Lark Research
16 W. Elizabeth Avenue, #4
Linden, New Jersey 07036
www.larkresearch.com

Stephen P. Percoco
Stephen Zou
(908) 975-0250
spercoco@larkresearch.com

Bristol-Myers Squibb Company (BMS)

Initiating Coverage with an Outperform Rating; Prospects Beyond 2022 are Favorable

Primary Report **July 31, 2021**

With the acquisitions of Celgene in 2019 and MyoKardia in 2020, BMS has substantially transformed its business and repositioned for growth. Drugs added to the portfolio from the two acquisitions produced 40% of its total revenues in 2020. The company has launched six new products since 2020, including two CAR-T immunotherapies, a class of treatments that has produced miraculous responses in fighting blood cancers. It plans to launch two potential first-in-class treatments in 2022 that have good commercial potential. BMS also has a broad early-to-mid stage pipeline with more than 50 new compounds in clinical development.

Although its long-term growth prospects are attractive, BMS's financial performance will likely show little improvement in 2022, according to our projections. The company will have to contend with a decline in revenues for some medicines that are losing exclusivity while its most promising product launches will still be in their early stages. As a result, we believe that revenues and earnings will be up only slightly in 2022.

Despite positive long-term growth prospects, BMS's common stock trades at just over 9 times projected 2021 non-GAAP earnings, well below its peer group average of 12-13 times. The discount reflects uncertainty about the company's ability to deliver on its growth agenda, including perhaps concerns about the impact of loss of exclusivity (LOE).

We expect that the performance of its stock over the next 12-18 months will depend mostly upon the cadence of news about regulatory approvals and product launches. There could also be volatility around the company's financial performance, if growth stalls in 2022 as we expect. Even so, if BMS delivers consistently on its growth targets and performance, the stock's discount to peers should narrow over time. Most of the multiple expansion that we anticipate should therefore occur after the mid-2022, as the market begins to price in improved revenue and earnings growth for 2023 and beyond.

Our 6-12 month price target for BMS's stock is $73, or 9.7 times projected 2022 non-GAAP earnings of $7.50. If events play out as we anticipate, our follow-up 18-24 month price target may very well be $85-$90, based on a valuation multiple of 11 and 2023 earnings of ~$8.

The stock currently pays a dividend of $1.96 per share, which equates to a yield of 2.9% at the current quote. Our projections assume that the company will generate significant free cash flow over the next few years, which should give it the capacity to raise the dividend going forward.

Common Stock Performance Rating: 2; Safety Rating: C **S&P 500: 4395.26**

Selected Bonds Outstanding

Amt Outst ($m)	CUSIP	Type	Recent Price	Coupon	Maturity	Yield	Spread	Call Date	Call Price	Credit Ratings
3,250	110122CM8	Senior Notes	106.69	2.900%	7/26/24	0.58%	22 bp	6/26/24	100.0	A2/A+
2,500	110122DC9	Senior Notes	111.35	3.875%	8/15/25	0.84%	27 bp	5/15/25	100.0	A2/A+
4,000	110122CP1	Senior Notes	112.92	3.400%	7/26/29	1.62%	50 bp	4/26/29	100.0	A2/A+
2,000	110122CQ9	Senior Notes	122.41	4.125%	6/15/39	2.52%	88 bp	12/15/38	100.0	A2/A+
3,750	110122CR7	Senior Notes	128.54	4.250%	10/26/49	2.77%	86 bp	4/26/49	100.0	A2/A+

All prices as of July 25, 2021. Besides the call date and prices shown above, all of the above bonds are continuously callable subject to make whole redemption provisions. The above bonds represent $15.5 billion of BMS's total $45.2 billion debt outstanding as of June 30, 2021.

Equity and Other Securities

Shares Outst.	Preferred Stock	7/30/21 Price Quote	Div. per Share	Div. Yield	Liquidation Value Per Share	Conversion Rate	Conversion Price
3,484	Bristol-Myers Squibb (BMYMP)	$1,200.00	$2.00	0.17%	$50.00	16.96	$2.95

With only 3,484 shares outstanding (and total liquidation value of $174,200), this preferred stock was probably issued in the 1980s or earlier and substantially all of the original issue has converted into common stock. Yet, its price is still quoted by OTC Markets and it does trade periodically.

Shares Outst. (mil.)	Common Stock	7/30/21 Price	Div. per Share	Div. Yield	Tang. Book Value per Share	Proj '21 Non-GAAP EPS	2021 P/E	Proj. '22 Non-GAAP EPS	2022 P/E
2,222.1	Bristol-Myers Squibb (BMY)	$67.87	$1.96	2.89%	($14.30)	$7.42	9.2	$7.50	9.1

Shares Outst. (mil.)	Contingent Value Rights	7/30/21 Price
714.9	Bristol-Myers Squib (CELG.RT)	$0.24

In January 2021, the CVRs were delisted from the NYSE and now trade OTC.

Positive Investment Considerations

1. Good long-term growth potential. Acquisitions completed over the past two years, including Celgene Corporation (CELG) and MyoKardia (MYOK), have substantially remade BMS, enhancing its position in biologics in a few targeted therapeutic areas. In 2020, products acquired from CELG and MYOK accounted for roughly 40% of BMS's total revenues. Through these acquisitions, BMS has obtained several late stage potential therapies, grown its pipeline and broadened its scientific research capabilities. This, we believe, gives the company the potential to generate mid-single digit revenue growth, net of patent expirations, from 2023 to 2025 and possibly beyond.

2. Growth through expanding indications of approved medicines and other combinations. Like all pharmaceutical companies, BMS aggressively pursues new indications and new combinations of its medicines, wherever possible. Within its current portfolio, it is currently studying new indications for Opdivo in 31 clinical trials, the combination of Opdivo+Yervoy in 14 clinical trials and Opdivo in combination with three other drugs in six clinical trials. These new indications and combinations are an important way to expand the franchise, generating additional sales and extending exclusivity.

3. Emerging long-term growth opportunity in CAR-T therapies. This year, BMS has launched Breyanzi, for large B-cell lymphoma, and Abecma, for relapsed/refractory multiple myeloma. CAR-T therapies mobilize a patient's T-cells to fight cancers. They

have provided long-lasting and near-complete remissions in patients whose first-, second- and third-line treatments had failed. Side effects, although potentially life-threatening, are manageable for most patients. This relatively new class of hematology-oncology treatments is positioned to grow in the years ahead. CAR-T has attracted considerable interest from smaller biopharma companies, but BMS is one of only three pharmaceutical companies with approved therapies. The technology requires specialized manufacturing expertise, which should be a meaningful barrier to entry.

4. Potential first-in-class treatment of hypertrophic cardiomyopathy. BMS filed an NDA with the FDA for Mavacamten for symptomatic obstructive hypertrophic cardiomyopathy (oHCM) in March 2021 and has a PDUFA goal date of January 2022. There are currently no FDA-approved treatments for oHCM. The company estimates that 160,000-200,000 people in the U.S., one in every 500, are diagnosed with HCM each year; but that represents only 25% of those who actually have the condition. Assuming that mavacamten receives FDA approval in January, we project that it can deliver $500 million in revenues in 2022, with the potential to generate a few billion dollars in revenue within five years.

5. Promising immunology prospect in deucravacitinib, a first-in-class, oral, selective TYK2 inhibitor indicated for the treatment of moderate-to-severe plaque psoriasis. In head-to-head trials against Otezla, deucravacitinib demonstrated superior skin clearance for key secondary endpoints with a similar safety profile. BMS plans to file an NDA for the drug in late 2021 and is targeting a mid-2022 launch. Deucravacitinib is also in Phase 2 clinical trials as a treatment for other autoimmune conditions, including Crohn's disease, lupus nephritis, psoriatic arthritis and ulcerative colitis. With this profile, it should generate a several billion dollars in annual revenues for BMS by 2025.

6. Strong cash flow generation. We project that BMS will generate $33 billion in free cash flow (defined here as cash flow from operating activities plus cash flow from investing activities) over the forecast period through 2022. According to our model and assuming no additional major acquisitions, this excess cash flow will be used mostly to reduce debt and buy back stock. BMS should also have the capacity to raise its dividend.

7. Still strong financial position giving BMS the ability to continue to pursue external growth opportunities. Its unsecured debt is currently rated A2 by Moody's (with a stable long-term outlook) and A+ by Standard & Poor's (with a negative long-term outlook). Despite taking on more than $48 billion of debt over the past two years to fund the acquisitions of Celgene and MyoKardia, BMS still has the capacity, albeit more limited now, to grow its business through acquisitions and investments, should it choose to do so. Its use of some of its free cash flow to reduce debt should bolster its financial flexibility in future years.

8. Attractive stock valuation and dividend yield. The stock is valued at 9.2 times our 2021 EPS estimate and 9.1 times our projected 2022 EPS. That compares with average peer group forward P/E multiples of 12.6 and 12.1, respectively, for 2021 and 2022 consensus earnings. The discount reflects uncertainty about whether BMS can deliver on its growth agenda in light of LOE, tough competition and ongoing pricing pressure. Nevertheless, newly-launched therapies, including Zeposia, Abecma and Breyanzi, the planned 2022 launches for mavacamten and deucravacitinib, and a large pipeline of new

therapies and expanded indications, are promising. Our projections suggest that 2022 will likely be challenging, given the potential revenue losses from LOE and the still nascent launches of new therapies. Beginning in 2023, however, assuming of course that the new launches meet targeted sales objectives, the company should begin to realize tangible results from its efforts that should begin to more than offset the loss of exclusivity, setting the stage for modest growth.

Negative Investment Considerations

1. With few near-term catalysts, the stock's performance over the next 6-12 months will likely depend mostly upon the cadence of clinical trial results, regulatory approvals and product launches, in addition to its overall financial performance. To our knowledge, there are no near-term catalysts that are likely to propel the stock higher over the next 6-12 months. Accordingly, BMS's stock is likely to react to the results of clinical development programs and product launches going forward. If that progress remains positive, the stock should continue to narrow its discount vs. peers over time.

2. Near-term dependence upon a few key drugs: Revlimid, Opdivo and Eliquis. The three blockbuster medicines accounted for $28.3 billion or 66.5% of total revenues in 2020. Revlimid loses much of its exclusivity in 2022, but it has extended licenses to a limited number of generic manufacturers through 2026 that should cushion the decline in its revenues. We anticipate that Revlimid's revenues will fall 20% in 2022. Eliquis and Opdivo have exclusivity protection out to 2026 and 2028-2031, respectively.

3. Other pending exclusivity losses. Besides Revlimid, BMS faces the potential loss of exclusivity for Orencia (2020 revenues of $3.2 billion), Pomalyst ($3.1 billion), Sprycel ($2.1 billion) in 2021 and Abraxane ($1.2 billion) in 2022. Orencia is a biologic for which there are currently no biosimilars on the market; so we think that revenues will hold steady in 2022. BMS has initiated patent protection lawsuits against two generic manufacturers for Sprycel, the outcomes of which should become known over the next year or so. With two companies already approved by the FDA to produce generic pomalidomide, BMS will probably lose its battle to retain exclusivity for Pomalyst in the U.S. and Canada. Our projections assume that Pomalyst's revenues will fall 25% in 2022. BMS has granted a license to one manufacturer for Abraxane in March 2020; but Abraxane's exclusivity has expired in the EU. Our projections anticipate a 25% decline in Abraxane's revenues in 2022. In its 10-K, BMS notes that the length of market exclusivity is impossible to predict with certainty because of the complex interactions between patent and regulatory forms of exclusivity and uncertainties of patent litigation.

4. Increased pricing pressure due to efforts by governments and payers worldwide to reduce pharmaceutical costs. Formulary restrictions, which are intended to help large organizations manage costs, usually limit the number of approved drugs in each therapeutic area and require pharmaceutical manufacturers to discount their product to gain market access. In addition, government efforts to reduce pharmaceutical costs are on the rise, especially in the U.S. Besides legislation that has recently been introduced to help the U.S. government reduce costs, the Centers for Medicare & Medicaid Services has adopted a pilot program to base prescription payments on international prices. BMS expects that price pressure will become more acute over time.

5. The FDA is conducting reviews of indications that have received accelerated approvals but whose confirmatory studies did not meet their primary endpoints. Product extensions and additional indications have been important sources of revenue and patent protection for many pharmaceutical manufacturers. The FDA's stepped up scrutiny could therefore put more pressure on firms like BMS as they seek to maximize their commercial opportunities. In December 2020, after consulting with the FDA, BMS withdrew Opdivo's indication for the treatment of certain patients with Small Cell Lung Cancer (SCLC), after receiving an accelerated approval in 2018.

6. Intense competition. Large pharmaceutical companies, hundreds of small research-focused biotech firms and non-profit institutions are all competing to develop new therapies. Novel treatments for even obscure diseases and conditions can have multiple candidates chasing limited commercial opportunities. Although BMS has benefited from this proliferation of investment and talent through the formation of alliances, joint ventures, partnerships, and licensing agreements, it faces significant competition across its entire pipeline and portfolio. Considering also the inherently low success rates in clinical development and the pricing pressure from governments and payers, BMS must always play at the top of its game to deliver sustained growth in revenues and earnings.

7. Settlement of Contingent Value Rights (CVRs) could result in a large (non-GAAP) charge sometime over the next few years. The trustee representing the holders of the Celgene contingent value rights has filed a complaint against BMS seeking the full $6.4 billion, claiming that BMS deliberately delayed obtaining FDA approval of Breyanzi to miss the December 31, 2020 deadline and thus avoid the payment. Our analysis suggests a settlement is likely but probably well below $6.4 billion. At the current price, the CVRs have a total market value of $172 million, which leaves lots of room for a settlement.

Business. Bristol-Myers Squibb (BMS) is the ninth largest global pharmaceuticals company in terms of both revenues and equity market capitalization, according to our estimates. Through its internal operations, partnerships and alliances, it is engaged in all stages of drug development, manufacturing and distribution. Its principal strategy is to combine the operating scope and global reach of a pharmaceutical company with the speed and innovation mindset of a biotech company.

BMS concentrates on the development of biologics, which include chemically-synthesized and small molecule drugs, and personalized therapies manufactured from biological processes. Although small molecule drugs are usually administered in pills or tablets, most of BMS's medicines are given through injections or intravenously.

The company has grown significantly over the past two years primarily through two acquisitions: In November 2019, it acquired Celgene Corporation (CELG), a global biopharmaceuticals company, for total consideration, including assumed debt, of $102 billion. In November 2020, BMS acquired MyoKardia, a clinical-stage biopharmaceutical company, for $12.7 billion.

In recent years, through these acquisitions and its internal research and development efforts, BMS has come to focus on oncological, hematological, immunological and cardiovascular therapeutics.

In **Oncology**, BMS's leading products are *Opdivo* (with 2020 revenues of $7.0 billion) and *Yervoy* ($1.7 billion). Both are monoclonal antibodies that boost the body's immune system to fight tumors. Opdivo targets the PD-L1 biomarker; Yervoy the CTLA-4 protein. Opdivo and Opdivo+Yervoy are approved for indications in skin, lung, stomach, liver, colorectal, non-small cell and head & neck cancers. BMS is conducting clinical trials in a wide variety of cancers (including many first line indications) for Opdivo, the Opdivo+Yervoy combination and Opdivo combinations with other anti-cancer medicines. BMS's other oncology drug is Abraxane ($1.2 billion), a chemotherapy that is a combination of paclitaxel and albumin and used to treat breast, NSCLC, pancreatic and other cancers. In total, Oncology delivered $9.9 billion or 23.3% of BMS's total revenues in 2020.

BMS is aiming to broaden its franchise in **Hematology**, including sustaining its leadership in multiple myeloma. Its flagship product is Revlimid ($12.1 billion), an oral immunomodulatory drug which in combination with dexamethasone is a first line treatment for multiple myeloma. The portfolio also includes Pomalyst ($3.1 billion), another multiple myeloma drug; Sprycel ($2.1 billion), a first line treatment for chronic myeloid leukemia; and seven other medicines. Four of the seven were recently launched, including the company's first two CAR-T therapies, Breyanzi, approved this year as a third line treatment for diffuse large B-cell lymphoma, and Abecma, also approved this year as a fifth line treatment for relapsed/refractory multiple myeloma. (CAR-T and the other newly launched hematology therapies are discussed further below.) As a result of the Celgene acquisition, hematology is now BMS's largest therapeutic area with 2020 revenues of $18.5 billion or 43.5% of total revenues.

In **Immunology**, BMS's focus is on relapsing-remitting multiple sclerosis (RRMS), psoriasis, lupus, rheumatoid arthritis (RA) and inflammatory bowel disease (IBD). Its primary product in this area is Orencia ($3.2 billion), a treatment for juvenile idiopathic arthritis, rheumatoid arthritis and psoriatic arthritis. Zeposia was approved in 2020 for RRMS. BMS has high hopes for deucravacitinib, a potential first-in-class TYK2 inhibitor that is in Phase 3 clinical trials as a treatment for psoriasis and currently in Phase 2 trials for Crohn's disease, lupus nephritis, psoriatic arthritis, systemic lupus erythematosus and ulcerative colitis. Immunology delivered $3.2 billion of revenues in 2020, 7.5% of the company's total, with above average growth potential going forward.

The mainstay of BMS's **Cardiovascular** portfolio is Eliquis ($9.2 billion), an anticoagulant (blood thinner) that inhibits the Factor Xa enzyme complex. Eliquis inhibits the formation of blood clots, reducing the risk of stroke or systemic embolism in patients with atrial fibrillation or after hip/knee replacement surgery. It is also indicated for the treatment of venous thromboembolism (VTE), which is also known as DVT/PE deep vein thrombosis/pulmonary embolism). BMS is optimistic about the prospects for mavacamten, a potential first in-class treatment for obstructive hypertrophic cardiomyopathy. The FDA accepted a new drug application (NDA) for mavacamten in March with an assigned PDUFA goal date of January 28, 2022. BMS's Factor XIa inhibitor, which is currently in a Phase 2 clinical trial for the prevention of follow-on strokes, may have blockbuster commercial potential (revenues >$1B).

Established Brands is a catch-all portfolio consisting of medicines that have lost patent protection in major markets, medicines that are marketed over-the counter and royalty revenues. Within this category, BMS breaks out the revenues of two therapies, Vidaza[1] and Baraclude. The rest are grouped as "Other Brands." Revenues for Baraclude and Other Brands totaled $1.78 billion in 2020, 4.1% of total revenues.

Acquisition of Celgene. In November 2019, BMS completed the acquisition of Celgene Corporation, a global biopharmaceutical company specializing in cancer and inflammatory diseases. Celgene's expertise was centered in protein homeostasis (i.e. maintaining equilibrium of proteins), immuno-oncology (i.e. using the immune system to combat cancer), epigenetics (modifying gene expression), immunology and neuro-inflammation. Through this acquisition, BMS acquired Revlimid, Pomalyst and Abraxane, which together generated $16.5 billion of revenues in 2020, equal to 38.6% of the company's total.

Celgene also gave BMS near-ready launch opportunities in three therapies: *Inrebic*, a kinase inhibitor for the treatment of myelofibrosis (approved by the FDA in August 2019); *Breyanzi*, a CAR-T immunotherapy for the treatment of relapsed or refractory large B-cell lymphoma (approved by the FDA in February 2021); and *Abecma*, a CAR-T immunotherapy for the treatment of relapsed or refractory multiple myeloma (approved by the FDA in March 2021).

The acquisition bolstered BMS's capabilities in small molecule design, biologics, protein homeostasis, antibody engineering and cell therapy. BMS also gained certain research development programs from Celgene, including its CAR-T therapies.

As a condition for obtaining FTC approval for the acquisition, BMS was required divest Otezla, its oral treatment for moderate to severe plaque psoriasis, active psoriatic arthritis and oral ulcer's associated with Behçet's Disease. It completed the sale of Otezla to Amgen for $13.4 billion (before taxes of $1.1 billion) contemporaneously with the closing of the acquisition. Otezla had sales of $1.9 billion in the trailing 12 month period ended September 30, 2019.

BMS acquired Celgene for total consideration of $102.1 billion, including $21.8 billion of assumed debt and excluding the net proceeds of $12.3 billion from the sale of Otezla. The equity portion of the transaction (paid to CELG common and employee shareholders) was $80.3 billion. That included $50 per CELG share in cash, one share of BMS stock (valued at $56.48 per share) and one contingent value right (CVR) (valued at $2.30 per share) for each of Celgene's 714.9 million common shares outstanding. The replacement of the fair value of Celgene's share-based compensation awards was valued at $2.5 billion.

According to our estimates, which include simplifying assumptions related to the profitability of Otezla, the total consideration equated to an enterprise-to-trailing twelve months EBITDA multiple of 11.8 times (or 12.0 times, without adjusting for Otezla). On an equity basis, the $108.78 per share purchase price equaled 13.4 times Celgene's trailing twelve month diluted GAAP earnings per share, unadjusted for the Otezla divestiture.

[1] Despite being classified as an established brand, Vidaza is included in this report as a hematology drug.

Celgene Contingent Value Rights (CVRs). The CVRs were entitled to receive $9 in cash if BMS received FDA approval for three drugs – Zeposia, Abecma and Breyanzi – by their targeted milestone dates. In the case of Zeposia and Breyanzi, the target date was December 31, 2020. Abecma's target milestone date was March 31, 2021.

The company did, in fact, receive approval for Zeposia and Abecma before their respective deadlines, but it did not receive FDA approval for Breyanzi until February 2021, more than a month after its December 31, 2020 approval deadline.

In June 2021, the trustee for the CVRs filed suit against Bristol-Myers, seeking $6.4 billion, which equates to the $9 payment times the 714.9 million CVRs issued[2]. In its complaint[3], the Trustee claims that BMS failed to use "Diligent Efforts" to achieve the milestones, as required under the CVR agreement. It charges that the company "made a highly atypical decision to exclude critical and mandatory information in its initial filing of the [Breyanzi] Biologics License Application" (BLA) with the FDA. It also asserts that BMS "failed to take the steps necessary to prepare two [Breyanzi] manufacturing facilities for the FDA's inspections."

We are not lawyers nor have we consulted any lawyers in our analysis of this matter. Nevertheless, we offer the following observations:

1. The CVR agreement was flawed to the disadvantage of CVR holders. By taking an all-or-nothing approach – all three therapies had to make their FDA approval deadlines in order for CVR holders to get the $9 payment – the CVR agreement made it much more likely that there would be no payment. The complaint acknowledges that the agreement was flawed by saying that it created a "perverse economic incentive" for BMS to delay at least one of the three therapies to miss a milestone.

2. The CVR agreement required BMS to use "Diligent Efforts" to obtain FDA approval for Breyanzi and the other therapies. Diligent Efforts is an undefined standard that is used infrequently and therefore appears to us to be a lower standard than the far more common "best efforts."[4]

3. The complaint says that BMS made a "highly atypical decision" to exclude information from the Breyanzi BLA. The exclusion resulted in the filing of a major amendment to the BLA two months later. Given the risks associated with CAR-T therapies and their significant side effects, it seems likely to us that BMS will be able to support its decision to withhold the information from the initial BLA filing on safety grounds (or some other valid reason), in a manner that is consistent with its Diligent Efforts mandate.

4. In our opinion, the Diligent Efforts standard placed more responsibility on CVR holders and the trustee to ensure that BMS was in compliance. Yet, the complaint says that CVR holders did not contact the Trustee to investigate until news of the mishandled inspections and further delays became public. The original trustee was replaced, which suggests perhaps that it failed somehow in meeting its responsibilities, and the new trustee did not request to review BMS's books and records until December 29, 2020, two days before the Breyanzi FDA approval deadline.

5. The complaint also includes details of two failed FDA inspections at Breyanzi manufacturing facilities - one owned and operated by BLS, the other by a contract manufacturer – that caused a further delay of about a month in the approval process. The details of the failures were taken directly from the FDA's inspection reports. If the court is willing to consider the failed FDA inspections in light of the flaws of the CVR agreement and failings of the CVR holders and trustee, we believe that it could very well conclude that BMS failed to uphold its Diligent Efforts requirement.

[2] https://www.reuters.com/business/healthcare-pharmaceuticals/lawsuit-says-bristol-myers-avoided-64-bln-payment-by-delaying-cancer-drug-2021-06-03/
[3] UMB Bank NA v Bristol-Myers Squibb Co et al, U.S. District Court, Southern District of New York, No. 21-04897
[4] https://adamsdrafting.com/downloads/Best-Efforts-Practical-Lawyer.pdf

6. We believe that a settlement is likely, if for no other reason than to avoid future lawsuits from CVR holders. However, the weight of evidence favors BMS, in our view, and so the settlement is likely to be much less than $6.4 billion.

The probability of a small settlement appears to be reflected in the current price of the CVRs. Having been delisted from the NYSE following BMS's failure to meet the December 31 Breyanzi FDA approval deadline, the CVRs now trade in the over-the-counter market, still under the ticker symbol CELG.RT. MarketWatch (www.marketwatch.com) quoted their price recently (7/30) at $0.24, down from their initial estimated value of $2.30 in November 2019.

On June 28, Seeking Alpha reported that Salim Syed, an analyst at Mizuho, asserted that a $3-$4 billion settlement (equivalent to $4.20-$5.60 per CELG CVR) is possible in 2-3 years.[5] His analysis uses the Genzyme/Sanofi CVR settlement as a precedent. Although that high a settlement seems unlikely to us, the current price of the Celgene CVRs leaves room for an attractive return, even at a substantially lower settlement amount.

Acquisition of MyoKardia. In November 2020, BMS acquired MyoKardia, a clinical-stage biopharmaceutical company that employs a precision medicine approach for its targeted cardiovascular therapies. It paid $225 per share for MYOK's 42.2 million shares. Together with an estimated $1.1 billion of cash settlements for employee stock awards, the total consideration for the acquisition was $13.1 billion. In announcing the completion of the acquisition, BMS CEO Giovanni Caforio said MyoKardia strengthens BMS's portfolio, pipeline and scientific capabilities.

All of the value of MYOK was assigned to its lead therapeutic candidate, mavacamten, a potential first-in-class small-molecule modulator of cardiac myosin, indicated for the treatment for symptomatic obstructive hypertrophic cardiomyopathy (oHCM), a chronic heart disease with high morbidity that often has a significant impact on the lives of those who suffer from it. HCM is an inherited condition, characterized by an abnormally thick heart muscle that interferes with the heart's ability to pump blood. It is common among those aged 35-60, especially in males. Although most people are asymptomatic, common symptoms include chest pain, shortness of breath and even fainting, with exertion, as well as heart murmurs and palpitations. There are currently no FDA-approved treatment options for HCM. Beta blockers and calcium channel blockers provide only limited symptomatic relief. The condition affects an estimated 1-in-500 people in the U.S. or between 160,000 and 200,000. But it is estimated that only 25% of those with HCM are diagnosed. The potential treatment population is similar in Europe. With the positive results from its Phase 3 clinical trial, BMS submitted an NDA to the FDA in March 2021 and was awarded a PDUFA date of January 22, 2022. Mavacamten is also in a Phase 2 clinical trial for non-obstructive HCM. Evaluate's published consensus forecast for mavacamten's 2026 sales is $2 billion[6]. We think that mavacamten can deliver $500 million in sales in 2022.

The rest of MYOK's pipeline includes two clinical stage therapeutics: danicamtiv, which is currently in a Phase 2 clinical trial for genetic dilated cardiomyopathy, and MYK-224 in Phase 1 for HCM. It also includes two pre-clinical assets: ACT-1 and LUS-1.

[5] https://seekingalpha.com/news/3710675-bristol-myers-likely-to-settle-lawsuit-related-to-cvr-for-celgene-drug-potentially-for-3b-4b-analyst-says
[6] https://www.evaluate.com/vantage/articles/news/deals/bristol-bets-big-myokardia

Other Acquisitions. In 2020, BMS acquired Forbius, a privately held, clinical-stage protein engineering company that aims to develop biotherapeutics to treat cancer and fibrotic diseases. Forbius's TGF-beta program includes AVID200, which is in Phase 1 development. The purchase price was $185 million, with contingent milestone payments of up to $815 million. All of the acquisition price was attributed to AVID200.

CAR-T Program. As part of the acquisition, BMS acquired Celgene's CAR-T program, including its lead candidates, Breyanzi and Abecma. Chimeric antigen receptor T-cell therapies have been in development since the 1990s. They are a type of adoptive cell transfer, in which human T-cells are modified in a manufacturing facility and then implanted in the patient. The modifications enhance the ability of the cells to fight diseases. Autologous CAR-T therapies use a patient's own cells; while allogeneic CAR-T therapies use the cells of a donor.

T-cells are a type of lymphocyte, an immune cell that is born from hematopoietic stem cells that reside in bone marrow. They are also a type of white blood cell that plays an important role in the adaptive response of the immune system to various threats. T-cells are distinguished by the presence of the T-cell receptor on their surfaces. In CAR-T therapies, the T-cell receptors are modified to bind to certain proteins on cancer cells in order to kill them. This strengthens the body's immune response.

CAR-T therapies have proven to be effective at treating cancer. In the few therapies that have been launched so far they have produced nearly complete remission of cancers in a majority of patients and those remissions have endured often for more than a year.

They are, however, risky therapies due to their potentially serious side effects, including *cytokine release syndrome*, a physiological reaction in which the immune system sparks an uncontrolled and excessive release of proinflammatory signaling molecules, called cytokines, which can cause multisystem organ failure and death; and *neurotoxicity*, which can cause damage to nervous tissue. Other potential side effects include allergic reactions, abnormal mineral levels in the blood, a weakened immune system and low blood cell counts.

Because of the risk of serious side-effects , the FDA has so far required all CAR-T cell therapies to adopt a Risk Evaluation and Mitigation Strategy (REMS). REMS require that the drug be administered only in certified health care facilities where patients can be observed for at least three hours to receive any necessary medical care in the event of an adverse side effect.

BMS has received FDA approval for two CAR-T therapies: Breyanzi is a best-in-class autologous T cell immunotherapy that targets the CD19 protein in adult patients with relapsed or refractory large B-cell lymphoma after they have completed two or more lines of systemic therapy. It was approved in the U.S. in February and in Japan in March, but not yet in Europe. Our projections anticipate 2021 revenues of $167 million, increasing to $500 million in 2022.

Abecma is a first-in-class, autologous B-cell maturation antigen (BCMA)-targeted therapy approved for adult patients with relapsed or refractory multiple myeloma, after completing four or more prior lines of therapy. BMS received FDA approval for Abecma in March 2021. Our projections assume 2021 revenues of $194 million, increasing to $600 million in 2022.

Management recently reported strong demand for Breyanzi and Abecma, especially for Abecma because of limited available options for patients. Accordingly, BMS is seeking to increase its CAR-T processing capacity. Launching both therapies simultaneously has been advantageous in helping its facilities climb the learning curve. Despite the positive initial results, it is unclear at this time what demand will be for these specialized therapies. With their high price tags and third- and fourth-line indications, demand may be limited either until the technology improves so that side effects are reduced or BMS is better able to identify those most at risk of side effects. Our 2022 projections for Abecma and Breyanzi may be aggressive.

Deucravacitinib. Acquired through Celgene, deucravacitinib is a first-in-class selective TYK2 inhibitor with the potential to replace Otezla as the oral standard of care in moderate to severe psoriasis. It is currently completing a Phase III trial and should file an NDA later this year. If approved by the FDA, the drug will be launched sometime in 2022. In November, BMS said that deucravacitinib exhibited superior skin condition improvements in patients than Otezla with a similar safety profile. Oral psoriasis treatments have historically been inferior to injectables, but deucravacitinib has so far demonstrated efficacy comparable to injectables. It may therefore have broader appeal as a psoriasis treatment beyond just taking market share from Otezla. Besides the psoriasis indication, BMS is studying deucravacitinib in Phase 2 trials for other autoimmune conditions, including Crohn's disease, lupus nephritis, psoriatic arthritis and ulcerative colitis. Our projections anticipate 2022 revenues of $500 million for deucravacitinib.

Opdivo. With sales of $7 billion in 2020, Opdivo is BMS's third best-selling drug, behind Revlimid and Eliquis. It is a fully human IgG4 anti-PD-1 antibody, indicated as a treatment for a variety of cancers. It has been eclipsed by Keytruda, another igG4 antibody, whose sales are twice Opdivo's; but to date there have been no head-to-head competitions between the two. Merck's success seems to be due more to its regulatory and marketing strategy for Keytruda.

Like Keytruda, Opdivo is being studied in a wide variety of cancers and in combination with other drugs. Its combination with Yervoy, another BMS medicine, has helped Yervoy's sales grow to $1.7 billion in 2020. There have been concerns about Opdivo's market position, because its sales declined in 2020, but growth returned in the first half of 2020. Opdivo is pursuing new indications in 31 clinical trials and new combinations in 20 clinical trials. The Opdivo combination with Nektar Therapeutics' bempegaldesleukin, indicated for melanoma, renal cell carcinoma and other cancers, was named one of the 10 most anticipated drug launches of 2021 by Fierce Pharma[7]. Although the push to grow Opdivo's sales presents some risk – BMS withdrew a previously approved indication for SCLC in 2020 after getting accelerated FDA approval in 2018 – we think that the franchise can continue to grow in 2022 and beyond.

Loss of Exclusivity. Loss of exclusivity (LOE) is a big issue for pharmaceutical companies. When a drug loses exclusivity, its sales often plummet by 90% soon after. LOE requires that pharma companies continually replenish their portfolios with new therapies to replace the old. (In order to achieve revenue growth, which is what Wall Street demands, new therapies must more than offset the revenue loss from LOE.)

LOE is a complicated issue. It is determined by patent and regulatory protections. The FDA grants seven years of exclusivity for orphan drugs, five years for innovative chemical pharmaceuticals and three years for new formulations, routes of administration and indications.

[7] https://www.fiercepharma.com/special-report/bempegaldesleukin-10-most-anticipated-drug-launches-2021

In recent years, pharmaceutical companies have focused on the latter in part to extend exclusivity beyond the patent expiration date. For example, BMS has sought numerous new indications and combinations for Opdivo as a way to both boost sales and also potentially to retain exclusivity beyond the patent and existing regulatory protection dates.

BMS has five drugs facing near-term LOE issues: Revlimid, Pomalyst, Orencia, Sprycel and Abraxane. Our analysis, using sketchy data, suggests that LOE will have the greatest impact on Revlimid, Pomalyst and Abraxane. We anticipate little LOE impact on 2022 revenues for Orencia and Sprycel.

For Revlimid, BMS has disclosed that it has entered into a settlement with one generic manufacturer in the U.S. granting a volume-limited license to sell generic lenalidomide in March 2022. The volume limitation for that manufacturer and others expires in 2026. On the other hand, licenses to make generic lenalidomide in the U.K. and EU have been granted to third parties effective early in 2022. Our projections assume that Revlimid's revenues will decline from $12.8 billion in 2021 to $10.1 billion in 2022, with all of the decline attributable to LOE outside the U.S.

Innovid (Pomalyst's brand name outside the U.S.) retains exclusivity in the EU and Japan until 2024 and 2026, respectively; but BMS is struggling to keep generic pomalidomide off the market in the U.S. and Canada. The company has received notice from several generic manufacturers about abbreviated NDAs that they have filed with the FDA, two of which have been granted so far. BMS (through Celgene) has filed patent infringement lawsuits against the generic manufacturers, but it looks like these will be tough to win. Our projections assume that Pomalyst's revenues will decline 25% in 2022, with all of that decline occurring in the U.S.

Method of use patents for Orencia, a biologic indicated for moderate to severe rheumatoid arthritis and psoriatic arthritis, expire in the U.S. and EU in 2021. BMS is not aware of an Orencia biosimilar currently on the market. Other patents, including for Orencia's formulation, expire in 2026. We have not found any sign of a potential or pending Orencia biosimilar launch. Consequently, our projections assume that Orencia's revenues will be flat in 2022.

BMS has initiated lawsuits against several generic manufacturers to protects its patents on Sprycel. It entered into a settlement with one that allows a launch of a generic formulation of the drug in Sept. 2024 (or sooner under certain conditions). However, Sprycel's patent for treating chronic myeloid leukemia (CML) has been upheld in the EU. Our projections assume that Sprycel's revenues will be flat in 2022.

For Abraxane, a chemotherapy that combines paclitaxel and albumin, BMS has granted a license to one generic manufacturer in the U.S. beginning March 2022. Abraxane has no exclusivity protection in the EU. Our projections assume that Abraxane's revenues will drop 20% in 2022.

Projection Assumptions. Our projections include the following major assumptions:

- Revenues. 2021 revenues are projected to be $46.2 billion, up 8.7% from 2020. 2022 revenues are projected at $46.6 billion, up 0.8%. The high single-digit gain in 2021 is consistent with management's guidance and due to a post-COVID rebound and to a lesser extent, new product launches. 2022 revenues are projected as flat due to in-line growth and early stage product launches offset mostly by declining revenues from LOE.

Although we do not model for discounts, our flat 2022 revenue projection could also be attributed in part to higher discounts, chargebacks and rebates, which were up 25% in the 2021 first half. We discuss our assumptions for many of BMS's individual products throughout this report. Our 2021 revenue projections are within the middle of the range of analysts' estimates; while our 2022 projections are on the low end of the range.

- Gross margin. Projected 2021 GAAP gross margin of 79.1% is consistent with management's guidance. Projected 2022 GAAP gross margin of 78.3% represents a decline of 80 bp, which is consistent with the company's assertion that it expects to experience continued pricing pressure going forward.

- Marketing, Sales and Administrative Expenses. Our projections assume that MS&A expense is flat, which is consistent with management's guidance. For 2022, we assume that MS&A expense will decline $171 million or 2.2% and by 140 bp as a percent of revenues, due to integration savings and cost efficiency initiatives, driven by efforts to offset the impact of the decline in gross margin.

- R&D Expense. We assume that R&D expense increases $215 million or 1.9% in 2020, which is consistent with management's guidance of a low single-digit increase. For 2022, we assume that R&D expense will decline by $173 million, or 1.5%, also due to integration savings and cost efficiency initiatives. As a percent of revenues, R&D expense declines 60 bp from 24.6% in 2021 to 24.0% in 2022.

- Other (Income)/Expense, Net. Our projections assume that these various income and expense line items will generate net other income of $687 million in 2021, down from $2.3 billion of income in 2020. All of the 2021 income has been recorded in the first half of the year. We assume little or no income or expense for the 2021 second half. For 2022, we assume net other income of $326 million, down more than 50% from 2021. Our assumptions are driven by expectations that after recording strong investment gains over the past 18 months, BMS will record no equity gains going forward.

- Effective tax rate. We assume a 2021 tax rate of 23.1%, consistent with guidance.

- Share count. Our projections assume share buybacks of $1.15 billion in the second half of 2021, below the $3.01 billion recorded in the 2021 first half. For 2021, we assume $2.0 billion of share repurchases. With the buybacks, our weighted average share count for 2021 is 2.25 billion shares, declining to 2.23 billion shares in 2022.

- GAAP EPS. All of these assumptions produce GAAP EPS of $2.77 in 2021, which is within management's revised guidance range of $2.77-$2.97. For 2022, our projections show GAAP EPS of $2.89.

- Specified items. Our projections assume total specified items (i.e. non-GAAP adjustments) of $4.65 per share, slightly more than management's guidance of $4.58. For 2022, our projections indicate specified items of $4.62 per share.

- Non-GAAP EPS. The combination of GAAP EPS and specified items per share produces a non-GAAP earnings estimate of $7.42 per share for 2020, which is within management's guidance range of $7.35-$7.55. For 2021, our model shows non-GAAP EPS of $7.50.

Our 2022 non-GAAP estimate of $7.50 is below the current consensus estimate of around $8.00 per share, but within the current range of analysts' estimates. The same is true for our 2022 revenue estimate of $46.6 billion.

Table 1

Bristol-Myers Squibb Company

Product Revenues by Therapeutic Area: 2018 to 2022F

(in $ millions)

Product revenues	Actual 2018	Actual 2019	Actual 2020	Projected 2021	Projected 2022
Oncology					
Opdivo	6,735	7,204	6,992	7,410	7,855
Yervoy	1,330	1,489	1,682	1,997	2,237
Abraxane		166	1,247	1,210	968
Total oncology	8,065	8,859	9,921	10,617	11,059
Hematology					
Revlimid		1,299	12,106	12,796	10,144
Pomalyst/Imnovid		322	3,070	3,356	2,517
Sprycel	2,000	2,110	2,140	2,152	2,195
Vidaza		58	455	219	105
Empliciti	247	357	381	371	361
zezyl			274	600	840
Inrebic		5	55	64	74
Onureg			17	59	68
Abecma				194	600
Breyanzi				167	500
Total hematology	2,247	4,151	18,498	19,978	17,405
Immunology					
Orencia	2,710	2,977	3,157	3,324	3,300
Zeposia			12	206	309
Deucravacitinib					500
Total immunology	2,710	2,977	3,169	3,530	4,109
Cardiovascular					
Eliquis	6,438	7,929	9,168	10,496	12,070
Mavacamten					500
Total cardiovascular	6,438	7,929	9,168	10,496	12,570
Other Brands					
Baraclude	744	555	447	422	398
Others	2,357	1,674	1,315	1,182	1,063
Total other brands	3,101	2,229	1,762	1,604	1,462
Total product revenues	22,561	26,145	42,518	46,224	46,605

Source: BMS financial statements and Lark Research estimates and projections.

The difference between BMS's GAAP and non-GAAP earnings is greater than what we usually see from other companies. Although we view some of the specified items as ongoing costs of the business (and not one time items), the largest category of items, representing 90% of total projected specified items, is purchase price accounting adjustments. The largest line item within purchase price accounting adjustments is amortization of acquired intangible assets, which is a non-cash expense. Assuming no major acquisitions going forward, these purchase

price accounting adjustments will eventually go away. When that happens, the difference between GAAP and non-GAAP EPS will narrow substantially. According to BMS, purchase price accounting adjustments will decline steadily but remain high until 2025, when amortization of intangible assets drops from $8.5 billion in 2024 to $1.2 billion.

Table 2

Bristol-Myers Squibb Company

Historical and Projected Income Statements: 2018 to 2022F

(in $ millions)

	Historical 12 Months 31-Dec-18	Historical 12 Months 31-Dec-19	Historical 12 Months 31-Dec-20	Projected 12 Months 31-Dec-21	Projected 12 Months 31-Dec-22
Revenues:					
Net Product Sales	21,581	25,174	41,321	45,038	45,300
Alliance & Other Revenues	980	971	1,197	1,186	1,305
Total Revenues	22,561	26,145	42,518	46,224	46,605
Costs and expenses:					
COGS	6,467	8,078	11,773	9,678	10,113
MS&A	4,551	4,871	7,661	7,628	7,457
R&D	6,332	6,148	11,143	11,358	11,185
IPRD-MyoKardia Acquisition	-	-	11,438		
Amortization of Intangible Assets	97	1,135	9,688	10,107	10,000
Other (income)/expense, net	(854)	938	(2,314)	(687)	(326)
Total costs and expenses	16,593	21,170	49,389	38,084	38,429
(Loss)/earnings bef. inc. taxes	5,968	4,975	(6,871)	8,140	8,176
(Provision) benefit for taxes	(1,021)	(1,515)	(2,124)	(1,886)	(1,717)
Net earnings	4,947	3,460	(8,995)	6,255	6,459
Noncontrolling Interest	27	21	20	30	32
Net earnings attributable to BMS	4,920	3,439	(9,015)	6,225	6,427
EPS - Basic	$3.01	$2.02	$ (3.99)	$2.79	$2.93
EPS - Diluted	$3.01	$2.01	$ (3.99)	$2.77	$2.89
Specified items per share[1]	1.97	2.68	10.37	4.65	4.62
Non-GAAP EPS	$3.98	$4.69	$6.44	$7.42	$7.50
Dividends per share	$1.61	$1.68	$1.84	$1.96	$2.00
Wtd. average shares outstanding					
Basic	1,633	1,705	2,258	2,227	2,197
Diluted	1,637	1,712	2,258	2,245	2,227

Source: Bristol-Myers Squibb financial statements and Lark Research projections.

(1) A reconciliation of Specified items per share is given in Table 5 below.

Table 3

Bristol-Myers Squibb Company

Historical and Projected Cash Flow Statements: 2018 to 2022F

(in $ millions)

	Historical 12 Months 31-Dec-18	Historical 12 Months 31-Dec-19	Historical 12 Months 31-Dec-20	Projected 12 Months 31-Dec-21	Projected 12 Months 31-Dec-22
Cash Flow from Operating Activities:					
Net earnings	4,947	3,460	(8,995)	6,255	6,459
Depreciation and amortization	637	1,746	10,380	10,778	10,685
Deferred Income Taxes	45	(924)	983	67	245
Stock-based compensation	221	441	779	608	600
Impairment charges	126	199	1,203	579	-
Pension settlements and amort.	186	1,688	43	47	44
Divestiture gains and royalties	(992)	(1,855)	(699)	(602)	(600)
IPRD-MyoKardia acquisition	-	-	11,438		
Asset acquisition charges	85	25	1,099	801	-
Equity investment (gains)/losses	512	(279)	(1,228)	(889)	-
Contingent cons. FV adjustments	-	523	(1,757)	(510)	-
Other adjustments	(44)	(22)	(177)	204	-
Changes in assets and liabilities:					
Receivables	(429)	752	(646)	(974)	299
Inventories	(216)	463	2,672	275	(243)
Account payable	(59)	229	188	(66)	(76)
Deferred income	84	12	-		
Income taxes payable	203	907	(2,305)	(485)	-
Other	634	702	1,074	844	(307)
Net Cash from Operating Activities	5,940	8,067	14,052	16,932	17,106
Cash Flow from Investing Activities:					
Sales and maturities of debts	2,379	3,809	6,280	3,968	4,000
Purchase of debt	(2,305)	(3,961)	(4,172)	(4,343)	(4,000)
CapEX	(951)	(836)	(753)	(783)	(800)
Divestiture and other proceeds	1,249	15,852	870	2,035	-
Acquisition and other payments	(1,246)	(24,634)	(13,084)	(656)	-
Net Cash from Investing Activities	(874)	(9,770)	(10,859)	221	(800)
Cash Flow from Financing Activities:					
Short-term debt obligations	(543)	131	(267)	(385)	(250)
Issuance of long-term debt	-	26,778	6,945	(6,801)	(9,619)
Repayment of long-term debt	(5)	(9,256)	(2,750)	(5,522)	-
Repurchase of common stock	(320)	(7,300)	(1,546)	(4,161)	(2,000)
Dividends	(2,613)	(2,679)	(4,075)	(4,362)	(4,393)
Other	(54)	(53)	542	498	(44)
Net Cash from Financing Activities	(3,535)	7,621	(1,151)	(20,733)	(16,306)
Effect of exchange rate on Cash	(41)	(9)	111	(20)	-
Incr. (Decr.) in Cash and Restricted Cash	1,490	5,909	2,153	(3,600)	0
Cash and Restricted Cash - Beginning	5,421	6,911	12,820	14,973	11,373
Cash and Restricted Cash - End	6,911	12,820	14,973	11,373	11,373

Source: BMS financial statements and Lark Research estimates and projections.

Table 4

Bristol-Myers Squibb Company

Historical and Projected Balance Sheet: 2018 to 2022F

(in $ millions)

	Historical 31-Dec-18	Historical 31-Dec-19	Historical 31-Dec-20	Projected 31-Dec-21	Projected 31-Dec-22
Assets:					
Cash and cash equivalents	6,911	12,346	14,546	11,000	11,000
Marketable debt securities	1,848	3,047	1,285	1,946	1,946
Receivables	5,747	7,685	8,501	9,365	9,066
Inventories	1,195	4,293	2,074	1,973	2,217
Other current assets	2,015	1,983	3,786	3,764	4,364
PP&E	5,027	6,252	5,886	5,895	6,110
Goodwill	6,538	22,488	20,547	20,550	20,550
Other intangible assets	1,091	63,969	53,243	43,201	33,101
Deferred income taxes	815	510	1,161	800	800
Marketable debt securities	1,775	767	433	143	143
Other non-current assets	2,024	6,604	7,019	6,592	6,636
Total assets	34,986	129,944	118,481	105,229	95,932
Liabilities:					
Short-term debt obligations	1,703	3,346	2,340	2,455	2,205
Account payable	1,892	2,445	2,713	3,385	3,309
Other current liabilities	7,059	12,513	14,027	13,700	13,393
Deferred income taxes	19	6,454	5,407	5,093	5,339
Long-term debt	5,646	43,387	48,336	35,702	26,084
Other non-current liabilities	4,540	10,101	7,776	7,860	7,904
Total liabilities	20,859	78,246	80,599	68,184	58,221
Equity:					
Common stock	221	292	292	292	292
Capital in excess of par value	2,081	43,709	44,325	44,364	44,964
AOCI	(2,762)	(1,520)	(1,839)	(1,518)	(1,518)
Retained earnings	34,065	34,474	21,281	23,161	25,195
Less cost of treasury stock	(19,574)	(25,357)	(26,237)	(29,348)	(31,348)
Total Shareholders' Equity	14,031	51,598	37,822	36,951	37,585
Noncontrolling interest	-	100	60	82	114
Total Equity	14,031	51,698	37,882	37,033	37,699
Total Liabilities and Equity	34,890	129,944	118,481	105,229	95,932

Source: BMS financial statements and Lark Research estimates and projections.

Table 5

Bristol-Myers Squibb Company

Specified Items for Non-GAAP Adjustments: 2018 to 2022F

(in $ millions)

	Historical 12 Months 31-Dec-19	Historical 12 Months 31-Dec-19	Historical 12 Months 31-Dec-20	Projected 12 Months 31-Dec-21	Projected 12 Months 31-Dec-22
Inventory purchase price acct. adj.	-	660	2,688	237	100
Intangible asset impairment	-	-	575	315	-
Employee compensation charges	-	1	4	-	-
Site exit and other costs	58	197	33	26	10
Cost of products sold	58	858	3,300	578	110
Employee compensation charges	-	27	275	3	4
Site exit and other costs	2	9	4	1	-
Marketing, selling and admin.	2	36	279	4	4
License and asset acquisition charges	1,135	25	1,003	1,305	1,000
IPRD impairments	-	32	470	230	-
Inventory purchase price acct. adj.	-	-	36	-	-
Employee compensation charges	-	33	282	1	-
Site exit and other costs	79	167	115	-	-
Research and development	1,214	257	1,906	1,536	1,000
IPRD charge –MyoKardia acq.	-	-	11,438	-	-
Amort. of acq. intangible assets	-	1,062	9,688	10,107	10,000
Interest expense	-	322	(159)	(132)	(150)
Contingent consideration	-	523	(1,757)	(510)	-
Royalties and licensing income	(75)	(24)	(168)	(69)	(70)
Equity investment (gains)/losses	512	(279)	(1,156)	(902)	-
Integration expenses	-	415	717	593	317
Provision for restructuring	131	301	530	223	100
Litigation and other settlements	70	75	(239)	-	-
Investment income ('19), reversion excise tax ('20)	-	(197)	76	-	-
Divestiture (gains)/losses	(177)	(1,168)	(55)	(11)	-
Pension and postretirement	121	1,635	-	-	-
Intangible asset impairment ('18), Acq. exp. ('19)	64	657	-	-	-
Loss on debt redemption	-	-	-	281	-
Other (income)/expense, net	646	2,260	(2,211)	(527)	197
Increase to pretax income	1,920	4,473	24,400	11,698	11,311
Income taxes on items above	(268)	(687)	(1,733)	(1,257)	(1,029)
Specified items tax rate	14%	15%	7.1%	10.7%	9.1%
Inc. tax attrib. to tax reform ('18), Otezla div. ('19)	(56)	808	266	-	-
Inc. taxes attrib. to internal trans. of intang. assets	-	-	853	-	-
Income taxes	(324)	121	(614)	(1,257)	(1,029)
Increase to net earnings	1,596	4,594	23,786	10,441	10,282
Wtd. avg. shares outstanding	1,637	1,712	2,293	2,245	2,227
Specified items per share	$0.97	$2.68	$10.37	$4.65	$4.62

Source: Bristol-Myers Squibb financial statements and Lark Research calculations and estimates

Valuation. BMS's stock is currently valued at 9.2 times our projected 2021 non-GAAP EPS estimate of $7.42 and 9.1 times projected 2022 non-GAAP EPS of $7.50. By comparison, the average price-(non-GAAP) earnings multiple of BMS's peer group (which includes ABBV, AMGN, BIIB, GILD, GSK, JNJ, MRK, NVS, PFE, SNY and TEVA) is 12.6 for projected 2021 consensus earnings and 12.1 for projected 2022 consensus earnings, based upon our estimates and prices obtained from MarketXLS.

Table 6

Bristol-Myers Squibb Company

Valuation Metrics

Recent price	$67.87	
52-week range	$56.75	- $ 69.27
Dividend	$1.96	
Yield	2.9%	
Shares outstanding	2,222.1	million
Market cap.	$150.8	billion

	EPS	PE
GAAP EPS		
ttm	$ (2.28)	#N/A
2021E	$2.77	24.5
2022E	$2.89	23.5
Non-GAAP EPS		
ttm	$6.76	10.1
2021E	$7.42	9.1
2022E	$7.50	9.0
Other Per Share Metrics	**Per Share**	**Multiple**
Free cash flow	$5.38	12.6
Book value	$16.56	4.1
Tangible book value	$(14.30)	NM
Sales (ttm)	$19.97	3.4
Capitalization	**Book**	**Market**
Debt	$ 45,158	$ 45,158
Non-controlling interest	66	66
Common equity	36,808	150,815
Total	$ 82,032	$ 196,039
% debt	55.1%	23.1%
Enterprise value to	**TTM**	**Multiple**
EBITDA	14,607	13.4
Sales	44,384	4.4

Source: Bristol-Myers Squibb financial statements, Lark Research estimates, calculations and projections and MarketXLS.

BMS's earnings valuation discount vs. peers is significant and most likely reflects market uncertainty about its future revenue and earnings prospects. The market may be worried about the impact of LOE and unwilling to make heroic assumptions about the prospects for recent and future drug launches, including Zeposia, Breyanzi, Abecma, mavacamten and deucravacitinib. Consequently, if the company can deliver on management's optimistic outlook for the drug launches and the revenue losses from LOE are limited to what we have included in our

projections, we expect that the stock's valuation discount will narrow over time, as the revenues from product launches build momentum. The prospect of multiple expansion in 2022 and beyond gives the stock superior long-term total return potential vs. the broader market.

For example, if the cadence of announcements from the company on clinical trials, product launches remains positive, while revenues and profits remain stable or better as LOE kicks in, we think that the market will begin to price in an improved revenue and earnings outlook for 2023 and beyond. Our 6-12 month price target of $73 reflects our expectation that 2022 projected non-GAAP earnings of $7.50 would be priced at 9.7 times by early-to-mid-2022, an improvement over the current one-year forward multiple of 9.2.

In 2023, assuming no change in the market's or peer group's forward multiple, we think that the market could conceivably price in better earnings growth - perhaps $8.00 for 2023 - at a higher multiple - say 11 - as the 2020-2022 product launches begin to contribute more meaningfully to BMS's overall results.

In summary, while we see 2022 as a transition year, we believe the longer-term prospects for BMS are favorable on the strength of recent product launches and its expanded pipeline.

The stock's dividend yield of 2.9% provides income that is attractive in the current environment while investors await tangible results from BMS's growth initiatives.

Lark Research ratings methodology:

The **Performance** rating is scaled from 1 to 5, with a rating of 1 indicating "strong outperformance" vs. the broader market and a rating of 5 indicating "significant underperformance" vs. the broader market. The rating anticipates this performance over a 6- to 12-month time frame.

The **Safety** rating is scaled from A to E, with a rating of A indicating the highest safety profile and a rating of E indicating the lowest safety. E rated investments carry the highest risk and face a high probability of significant loss.

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