) %
Non-U.S.	134	151	(11) %
<i>Abecma</i>	164	—	N/A
U.S.	158	—	N/A
Non-U.S.	6	—	N/A
<i>Zeposia</i>	134	12	**
U.S.	99	10	**
Non-U.S.	35	2	**
<i>Breyanzi</i>	87	—	N/A
U.S.	84	—	N/A
Non-U.S.	3	—	N/A

Dollars in Millions	Year Ended December 31,		% Change
	2021	2020	2021 vs. 2020
<i>Inrebic</i>	74	55	35 %
U.S.	67	55	22 %
Non-U.S.	7	—	N/A
<i>Onureg</i>	73	17	**
U.S.	69	17	**
Non-U.S.	4	—	N/A
Mature and other brands	1,900	2,217	(14)%
U.S.	580	589	(2)%
Non-U.S.	1,320	1,628	(19)%
Total Revenues	46,385	42,518	9 %
U.S.	29,214	26,577	10 %
Non-U.S.	17,171	15,941	8 %

** Change in excess of 100%.

Revlimid (lenalidomide) — an oral immunomodulatory drug that in combination with dexamethasone is indicated for the treatment of patients with multiple myeloma. *Revlimid* as a single agent is also indicated as a maintenance therapy in patients with multiple myeloma following autologous hematopoietic stem cell transplant.

- U.S. revenues increased 5% in 2021 due to higher average net selling prices and higher demand.
- International revenues increased 8% in 2021 due to higher demand and foreign exchange impacts of 3%. Excluding foreign exchange impacts, revenues increased by 5%.
- In the U.S., certain third parties have been granted volume-limited licenses to sell generic lenalidomide beginning in March 2022 or thereafter. In the EU, licenses have been granted to third parties to market generic lenalidomide products prior to expiry of our patent and supplementary protection certificate rights beginning in the UK in January 2022 and in various other major market European countries (e.g. France, Germany, Italy and Spain) where our supplementary protection certificate is in force beginning in February 2022. In Japan, the estimated minimum market exclusivity date is based on a composition of matter patent, which expires in July 2022. Global revenues for *Revlimid* are expected to decline to approximately \$9.5 billion to \$10.0 billion in 2022.

Eliquis (apixaban) — an oral Factor Xa inhibitor, indicated for the reduction in risk of stroke/systemic embolism in NVAf and for the treatment of DVT/PE and reduction in risk of recurrence following initial therapy.

- U.S. revenues increased 18% in 2021 due to higher demand. A majority of *Eliquis* patients enter the coverage gap during the third and fourth quarters which result in lower revenues during the second half of the year.
- International revenues increased 17% in 2021 due to higher demand and foreign exchange impacts of 3%. Excluding foreign exchange impacts, revenues increased by 14%.
- In September 2021, the Bristol Myers Squibb-Pfizer Alliance announced that the Court of Appeals for the Federal Circuit affirmed the U.S. District Court's August 2020 decision finding the composition of matter patent and formulation patent covering *Eliquis* valid and infringed. Given the decision, the earliest that generic manufacturers are permitted to launch their apixaban products is April 1, 2028, subject to additional challenges.

Following the May 2021 expiration of regulatory exclusivity for *Eliquis* in Europe, generic manufacturers may seek to market generic versions of *Eliquis* in Europe prior to the expiration of our patents, which may lead to additional, infringement and invalidity actions involving our *Eliquis* patents being filed in various countries in Europe. We believe in the innovative science behind *Eliquis* and the strength of our intellectual property, which we will defend against infringement. Refer to "Consolidated Financial Statements—Note 19. Legal Proceedings and Contingencies—Intellectual Property" for further information.

Opdivo (nivolumab) — a fully human monoclonal antibody that binds to the PD-1 on T and NKT cells that has been approved for several anti-cancer indications including bladder, blood, CRC, head and neck, RCC, HCC, lung, melanoma, MPM and stomach. The *Opdivo+Yervoy* regimen also is approved in multiple markets for the treatment of NSCLC, melanoma, MPM, RCC, CRC and various gastric and esophageal cancers. There are several ongoing potentially registrational studies for *Opdivo* across other tumor types and disease areas, in monotherapy and in combination with *Yervoy* and various anti-cancer agents.

- U.S. revenues increased 7% in 2021 due to higher demand across multiple therapies including the *Opdivo+Yervoy* combinations in NSCLC, *Opdivo+CABOMETYX** combination in kidney cancer and *Opdivo* in various gastric and esophageal cancers and higher average net selling prices, partially offset by declining second-line eligibility across tumor indications and increased competition.
- International revenues increased 9% in 2021 due to higher demand and foreign exchange impacts of 2%, partially offset by lower average net selling prices. Excluding foreign exchange impacts, revenues increased by 7%.

Pomalyst/Imnovid (pomalidomide) — a proprietary, distinct, small molecule that is administered orally and modulates the immune system and other biologically important targets. *Pomalyst/Imnovid* is indicated for patients with multiple myeloma who have received at least two prior therapies including lenalidomide and a proteasome inhibitor and have demonstrated disease progression on or within 60 days of completion of the last therapy.

- U.S. revenues increased 5% in 2021 due to higher average net selling prices and higher demand.
- International revenues increased 16% in 2021 due to higher demand and foreign exchange impacts of 2% partially offset by lower average net selling prices. Excluding foreign exchange impacts, revenues increased by 14%.

Orencia (abatacept) — a fusion protein indicated for adult patients with moderately to severely active RA and PsA and is also indicated for reducing signs and symptoms in certain pediatric patients with moderately to severely active polyarticular JIA.

- U.S. revenues increased 6% in 2021 due to higher demand.
- International revenues remained consistent in 2021 due to foreign exchange impacts of 2%, offset by lower demand. Excluding foreign exchange impacts, revenues decreased by 1%.
- In the U.S. and EU, estimated minimum market exclusivity dates were previously based on method of use patents that expired in 2021. Formulation and additional patents expire in 2026 and beyond. There are no *Orencia* biosimilars on the market in the U.S., EU or Japan.

Sprycel (dasatinib) — an oral inhibitor of multiple tyrosine kinase indicated for the first-line treatment of patients with Philadelphia chromosome-positive CML in chronic phase and the treatment of adults with chronic, accelerated, or myeloid or lymphoid blast phase CML with resistance or intolerance to prior therapy, including *Gleevec** (imatinib mesylate) and the treatment of children and adolescents aged 1 year to 18 years with chronic phase Philadelphia chromosome-positive CML.

- U.S. revenues remained consistent in 2021 due to higher demand offset by lower average net selling prices.
- International revenues decreased 3% in 2021 due to lower demand as a result of increased generic competition in certain indications and lower average net selling prices, partially offset by foreign exchange impacts of 1%. Excluding foreign exchange impacts, revenues decreased by 4%.

Yervoy (ipilimumab) — a monoclonal antibody for the treatment of patients with unresectable or metastatic melanoma. The *Opdivo+Yervoy* regimen also is approved in multiple markets for the treatment of NSCLC, melanoma, MPM, RCC, and CRC.

- U.S. revenues increased 13% in 2021 due to higher demand primarily from the *Opdivo+Yervoy* combination for NSCLC and higher average net selling prices.
- International revenues increased 36% in 2021 due to higher demand and foreign exchange impacts of 2% partially offset by lower average net selling prices. Excluding foreign exchange impacts, revenues increased by 34%.

Abraxane (paclitaxel albumin-bound particles for injectable suspension) — a solvent-free protein-bound chemotherapy product that combines paclitaxel with albumin using our proprietary *Nab*[®] technology platform, and is used to treat breast cancer, NSCLC and pancreatic cancer, among others.

- U.S. revenues increased 3% in 2021 due to higher average net selling prices and higher demand.
- International revenues decreased 24% in 2021 due to manufacturing delays and lower demand resulting from generic competition, partially offset by foreign exchange impacts of 3%. Excluding foreign exchange impacts, revenues decreased by 27%.
- We expect that the manufacturing delays in the U.S. and International will continue into the first quarter 2022.
- In the U.S., based on settlements reached we anticipate generic entry beginning in March 2022. In the EU, generics have entered the market. In Japan, the estimated minimum market exclusivity date is 2023 based on a method of use patent. Global revenues for *Abraxane* are expected to decline by approximately 25% to 30% starting in 2022.

Reblozyl (luspaterecept-aamt) — an erythroid maturation agent indicated for the treatment of anemia in adult patients with beta thalassemia who require regular red blood cell transfusions and for the treatment of anemia failing an ESA in adult patients with very low- to intermediate-risk MDS who have ring sideroblasts and require RBC transfusions.

- U.S. revenues increased 87% in 2021 due to higher demand primarily from the launch of *Reblozyl* in April 2020 for the treatment of adult patients with MDS previously treated with ESA.

Empliciti (elotuzumab) — a humanized monoclonal antibody for the treatment of multiple myeloma.

Abecma (idecabtagene vicleucel) — is a B-cell maturation antigen-directed genetically modified autologous CAR T cell therapy indicated for the treatment of adult patients with relapsed or refractory multiple myeloma after four or more prior lines of therapy, including an immunomodulatory agent, a proteasome inhibitor, and an anti-CD38 monoclonal antibody. *Abecma* was launched in May 2021.

Zeposia (ozanimod) — an oral immunomodulatory drug used to treat relapsing forms of multiple sclerosis, to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults and to treat moderately to severely active UC in adults. *Zeposia* was launched in June 2020.

Breyanzi (lisocabtagene maraleucel) — is a CD19-directed genetically modified autologous CAR T cell therapy indicated for the treatment of adult patients with certain types of relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy. *Breyanzi* was launched in April 2021.

Inrebic (fedratinib) — an oral kinase inhibitor indicated for the treatment of adult patients with intermediate-2 or high-risk primary or secondary (post-polycythemia vera or post-essential thrombocythemia) myelofibrosis. *Inrebic* was launched in August 2019.

Onureg (azacitidine) — an oral hypomethylating agent that incorporates into DNA and RNA, indicated for continued treatment of adult patients with AML who achieved first complete remission or complete remission with incomplete blood count recovery following intensive induction chemotherapy and are not able to complete intensive curative therapy. *Onureg* was launched in September 2020.

Mature and other brands — includes all other brands, including those which have lost exclusivity in major markets, OTC brands and royalty revenue.

- International revenues decreased due to lower demand and lower average net selling prices resulting from generic competition.

Estimated End-User Demand

Pursuant to the SEC Consent Order described under “—SEC Consent Order”, we monitor the level of inventory on hand in the U.S. wholesaler distribution channel and outside of the U.S. in the direct customer distribution channel. We are obligated to disclose products with levels of inventory in excess of one month on hand or expected demand, subject to a *de minimis* exception. Estimated levels of inventory in the distribution channel in excess of one month on hand for the following products were not material to our results of operations as of the dates indicated.

Abraxane had 1.4 months of inventory on hand internationally in the distribution channel at September 30, 2021 compared to 1.9 months of inventory on hand at June 30, 2021 due to on-going business transition from a distributor and to avert a forecasted back order in Latin America.

In the U.S., we generally determine our months on hand estimates using inventory levels of product on hand and the amount of out-movement provided by our three largest wholesalers, which account for approximately 76% of total gross sales of U.S. products for the year ended December 31, 2021. Factors that may influence our estimates include generic competition, seasonality of products, wholesaler purchases in light of increases in wholesaler list prices, new product launches, new warehouse openings by wholesalers and new customer stockings by wholesalers. In addition, these estimates are calculated using third-party data, which may be impacted by their recordkeeping processes.

Revlimid and *Pomalyst* are distributed in the U.S. primarily through contracted pharmacies under the Lenalidomide REMS and *Pomalyst* REMS programs, respectively. These are proprietary risk-management distribution programs tailored specifically to provide for the safe and appropriate distribution and use of *Revlimid* and *Pomalyst*. Internationally, *Revlimid* and *Imnovid* are distributed under mandatory risk-management distribution programs tailored to meet local authorities’ specifications to provide for the products’ safe and appropriate distribution and use. These programs may vary by country and, depending upon the country and the design of the risk-management program, the product may be sold through hospitals or retail pharmacies.

Our non-U.S. businesses have significantly more direct customers. Information on available direct customer product level inventory and corresponding out-movement information and the reliability of third-party demand information varies widely. We limit our direct customer sales channel inventory reporting to where we can influence demand. When this information does not exist or is otherwise not available, we have developed a variety of methodologies to estimate such data, including using historical sales made to direct customers and third-party market research data related to prescription trends and end-user demand. Given the difficulties inherent in estimating third-party demand information, we evaluate our methodologies to estimate direct customer product level inventory and to calculate months on hand on an ongoing basis and make changes as necessary. Factors that may affect our estimates include generic competition, seasonality of products, price increases, new product launches, new warehouse openings by direct customers, new customer stockings by direct customers and expected direct customer purchases for governmental bidding situations. As such, all of the information required to estimate months on hand in the direct customer distribution channel for non-U.S. business for the year ended December 31, 2021 is not available prior to the filing of this Annual Report on Form 10-K. We will disclose any product with levels of inventory in excess of one month on hand or expected demand, subject to a *de minimis* exception, in the next quarterly report on Form 10-Q.

Expenses

Dollar in Millions	Year Ended December 31,		% Change
	2021	2020	2021 vs 2020
Cost of products sold ^(a)	\$ 9,940	\$ 11,773	(16)%
Marketing, selling and administrative	7,690	7,661	—
Research and development	11,354	11,143	2 %
IPRD charge - MyoKardia acquisition	—	11,438	(100)%
Amortization of acquired intangible assets	10,023	9,688	3 %
Other (income)/expense, net	(720)	(2,314)	(69)%
Total Expenses	\$ 38,287	\$ 49,389	(22)%

(a) Excludes amortization of acquired intangible assets.

Cost of products sold

Cost of products sold include material, internal labor and overhead costs from our owned manufacturing sites, third-party product supply costs and other supply chain costs managed by our global manufacturing and supply organization. Cost of products sold also includes royalties and profit sharing, certain excise taxes, foreign currency hedge settlement gains and losses and impairment charges. Cost of products sold typically vary between periods as a result of product mix and volume (particularly royalties and profit sharing), and to a lesser extent changes in foreign currency, price, inflation, costs attributed to manufacturing site exits and impairment charges. Cost of products sold excludes amortization from acquired intangible assets.

- Cost of products sold decreased by \$1.8 billion in 2021 primarily due to lower unwinding of inventory purchase price adjustments (\$2.4 billion), lower impairments of acquired marketed product rights (\$260 million), partially offset by higher profit sharing and royalties due to *Eliquis* revenue growth and expiration of *Sprycel* co-promotion fee (\$539 million) and higher product and manufacturing related costs.

Marketing, selling and administrative

Marketing, selling and administrative expenses primarily include salary and benefit costs, third-party professional and marketing fees, outsourcing fees, shipping and handling costs, advertising and product promotion costs. Expenses are managed through regional commercialization organizations or global enabling functions such as finance, legal, information technology and human resources. Certain expenses are shared with alliance partners based upon contractual agreements.

- Marketing, selling and administrative expenses remained unchanged in 2021 primarily due to higher advertising and promotion expenses and costs to support new product launches, offset by a cash settlement of MyoKardia unvested stock awards (\$241 million) in 2020 and acceleration of charitable giving (\$280 million) in 2020.

Research and development

Research and development activities include research and early discovery, preclinical and clinical development, drug formulation and medical support of marketed products. Expenses include salary and benefit costs, third-party grants and fees paid to clinical research organizations, supplies, up-front and contingent milestone payments for licensing and asset acquisitions of investigational compounds, IPRD impairment charges and proportionate allocations of enterprise-wide costs. The allocations include facilities, information technology, employee stock compensation costs and other appropriate costs. Certain expenses are shared with alliance partners based upon contractual agreements. Expenses typically vary between periods for a number of reasons, including the timing of license and asset acquisition charges and IPRD impairment charges.

- Research and development expense increased \$211 million in 2021 primarily due to higher costs associated with the overall portfolio and the impact of significant charges summarized below.

Significant charges included in Research and development expense were as follows:

Dollars in Millions	Year Ended December 31,	
	2021	2020
Eisai up-front collaboration fee	\$ 650	\$ —
Agenus up-front license fee	200	—
Prothena opt-in license fee	80	—
Dragonfly up-front license fee and milestone	—	475
bluebird collaboration fee	—	200
Forbius asset acquisition	—	178
Cormorant milestone	—	100
Other milestones	50	50
License and asset acquisition charges	980	1,003
IPRD impairments	840	470
Inventory purchase price accounting adjustments	1	36
Employee compensation charges	1	282
Site exit and other costs	1	115
Research and development significant charges	\$ 1,823	\$ 1,906

License and acquisition charges are related to obtaining rights to investigational compounds that will be developed further by the company. These acquisition costs include the initial up-front payment and additional contingent payments if substantive development and regulatory milestones are achieved prior to regulatory approval. Refer to “Consolidated Financial Statements—Note 3. Alliances” and “—Note 4. Acquisitions, Divestitures, Licensing and Other Arrangements” for further information on these charges. IPRD impairment charges relate to orva-cel in 2020 and two other programs in 2021 being studied as potential treatments in hematologic and fibrotic diseases. Refer to “Consolidated Financial Statements—Note 14. Goodwill and Other Intangible Assets” for further information on these charges. Employee compensation charges resulted from the cash settlement of MyoKardia unvested stock awards in 2020. Site exit costs resulted from Celgene integration activities in 2020.

IPRD charge - MyoKardia acquisition

IPRD charges represents the costs of IPRD assets acquired in a transaction other than a business combination.

- The MyoKardia acquisition was accounted for as an asset acquisition because substantially all of the fair value of the gross assets acquired (excluding cash and deferred taxes) was allocated to a single asset, mavacamten. The IPRD charge related to the MyoKardia transaction is presented separately due to the significance of the charge.

Amortization of Acquired Intangible Assets

Amortization of intangible assets primarily relates to *Revlimid*, *Pomalyst/Imnovid* and other marketed product rights obtained in the Celgene acquisition.

- Amortization of acquired intangible assets increased by \$335 million in 2021 due to additional product approvals.

Other (income)/expense, net

- Other (income)/expense, net changed by \$1.6 billion in 2021, primarily due to contingent value rights, equity investments and other items discussed below.

Components of Other (income)/expense, net were as follows:

Dollars in Millions	Year Ended December 31,	
	2021	2020
Interest expense	\$ 1,334	\$ 1,420
Royalties and licensing income	(1,733)	(1,527)
Equity investment gains	(745)	(1,228)
Integration expenses	564	717
Contingent consideration	(542)	(1,757)
Loss on debt redemption	281	—
Provision for restructuring	169	530
Litigation and other settlements	82	(194)
Transition and other service fees	(49)	(149)
Investment income	(39)	(121)
Divestiture gains	(9)	(55)
Intangible asset impairment	—	21
Reversion excise tax	—	76
Other	(33)	(47)
Other (income)/expense, net	\$ (720)	\$ (2,314)

- Royalties and licensing income includes diabetes business royalties, *Keytruda** royalties, *Tecentriq** royalties, up-front licensing fees and milestones for products that have not obtained commercial approval. Refer to “Consolidated Financial Statements—Note 4. Acquisitions, Divestitures, Licensing and Other Arrangements” for further information.
- Equity investment gains includes fair value adjustments for investments that have readily determinable fair value and observable price changes for investments without readily determinable fair values resulting primarily from initial public offerings or third-party acquisitions of entities which we held an ownership interest. Our share of income from equity method investments are primarily due to fair value adjustments attributed to limited partnerships. Refer to “Consolidated Financial Statements—Note 9. Financial Instruments and Fair Value Measurements” for more information.
- Integration expenses primarily includes consulting fees to implement Celgene integration initiatives related to processes and systems.
- Contingent consideration primarily includes fair value adjustments resulting from the change in the traded price of contingent value rights issued with the Celgene acquisition. The contractual obligation to pay the contingent value rights terminated in January 2021 because the FDA did not approve liso-cel (JCAR017) by December 31, 2020.
- A loss on debt redemption resulted from the early redemption of \$3.5 billion long-term debt obligations in 2021.
- Provision for restructuring includes exit and other costs primarily related to the Celgene acquisition plan. We have achieved approximately \$2.6 billion of annualized pre-tax cost savings in 2020 related to the Celgene Acquisition Plan and are on track to achieve the annualized pre-tax cost savings of approximately \$3.0 billion through 2022 as detailed in the restructuring activities. Refer to “Consolidated Financial Statements—Note 6. Restructuring” for further information.
- Litigation and other settlements includes BMS's share of a patent-infringement settlement related to Roche Group's PD-L1 antibody *Tecentriq** in 2020.
- Investment income decreased in 2021 primarily due to lower interest rates.
- Reversion excise tax resulted from the transfer of the retiree medical plan assets back to the Company in 2020.

Income Taxes

Dollars in Millions	Year Ended December 31,	
	2021	2020
Earnings/(Loss) Before Income Taxes	\$ 8,098	\$ (6,871)
Provision for Income Taxes	1,084	2,124
Effective Tax Rate	13.4 %	(30.9)%
Impact of Specified Items	2.5 %	46.5 %
Effective Tax Rate Excluding Specified Items	15.9 %	15.6 %

The tax impact attributed to specified items was primarily due to low jurisdictional tax rates attributed to the unwinding of inventory purchase price adjustments and intangible asset amortization, IPRD impairment charges, contingent value rights fair value adjustments that are not taxable or deductible and internal transfers of intangible assets. In 2021, a \$1.0 billion income tax benefit was recognized due to a revaluation of the tax basis of certain intangible and other assets that were internally transferred to streamline our legal entity structure subsequent to the Celgene acquisition. In 2020, an \$853 million deferred tax charge resulting from an internal transfer of certain intangible assets to the U.S. to streamline our legal entity structure subsequent to the Celgene acquisition and an additional \$266 million GILTI tax charge upon finalization of the *Otezla** divestiture tax consequences with tax authorities was recognized. The 0.3% increase in the effective tax rate excluding specified items during 2021 was due to favorable discrete tax adjustments of approximately \$140 million in 2020 primarily resulting from finalization of prior year tax returns, partially offset by jurisdictional earnings mix. Refer to “Consolidated Financial Statements—Note 7. Income Taxes” for additional information.

Non-GAAP Financial Measures

Our non-GAAP financial measures, such as non-GAAP earnings and related EPS information, are adjusted to exclude certain costs, expenses, gains and losses and other specified items that are evaluated on an individual basis. These items are adjusted after considering their quantitative and qualitative aspects and typically have one or more of the following characteristics, such as being highly variable, difficult to project, unusual in nature, significant to the results of a particular period or not indicative of future operating results. Similar charges or gains were recognized in prior periods and will likely reoccur in future periods including (i) amortization of acquired intangible assets, including product rights that generate a significant portion of our ongoing revenue and will recur until the intangible assets are fully amortized, (ii) unwind of inventory purchase price adjustments, (iii) acquisition and integration expenses, (iv) restructuring costs, (v) accelerated depreciation and impairment of property, plant and equipment and intangible assets, (vi) R&D charges or other income resulting from up-front or contingent milestone payments in connection with the acquisition or licensing of third-party intellectual property rights, (vii) divestiture gains or losses, (viii) stock compensation resulting from accelerated vesting of Celgene awards and certain retention-related employee compensation charges related to the Celgene transaction, (ix) pension, legal and other contractual settlement charges, (x) equity investment and contingent value rights fair value adjustments, including adjustments attributed to limited partnership equity method investments and (xi) amortization of fair value adjustments of debt acquired from Celgene in our 2019 exchange offer, among other items. Deferred and current income taxes attributed to these items are also adjusted for considering their individual impact to the overall tax expense, deductibility and jurisdictional tax rates. Certain other significant tax items are also excluded such as the impact resulting from internal transfers of intangible and other assets to streamline our legal entity structure subsequent to the Celgene acquisition and the GILTI tax charge upon finalization of the Otezla* divestiture in 2020. We also provide international revenues for our priority products excluding the impact of foreign exchange. We calculate foreign exchange impacts by converting our current-period local currency financial results using the prior period average currency rates and comparing these adjusted amounts to our current-period results. Reconciliations of these non-GAAP measures to the most comparable GAAP measures are included in Exhibit 99.2 to our Form 8-K filed on February 4, 2022 and are incorporated herein by reference.

Non-GAAP information is intended to portray the results of our baseline performance, supplement or enhance management, analysts and investors' overall understanding of our underlying financial performance and facilitate comparisons among current, past and future periods. For example, non-GAAP earnings and EPS information is an indication of our baseline performance before items that are considered by us to not be reflective of our ongoing results. In addition, this information is among the primary indicators that we use as a basis for evaluating performance, allocating resources, setting incentive compensation targets and planning and forecasting for future periods. This information is not intended to be considered in isolation or as a substitute for net earnings or diluted EPS prepared in accordance with GAAP and may not be the same as or comparable to similarly titled measures presented by other companies due to possible differences in method and in the items being adjusted. We encourage investors to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure.

Specified items were as follows:

Dollars in Millions	Year Ended December 31,	
	2021	2020
Inventory purchase price accounting adjustments	\$ 264	\$ 2,688
Intangible asset impairment	315	575
Employee compensation charges	—	4
Site exit and other costs	24	33
Cost of products sold	603	3,300
Employee compensation charges	1	275
Site exit and other costs	2	4
Marketing, selling and administrative	3	279
License and asset acquisition charges	980	1,003
IPRD impairments	840	470
Inventory purchase price accounting adjustments	1	36
Employee compensation charges	1	282
Site exit and other costs	1	115
Research and development	1,823	1,906
IPRD charge - MyoKardia acquisition	—	11,438
Amortization of acquired intangible assets	10,023	9,688
Interest expense ^(a)	(120)	(159)
Contingent consideration	(542)	(1,757)
Royalties and licensing income	(72)	(168)
Equity investment gains	(758)	(1,156)
Integration expenses	564	717
Provision for restructuring	169	530
Litigation and other settlements	—	(239)
Reversion excise tax	—	76
Divestiture gains	(9)	(55)
Loss on debt redemption	281	—
Other (income)/expense, net	(487)	(2,211)
Increase to pretax income	11,965	24,400
Income taxes on items above	(1,122)	(1,733)
Income taxes attributed to <i>Otezla</i> * divestiture	—	266
Income taxes attributed to internal transfer of intangible assets	(983)	853
Income taxes	(2,105)	(614)
Increase to net earnings	\$ 9,860	\$ 23,786

(a) Includes amortization of purchase price adjustments to Celgene debt.

The reconciliations from GAAP to Non-GAAP were as follows:

Dollars in Millions, except per share data	Year Ended December 31,	
	2021	2020
Net Earnings/(Loss) Attributable to BMS used for Diluted EPS Calculation — GAAP	\$ 6,994	\$ (9,015)
Specified Items	9,860	23,786
Net Earnings Attributable to BMS used for Diluted EPS Calculation — Non-GAAP	\$ 16,854	\$ 14,771
Weighted-Average Common Shares Outstanding – Diluted – GAAP	2,245	2,258
Incremental Shares Attributable to Share-Based Compensation Plans	—	35
Weighted Average Common Shares Outstanding — Diluted – Non-GAAP	2,245	2,293
Diluted Earnings/(Loss) Per Share Attributable to BMS — GAAP	\$ 3.12	\$ (3.99)
Diluted EPS Attributable to Specified Items	4.39	10.43
Diluted EPS Attributable to BMS — Non-GAAP	\$ 7.51	\$ 6.44

Financial Position, Liquidity and Capital Resources

Our net debt position was as follows:

Dollars in Millions	December 31,	
	2021	2020
Cash and cash equivalents	\$ 13,979	\$ 14,546
Marketable debt securities — current	2,987	1,285
Marketable debt securities — non-current	—	433
Total cash, cash equivalents and marketable debt securities	16,966	16,264
Short-term debt obligations	(4,948)	(2,340)
Long-term debt	(39,605)	(48,336)
Net debt position	\$ (27,587)	\$ (34,412)

Liquidity and Capital Resources

We regularly assess our anticipated working capital needs, debt and leverage levels, debt maturities, capital expenditure requirements, dividend payouts, potential share repurchases and future investments or acquisitions in order to maximize shareholder return, efficiently finance our ongoing operations and maintain flexibility for future strategic transactions. We also regularly evaluate our capital structure to ensure financial risks, adequate liquidity access and lower cost of capital are efficiently managed, which may lead to the issuance of additional debt securities, the repurchase of debt securities prior to maturity or the issuance or repurchase of common stock. We believe that our existing cash, cash equivalents and marketable debt securities together with cash generated from operations and, if required, from the issuance of commercial paper will be sufficient to satisfy our anticipated cash needs for at least the next few years, including dividends, capital expenditures, milestone payments, working capital, restructuring initiatives, business development, repurchase of common stock, debt maturities of approximately \$15.1 billion through 2025 as well as any debt repurchases through redemptions or tender offers.

We have a share repurchase program authorized by our Board of Directors allowing for repurchases of our shares. The specific timing and number of shares repurchased will be determined by our management at its discretion and will vary based on market conditions, securities law limitations and other factors. The share repurchase program does not obligate us to repurchase any specific number of shares, does not have a specific expiration date and may be suspended or discontinued at any time. The repurchases may be effected through a combination of one or more open market repurchases, privately negotiated transactions, transactions structured through investment banking institutions and other derivative transactions, relying on Rule 10b-18 and Rule 10b5-1 under the Exchange Act. The outstanding share repurchase authorization under the program was \$4.4 billion as of December 31, 2020. Our Board of Directors approved an increase to the share repurchase authorization of our common stock of \$2.0 billion in January 2021 and \$15.0 billion in December 2021. We repurchased approximately 102 million shares of our common stock for \$6.2 billion in 2021. The remaining share repurchase capacity under the share repurchase program was approximately \$15.2 billion as of December 31, 2021. Refer to “Consolidated Financial Statements—Note 16. Equity” for additional information.

In February 2022, we executed accelerated share repurchase (“ASR”) agreements to repurchase an aggregate \$5.0 billion of our common stock. These ASR agreements were funded with cash on-hand and are expected to settle during the second and third quarters of 2022. The total number of shares to be repurchased under the ASR agreements will be based on volume-weighted average prices of our common stock during the terms of the ASR transactions less a discount and subject to adjustments pursuant to the terms and conditions of the ASR agreements.

Dividend payments were \$4.4 billion in 2021 and \$4.1 billion in 2020. Dividends are authorized on a quarterly basis by our Board of Directors.

Under our commercial paper program, we may issue a maximum of \$5 billion unsecured notes that have maturities of not more than 366 days from the date of issuance. There were no commercial paper borrowings outstanding as of December 31, 2021.

In 2021, we purchased an aggregate principal amount of \$3.5 billion of certain debt securities for approximately \$4.0 billion of cash in a series of tender offers and “make whole” redemptions and \$2.0 billion of notes matured and were repaid.

At December 31, 2021, we had four separate revolving credit facilities totaling \$6.0 billion, which consisted of a 364-day \$2.0 billion facility which expired in January 2022, a three-year \$1.0 billion facility which expired in January 2022 and two five-year \$1.5 billion facilities that were extended to September 2025 and July 2026, respectively. No borrowings were outstanding under any revolving credit facility at December 31, 2021 or 2020.

In January 2022, we entered into a five-year \$5.0 billion facility expiring in January 2027, which is extendable annually by one year with the consent of the lenders. This facility provides for customary terms and conditions with no financial covenants and may be used to provide backup liquidity for our commercial paper borrowings. Concurrently with the entry into this facility, the commitments under our existing five-year \$1.5 billion facilities were terminated and the three-year \$1.0 billion facility and 364-day \$2.0 billion facility expired in accordance with their terms in January 2022.

Our investment portfolio includes marketable debt securities, which are subject to changes in fair value as a result of interest rate fluctuations and other market factors. Our investment policy establishes limits on the amount and time to maturity of investments with any institution. The policy also requires that investments are only entered into with corporate and financial institutions that meet high credit quality standards. Refer to “Consolidated Financial Statements—Note 9. Financial Instruments and Fair Value Measurements” for further information.

Capital Expenditures

Annual capital expenditures were approximately \$970 million in 2021, \$750 million in 2020 and \$800 million in 2019 and are expected to be approximately \$1.2 billion in both 2022 and 2023. We continue to make capital expenditures in connection with the expansion of our cell therapy and other manufacturing capabilities, research and development and other facility-related activities.

Contractual Obligations and Off-Balance Sheet Arrangements

In the normal course of business, we enter into contracts and commitments that obligate us to make payments in the future. Information regarding our obligations relating to debt, income taxes and lease arrangements are provided in “Consolidated Financial Statements—Note 7. Income Taxes”, “—Note 9. Financial Instruments and Fair Value Measurements” and “—Note 13. Leases”, respectively.

We are committed to an aggregate \$21.1 billion of potential contingent future research and development milestone payments to third parties for in-licensing, asset acquisitions and development programs including early-stage milestones of \$7.4 billion (milestones achieved through Phase III clinical studies) and late-stage milestones of \$13.7 billion (milestones achieved post Phase III clinical studies). Payments generally are due and payable only upon achievement of certain developmental and regulatory milestones for which the specific timing cannot be predicted. Certain agreements also provide for sales-based milestones aggregating to \$15.0 billion that we would be obligated to pay upon achievement of certain sales levels in addition to royalties. We also have certain manufacturing, development and commercialization obligations in connection with alliance arrangements. It is not practicable to estimate the amount of these obligations. Refer to “Consolidated Financial Statements—Note 3. Alliances” for further information regarding our alliances.

We do not have any off-balance sheet arrangements that are material or reasonably likely to become material to our financial condition or results of operations.

Credit Ratings

Our current long-term and short-term credit ratings assigned by Moody's Investors Service are A2 and Prime-1, respectively, with a stable long-term credit outlook, and our current long-term and short-term credit ratings assigned by Standard & Poor's are A+ and A-1, respectively with a negative long-term credit outlook. The long-term ratings reflect the agencies' opinion that we have a low default risk but are somewhat susceptible to adverse effects of changes in circumstances and economic conditions. The short-term ratings reflect the agencies' opinion that we have good to extremely strong capacity for timely repayment. Any credit rating downgrade may affect the interest rate of any debt we may incur, the fair market value of existing debt and our ability to access the capital markets generally.

Cash Flows

The following is a discussion of cash flow activities:

Dollars in Millions	Year Ended December 31,	
	2021	2020
Cash flow provided by/(used in):		
Operating activities	\$ 16,207	\$ 14,052
Investing activities	(538)	(10,859)
Financing activities	(16,224)	(1,151)

Operating Activities

Cash flow from operating activities represents the cash receipts and disbursements from all of our activities other than investing and financing activities. Operating cash flow is derived by adjusting net earnings for noncontrolling interest, non-cash operating items, gains and losses attributed to investing and financing activities and changes in operating assets and liabilities resulting from timing differences between the receipts and payments of cash and when the transactions are recognized in our results of operations. As a result, changes in cash from operating activities reflect the timing of cash collections from customers and alliance partners; payments to suppliers, alliance partners and employees; customer discounts and rebates; and tax payments in the ordinary course of business.

The \$2.2 billion change in cash flow from operating activities compared to 2020 was primarily due to higher cash collections and timing of payments in the ordinary course of business, lower Celgene restructuring and integration payments (\$400 million) and cash settlement of MyoKardia unvested stock awards in 2020 (\$500 million), partially offset by reversion of post-retirement plan assets (\$300 million) in 2020.

Investing Activities

Cash requirements from investing activities include cash used for acquisitions, manufacturing and facility-related capital expenditures and purchases of marketable securities with original maturities greater than 90 days at the time of purchase, proceeds from business divestitures (including royalties), the sale and maturity of marketable securities, sale of equity investments and upfront and contingent milestones from licensing arrangements.

The \$10.3 billion change in cash flow from investing activities compared to 2020 was due to lower licensing and asset acquisition payments of \$11.5 billion primarily resulting from the MyoKardia acquisition in 2020 and higher proceeds from sales of equity investments of approximately \$2.4 billion in 2021, partially offset by changes in the amount of marketable debt securities held of \$3.4 billion.

Financing Activities

Cash requirements from financing activities include cash used to pay dividends, repurchase common stock and repay long-term debt and other borrowings reduced by proceeds from the exercise of stock options and issuance of long-term debt and other borrowings.

The \$15.1 billion change in cash flow from financing activities compared to 2020 was primarily due to debt issuances of approximately \$7.0 billion to partially fund the MyoKardia acquisition in 2020, higher debt repayments of \$3.3 billion, including a series of tender offer and "make whole" redemptions, and higher share repurchases of \$4.7 billion in 2021.

SEC Consent Order

As previously disclosed, on August 4, 2004, we entered into a final settlement with the SEC, concluding an investigation concerning certain wholesaler inventory and accounting matters. The settlement was reached through a Consent, a copy of which was attached as Exhibit 10 to our quarterly report on Form 10-Q for the period ended September 30, 2004.

Under the terms of the Consent, we agreed, subject to certain defined exceptions, to limit sales of all products sold to our direct customers (including wholesalers, distributors, hospitals, retail outlets, pharmacies and government purchasers) based on expected demand or on amounts that do not exceed approximately one month of inventory on hand, without making a timely public disclosure of any change in practice. We also agreed in the Consent to certain measures that we have implemented including: (a) establishing a formal review and certification process of our annual and quarterly reports filed with the SEC; (b) establishing a business risk and disclosure group; (c) retaining an outside consultant to comprehensively study and help re-engineer our accounting and financial reporting processes; (d) publicly disclosing any sales incentives offered to direct customers for the purpose of inducing them to purchase products in excess of expected demand; and (e) ensuring that our budget process gives appropriate weight to inputs that come from the bottom to the top, and not just from the top to the bottom, and adequately documenting that process.

We have established a company-wide policy concerning our sales to direct customers for the purpose of complying with the Consent, which includes the adoption of various procedures to monitor and limit sales to direct customers in accordance with the terms of the Consent. These procedures include a governance process to escalate to appropriate management levels potential questions or concerns regarding compliance with the policy and timely resolution of such questions or concerns. In addition, compliance with the policy is monitored on a regular basis.

We maintain DSAs with our U.S. pharmaceutical wholesalers, which account for nearly 100% of our gross U.S. revenues. Under the current terms of the DSAs, our wholesaler customers provide us with weekly information with respect to months on hand product-level inventories and the amount of out-movement of products. The three largest wholesalers currently account for approximately 76% of our gross U.S. revenues. The inventory information received from our wholesalers, together with our internal information, is used to estimate months on hand product level inventories at these wholesalers. We estimate months on hand product inventory levels for our U.S. business's wholesaler customers other than the three largest wholesalers by extrapolating from the months on hand calculated for the three largest wholesalers. In contrast, our non-U.S. business has significantly more direct customers, limited information on direct customer product level inventory and corresponding out-movement information and the reliability of third-party demand information, where available, varies widely. Accordingly, we rely on a variety of methods to estimate months on hand product level inventories for these business units.

We believe the above-described procedures provide a reasonable basis to ensure compliance with the Consent.

Recently Issued Accounting Standards

For recently issued accounting standards, refer to “Consolidated Financial Statements—Note 1. Accounting Policies and Recently Issued Accounting Standards.”

Critical Accounting Policies

The preparation of financial statements requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of revenue and expenses. Our critical accounting policies are those that significantly affect our financial condition and results of operations and require the most difficult, subjective or complex judgments, often because of the need to make estimates about the effect of matters that are inherently uncertain. Because of this uncertainty, actual results may vary from these estimates.

Revenue Recognition

Our accounting policy for revenue recognition has a substantial impact on reported results and relies on certain estimates. Revenue is recognized following a five-step model: (i) identify the customer contract; (ii) identify the contract's performance obligation; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligation; and (v) recognize revenue when or as a performance obligation is satisfied. Revenue is also reduced for GTN sales adjustments discussed below, all of which involve significant estimates and judgment after considering legal interpretations of applicable laws and regulations, historical experience, payer channel mix (e.g. Medicare or Medicaid), current contract prices under applicable programs, unbilled claims and processing time lags and inventory levels in the distribution channel. Estimates are assessed each period and adjusted as required to revise information or actual experience.

The following categories of GTN adjustments involve significant estimates, judgments and information obtained from external sources. Refer to “Consolidated Financial Statements—Note 2. Revenue” for further discussion and analysis of each significant category of GTN sales adjustments.

Charge-backs and cash discounts

Our U.S. business participates in programs with government entities, the most significant of which are the U.S. Department of Defense and the U.S. Department of Veterans Affairs, and other parties, including covered entities under the 340B Drug Pricing Program, whereby pricing on products is extended below wholesaler list price to participating entities. These entities purchase products through wholesalers at the lower program price and the wholesalers then charge us the difference between their acquisition cost and the lower program price. Accounts receivable is reduced for the estimated amount of unprocessed charge-back claims attributable to a sale (typically within a two to four week time lag).

In the U.S. and certain other countries, customers are offered cash discounts as an incentive for prompt payment, generally approximating 2% of the invoiced sales price. Accounts receivable is reduced for the estimated amount of cash discount at the time of sale and the discount is typically taken by the customer within one month.

Medicaid and Medicare rebates

Our U.S. business participates in state government Medicaid programs and other qualifying Federal and state government programs requiring discounts and rebates to participating state and local government entities. All discounts and rebates provided through these programs are included in our Medicaid rebate accrual. Medicaid rebates have also been extended to drugs used in managed Medicaid plans. The estimated amount of unpaid or unbilled rebates is presented as a liability.

Rebates and discounts are offered to managed healthcare organizations in the U.S. managing prescription drug programs and Medicare Advantage prescription drug plans covering the Medicare Part D drug benefit. We also pay a 70% point of service discount to the CMS when the Medicare Part D beneficiaries are in the coverage gap. The estimated amount of unpaid or unbilled rebates and discounts is presented as a liability.

Other rebates, returns, discounts and adjustments

Other GTN sales adjustments include sales returns and all other programs based on applicable laws and regulations for individual non-U.S. countries as well as rebates offered to managed healthcare organizations in the U.S. to a lesser extent. The non-U.S. programs include several different pricing schemes such as cost caps, volume discounts, outcome-based pricing schemes and pricing claw-backs that are based on sales of individual companies or an aggregation of all companies participating in a specific market. The estimated amount of unpaid or unbilled rebates and discounts is presented as a liability.

Estimated returns for established products are determined after considering historical experience and other factors including levels of inventory in the distribution channel, estimated shelf life, product recalls, product discontinuances, price changes of competitive products, introductions of generic products, introductions of competitive new products and lower demand following the loss of market exclusivity. Estimated returns for new products are determined after considering historical sales return experience of similar products, such as those within the same product line, similar therapeutic area and/or similar distribution model and estimated levels of inventory in the distribution channel and projected demand. The estimated amount for product returns is presented as a liability.

Use of information from external sources

Information from external sources is used to estimate GTN adjustments. Our estimate of inventory at the wholesalers is based on the projected prescription demand-based sales for our products and historical inventory experience, as well as our analysis of third-party information, including written and oral information obtained from certain wholesalers with respect to their inventory levels and sell-through to customers and third-party market research data, and our internal information. The inventory information received from wholesalers is a product of their recordkeeping process and excludes inventory held by intermediaries to whom they sell, such as retailers and hospitals.

We have also continued the practice of combining retail and mail prescription volume on a retail-equivalent basis. We use this methodology for internal demand forecasts. We also use information from external sources to identify prescription trends, patient demand and average selling prices. Our estimates are subject to inherent limitations of estimates that rely on third-party information, as certain third-party information was itself in the form of estimates, and reflect other limitations including lags between the date as of which third-party information is generated and the date on which we receive third-party information.

Long-lived Assets

Intangible Assets Valuations

A significant amount of the purchase price for the Celgene acquisition was allocated to intangible assets, including acquired marketed product rights and IPRD assets. Our intangible assets were \$42.5 billion as of December 31, 2021 and \$53.2 billion as of December 31, 2020.

Identifiable intangible assets are measured at their respective fair values as of the acquisition date. We engaged an independent third-party valuation firm to assist in determining the fair values of these assets as of the acquisition date. The fair value of these assets were estimated using discounted cash flow models. These models required the use of the following significant estimates and assumptions among others:

- Identification of product candidates with sufficient substance requiring separate recognition;
- Estimates of revenues and operating profits related to commercial products or product candidates;
- Eligible patients, pricing and market share used in estimating future revenues;
- Probability of success for unapproved product candidates and additional indications for commercial products;
- Resources required to complete the development and approval of product candidates;
- Timing of regulatory approvals and exclusivity;
- Appropriate discount rate by products;
- Market participant income tax rates; and
- Allocation of expected synergies to products.

We believe the estimated and preliminary fair value assigned to intangible assets acquired used reasonable estimates and assumptions considering the facts and circumstances as of the acquisition date.

Impairment and Amortization of Long-lived Assets, including Intangible Assets

Long-lived assets include intangible assets and property, plant and equipment and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable or at least annually for IPRD. Intangible assets are highly vulnerable to impairment charges, particularly newly acquired assets for recently launched products or IPRD. These assets are initially measured at fair value and therefore any reduction in expectations used in the valuations could potentially lead to impairment. Some of the more common potential risks leading to impairment include changes in competitive landscape, earlier than expected loss of market exclusivity, pricing reductions, adverse regulatory changes or clinical study results, delay or failure to obtain regulatory approval for initial or follow on indications and unanticipated development costs, inability to achieve expected synergies resulting from cost savings and avoidance, higher operating costs, changes in tax laws and other macro-economic changes. The complexity in estimating the fair value of intangible assets in connection with an impairment test is similar to the initial valuation. If the carrying value of long-lived assets exceeds its fair value, then the asset is written-down to its fair value. Expectations of future cash flows are subject to change based upon the near and long-term production volumes and margins generated by the asset as well as any potential alternative future use. The estimated useful lives of long-lived assets is subjective and requires significant judgment regarding patent lives, future plans and external market factors. Long-lived assets are also periodically reviewed for changes in facts or circumstances resulting in a reduction to the estimated useful life of the asset, requiring the acceleration of depreciation or amortization. In 2021, an impairment charge of \$315 million was recognized in Cost of products sold as the carrying value of *Inrebic* EU regulatory approval milestones exceeded the projected undiscounted cash flows of the assets. Additionally, impairment charges of \$840 million were recorded in Research and development expense relating to two IPRD assets. Refer to “Consolidated Financial Statements—Note 14. Goodwill and Other Intangible Assets” for further discussion and analysis of these impairment charges.

Goodwill

Goodwill represents the excess of the consideration transferred over the estimated fair values of net assets acquired in a business combination. Goodwill was \$20.5 billion as of December 31, 2021 and 2020.

We assess the goodwill balance within our single reporting unit annually and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable to determine whether any impairment in this asset may exist and, if so, the extent of such impairment. Goodwill is reviewed for impairment by assessing qualitative factors, including comparing our market capitalization to the carrying value of our assets. Events or circumstances that might require an interim evaluation include unexpected adverse business conditions, economic factors, unanticipated technological changes or competitive activities and acts by governments and courts.

Income Taxes

Valuation allowances are recognized to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. The assessment of whether or not a valuation allowance is required often requires significant judgment including long-range forecasts of future taxable income and evaluation of tax planning initiatives. Adjustments to the deferred tax valuation allowances are made to earnings in the period when such assessments are made. Our deferred tax assets were \$2.7 billion at December 31, 2021 (net of valuation allowances of \$1.1 billion) and \$3.5 billion at December 31, 2020 (net of valuation allowances of \$2.8 billion).

The U.S. federal net operating loss carryforwards were \$585 million at December 31, 2021. These carryforwards were acquired as a result of certain acquisitions and are subject to limitations under Section 382 of the Internal Revenue Code. The net operating loss carryforwards expire in varying amounts beginning in 2022. The foreign and state net operating loss carryforwards expire in varying amounts beginning in 2021 (certain amounts have unlimited lives).

Prior to the Mead Johnson split-off in 2009, the following transactions occurred: (i) an internal spin-off of Mead Johnson shares while still owned by us; (ii) conversion of Mead Johnson Class B shares to Class A shares; and (iii) conversion of Mead Johnson & Company to a limited liability company. These transactions as well as the split-off of Mead Johnson through the exchange offer should qualify as tax-exempt transactions under the Internal Revenue Code based upon a private letter ruling received from the Internal Revenue Service related to the conversion of Mead Johnson Class B shares to Class A shares, and outside legal opinions.

Certain assumptions, representations and covenants by Mead Johnson were relied upon regarding the future conduct of its business and other matters which could affect the tax treatment of the exchange. For example, the current tax law generally creates a presumption that the exchange would be taxable to us, if Mead Johnson or its shareholders were to engage in transactions that result in a 50% or greater change in its stock ownership during a four year period beginning two years before the exchange offer, unless it is established that the exchange offer were not part of a plan or series of related transactions to effect such a change in ownership. If the internal spin-off or exchange offer were determined not to qualify as a tax exempt transaction, the transaction could be subject to tax as if the exchange was a taxable sale by us at market value.

In addition, a negative basis or excess loss account (“ELA”) existed in our investment in stock of Mead Johnson prior to these transactions. We received an opinion from outside legal counsel to the effect that it is more likely than not that we eliminated the ELA as part of these transactions and do not have taxable income with respect to the ELA. The tax law in this area is complex and it is possible that even if the internal spin-off and the exchange offer is tax exempt under the Internal Revenue Code, the Internal Revenue Service could assert that we have additional taxable income for the period with respect to the ELA. We could be exposed to additional taxes if this were to occur. Based upon our understanding of the Internal Revenue Code and opinion from outside legal counsel, a tax reserve of \$244 million was established reducing the gain on disposal of Mead Johnson included in discontinued operations in 2009.

We agreed to certain tax related indemnities with Mead Johnson as set forth in the tax sharing agreement, including certain taxes related to its business prior to the completion of the initial public offering and created as part of the restructuring to facilitate the IPO. Mead Johnson has also agreed to indemnify us for potential tax effects resulting from the breach of certain representations discussed above as well as certain transactions related to the acquisition of Mead Johnson’s stock or assets.

Liabilities are established for possible assessments by tax authorities resulting from known tax exposures including, but not limited to, transfer pricing matters, tax credits and deductibility of certain expenses. Such liabilities represent a reasonable provision for taxes ultimately expected to be paid and may need to be adjusted over time as more information becomes known.

For discussions on income taxes, refer to “Consolidated Financial Statements—Note 1. Accounting Policies and Recently Issued Accounting Standards—Income Taxes” and “—Note 7. Income Taxes.”

Contingencies

In the normal course of business, we are subject to contingencies, such as legal proceedings and claims arising out of our business, that cover a wide range of matters, including, among others, government investigations, shareholder lawsuits, product and environmental liability, contractual claims and tax matters. We recognize accruals for such contingencies when it is probable that a liability will be incurred and the amount of the loss can be reasonably estimated. These estimates are subject to uncertainties that are difficult to predict and, as such, actual results could vary from these estimates.

For discussions on contingencies, refer to “Consolidated Financial Statements—Note 1. Accounting Policies and Recently Issued Accounting Standards—Contingencies,” “—Note 7. Income Taxes” and “—Note 19. Legal Proceedings and Contingencies.”

Product and Pipeline Developments

Our R&D programs are managed on a portfolio basis from early discovery through late-stage development and include a balance of early-stage and late-stage programs to support future growth. Our late stage R&D programs in Phase III development include both investigational compounds for initial indications and additional indications or formulations for marketed products. Spending on these programs represent approximately 40% of our annual R&D expenses in the last three years. *Opdivo* was the only investigational compound or marketed product that represented greater than 10% of our R&D expenses in the last three years. Our late-stage development programs could potentially have an impact on our revenue and earnings within the next few years if regulatory approvals are obtained and products are successfully commercialized. The following are the developments in our marketed products and our late-stage pipeline:

Product	Indication	Date	Developments
<i>Opdivo</i>	Bladder	August 2021	Announced FDA approval for <i>Opdivo</i> for the adjuvant treatment of patients with urothelial carcinoma who are at high risk of recurrence after undergoing radical resection, regardless of prior neoadjuvant chemotherapy, nodal involvement or PD-L1 status. The approval is based on the Phase III CheckMate-274 trial.
		March 2021	Ono, our alliance partner for <i>Opdivo</i> in Japan, announced the submission of a supplemental application for <i>Opdivo</i> to expand its use as adjuvant therapy of resected urothelial cancer, for a partial change in approved items of the manufacturing and marketing approval. The application is based on results from the global Phase III CheckMate-274 (ONO-4538-33) trial.
		March 2021	Announced that the EMA validated the type II variation application for <i>Opdivo</i> for the adjuvant treatment of patients with surgically resected, high-risk muscle-invasive urothelial carcinoma. The application is based on results from the Phase III CheckMate-274 trial.
	Gastric and Esophageal Cancers	November 2021	Ono, our alliance partner for <i>Opdivo</i> in Japan, announced that the Japan's Ministry of Health, Labour and Welfare approved <i>Opdivo</i> for expanded use for the first-line treatment of unresectable advanced or recurrent gastric cancer in combination with chemotherapy, for a partial change in approved items of the manufacturing and marketing approval. The approval is based on results from the Phase III CheckMate-649 (ONO-4538-44) trial.
		November 2021	Ono, our alliance partner for <i>Opdivo</i> in Japan, announced that the Japan's Ministry of Health, Labour and Welfare approved <i>Opdivo</i> for the adjuvant treatment of esophageal cancer, for a partial change in approved items of the manufacturing and marketing approval. The approval is based on results from the Phase III CheckMate-577 (ONO-4538-43) trial.
		October 2021	Announced EC approval of <i>Opdivo</i> in combination with fluoropyrimidine- and platinum-based combination chemotherapy for the first-line treatment of adult patients with HER2-negative advanced or metastatic gastric, gastroesophageal junction, or esophageal adenocarcinoma whose tumors express PD-L1 with a combined positive score ≥ 5 . The approval is based on results from the Phase III Checkmate-649 trial.
		July 2021	Announced EC approval of <i>Opdivo</i> for the adjuvant treatment of adult patients with esophageal or gastroesophageal junction cancer who have residual pathologic disease following prior neoadjuvant chemoradiotherapy. The approval is based on results from the Phase 3 CheckMate-577 trial.
		May 2021	Announced FDA approval of <i>Opdivo</i> for the adjuvant treatment of patients with completely resected esophageal or gastroesophageal junction cancer with residual pathologic disease who have received neoadjuvant chemoradiotherapy. The approval is based on results from the Phase III CheckMate-577 trial.
		April 2021	Announced FDA approval of <i>Opdivo</i> in combination with combination with fluoropyrimidine- and platinum-containing chemotherapy for the treatment of patients with advanced or metastatic gastric cancer, gastroesophageal junction cancer, and esophageal adenocarcinoma, regardless of PD-L1 expression status. The approval is based on the Phase III CheckMate-649 trial.
		April 2021	Announced positive topline results from the Phase III CheckMate-648 trial evaluating treatment with <i>Opdivo</i> plus chemotherapy or <i>Opdivo</i> plus <i>Yervoy</i> in patients with unresectable advanced or metastatic ESCC. <i>Opdivo</i> plus chemotherapy met primary and secondary endpoints of overall survival in patients with tumors expressing PD-L1 and in the all-randomized patient population, and also the primary endpoint of progression free survival in the PD-L1+ population. <i>Opdivo</i> plus <i>Yervoy</i> met primary and secondary endpoints of overall survival in both populations, whereas the other primary endpoint of progression free survival in the PD-L1+ population was not met.
		HCC	July 2021

Product	Indication	Date	Developments
<i>Opdivo</i>	Hodgkin Lymphoma	September 2021	Ono, our alliance partner for <i>Opdivo</i> in Japan, announced that Japan's Ministry of Health, Labour and Welfare approved <i>Opdivo</i> for the treatment of pediatric patients with recurrent or refractory classical Hodgkin lymphoma, for a partial change in approved items of the manufacturing and marketing approval. The approval is based on results from the Phase I PENGUIN trial.
	NSCLC	November 2021	Announced the Phase III CheckMate-816 trial met the primary endpoint of improved event-free survival in patients with resectable stage IB to IIIA NSCLC. In a prespecified interim analysis, <i>Opdivo</i> plus chemotherapy showed a statistically significant and clinically meaningful improvement in event-free survival compared to chemotherapy alone when given before surgery.
	RCC	August 2021	Ono, our alliance partner for <i>Opdivo</i> in Japan, announced that Japan's Ministry of Health, Labour and Welfare approved the combination therapy of <i>Opdivo</i> and <i>CABOMETYX</i> * for the treatment of unresectable or metastatic RCC, for a partial change in approved items of the manufacturing and marketing approval. The approval is based on results from the Phase III Checkmate-9ER trial.
		April 2021	Announced EC approval of <i>Opdivo</i> in combination with <i>CABOMETYX</i> * for the first-line treatment of adults with advanced RCC. The approval is based on results from the Phase III CheckMate-9ER trial.
		January 2021	Announced FDA approval of <i>Opdivo</i> in combination with <i>CABOMETYX</i> * for the first-line treatment of patients with advanced RCC. The approval is based on the Phase III CheckMate-9ER trial.
<i>Opdivo + Yervoy</i>	CRC	June 2021	Announced EC approval of <i>Opdivo</i> plus <i>Yervoy</i> for the treatment of adult patients with mismatch repair deficient (dMMR) or microsatellite instability-high mCRC after prior fluoropyrimidine-based combination chemotherapy. The approval is based on results from the Phase II CheckMate-142 trial.
	Melanoma	May 2021	Announced new six-and-a-half year data from the Phase III CheckMate-067 trial demonstrating durable improvement in survival with first-line <i>Opdivo</i> plus <i>Yervoy</i> therapy and <i>Opdivo</i> monotherapy, versus <i>Yervoy</i> alone, in patients with advanced melanoma.
	Esophageal	September 2021	Announced that the FDA has accepted the sBLA for <i>Opdivo</i> in combination with <i>Yervoy</i> and <i>Opdivo</i> in combination with fluoropyrimidine- and platinum-containing chemotherapy as first-line treatments for adult patients with unresectable advanced, recurrent or metastatic esophageal squamous cell carcinoma. The FDA assigned a PDUFA goal date of May 28, 2022. The sBLA submissions were based on the Phase III Checkmate-648 trial.
		September 2021	Ono, our alliance partner for <i>Opdivo</i> in Japan, announced that the companies have submitted supplemental applications in Japan for <i>Opdivo</i> in combination with <i>Yervoy</i> and <i>Opdivo</i> in combination with chemotherapy for the first-line treatment of unresectable, advanced or recurrent esophageal cancer, for a partial change in approved items of the manufacturing and marketing approvals in Japan. The applications are based on results from the Phase III CheckMate-648 trial.
		August 2021	Announced that the EMA validated its MAA for both <i>Opdivo</i> in combination with <i>Yervoy</i> and <i>Opdivo</i> in combination with fluoropyrimidine- and platinum-containing chemotherapy as first-line treatments for adult patients with unresectable advanced, recurrent or metastatic esophageal squamous cell carcinoma. Validation of these applications confirm that the submissions are complete and begins the EMA's centralized review process. The applications are based on results from the pivotal Phase III CheckMate-648 trial.
	Malignant Pleural Mesothelioma	September 2021	Announced three-year data from the CheckMate-743 trial that demonstrated a durable survival benefit with first-line treatment with <i>Opdivo</i> plus <i>Yervoy</i> compared to platinum-based standard-of-care chemotherapy in patients with unresectable malignant pleural mesothelioma, regardless of histology.
		June 2021	Announced EC approval of <i>Opdivo</i> plus <i>Yervoy</i> for the first line treatment of adults with unresectable malignant pleural mesothelioma. The approval is based on results from the Phase III CheckMate-743 trial.
		May 2021	Ono, our alliance partner for <i>Opdivo</i> in Japan, announced that the companies received approval for combination therapy of <i>Opdivo</i> and <i>Yervoy</i> in Japan for the first-line treatment of unresectable advanced or recurrent malignant pleural mesothelioma, for a partial change in approved items of the manufacturing and marketing approval. The approval is based on results from the Phase III CheckMate-743 trial.

Product	Indication	Date	Developments
Opdivo + Yervoy	RCC	September 2021	Announced that <i>Opdivo</i> plus <i>Yervoy</i> continued to demonstrate durable, long-term survival in the Phase III CheckMate-214 trial, with a five-year survival rate of 48% in patients with previously untreated advanced or metastatic RCC. After a median follow-up of 67.7 months, <i>Opdivo</i> plus <i>Yervoy</i> maintained superior overall survival and response benefits versus sunitinib in both patients with intermediate- and poor-risk prognostic factors, the primary endpoint population, and across all randomized patients.
	NSCLC	May 2021	Announced that Part 1 of the Phase III CheckMate-227 trial continues to demonstrate the long-term survival benefits of first-line treatment with <i>Opdivo</i> plus <i>Yervoy</i> compared to chemotherapy in patients with advanced NSCLC, regardless of PD-L1 expression level or histology, with a minimum follow-up of over four years.
		May 2021	Announced that <i>Opdivo</i> plus <i>Yervoy</i> with two cycles of chemotherapy showed a durable survival benefit compared to four cycles of chemotherapy alone after two years of follow-up in previously untreated patients with advanced NSCLC in the Phase III CheckMate-9LA trial.
	SCCHN	July 2021	Announced an update on the Phase III CheckMate-651 trial comparing <i>Opdivo</i> plus <i>Yervoy</i> to the EXTREME regimen (cetuximab, cisplatin/carboplatin and fluorouracil) as a first-line treatment in platinum-eligible patients with recurrent or metastatic SCCHN. Although <i>Opdivo</i> plus <i>Yervoy</i> showed a clear, positive trend towards overall survival in patients whose tumors express PD-L1 with a combined positive score ≥ 20 , the study did not meet its primary endpoints.
Orencia	aGvHD	December 2021	Announced FDA approval of <i>Orencia</i> for the prevention, of aGvHD, in combination with a calcineurin inhibitor and methotrexate, in adults and pediatric patients two years of age and older undergoing hematopoietic stem cell transplantation from a matched or one allelemismatched unrelated donor. The approval is based on results from the Phase II ABA2 trial.
Reblozyl	Beta Thalassemia	December 2021	Announced that the FDA has accepted for priority review the sBLA for <i>Reblozyl</i> for the treatment of anemia in adults with non-transfusion dependent beta thalassemia. The FDA has set a PDUFA goal date of March 27, 2022. The sBLA is based on results from the Phase II BEYOND trial.
		December 2021	Announced that the EMA validated its MAA for <i>Reblozyl</i> for the treatment of anemia in adults with non-transfusion dependent beta thalassemia. Validation of the application confirms that the submission is complete and begins the EMA's centralized review process. The application is based on results from the pivotal Phase II BEYOND trial.
		June 2021	Announced with Acceleron, that Phase II BEYOND study evaluating <i>Reblozyl</i> plus best supportive care in adult patients with non-transfusion dependent beta thalassemia demonstrated that 77.7% of patients treated with <i>Reblozyl</i> achieved a hemoglobin increase (≥ 1.0 gram/deciliter) compared to 0% of patients in the placebo arm.
Zeposia	UC	November 2021	Announced EC approval of <i>Zeposia</i> for the treatment of adults with moderately to severely active UC who have had an inadequate response, lost response, or were intolerant to either conventional therapy or a biologic agent. The approval is based on data from the pivotal Phase III True North trial.
		May 2021	Announced FDA approval of <i>Zeposia</i> for the treatment of adults with moderately to severely active UC. The approval is based on data from the pivotal Phase III True North trial.
	MS	October 2021	Announced interim results from the Phase III open-label extension trial DAYBREAK, demonstrating the long-term efficacy and safety profile of <i>Zeposia</i> in patients with relapsing forms of MS. In the DAYBREAK extension study, safety was consistent with prior findings and no new safety signals emerged during the reporting period with long-term use of <i>Zeposia</i> . Treatment with <i>Zeposia</i> demonstrated a low annualized relapse rate of 0.103. At months 36 and 48, 75% and 71% of participants were relapse-free and 3- and 6-month confirmed disability progression was observed in 13.9% and 11.4% of participants in the trial, respectively.
Inrebic	Myelofibrosis	February 2021	Announced EC approval of <i>Inrebic</i> for the treatment of disease-related splenomegaly (enlarged spleen) or symptoms in adult patients with primary myelofibrosis, post-polycythaemia vera myelofibrosis or post-essential thrombocythaemia myelofibrosis, who are JAK inhibitor naïve or have been treated with ruxolitinib.
Onureg	AML	June 2021	Announced EC approval of Onureg as a maintenance therapy in adult patients with AML who achieved complete remission or complete remission with incomplete blood count recovery following induction therapy with or without consolidation treatment and who are not candidates for, including those who choose not to proceed to, hematopoietic stem cell transplantation. The approval is based on data from the Phase III QUAZAR AML-001 study.

Product	Indication	Date	Developments
Breyanzi	Lymphoma	January 2022	Received a positive CHMP opinion of <i>Breyanzi</i> for the treatment of adult patients with relapsed or refractory diffuse large B-cell lymphoma, primary mediastinal large B-cell lymphoma, and follicular lymphoma grade 3B after two or more lines of systemic therapy. The opinion is based on data from the TRANSCEND NHL 001 trial.
		June 2021	Announced positive topline results from the Phase III TRANSFORM trial evaluating <i>Breyanzi</i> as a second-line treatment in adults with relapsed or refractory large B-cell lymphoma compared to salvage therapy followed by high-dose chemotherapy and hematopoietic stem cell transplant. Results of a pre-specified interim analysis conducted by an independent review committee showed the study met its primary endpoint of demonstrating a clinically meaningful and highly statistically significant improvement in event-free survival, as well as key secondary endpoints of complete response rate and progression-free survival compared to standard of care.
		March 2021	Announced Japan's Ministry of Health, Labour and Welfare approval of <i>Breyanzi</i> for the treatment of patients with relapsed or refractory large B-cell lymphoma and relapsed or refractory follicular lymphoma.
		February 2021	Announced FDA approval of <i>Breyanzi</i> , for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy, including diffuse large B-cell lymphoma not otherwise specified (including DLBCL arising from indolent lymphoma), high-grade B-cell lymphoma, primary mediastinal large B-cell lymphoma, and follicular lymphoma grade 3B.
Abecma	Multiple Myeloma	January 2022	Announced Japan's Ministry of Health, Labour and Welfare approval of <i>Abecma</i> for the treatment of adult patients with relapsed or refractory multiple myeloma, who have received at least three prior therapies, including an immunomodulatory agent, a proteasome inhibitor and an anti-CD38 antibody, and have either experienced disease progression on the last therapy or relapse after the last therapy. The approval is based on results from the Phase II BB2121-MM-001 and Phase I CRB-401 trials.
		August 2021	Announced EC approval for <i>Abecma</i> for the treatment of adult patients with relapsed and refractory multiple myeloma, who have received at least three prior therapies, including an immunomodulatory agent, a proteasome inhibitor and an anti-CD38 antibody and have demonstrated disease progression on the last therapy. The approval is based on results from the pivotal KarMMA study.
		March 2021	Announced with bluebird FDA approval of <i>Abecma</i> (idecabtagene vicleucel; ide-cel) for the treatment of adult patients with relapsed or refractory multiple myeloma after four or more prior lines of therapy, including an immunomodulatory agent, a proteasome inhibitor, and an anti-CD38 monoclonal antibody. The approval is based on results from the pivotal Phase II KarMMA study.
deucravacitinib	UC	October 2021	Announced the Phase II LATTICE-UC study evaluating deucravacitinib compared to placebo in moderate to severe UC did not meet the primary efficacy endpoint of clinical remission at Week 12, nor secondary efficacy endpoints. The safety profile of deucravacitinib was consistent with previously reported studies in psoriasis and psoriatic arthritis, and no new safety signals were observed. The potential of deucravacitinib in UC continues to be evaluated in IM011-127, a second Phase II trial that also includes a higher dose.
	Plaque Psoriasis	November 2021	Announced that the FDA has accepted the NDA for <i>deucravacitinib</i> for the treatment of adults with moderate to severe plaque psoriasis. The FDA has set a PDUFA goal date of September 10, 2022. The NDA is based on results from the Phase III POETYK PSO-1 and POETYK PSO-2 trials.
		November 2021	Announced that the EMA validated its MAA for <i>deucravacitinib</i> for the treatment of adults with moderate to severe plaque psoriasis. Validation of the application confirms that the submission is complete and begins the EMA's centralized review process. The application is based on results from the Phase III POETYK PSO-1 and POETYK PSO-2 trials.
		November 2021	Announced Japan's Ministry of Health, Labour and Welfare has accepted the NDA for <i>deucravacitinib</i> for the treatment of adults with moderate to severe plaque psoriasis, pustular psoriasis and erythrodermic psoriasis. The application is based on results from the Phase III POETYK PSO-1 and POETYK PSO-2 trials.
		February 2021	Announced positive results from POETYK PSO-2, the second pivotal Phase III trial evaluating <i>deucravacitinib</i> (tyrosine kinase 2 inhibitor) for the treatment of patients with moderate to severe plaque psoriasis. POETYK PSO-2 met both co-primary endpoints versus placebo, with significantly more patients achieving Psoriasis Area and Severity Index (PASI 75), defined as at least a 75 percent improvement of baseline PASI, and a static Physician's Global Assessment (sPGA) score of clear or almost clear (sPGA 0/1) after 16 weeks of treatment.

Product	Indication	Date	Developments
mavacamten	Obstructive HCM	November 2021	Announced that the FDA has extended the review of the NDA for mavacamten for the treatment of patients with symptomatic obstructive hypertrophic cardiomyopathy to April 28, 2022 to allow sufficient time to review information pertaining to updates to the proposed REMS.
		October 2021	Announced that the EMA validated its MAA for mavacamten for the treatment of patients with obstructive HCM. Validation of the application confirm that the submission is complete and begins the EMA's centralized review process. The application is based on results from the pivotal Phase III EXPLORER-HCM trial.
		May 2021	Announced a new analysis of data from the Phase III EXPLORER-HCM study evaluating mavacamten, an investigational, first-in-class cardiac myosin inhibitor, in patients with oHCM. At 30 weeks, the change in Kansas City Cardiomyopathy Questionnaire Overall Summary Score (KCCQ OSS) was greater in mavacamten patients than placebo, with similar benefits across all KCCQ subscales
		March 2021	Announced that the FDA accepted the NDA for mavacamten, an investigational, novel, oral, allosteric modulator of cardiac myosin, for patients with symptomatic obstructive hypertrophic cardiomyopathy. The FDA has assigned a PDUFA goal date of January 28, 2022.
relatlimab	Melanoma	October 2021	Announced that the EMA validated its MAA for relatlimab and nivolumab fixed-dose combination for first-line treatment of adult and pediatric patients with advanced (unresectable or metastatic) melanoma. Validation of the application confirm that the submission is complete and begins the EMA's centralized review process. The application is based on results from the pivotal Phase II/III RELATIVITY-047 trial.
		September 2021	Announced that the FDA has accepted for priority review the BLA for the fixed dose combination of relatlimab and nivolumab for the treatment of adult and pediatric patients with unresectable or metastatic melanoma. The FDA assigned a PDUFA goal date of March 19, 2022. The BLA submission was based on the Phase II/III RELATIVITY-047 trial.
		March 2021	Announced primary results from the Phase II/III RELATIVITY-047 (CA224-047) trial evaluating the fixed-dose combination of relatlimab, an anti-LAG-3 antibody, and <i>Opdivo</i> versus <i>Opdivo</i> alone in patients with previously untreated metastatic or unresectable melanoma. The trial met its primary endpoint of progression-free survival. Follow up for overall survival, a secondary endpoint, is ongoing. The fixed-dose combination was well-tolerated and there were no new safety signals reported in either the relatlimab and <i>Opdivo</i> combination arm or the <i>Opdivo</i> arm.

Special Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K (including documents incorporated by reference) and other written and oral statements we make from time to time contain certain “forward-looking” statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. You can identify these forward-looking statements by the fact they use words such as “should,” “could,” “expect,” “anticipate,” “estimate,” “target,” “may,” “project,” “guidance,” “intend,” “plan,” “believe,” “will” and other words and terms of similar meaning and expression in connection with any discussion of future operating or financial performance. One can also identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. Such forward-looking statements are based on our current expectations and projections about our future financial results, goals, plans and objectives and involve inherent risks, assumptions and uncertainties, including internal or external factors that could delay, divert or change any of them in the next several years, and could cause our future financial results, goals, plans and objectives to differ materially from those expressed in, or implied by, the statements. These statements are likely to relate to, among other things, our goals, plans and objectives regarding our financial position, results of operations, cash flows, market position, product development, product approvals, sales efforts, expenses, performance or results of current and anticipated products, our business development strategy and in relation to our ability to realize the projected benefits of our acquisitions of Celgene and MyoKardia, the impact of the COVID-19 pandemic on our operations and the development and commercialization of our products, potential laws and regulations to lower drug prices, market actions taken by private and government payers to manage drug utilization and contain costs, the expiration of patents or data protection on certain products, including assumptions about our ability to retain marketing exclusivity of certain products, and the outcome of contingencies such as legal proceedings and financial results. No forward-looking statement can be guaranteed. We have included important factors in the cautionary statements included in our most recently filed 2021 Form 10-K, particularly under “Item 1A. Risk Factors,” that we believe could cause actual results to differ materially from any forward-looking statement.

Although we believe we have been prudent in our plans and assumptions, no assurance can be given that any goal or plan set forth in forward-looking statements can be achieved and readers are cautioned not to place undue reliance on such statements, which speak only as of the date made. Additional risks that we may currently deem immaterial or that are not presently known to us could also cause the forward-looking events discussed in this Annual Report on Form 10-K not to occur. Except as otherwise required by federal securities law, we undertake no obligation to release publicly any updates or revisions to any forward-looking statements, whether as a result of new information, future events, changed circumstances or otherwise after the date of this Annual Report on Form 10-K.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk resulting from changes in currency exchange rates and interest rates. Certain derivative financial instruments are used when available on a cost-effective basis to hedge our underlying economic exposure. All of our financial instruments, including derivatives, are subject to counterparty credit risk considered as part of the overall fair value measurement. Derivative financial instruments are not used for trading purposes.

Foreign Exchange Risk

Significant amounts of our revenues, earnings and cash flow are exposed to changes in foreign currency rates. Our primary net foreign currency translation exposures are the euro and Japanese yen. Foreign currency forward contracts are used to manage risk primarily arising from certain intercompany sales and purchases transactions; we are also exposed to foreign exchange transaction risk arising from non-functional currency denominated assets and liabilities and earnings denominated in non-U.S. dollar currencies. Foreign currency forward contracts are used to offset these exposures but are not designated as hedges.

We estimate that a 10% appreciation in the underlying currencies being hedged from their levels against the U.S. dollar (with all other variables held constant) would decrease the fair value of foreign exchange forward contracts by \$678 million and \$742 million at December 31, 2021 and December 31, 2020, respectively, reducing earnings over the remaining life of the contracts.

We are also exposed to translation risk on non-U.S. dollar-denominated net assets. Non-U.S. dollar borrowings are used to hedge the foreign currency exposures of our net investment in certain international affiliates and are designated as hedges of net investments. The effective portion of foreign exchange gains or losses on these hedges is included in the foreign currency translation component of Accumulated other comprehensive loss. If our net investment decreases below the equivalent value of the non-U.S. debt borrowings, the change in the remeasurement basis of the debt would be subject to recognition in income as changes occur. For additional information, refer to “Consolidated Financial Statements—Note 9. Financial Instruments and Fair Value Measurements.”

Interest Rate Risk

We use fixed-to-floating interest rate swap contracts designated as fair value hedges to provide an appropriate balance of fixed and floating rate debt. We use cross-currency interest rate swap contracts designated to hedge the Company's net investment in its Japan subsidiary. The fair values of these contracts as well as our marketable debt securities are analyzed at year-end to determine their sensitivity to interest rate changes. In this sensitivity analysis, if there were a 100 basis point increase in short-term or long-term interest rates as of December 31, 2021 and December 31, 2020, the expected adverse impact on our earnings would not be material.

We estimate that an increase of 100 basis points in long-term interest rates at December 31, 2021 and December 31, 2020 would decrease the fair value of long-term debt by \$3.8 billion and \$4.7 billion, respectively.

Credit Risk

We monitor our investments with counterparties with the objective of minimizing concentrations of credit risk. Our investment policy is to invest only in institutions that meet high credit quality standards and establishes limits on the amount and time to maturity of investments with any individual counterparty. The policy also requires that investments are only entered into with corporate and financial institutions that meet high credit quality standards.

The use of derivative instruments exposes us to credit risk if the counterparty fails to perform when the fair value of a derivative instrument contract is positive. If the counterparty fails to perform, collateral is not required by any party whether derivatives are in an asset or liability position. We have a policy of diversifying derivatives with counterparties to mitigate the overall risk of counterparty defaults. For additional information, refer to "Consolidated Financial Statements—Note 9. Financial Instruments and Fair Value Measurements."

CONSOLIDATED STATEMENTS OF EARNINGS

Dollars in Millions, Except Per Share Data

EARNINGS	Year Ended December 31,		
	2021	2020	2019
Net product sales	\$ 45,055	\$ 41,321	\$ 25,174
Alliance and other revenues	1,330	1,197	971
Total Revenues	46,385	42,518	26,145
Cost of products sold ^(a)	9,940	11,773	8,078
Marketing, selling and administrative	7,690	7,661	4,871
Research and development	11,354	11,143	6,148
IPRD charge - MyoKardia acquisition	—	11,438	—
Amortization of acquired intangible assets	10,023	9,688	1,135
Other (income)/expense, net	(720)	(2,314)	938
Total Expenses	38,287	49,389	21,170
Earnings/(Loss) Before Income Taxes	8,098	(6,871)	4,975
Provision for Income Taxes	1,084	2,124	1,515
Net Earnings/(Loss)	7,014	(8,995)	3,460
Noncontrolling Interest	20	20	21
Net Earnings(Loss) Attributable to BMS	\$ 6,994	\$ (9,015)	\$ 3,439
Earnings/(Loss) per Common Share			
Basic	\$ 3.15	\$ (3.99)	\$ 2.02
Diluted	3.12	(3.99)	2.01

(a) Excludes amortization of acquired intangible assets.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME/(LOSS)

Dollars in Millions

COMPREHENSIVE INCOME/(LOSS)	Year Ended December 31,		
	2021	2020	2019
Net Earnings/(Loss)	\$ 7,014	\$ (8,995)	\$ 3,460
Other Comprehensive Income/(Loss), net of taxes and reclassifications to earnings:			
Derivatives qualifying as cash flow hedges	415	(256)	(32)
Pension and postretirement benefits	206	(75)	1,203
Marketable debt securities	(9)	5	36
Foreign currency translation	(41)	7	35
Total Other Comprehensive Income/(Loss)	571	(319)	1,242
Comprehensive Income/(Loss)	7,585	(9,314)	4,702
Comprehensive Income Attributable to Noncontrolling Interest	20	20	21
Comprehensive Income/(Loss) Attributable to BMS	\$ 7,565	\$ (9,334)	\$ 4,681

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED BALANCE SHEETS

Dollars in Millions, Except Share and Per Share Data

ASSETS	December 31,	
	2021	2020
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 13,979	\$ 14,546
Marketable debt securities	2,987	1,285
Receivables	9,369	8,501
Inventories	2,095	2,074
Other current assets	4,832	3,786
Total Current Assets	33,262	30,192
Property, plant and equipment	6,049	5,886
Goodwill	20,502	20,547
Other intangible assets	42,527	53,243
Deferred income taxes	1,439	1,161
Marketable debt securities	—	433
Other non-current assets	5,535	7,019
Total Assets	\$ 109,314	\$ 118,481
LIABILITIES		
Current Liabilities:		
Short-term debt obligations	\$ 4,948	\$ 2,340
Accounts payable	2,949	2,713
Other current liabilities	13,971	14,027
Total Current Liabilities	21,868	19,080
Deferred income taxes	4,501	5,407
Long-term debt	39,605	48,336
Other non-current liabilities	7,334	7,776
Total Liabilities	73,308	80,599
Commitments and contingencies		
EQUITY		
Bristol-Myers Squibb Company Shareholders' Equity:		
Preferred stock, \$2 convertible series, par value \$1 per share: Authorized 10 million shares; issued and outstanding 3,484 in 2021 and 3,484 in 2020, liquidation value of \$50 per share	—	—
Common stock, par value of \$0.10 per share: Authorized 4.5 billion shares; 2.9 billion issued in 2021 and 2020	292	292
Capital in excess of par value of stock	44,361	44,325
Accumulated other comprehensive loss	(1,268)	(1,839)
Retained earnings	23,820	21,281
Less cost of treasury stock — 747 million common shares in 2021 and 679 million common shares in 2020	(31,259)	(26,237)
Total Bristol-Myers Squibb Company Shareholders' Equity	35,946	37,822
Noncontrolling interest	60	60
Total Equity	36,006	37,882
Total Liabilities and Equity	\$ 109,314	\$ 118,481

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Dollars in Millions

	Year Ended December 31,		
	2021	2020	2019
Cash Flows From Operating Activities:			
Net earnings/(loss)	\$ 7,014	\$ (8,995)	\$ 3,460
Adjustments to reconcile net earnings/(loss) to net cash provided by operating activities:			
Depreciation and amortization, net	10,686	10,380	1,746
Deferred income taxes	(1,393)	983	(924)
Stock-based compensation	583	779	441
Impairment charges	1,207	1,203	199
Pension settlements and amortization	35	43	1,688
Divestiture gains and royalties	(684)	(699)	(1,855)
IPRD charge - MyoKardia acquisition	—	11,438	—
Asset acquisition charges	1,157	1,099	63
Equity investment gains, net	(745)	(1,228)	(275)
Contingent consideration fair value adjustments	(542)	(1,757)	523
Other adjustments	142	(177)	(26)
Changes in operating assets and liabilities:			
Receivables	(1,054)	(646)	752
Inventories	13	2,672	463
Accounts payable	245	188	229
Rebates and discounts	863	1,189	591
Income taxes payable	(1,063)	(2,305)	907
Other	(257)	(115)	228
Net Cash Provided by Operating Activities	16,207	14,052	8,210
Cash Flows From Investing Activities:			
Sale and maturities of marketable debt securities	4,196	6,280	3,809
Purchase of marketable debt securities	(5,478)	(4,172)	(3,961)
Proceeds from sales of equity investment securities	2,579	129	167
Capital expenditures	(973)	(753)	(836)
Divestiture and other proceeds	748	741	15,685
Acquisition and other payments, net of cash acquired	(1,610)	(13,084)	(24,777)
Net Cash Used in Investing Activities	(538)	(10,859)	(9,913)
Cash Flows From Financing Activities:			
Short-term debt obligations, net	(160)	(267)	131
Issuance of long-term debt	—	6,945	26,778
Repayment of long-term debt	(6,022)	(2,750)	(9,256)
Repurchase of common stock	(6,287)	(1,546)	(7,300)
Dividends	(4,396)	(4,075)	(2,679)
Other	641	542	(53)
Net Cash (Used in)/Provided by Financing Activities	(16,224)	(1,151)	7,621
Effect of Exchange Rates on Cash, Cash Equivalents and Restricted Cash	(102)	111	(9)
Increase in Cash, Cash Equivalents and Restricted Cash	(657)	2,153	5,909
Cash, Cash Equivalents and Restricted Cash at Beginning of Year	14,973	12,820	6,911
Cash, Cash Equivalents and Restricted Cash at End of Year	\$ 14,316	\$ 14,973	\$ 12,820

The accompanying notes are an integral part of these consolidated financial statements.

Note 1. ACCOUNTING POLICIES AND RECENTLY ISSUED ACCOUNTING STANDARDS

Basis of Consolidation

The consolidated financial statements are prepared in conformity with U.S. GAAP, including the accounts of Bristol-Myers Squibb Company and all of its controlled majority-owned subsidiaries and certain variable interest entities. All intercompany balances and transactions are eliminated. Material subsequent events are evaluated and disclosed through the report issuance date. Refer to the Summary of Abbreviated Terms at the end of this 2021 Annual Report on Form 10-K for terms used throughout the document.

Alliance and license arrangements are assessed to determine whether the terms provide economic or other control over the entity requiring consolidation of an entity. Entities controlled by means other than a majority voting interest are referred to as variable interest entities and are consolidated when BMS has both the power to direct the activities of the variable interest entity that most significantly impacts its economic performance and the obligation to absorb losses or the right to receive benefits that could potentially be significant to the entity.

Business Segment Information

BMS operates in a single segment engaged in the discovery, development, licensing, manufacturing, marketing, distribution and sale of innovative medicines that help patients prevail over serious diseases. A global research and development organization and supply chain organization are responsible for the discovery, development, manufacturing and supply of products. Regional commercial organizations market, distribute and sell the products. The business is also supported by global corporate staff functions. Consistent with BMS's operational structure, the Chief Executive Officer ("CEO"), as the chief operating decision maker, manages and allocates resources at the global corporate level. Managing and allocating resources at the global corporate level enables the CEO to assess both the overall level of resources available and how to best deploy these resources across functions, therapeutic areas, regional commercial organizations and research and development projects in line with our overarching long-term corporate-wide strategic goals, rather than on a product or franchise basis. The determination of a single segment is consistent with the financial information regularly reviewed by the CEO for purposes of evaluating performance, allocating resources, setting incentive compensation targets, and planning and forecasting future periods. For further information on product and regional revenue, see "—Note 2. Revenue".

Use of Estimates and Judgments

The preparation of financial statements requires the use of management estimates, judgments and assumptions. The most significant assumptions are estimates used in determining accounting for acquisitions; impairments of goodwill and intangible assets; chargebacks, cash discounts, sales rebates, returns and other adjustments; legal contingencies; and income taxes. Actual results may differ from estimates.

Reclassifications

Certain reclassifications were made to conform the prior period consolidated financial statements to the current period presentation. Proceeds received from the sale of equity investment securities previously presented in Divestiture and other proceeds in the consolidated statements of cash flows is now presented separately in Proceeds from sales of equity investment securities. Additionally, Rebates and discounts previously presented in Other changes in operating assets and liabilities in the consolidated statements of cash flows is now presented separately in Rebates and discounts.

Cash and Cash Equivalents

Cash and cash equivalents include bank deposits, time deposits, commercial paper and money market funds. Cash equivalents consist of highly liquid investments with original maturities of three months or less at the time of purchase and are recognized at cost, which approximates fair value.

Marketable Debt Securities

Marketable debt securities are classified as "available-for-sale" on the date of purchase and reported at fair value. Fair value is determined based on observable market quotes or valuation models using assessments of counterparty credit worthiness, credit default risk or underlying security and overall capital market liquidity. Marketable debt securities are reviewed for impairment by assessing if the decline in market value of the investment below the carrying value is other than temporary, which considers the intent and ability to retain the investment for a period of time sufficient to allow for any anticipated recovery in market value, the duration and extent that the market value has been less than cost and the investee's financial condition.

Investments in Equity Securities

Investments in equity securities with readily determinable fair values are recorded at fair value with changes in fair value recorded in Other (income)/expense, net. Investments in equity securities without readily determinable fair values are recorded at cost minus any impairment, plus or minus changes in their estimated fair value resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. Changes in the estimated fair value of investments in equity securities without readily determinable fair values are recorded in Other (income)/expense, net. Investments in 50% or less owned companies are accounted for using the equity method of accounting when the ability to exercise significant influence over the operating and financial decisions of the investee is maintained. The proportional share of the investees net income or losses of equity investments accounted for using the equity method are included in Other (income)/expense, net. Investments in equity securities without readily determinable fair values and investments in equity accounted for using the equity method are assessed for potential impairment on a quarterly basis based on qualitative factors.

Inventory Valuation

Inventories are stated at the lower of average cost or net realizable value.

Property, Plant and Equipment and Depreciation

Expenditures for additions, renewals and improvements are capitalized at cost. Depreciation is computed on a straight-line method based on the estimated useful lives of the related assets ranging from 20 to 50 years for buildings and 3 to 20 years for machinery, equipment and fixtures.

Current facts or circumstances are periodically evaluated to determine if the carrying value of depreciable assets to be held and used may not be recoverable. If such circumstances exist, an estimate of undiscounted future cash flows generated by the long-lived asset, or appropriate grouping of assets, is compared to the carrying value to determine whether an impairment exists at its lowest level of identifiable cash flows. If an asset is determined to be impaired, the loss is measured based on the difference between the asset's fair value and its carrying value. An estimate of the asset's fair value is based on quoted market prices in active markets, if available. If quoted market prices are not available, the estimate of fair value is based on various valuation techniques using unobservable fair value inputs, such as a discounted value of estimated future cash flows.

Capitalized Software

Eligible costs to obtain internal use software are capitalized and amortized over the estimated useful life of the software ranging from three to ten years.

Acquisitions

Businesses acquired are consolidated upon obtaining control. The fair value of assets acquired and liabilities assumed are recognized at the date of acquisition. Any excess of the purchase price over the estimated fair values of the net assets acquired is recognized as goodwill. Business acquisition costs are expensed when incurred. Contingent consideration from potential development, regulatory, approval and sales-based milestones and sales-based royalties are included in the purchase price for business combinations and excluded for asset acquisitions. Certain transactions are accounted for as asset acquisitions if determined not to be a business as that term is defined in ASC 805 primarily because no significant processes were acquired or substantially all of the relative fair value was allocated to a single asset. Amounts allocated to investigational compounds for asset acquisitions are expensed at the date of acquisition.

Goodwill, Acquired In-Process Research and Development and Other Intangible Assets

The fair value of acquired intangible assets is determined using an income-based approach referred to as the excess earnings method utilizing Level 3 fair value inputs. Market participant valuations assume a global view considering all potential jurisdictions and indications based on discounted after-tax cash flow projections, risk adjusted for estimated probability of technical and regulatory success.

Finite-lived intangible assets, including licenses, marketed product rights and IPRD projects that reach commercialization are amortized on a straight-line basis over their estimated useful life. Estimated useful lives are determined considering the period assets are expected to contribute to future cash flows. Finite-lived intangible assets are tested for impairment when facts or circumstances suggest that the carrying value of the asset may not be recoverable. If the carrying value exceeds the projected undiscounted pretax cash flows of the intangible asset, an impairment loss equal to the excess of the carrying value over the estimated fair value (discounted after-tax cash flows) is recognized.

Goodwill is tested at least annually for impairment by assessing qualitative factors in determining whether it is more likely than not that the fair value of net assets is below their carrying amounts. Examples of qualitative factors assessed include BMS's share price, financial performance compared to budgets, long-term financial plans, macroeconomic, industry and market conditions as well as the substantial excess of fair value over the carrying value of net assets from the annual impairment test performed in a prior year. Each relevant factor is assessed both individually and in the aggregate.

IPRD is tested for impairment at least annually or more frequently if events occur or circumstances change that would indicate a potential reduction in the fair values of the assets below their carrying value. Impairment charges are recognized to the extent the carrying value of IPRD is determined to exceed its fair value.

Restructuring

Restructuring charges are recognized as a result of actions to streamline operations, realize synergies from acquisitions and reduce the number of facilities. Estimating the impact of restructuring plans, including future termination benefits, integration expenses and other exit costs requires judgment. Actual results could vary from these estimates. Restructuring charges are recognized upon meeting certain criteria, including finalization of committed plans, reliable estimates and discussions with local works councils in certain markets.

Contingencies

Loss contingencies from legal proceedings and claims may occur from government investigations, shareholder lawsuits, product and environmental liability, contractual claims, tax and other matters. Accruals are recognized when it is probable that a liability will be incurred and the amount of loss can be reasonably estimated. Gain contingencies (including contingent proceeds related to the divestitures) are not recognized until realized. Legal fees are expensed as incurred.

Revenue Recognition

Refer to “—Note 2. Revenue” for a detailed discussion of accounting policies related to revenue recognition, including deferred revenue and royalties. Refer to “—Note 3. Alliances” for further detail regarding alliances.

Research and Development

Research and development costs are expensed as incurred. Clinical study and certain research costs are recognized over the service periods specified in the contracts and adjusted as necessary based upon an ongoing review of the level of effort and costs actually incurred. Research and development costs are presented net of reimbursements from alliance partners. Up-front and contingent development milestone payments in connection with the acquisition or licensing of third-party intellectual property rights are also included in research and development expense if there are no alternative future uses.

Advertising and Product Promotion Costs

Advertising and product promotion costs are expensed as incurred. Advertising and product promotion costs are included in Marketing, selling and administrative expenses and were \$1.3 billion in 2021, \$990 million in 2020 and \$633 million in 2019.

Foreign Currency Translation

Foreign subsidiary earnings are translated into U.S. dollars using average exchange rates. The net assets of foreign subsidiaries are translated into U.S. dollars using current exchange rates. The U.S. dollar effects that arise from translating the net assets of these subsidiaries at changing rates are recognized in Other Comprehensive Income/(Loss).

Income Taxes

The provision for income taxes includes income taxes paid or payable for the current year plus the change in deferred taxes during the year. Deferred taxes result from differences between the financial and tax basis of assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. Valuation allowances are recognized to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. The assessment of whether or not a valuation allowance is required often requires significant judgment including the long-range forecast of future taxable income and the evaluation of tax planning initiatives. Adjustments to the deferred tax valuation allowances are made to earnings in the period when such assessments are made. The tax effects of global intangible low-taxed income from certain foreign subsidiaries is recognized in the income tax provision in the period the tax arises.

Tax benefits are recognized from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. The tax benefit recognized in the financial statements for a particular tax position is based on the largest benefit that is more likely than not to be realized upon settlement.

Recently Adopted Accounting Standards

Income Taxes

In December 2019, the FASB issued amended guidance on the accounting and reporting of income taxes. The guidance is intended to simplify the accounting for income taxes by removing exceptions related to certain intraperiod tax allocations and deferred tax liabilities; clarifying guidance primarily related to evaluating the step-up tax basis for goodwill in a business combination; and reflecting enacted changes in tax laws or rates in the annual effective tax rate. BMS adopted the new guidance effective January 1, 2021. The amended guidance did not have a material impact on BMS's results of operations.

Recently Issued Accounting Standards Not Yet Adopted

Business Combinations

In October 2021, the FASB issued amended guidance on accounting for contract assets and contract liabilities from contracts with customers in a business combination. The guidance is intended to address inconsistency related to recognition of an acquired contract liability and payment terms and their effect on subsequent revenue recognized. At the acquisition date, an entity should account for the related revenue contracts in accordance with existing revenue recognition guidance generally by assessing how the acquiree applied recognition and measurement in their financial statements. The amended guidance is effective January 1, 2023 on a prospective approach. Early adoption is permitted.

Note 2. REVENUE

The following table summarizes the disaggregation of revenue by nature:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Net product sales	\$ 45,055	\$ 41,321	\$ 25,174
Alliance revenues	716	615	597
Other revenues	614	582	374
Total Revenues	\$ 46,385	\$ 42,518	\$ 26,145

Net product sales represent more than 95% of total revenues for all periods presented. Products are sold principally to wholesalers, distributors, specialty pharmacies, and to a lesser extent, directly to retailers, hospitals, clinics and government agencies. Customer orders are generally fulfilled within a few days of receipt resulting in minimal order backlog. Contractual performance obligations are usually limited to transfer of control of the product to the customer. The transfer occurs either upon shipment, upon receipt of the product after considering when the customer obtains legal title to the product, or upon infusion for cell therapies and when BMS obtains a right of payment. At these points, customers are able to direct the use of and obtain substantially all of the remaining benefits of the product.

Gross revenue to the three largest pharmaceutical wholesalers in the U.S. as a percentage of global gross revenues was as follows:

	Year Ended December 31,		
	2021	2020	2019
McKesson Corporation	32 %	31 %	26 %
AmerisourceBergen Corporation	25 %	25 %	20 %
Cardinal Health, Inc.	20 %	19 %	17 %

Wholesalers are initially invoiced at contractual list prices. Payment terms are typically 30 to 90 days based on customary practices in each country. Revenue is reduced from wholesaler list price at the time of recognition for expected charge-backs, discounts, rebates, sales allowances and product returns, which are referred to as GTN adjustments. These reductions are attributed to various commercial arrangements, managed healthcare organizations and government programs such as Medicare, Medicaid and the 340B Drug Pricing Program containing various pricing implications such as mandatory discounts, pricing protection below wholesaler list price or other discounts when Medicare Part D beneficiaries are in the coverage gap. In addition, non-U.S. government programs include different pricing schemes such as cost caps, volume discounts, outcome-based pricing and pricing claw-backs determined on sales of individual companies or an aggregation of companies participating in a specific market. Charge-backs and cash discounts are reflected as a reduction to receivables and settled through the issuance of credits to the customer, typically within one month. All other rebates, discounts and adjustments, including Medicaid and Medicare, are reflected as a liability and settled through cash payments to the customer, typically within various time periods ranging from a few months to one year.

Significant judgment is required in estimating GTN adjustments considering legal interpretations of applicable laws and regulations, historical experience, payer channel mix, current contract prices under applicable programs, unbilled claims, processing time lags and inventory levels in the distribution channel.

The following table summarizes GTN adjustments:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Gross product sales	\$ 67,897	\$ 60,016	\$ 37,206
GTN adjustments ^(a)			
Charge-backs and cash discounts	(7,253)	(5,827)	(3,675)
Medicaid and Medicare rebates	(9,374)	(7,595)	(4,941)
Other rebates, returns, discounts and adjustments	(6,215)	(5,273)	(3,416)
Total GTN adjustments	(22,842)	(18,695)	(12,032)
Net product sales	\$ 45,055	\$ 41,321	\$ 25,174

(a) Includes adjustments for provisions for product sales made in prior periods resulting from changes in estimates of \$319 million in 2021, \$106 million in 2020 and \$132 million in 2019.

Alliance and other revenues consist primarily of amounts related to collaborations and out-licensing arrangements. Each of these arrangements are evaluated for whether they represent contracts that are within the scope of the revenue recognition guidance in their entirety or contain aspects that are within the scope of the guidance, either directly or by reference based upon the application of the guidance related to the derecognition of nonfinancial assets (ASC 610).

Performance obligations are identified and separated when the other party can benefit directly from the rights, goods or services either on their own or together with other readily available resources and when the rights, goods or services are not highly interdependent or interrelated.

Transaction prices for these arrangements may include fixed up-front amounts as well as variable consideration such as contingent development and regulatory milestones, sales-based milestones and royalties. The most likely amount method is used to estimate contingent development, regulatory and sales-based milestones because the ultimate outcomes are binary in nature. The expected value method is used to estimate royalties because a broad range of potential outcomes exist, except for instances in which such royalties relate to a license. Variable consideration is included in the transaction price only to the extent a significant reversal in the amount of cumulative revenue recognized is not probable of occurring when the uncertainty associated with the variable consideration is subsequently resolved. Significant judgment is required in estimating the amount of variable consideration to recognize when assessing factors outside of BMS's influence such as likelihood of regulatory success, limited availability of third party information, expected duration of time until resolution, lack of relevant past experience, historical practice of offering fee concessions and a large number and broad range of possible amounts. To the extent arrangements include multiple performance obligations that are separable, the transaction price assigned to each distinct performance obligation is reflective of the relative stand-alone selling price and recognized at a point in time upon the transfer of control.

Three types of out-licensing arrangements are typically utilized: (i) arrangements when BMS out-licenses intellectual property to another party and has no further performance obligations; (ii) arrangements that include a license and an additional performance obligation to supply product upon the request of the third party; and (iii) collaboration arrangements, which include transferring a license to a third party to jointly develop and commercialize a product.

Most out-licensing arrangements consist of a single performance obligation that is satisfied upon execution of the agreement when the development and commercialization rights are transferred to a third party. Up-front fees are recognized immediately and included in Other (income)/expense, net. Although contingent development and regulatory milestone amounts are assessed each period for the likelihood of achievement, they are typically constrained and recognized when the uncertainty is subsequently resolved for the full amount of the milestone and included in Other (income)/expense, net. Sales-based milestones and royalties are recognized when the milestone is achieved or the subsequent sales occur. Sales-based milestones are included in Other (income)/expense, net and royalties are included in Alliance and other revenues.

Certain out-licensing arrangements may also include contingent performance obligations to supply commercial product to the third party upon its request. The license and supply obligations are accounted for as separate performance obligations as they are considered distinct because the third party can benefit from the license either on its own or together with other supply resources readily available to it and the obligations are separately identifiable from other obligations in the contract in accordance with the revenue recognition guidance. After considering the standalone selling prices in these situations, up-front fees, contingent development and regulatory milestone amounts and sales-based milestone and royalties are allocated to the license and recognized in the manner described above. Consideration for the supply obligation is usually based upon stipulated cost-plus margin contractual terms which represent a standalone selling price. The supply consideration is recognized at a point in time upon transfer of control of the product to the third party and included in Alliance and other revenues. The above fee allocation between the license and the supply represents the amount of consideration expected to be entitled to for the satisfaction of the separate performance obligations.

Although collaboration arrangements are unique in nature, both parties are active participants in the operating activities and are exposed to significant risks and rewards depending on the commercial success of the activities. Performance obligations inherent in these arrangements may include the transfer of certain development or commercialization rights, ongoing development and commercialization services and product supply obligations. Except for certain product supply obligations which are considered distinct and accounted for as separate performance obligations similar to the manner discussed above, all other performance obligations are not considered distinct and are combined into a single performance obligation since the transferred rights are highly integrated and interrelated to the obligation to jointly develop and commercialize the product with the third party. As a result, up-front fees are recognized ratably over time throughout the expected period of the collaboration activities and included in Other (income)/expense, net as the license is combined with other development and commercialization obligations. Contingent development and regulatory milestones that are no longer constrained are recognized in a similar manner on a prospective basis. Royalties and profit sharing are recognized when the underlying sales and profits occur and are included in Alliance and other revenues. Refer to “—Note 3. Alliances” for further information.

The following table summarizes the disaggregation of revenue by product and region:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
<i>Revlimid</i>	\$ 12,821	\$ 12,106	\$ 1,299
<i>Eliquis</i>	10,762	9,168	7,929
<i>Opdivo</i>	7,523	6,992	7,204
<i>Pomalyst/Imnovid</i>	3,332	3,070	322
<i>Orencia</i>	3,306	3,157	2,977
<i>Sprycel</i>	2,117	2,140	2,110
<i>Yervoy</i>	2,026	1,682	1,489
<i>Abraxane</i>	1,181	1,247	166
<i>Reblozyl</i>	551	274	—
<i>Empliciti</i>	334	381	357
<i>Abecma</i>	164	—	—
<i>Zeposia</i>	134	12	—
<i>Breyanzi</i>	87	—	—
<i>Inrebic</i>	74	55	5
<i>Onureg</i>	73	17	—
Mature and other brands	1,900	2,217	2,287
Total Revenues	\$ 46,385	\$ 42,518	\$ 26,145
United States	\$ 29,214	\$ 26,577	\$ 15,342
Europe	10,687	9,853	6,266
Rest of World	5,632	5,457	4,013
Other ^(a)	852	631	524
Total Revenues	\$ 46,385	\$ 42,518	\$ 26,145

(a) Other revenues include royalties and alliance-related revenues for products not sold by BMS's regional commercial organizations.

Contract assets are primarily estimated future royalties and termination fees not eligible for the licensing exclusion and therefore recognized upon the adoption of ASC 606 and ASC 610. Contract assets are reduced and receivables are increased in the period the underlying sales occur. Cumulative catch-up adjustments to revenue affecting contract assets or contract liabilities were not material during the year ended December 31, 2021 and 2020. Revenue recognized from performance obligations satisfied in prior periods was \$561 million in 2021 and \$338 million in 2020, consisting primarily of revised estimates for GTN adjustments related to prior period sales and royalties for out-licensing arrangements.

Sales commissions and other incremental costs of obtaining customer contracts are expensed as incurred as the amortization periods would be less than one year.

Note 3. ALLIANCES

BMS enters into collaboration arrangements with third parties for the development and commercialization of certain products. Although each of these arrangements is unique in nature, both parties are active participants in the operating activities of the collaboration and exposed to significant risks and rewards depending on the commercial success of the activities. BMS may either in-license intellectual property owned by the other party or out-license its intellectual property to the other party. These arrangements also typically include research, development, manufacturing, and/or commercial activities and can cover a single investigational compound or commercial product or multiple compounds and/or products in various life cycle stages. The rights and obligations of the parties can be global or limited to geographic regions. BMS refers to these collaborations as alliances and its partners as alliance partners.

The most common activities between BMS and its alliance partners are presented in results of operations as follows:

- When BMS is the principal in the end customer sale, 100% of product sales are included in Net product sales. When BMS's alliance partner is the principal in the end customer sale, BMS's contractual share of the third-party sales and/or royalty income are included in Alliance revenues as the sale of commercial products are considered part of BMS's ongoing major or central operations. Refer to "—Note 2. Revenue" for information regarding recognition criteria.
- Amounts payable to BMS by alliance partners (who are the principal in the end customer sale) for supply of commercial products are included in Alliance revenues as the sale of commercial products are considered part of BMS's ongoing major or central operations.

- Profit sharing, royalties and other sales-based fees payable by BMS to alliance partners are included in Cost of products sold as incurred.
- Cost reimbursements between the parties are recognized as incurred and included in Cost of products sold; Marketing, selling and administrative expenses; or Research and development expenses, based on the underlying nature of the related activities subject to reimbursement.
- Up-front and contingent development and regulatory approval milestones payable to BMS by alliance partners for investigational compounds and commercial products are deferred and amortized over the expected period of BMS's development and co-promotion obligation through the market exclusivity period or the periods in which the related compounds or products are expected to contribute to future cash flows. The amortization is presented consistent with the nature of the payment under the arrangement. For example, amounts received for investigational compounds are presented in Other (income)/expense, net as the activities being performed at that time are not related to the sale of commercial products included in BMS's ongoing major or central operations; amounts received for commercial products are presented in alliance revenue as the sale of commercial products are considered part of BMS's ongoing major or central operations.
- Up-front and contingent regulatory approval milestones payable by BMS to alliance partners for commercial products are capitalized and amortized over the shorter of the contractual term or the periods in which the related products are expected to contribute to future cash flows.
- Up-front and contingent milestones payable by BMS to alliance partners prior to regulatory approval are expensed as incurred and included in Research and development expense.
- Royalties and other contingent consideration payable to BMS by alliance partners related to the divestiture of such businesses are included in Other (income)/expense, net when earned.
- All payments between BMS and its alliance partners are presented in Cash Flows From Operating Activities except for up-front and milestone payments which are presented in Cash Flows From Investing Activities.

Selected financial information pertaining to alliances was as follows, including net product sales when BMS is the principal in the third-party customer sale for products subject to the alliance. Expenses summarized below do not include all amounts attributed to the activities for the products in the alliance, but only the payments between the alliance partners or the related amortization if the payments were deferred or capitalized.

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Revenues from alliances:			
Net product sales	\$ 10,840	\$ 9,364	\$ 9,944
Alliance revenues	716	615	597
Total Revenues	\$ 11,556	\$ 9,979	\$ 10,541
Payments to/(from) alliance partners:			
Cost of products sold	\$ 5,227	\$ 4,485	\$ 4,169
Marketing, selling and administrative	(183)	(128)	(127)
Research and development	772	349	42
Other (income)/expense, net	(62)	(74)	(60)
Selected Alliance Balance Sheet Information:			
Dollars in Millions	December 31,		
	2021	2020	
Receivables – from alliance partners	\$ 320	\$ 343	
Accounts payable – to alliance partners	1,229	1,093	
Deferred income from alliances ^(a)	330	366	

(a) Includes unamortized up-front and milestone payments.

Specific information pertaining to significant alliances is discussed below, including their nature and purpose; the significant rights and obligations of the parties; specific accounting policy elections; and the statements of earnings classification of and amounts attributable to payments between the parties.

Pfizer

BMS and Pfizer jointly develop and commercialize *Eliquis*, an anticoagulant discovered by BMS. Pfizer funds between 50% and 60% of all development costs depending on the study. Profits and losses are shared equally on a global basis except in certain countries where Pfizer commercializes *Eliquis* and pays BMS a sales-based fee.

Co-exclusive license rights were granted to Pfizer in exchange for an up-front payment and potential milestone payments. Both parties assumed certain obligations to actively participate in a joint executive committee and various other operating committees and have joint responsibilities for the research, development, distribution, sales and marketing activities of the alliance using resources in their own infrastructures. BMS and Pfizer manufacture the product in the alliance and BMS is the principal in the end customer product sales in the U.S., significant countries in Europe, as well as Canada, Australia, China, Japan and South Korea. In certain smaller countries, Pfizer has had full commercialization rights and BMS supplies the product to Pfizer at cost plus a percentage of the net sales price to end-customers, which is recorded in full upon transfer of control of the product to Pfizer.

BMS did not allocate consideration to the rights transferred to Pfizer as such rights were not sold separately by BMS or any other party, nor could Pfizer receive any benefit for the delivered rights without the fulfillment of other ongoing obligations by BMS under the alliance agreement. As such, the global alliance was treated as a single unit of accounting and up-front proceeds and any subsequent contingent milestone proceeds are amortized over the expected period of BMS's co-promotion obligation through the market exclusivity period. BMS received \$884 million in non-refundable up-front, milestone and other licensing payments which are amortized and included in Other (income)/expense, net as *Eliquis* was not a commercial product at the commencement of the alliance.

Summarized financial information related to this alliance was as follows:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Revenues from Pfizer alliance:			
Net product sales	\$ 10,431	\$ 8,942	\$ 7,711
Alliance revenues	331	226	218
Total Revenues	\$ 10,762	\$ 9,168	\$ 7,929
Payments to/(from) Pfizer:			
Cost of products sold – Profit sharing	\$ 5,064	\$ 4,331	\$ 3,745
Other (income)/expense, net – Amortization of deferred income	(36)	(55)	(55)
Selected Alliance Balance Sheet Information:			
Dollars in Millions	December 31,		
	2021	2020	
Receivables	\$ 235	\$ 253	
Accounts payable	1,195	1,024	
Deferred income	264	300	

Ono

BMS and Ono jointly develop and commercialize *Opdivo*, *Yervoy* and several BMS investigational compounds in Japan, South Korea and Taiwan. BMS is responsible for supply of the products. Profits, losses and development costs are shared equally for all combination therapies involving compounds of both parties. Otherwise, sharing is 80% and 20% for activities involving only one of the party's compounds.

BMS and Ono also jointly develop and commercialize *Orencia* in Japan. BMS is responsible for the order fulfillment and distribution of the intravenous formulation and Ono is responsible for the subcutaneous formulation. Both formulations are jointly promoted by both parties with assigned customer accounts and BMS is responsible for the product supply. A co-promotion fee of 60% is paid when a sale is made to the other party's assigned customer.

In 2019, Ono exercised the right to accept NKTR-214 into the alliance with BMS upon completion of a Phase I clinical study of *Opdivo* and NKTR-214 in the Ono Territory. Ono partially reimbursed BMS for development costs incurred with the study and shares in certain future development costs, contingent milestone payments, profits and losses under the collaboration with Nektar.

In 2017, Ono granted BMS an exclusive license for the development and commercialization of ONO-4578, Ono's Prostaglandin E2 receptor 4 antagonist. In 2020, the rights were terminated by both parties.

Summarized financial information related to this alliance was as follows:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Revenues from Ono alliances:			
Net product sales	\$ 251	\$ 194	\$ 194
Alliance revenues	385	382	305
Total Revenues	\$ 636	\$ 576	\$ 499

BMS is the principal in the end customer product sales and has the exclusive right to develop, manufacture and commercialize *Opdivo* worldwide except in Japan, South Korea and Taiwan. Ono is entitled to receive royalties of 4% in North America and 15% in all territories excluding the three countries listed above, subject to customary adjustments.

Nektar

In 2018, BMS and Nektar commenced a worldwide license and collaboration for the development and commercialization of Bempegaldesleukin (NKTR-214), Nektar's investigational immuno-stimulatory therapy designed to selectively expand specific cancer-fighting T cells and natural killer cells directly in the tumor micro-environment. In January 2020, the parties amended the collaboration agreement. The *Opdivo* and NKTR-214 combination therapy is currently in Phase III clinical studies for metastatic melanoma, adjuvant melanoma, muscle-invasive bladder cancer and RCC. A joint development plan agreed by the parties as part of the original agreement, and updated as part of the January 2020 amendment, specifies development in certain indications and tumor types with each party responsible for the supply of their own product. BMS's share of the development costs associated with therapies comprising a BMS medicine used in combination with NKTR-214 is 67.5%, subject to certain cost caps for Nektar. The January 2020 amendment retains the cost sharing percentages from the original agreement. The parties will also jointly commercialize the therapies, subject to regulatory approval. BMS's share of global NKTR-214 profits and losses will be 35% subject to certain annual loss caps for Nektar.

BMS paid Nektar \$1.85 billion for the rights discussed above and 8.3 million shares of Nektar common stock which represented a 4.8% ownership interest. BMS's equity ownership is subject to certain lock-up, standstill and voting provisions for a five-year period. The amount of the up-front payment allocated to the equity investment was \$800 million after considering Nektar's stock price on the date of closing and current limitations on trading the securities. The remaining \$1.05 billion of the up-front payment was allocated to the rights discussed above. BMS will also pay up to \$1.8 billion upon the achievement of contingent development, regulatory and sales-based milestones over the life of the alliance period. Research and development cost reimbursements were \$98 million in 2021, \$132 million in 2020 and \$108 million in 2019.

2seventy bio (formerly bluebird)

On November 4, 2021, bluebird completed the tax-free spin-off of its oncology programs and portfolio into 2seventy bio, Inc., an independent, publicly-traded company.

The parties jointly develop and commercialize novel disease-altering gene therapy product candidates targeting BCMA. The collaboration arrangement began in 2013 and included (i) a right for BMS to license any anti-BCMA products resulting from the collaboration, (ii) a right for 2seventy bio to participate in the development and commercialization of any licensed products resulting from the collaboration through a 50/50 co-development and profit share in the U.S. in exchange for a reduction of milestone payments, and (iii) sales-based milestones and royalties payable to 2seventy bio upon the commercialization of any licensed products resulting from the collaboration if 2seventy bio declined to exercise their co-development and profit sharing rights. The options to license idecabtagene vicleucel (ide-cel, bb2121) and bb21217 were exercised in 2016 and 2017, respectively. In 2022, the parties elected to not pursue further development of bb21217.

All profits and losses relating to developing, commercializing and manufacturing ide-cel within the U.S. are shared equally. BMS is exclusively responsible for the development and commercialization of ide-cel outside the U.S.

In 2020, terms of the collaboration were amended including certain manufacturing obligations. Both parties were also released from future exclusivity related to BCMA-directed T cell therapies. BMS paid \$200 million to extinguish its obligation for future ex-U.S. milestones and royalties on ide-cel, which was included in Research and development expense in 2020.

In 2021, the FDA approved ide-cel ("*Abecma*") for the treatment of relapsed or refractory multiple myeloma. Net product sales of Abecma within the Alliance territory were \$158 million and related profit sharing costs were \$42 million in 2021. Cost reimbursements were not material.

Eisai

In 2021, BMS and Eisai commenced an exclusive global strategic collaboration for the co-development and co-commercialization of MORAb-202, a selective folate receptor alpha antibody-drug conjugate being investigated in endometrial, ovarian, lung and breast cancers. MORAb-202 is currently in Phase I/II clinical trials for solid tumors.

The parties will jointly develop and commercialize MORAb-202 in the U.S., Canada, Europe, Russia, Japan, China and certain other countries in the Asia-Pacific region (the “collaboration territory”). Eisai will be responsible for the global manufacturing and supply. Profits, research and development and commercialization costs are shared in the collaboration territories. BMS will be responsible for development and commercialization outside of the collaboration territory and will pay a royalty on those sales.

A \$650 million up-front collaboration fee was included in Research and development expense in 2021. BMS is also obligated to pay up to \$2.5 billion upon the achievement of contingent development, regulatory and sales-based milestones. Cost reimbursements were not material.

Otsuka

BMS and Otsuka co-promoted *Sprycel* in the U.S. and the EU through 2019. BMS was responsible for the development and manufacture of the product and was also the principal in the end customer product sales. A fee was paid to Otsuka through 2020 based on net sales levels in the Oncology Territory (U.S., Japan and the EU) that equated to \$294 million on the first \$1.0 billion of annual net sales plus 1% of net sales in excess of \$1.0 billion.

Effective January 1, 2020, Otsuka was no longer co-promoting *Sprycel* in the U.S. and as a result, this arrangement was no longer considered a collaboration under ASC 808. Revenues earned and fees paid to Otsuka in the Oncology Territory in 2021 and 2020 are not included in the selected financial information table above.

In 2019, revenues earned from the Otsuka alliance were \$1.8 billion and payments to Otsuka of \$302 million were recorded in Cost of product sold.

Note 4. ACQUISITIONS, DIVESTITURES, LICENSING AND OTHER ARRANGEMENTS

Acquisitions

Business Combination

Celgene

On November 20, 2019, BMS completed the Celgene acquisition. The acquisition is expected to further position BMS as a leading biopharmaceutical company for sustained innovation and long-term growth and to address the needs of patients with cancer, inflammatory, immunologic or cardiovascular diseases through high-value innovative medicines and leading scientific capabilities. Each share of Celgene common stock was converted into a right to receive one share of BMS common stock and \$50.00 in cash. Celgene shareholders also received one tradeable contingent value right (“CVR”) for each share of Celgene common stock representing the right to receive \$9.00 in cash, subject to the achievement of future regulatory milestones.

The aggregate cash paid in connection with the Celgene acquisition was \$35.7 billion (or \$24.6 billion net of cash acquired). BMS funded the acquisition through cash on-hand and debt proceeds.

The transaction was accounted for as a business combination which requires that assets acquired and liabilities assumed be recognized at their fair value as of the acquisition date. The assessment of the fair value of assets acquired and liabilities assumed was finalized in 2020.

The total consideration for the acquisition consisted of the following:

Amounts in Millions, Except Per Share Data	Total Consideration
Celgene shares outstanding at November 19, 2019	714.9
Cash per share	\$ 50
Cash consideration for outstanding shares	35,745
Celgene shares outstanding at November 19, 2019	714.9
Closing price of BMS common stock on November 19, 2019	\$ 56.48
Estimated fair value of share consideration	40,378
Celgene shares outstanding at November 19, 2019	714.9
Closing price of CVR ^(a)	\$ 2.30
Fair value of CVRs	1,644
Fair value of replacement options	1,428
Fair value of replacement restricted share awards	987
Fair value of CVRs issued to option and share award holders	87
Fair value of share-based compensation awards attributable to pre-combination service ^(b)	2,502
Total consideration transferred	\$ 80,269

(a) The closing price of CVR is based on the first trade on November 21, 2019.

(b) Fair value of the awards attributed to post-combination services of \$1.0 billion were included in compensation costs. Refer to “—Note 18. Employee Stock Benefit Plans” for more information.

The purchase price allocation resulted in the following amounts being allocated to the assets acquired and liabilities assumed at the Acquisition Date based upon their respective fair values summarized below:

Dollars in Millions	Purchase Price Allocation
Cash and cash equivalents	\$ 11,179
Receivables	2,652
Inventories	4,511
Property, plant and equipment	1,065
Intangible assets ^(a)	63,927
<i>Otezla</i> * assets held-for-sale ^(b)	13,400
Other assets	3,451
Accounts payable	(363)
Income taxes payable	(2,756)
Deferred income tax liabilities	(5,003)
Debt	(21,782)
Other liabilities	(4,002)
Identifiable net assets acquired	66,279
Goodwill ^(c)	13,990
Total consideration transferred	\$ 80,269

(a) Intangible assets consists of currently marketed product rights of approximately \$44.4 billion (amortized over 5.1 years calculated using the weighted-average useful life of the assets) and IPRD of approximately \$19.5 billion (not amortized), and were valued using the multi-period excess earnings method. This method starts with a forecast of all of the expected future net cash flows associated with the asset and then involves adjusting the forecast to present value by applying an appropriate discount rate that reflects the risk factors associated with the cash flow streams.

(b) Amount includes \$381 million of inventory, \$13.0 billion of developed product rights, \$19 million of accrued liabilities and \$5 million of other non-current liabilities. Refer to “—Divestitures” for more information.

(c) Goodwill represents the going-concern value associated with future product discovery beyond the existing pipeline and expected value of synergies resulting from cost savings and avoidance not attributed to identifiable assets. Goodwill is not deductible for tax purposes.

BMS’s Consolidated Statement of Earnings for the year ended December 31, 2019, include \$1.9 billion of Revenues and \$1.6 billion of Net Loss associated with the result of operations of Celgene from the acquisition date to December 31, 2019. Acquisition expenses were \$657 million during the year ended December 31, 2019, including financial advisory, legal, proxy filing, regulatory, financing fees and hedge costs.

The following unaudited pro forma information has been prepared as if the Celgene acquisition and the *Otezla** divestiture had occurred on January 1, 2018. The unaudited supplemental pro forma consolidated results do not purport to reflect what the combined Company's results of operations would have been nor do they project the future results of operations of the combined Company. The unaudited supplemental pro forma consolidated results reflect the historical financial information of BMS and Celgene, adjusted to give effect to the Celgene acquisition and the *Otezla** divestitures as if it had occurred on January 1, 2018, primarily for the following adjustments:

- Amortization expenses primarily related to fair value adjustments to Celgene's intangible assets, inventories and debt.
- Non-recurring acquisition-related costs directly attributable to the Celgene acquisition and tax expense directly attributable to the *Otezla** divestiture.
- Interest expense, including amortization of deferred financing fees, attributable to the Celgene acquisition financing.
- Elimination of historical revenue and expenses related to *Otezla**. Refer to "—Divestitures."

The above adjustments were adjusted for the applicable tax impact using an estimated weighted-average statutory tax rate applied to the applicable pro forma adjustments.

Amounts in Million	Year Ended December 31,	
	2019	2018
Total Revenues	\$ 39,759	\$ 36,243
Net Earnings	3,369	(4,083)

Asset Acquisitions

MyoKardia

In 2020, BMS acquired MyoKardia a clinical-stage biopharmaceutical company pioneering a precision medicine approach to discover, develop and commercialize targeted therapies for the treatment of serious cardiovascular diseases. BMS, through a subsidiary, completed a tender offer to acquire all of the issued and outstanding shares of MyoKardia's common stock and accepted all shares validly tendered and not withdrawn as of the expiration time of the tender offer for \$225.00 per share, or \$13.1 billion, including cash settlements of equity stock awards. The acquisition provided BMS with rights to MyoKardia's lead asset, mavacamten, a potential first-in-class cardiovascular medicine for the treatment of obstructive hypertrophic cardiomyopathy.

BMS funded the transaction through a combination of cash on hand from its operations and net proceeds received in connection with the 2020 senior unsecured notes offering. The consideration transferred was allocated based on the relative fair value of gross assets acquired. The transaction was accounted for as an asset acquisition since mavacamten represented substantially all of the fair value of the gross assets acquired (excluding cash and deferred income taxes). As a result, an \$11.4 billion IPRD charge was recognized in 2020.

In 2021, the FDA accepted the NDA for mavacamten for patients with symptomatic obstructive HCM and assigned a PDUFA goal date of January 28, 2022. The FDA subsequently extended its review of the NDA for mavacamten to April 28, 2022.

The following summarizes the total consideration transferred and allocation of consideration transferred to the assets acquired and liabilities assumed:

Amounts in Million	Amounts
Cash consideration for outstanding shares	\$ 12,030
Cash consideration for stock awards	1,059
Consideration paid	13,089
Less: Charge for unvested stock awards ^(a)	482
Transaction costs	53
Consideration to be allocated	\$ 12,660
Other intangible assets ^(b)	\$ 11,553
Cash and cash equivalents	861
Deferred income taxes	295
Other assets	177
Other liabilities	(226)
Total assets acquired, net	\$ 12,660

(a) Represents the accelerated vesting of MyoKardia stock awards and included in Marketing, selling and administrative expense (\$241 million) and Research and development expense (\$241 million) as of December 31, 2020.

(b) Includes IPRD of \$11.4 billion (of which \$11.1 billion related to mavacamten) and licenses of \$115 million.

Forbius

In 2020, BMS acquired all of the outstanding shares of Forbius, a privately held, clinical-stage protein engineering company that designs and develops biotherapeutics for the treatment of cancer and fibrotic diseases. The acquisition provides BMS with full rights to Forbius's TGF-beta program, including the program's lead investigational asset, AVID200, which is in Phase I development. BMS accounted for the transaction as an asset acquisition since AVID200 represented substantially all of the fair value of the gross assets acquired. The transaction price included an up-front payment of \$185 million and contingent development, regulatory and sales-based milestone payments up to \$815 million. The up-front payment was included in Research and development expense except for \$7 million that was allocated to deferred tax assets.

Other

Research and development expense also includes \$100 million in 2020 resulting from the occurrence of certain development events attributed to the Cormorant asset acquisition completed in 2016.

Divestitures

The following table summarizes the financial impact of divestitures including royalties, which are included in Other (income)/expense, net. Revenue and pretax earnings related to all divestitures were not material in all periods presented (excluding divestiture gains or losses).

Dollars in Millions	Proceeds ^(a)			Divestiture (Gains)/Losses			Royalty Income		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Diabetes Business	\$ 612	\$ 558	\$ 661	\$ —	\$ —	\$ —	\$ (622)	\$ (567)	\$ (650)
Otezla*	—	—	13,400	—	—	—	—	—	—
UPSA Business	—	—	1,508	—	—	(1,157)	—	—	—
Mature Brands and Other	136	157	73	(9)	(55)	(11)	(44)	(77)	(36)
Total	\$ 748	\$ 715	\$15,642	\$ (9)	\$ (55)	\$ (1,168)	\$ (666)	\$ (644)	\$ (686)

(a) Includes royalties received subsequent to the related sale of the asset or business.

Diabetes Business

In February 2014, BMS and AstraZeneca terminated their diabetes business alliance agreements and BMS sold to AstraZeneca substantially all of the diabetes business comprising the alliance. Consideration for the transaction included tiered royalty payments ranging from 10% to 25% based on net sales through 2025. Royalties were \$725 million in 2021, \$673 million in 2020 and \$533 million in 2019.

In September 2015, BMS transferred a percentage of its future royalty rights on *Amylin* net product sales in the U.S. to CPPIB. The transferred rights represent approximately 70% of potential future royalties BMS is entitled to in 2019 to 2025. In exchange for the transfer, BMS received an additional tiered-based royalty on *Amylin* net product sales in the U.S. from CPPIB in 2016 through 2018. In 2021, CPPIB transferred its future royalty rights on *Amylin* net product sales in the U.S. to OCM Healthcare. As a result of these transfers of rights, royalty income for *Amylin* net product sales in the U.S. were reduced by \$28 million in 2021, \$39 million in 2020 and \$48 million in 2019.

In November 2017, BMS transferred a percentage of its future royalty rights on a portion of *Onglyza** and *Farxiga** net product sales to Royalty Pharma. The transferred rights represent approximately 20% to 25% of potential future royalties BMS is entitled to for those products in 2020 to 2025. As a result of these transfers of rights, royalty income for *Onglyza** and *Farxiga** net product sales were increased by \$165 million in 2019, and reduced by \$75 million in 2021 and \$67 million in 2020.

*Otezla**

In order to complete the Celgene acquisition, BMS was required by the FTC to divest certain products. In 2019, BMS completed the divestiture of *Otezla** (apremilast) to Amgen for \$13.4 billion of cash. The transaction was accounted for as an asset divestiture. *Otezla** was acquired as part of the Celgene acquisition and was classified as held-for-sale at the time of the acquisition. The fair value of *Otezla** net assets consisted of \$13.0 billion of developed product rights and \$381 million of inventory.

UPSA Business

In 2019, BMS sold its UPSA consumer health business, including the shares of UPSA SAS and BMS's assets and liabilities relating to the UPSA product portfolio. The transaction was accounted for as the sale of a business.

Mature Brands and Other

Erbix Business*

BMS had a commercialization agreement with Lilly through Lilly's subsidiary ImClone for the co-development and promotion of *Erbix** in the U.S., Canada and Japan. BMS was the principal in the end customer product sales in North America and paid Lilly a distribution fee for 39% of *Erbix** net sales in North America plus a share of certain royalties paid by Lilly.

BMS transferred its co-commercialization rights in Japan to Merck KGaA in 2015 in exchange for sales-based royalties through 2032. As a result of the adoption of ASC 610 in 2018, estimated future royalties resulting from the transfer of rights to Merck KGaA were recorded as a cumulative effect adjustment in Retained earnings. Royalty income was increased by \$32 million in 2021 and \$23 million in 2019 as a result of changes in estimated future royalties.

Manufacturing Operations

In 2019, BMS sold its manufacturing and packaging facility in Anagni, Italy to Catalent Inc. The transaction was accounted for as the sale of a business. The assets were reduced to their relative fair value after considering the purchase price resulting in an impairment charge of \$121 million that was included in Cost of products sold in 2019.

Other

In 2020, the product rights to a mature brand were sold resulting in proceeds of \$50 million and divestiture gain of \$49 million.

Licensing and Other Arrangements

The following table summarizes the financial impact of *Keytruda** royalties, *Tecentriq** royalties, up-front licensing fees and milestones for products that have not obtained commercial approval, which are included in Other (income)/expense, net.

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
<i>Keytruda</i> * royalties	\$ (841)	\$ (681)	\$ (545)
<i>Tecentriq</i> * royalties	(90)	(19)	—
Up-front licensing fees	(34)	(30)	(29)
Contingent milestone income	(18)	(72)	(31)
Amortization of deferred income	(39)	(58)	(58)
Other royalties	(45)	(23)	(11)
Total	\$ (1,067)	\$ (883)	\$ (674)

*Tecentriq** Patent License

In 2020, BMS and Ono entered a global patent license agreement with Roche Group related to *Tecentriq** (atezolizumab), Roche's anti-PD-L1 antibody. Under the agreement, Roche paid \$324 million which included royalties for the nine months ended September 30, 2020, and will pay single-digit royalties on worldwide net sales of *Tecentriq** through December 31, 2026. The up-front payment and royalties will be shared between BMS and Ono consistent with existing agreements. BMS recorded \$239 million in Other (income)/expense, net for the settlement and \$19 million and \$90 million for royalties in 2020 and 2021, respectively.

In-license Arrangements

Immatix

In 2021, BMS entered into a global exclusive license to Immatix' TCR bispecific IMA401 program. IMA401 is being studied in oncology and a Clinical Trial Application has been filed with the German federal regulatory authority and is planned to commence in the first half of 2022. BMS and Immatix will collaborate on development and BMS will be responsible for the commercialization of IMA401 and its related products worldwide, including strategic decisions, regulatory responsibilities, funding and manufacturing. The transaction includes an up-front payment of \$150 million which will be included in Research and development expense and Immatix is eligible to receive contingent development, regulatory and sales-based milestones up to \$770 million as well as royalties on global net sales. The agreement closed in the first quarter 2022.

Agenus

In 2021, BMS obtained a global exclusive license to Agenus' proprietary AGEN1777 bispecific antibody program that blocks TIGIT and an additional target. AGEN1777 is being studied in oncology and a Phase I clinical trial was initiated in October 2021. BMS will be responsible for the development and any subsequent commercialization of AGEN1777 and its related products worldwide, including strategic decisions, regulatory responsibilities, funding and manufacturing. The transaction included an up-front payment of \$200 million which was included in Research and development expense and Agenus is eligible to receive contingent development, regulatory and sales-based milestones up to \$1.4 billion as well as royalties on global net sales.

Dragonfly

In 2020, BMS obtained a global exclusive license to Dragonfly's interleukin-12 (IL-12) investigational immunotherapy program, including its extended half-life cytokine DF6002. BMS will be responsible for the development and any subsequent commercialization of DF6002 and its related products worldwide, including strategic decisions, regulatory responsibilities, funding and manufacturing. Dragonfly will continue to be involved in the development of DF6002 in current and certain future Phase I/II clinical trials. BMS paid \$475 million to Dragonfly for the rights in 2020 including \$75 million following the commencement of a Phase I combination clinical study (included in Research and development expense). Dragonfly is eligible to receive additional contingent consideration comprised of development, regulatory and sales-based milestone payments up to \$2.7 billion and royalties on global net sales.

Note 5. OTHER (INCOME)/EXPENSE, NET

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Interest expense	\$ 1,334	\$ 1,420	\$ 656
Royalties and licensing income	(1,733)	(1,527)	(1,360)
Equity investment gains	(745)	(1,228)	(275)
Integration expenses	564	717	415
Contingent consideration	(542)	(1,757)	523
Loss on debt redemption	281	—	—
Provision for restructuring	169	530	301
Litigation and other settlements	82	(194)	77
Transition and other service fees	(49)	(149)	(37)
Investment income	(39)	(121)	(464)
Pension and postretirement	(15)	(13)	1,599
Divestiture gains	(9)	(55)	(1,168)
Reversion excise tax	—	76	—
Intangible asset impairment	—	21	15
Acquisition expenses	—	—	657
Other	(18)	(34)	(1)
Other (income)/expense, net	\$ (720)	\$ (2,314)	\$ 938

Note 6. RESTRUCTURINGCelgene Acquisition Plan

In 2019, a restructuring and integration plan was implemented as an initiative to realize sustainable run rate synergies resulting from cost savings and avoidance from the Celgene acquisition that are currently expected to be approximately \$3.0 billion. The synergies are expected to be realized in Cost of products sold (5%), Marketing, selling and administrative expenses (65%) and Research and development expenses (30%). Charges of approximately \$3.0 billion are expected to be incurred. The majority of the charges are expected to be incurred through 2022. Cumulative charges of approximately \$2.6 billion have been recognized to date including integration planning and execution expenses, employee termination benefit costs and accelerated stock-based compensation, contract termination costs and other shutdown costs associated with site exits. Cash outlays in connection with these actions are expected to be approximately \$2.7 billion. Employee workforce reductions were approximately 405 in 2021, 1,565 in 2020 and 125 in 2019.

MyoKardia Acquisition Plan

In 2020, a restructuring and integration plan was initiated to realize expected cost synergies resulting from cost savings and avoidance from the MyoKardia acquisition. Charges of approximately \$150 million are expected to be incurred through 2022, and consist of integration planning and execution expenses, employee termination benefit costs and other costs. Cumulative charges of approximately \$117 million have been recognized for these actions to date.

Company Transformation

In 2016, a restructuring plan was announced to evolve and streamline BMS's operating model. Cumulative charges of approximately \$1.5 billion were recognized for these actions since the announcement. Actions under the plan were completed as of December 31, 2020.

The following provides the charges related to restructuring initiatives by type of cost:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Celgene Acquisition Plan	\$ 673	\$ 1,244	\$ 674
MyoKardia Acquisition Plan	78	39	—
Company Transformation	—	127	305
Total charges	\$ 751	\$ 1,410	\$ 979
Employee termination costs	\$ 159	\$ 457	\$ 273
Other termination costs	10	73	28
Provision for restructuring	169	530	301
Integration expenses	564	717	415
Accelerated depreciation	2	53	133
Asset impairments	24	103	130
Other shutdown costs, net	(8)	7	—
Total charges	\$ 751	\$ 1,410	\$ 979
Cost of products sold	\$ 24	\$ 32	\$ 180
Marketing, selling and administrative	3	10	1
Research and development	—	113	82
Other (income)/expense, net	724	1,255	716
Total charges	\$ 751	\$ 1,410	\$ 979

The following summarizes the charges and spending related to restructuring plan activities:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Liability at December 31	\$ 148	\$ 100	\$ 99
Cease-use liability reclassification	—	—	(3)
Liability at January 1	148	100	96
Provision for restructuring ^(a)	156	460	156
Foreign currency translation and other	(4)	6	(1)
Payments	(199)	(418)	(151)
Liability at December 31	\$ 101	\$ 148	\$ 100

(a) Includes reductions to the liability resulting from changes in estimates of \$19 million in 2021, \$10 million in 2020 and \$4 million in 2019. Excludes \$13 million in 2021, \$70 million in 2020 and \$145 million in 2019 of accelerated stock-based compensation relating to the Celgene Acquisition Plan.

Note 7. INCOME TAXES

The provision/(benefit) for income taxes consisted of:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Current:			
U.S.	\$ 1,879	\$ 1,245	\$ 1,002
Non-U.S.	598	(104)	1,437
Total Current	2,477	1,141	2,439
Deferred:			
U.S.	(1,255)	229	(113)
Non-U.S.	(138)	754	(811)
Total Deferred	(1,393)	983	(924)
Total Provision	\$ 1,084	\$ 2,124	\$ 1,515

Effective Tax Rate

The reconciliation of the effective tax rate to the U.S. statutory Federal income tax rate was as follows:

Dollars in Millions	% of Earnings Before Income Taxes					
	2021		2020		2019	
Earnings/(Loss) before income taxes:						
U.S.	\$ 1,593		\$ (10,106)		\$ 542	
Non-U.S.	6,505		3,235		4,433	
Total	8,098		(6,871)		4,975	
U.S. statutory rate	1,701	21.0 %	(1,443)	21.0 %	1,045	21.0 %
Global intangible low taxed income (GILTI)	687	8.5 %	729	(10.6)%	849	17.1 %
Foreign tax effect of certain operations in Ireland, Puerto Rico and Switzerland	(143)	(1.8)%	(86)	1.3 %	(68)	(1.4)%
Internal transfers of intangible assets	(983)	(12.1)%	853	(12.4)%	—	—
U.S. Federal, state and foreign contingent tax matters	154	1.9 %	136	(2.0)%	(13)	(0.3)%
U.S. Federal research based credits	(165)	(2.0)%	(165)	2.4 %	(138)	(2.8)%
Contingent value rights	(108)	(1.3)%	(363)	5.3 %	110	2.2 %
Non-deductible R&D charges	—	—	2,461	(35.8)%	5	0.1 %
Puerto Rico excise tax	(152)	(1.9)%	(147)	2.1 %	(163)	(3.3)%
State and local taxes (net of valuation allowance)	33	0.4 %	103	(1.5)%	(16)	(0.3)%
Foreign and other	60	0.7 %	46	(0.7)%	(96)	(1.8)%
Total	\$ 1,084	13.4 %	\$ 2,124	(30.9)%	\$ 1,515	30.5 %

The GILTI tax associated with the *Otezla** divestiture was \$266 million in 2020 and \$808 million in 2019.

BMS is no longer indefinitely reinvested with respect to its undistributed earnings from foreign subsidiaries and has provided a deferred tax liability for foreign and state income and withholding tax that would apply. BMS remains indefinitely reinvested with respect to its financial statement basis in excess of tax basis of its foreign subsidiaries. A determination of the deferred tax liability with respect to this basis difference is not practicable. BMS operates under a favorable tax grant in Puerto Rico not scheduled to expire prior to 2023.

Internal transfers of certain intangible and other assets to streamline our legal entity structure subsequent to the Celgene acquisition resulted in a tax benefit in 2021 and in a tax charge in 2020 upon adjusting deferred taxes for the book and revalued tax basis differences of the related assets.

U.S. Federal, state and foreign contingent tax matters includes an \$81 million tax benefit in 2019 with respect to lapse of statutes.

Fair value adjustments for contingent value rights are not taxable or tax deductible.

Non-deductible R&D charges primarily resulted from the \$11.4 billion MyoKardia IPRD charge in 2020.

Puerto Rico imposes an excise tax on the gross company purchase price of goods sold from BMS's manufacturer in Puerto Rico. The excise tax is recognized in Cost of products sold when the intra-entity sale occurs. For U.S. income tax purposes, the excise tax is not deductible but results in foreign tax credits that are generally recognized in BMS's provision for income taxes when the excise tax is incurred.

Deferred Taxes and Valuation Allowance

The components of current and non-current deferred income tax assets/(liabilities) were as follows:

Dollars in Millions	December 31,	
	2021	2020
Deferred tax assets		
Foreign net operating loss carryforwards	\$ 945	\$ 3,271
State net operating loss and credit carryforwards	304	325
U.S. Federal net operating loss and credit carryforwards	226	435
Milestone payments and license fees	887	643
Other foreign deferred tax assets	237	307
Share-based compensation	232	389
Other	921	981
Total deferred tax assets	3,752	6,351
Valuation allowance	(1,056)	(2,809)
Deferred tax assets net of valuation allowance	\$ 2,696	\$ 3,542
Deferred tax liabilities		
Acquired intangible assets	\$ (4,867)	\$ (6,612)
Goodwill and other	(891)	(1,176)
Total deferred tax liabilities	\$ (5,758)	\$ (7,788)
Deferred tax liabilities, net	\$ (3,062)	\$ (4,246)
Recognized as:		
Deferred income taxes assets – non-current	\$ 1,439	\$ 1,161
Deferred income taxes liabilities – non-current	(4,501)	(5,407)
Total	\$ (3,062)	\$ (4,246)

The U.S. Federal net operating loss carryforwards were \$585 million at December 31, 2021. These carryforwards were acquired as a result of certain acquisitions and are subject to limitations under Section 382 of the Internal Revenue Code. The net operating loss carryforwards expire in varying amounts beginning in 2022. The foreign and state net operating loss carryforwards expire in varying amounts beginning in 2022 (certain amounts have unlimited lives).

At December 31, 2021, a valuation allowance of \$1.1 billion exists for the following items: \$583 million primarily for foreign net operating loss and tax credit carryforwards, \$183 million for state deferred tax assets including net operating loss and tax credit carryforwards and \$290 million for U.S. Federal deferred tax assets including equity fair value adjustments and U.S. Federal net operating loss carryforwards.

Changes in the valuation allowance were as follows:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Balance at beginning of year	\$ 2,809	\$ 2,844	\$ 3,193
Provision	201	62	75
Utilization	(1,087)	(488)	(423)
Foreign currency translation	(157)	212	(132)
Acquisitions/(dispositions)/(liquidations), net	(720)	179	228
Non U.S. rate change	10	—	(97)
Balance at end of year	\$ 1,056	\$ 2,809	\$ 2,844

In 2021, certain foreign net operating losses and related valuation allowances were utilized or eliminated as a result of internal legal entity restructurings.

Income tax payments were \$3.5 billion in 2021, \$3.4 billion in 2020 and \$1.5 billion in 2019.

In connection with the enactment of the TCJA, we were required to pay a one-time transition tax and elected to pay over a period of eight years as permitted under the TCJA. The remaining amounts payable for each of the next five years are as follows: \$339 million in 2022; \$567 million in 2023; \$799 million in 2024; \$1.0 billion in 2025; \$244 million in 2026.

Business is conducted in various countries throughout the world and is subject to tax in numerous jurisdictions. A significant number of tax returns that are filed are subject to examination by various Federal, state and local tax authorities. Tax examinations are often complex, as tax authorities may disagree with the treatment of items reported requiring several years to resolve. Liabilities are established for possible assessments by tax authorities resulting from known tax exposures including, but not limited to, transfer pricing matters, tax credit deductibility of certain expenses, and deemed repatriation transition tax. Such liabilities represent a reasonable provision for taxes ultimately expected to be paid and may need to be adjusted over time as more information becomes known. The effect of changes in estimates related to contingent tax liabilities is included in the effective tax rate reconciliation above.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows (excluding interest and penalties):

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Balance at beginning of year	\$ 2,003	\$ 1,905	\$ 995
Gross additions to tax positions related to current year	66	76	170
Gross additions to tax positions related to prior years	75	325	19
Gross additions to tax positions assumed in acquisitions	—	51	852
Gross reductions to tax positions related to prior years	(22)	(352)	(35)
Settlements	(70)	(7)	(23)
Reductions to tax positions related to lapse of statute	(5)	(5)	(72)
Cumulative translation adjustment	(5)	10	(1)
Balance at end of year	\$ 2,042	\$ 2,003	\$ 1,905

Additional information regarding unrecognized tax benefits is as follows:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Unrecognized tax benefits that if recognized would impact the effective tax rate	\$ 1,957	\$ 1,900	\$ 1,809
Accrued interest	424	366	292
Accrued penalties	26	20	10

Accrued interest and penalties payable for unrecognized tax benefits are included in either current or non-current income taxes payable. Interest and penalties related to unrecognized tax benefits are included in income tax expense.

BMS is currently under examination by a number of tax authorities, which have proposed or are considering proposing material adjustments to tax positions for issues such as transfer pricing, certain tax credits and the deductibility of certain expenses. As previously disclosed, BMS received several notices of proposed adjustments from the IRS related to transfer pricing and other tax positions for the 2008 to 2012 tax years. BMS disagrees with the IRS's positions and continues to work cooperatively with the IRS to resolve these open tax audits. It is reasonably possible that new issues will be raised by tax authorities that may increase unrecognized tax benefits; however, an estimate of such increases cannot reasonably be made at this time. BMS believes that it has adequately provided for all open tax years by tax jurisdiction.

It is also reasonably possible that the total amount of unrecognized tax benefits at December 31, 2021 could decrease in the range of approximately \$395 million to \$445 million in the next twelve months as a result of the settlement of certain tax audits and other events. The expected change in unrecognized tax benefits may result in the payment of additional taxes, adjustment of certain deferred taxes and/or recognition of tax benefits. The following is a summary of major tax jurisdictions for which tax authorities may assert additional taxes based upon tax years currently under audit and subsequent years that will likely be audited:

U.S.	2008 to 2021
Canada	2012 to 2021
France	2020 to 2021
Germany	2015 to 2021
Italy	2016 to 2021
Japan	2016 to 2021
UK	2012 to 2021

Note 8. EARNINGS/(LOSS) PER SHARE

Amounts in Millions, Except Per Share Data	Year Ended December 31,		
	2021	2020	2019
Net Earnings/(Loss) Attributable to BMS Used for Basic and Diluted EPS Calculation	\$ 6,994	\$ (9,015)	\$ 3,439
Weighted-Average Common Shares Outstanding - Basic	2,221	2,258	1,705
Incremental Shares Attributable to Share-Based Compensation Plans	24	—	7
Weighted-Average Common Shares Outstanding - Diluted	2,245	2,258	1,712
Earnings/(Loss) per Common Share			
Basic	\$ 3.15	\$ (3.99)	\$ 2.02
Diluted	3.12	(3.99)	2.01

The total number of potential shares of common stock excluded from the diluted earnings/(loss) per share computation because of the antidilutive impact was 106 million in 2020 and was not material in 2021 and 2019.

Note 9. FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS

Financial instruments include cash and cash equivalents, marketable securities, accounts receivable and payable, debt instruments and derivatives.

Changes in exchange rates and interest rates create exposure to market risk. Certain derivative financial instruments are used when available on a cost-effective basis to hedge the underlying economic exposure. These instruments qualify as cash flow, net investment and fair value hedges upon meeting certain criteria, including effectiveness of offsetting hedged exposures. Changes in fair value of derivatives that do not qualify for hedge accounting are recognized in earnings as they occur. Derivative financial instruments are not used for trading purposes.

Financial instruments are subject to counterparty credit risk which is considered as part of the overall fair value measurement. Counterparty credit risk is monitored on an ongoing basis and mitigated by limiting amounts outstanding with any individual counterparty, utilizing conventional derivative financial instruments and only entering into agreements with counterparties that meet high credit quality standards. The consolidated financial statements would not be materially impacted if any counterparty failed to perform according to the terms of its agreement. Collateral is not required by any party whether derivatives are in an asset or liability position under the terms of the agreements.

Fair Value Measurements — The fair value of financial instruments are classified into one of the following categories:

Level 1 inputs utilize unadjusted quoted prices in active markets accessible at the measurement date for identical assets or liabilities. The fair value hierarchy provides the highest priority to Level 1 inputs.

Level 2 inputs utilize observable prices for similar instruments and quoted prices for identical or similar instruments in non-active markets. Additionally, certain corporate debt securities utilize a third-party matrix pricing model using significant inputs corroborated by market data for substantially the full term of the assets. Equity and fixed income funds are primarily invested in publicly traded securities valued at the respective NAV of the underlying investments. Level 2 derivative instruments are valued using LIBOR yield curves, less credit valuation adjustments, and observable forward foreign exchange rates at the reporting date. Valuations of derivative contracts may fluctuate considerably from volatility in underlying foreign currencies and underlying interest rates driven by market conditions and the duration of the contract.

Level 3 unobservable inputs are used when little or no market data is available. Level 3 financial liabilities consist of other acquisition related contingent consideration and success payments related to undeveloped product rights resulting from the Celgene acquisition.

There were no transfers between levels 1, 2 and 3 during the year ended December 31, 2021.

Financial assets and liabilities measured at fair value on a recurring basis are summarized below:

Dollars in Millions	December 31, 2021			December 31, 2020		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Cash and cash equivalents - money market and other securities	\$ —	\$ 12,225	\$ —	\$ —	\$ 12,361	\$ —
Marketable debt securities:						
Certificates of deposit	—	2,264	—	—	1,020	—
Commercial paper	—	320	—	—	—	—
Corporate debt securities	—	403	—	—	698	—
Derivative assets	—	206	12	—	42	27
Equity investments	1,910	109	—	3,314	138	—
Derivative liabilities	—	25	—	—	270	—
Contingent consideration liability:						
Contingent value rights	8	—	—	530	—	—
Other acquisition related contingent consideration	—	—	35	—	—	78

Contingent consideration obligations are recorded at their estimated fair values and these obligations are revalued each reporting period until the related contingencies are resolved. The contingent value rights are adjusted to fair value using the traded price of the securities at the end of each reporting period. The fair value measurements for other contingent consideration liabilities are estimated using probability-weighted discounted cash flow approaches that are based on significant unobservable inputs related to product candidates acquired in business combinations and are reviewed quarterly. These inputs include, as applicable, estimated probabilities and timing of achieving specified development and regulatory milestones and the discount rate used to calculate the present value of estimated future payments. Significant changes which increase or decrease the probabilities of achieving the related development and regulatory events or shorten or lengthen the time required to achieve such events would result in corresponding increases or decreases in the fair values of these obligations.

Marketable Debt Securities

The following table summarizes marketable debt securities:

Dollars in Millions	December 31, 2021				December 31, 2020			
	Amortized Cost	Gross Unrealized		Fair Value	Amortized Cost	Gross Unrealized		Fair Value
		Gains	Losses			Gains	Losses	
Certificates of deposit	\$ 2,264	\$ —	\$ —	\$ 2,264	\$ 1,020	\$ —	\$ —	\$ 1,020
Commercial paper	320	—	—	320	—	—	—	—
Corporate debt securities	401	2	—	403	684	14	—	698
Total marketable debt securities ^(a)	\$ 2,985	\$ 2	\$ —	2,987	\$ 1,704	\$ 14	\$ —	1,718

(a) All marketable debt securities mature within two years as of December 31, 2021 and 2020.

Equity Investments

The following summarizes the carrying amount of equity investments at December 31, 2021 and 2020:

Dollars in Millions	2021	2020
Equity investments with readily determinable fair values	\$ 2,019	\$ 3,452
Equity investments without readily determinable fair values	283	694
Limited partnerships and other equity method investments	666	549
Total equity investments	\$ 2,968	\$ 4,695

The following summarizes the activity related to equity investments. Equity investment (gains)/loss are included in Other (income)/expense, net.

Dollars in Millions	2021	2020	2019
Equity investments with readily determined fair values ^(a)			
Net loss/(gain) recognized	\$ 403	\$ (964)	\$ (170)
Net loss/(gain) recognized on investments sold	(357)	12	(14)
Net unrealized loss/(gain) recognized on investments still held	760	(976)	(156)
Equity investments without readily determinable fair values			
Upward adjustments	(918)	(388)	(58)
Impairments and downward adjustments	1	204	27
Cumulative upward adjustments	(103)		
Cumulative impairments and downward adjustments	78		
Equity in net (income)/loss of affiliates ^(b)	(231)	(72)	85

^(a) Certain prior year amounts have been reclassified to conform to the current year's presentation.

^(b) A termination fee related to our Europe and Asia partnership with Sanofi of \$80 million was included in 2019.

Qualifying Hedges and Non-Qualifying Derivatives

Cash Flow Hedges — Foreign currency forward contracts are used to hedge certain forecasted intercompany inventory purchases and sales transactions and certain foreign currency transactions. The fair value for contracts designated as cash flow hedges is temporarily reported in Accumulated other comprehensive loss and included in earnings when the hedged item affects earnings. The net gain or loss on foreign currency forward contracts is expected to be reclassified to net earnings (primarily included in Cost of products sold and Other (income)/expense, net) within the next 12 months. The notional amount of outstanding foreign currency forward contracts was primarily attributed to the euro of \$3.5 billion and Japanese yen of \$1.2 billion at December 31, 2021.

The earnings impact related to discontinued cash flow hedges and hedge ineffectiveness was not material during all periods presented. Cash flow hedge accounting is discontinued when the forecasted transaction is no longer probable of occurring within 60 days after the originally forecasted date or when the hedge is no longer effective. Assessments to determine whether derivatives designated as qualifying hedges are highly effective in offsetting changes in the cash flows of hedged items are performed at inception and on a quarterly basis. Foreign currency forward contracts not designated as hedging instruments are used to offset exposures in certain foreign currency denominated assets, liabilities and earnings. Changes in the fair value of these derivatives are recognized in earnings as they occur.

BMS may hedge a portion of its future foreign currency exposure by utilizing a strategy that involves both a purchased local currency put option and a written local currency call option that are accounted for as hedges of future sales denominated in that local currency. Specifically, BMS sells (or writes) a local currency call option and purchases a local currency put option with the same expiration dates and local currency notional amounts but with different strike prices. The premium collected from the sale of the call option is equal to the premium paid for the purchased put option, resulting in no net premium being paid. This combination of transactions is generally referred to as a “zero-cost collar.” The expiration dates and notional amounts correspond to the amount and timing of forecasted foreign currency sales. If the U.S. dollar weakens relative to the currency of the hedged anticipated sales, the purchased put option value reduces to zero and BMS benefits from the increase in the U.S. dollar equivalent value of our anticipated foreign currency cash flows; however, this benefit would be capped at the strike level of the written call, which forms the upper end of the collar.

In 2020, Treasury lock hedge contracts were entered into with a total notional value of \$2.1 billion to hedge future interest rate risk associated with the anticipated issuance of long-term debt to fund the MyoKardia acquisition. The Treasury lock contracts were terminated upon the issuance of the 2020 unsecured senior notes and the \$51 million proceeds were included in Other Comprehensive Income/(Loss).

Net Investment Hedges — Non-U.S. dollar borrowings of €950 million (\$1.1 billion) at December 31, 2021 are designated as net investment hedges to hedge euro currency exposures of the net investment in certain foreign affiliates and are recognized in long-term debt. The effective portion of foreign exchange gain on the remeasurement of euro debt was included in the foreign currency translation component of Accumulated other comprehensive loss with the related offset in long-term debt.

Cross-currency interest rate swap contracts of \$600 million at December 31, 2021 are designated to hedge Japanese yen currency exposure of BMS's net investment in its Japan subsidiaries. Contract fair value changes are recorded in the foreign currency translation component of Accumulated other comprehensive loss with a related offset in Other non-current assets or Other non-current liabilities.

Fair Value Hedges — Fixed to floating interest rate swap contracts are designated as fair value hedges and used as an interest rate risk management strategy to create an appropriate balance of fixed and floating rate debt. The contracts and underlying debt for the hedged benchmark risk are recorded at fair value. The effective interest rate for the contracts is one-month LIBOR (0.10% as of December 31, 2021) plus an interest rate spread of 4.6%. Gains or losses resulting from changes in fair value of the underlying debt attributable to the hedged benchmark interest rate risk are recorded in interest expense with an associated offset to the carrying value of debt. Since the specific terms and notional amount of the swap are intended to align with the debt being hedged, all changes in fair value of the swap are recorded in interest expense with an associated offset to the derivative asset or liability on the consolidated balance sheet. As a result, there was no net impact in earnings. If the underlying swap is terminated prior to maturity, then the fair value adjustment to the underlying debt is amortized as a reduction to interest expense over the remaining term of the debt.

The following summarizes the fair value of outstanding derivatives:

Dollars in Millions	December 31, 2021				December 31, 2020			
	Asset ^(a)		Liability ^(b)		Asset ^(a)		Liability ^(b)	
	Notional	Fair Value	Notional	Fair Value	Notional	Fair Value	Notional	Fair Value
Derivatives designated as hedging instruments:								
Interest rate swap contracts	\$ 255	\$ 10	\$ —	\$ —	\$ 255	\$ 24	\$ —	\$ —
Cross-currency interest rate swap contracts	600	26	—	—	—	—	400	(10)
Foreign currency forward contracts	3,587	161	1,814	(20)	231	1	5,813	(259)
Derivatives not designated as hedging instruments:								
Foreign currency forward contracts	883	9	568	(5)	1,104	17	336	(1)
Other	—	12	—	—	—	27	—	—

(a) Included in Other current assets and Other non-current assets.

(b) Included in Other current liabilities and Other non-current liabilities.

The following table summarizes the financial statement classification and amount of (gain)/loss recognized on hedging instruments:

Dollars in Millions	Year Ended December 31,					
	2021		2020		2019	
	Cost of products sold	Other (income)/expense, net	Cost of products sold	Other (income)/expense, net	Cost of products sold	Other (income)/expense, net
Interest rate swap contracts	\$ —	\$ (31)	\$ —	\$ (29)	\$ —	\$ (24)
Cross-currency interest rate swap contracts	—	(11)	—	(10)	—	(9)
Foreign currency forward contracts	96	(21)	(18)	(23)	(103)	11
Forward starting interest rate swap option contracts	—	—	—	—	—	35
Deal contingent forward starting interest rate swap contracts	—	—	—	—	—	240
Foreign currency zero-cost collar contracts	—	—	—	—	—	2

The following table summarizes the effect of derivative and non-derivative instruments designated as hedging instruments in Other Comprehensive Income/(Loss):

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Derivatives qualifying as cash flow hedges			
Foreign currency forward contracts gain/(loss):			
Recognized in Other Comprehensive Income/(Loss) ^(a)	\$ 364	\$ (267)	\$ 65
Reclassified to Cost of products sold	96	(54)	(103)
Treasury lock hedge contracts gain:			
Recognized in Other Comprehensive Income/(Loss)	—	51	—
Derivatives qualifying as net investment hedges			
Cross-currency interest rate swap contracts gain/(loss):			
Recognized in Other Comprehensive Income/(Loss)	38	(11)	6
Non-derivatives qualifying as net investment hedges			
Non U.S. dollar borrowings gain/(loss):			
Recognized in Other Comprehensive Income/(Loss)	83	(105)	29

(a) The majority is expected to be reclassified into earnings in the next 12 months.

Debt Obligations

Short-term debt obligations include:

Dollars in Millions	December 31,	
	2021	2020
Non-U.S. short-term borrowings	\$ 105	\$ 176
Current portion of long-term debt	4,764	2,000
Other	79	164
Total	\$ 4,948	\$ 2,340

Long-term debt and the current portion of long-term debt includes:

Dollars in Millions	December 31,	
	2021	2020
Principal Value:		
2.250% Notes due 2021	—	500
2.550% Notes due 2021	—	1,000
2.875% Notes due 2021	—	500
Floating Rate Notes due 2022	500	500
2.000% Notes due 2022	750	750
2.600% Notes due 2022	1,500	1,500
3.250% Notes due 2022	1,000	1,000
3.550% Notes due 2022	1,000	1,000
0.537% Notes due 2023	1,500	1,500
2.750% Notes due 2023	750	750
3.250% Notes due 2023	500	500
3.250% Notes due 2023	890	1,000
4.000% Notes due 2023	—	700
7.150% Notes due 2023	239	302
2.900% Notes due 2024	2,478	3,250
3.625% Notes due 2024	395	1,000
0.750% Notes due 2025	1,000	1,000
1.000% Euro Notes due 2025	651	701
3.875% Notes due 2025	1,925	2,500
3.200% Notes due 2026	2,250	2,250
6.800% Notes due 2026	256	256
1.125% Notes due 2027	1,000	1,000
3.250% Notes due 2027	750	750
3.450% Notes due 2027	1,000	1,000
3.900% Notes due 2028	1,500	1,500
3.400% Notes due 2029	4,000	4,000
1.450% Notes due 2030	1,250	1,250
1.750% Euro Notes due 2035	651	701
5.875% Notes due 2036	279	287
6.125% Notes due 2038	219	226
4.125% Notes due 2039	2,000	2,000
2.350% Notes due 2040	750	750
5.700% Notes due 2040	193	250
3.250% Notes due 2042	500	500
5.250% Notes due 2043	280	400
4.500% Notes due 2044	500	500
4.625% Notes due 2044	748	1,000
5.000% Notes due 2045	1,768	2,000
4.350% Notes due 2047	1,250	1,250
4.550% Notes due 2048	1,486	1,500
4.250% Notes due 2049	3,750	3,750
2.550% Notes due 2050	1,500	1,500
6.875% Notes due 2097	86	87
0.13% - 5.75% Other - maturing through 2024	51	51
Total	\$ 43,095	\$ 48,711

Dollars in Millions	December 31,	
	2021	2020
Principal Value	\$ 43,095	\$ 48,711
Adjustments to Principal Value:		
Fair value of interest rate swap contracts	10	24
Unamortized basis adjustment from swap terminations	119	149
Unamortized bond discounts and issuance costs	(263)	(303)
Unamortized purchase price adjustments of Celgene debt	1,408	1,755
Total	\$ 44,369	\$ 50,336
Current portion of long-term debt		
	4,764	2,000
Long-term debt	39,605	48,336
Total	\$ 44,369	\$ 50,336

The fair value of long-term debt was \$49.1 billion and \$58.5 billion at December 31, 2021 and 2020, respectively, valued using Level 2 inputs which are based upon the quoted market prices for the same or similar debt instruments. The fair value of short-term borrowings approximates the carrying value due to the short maturities of the debt instruments.

In 2019, BMS issued an aggregate principal amount of approximately \$19.0 billion of floating rate and fixed rate unsecured senior notes with proceeds net of discount and deferred loan issuance costs of \$18.8 billion. The notes rank equally in right of payment with all of BMS's existing and future senior unsecured indebtedness and the fixed rate notes are redeemable at any time, in whole, or in part, at varying specified redemption prices plus accrued and unpaid interest.

In connection with the Celgene acquisition, BMS commenced offers to exchange outstanding notes issued by Celgene of approximately \$19.9 billion for a like-amount of new notes to be issued by BMS (the "exchange offers"). This exchange transaction was accounted for as a modification of the assumed debt instruments. Following the settlement of the exchange offers, BMS issued approximately \$18.5 billion of new notes in exchange for the Celgene notes tendered in the exchange offers. The aggregate principal amount of Celgene notes that remained outstanding following the settlement of the exchange offers was approximately \$1.3 billion.

In 2019, BMS entered into an \$8.0 billion term loan credit agreement consisting of a \$1.0 billion 364-day tranche, a \$4.0 billion three-year tranche and a \$3.0 billion five-year tranche in connection with the Celgene acquisition. The term loan was subject to customary terms and conditions and did not have any financial covenants. The proceeds under the term loan were used to fund a portion of the cash to be paid in the Celgene acquisition and the payment of related fees and expenses. Subsequent to the completion of the acquisition, BMS repaid the term loan in its entirety using cash proceeds generated from the *Otezla** divestiture.

In 2020, BMS issued an aggregate principal amount of \$7.0 billion of fixed rate unsecured senior notes with proceeds net of discount and deferred loan issuance costs of \$6.9 billion. The notes rank equally in right of payment with all of BMS's existing and future senior unsecured indebtedness and are redeemable at any time, in whole, or in part, at varying specified redemption prices plus accrued and unpaid interest.

In 2021, BMS purchased aggregate principal amount of \$3.5 billion of certain of its debt securities for approximately \$4.0 billion of cash in a series of tender offers and "make whole" redemptions. In connection with these transactions, a \$281 million loss on debt redemption was recognized based on the carrying value of the debt and included in Other (income)/expense, net.

Repayment of Notes at maturity aggregated \$2.0 billion in 2021, \$2.8 billion in 2020 and \$1.3 billion in 2019. Interest payments were \$1.5 billion in 2021, \$1.6 billion in 2020 and \$414 million in 2019.

The aggregate maturities of long-term debt and interest for each of the next five years are as follows: \$6.1 billion in 2022; \$5.1 billion in 2023; \$4.1 billion in 2024; \$4.7 billion in 2025; \$3.5 billion in 2026.

At December 31, 2021, BMS had four separate revolving credit facilities totaling \$6.0 billion, which consisted of a 364-day \$2.0 billion facility which expired in January 2022, a three-year \$1.0 billion facility which expired in January 2022 and two five-year \$1.5 billion facilities that were extended to September 2025 and July 2026, respectively. No borrowings were outstanding under any revolving credit facility at December 31, 2021 or 2020.

In January 2022, BMS entered into a five-year \$5.0 billion facility expiring in January 2027, which is extendable annually by one year with the consent of the lenders. This facility provides for customary terms and conditions with no financial covenants and may be used to provide backup liquidity for BMS's commercial paper borrowings. Concurrently with the entry into this facility, the commitments under BMS's existing five-year \$1.5 billion facilities were terminated.

Available financial guarantees provided in the form of bank overdraft facilities, stand-by letters of credit and performance bonds were approximately \$1.2 billion at December 31, 2021. Stand-by letters of credit and guarantees are issued through financial institutions in support of various obligations, including sale of products to hospitals and foreign ministries of health, bonds for customs, and duties and value added tax.

Note 10. RECEIVABLES

Dollars in Millions	December 31,	
	2021	2020
Trade receivables	\$ 8,723	\$ 7,882
Less charge-backs and cash discounts	(723)	(645)
Less allowance for expected credit loss	(21)	(18)
Net trade receivables	7,979	7,219
Alliance, Royalties, VAT and other	1,390	1,282
Receivables	\$ 9,369	\$ 8,501

Non-U.S. receivables sold on a nonrecourse basis were \$1.5 billion in 2021, \$1.2 billion in 2020 and \$797 million in 2019. In the aggregate, receivables from three pharmaceutical wholesalers in the U.S. represented approximately 59% and 56% of total trade receivables at December 31, 2021 and 2020, respectively.

Changes to the allowances for expected credit loss, charge-backs and cash discounts were as follows:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Balance at beginning of year	\$ 663	\$ 412	\$ 278
Celgene acquisition	—	—	116
Provision ^(a)	7,257	5,839	3,687
Utilization	(7,170)	(5,601)	(3,667)
Other	(6)	13	(2)
Balance at end of year	\$ 744	\$ 663	\$ 412

(a) Includes provision for expected credit loss of \$4 million in 2021, \$12 million in 2020 and \$12 million in 2019.

Note 11. INVENTORIES

Dollars in Millions	December 31,	
	2021	2020
Finished goods	\$ 543	\$ 932
Work in process	2,111	2,015
Raw and packaging materials	350	207
Total Inventories	\$ 3,004	\$ 3,154
Inventories	\$ 2,095	\$ 2,074
Other non-current assets	909	1,080

Total inventories include fair value adjustments resulting from the Celgene acquisition of approximately \$508 million and \$774 million at December 31, 2021 and 2020, respectively, which will be recognized in future periods. Other non-current assets include inventory expected to remain on hand beyond 12 months in both periods.

Note 12. PROPERTY, PLANT AND EQUIPMENT

Dollars in Millions	December 31,	
	2021	2020
Land	\$ 169	\$ 189
Buildings	5,897	5,732
Machinery, equipment and fixtures	3,252	3,063
Construction in progress	764	487
Gross property, plant and equipment	10,082	9,471
Less accumulated depreciation	(4,033)	(3,585)
Property, plant and equipment	\$ 6,049	\$ 5,886
United States	\$ 4,710	\$ 4,501
Europe	1,176	1,243
Rest of the World	163	142
Total	\$ 6,049	\$ 5,886

Depreciation expense was \$559 million in 2021, \$586 million in 2020 and \$554 million in 2019.

Note 13. LEASES

Leased facilities for office, research and development, and storage and distribution purposes, comprise approximately 90% of the total lease obligation. Lease terms vary based on the nature of operations and the market dynamics in each country; however, all leased facilities are classified as operating leases with remaining lease terms between one year and 15 years. Most leases contain specific renewal options for periods ranging between one year and 10 years where notice to renew must be provided in advance of lease expiration or automatic renewals where no advance notice is required. Periods covered by an option to extend the lease were included in the non-cancellable lease term when exercise of the option was determined to be reasonably certain. Certain leases also contain termination options that provide the flexibility to terminate the lease ahead of its expiration with sufficient advance notice. Periods covered by an option to terminate the lease were included in the non-cancellable lease term when exercise of the option was determined not to be reasonably certain. Judgment is required in assessing whether renewal and termination options are reasonably certain to be exercised. Factors are considered such as contractual terms compared to current market rates, leasehold improvements expected to have significant value, costs to terminate a lease and the importance of the facility to operations. Costs determined to be variable and not based on an index or rate were not included in the measurement of real estate lease liabilities. These variable costs include real estate taxes, insurance, utilities, common area maintenance and other operating costs. As the implicit rate on most leases is not readily determinable, an incremental borrowing rate was applied on a portfolio approach to discount its real estate lease liabilities.

The remaining 10% of lease obligations are comprised of vehicles used primarily by salesforce and a research and development facility operated by a third party under management's direction. Vehicle lease terms vary by country with terms generally between one year and four years.

The following table summarizes the components of lease expense:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Operating lease cost	\$ 220	\$ 194	\$ 115
Variable lease cost	44	50	25
Short-term lease cost	17	19	20
Sublease income	(7)	(4)	(4)
Total operating lease expense	\$ 274	\$ 259	\$ 156

Operating lease right-of-use assets and liabilities were as follows:

Dollars in Millions	December 31,	
	2021	2020
Other non-current assets	\$ 919	\$ 859
Other current liabilities	169	164
Other non-current liabilities	874	833
Total liabilities	\$ 1,043	\$ 997

Future lease payments for non-cancellable operating leases as of December 31, 2021 were as follows:

Dollars in Millions	
2022	\$ 190
2023	176
2024	130
2025	105
2026	96
Thereafter	494
Total future lease payments	1,191
Less imputed interest	(148)
Total lease liability	\$ 1,043

Right-of-use assets obtained in exchange for new operating lease obligations were \$228 million in 2021. Cash paid for amounts included in the measurement of operating lease liabilities was \$189 million in 2021 and \$164 million in 2020.

Undiscounted lease obligations for operating leases not yet commenced were approximately \$793 million as of December 31, 2021. The obligation primarily relates to a research and development facility that is being constructed by the lessor and which is expected to be ready for use in 2022.

A right-of-use asset impairment charge of \$31 million was incurred during 2020 due to a site vacancy and partial sublease. The fair value of the right-of-use asset was determined using an income approach incorporating potential future cash flows associated with the sublease of the building.

Supplemental balance sheet information related to leases was as follows:

	December 31,	
	2021	2020
Weighted average remaining lease term	10 years	9 years
Weighted average discount rate	3 %	3 %

Note 14. GOODWILL AND OTHER INTANGIBLE ASSETS

Dollars in Millions	Estimated Useful Lives	December 31,	
		2021	2020
Goodwill		\$ 20,502	\$ 20,547
Other intangible assets:			
Licenses	5 – 15 years	307	328
Acquired marketed product rights	3 – 15 years	60,454	59,076
Capitalized software	3 – 10 years	1,499	1,325
IPRD		3,750	6,130
Gross other intangible assets		66,010	66,859
Less accumulated amortization		(23,483)	(13,616)
Other intangible assets		\$ 42,527	\$ 53,243

In 2021, \$1.5 billion of IPRD was reclassified to acquired marketed product rights upon approval of *Breyanzi* and *Abecma* in the U.S. Amortization expense of other intangible assets was \$10.2 billion in 2021, \$9.9 billion in 2020 and \$1.3 billion in 2019. Future annual amortization expense of other intangible assets is expected to be approximately \$9.8 billion in 2022, \$9.2 billion in 2023, \$8.4 billion in 2024, \$2.9 billion in 2025 and \$1.3 billion in 2026.

Other intangible asset impairment charges were \$1.2 billion in 2021, \$1.1 billion in 2020 and \$66 million in 2019.

In 2021, a \$610 million IPRD impairment charge for an investigational compound was recorded in Research and development expense primarily resulting from changes in clinical timelines, expected launch dates and competitive landscape. The compound is being studied as a potential treatment for hematologic diseases and was acquired in the acquisition of Celgene. The charge represented a partial write-down of its carrying value based on the estimated fair value determined using discounted cash flow projections. Additionally, a \$230 million IPRD impairment charge was recorded in Research and development expense following a decision to discontinue development of an investigational compound in connection with the prioritization of current pipeline opportunities. The compound was being studied as a potential treatment for fibrotic diseases and was acquired in the acquisition of Celgene. The charge represented a full write-down based on the estimated fair value determined using discounted cash flow projections.

In 2021, *Inrebic* EU regulatory approval milestones of \$300 million were achieved resulting in a \$385 million increase to the acquired marketed product rights intangible asset, after establishing the applicable deferred tax liability. An impairment charge of \$315 million was recognized in Cost of products sold as the carrying value of this asset exceeded the projected undiscounted cash flows of the asset. The charge was equal to the excess of the asset's carrying value over its estimated fair value using discounted cash flow projections.

In 2020, a \$575 million impairment charge was recorded in Cost of products sold resulting from the lower cash flow projections reflecting revised commercial forecasts for *Inrebic*, resulting in the full impairment of the asset. Additionally, a \$470 million impairment charge was recorded in Research and development expense following a decision to discontinue the orva-cel program development. *Inrebic* and orva-cel were obtained in connection with the acquisition of Celgene.

Note 15. SUPPLEMENTAL FINANCIAL INFORMATION

Dollars in Millions	December 31,	
	2021	2020
Income taxes	\$ 2,786	\$ 1,799
Research and development	514	492
Contract assets	361	254
Equity investments	255	619
Restricted cash ^(a)	140	89
Other	776	533
Other current assets	\$ 4,832	\$ 3,786

Dollars in Millions	December 31,	
	2021	2020
Equity investments	\$ 2,713	\$ 4,076
Inventories	909	1,080
Operating leases	919	859
Pension and postretirement	317	208
Research and development	248	206
Restricted cash ^(a)	197	338
Other	232	252
Other non-current assets	\$ 5,535	\$ 7,019

(a) Restricted cash consists of funds restricted for annual Company contributions to the defined contribution plan in the U.S. and escrow for litigation settlements. Cash is restricted when withdrawal or general use is contractually or legally restricted.

Dollars in Millions	December 31,	
	2021	2020
Rebates and discounts	\$ 6,399	\$ 5,688
Income taxes	754	647
Employee compensation and benefits	1,375	1,412
Research and development	1,373	1,423
Dividends	1,186	1,129
Interest	378	434
Royalties	410	461
Operating leases	169	164
Contingent value rights	—	515
Other	1,927	2,154
Other current liabilities	\$ 13,971	\$ 14,027

Dollars in Millions	December 31,	
	2021	2020
Income taxes payable	\$ 4,835	\$ 5,017
Pension and postretirement	654	899
Operating leases	874	833
Deferred income	326	357
Deferred compensation	427	344
Other	218	326
Other non-current liabilities	\$ 7,334	\$ 7,776

Note 16. EQUITY

Dollars and Shares in Millions	Common Stock		Capital in Excess of Par Value of Stock	Accumulated Other Comprehensive Loss	Retained Earnings	Treasury Stock		Noncontrolling Interest
	Shares	Par Value				Shares	Cost	
Balance at January 1, 2019	2,208	\$ 221	\$ 2,081	\$ (2,762)	\$34,065	576	\$(19,574)	\$ 96
Accounting change - cumulative effect ^(a)	—	—	—	—	5	—	—	—
Adjusted balance at January 1, 2019	2,208	221	2,081	(2,762)	34,070	576	(19,574)	96
Net earnings	—	—	—	—	3,439	—	—	21
Other Comprehensive Income/(Loss)	—	—	—	1,242	—	—	—	—
Celgene acquisition	715	71	42,721	—	—	—	—	—
Cash dividends declared ^(b)	—	—	—	—	(3,035)	—	—	—
Share repurchase program	—	—	(1,400)	—	—	105	(5,900)	—
Stock compensation	—	—	307	—	—	(9)	117	—
Distributions	—	—	—	—	—	—	—	(17)
Balance at December 31, 2019	2,923	292	43,709	(1,520)	34,474	672	(25,357)	100
Net loss	—	—	—	—	(9,015)	—	—	20
Other Comprehensive Income/(Loss)	—	—	—	(319)	—	—	—	—
Cash dividends declared ^(b)	—	—	—	—	(4,178)	—	—	—
Share repurchase program	—	—	1,400	—	—	43	(2,993)	—
Stock compensation	—	—	(784)	—	—	(36)	2,113	—
Distributions	—	—	—	—	—	—	—	(60)
Balance at December 31, 2020	2,923	292	44,325	(1,839)	21,281	679	(26,237)	60
Net earnings	—	—	—	—	6,994	—	—	20
Other Comprehensive Income/(Loss)	—	—	—	571	—	—	—	—
Cash dividends declared ^(b)	—	—	—	—	(4,455)	—	—	—
Share repurchase program	—	—	—	—	—	102	(6,240)	—
Stock compensation	—	—	36	—	—	(34)	1,218	—
Distributions	—	—	—	—	—	—	—	(20)
Balance at December 31, 2021	2,923	\$ 292	\$ 44,361	\$ (1,268)	\$23,820	747	\$(31,259)	\$ 60

(a) Cumulative effect resulting from adoption of ASU 2014-09 and ASU 2016-02.

(b) Cash dividends declared per common share were \$2.01 in 2021, \$1.84 in 2020 and \$1.68 in 2019.

BMS has a share repurchase program, authorized by its Board of Directors, allowing for repurchases of its shares effected in the open market or through privately negotiated transactions in compliance with Rule 10b-18 under the Exchange Act, including through Rule 10b5-1 trading plans. The share repurchase program does not have an expiration date and may be suspended or discontinued at any time. Treasury stock is recognized at the cost to reacquire the shares. Shares issued from treasury are recognized utilizing the first-in first-out method. The outstanding share repurchase authority authorization under the program was \$4.4 billion as of December 31, 2020.

In January and December 2021, the Board of Directors approved an increase of \$2.0 billion and \$15.0 billion, respectively, to the share repurchase authorization for BMS's common stock. BMS repurchased approximately 102 million shares of its common stock for \$6.2 billion in 2021. The remaining share repurchase capacity under the share repurchase program was approximately \$15.2 billion as of December 31, 2021.

In 2020, BMS repurchased approximately 27 million shares of its common stock for \$1.6 billion. In 2020, the 2019 ASR was settled and approximately 16 million shares of common stock were received by BMS and transferred to treasury stock.

In 2019, BMS executed ASR agreements to repurchase an aggregate \$7.0 billion of common stock. These ASR agreements were funded with cash on-hand. Approximately 99 million shares of common stock (80% of the \$7.0 billion aggregate repurchase price) were received by BMS and included in treasury stock. In addition, approximately 6 million shares of common stock were repurchased for \$300 million.

In February 2022, BMS executed ASR agreements to repurchase an aggregate \$5.0 billion of its common stock. These ASR agreements were funded with cash on-hand and are expected to settle during the second and third quarters of 2022. The total number of shares to be repurchased under the ASR agreements will be based on volume-weighted average prices of BMS's common stock during the terms of the ASR transactions less a discount and subject to adjustments pursuant to the terms and conditions of the ASR agreements.

The components of Other Comprehensive Income/(Loss) were as follows:

Dollars in Millions	Year Ended December 31,								
	2021			2020			2019		
	Pretax	Tax	After Tax	Pretax	Tax	After Tax	Pretax	Tax	After Tax
Derivatives qualifying as cash flow hedges:									
Unrealized gains/(losses)	\$ 364	\$ (34)	\$ 330	\$ (216)	\$ 7	\$ (209)	\$ 65	\$ (7)	\$ 58
Reclassified to net earnings ^(a)	95	(10)	85	(54)	7	(47)	(103)	13	(90)
Derivatives qualifying as cash flow hedges	459	(44)	415	(270)	14	(256)	(38)	6	(32)
Pension and postretirement benefits:									
Actuarial gains/(losses)	220	(40)	180	(134)	25	(109)	(143)	28	(115)
Amortization ^(b)	41	(10)	31	33	(6)	27	55	(11)	44
Settlements ^(b)	(6)	1	(5)	10	(3)	7	1,640	(366)	1,274
Pension and postretirement benefits	255	(49)	206	(91)	16	(75)	1,552	(349)	1,203
Marketable debt securities:									
Unrealized (losses)gains	(11)	2	(9)	7	(1)	6	42	(9)	33
Realized (gains)losses ^(b)	—	—	—	(1)	—	(1)	3	—	3
Marketable debt securities	(11)	2	(9)	6	(1)	5	45	(9)	36
Foreign currency translation	(14)	(27)	(41)	(19)	26	7	43	(8)	35
Other Comprehensive Income/(Loss)	\$ 689	\$ (118)	\$ 571	\$ (374)	\$ 55	\$ (319)	\$ 1,602	\$ (360)	\$ 1,242

(a) Included in Cost of products sold.

(b) Included in Other (income)/expense, net.

The accumulated balances related to each component of Other Comprehensive Income/(Loss), net of taxes, were as follows:

Dollars in Millions	December 31,	
	2021	2020
Derivatives qualifying as cash flow hedges	\$ 178	\$ (237)
Pension and postretirement benefits	(768)	(974)
Marketable debt securities	2	11
Foreign currency translation	(680)	(639)
Accumulated other comprehensive loss	\$ (1,268)	\$ (1,839)

Note 17. RETIREMENT BENEFITS

BMS sponsors defined benefit pension plans, defined contribution plans and termination indemnity plans for regular full-time employees. The principal defined benefit pension plan was the Bristol Myers Squibb Retirement Income Plan (the "Plan"), which covered most U.S. employees. Future benefits related to service for the Plan were eliminated in 2009. BMS contributed at least the minimum amount required by ERISA. Plan benefits were based primarily on the participant's years of credited service and final average compensation.

In 2018, BMS announced plans to fully terminate the Plan. Pension obligations related to the Plan were to be distributed through a combination of lump sum payments to eligible Plan participants who elected such payments and through the purchase of group annuity contracts from wholly owned insurance subsidiaries of Athene Holding Ltd. (“Athene”). In 2019, \$1.3 billion was distributed to Plan participants who elected lump sum payments during the election window, and group annuity contracts were purchased from Athene for \$2.6 billion for the remaining Plan participants for whom Athene irrevocably assumed the pension obligations. These transactions fully terminated the Plan and resulted in a \$1.5 billion non-cash pre-tax pension settlement charge in 2019.

The net periodic benefit cost of defined benefit pension plans includes:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Service cost — benefits earned during the year	\$ 51	\$ 48	\$ 26
Interest cost on projected benefit obligation	35	42	115
Expected return on plan assets	(99)	(98)	(200)
Amortization of prior service credits	(4)	(4)	(4)
Amortization of net actuarial loss	50	44	59
Settlements and Curtailments	(5)	10	1,640
Net periodic pension benefit cost	\$ 28	\$ 42	\$ 1,636

Pension settlement charges were recognized after determining the annual lump sum payments will exceed the annual interest and service costs for certain pension plans, including the primary U.S. pension plan in 2019.

Changes in defined benefit pension plan obligations, assets, funded status and amounts recognized in the consolidated balance sheets were as follows:

Dollars in Millions	Year Ended December 31,	
	2021	2020
Benefit obligations at beginning of year	\$ 3,242	\$ 2,940
Service cost—benefits earned during the year	51	48
Interest cost	35	42
Settlements and Curtailments	(101)	(145)
Actuarial (gains)/losses	(153)	233
Benefits paid	(46)	(58)
Foreign currency and other	(93)	182
Benefit obligations at end of year	\$ 2,935	\$ 3,242
Fair value of plan assets at beginning of year	\$ 2,807	\$ 2,536
Actual return on plan assets	125	196
Employer contributions	87	96
Settlements	(83)	(126)
Benefits paid	(46)	(58)
Foreign currency and other	(75)	163
Fair value of plan assets at end of year	\$ 2,815	\$ 2,807
Funded status	\$ (120)	\$ (435)
Assets/(Liabilities) recognized:		
Other non-current assets	\$ 317	\$ 208
Other current liabilities	(24)	(26)
Other non-current liabilities	(413)	(617)
Funded status	\$ (120)	\$ (435)
Recognized in Accumulated other comprehensive loss:		
Net actuarial losses	\$ 1,015	\$ 1,255
Prior service credit	(29)	(22)
Total	\$ 986	\$ 1,233

The accumulated benefit obligation for defined benefit pension plans was \$2.9 billion and \$3.2 billion at December 31, 2021 and 2020, respectively.

Additional information related to pension plans was as follows:

Dollars in Millions	December 31,	
	2021	2020
Pension plans with projected benefit obligations in excess of plan assets:		
Projected benefit obligation	\$ 1,274	\$ 1,805
Fair value of plan assets	836	1,162
Pension plans with accumulated benefit obligations in excess of plan assets:		
Accumulated benefit obligation	1,245	1,579
Fair value of plan assets	832	952

Actuarial Assumptions

Weighted-average assumptions used to determine defined benefit pension plan obligations were as follows:

	December 31,	
	2021	2020
Discount rate	1.6 %	1.2 %
Rate of compensation increase	1.0 %	1.3 %
Interest crediting rate	2.1 %	2.2 %

Weighted-average actuarial assumptions used to determine defined benefit pension plan net periodic benefit cost were as follows:

	Year Ended December 31,		
	2021	2020	2019
Discount rate	1.2 %	1.6 %	3.2 %
Expected long-term return on plan assets	3.6 %	4.1 %	4.5 %
Rate of compensation increase	1.3 %	1.3 %	0.5 %
Interest crediting rate	2.2 %	2.2 %	2.7 %

The yield on high quality corporate bonds matching the duration of the benefit obligations is used in determining the discount rate. The FTSE Pension Discount Curve is used in developing the discount rate for the U.S. plans.

The expected return on plan assets assumption for each plan is based on management's expectations of long-term average rates of return to be achieved by the underlying investment portfolio. Several factors are considered in developing the expected return on plan assets, including long-term historical returns and input from external advisors. Individual asset class return forecasts were developed based upon market conditions, for example, price-earnings levels and yields and long-term growth expectations. The expected long-term rate of return is the weighted-average of the target asset allocation of each individual asset class.

Actuarial gains and losses resulted from changes in actuarial assumptions (such as changes in the discount rate and revised mortality rates) and from differences between assumed and actual experience (such as differences between actual and expected return on plan assets). Actuarial gains and losses related to plan benefit obligations primarily resulted from changes in discount rates.

Postretirement Benefit Plans

Comprehensive medical and group life benefits are provided for substantially all BMS U.S. retirees electing to participate in comprehensive medical and group life plans and to a lesser extent certain benefits for non-U.S. employees. The medical plan is contributory. Contributions are adjusted periodically and vary by date of retirement. The life insurance plan is noncontributory. Postretirement benefit plan obligations were \$237 million and \$267 million at December 31, 2021 and 2020, respectively. The weighted-average discount rate used to determine benefit obligations was 2.5% and 2.0% at December 31, 2021 and 2020, respectively. The net periodic benefit credits were not material.

As a result of the Bristol Myers Squibb Retirement Income Plan's termination in 2019, \$381 million of assets held in a separate account within the Pension Trust used to fund retiree medical plan payments was reverted back to the Company in 2020, resulting in an excise tax of \$76 million.

Plan Assets

The fair value of pension and postretirement plan assets by asset category at December 31, 2021 and 2020 was as follows:

Dollars in Millions	December 31, 2021				December 31, 2020			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Plan Assets								
Equity securities	\$ 44	\$ —	\$ —	\$ 44	\$ 101	\$ —	\$ —	\$ 101
Equity funds	—	625	—	625	—	601	—	601
Fixed income funds	—	815	—	815	—	783	—	783
Corporate debt securities	—	485	—	485	—	533	—	533
U.S. Treasury and agency securities	—	67	—	67	—	70	—	70
Insurance contracts	—	—	130	130	—	—	149	149
Cash and cash equivalents	47	—	—	47	96	—	—	96
Other	—	224	42	266	—	112	40	152
Plan assets subject to leveling	\$ 91	\$ 2,216	\$ 172	\$ 2,479	\$ 197	\$ 2,099	\$ 189	\$ 2,485
Plan assets measured at NAV as a practical expedient				336				322
Net plan assets				\$ 2,815				\$ 2,807

The investment valuation policies per investment class are as follows:

Level 1 inputs utilize unadjusted quoted prices in active markets accessible at the measurement date for identical assets or liabilities. The fair value hierarchy provides the highest priority to Level 1 inputs. These instruments include equity securities, equity funds and fixed income funds publicly traded on a national securities exchange, and cash and cash equivalents. Cash and cash equivalents are highly liquid investments with original maturities of three months or less at the time of purchase and are recognized at cost, which approximates fair value. Pending trade sales and purchases are included in cash and cash equivalents until final settlement.

Level 2 inputs utilize observable prices for similar instruments, quoted prices for identical or similar instruments in non-active markets, and other observable inputs that can be corroborated by market data for substantially the full term of the assets or liabilities. Equity funds and fixed income funds classified as Level 2 within the fair value hierarchy are valued at the NAV of their shares held at year end, which represents fair value. Corporate debt securities and U.S. Treasury and agency securities classified as Level 2 within the fair value hierarchy are valued utilizing observable prices for similar instruments and quoted prices for identical or similar instruments in markets that are not active.

Level 3 unobservable inputs are used when little or no market data is available. Insurance contracts are held by certain foreign pension plans and are carried at contract value, which approximates the estimated fair value and is based on the fair value of the underlying investment of the insurance company.

Investments using the practical expedient consist primarily of multi-asset funds which are redeemable on either a daily, weekly, or monthly basis.

The investment strategy is to maximize return while maintaining an appropriate level of risk to provide sufficient liquidity for benefit obligations and plan expenses. Individual plan investment allocations are determined by local fiduciary committees and the composition of total assets for all pension plans at December 31, 2021 was broadly characterized as an allocation between equity securities (30%), debt securities (55%) and other investments (15%).

Contributions and Estimated Future Benefit Payments

Contributions to pension plans were \$87 million in 2021, \$96 million in 2020, and \$63 million in 2019, and are not expected to be material in 2022. Estimated annual future benefit payments (including lump sum payments) will be approximately \$137 million in 2022 and approximately \$130 million in each of the next five years and in the subsequent five year period.

Savings Plans

The principal defined contribution plan is the Bristol-Myers Squibb Savings and Investment Program. The contributions are based on employee contributions and the level of Company match. The U.S. defined contribution plan expense was approximately \$350 million in 2021, \$290 million in 2020 and \$200 million in 2019.

Note 18. EMPLOYEE STOCK BENEFIT PLANS

On May 4, 2021, the shareholders approved the 2021 Stock Award and Incentive Plan (the “2021 Plan”). The 2021 Plan replaced the 2012 Plan, under which the authorization to grant awards was set to expire in 2022. The 2021 Plan also replaced our 2014 Equity Incentive Plan (the “2014 Plan”) and 2017 Stock Incentive Plan (the “2017 Plan”), which originated as plans of Celgene Corporation that we assumed, amended and renamed when we acquired Celgene in 2019. The 2021 Plan authorizes awards in the form of incentive stock options, nonqualified stock options, stock appreciation rights, restricted and unrestricted stock and stock units, dividend equivalents, performance share units, market share units and other stock-based awards. As of December 31, 2021, the 2021 Plan was the only plan under which we were authorized to grant equity awards. The 2021 Plan provides for 85 million shares to be authorized for grants plus shares recaptured upon forfeitures or other terminations of awards under the 2012 Plan, 2014 Plan and 2017 Plan, subject to adjustments in accordance with the terms of the 2021 Plan. As of December 31, 2021, 89 million shares were available for award. Shares generally are issued from treasury stock to satisfy BMS’s obligations under the 2021 Plan and the prior Plans.

As part of the Celgene acquisition, BMS assumed the 2017 Plan and the 2014 Plan. These plans provided for the granting of options, restricted stock units (“RSUs”), performance share units (“PSUs”) and other share-based and performance-based awards to former Celgene employees, officers and non-employee directors. Additionally, the terms of these plans provided for accelerated vesting of awards upon a change in control followed by an involuntary termination without cause. Outstanding Celgene equity awards were assumed by BMS and converted into BMS equity awards at acquisition. The replacement BMS awards generally have the same terms and conditions (including vesting) as the former Celgene awards for which they were exchanged.

CVRs were also issued to the holders of vested and unexercised “in the money” Celgene options that were outstanding at the acquisition date. Celgene RSU holders and unvested “in the money” options that were outstanding at the acquisition date, with awards vesting prior to March 31, 2021 were also eligible to receive CVRs. Celgene RSU holders and unvested “in the money” options that were outstanding at the acquisition date with awards vesting after March 31, 2021 were eligible to receive a cash value of \$9.00 per pre-converted Celgene RSU and “in the money” options if all CVR milestones were achieved. The contractual obligation to pay the contingent value rights terminated in January 2021 because the FDA did not approve liso-cel (JCAR017) by December 31, 2020.

Under the 2021 Plan, executive officers and other employees may be granted options to purchase common stock at no less than the market price on the date the option is granted. Options generally become exercisable ratably over four years and have a maximum term of 10 years. The Plans provide for the granting of stock appreciation rights whereby the grantee may surrender exercisable rights and receive common stock and/or cash measured by the excess of the market price of the common stock over the award's exercise price.

RSUs may be granted to executive officers and other employees, subject to restrictions as to continuous employment. Generally, vesting occurs ratably over a three- to four-year period from grant date. A stock unit is a right to receive stock at the end of the specified vesting and/or deferral period; stock units have no voting rights.

Market share units (“MSUs”) are granted to executives. Vesting is conditioned upon continuous employment until the vesting date and a payout factor of at least 60% of the grant-date share price on a given measurement date. Attainment of a higher payout factor which is the share price on measurement date divided by share price on award date results in a higher percentage payout of MSUs, up to a maximum of 200% of the target number of MSUs. The share price used in the payout factor is calculated using an average of the closing prices on the grant or measurement date, and the nine trading days immediately preceding the grant or measurement date. Vesting occurs ratably over four years.

PSUs are granted to executives, have a three-year performance cycle and are granted as a target number of units subject to adjustment. The number of shares issued when PSUs vest is determined based on the achievement of specified performance goals and based on BMS’s three-year total shareholder return relative to a peer group of companies. Vesting is conditioned upon continuous employment and occurs on the third anniversary of the grant date.

Stock-based compensation expense for awards ultimately expected to vest is recognized over the vesting period. Forfeitures are estimated based on historical experience at the time of grant and revised in subsequent periods if actual forfeitures differ from those estimates. Stock-based compensation expense was as follows:

Dollars in Millions	Year Ended December 31,		
	2021	2020	2019
Cost of products sold	\$ 57	\$ 37	\$ 19
Marketing, selling and administrative	241	332	162
Research and development	272	339	115
Other (income)/expense, net	13	71	145
Total stock-based compensation expense	\$ 583	\$ 779	\$ 441
Income tax benefit^(a)	\$ 120	\$ 158	\$ 87

(a) Income tax benefit excludes excess tax benefits from share-based compensation awards that were vested or exercised of \$38 million in 2021, \$35 million in 2020 and \$4 million in 2019.

The total stock-based compensation expense for the years ended December 31, 2021, 2020 and 2019 includes \$192 million, \$382 million and \$66 million, respectively, related to Celgene post-combination service period and \$13 million, \$71 million and \$145 million, respectively, of accelerated vesting of awards related to the Celgene acquisition. Refer to “—Note 4. Acquisitions, Divestitures, Licensing and Other Arrangements” for more information related to the Celgene acquisition.

The replacement stock options granted to Celgene option holders on acquisition were issued consistent with the vesting conditions of the replaced award. Replacement stock options have contractual terms of 10 years from the initial grant date (by Celgene). The majority of stock options outstanding vest in one-fourth increments over a four-year period, although certain awards cliff vest or have longer or shorter service periods. Celgene option holders may elect to exercise options at any time during the option term. However, any shares so purchased which have not vested as of the date of exercise shall be subject to forfeiture, which will lapse in accordance with the established vesting time period. The fair value on the acquisition date attributable to post-combination service, adjusted for estimated forfeitures, is recognized as expense on a straight-line basis over the remaining vesting period. BMS estimated the fair value of replacement options, using a Black-Scholes Option pricing model, with the following assumptions:

	Year Ended December 31, 2019
Weighted average risk-free interest rate	1.59%
Expected volatility	25.7%
Weighted average expected term (years)	2.65
Expected dividend yield	2.89%

The risk-free interest rate is based on rates available for U.S. Federal Reserve treasury constant maturities with a remaining term equal to the options' expected life at the time of the replacement award. Expected volatility of replacement stock option awards was estimated based on a 50/50 blend of implied volatility and five year historical volatility of BMS's publicly traded stocks. The expected term of an employee stock option is the period of time for which the option is expected to be outstanding and is based on historical and forecasted exercise behavior. Dividend yield is estimated based on BMS' annual dividend rate at the time of award replacement.

The following table summarizes the stock compensation activity for the year ended December 31, 2021:

Shares in Millions	Stock Options ^(a)		Restricted Stock Units		Market Share Units		Performance Share Units	
	Number of Options	Weighted- Average Exercise Price of Shares	Number of Nonvested Awards	Weighted- Average Grant-Date Fair Value	Number of Nonvested Awards	Weighted- Average Grant-Date Fair Value	Number of Nonvested Awards	Weighted- Average Grant-Date Fair Value
Balance at January 1, 2021	73.4	\$ 50.25	27.7	\$ 54.58	1.7	\$ 56.01	3.1	\$ 56.72
Granted	—	—	8.9	56.58	1.0	58.04	1.5	59.04
Released/Exercised	(23.1)	42.70	(13.8)	55.36	(0.6)	57.25	(0.9)	67.60
Adjustments for actual payout	—	—	—	—	—	—	0.1	67.60
Forfeited/Canceled	(3.3)	63.71	(3.7)	54.71	(0.3)	56.15	(0.4)	56.04
Balance at December 31, 2021	47.0	53.00	19.1	54.92	1.8	56.51	3.4	55.38
Expected to vest			17.0	54.91	1.6	56.51	3.2	54.85

(a) At December 31, 2021 substantially all of the 2 million unvested stock options with a weighted-average exercise price of \$48.22, are expected to vest.

Dollars in Millions	Stock Options	Restricted Stock Units	Market Share Units	Performance Share Units
Unrecognized compensation cost	\$ 7	\$ 676	\$ 46	\$ 83
Expected weighted-average period in years of compensation cost to be recognized	0.6	2.6	2.8	1.7
Amounts in Millions, except per share data		2021	2020	2019
Weighted-average grant date fair value (per share):				
Stock options - replacement awards	\$ —	\$ —	\$ —	\$ 15.00
Restricted stock units - replacement awards	—	—	—	56.37
Restricted stock units		56.58	53.65	47.16
Market share units		58.04	53.92	51.52
Performance share units		59.04	55.61	49.99
Fair value of awards that vested:				
Restricted stock units - replacement awards	\$ 519	\$ 777	\$ 233	
Restricted stock units		246	122	105
Market share units		37	37	30
Performance share units		61	59	53
Total intrinsic value of stock options exercised		512	556	148

The fair value of RSUs approximates the closing trading price of BMS's common stock on the grant date after adjusting for the units not eligible for accrued dividends. The fair value of MSUs is estimated as of the grant date using a Monte Carlo simulation. The fair value of PSUs is estimated using the Monte Carlo simulation for the portion related to the relative total shareholder return measure and considers the probability of satisfying the payout factor and adjusting for the units not eligible for accrued dividends relative to the remaining portion of the PSUs.

The fair value of the replacement RSUs approximates the closing trading price of BMS's common stock on the date of acquisition after adjusting for the units not eligible for accrued dividends. The fair value on the acquisition date attributable to post-combination service, adjusted for estimated forfeitures, is recognized as expense on a straight-line basis over the remaining vesting period.

The following table summarizes significant outstanding and exercisable options at December 31, 2021:

Range of Exercise Prices	Number of Options (in millions)	Weighted-Average Remaining Contractual Life (in years)	Weighted-Average Exercise Price Per Share	Aggregate Intrinsic Value (in millions)
\$10 - \$40	7.5	1.4	\$ 29.54	\$ 246
\$40 - \$55	15.3	3.9	48.79	208
\$55 - \$65	16.2	3.2	59.54	48
\$65+	8.0	3.7	69.99	—
Outstanding	47.0	3.2	53.00	\$ 502
Exercisable	44.9	3.1	53.22	\$ 474

The aggregate intrinsic value in the preceding table represents the total pretax intrinsic value, based on the closing stock price of \$62.35 on December 31, 2021.

Note 19. LEGAL PROCEEDINGS AND CONTINGENCIES

BMS and certain of its subsidiaries are involved in various lawsuits, claims, government investigations and other legal proceedings that arise in the ordinary course of business. These claims or proceedings can involve various types of parties, including governments, competitors, customers, suppliers, service providers, licensees, employees, or shareholders, among others. These matters may involve patent infringement, antitrust, securities, pricing, sales and marketing practices, environmental, commercial, contractual rights, licensing obligations, health and safety matters, consumer fraud, employment matters, product liability and insurance coverage, among others. The resolution of these matters often develops over a long period of time and expectations can change as a result of new findings, rulings, appeals or settlement arrangements. Legal proceedings that are significant or that BMS believes could become significant or material are described below.

While BMS does not believe that any of these matters, except as otherwise specifically noted below, will have a material adverse effect on its financial position or liquidity as BMS believes it has substantial defenses in the matters, the outcomes of BMS's legal proceedings and other contingencies are inherently unpredictable and subject to significant uncertainties. There can be no assurance that there will not be an increase in the scope of one or more of these pending matters or any other or future lawsuits, claims, government investigations or other legal proceedings will not be material to BMS's financial position, results of operations or cash flows for a particular period. Furthermore, failure to enforce BMS's patent rights would likely result in substantial decreases in the respective product revenues from generic competition.

Unless otherwise noted, BMS is unable to assess the outcome of the respective matters nor is it able to estimate the possible loss or range of losses that could potentially result for such matters. Contingency accruals are recognized when it is probable that a liability will be incurred and the amount of the related loss can be reasonably estimated. Developments in legal proceedings and other matters that could cause changes in the amounts previously accrued are evaluated each reporting period. For a discussion of BMS's tax contingencies, see "—Note 7. Income Taxes".

INTELLECTUAL PROPERTY

Anti-PD-1 Antibody Litigation

In September 2015, Dana-Farber Cancer Institute ("Dana-Farber") filed a complaint in the U.S. District Court for the District of Massachusetts seeking to correct the inventorship on up to six related U.S. patents directed to methods of treating cancer using PD-1 and PD-L1 antibodies. Specifically, Dana-Farber is seeking to add two scientists as inventors to these patents. In October 2017, Pfizer was allowed to intervene in this case alleging that one of the scientists identified by Dana-Farber was employed by a company eventually acquired by Pfizer during the relevant period. In February 2019, BMS settled the lawsuit with Pfizer. A bench trial in the lawsuit with Dana-Farber took place in February 2019. In May 2019, the District Court issued an opinion ruling that the two scientists should be added as inventors to the patents which was affirmed on appeal. In May 2021, the U.S. Supreme Court declined to consider the case. In June 2019, Dana-Farber filed a new lawsuit in the District of Massachusetts against BMS seeking damages as a result of the District Court's decision adding the scientists as inventors. In February 2021, BMS filed a motion to dismiss the complaint. In August 2021, the Court denied the motion to dismiss, but ruled that Dana-Farber's claims for damages before May 17, 2019—the date of the District Court's ruling that Dana-Farber was a co-inventor of the patents—are preempted by federal patent law. No trial date has been scheduled.

CAR T

In October 2017, Juno and Sloan Kettering Institute for Cancer Research ("SKI") filed a complaint for patent infringement against Kite Pharma, Inc. ("Kite") in the U.S. District Court for the Central District of California. The complaint alleged that Kite's *Yescarta** product infringes certain claims of U.S. Patent No. 7,446,190 (the "'190 Patent") concerning CAR T cell technologies. Kite filed an answer and counterclaims asserting non-infringement and invalidity of the '190 Patent. In December 2019, following an eight-day trial, the jury rejected Kite's defenses, finding that Kite willfully infringed the '190 Patent and awarding to Juno and SKI a reasonable royalty consisting of a \$585 million up-front payment and a 27.6% running royalty on Kite's sales of *Yescarta** through the expiration of the '190 Patent in August 2024. In January 2020, Kite renewed its previous motion for judgment as a matter of law and also moved for a new trial, and Juno filed a motion seeking enhanced damages, supplemental damages, ongoing royalties, and prejudgment interest. In March 2020, the Court denied both of Kite's motions in their entirety. In April 2020, the Court granted in part Juno's motion and entered a final judgment awarding to Juno and SKI approximately \$1.2 billion in royalties, interest and enhanced damages and a 27.6% running royalty on Kite's sales of *Yescarta** from December 13, 2019 through the expiration of the '190 Patent in August 2024. In April 2020, Kite appealed the final judgment to the U.S. Court of Appeals for the Federal Circuit and the Court held an oral hearing on July 6, 2021. In August 2021, a Federal Circuit panel reversed the jury verdict and district court decision and found the '190 Patent to be invalid. In October 2021, Juno and SKI filed a petition with the Federal Circuit for panel and en banc rehearing which the Federal Circuit denied on January 14, 2022. The Company intends to file a petition for a writ of certiorari with the U.S. Supreme Court.

Eliquis - U.S.

In 2017, BMS received Notice Letters from twenty-five generic companies notifying BMS that they had filed aNDAs containing paragraph IV certifications seeking approval of generic versions of Eliquis. As a result, two Eliquis patents listed in the FDA Orange Book are being challenged: the composition of matter patent claiming apixaban specifically and a formulation patent. In response, BMS, along with its partner Pfizer, initiated patent infringement actions under the Hatch-Waxman Act against all generic filers in the U.S. District Court for the District of Delaware in April 2017. In August 2017, the U.S. Patent and Trademark Office granted patent term restoration to the composition of matter patent to November 2026, thereby restoring the term of the Eliquis composition of matter patent, which is BMS's basis for projected minimum market exclusivity dates. BMS settled with a number of aNDA filers. These settlements do not affect BMS's projected minimum market exclusivity dates for Eliquis. A trial with the remaining aNDA filers took place in late 2019. In August 2020, the U.S. District Court issued a decision finding that the remaining aNDA filers' products infringed the Eliquis composition of matter and formulation patents and that both Eliquis patents are not invalid. In September 2021, the Federal Circuit affirmed the lower court decision. The time by which the remaining aNDA filers could seek review of the Federal Circuit's decision has lapsed, and thus the decision is final.

Eliquis - Europe

In November 2020 and January 2021, Sandoz Limited ("Sandoz") and Teva Pharmaceutical Industries Ltd. ("Teva Limited"), respectively, filed lawsuits in the United Kingdom seeking revocation of the UK apixaban composition of matter patent and related Supplementary Protection Certificate. BMS subsequently filed counterclaims for infringement in both actions. A trial is scheduled to begin in early 2022.

There are similar lawsuits filed in France, Italy, the Netherlands, Portugal, the Republic of Ireland, and Sweden seeking revocation of a composition of matter patent relating to *Eliquis*.

Additional infringement and invalidity actions involving *Eliquis* patents may be filed in various countries in Europe in the coming months.

Onureg - U.S.

In November 2021, BMS received a Notice Letter from Accord notifying BMS that it had filed an aNDA containing a paragraph IV certification seeking approval of a generic version of *Onureg* in the US and challenging the one FDA Orange Book-listed formulation patent expiring in 2030. In response, BMS filed a patent infringement action against Accord in the U.S. District Court for the District of Delaware. No trial date has been scheduled.

Plavix* - Australia

Sanofi was notified that, in August 2007, GenRx Proprietary Limited ("GenRx") obtained regulatory approval of an application for clopidogrel bisulfate 75mg tablets in Australia. GenRx, formerly a subsidiary of Apotex Inc., subsequently changed its name to Apotex ("GenRx-Apotex"). In August 2007, GenRx-Apotex filed an application in the Federal Court of Australia seeking revocation of Sanofi's Australian Patent No. 597784 (Case No. NSD 1639 of 2007). Sanofi filed counterclaims of infringement and sought an injunction. On September 21, 2007, the Federal Court of Australia granted Sanofi's injunction. A subsidiary of BMS was subsequently added as a party to the proceedings. In February 2008, a second company, Spirit Pharmaceuticals Pty. Ltd., also filed a revocation suit against the same patent. This case was consolidated with the GenRx-Apotex case. On August 12, 2008, the Federal Court of Australia held that claims of Patent No. 597784 covering clopidogrel bisulfate, hydrochloride, hydrobromide, and taurocholate salts were valid. The Federal Court also held that the process claims, pharmaceutical composition claims, and claim directed to clopidogrel and its pharmaceutically acceptable salts were invalid. BMS and Sanofi filed notices of appeal in the Full Court of the Federal Court of Australia ("Full Court") appealing the holding of invalidity of the claim covering clopidogrel and its pharmaceutically acceptable salts, process claims, and pharmaceutical composition claims. GenRx-Apotex appealed the holding of validity of the clopidogrel bisulfate, hydrochloride, hydrobromide, and taurocholate claims. On September 29, 2009, the Full Court held all of the claims of Patent No. 597784 invalid. In March 2010, the High Court of Australia denied a request by BMS and Sanofi to hear an appeal of the Full Court decision. The case was remanded to the Federal Court for further proceedings related to damages sought by GenRx-Apotex. BMS and GenRx-Apotex settled, and the GenRx-Apotex case was dismissed. The Australian government intervened in this matter seeking maximum damages up to 449 million AUD (\$324 million), plus interest, which would be split between BMS and Sanofi, for alleged losses experienced for paying a higher price for branded *Plavix** during the period when the injunction was in place. BMS and Sanofi dispute that the Australian government is entitled to any damages. A trial was concluded in September 2017. In April 2020, the Federal Court issued a decision dismissing the Australian government's claim for damages. In May 2020, the Australian government appealed the Federal Court's decision and an appeal hearing concluded in February 2021.

Pomalyst - U.S.

Beginning in 2017, Celgene received Notice letters on behalf of, among others that settled in previous reporting periods, Mylan Pharmaceuticals Inc. (“Mylan”) notifying Celgene that it had filed an aNDA containing paragraph IV certifications seeking approval to market a generic version of *Pomalyst* in the U.S. In response, Celgene filed a patent infringement action against Mylan in the U.S. District Court for the District of New Jersey asserting certain FDA Orange Book-listed patents. In February 2019, Celgene filed an additional patent infringement action in the U.S. District Court for the District of New Jersey against Mylan asserting certain patents that are not listed in the FDA Orange Book and that cover polymorphic forms of pomalidomide. In March 2020, Celgene subsequently filed an additional patent infringement action in the U.S. District Court for the District of New Jersey against Mylan asserting a newly-issued patent that is listed in the FDA Orange Book and that covers formulations comprising pomalidomide, and Mylan responded by moving to dismiss for improper venue and lack of jurisdiction. In November 2021, Celgene entered into a confidential settlement agreement with Mylan, settling all outstanding claims in the litigations with Mylan.

In June 2019, Celgene received a Notice Letter from Dr. Reddy’s Laboratories, Ltd. and Dr. Reddy’s Laboratories, Inc. (together, “DRL”) notifying Celgene that they had filed an aNDA containing paragraph IV certifications seeking approval to market a generic version of *Pomalyst* in the U.S. In response, Celgene initiated a patent infringement action against DRL in the U.S. District Court for the District of New Jersey asserting certain FDA Orange Book-listed patents. In March 2020, Celgene filed an additional patent infringement action in the U.S. District Court for the District of New Jersey against DRL asserting a newly-issued patent that is listed in the FDA Orange Book and that covers formulations comprising pomalidomide, which has been consolidated with the above DRL case. In February 2021, Celgene filed an additional patent infringement action in the U.S. District Court for the District of New Jersey against DRL asserting certain patents that are not listed in the FDA Orange Book and that cover polymorphic forms of pomalidomide. DRL has filed answers and counterclaims alleging that each of the asserted patents is invalid and/or not infringed. In January 2022, Celgene entered into a confidential settlement agreement with DRL, settling all outstanding claims in the litigations with DRL.

Revlimid - U.S.

Celgene has received Notice Letters on behalf of, among others that settled in previous reporting periods, Lupin Limited (“Lupin”); Hikma Pharmaceuticals USA, Inc. (“Hikma”); and Alembic Pharmaceuticals Limited, Alembic Global Holding SA, and Alembic Pharmaceuticals, Inc. (“Alembic”) notifying Celgene that they had filed aNDAs containing paragraph IV certifications seeking approval to market generic versions of *Revlimid* in the U.S. In response, Celgene filed patent infringement actions against the companies in the U.S. District Court for the District of New Jersey asserting certain FDA Orange Book-listed patents against certain defendants, who have filed answers and/or counterclaims alleging that the asserted patents are invalid and/or not infringed. No trial date has been scheduled in any of these actions. In December 2021 and January 2022, Celgene entered into confidential settlement agreements with Lupin and Hikma, respectively, settling all outstanding claims in the litigations with Lupin and Hikma.

Sprycel - U.S.

In August 2021, BMS received a Notice Letter from Alembic notifying BMS that it had filed an aNDA containing paragraph IV certifications seeking approval of a generic version of *Sprycel* in the U.S. and challenging two FDA Orange Book-listed monohydrate form patents expiring in 2025 and 2026. In response, BMS filed a patent infringement action against Alembic in the U.S. District Court for the District of New Jersey. In October 2021, BMS received a Notice Letter from Eugia Pharma Specialties Ltd. (“Eugia”) notifying BMS that it had filed an aNDA containing paragraph IV certifications seeking approval of a generic version of *Sprycel* in the U.S. and challenging two FDA Orange Book-listed monohydrate form patents expiring in 2025 and 2026. In response, BMS filed a patent infringement action against Eugia in the U.S. District Court for the District of New Jersey. In December 2021 and January 2022, BMS entered into a confidential settlement agreement with Alembic and Eugia, respectively, settling all outstanding claims in the litigations.

Zeposia - U.S.

On October 15, 2021, Actelion Pharmaceuticals LTD and Actelion Pharmaceuticals US, INC (“Actelion”), filed a complaint for patent infringement in the United States District Court for the District of New Jersey against BMS and Celgene for alleged infringement of U.S. Patent No. 10,251,867 (the “’867 Patent”). The Complaint alleges that the sale of *Zeposia* infringes certain claims of the ’867 Patent and Actelion is seeking damages and injunctive relief. No trial date has been scheduled.

PRICING, SALES AND PROMOTIONAL PRACTICES LITIGATION***Plavix* State Attorneys General Lawsuits***

BMS and certain Sanofi entities are defendants in consumer protection actions brought by the attorneys general of Hawaii and New Mexico relating to the labeling, sales and/or promotion of *Plavix**. A trial in the Hawaii matter occurred in 2020. In February 2021, the Court issued a decision against Sanofi and BMS, imposing penalties in the total amount of \$834 million, with \$417 million attributed to BMS. Sanofi and BMS disagree with the decision and are appealing it. BMS remains confident in the merits of its case and its likelihood of success on appeal and BMS does not believe establishing a reserve is warranted for this matter. A trial in the New Mexico matter has been set for the court’s April 2022 trial docket.

PRODUCT LIABILITY LITIGATION

BMS is a party to various product liability lawsuits. Plaintiffs in these cases seek damages and other relief on various grounds for alleged personal injury and economic loss. As previously disclosed, in addition to lawsuits, BMS also faces unfiled claims involving its products.

*Abilify**

BMS and Otsuka are co-defendants in product liability litigation related to *Abilify**. Plaintiffs allege *Abilify** caused them to engage in compulsive gambling and other impulse control disorders. There have been over 2,500 cases filed in state and federal courts and additional cases are pending in Canada. The Judicial Panel on Multidistrict Litigation consolidated the federal court cases for pretrial purposes in the U.S. District Court for the Northern District of Florida. In February 2019, BMS and Otsuka entered into a master settlement agreement establishing a proposed settlement program to resolve all *Abilify** compulsivity claims filed as of January 28, 2019 in the MDL as well as various state courts, including California and New Jersey. To date, approximately 2,700 cases, comprising approximately 3,900 plaintiffs, have been dismissed based on participation in the settlement program or failure to comply with settlement related court orders. In the U.S., no cases remain in the MDL and less than 5 cases remain pending in state courts (New Jersey and Massachusetts). There are eleven cases pending in Canada (four class actions, seven individual injury claims). Out of the eleven cases, only two are active (the class actions in Quebec and Ontario). Both class actions have now been certified and will proceed separately, subject to a pending further appeal of the Ontario class certification decision.

*Byetta**

Amylin, a former subsidiary of BMS, and Lilly are co-defendants in product liability litigation related to *Byetta**. This litigation involved lawsuits on behalf of plaintiffs, which include injury plaintiffs as well as claims by spouses and/or other beneficiaries, in various courts in the U.S. The majority of these cases have been brought by individuals who allege personal injury sustained after using *Byetta**, primarily pancreatic cancer, and, in some cases, claiming alleged wrongful death. The majority of cases are pending in Federal Court in San Diego in an MDL or in a coordinated proceeding in California Superior Court in Los Angeles (“JCCP”). In April 2020 the defendants filed a motion for summary judgment based on federal preemption and a motion for summary judgment based on the absence of general causation evidence in the MDL and JCCP. Both motions were granted in March 2021 and April 2021, respectively. The orders will result in the dismissal of all claims alleging an injury of pancreatic cancer in the MDL and JCCP. Plaintiffs initially appealed the MDL order, but subsequently filed a motion to dismiss their appeal as to Amylin and Lilly. That motion to dismiss was granted on October 5, 2021 making the MDL decision final as to Amylin and Lilly. Plaintiffs may seek appeals in the JCCP. As of December 31, 2021, Plaintiffs’ counsel have submitted dismissals with prejudice in exchange for a waiver of costs on behalf of nearly 60% of the plaintiffs in the JCCP (including injury plaintiffs and spouse/beneficiary plaintiffs) alleging claims against Amylin and Lilly. Additional dismissals are anticipated. BMS sold *Byetta** to AstraZeneca in February 2014 as part of BMS’s global diabetes business divestiture and any additional liability to Amylin with respect to *Byetta** is expected to be shared with AstraZeneca.

*Onglyza**

BMS and AstraZeneca are co-defendants in product liability litigation related to *Onglyza**. Plaintiffs assert claims, including claims for wrongful death, as a result of heart failure or other cardiovascular injuries they allege were caused by their use of *Onglyza**. As of June 2021, claims are pending in state and federal court on behalf of approximately 270 individuals who allege they ingested the product and suffered an injury. In February 2018, the Judicial Panel on Multidistrict Litigation ordered all federal cases to be transferred to an MDL in the U.S. District Court for the Eastern District of Kentucky. A significant majority of the claims are pending in the MDL, with others pending in a coordinated proceeding in California Superior Court in San Francisco (“JCCP”). In August 2021, the MDL and JCCP courts jointly heard evidence regarding the parties’ motions to exclude general causation experts. On September 24, 2021, the JCCP court granted defendants’ motion to exclude plaintiffs’ only general causation expert and largely denied plaintiffs’ motions to exclude defendants’ general causation experts; on January 5, 2022, the MDL court likewise granted defendants’ motion to exclude plaintiffs’ expert and denied entirely plaintiffs’ motions. As part of BMS’s global diabetes business divestiture, BMS sold *Onglyza** to AstraZeneca in February 2014 and any potential liability with respect to *Onglyza** is expected to be shared with AstraZeneca.

SECURITIES LITIGATION

BMS Securities Class Action

Since February 2018, two separate putative class action complaints were filed in the U.S. District for the Northern District of California and in the U.S. District Court for the Southern District of New York against BMS, BMS's Chief Executive Officer, Giovanni Caforio, BMS's Chief Financial Officer at the time, Charles A. Bancroft and certain former and current executives of BMS. The case in California has been voluntarily dismissed. The remaining complaint alleges violations of securities laws for BMS's disclosures related to the CheckMate-026 clinical trial in lung cancer. In September 2019, the Court granted BMS's motion to dismiss, but allowed the plaintiffs leave to file an amended complaint. In October 2019, the plaintiffs filed an amended complaint. In September 2020, the Court granted BMS's motion to dismiss the amended complaint with prejudice. The plaintiffs appealed the Court's decision in October 2020. In October 2021, oral argument on the appeal was held in the U.S. Court of Appeals for the Second Circuit.

Celgene Securities Litigations

Beginning in March 2018, two putative class actions were filed against Celgene and certain of its officers in the U.S. District Court for the District of New Jersey (the "Celgene Securities Class Action"). The complaints allege that the defendants violated federal securities laws by making misstatements and/or omissions concerning (1) trials of GED-0301, (2) Celgene's 2020 outlook and projected sales of *Otezla**, and (3) the new drug application for *Zeposia*. The Court consolidated the two actions and appointed a lead plaintiff, lead counsel, and co-liaison counsel for the putative class. In February 2019, the defendants filed a motion to dismiss plaintiff's amended complaint in full. In December 2019, the Court denied the motion to dismiss in part and granted the motion to dismiss in part (including all claims arising from alleged misstatements regarding GED-0301). Although the Court gave the plaintiff leave to re-plead the dismissed claims, it elected not to do so, and the dismissed claims are now dismissed with prejudice. In November 2020, the Court granted class certification with respect to the remaining claims. In December 2020, the defendants sought leave to appeal the Court's class certification decision, which was denied without prejudice in March 2021.

In April 2020, certain Schwab management investment companies on behalf of certain Schwab funds filed an individual action in the U.S. District Court for the District of New Jersey asserting largely the same allegations as the Celgene Securities Class Action against the same remaining defendants in that action (the "Schwab Action"). In July 2020, the defendants filed a motion to dismiss the plaintiffs' complaint in full. In March 2021, the Court granted in part and denied in part defendants' motion to dismiss consistent with its decision in the Celgene Securities Class Action.

The California Public Employees' Retirement System in April 2021 (the "CalPERS Action"); DFA Investment Dimensions Group Inc., on behalf of certain of its funds; and American Century Mutual Funds, Inc., on behalf of certain of its funds, in July 2021 (respectively the "DFA Action" and the "American Century Action"), and GIC Private Limited in September 2021 (the "GIC Action"), filed separate individual actions in the U.S. District Court for the District of New Jersey asserting largely the same allegations as the Celgene Securities Class Action and the Schwab individual action against the same remaining defendants in those actions. In October 2021, these actions were consolidated for pre-trial proceedings with the Schwab Action. The court also consolidated any future direct actions raising common questions of law and fact with the Schwab Action.

No trial dates have been scheduled in any of the above Celgene Securities Litigations.

Contingent Value Rights Litigations

In June 2021, an action was filed against BMS in the U.S. District Court for the Southern District of New York asserting claims of alleged breaches of a Contingent Value Rights Agreement ("CVR Agreement") entered into in connection with the closing of BMS's acquisition of Celgene Corporation in November 2019. The successor trustee under the CVR Agreement alleges that BMS breached the CVR Agreement by allegedly failing to use "diligent efforts" to obtain FDA approval of liso-cel (*Breyanzi*) before a contractual milestone date, thereby avoiding a \$6.4 billion potential obligation to holders of the contingent value rights governed by the CVR Agreement and by allegedly failing to permit inspection of records in response to a request by the successor trustee. The successor trustee seeks damages in an amount to be determined at trial and other relief, including interest and attorneys' fees. BMS disputes the successor trustee's allegations and filed a Motion to Dismiss on July 23, 2021. All discovery is stayed until there is a decision on the Motion to Dismiss.

In October 2021, alleged Celgene stockholders filed a complaint in the U.S. District Court for the Southern District of New York asserting claims on behalf of a putative class of Celgene stockholders for violations of sections 14(a) and 20(a) of the Securities Exchange Act of 1934. The complaint alleges that the joint proxy statement dated February 22, 2019, seeking stockholder approval for the proposed merger transaction between Celgene and BMS, was materially false or misleading because it failed to disclose that allegedly BMS had no intention at the time to obtain FDA approval for liso-cel by a contractual milestone date, which was one of the conditions for payment to holders of CVRs that would be issued by BMS in connection with the Celgene transaction. The complaint asserts claims against BMS and the members of its board of directors at the time of the joint proxy statement.

A different alleged Celgene stockholder and purchaser of CVRs separately filed a complaint in December 2021 in the U.S. District Court for the Southern District of New York asserting claims on behalf of two separate putative classes, one of Celgene stockholders and one of purchasers of CVRs, for violations of sections 11 and 12(a)(2) of the Securities Act of 1933 and sections 10(b), 14(a), and 20(a) of the Securities Exchange Act of 1934. The complaint alleges that the registration statement filed in connection with the proposed merger transaction between Celgene and BMS was materially false or misleading because it failed to disclose that allegedly BMS had no intention at the time to obtain FDA approval for liso-cel by a contractual milestone date. The complaint further alleges that the joint proxy statement dated February 22, 2019, seeking stockholder approval for the proposed merger transaction between Celgene and BMS, as well as certain statements in BMS's periodic SEC filings in 2020 and in certain press releases, earnings calls, and other presentations were materially false or misleading for substantially the same reason. The complaint asserts claims against BMS, the members of its board of directors at the time of the registration statement and the joint proxy statement, and certain BMS officers who either signed BMS's periodic SEC filings or made statements in press releases, earnings calls, or other presentations. The action was consolidated with the action previously filed in October 2021.

In November 2021, an alleged purchaser of CVRs filed a complaint in the Supreme Court of the State of New York for New York County asserting claims on behalf of a putative class of CVR acquirers for violations of sections 11(a) and 12(a)(2) of the Securities Act of 1933. The complaint alleges that the registration statement filed in connection with the proposed merger transaction between Celgene and BMS was materially false or misleading because it failed to disclose that allegedly BMS had no intention at the time to obtain FDA approval for liso-cel by the contractual milestone date. The complaint asserts claims against BMS, the members of its board of directors at the time of the joint proxy statement, and certain BMS officers who signed the registration statement. BMS removed the action to the U.S. District Court for the Southern District of New York. The plaintiff has filed a motion to remand the action to the state court.

In November 2021, an alleged Celgene stockholder filed a complaint in the Superior Court of New Jersey, Union County asserting claims on behalf of two separate putative classes, one of acquirers of CVRs and one of acquirers of BMS common stock, for violations of sections 11(a), 12(a)(2), and 15 of the Securities Act of 1933. The complaint alleges that the registration statement filed in connection with the proposed merger transaction between Celgene and BMS was materially false or misleading because it failed to disclose that allegedly BMS had no intention at the time to obtain FDA approval for liso-cel by the contractual milestone date. The complaint asserts claims against BMS, the members of its board of directors at the time of the joint proxy statement, certain BMS officers who signed the registration statement and Celgene's former chairman and chief executive officer. BMS removed the action to the U.S. District Court for the District of New Jersey and filed a motion to transfer the action to the U.S. District Court for the Southern District of New York. The plaintiff has filed a motion to remand the action to the state court.

No trial dates have been scheduled in any of the above CVR Litigations.

OTHER LITIGATION

HIV Medication Antitrust Litigations

BMS and two other manufacturers of HIV medications are defendants in related lawsuits pending in the Northern District of California. The lawsuits allege that the defendants' agreements to develop and sell fixed-dose combination products for the treatment of HIV, including *Atripla** and *Evotaz*®, violate antitrust laws. The currently pending actions, asserted on behalf of indirect purchasers, were initiated in 2019 in the Northern District of California and in 2020 in the Southern District of Florida. The Florida matter was transferred to the Northern District of California. In July 2020, the Court granted in part defendants' motion to dismiss, including dismissing with prejudice plaintiffs' claims as to an overarching conspiracy and plaintiffs' theories based on the alleged payment of royalties after patent expiration. Other claims, however, remain. In September and October 2020, two purported class actions have also been filed asserting similar claims on behalf of direct purchasers. In March 2021, the Court dismissed one of the direct purchaser cases and limited the claims of the remaining direct purchaser case to those arising in 2016 or later. However, the Court gave plaintiffs leave to amend their complaints, and one plaintiff filed an amended complaint on March 16, 2021. On September 22, 2021, two additional non-class action direct purchaser complaints were filed by a number of retail pharmacy and grocery store chains against BMS and two other manufacturers of HIV medications. These complaints make allegations similar to those raised in the other federal court cases and the New Mexico state court case described below. On October 13, 2021, BMS entered into a settlement agreement with the putative class of indirect purchasers. And on October 20, 2021, BMS reached an agreement in principle to settle claims filed by the putative class of direct purchasers. Both settlements are subject to court approval. In January 2022, BMS reached an agreement to settle the cases filed against it by the retail pharmacy and grocery store chains.

In February 2021, BMS and two other manufacturers of HIV medications were sued in State Court in New Mexico by the Attorney General of the State of New Mexico in a case alleging that the defendants' agreements to develop and sell various fixed-dose combination products for the treatment of HIV, including *Atripla**, and agreements to settle certain patent litigation violate the antitrust laws of the State of New Mexico. No trial date has been scheduled.

In December 2021, six additional non-class-action indirect purchaser cases were filed in the Northern District of California, and one additional non-class-action indirect purchaser case was filed in California state court naming BMS and two other manufacturers as defendants. These complaints make allegations similar to those in the other federal court cases. No trial date has been scheduled for these cases.

Nimbus

In August 2021, a complaint was filed by Nimbus Therapeutics, LLC and Nimbus Lakshmi, Inc. (collectively, “Nimbus”) in the U.S. District Court for the Southern District of New York against Celgene and BMS. The complaint relates to a warrant agreement for a tyrosine kinase 2 (“Tyk2”) product between Celgene and Nimbus Lakshmi, Inc. Nimbus’s complaint alleges breach of contract and violations of federal antitrust laws stemming from BMS’s acquisition of Celgene in 2019 as well as actions taken by Celgene to exercise or assign its rights under the agreement. In addition to damages, Nimbus seeks a declaratory judgment. On the same day it filed this complaint, Nimbus also sent Celgene and BMS a letter purporting to terminate the relevant warrant agreement under the same theories set forth in its complaint. BMS disputes Nimbus’s allegations and the validity of its attempts to terminate the warrant agreement. In September 2021, Celgene and BMS filed counterclaims against Nimbus, alleging breach of contract and tortious interference claims based on Nimbus’s efforts to prevent Celgene from acting on its rights under the warrant agreement and similarly seeking damages and a declaratory judgment. On October 14, 2021, the Court granted Celgene and BMS’s motion to preliminarily enjoin Nimbus from selling, transferring, encumbering, or otherwise disposing of, in part or in whole, the Tyk2 product until there is a final judgment on the merits. The parties finalized a settlement of the action and all claims were voluntarily dismissed with prejudice in January 2022.

***Thalomid and Revlimid* Litigations**

Beginning in November 2014, certain putative class action lawsuits were filed against Celgene in the U.S. District Court for the District of New Jersey alleging that Celgene violated various antitrust, consumer protection, and unfair competition laws by (a) allegedly securing an exclusive supply contract for the alleged purpose of preventing a generic manufacturer from securing its own supply of thalidomide active pharmaceutical ingredient, (b) allegedly refusing to sell samples of *Thalomid* and *Revlimid* brand drugs to various generic manufacturers for the alleged purpose of bioequivalence testing necessary for aNDAs to be submitted to the FDA for approval to market generic versions of these products, (c) allegedly bringing unjustified patent infringement lawsuits in order to allegedly delay approval for proposed generic versions of *Thalomid* and *Revlimid*, and/or (d) allegedly entering into settlements of patent infringement lawsuits with certain generic manufacturers that allegedly have had anticompetitive effects. The plaintiffs, on behalf of themselves and putative classes of third-party payers, sought injunctive relief and damages. The various lawsuits were consolidated into a master action for all purposes. In March 2020, Celgene reached a settlement with the class plaintiffs. In October 2020, the Court entered a final order approving the settlement and dismissed the matter. That settlement did not resolve the claims of certain entities that opted out of the settlement.

In May 2018, Humana, Inc. (“Humana”) filed a lawsuit against Celgene in the Pike County Circuit Court of the Commonwealth of Kentucky. Humana’s complaint alleges Celgene engaged in unlawful off-label marketing in connection with sales of *Thalomid* and *Revlimid* and asserts claims against Celgene for fraud, breach of contract, negligent misrepresentation, unjust enrichment and violations of New Jersey’s Racketeer Influenced and Corrupt Organizations Act. The complaint seeks, among other things, treble and punitive damages, injunctive relief and attorneys’ fees and costs. A trial has been scheduled for January 17, 2023.

In March 2019, Humana filed a lawsuit against Celgene in the U.S. District Court for the District of New Jersey. Humana’s complaint makes largely the same claims and allegations as were made in the class action litigation. The complaint purports to assert claims on behalf of Humana and its subsidiaries in several capacities, including as a direct purchaser and as an indirect purchaser, and seeks, among other things, treble and punitive damages, injunctive relief and attorneys’ fees and costs. In May 2019, Celgene filed a motion to dismiss Humana’s complaint, and the Court has stayed discovery pending adjudication of that motion. No trial date has been scheduled.

In March 2020, United HealthCare Services, Inc. (“UHS”), affiliates of which opted out of the first settlement in the *Thalomid* and *Revlimid* Antitrust Class Action Litigation, filed a lawsuit against Celgene in the U.S. District Court for the District of Minnesota. UHS’s complaint makes largely the same claims and allegations as were made in the class action litigation in addition to certain claims regarding donations directed to copay assistance. The complaint purports to assert claims on behalf of UHS and its subsidiaries in several capacities, including as a direct purchaser and as an indirect purchaser, and seeks, among other things, treble and punitive damages, injunctive relief and attorneys’ fees and costs. In December 2020, Celgene’s motion to transfer the action to the District of New Jersey was granted and the case is now pending in that Court. In January 2021, Celgene filed a motion to dismiss UHS’s complaint, which the Court administratively terminated in June 2021 pending its decision on Celgene’s pending motion to dismiss Humana’s complaint. No trial date has been scheduled.

In May 2020, Celgene filed suit against Humana Pharmacy, Inc. (“HPI”), a Humana subsidiary, in Delaware Superior Court. Celgene’s complaint alleges that HPI breached its contractual obligations to Celgene by assigning claims to Humana that Humana is now asserting. The complaint seeks damages for HPI’s breach as well as a declaratory judgment. A trial has been scheduled for March 2023.

In July 2020, Blue Cross Blue Shield Association (“BCBSA”) sued Celgene and BMS on behalf of the Federal Employee Program in the U.S. District Court for the District of Columbia. BCBSA’s complaint makes largely the same claims and allegations as were made in the class action litigation. In April 2021, the parties’ joint motion to transfer the action to the District of New Jersey was granted and the case is now pending in that Court. No trial date has been scheduled.

In August 2020, BCBSM Inc., Health Care Service Corporation (“HCSC”), Blue Cross and Blue Shield of Florida Inc., and Molina Healthcare, Inc. (“Molina”) sued Celgene and BMS in a Minnesota state court. The complaint makes largely the same claims and allegations as were made in the class action litigation but adds allegations on behalf of HCSC only as to alleged off-label marketing of *Thalomid* and *Revlimid*. In September 2020, Celgene and BMS removed the action to the U.S. District Court for the District of Minnesota. In March 2021, that Court denied plaintiffs’ motion to remand the action to state court, dismissed Molina for lack of personal jurisdiction and granted defendants’ motion to transfer the action to the District of New Jersey. The case is now pending in the District of New Jersey. No trial date has been scheduled.

In January 2021, Cigna Corporation (“Cigna”) sued Celgene and BMS in the U.S. District Court for the Eastern District of Pennsylvania. Cigna’s complaint makes largely the same claims and allegations as were made in the class action litigation. Cigna’s complaint purports to assert claims on behalf of Cigna and its subsidiaries in several capacities, including as a direct purchaser and as an indirect purchaser. In May 2021, the parties’ joint motion to transfer the action to the District of New Jersey was granted and the case is now pending in that Court. No trial date has been scheduled.

In May 2021, Molina sued Celgene and BMS in San Francisco Superior Court. Molina’s complaint makes largely the same claims and allegations as were made in the class action litigation. In July 2021, Celgene and BMS removed the action to the U.S. District Court for the Northern District of California, and in January 2022, that court granted Molina’s motion to remand to San Francisco Superior Court. No trial date has been scheduled.

In December 2021, a group of plaintiffs—MSP Recovery Claims, Series LLC; MSPA Claims 1, LLC; MAO-MSO Recovery II, LLC, Series PMPI, a segregated series of MAO-MSO Recovery II, LLC; MSP Recovery Claims Series 44, LLC; MSP Recovery Claims PROV, Series LLC; and MSP Recovery Claims CAID, Series LLC (together, “MSP”)—sued Celgene and BMS in the U.S. District Court for the District of New Jersey. MSP’s complaint makes largely the same claims and allegations as were made in the class action litigation. MSP purports to pursue assignments from certain named and unnamed entities that allegedly purchased or otherwise provided reimbursement for *Thalomid* and/or *Revlimid*, and purports to bring direct and indirect purchaser claims. No trial date has been scheduled.

GOVERNMENT INVESTIGATIONS

Like other pharmaceutical companies, BMS and certain of its subsidiaries are subject to extensive regulation by national, state and local authorities in the U.S. and other countries in which BMS operates. As a result, BMS, from time to time, is subject to various governmental and regulatory inquiries and investigations as well as threatened legal actions and proceedings. It is possible that criminal charges, substantial fines and/or civil penalties, could result from government or regulatory investigations.

ENVIRONMENTAL PROCEEDINGS

As previously reported, BMS is a party to several environmental proceedings and other matters, and is responsible under various state, federal and foreign laws, including CERCLA, for certain costs of investigating and/or remediating contamination resulting from past industrial activity at BMS’s current or former sites or at waste disposal or reprocessing facilities operated by third parties.

CERCLA Matters

With respect to CERCLA matters for which BMS is responsible under various state, federal and international laws, BMS typically estimates potential costs based on information obtained from the U.S. Environmental Protection Agency, or counterpart state or foreign agency and/or studies prepared by independent consultants, including the total estimated costs for the site and the expected cost-sharing, if any, with other “potentially responsible parties,” and BMS accrues liabilities when they are probable and reasonably estimable. BMS estimated its share of future costs for these sites to be \$89 million at December 31, 2021, which represents the sum of best estimates or, where no best estimate can reasonably be made, estimates of the minimal probable amount among a range of such costs (without taking into account any potential recoveries from other parties). The amount includes the estimated costs for any additional probable loss associated with the previously disclosed North Brunswick Township High School Remediation Site.

REPORTS OF MANAGEMENT

Management's Responsibility for Financial Statements

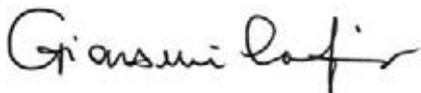
Management is responsible for the preparation and integrity of the financial information presented in this Annual Report. The accompanying consolidated financial statements have been prepared in conformity with United States generally accepted accounting principles, applying certain estimates and judgments as required. In management's opinion, the consolidated financial statements present fairly the Company's financial position, results of operations and cash flows.

The Audit Committee of the Board of Directors meets regularly with the internal auditors, Deloitte & Touche LLP (D&T), the Company's independent registered accounting firm, and management to review accounting, internal control structure and financial reporting matters. The internal auditors and D&T have full and free access to the Audit Committee. As set forth in the Company's Standard of Business Conduct and Ethics, the Company is firmly committed to adhering to the highest standards of moral and ethical behavior in all of its business activities.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Under the supervision and with the participation of management, including the chief executive officer and chief financial officer, management assessed the effectiveness of internal control over financial reporting as of December 31, 2021 based on the framework in "Internal Control—Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that assessment, management has concluded that the Company's internal control over financial reporting was effective at December 31, 2021 to provide reasonable assurance regarding the reliability of its financial reporting and the preparation of its financial statements for external purposes in accordance with United States generally accepted accounting principles. Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Deloitte & Touche LLP, an independent registered public accounting firm, has audited the Company's financial statements included in this report on Form 10-K and issued its report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2021, which is included herein.



Giovanni Caforio, M.D.
Chief Executive Officer



David V. Elkins
Chief Financial Officer

February 9, 2022

CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of December 31, 2021, management carried out an evaluation, under the supervision and with the participation of its chief executive officer and chief financial officer, of the effectiveness of the design and operation of its disclosure controls and procedures as defined in Exchange Act Rules 13a-15(e) and 15d-15(e), as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, management has concluded that as of December 31, 2021, such disclosure controls and procedures were effective.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of management, including the chief executive officer and chief financial officer, management assessed the effectiveness of internal control over financial reporting as of December 31, 2021 based on the framework in "Internal Control—Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that assessment, management has concluded that the Company's internal control over financial reporting was effective at December 31, 2021 to provide reasonable assurance regarding the reliability of its financial reporting and the preparation of its financial statements for external purposes in accordance with United States generally accepted accounting principles. Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Deloitte & Touche LLP, an independent registered public accounting firm, has audited the Company's financial statements included in this report on this Annual Report on Form 10-K and issued its report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2021, which is included herein.

Changes in Internal Control Over Financial Reporting

There were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2021 that have materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Bristol-Myers Squibb Company

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Bristol-Myers Squibb Company (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of earnings, comprehensive income/(loss), and cash flows, for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 8, 2022, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Gross-to-Net U.S. Rebate Accruals for U.S. Medicaid, Medicare Part D, and managed healthcare - Refer to "Note 2 - Revenue" to the financial statements

Critical Audit Matter Description

As more fully disclosed in Note 2 to the financial statements, the Company reduces gross product sales from list price at the time revenue is recognized for expected charge-backs, discounts, rebates sales allowances and product returns, which are referred to as gross-to-net ("GTN") adjustments. These reductions are attributed to various commercial arrangements, managed healthcare organizations, and government programs that mandate various reductions from list price. Charge-backs and cash discounts are reflected as a reduction to receivables and settled through the issuance of credits to the customer. All other rebates, discounts and adjustments, are reflected as a liability and settled through cash payments.

Certain of the GTN liabilities related to U.S. Medicaid, Medicare Part D, and managed healthcare organizations rebate programs (the "GTN U.S. rebate accruals") involve the use of significant assumptions and judgments in their calculation. These significant assumptions and judgments include consideration of legal interpretations of applicable laws and regulations, historical claims experience, payer channel mix, current contract prices, unbilled claims, claims submission time lags, and inventory levels in the distribution channel.

Given the complexity involved in determining the significant assumptions used in calculating certain GTN U.S. rebate accruals, auditing these estimates involved especially subjective judgment.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to GTN U.S. rebate accruals included the following, among others:

- We evaluated the appropriateness and consistency of the Company's methods and assumptions used to calculate GTN U.S. rebate accruals.
- We tested the effectiveness of internal controls over the review of the Company's estimation model, including underlying assumptions and key inputs into the Company's process to calculate GTN U.S. rebate accruals.
- We tested the mathematical accuracy of GTN U.S. rebate accruals.
- We tested significant assumptions and key inputs used to calculate GTN U.S. rebate accruals.
- We evaluated the Company's ability to estimate GTN U.S. rebate accruals accurately by comparing actual amounts incurred for GTN U.S. rebate accruals to historical estimates.
- We tested the overall reasonableness of the GTN U.S. rebate accruals recorded at period end by developing an expectation for comparison to actual recorded balances.
- We involved audit professionals with industry and quantitative analytics experience to assist us in performing our auditing procedures.

Taxes - Unrecognized Tax Benefit Liabilities for U.S. Transfer Pricing - Refer to "Note 7- Income Taxes" to the financial statements

Critical Audit Matter Description

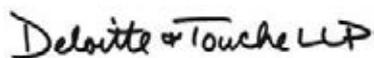
As more fully disclosed in Note 7 to the financial statements, the Company recognizes certain income tax benefits associated with transactions between its U.S. operating companies and related foreign affiliates. These income tax benefits are estimated based on transfer pricing agreements, third-party transfer pricing studies, and the Company's judgment as to whether it is more-likely-than-not the benefits will be realized. Tax benefits that may not ultimately be realized by the Company, as determined by its judgment, are accrued for as unrecognized tax benefit liabilities. The amounts recognized as unrecognized tax benefit liabilities related to U.S. transfer pricing may be significantly affected in subsequent periods due to various factors, such as changes in tax law, identification of additional relevant facts, or a change in the Company's judgment regarding measurement of the tax benefits upon ultimate settlement with the taxing authorities.

Given the complexity associated with significant assumptions used and judgments made to calculate unrecognized tax benefit liabilities related to U.S. transfer pricing, auditing these estimates involved especially subjective judgment.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to unrecognized tax benefit liabilities related to U.S. transfer pricing included the following, among others:

- We evaluated the appropriateness and consistency of the Company's methods and assumptions used in the identification, recognition, measurement, and disclosure of unrecognized tax benefit liabilities.
- We tested the effectiveness of internal controls over the review of the underlying assumptions and key inputs into the Company's process to calculate unrecognized tax benefit liabilities.
- We obtained an understanding of the Company's related party transactions and transfer pricing policies.
- We tested the mathematical accuracy of the unrecognized tax benefit liabilities.
- We tested the completeness of unrecognized tax benefit liabilities.
- We tested the reasonableness of the underlying tax positions and amounts accrued for a selection of unrecognized tax benefit liabilities by reviewing the Company's evaluation of the relevant facts and tax law associated with the tax position, and testing the significant assumptions and inputs used to calculate the unrecognized tax benefit liabilities by reference to third party data, information produced by the entity, our understanding of transfer pricing principles and tax laws, and inquires of management.
- We evaluated whether the Company had appropriately considered new information that could significantly change the recognition, measurement or disclosure of the unrecognized tax benefit liabilities.
- We involved income tax specialists and audit professionals with industry experience to assist us in performing our auditing procedures.



Parsippany, New Jersey
February 8, 2022

We have served as the Company's auditor since 2006.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Bristol-Myers Squibb Company

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Bristol-Myers Squibb Company (the “Company”) as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2021, of the Company and our report dated February 8, 2022, expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

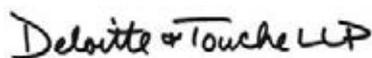
The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

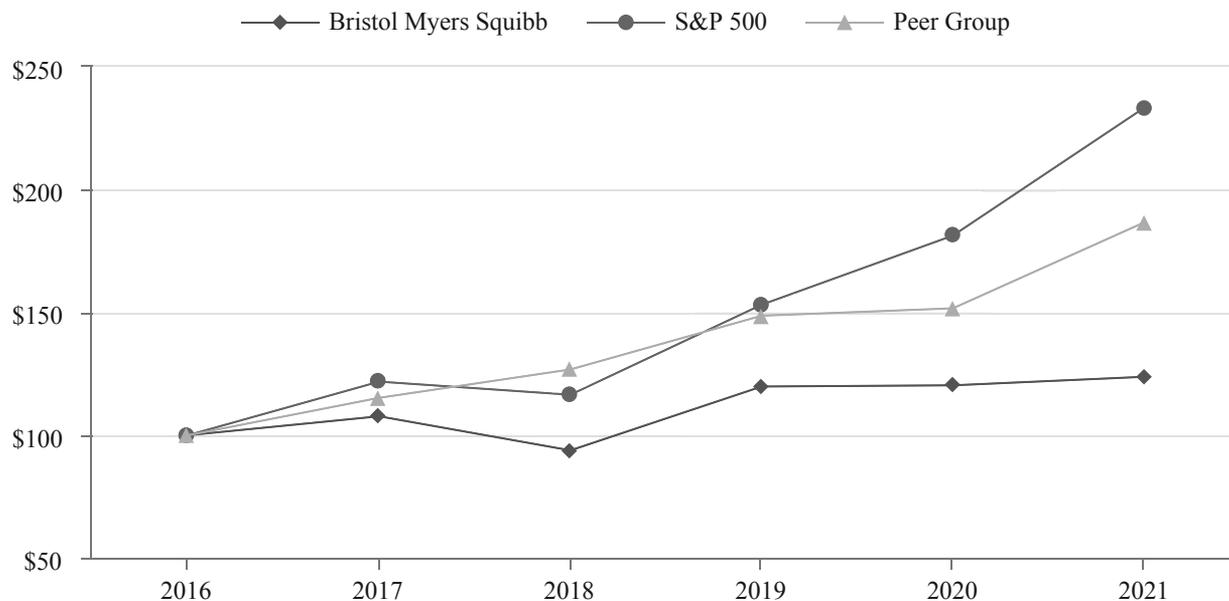
Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.



Parsippany, New Jersey
February 8, 2022

PERFORMANCE GRAPH

The following graph compares the cumulative total stockholders' returns of our common shares with the cumulative total stockholders' returns of the companies listed in the Standard & Poor's 500 Index ("S&P 500 Index") and a composite peer group of major pharmaceutical companies comprised of AbbVie, Amgen, AstraZeneca, Biogen, Gilead, GlaxoSmithKline, Johnson & Johnson, Lilly, Merck, Novartis, Pfizer, Roche and Sanofi. The graph assumes \$100 investment on December 31, 2016 in each of our common shares, the S&P 500 Index and the stock of our peer group companies, including reinvestment of dividends, for the years ended December 31, 2017, 2018, 2019, 2020 and 2021. The stock price performance on the following graph is not necessarily indicative of future stock price performance.



	2016	2017	2018	2019	2020	2021
Bristol Myers Squibb	\$ 100.00	\$ 107.71	\$ 93.82	\$ 119.84	\$ 120.33	\$ 123.80
S&P 500	100.00	121.83	116.49	153.17	181.35	233.41
Peer Group	100.00	115.24	126.80	148.69	151.70	186.71

SUMMARY OF ABBREVIATED TERMS

Bristol-Myers Squibb Company and its consolidated subsidiaries may be referred to as Bristol Myers Squibb, BMS, the Company, we, our or us in this 2021 Annual Report on Form-10K, unless the context otherwise indicates. Throughout this 2021 Annual Report on Form 10-K, we have used terms which are defined below:

2021 Form 10-K	Annual Report on Form 10-K for the fiscal year ended December 31, 2021	MCOs	Managed Care Organizations
AbbVie	AbbVie Inc.	MDL	multi-district litigation
Agenus	Agenus Inc.	MDS	myelodysplastic syndromes
ALL	acute lymphoblastic leukemia	Mead Johnson	Mead Johnson Nutrition Company
Amgen	Amgen Inc.	Merck	Merck & Co., Inc.
Amylin	Amylin Pharmaceuticals, Inc.	MF	myelofibrosis
aNDA	abbreviated New Drug Application	MPM	Malignant Pleural Mesothelioma
AstraZeneca	AstraZeneca PLC	MSI-H	high microsatellite instability
BCMA	B-cell maturation antigen	MyoKardia	MyoKardia, Inc.
Biogen	Biogen, Inc.	NASH	Non alcoholic steatohepatitis
BLA	Biologics License Application	NAV	net asset value
CERCLA	U.S. Comprehensive Environmental Response, Compensation and Liability Act	Nektar	Nektar Therapeutics
Celgene	Celgene Corporation	NDA	New Drug Application
cGMP	current Good Manufacturing Practices	NKT	natural killer T
CML	chronic myeloid leukemia	NLRP3	NACHT, LRR and PYD domains-containing protein 3
CPPIB	CPPIB Credit Europe S.A.R.L., a Luxembourg private limited liability company	Novartis	Novartis Pharmaceutical Corporation
CRC	colorectal cancer	NSCLC	non-small cell lung cancer
DSA	Distribution Services Agreement	NVAF	non-valvular atrial fibrillation
EC	European Commission	OECD	Organisation for Economic Co-operation and Development
EGFR	estimated glomerular filtration rate	OIG	Office of Inspector General of the U.S. Department of Health and Human Services
Eisai	Eisai Co., Ltd.	Ono	Ono Pharmaceutical Co., Ltd.
EMA	European Medicines Agency	OTC	Over-the-counter
EPO	European Patent Office	Otsuka	Otsuka Pharmaceutical Co., Ltd.
EPS	earnings per share	PBMs	Pharmacy Benefit Managers
ERISA	Employee Retirement Income Security Act of 1974	PD-1	programmed death receptor-1
ESA	erythropoiesis-stimulating agent	PDMA	Prescription Drug Marketing Act
ESCC	esophageal squamous cell carcinoma	PDUFA	Prescription Drug User Fee Act
EU	European Union	Pfizer	Pfizer, Inc.
FASB	Financial Accounting Standards Board	PhRMA Code	Pharmaceutical Research and Manufacturers of America's Professional Practices Code
FCPA	Foreign Corrupt Practices Act	PRP	potentially responsible party
FDA	U.S. Food and Drug Administration	PsA	psoriatic arthritis
FL	follicular lymphoma	R&D	research and development
GAAP	U.S. generally accepted accounting principles	RA	rheumatoid arthritis
GBM	glioblastoma multiforme	RCC	renal cell carcinoma
Gilead	Gilead Sciences, Inc.	REMS	Risk Evaluation and Mitigation Strategy
GILTI	global intangible low taxed income	Roche	Roche Holding AG
GlaxoSmithKline	GlaxoSmithKline PLC	RRMM	relapsed/refractory multiple myeloma
GTN	gross-to-net	RS	ring sideroblast
Halozyne	Halozyne Therapeutics, Inc.	Sanofi	Sanofi S.A.
HCC	Hepatocellular carcinoma	sBLA	supplemental Biologics License Application
HIV	human immunodeficiency virus	SCCHN	squamous cell carcinoma of the head and neck
HR 3590	The Patient Protection and Affordable Care Act	SCLC	small cell lung cancer
ImClone	ImClone Systems Incorporated	SEC	U.S. Securities and Exchange Commission
Immatics	Immatics N.V.	STING	stimulator of interferon genes
IO	Immuno-Oncology	the 2012 Plan	The 2012 Stock Award and Incentive Plan
IPF	idiopathic pulmonary fibrosis	the Act	the Tax Cuts and Jobs Act of 2017
IPRD	in-process research and development	U.S.	United States
JIA	Juvenile Idiopathic Arthritis	UK	United Kingdom
LOE	loss of exclusivity	VAT	value added tax
MAA	Marketing Authorization Application	VTE	venous thromboembolic
LIBOR	London Interbank Offered Rate	WTO	World Trade Organization
Lilly	Eli Lilly and Company		

Bristol Myers Squibb | Board of Directors

Giovanni Caforio, M.D.

Board Chair and Chief Executive Officer,
Bristol Myers Squibb

Theodore R. Samuels

Lead Independent Director, Bristol Myers Squibb;
Retired President of Capital Guardian
Trust Company
(a, b)

Peter J. Arduini

President and Chief Executive Officer,
GE Healthcare
(c, d)

Julia A. Haller, M.D.

Ophthalmologist-in-Chief, Wills Eye Hospital
(b, d)

Manuel Hidalgo Medina, M.D., Ph.D.

Chief, Division of Hematology and Medical
Oncology, Weill Cornell Medicine and New York-
Presbyterian/Weill Cornell Medical Center
(d)

Paula A. Price

Former Executive Vice President
and Chief Financial Officer, Macy's Inc.
(a, b)

Derica W. Rice

Former Executive Vice President, CVS Health
and President, Pharmacy Benefits Business,
CVS Caremark. Former Executive Vice President
and Chief Financial Officer, Eli Lilly Company
(a, c)

Gerald L. Storch

Chief Executive Officer, Storch Advisors.
Former Chief Executive Officer of Hudson's
Bay Company
(b, c)

Karen H. Vousden, Ph.D.

Chief Scientist, Cancer Research UK and
Senior Group Leader, The Francis Crick Institute
(c, d)

Phyllis R. Yale

Advisory Partner, Bain & Company
(a, b)

Members of the Board of Directors and Committee memberships as of March 10, 2022

(a) Audit Committee

(b) Committee on Directors and Corporate Governance

(c) Compensation and Management Development Committee

(d) Science and Technology Committee

Bristol Myers Squibb | Leadership Team

Giovanni Caforio, M.D.

Board Chair and
Chief Executive Officer

Chris Boerner, Ph.D.

Executive Vice President,
Chief Commercialization Officer

David Elkins

Executive Vice President,
Chief Financial Officer

Pamela Fisher

Vice President,
Chief Diversity and Inclusion Officer

Cari Gallman

Senior Vice President,
Chief Compliance and Ethics Officer

Samit Hirawat, M.D.

Executive Vice President,
Chief Medical Officer,
Global Drug Development

Sandra Leung

Executive Vice President,
General Counsel

Greg Meyers

Executive Vice President,
Chief Digital and Technology Officer

Elizabeth A. Mily

Executive Vice President,
Strategy and Business Development

Ann M. Powell

Executive Vice President,
Chief Human Resources Officer

Karin Shanahan

Executive Vice President,
Global Product Development and Supply

Catalina Vargas

Chief of Staff to the Chief Executive Officer

Rupert Vessey, M.A., B.M., B.Ch., F.R.C.P., D.Phil.

Executive Vice President and President,
Research and Early Development

Estelle Vester-Blokland, M.D.

Senior Vice President,
Global Medical Affairs

Michelle Weese

Executive Vice President,
Corporate Affairs

BRISTOL MYERS SQUIBB Stockholder Information

Common Stock

Ticker symbol: BMY
New York Stock Exchange

Contingent Value Right

Ticker symbol: CELG-RT
New York Stock Exchange

Stockholder Services

All inquiries concerning stockholder accounts and stock transfer matters – including address changes, the elimination of duplicate mailings and the Shareowner Services Plus PlanSM – should be directed to the Company's Transfer Agent and Registrar:

EQ Shareowner Services
1110 Centre Pointe Curve, Suite 101
Mendota Heights, MN 55120-4100
www.shareowneronline.com
855-598-5485 (within the U.S.)
651-450-4064 (outside the U.S.)

A telecommunications relay service should be used by the hearing impaired when calling the telephone numbers above.

Shareowner Services Plus PlanSM
The Shareowner Services Plus PlanSM is designed for long-term investors who wish to build share ownership in the Company's common stock over time. You can participate in the plan if you are a registered holder of the Company's common stock. If you do not own the Company's common stock, you can become a participant by making your initial purchase through the plan. The plan features dividend reinvestment, optional cash purchase, share safekeeping, and share sales and transfers. Bristol-Myers Squibb Company has appointed EQ Shareowner Services as Administrator for the plan. The plan is not sponsored or administered by Bristol-Myers Squibb Company.

Form 10-K

For a free copy of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, contact:

Corporate Secretary

Bristol-Myers Squibb Company
430 E. 29th Street, 14FL
New York, NY 10016

The Form 10-K is also available at investor.bms.com

The most recent certifications by the Company's chief executive officer and chief financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to the Company's Form 10-K. The Company has also filed with the New York Stock Exchange the most recent Annual CEO Certification as required by Section 303A.12(a) of the New York Stock Exchange Listed Company Manual.

Additional Information

Information on the following subjects is available at www.bms.com:

- Bristol Myers Squibb Foundation
- Clinical Trials
- Compliance and Ethics
- Diversity and Workforce Statistics
- Patient Assistance Programs
- Policy and Advocacy Engagement and Political Contributions
- Sustainability/Environmental Programs

This Annual Report contains certain forward-looking information within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current expectations and involve inherent risks and uncertainties that could cause actual outcomes and results to differ materially from current expectations. Please see page 32 in the Financial Review for a discussion and description of these risks and uncertainties. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

Product Names and Company Programs

Global products and company program names appearing throughout in italics are referred to herein by their registered and approved U.S. trademarks, unless specifically noted otherwise.

Abilify is a trademark of Otsuka Pharmaceutical Co., Ltd.

Atripla is a trademark of Gilead Sciences, Inc.

Byetta is a trademark of Amylin Pharmaceuticals, LLC

CABOMETYX is a trademark of Exelixis, Inc.

Erbix is a trademark of ImClone LLC

Farxiga and *Onglyza* are trademarks of AstraZeneca AB

Keytruda is a trademark of Merck Sharp & Dohme Corp.

Otezla is a trademark of Amgen Inc.

Tecentriq is a trademark of Genentech, Inc.

Yescarta is a trademark of Kite Pharma, Inc.

Brand names of products that are in all italicized letters, without an asterisk, are registered trademarks of Bristol Myers Squibb and/or one of its subsidiaries.

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