

Desautels Capital Management

Honours in Investment Management

Bayer Global

ETR: BAYN & OTC:BAYRY

Healthcare

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November 29, 2023

“One good buy is worth a thousand pitches” – Kanye West

Company Description



Bayer is a German conglomerate, operating as a life science company worldwide. It operates through Pharmaceuticals, Consumer Health, and Crop Science segments. The pharmaceutical segment offers prescription products which cover a variety of medical specialties, the consumer health segment provides OTC medicine, and the crop science segment offers herbicides, pesticides, and specialty seeds.

€32.1B
Market Cap

€47.8B
LTM Total Revenue

5.0x
Forward P/E ratio

1

Thesis 1: Bayer is being undervalued for reasonable, but addressable reasons

Bayer is penalized for its unattractive conglomerate structure, ESG concerns, and litigation uncertainty

2

Thesis 2: Investors are underappreciating the potential value creation of Bayer's strategic organizational restructuring

The potential for organizational turnaround and spinoffs create asymmetrical risk and return

€30.56
Current Price

€63.22
Blended Target Price

+106%
Implied Upside

DCM recommends playing the spinoff and would like an open discussion on potential strategies

I. The Story

II. Company Overview

III. Investment Theses

- a. Thesis 1 – Bayer is being undervalued for reasonable, but addressable reasons
- b. Thesis 2 – Investors are underappreciating the potential value creation of Bayer's strategic organizational restructuring

IV. Valuation

- a. Comparable Company Analysis
- b. Discounted Cash Flow Analysis

V. Risks and Catalysts

VI. Appendix

Desautels Capital Management

Honours in Investment Management

The Story

Section I



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Benchmark	9.5%	29.0%	20.18%	2.8%	-2.4%	7.9%	4.9%	12.3%	4.2%	23.6%	7.3%
Novo: 8/11	Novo 37.0%	BMJ 59.9%	Eli Lilly 35.0%	Novo 50.5%	JNJ 14.7%	Novo 29.4%	Merck 36.1%	BMJ 42.3%	Eli Lilly 28.1%	Novo 69.8%	Merck 44.1%
SAN: 5/11	Sanofi 24.6%	Roche 31.5%	NOVN 28.9%	Eli Lilly 21.5%	Merck 12.2%	JNJ 20.6%	Eli Lilly 35.9%	AZN 26.6%	Novo 11.3%	Eli Lilly 66.9%	Eli Lilly 37.1%
ELI: 9/11	Eli Lilly 18.0%	JNJ 29.5%	AZN 27.1%	BMJ 17.4%	PFE 1.7%	AZN 15.4%	PFE 18.9%	Roche 26.0%	JNJ 9.1%	PFE 60.4%	Novo 35.8%
ROG: 3/11	Roche 13.7%	NOVN 21.3%	Novo 27.0%	Sanofi 7.2%	Sanofi -0.8%	Eli Lilly 13.2%	AZN 13.7%	Novo 24.7%	BMJ -1.2%	Roche 22.45%	AZN 32.4%
MRK: 4/11	Merck 6.9%	AZN 21.3%	Merck 14.2%	PFE 3.6%	AZN -1.0%	NOVN 9.8%	Sanofi 5.0%	Merck 22.8%	Roche -2.3%	AZN 16.9%	BMJ 15.8%
JNJ: 5/11	JNJ 6.4%	PFE 18.5%	JNJ 13.9%	AZN 0.7%	Eli Lilly -11.3%	PFE 9.8%	NOVN 0.6%	Sanofi 20.0%	AZN -4.9%	Sanofi 12.1%	NOVN 3.9%
NOVN: 2/11	NOVN 5.6%	Merck 18.2%	BMJ 11.7%	Roche 0.4%	BMJ -12.8%	Roche 4.45%	Roche -3.1%	Eli Lilly 18.1%	PFE -5.5%	JNJ 9.3%	JNJ 3.3%
AZN: 5/11	AZN -4.6%	Novo 6.0%	Roche 7.2%	JNJ -1.0%	NOVN -13.4%	BMJ 3.1%	JNJ -8.2%	JNJ 16.0%	NOVN -9.4%	BMJ 1.6%	Sanofi 2.0%
BMJ: 4/11	BMJ -6.9%	Sanofi 5.9%	PFE -2.1%	NOVN -6.8%	Roche -14.9%	Merck -6.5%	Novo -11.9%	NOVN 9.4%	Merck -10.4%	NOVN -3.5%	PFE -6.0%
PFE: 5/11	PFE -14.2%	Eli Lilly 2.6%	Sanofi -0.8%	Merck -9.0%	Novo -35.3%	Sanofi -8.2%	BMJ -15.2%	PFE -6.8%	Sanofi -13.3%	Merck -5.3%	Roche -21.8%

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Benchmark	9.5%	29.0%	20.18%	2.8%	-2.4%	7.9%	4.9%	12.3%	4.2%	23.6%	7.3%
Novo: 8/11	Novo 37.0%	BMJ 59.9%	Eli Lilly 35.0%	Novo 50.5%	JNJ 14.7%	Novo 29.4%	Merck 36.1%	BMJ 42.3%	Eli Lilly 28.1%	Novo 69.8%	Merck 44.1%
SAN: 5/11	Sanofi	Roche	NOVN	Eli Lilly	Merck	JNJ	Eli Lilly	AZN	Novo	Eli Lilly	Eli Lilly 37.1%
ELI: 9/11											Novo 35.8%
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NOVN: 2/11	NOVN 5.6%	Merck 18.2%	BMJ 11.7%	Roche 0.4%	BMJ -12.8%	Roche 4.45%	Roche -3.1%	Eli Lilly 18.1%	PFE -5.5%	JNJ 9.3%	JNJ 3.3%
Pfizer	BMJ	Sanofi	Novartis	AstraZeneca	Roche	Merck	JNJ	Novo Nordisk	Eli Lilly		
12.6x	11.7x	12.4x	25.9x	33.1x	17.3x	41.8x	17.8x	41.4x	69.3x		
BMJ: 4/11	BMJ -6.9%	Sanofi 5.9%	PFE -2.1%	NOVN -6.8%	Roche -14.9%	Merck -6.5%	Novo -11.9%	NOVN 9.4%	Merck -10.4%	NOVN -3.5%	PFE -6.0%
PFE: 5/11	PFE -14.2%	Eli Lilly 2.6%	Sanofi -0.8%	Merck -9.0%	Novo -35.3%	Sanofi -8.2%	BMJ -15.2%	PFE -6.8%	Sanofi -13.3%	Merck -5.3%	Roche -21.8%

Takeaways:

1 - It is extremely difficult to know which pharmaceutical companies will "win" in a given year, so when operating within a fund that attempts to beat a benchmark, you are almost guaranteed to have significant underperforming years, even if you select a strong company (i.e. Novo Nordisk or Eli Lilly). In our case, we simply do not have the expertise to even attempt to predict who will win in a given year and it is not a viable investment strategy for us.

2 - While some of the strong companies have beaten the benchmark more often than not and you could argue we could park our money there and outperform on average, they have extremely high P/E multiples that take this into account and you would be paying a likely unreasonable premium

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Company Overview

Section II



We need to avoid throwing out the baby with the bathwater



Many countries' regulatory bodies (160+) have consistently reaffirmed that the proper use of glyphosate is not carcinogenic. Out of the four WHO agencies who have looked at glyphosate, only the IARC has attributed carcinogenic risks to the chemical, putting it at the same level of risk as red meat and hot beverages (>65°C). The AGG, responsible for Europe's decision, has called the IARC's classification "unjustified". After a four-year re-evaluation process from 2019 to 2023, the EU has renewed its approval for ten years.

Without the use of plant science (modified seeds, herbicides, etc.), it would be much more difficult to feed a growing population. It allows for yield increases of 42% for grain, 72% for fruit, and 83% for vegetables. Canadians would pay approximately 55% more for food, and developing countries would face more dire consequences without partnerships such as WEMA, which increases access to drought and insect resistant seeds.



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Inclusive Capital Partners works with "companies that enable successful solution to address environmental and societal problems, and in doing so, can generate long-term shareholder value". They acquired a 0.83% stake in Bayer in early 2023. This is mainly due to emissions reductions from glyphosate, which in Europe in 2016, would represent an extra 605M litres of fuel consumed and 60M tons of CO2 released.

Notes: IARC: International Agency for Research on Cancer, AGG: Assessment Group on Glyphosate, Croplife Canada, glyphosate.eu, WEMA: water efficient maize for Africa

- Bayer, headquartered in Leverkusen Germany, was founded in 1863. Some of their products that have garnered world renown include aspirin, Alka-Seltzer, and Claritin
- Business segments:
 - **Consumer Pharmaceuticals**
 - **Pharmaceuticals**
 - **Crop Science**

Financial Summary

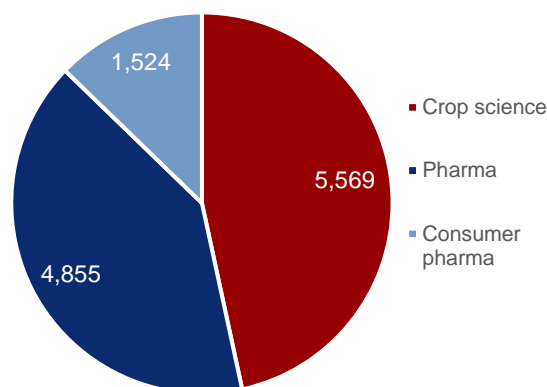
	2018	2019	2020	2021	2022
Total Revenue	36,742.0	43,545.0	41,400.0	44,081.0	50,739.0
YoY Growth %	4.9%	18.5%	(4.9%)	6.5%	15.1%
Gross Profit	23,673.0	27,122.0	25,673.0	27,036.0	31,853.0
Margin %	64.4%	62.3%	62.0%	61.3%	62.8%
EBITDA⁽²⁾	7,145.0	10,810.0	10,030.0	10,877.0	12,705.0
Margin %	19.4%	24.8%	24.2%	24.7%	25.0%
EBIT	4,257.0	6,980.0	6,972.0	7,475.0	9,121.0
Margin %	11.6%	16.0%	16.8%	17.0%	18.0%
Net Income	1,695.0	4,091.0	(10,495.0)	1,000.0	4,150.0
Margin %	4.6%	9.4%	(25.4%)	2.3%	8.2%

Summary Valuation⁽¹⁾

€MM, except per share data	
Share Price	\$32.65
Shares Out.	982.4
Market Capitalization	32,370.9
- Cash & CE	9,306.0
+ Total Debt	47,424.0
+ Pref. Equity	0.0
+ Minority Interest	167.0
Total Enterprise Value	70,655.9
Book Value of Equity	33,380.0
+ Pref. Equity	0.0
+ Minority Interest	167.0
+ Total Debt	47,424.0
= Total Capital	80,971.0

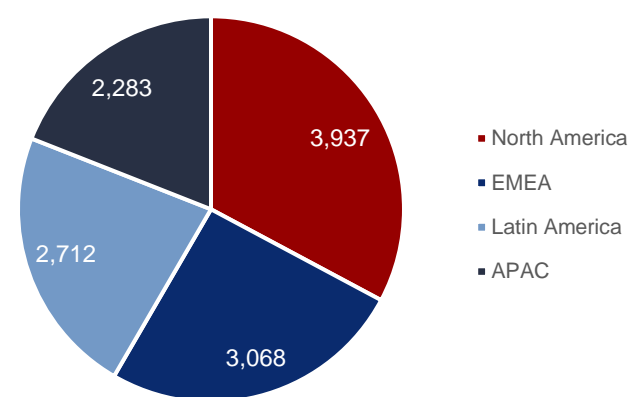
Revenue Breakdown by Segment

FY 2022



Revenue per Offering

FY 2022



Notes:

1. Market data as of November 24th 2023
2. EBITDA and EPS adjustments include the impact of GAAP income tax, goodwill, intangible and other long-lived asset impairment charges, non-cash share-based compensation expense, sponsor fees, loss on extinguishment of debt, interest rate derivatives, and certain items on a pre-tax basis

Source: Capital IQ, Company Filings

An alpha pitch that isn't beta-destructive

Correlations with Other Holdings

	UnitedHealth	Danaher	ETF	Bayer
UnitedHealth		0.469	0.746	0.235
Danaher	0.469		0.697	0.246
ETF	0.746	0.697		0.405
Bayer	0.235	0.246	0.405	

Tracking Error vis-à-vis the Benchmark

Hypothetical Portfolio,
no ETF or Bayer

10.85%

Hypothetical Portfolio,
Bayer but no ETF

10.21%

Real Portfolio,
without Bayer

7.54%

Real Portfolio,
with Bayer

7.90%

The tracking error represents the standard deviation of the difference between the returns of the portfolio and its benchmark. In this case, we compared it to the S&P500 HC index.

The tracking error increases in absolute terms due to us hypothetically selling ETF holdings to purchase Bayer

Source: Bloomberg

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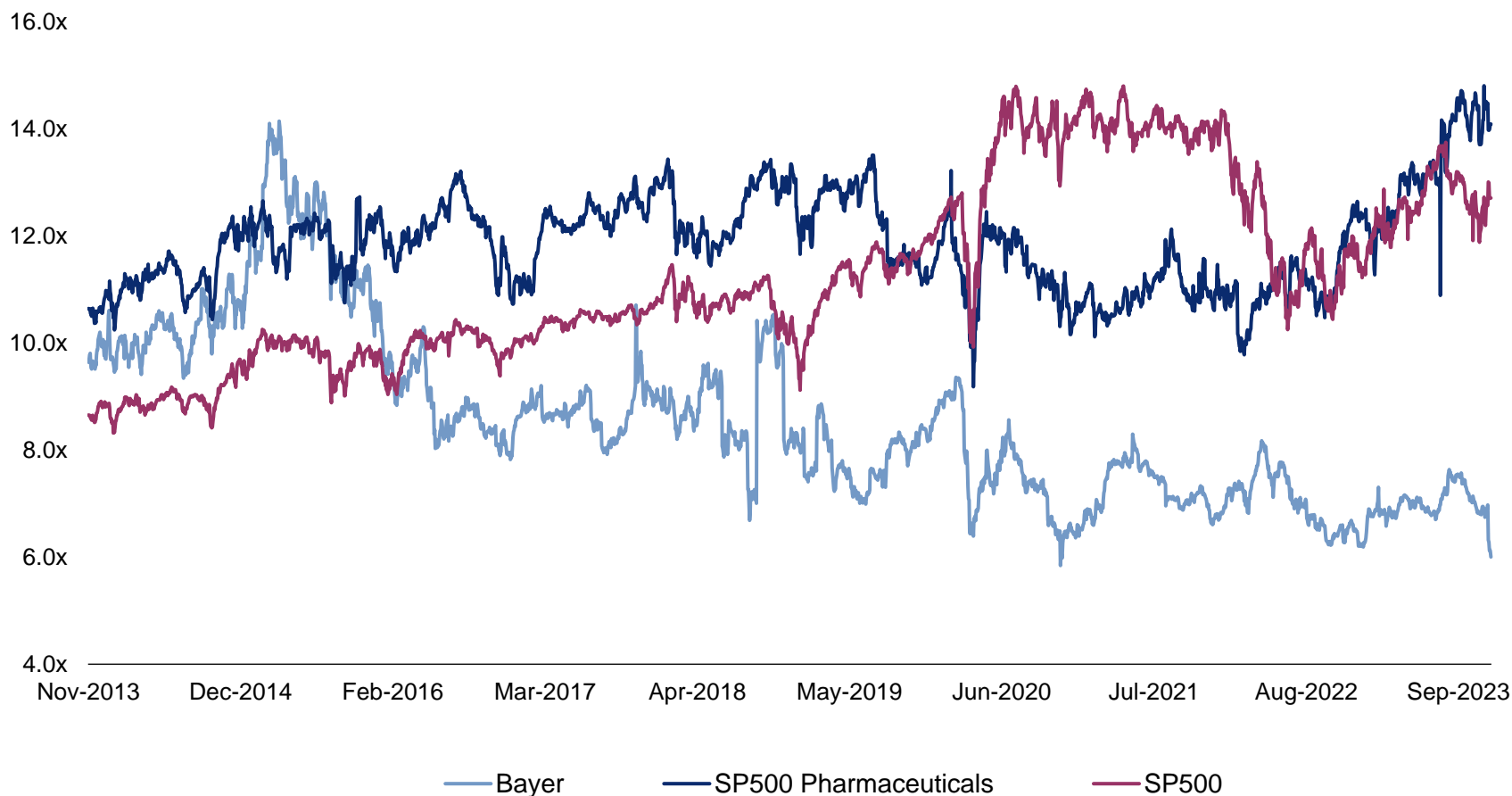
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Evaluation of Bayer v. Market

Section II



Bayer's forward EV/EBITDA multiple against the market



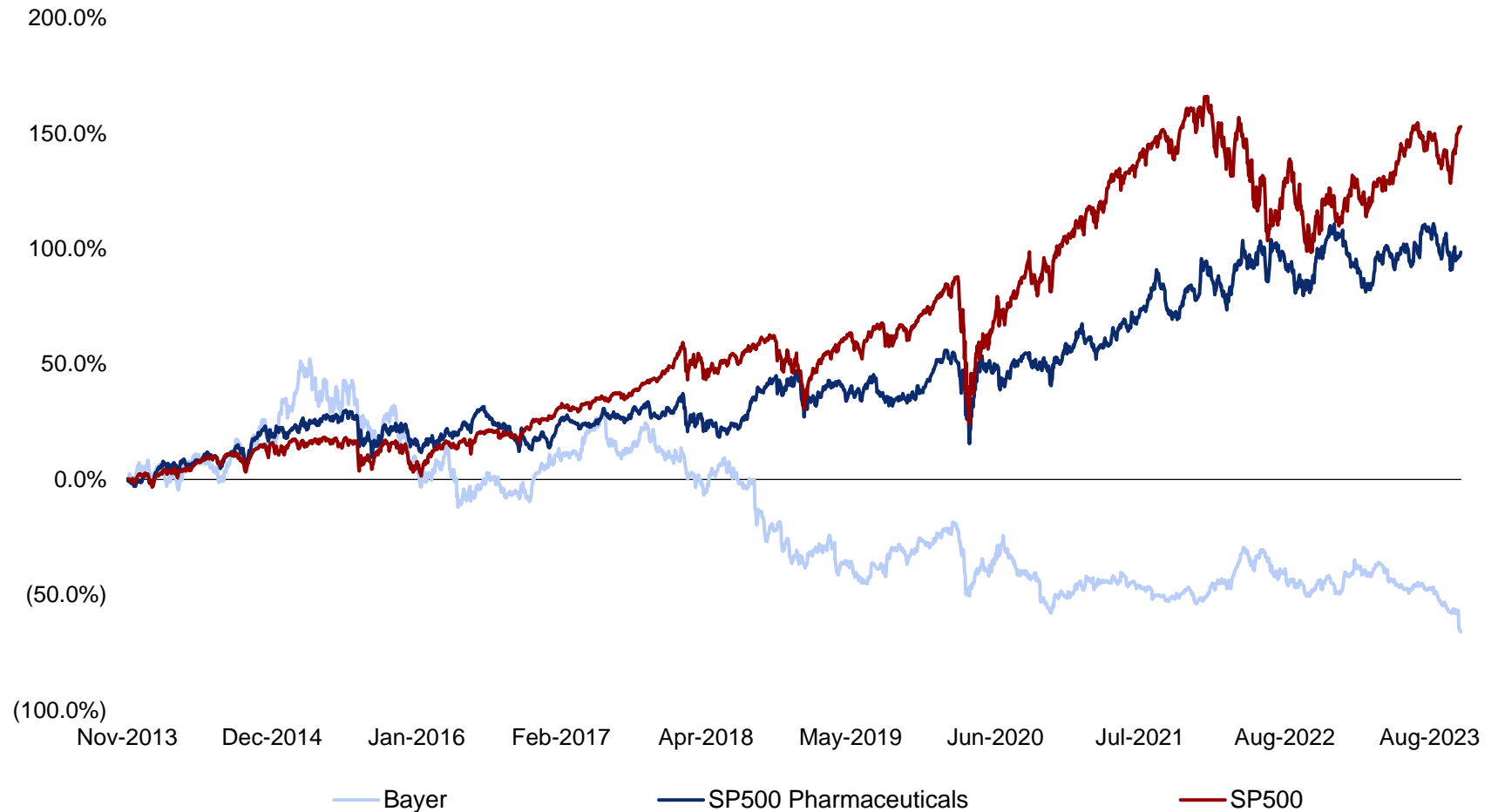
Bayer's multiple has been significantly compressed over time, with a marked decrease following the Monsanto acquisition

Source: CapitalIQ

Bayer Share Price Performance Against the Market



There has been a marked underperformance since Bayer's acquisition of Monsanto



Tagline

Source: CapitalIQ

Equity Value does not Reflect the Monsanto Acquisition



We are essentially getting Monsanto and Bayer for free



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Investment Thesis I: Bayer is being undervalued for reasonable reasons, but is overpunished

Section III

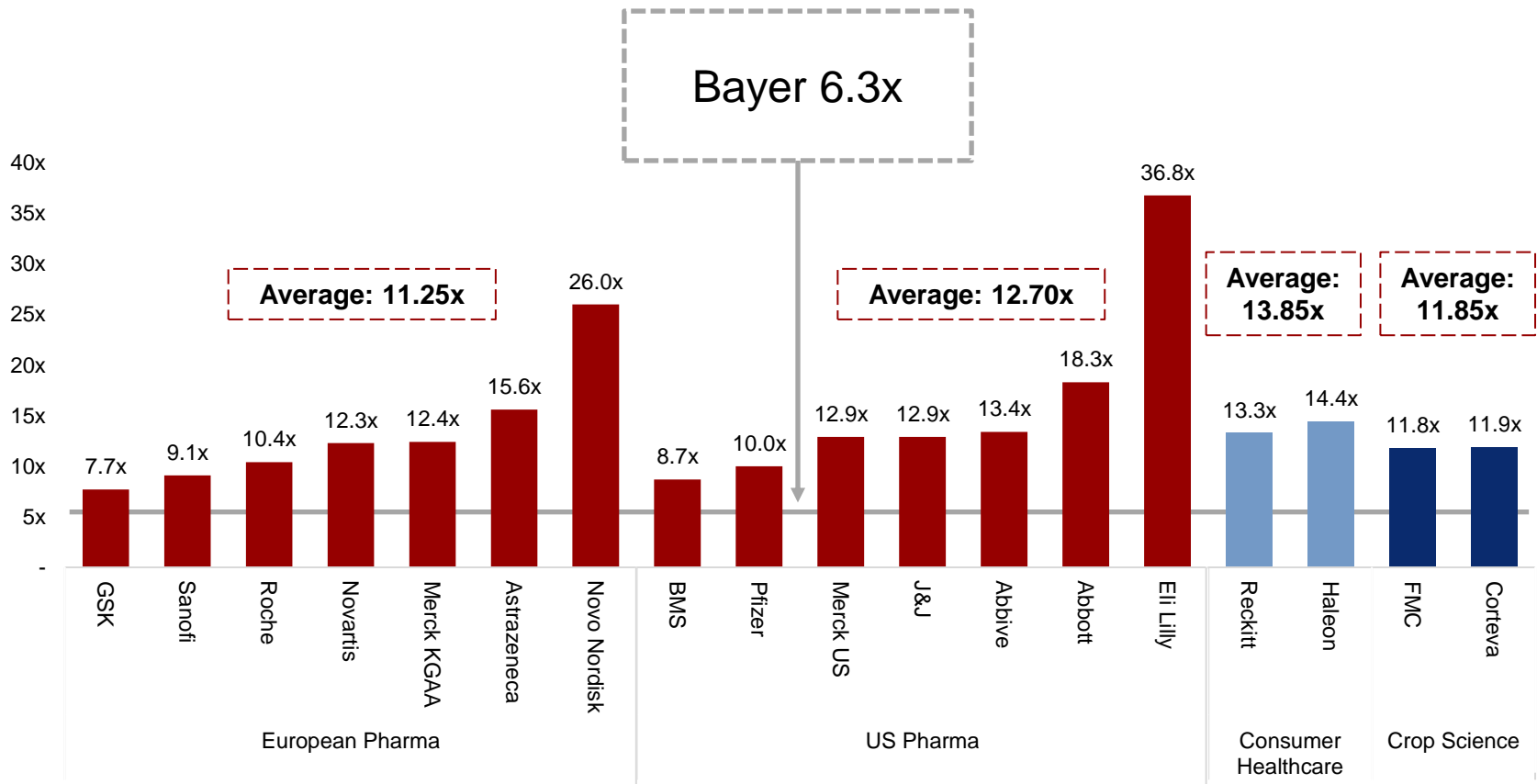


Bayer vs. Peers Across all Segments



Bayer trades at a significant discount to peers

EV/EBITDA



As the global market leader in Crop Science and #3 global OTC player, Bayer trades at a much lower multiple than peers across all segments

Resource: Bluebell Capital Partners, EV/EBITDA 2023E figures

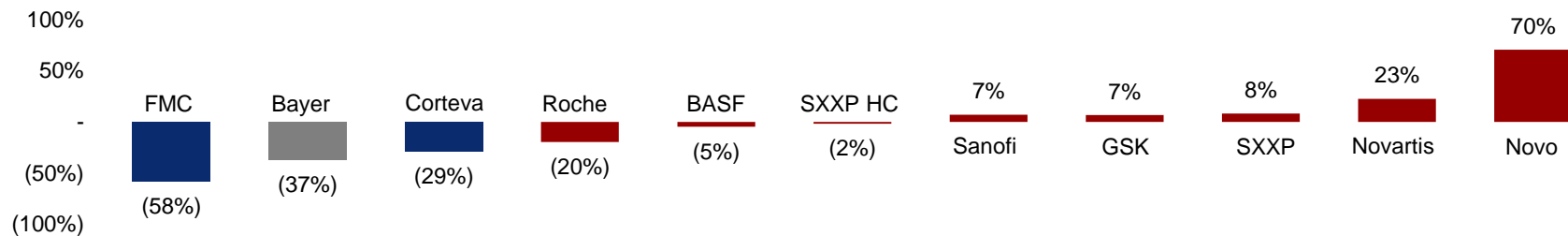
Bayer Historical Total Shareholder Return (TSR)



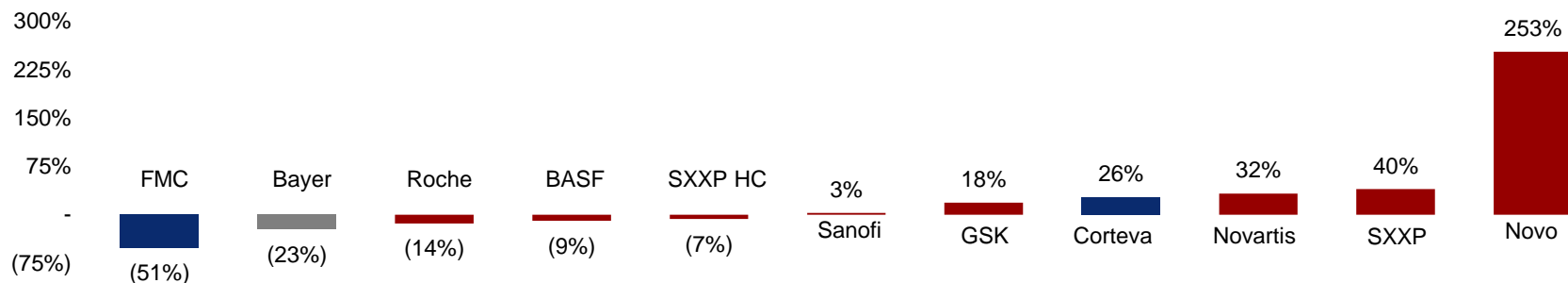
Total shareholder return is lower than most peers since the announcement of Monsanto

- Bayer
- Pharma companies + Indices
- Crop companies

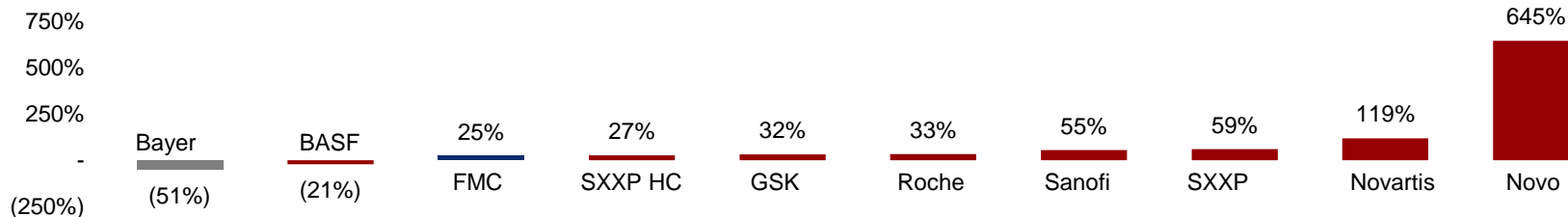
1-Year TSR



3-Year TSR



TSR since Monsanto Announcement – November 2016



Resource: Bluebell equity research

Thesis 1: Undervalued for reasonable reasons, but Overpunished

1



**Litigation Fear, Uncertainty,
and Doubt**

2



**ESG Concerns Surrounding
Glyphosate**

The Monsanto acquisition, with subsequent liabilities, has been a major culprit for underperformance

Most investors simply don't want to trouble themselves with an investment with this much uncertainty

Skeptics Surrounding a Litigious Company



Uncertainty: Litigation introduces uncertainty, making it challenging for investors to predict the financial and operational future of the company accurately



Reputation Risk: The litigation has damaged Bayer's reputation in past years. The negative publicity and the perception that Bayer is engaged in unethical practices led to a negative perception.

Most Recent Lawsuit

In Nov. 20, a verdict that truly redefines this litigation, a Missouri jury ordered Monsanto to **pay over \$1.5 billion in damages to three former users** of its Roundup weedkiller, who claimed the product caused their non-Hodgkin's Lymphomas. The state court awarded the plaintiffs a combined \$61.1 million in actual damages and \$500 million each in punitive damages, **this helped contribute to the plunge in stock price of about 17% on that day**

Litigation History

Year	Case	Venue	Verdict	Revised
2023	Anderson/Guthner/Draeger	Missouri	1,561m	TBD
2023	Caranci	Pennsylvania	175m	TBD
2023	Durnell	Missouri	1.25m	TBD
2023	McCostlin	Missouri	Defense	-
2023	Gordon	Missouri	Defense	-
2022	Ferro	Missouri	Defense	-
2022	Alesi	Missouri	Defense	-
2022	Johnson	Oregon	Defense	-
2022	Shelton	Missouri	Defense	-
2021	Stephens	California	Defense	-
2021	Clark	California	Defense	-
2019	Hardeman	MDL	80.2m	25m
2019	Pilliod	California	2,055m	70m
2018	Johnson	California	289m	20.5m

Investors are not willing to invest in a volatile conglomerate

Source: X

Different categories of litigation



Personal Injury Litigation I

Monsanto is sued because of the design deficit of “Roundup”, which may contain a carcinogen that causes non-Hodgkin’s Lymphoma, during 2018-2019



Personal Injury Litigation II

The focus of the arguments was switched from “Containing carcinogen” to “lack of warning concerning the risk of using ‘Roundup’ to the users”, since September 2023



Class Action Litigation

This is the potential type of litigation that may happen in the future, since most of the cases during 2020-2023 were successfully defended by Bayer. Plaintiffs in other states may mimic the Missouri case and sue Bayer together to have a higher chance of success.

Litigation will tend to be more certain in the future

1

ER is overconservative

- Equity researchers are overly conservative to shield themselves from potential repercussions of litigation. While it could reduce the impact to their reputation, it also negatively influence investors' view of Bayer
- For example, BMO ER subtracted \$10B from EV in their model; **the actual provision of Bayer litigation is ~\$4B**

2

The future of litigation will be more certain

- **Bayer won't pay the full 1.56B as announced** in the news according to litigation analysis, since it exceeds U.S. Supreme Court guidance
- Bayer alleges courts have improperly permitted plaintiffs to misrepresent the European Union's renewal process for glyphosate and the safety assessment by the U.S. Environmental Protection Agency

3

Usage of Roundup is still inevitable

- The environmental alternative of "Roundup" will be Herbicidal soaps, Iron-based herbicides, Vinegar as well as Mulch. **However, their efficiency are low in comparison to glyphosate and cause varying degrees of damage to the human skin**
- After Bayer started to sell the anti-glyphosate seeds, its sales of Roundup doubled and over 2/3 farmers and gardeners are using "Roundup"

The overreaction of the market drags down on Bayer's market cap and contribute to its undervaluation

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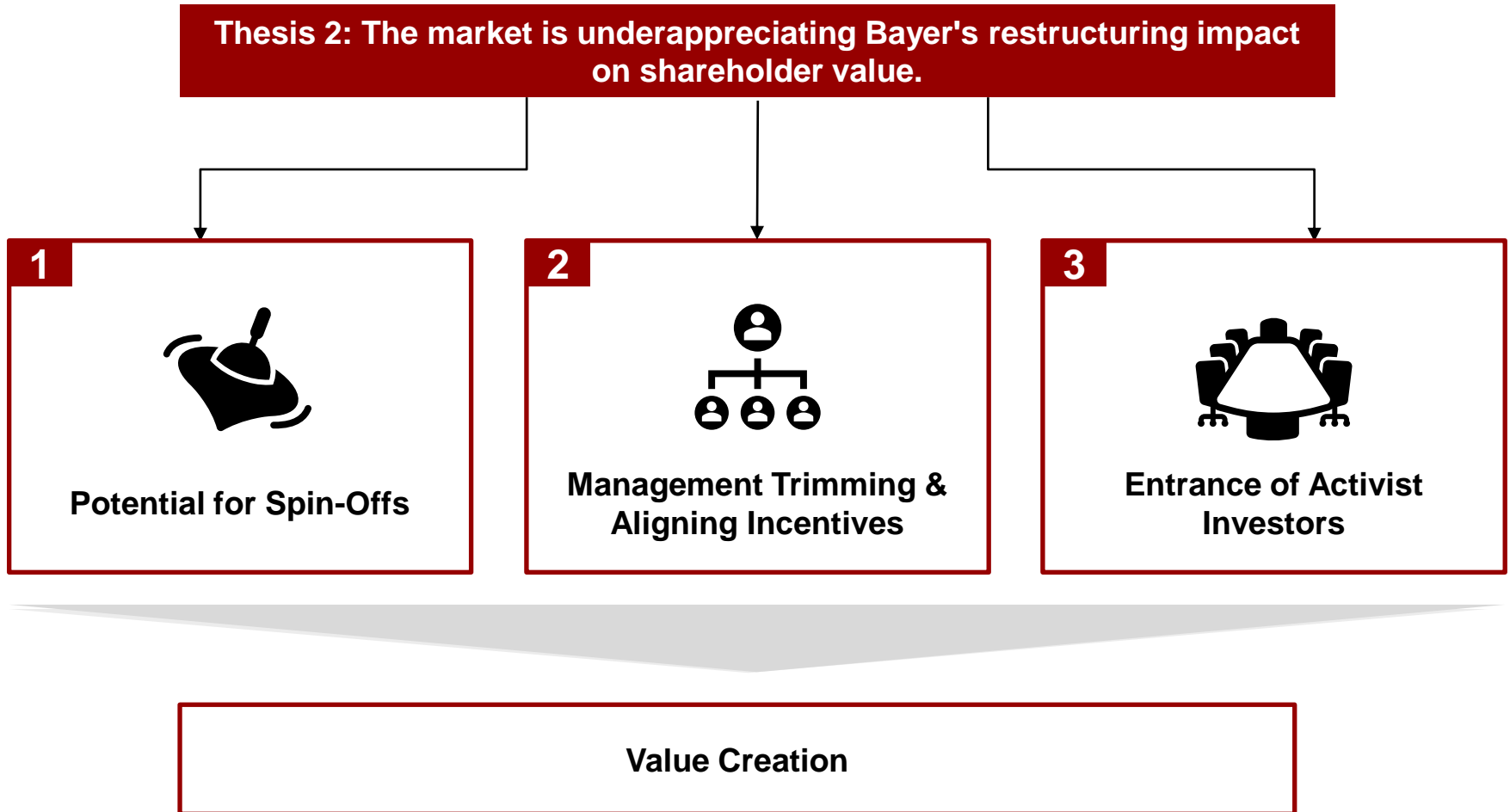
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Investment Thesis II

Section III

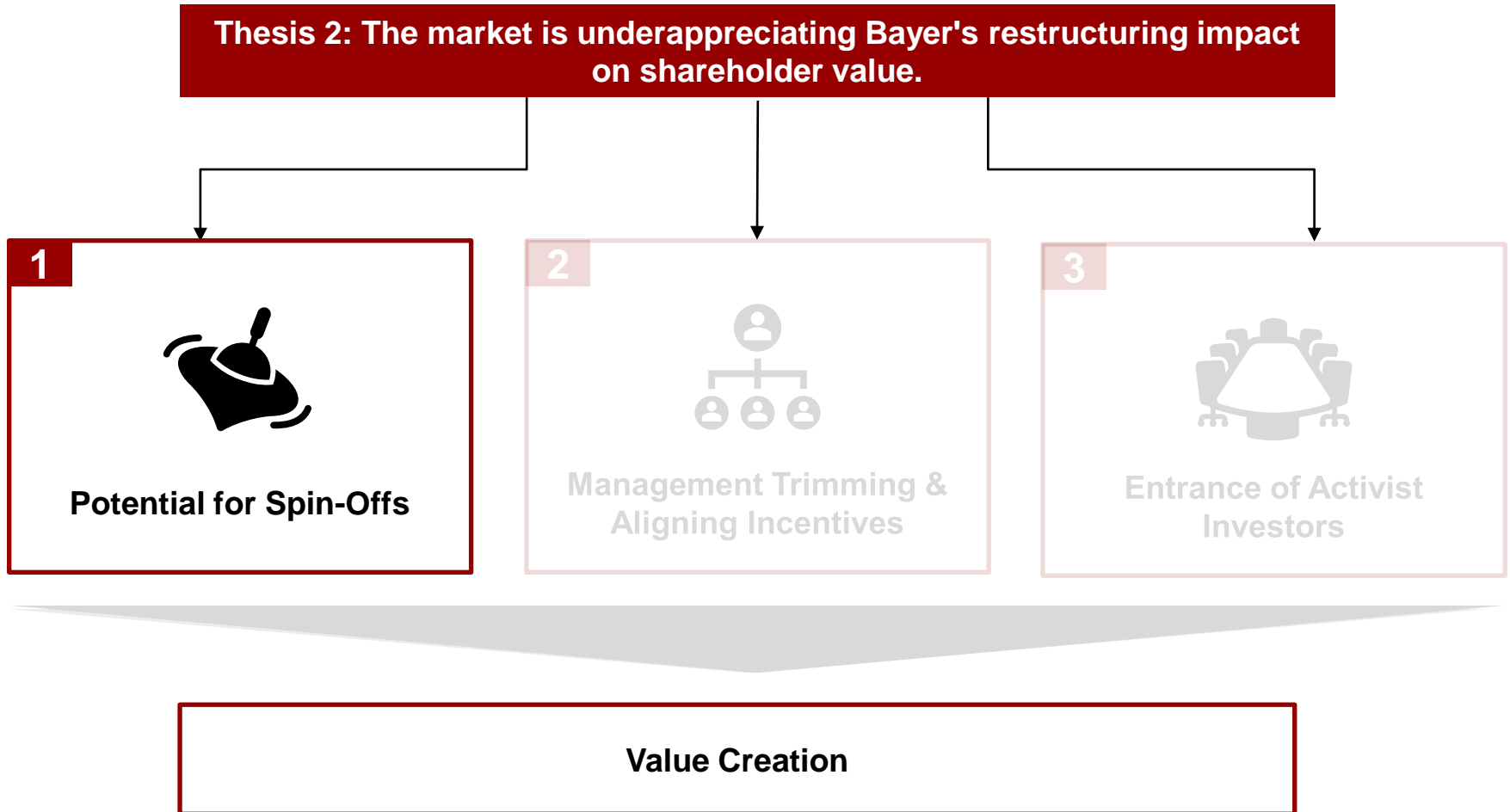


"We are redesigning Bayer to focus only on what's essential for our mission, and getting rid of everything else" - Bill Anderson



Source: Bayer Investor Relations

"We are redesigning Bayer to focus only on what's essential for our mission, and getting rid of everything else" - Bill Anderson



Source: Bayer Investor Relations

"Spinoffs, in general, beat the market." - Joel Greenblatt

Question of "When" not "If"

Good timing for Bayer to review portfolio

- Beaten down stock price
- New CEO and Chairman of the Board
- Monsanto integration complete
- Leadership in seeds and protection
- Decelerating glyphosate litigation



We are not wedded to one structure.
We will pursue the best course
to ensure maximum value creation.



- Bill Anderson: CEO of Bayer

Examples of Spin Offs In Pharma



December 2012

June 2019

June 2021

July 2022

First Half of 2024

Sources: Bayer Annual Report, Bluebell

Data before spin-off and 3 years after

Comparing Abbot, Merck and Dupont Pre and Post Spin-Off

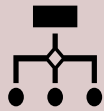
	Abbot (NYSE:ABT)	Merck (NYSE: MRK)	Dupont (NYSE: DD)
Spin Off Date	31-Dec-12	02-Jun-21	01-Jun-19
3y Share Performance	67%	38%	31%
EV/EBITDA before	9.43x	11.73x	8.3x
EV/EBITDA after	14.29x	22.39x	15.87x
EV/EBITDA S&P500 change	8.20x → 9.95x	14.46x → 13.91x	12.61x → 14.46x

Key Takeaways

- General company success
- Multiple expansion
- All trade closer to their respective peer groups after spin-off

Inconclusive because all spin-offs are unique

Four Ways a Spin-Off Will Create Value for Bayer



Fundamentally different businesses with no synergies

1



Opportunity for each company to thrive and focus on its own

2



More focused and skilled supervisory and management board

3

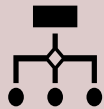


Better coverage and understanding from equity markets

4

Tagline

Four Ways a Spin-Off Will Create Value for Bayer



Fundamentally different businesses with no synergies

1

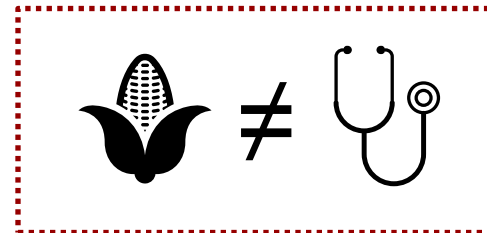


Opportunity for each company to thrive and focus on its own

2

- There are **structural** and **operational differences** between Crop Science, Pharma and Consumer Health Segments

- 1 Products
- 2 Suppliers & Sales Channels
- 3 Customers & Competitors
- 4 Growth drivers



- Crop Science and Pharma have different **capital allocation needs**

- 1 Research and Development Focus
- 2 Different growth strategies (M&A in pharma)
- 3 Product Lifecycles (Pharma LOE)

Four Ways a Spin-Off Will Create Value for Bayer



Fundamentally different businesses with no synergies

1



Opportunity for each company to thrive and focus on its own

2

Crop Sciences



- Global Market Leader in Seeds and Crop Protection
- Highest EBITDA margins amongst peers (25% vs 19%)
- Investing heavily in R&D (11% of sales)

Pharmaceuticals



- Leading position in cardiovascular therapy
- Credible pipeline of drugs to offset patent expiries
- Slowing Sales Growth

Consumer Health



- #3 OTC player globally
- Leading position in cardiovascular therapy
- Strong brand recognition
- Operating margins lower than peers (~15% vs. 26%)

- Litigation Issues

Four Ways a Spin-Off Will Create Value for Bayer



Fundamentally different businesses with no synergies

1



Opportunity for each company to thrive and focus on its own

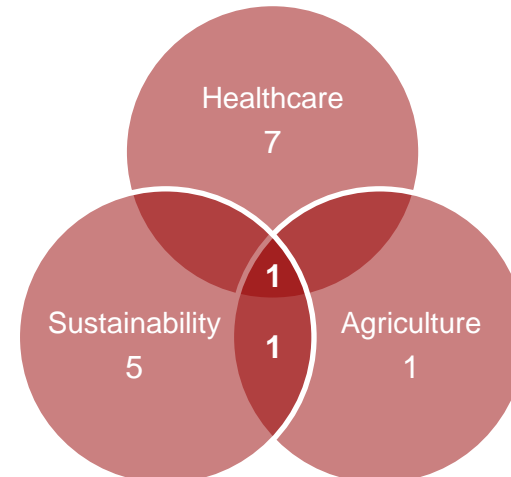
2



More focused and skilled supervisory and management board

3

- 20 members on supervisory and management board
- 15 of those are skilled in healthcare, sustainability, or agriculture
 - 53% skilled in healthcare
 - 20% skilled in agriculture vs. 77% at Corteva
 - 40% skilled in sustainability vs. 77% at Corteva
- Spinoff would lead to more concentrated skill set and and greater sense of ownership for management



Four Ways a Spin-Off Will Create Value for Bayer

Current Composition of Analyst Coverage

7
Chemical
Analysts

12
Pharmaceutical
Analysts

0
Consumer Staples
Analyst



Better coverage and understanding from equity markets

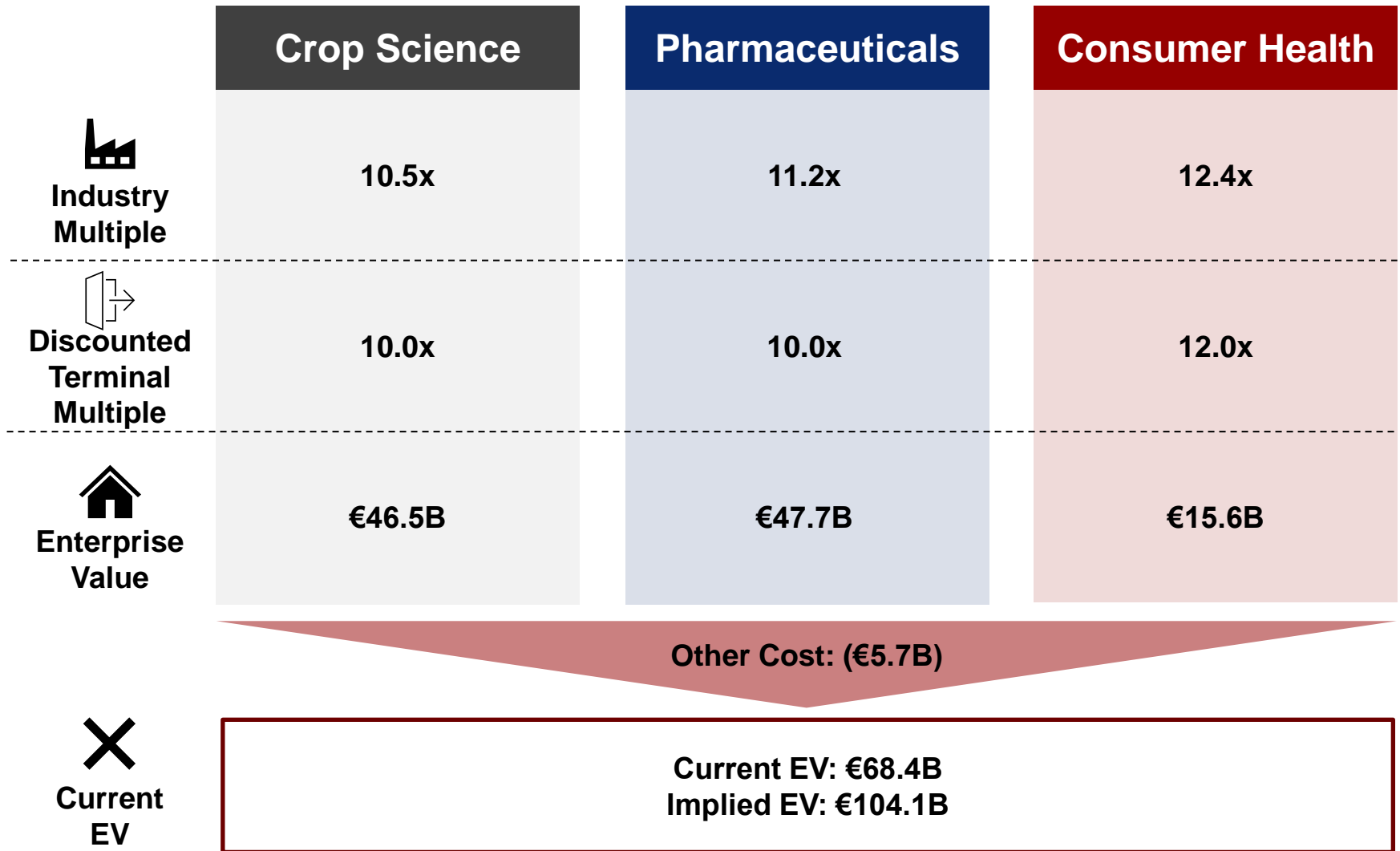
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Tagline

Sum of the Parts Valuation

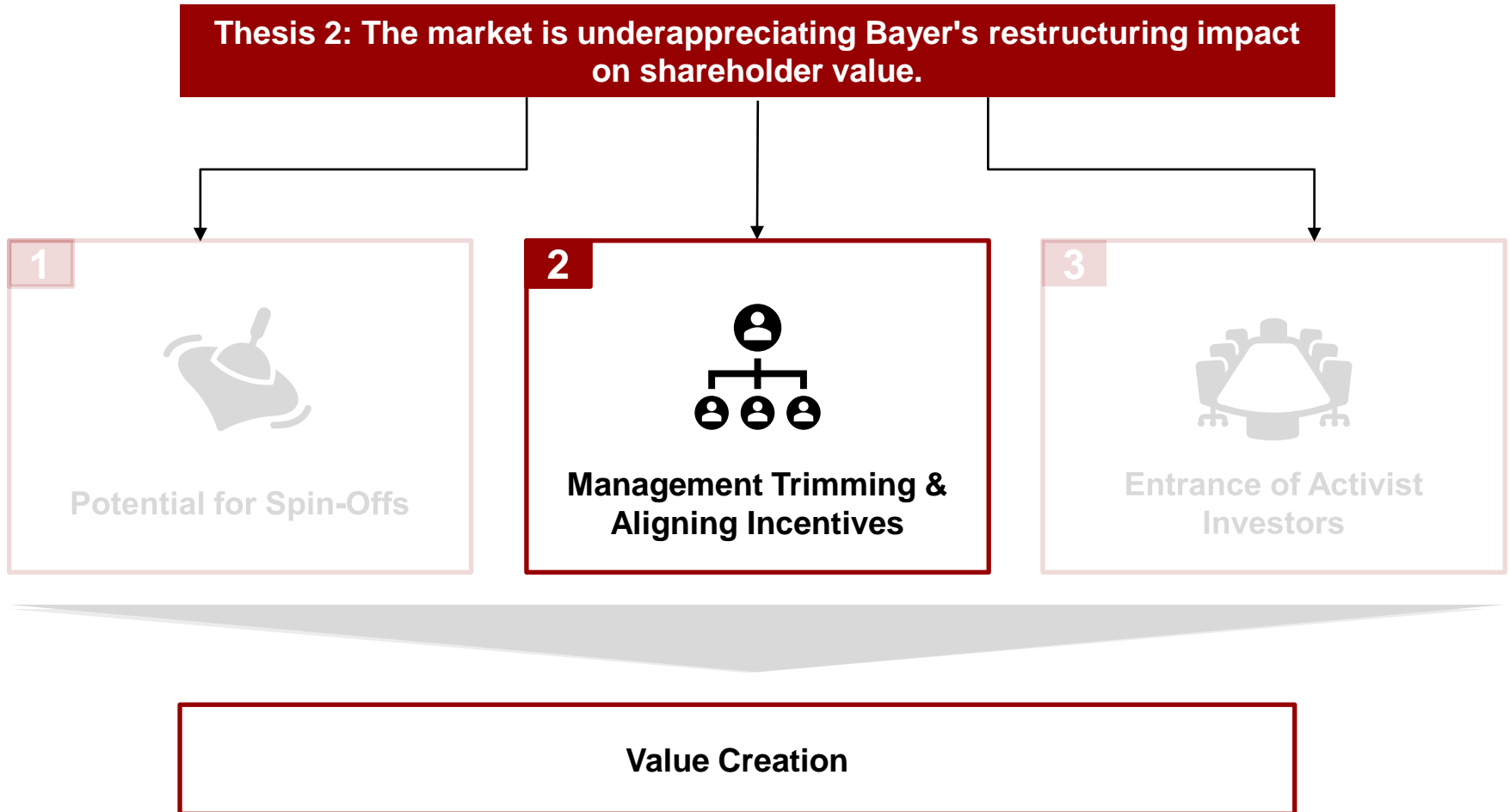


Strong independent valuation for each segment



Source: Capital IQ

"We are redesigning Bayer to focus only on what's essential for our mission, and getting rid of everything else" - Bill Anderson



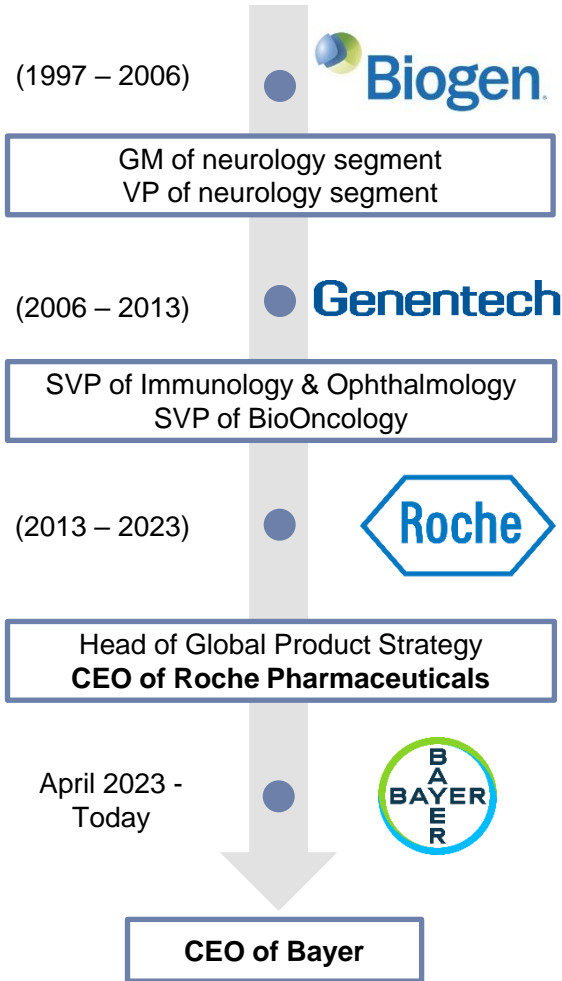
Source: Bayer Investor Relations

New CEO: Bill Anderson



Bayer's needed CEO change: 44% management approval rating 2019

Credible and Successful Track Record



Leadership Highlights



Bill Anderson
Chief Executive Officer

- Acquired 8 gene therapy companies at Roche
 - (Spark therapeutics \$5bn)
 - (Promedior \$1.4bn)
- Cut 500 employees in 2020
- Cut 400 employees in 2021

Strategy at Bayer

Streamlining Operations & Aligning Incentives:

- “There are 12 layers me and our customers. That’s simply too much”
- “... a significant reduction in the workforce.”
- “The company has 1,362 pages of central rules and regulations. [...] We’re going to reduce it by 99%.”
- “Previously, 40 % of our incentive was adjusted by the way our share price performed [...] I aim to double that figure to 80%.”
- Must purchase Bayer shares worth 2x his base salary

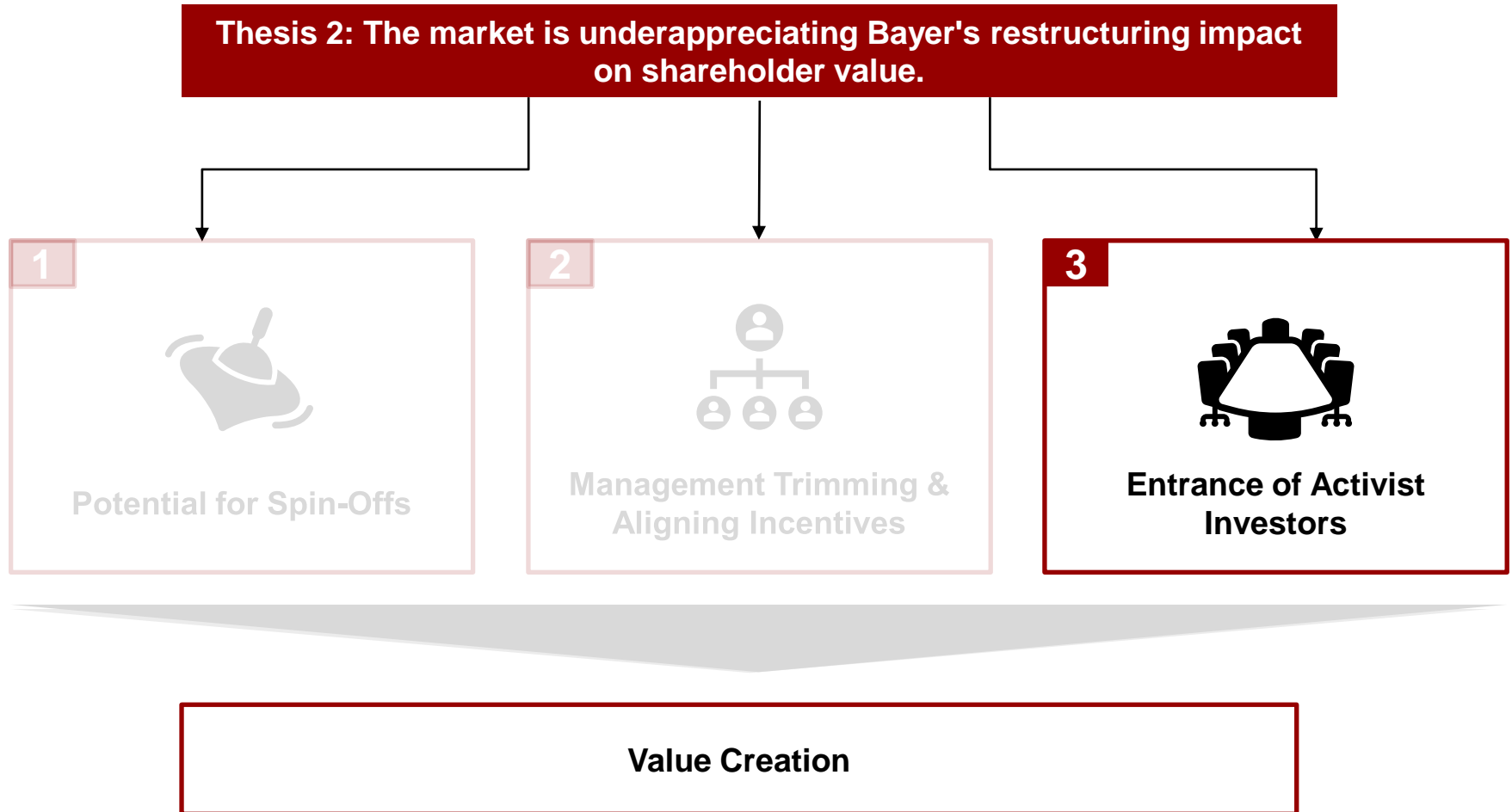
Separating Segments:

- “The main options would be a separation of either the consumer health or crop science, and both of those remain under evaluation. We continue to assess them seriously and openly.”

Management trimming and aligning incentives gives Bayer’s restructuring plans credibility

Source: Bayer Quarterly Report

"We are redesigning Bayer to focus only on what's essential for our mission, and getting rid of everything else" - Bill Anderson



Source: Bayer Investor Relations



INCLUSIVE CAPITAL
PARTNERS

- **Time of Entry:** January 9th, 2023
- **Stake:** 0.83%
- **Fund Focus:** Increasing shareholder value and promoting sound environmental, social governance practices
- Value-Act Fund (\$16bn AUM)



Jeffrey Ubben
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BLUEBELL | CAPITAL
PARTNERS

- **Time of Entry:** January 10th, 2023
- **Stake:** Undisclosed
- **Fund Focus:** Seeks companies trading at significant discount to intrinsic value and increase shareholder value through constructive engagement.

Both have been very vocal about their desires for a spin-off

Entrance of Activist Investors gives Bayer's restructuring plans credibility

Sources: Bluebell, Inclusive Capital Partners

Desautels Capital Management

Honours in Investment Management

Valuation

Section IV



Comparables Analysis



Trading below peers in all segments

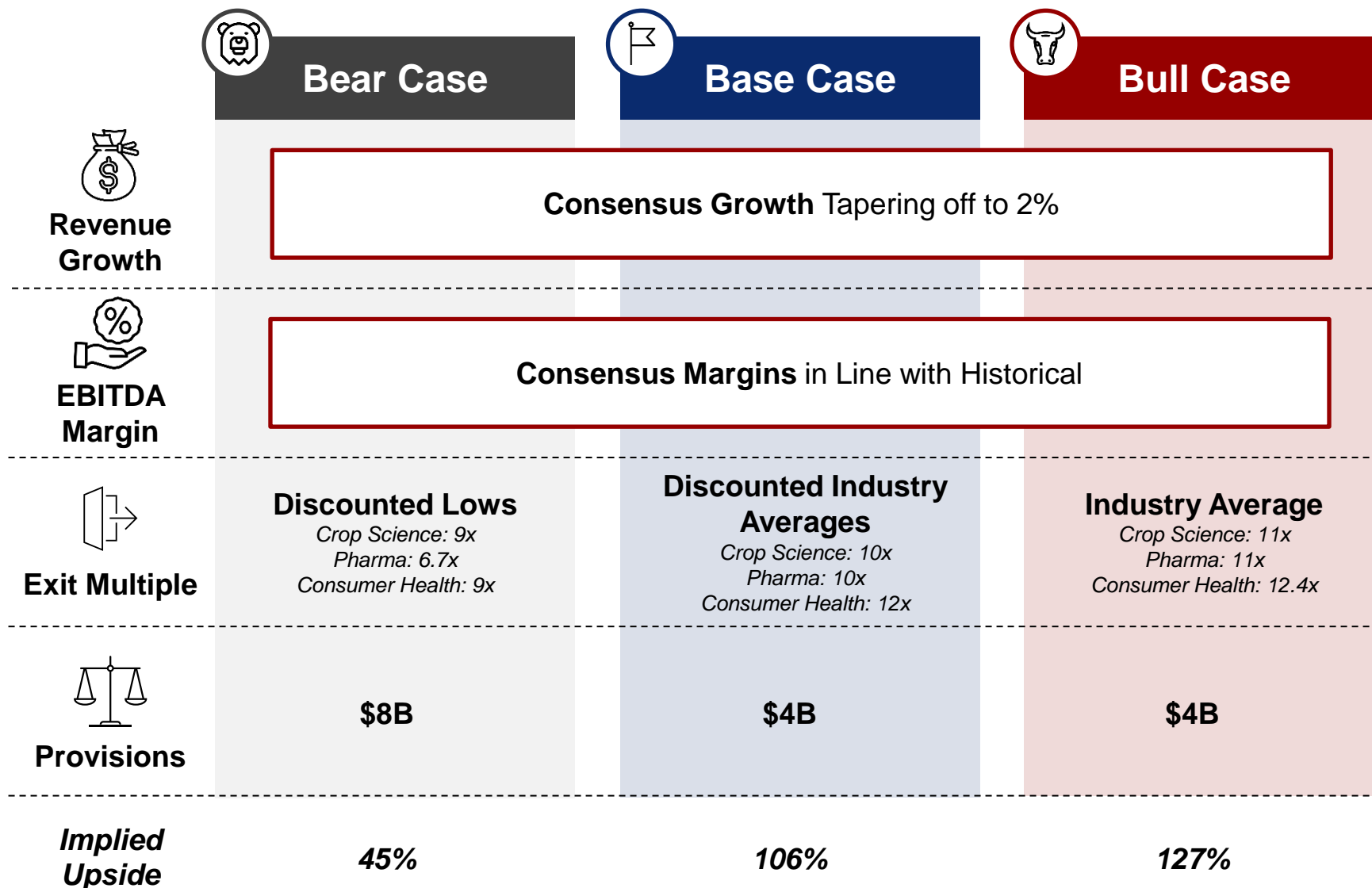
Comparable Companies <i>(in millions, except per share data)</i>	Share Price	Market Cap.	Enterprise Value	EV/Revenue		EV/EBITDA		Debt / EBITDA
				LTM	NTM	LTM	NTM	
Pharma								
GSK	\$16.10	\$65,291	\$80,862	2.4x	2.3x	7.7x	6.7x	2.1x
Sanofi	\$85.89	\$107,696	\$121,048	2.6x	2.6x	9.1x	8.5x	4.2x
Roche	\$246.06	\$198,217	\$221,895	3.4x	3.7x	9.3x	9.1x	2.3x
Novartis	\$87.09	\$179,019	\$190,813	3.8x	4.1x	9.6x	11.0x	1.8x
Merck KGAA	\$156.95	\$68,238	\$76,684	3.6x	3.5x	12.9x	12.6x	2.6x
Astrazeneca	\$117.08	\$181,464	\$204,339	4.9x	4.5x	11.9x	12.7x	1.6x
Novo Nordisk	\$93.07	\$415,250	\$412,427	14.3x	11.5x	30.7x	23.0x	1.2x
BMS	\$46.70	\$95,027	\$123,849	3.0x	2.9x	7.4x	7.5x	1.8x
Pfizer	\$27.48	\$155,189	\$173,764	2.8x	3.3x	13.6x	9.6x	1.5x
Merck US	\$93.47	\$236,849	\$260,869	4.8x	4.6x	22.0x	11.2x	1.1x
Abbott	\$91.45	\$158,757	\$166,900	4.5x	4.4x	18.4x	17.2x	2.2x
Eli Lilly	\$543.54	\$488,814	\$504,672	17.1x	15.4x	48.5x	42.0x	1.7x
Pharma Median				3.8x	4.1x	11.9x	11.2x	1.8x
Pharma Mean				5.6x	5.3x	16.3x	14.0x	2.0x
Consumer Health								
Reckitt	\$61.58	\$44,109	\$52,825	3.1x	3.1x	12.2x	11.4x	3.7x
Haleon	\$3.73	\$34,443	\$45,519	3.5x	3.4x	14.9x	13.5x	0.3x
Consumer Health Mean				3.3x	3.2x	13.5x	12.4x	2.0x
Crop Science								
FMC	\$49.28	\$6,149	\$9,789	2.1x	2.3x	9.2x	10.4x	1.5x
Corteva	\$43.47	\$30,633	\$34,104	2.1x	2.1x	11.4x	10.6x	3.6x
Crop Science Mean				2.1x	2.2x	10.3x	10.5x	2.6x
Global Median				3.5x	3.5x	11.9x	11.2x	1.8x
Global Mean				4.9x	4.7x	15.3x	13.4x	2.1x
Bayer AG				1.7x	1.6x	8.0x	7.0x	4.6x

Source: Capital IQ

Consolidated Discounted Cash Flow – Assumptions



Operating model assumptions for each case



Source: Capital IQ

Consolidated Discounted Cash Flow – Output



106% Implied Upside

DCF	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	€ 6,497	€ 6,764	€ 7,047	€ 7,373	€ 7,658	€ 7,966	€ 8,280	€ 8,591	€ 8,909	€ 9,229
(-) Taxes	(€ 1,494)	(€ 1,556)	(€ 1,621)	(€ 1,696)	(€ 1,761)	(€ 1,832)	(€ 1,904)	(€ 1,976)	(€ 2,049)	(€ 2,123)
NOPAT	€ 5,003	€ 5,209	€ 5,426	€ 5,677	€ 5,897	€ 6,134	€ 6,376	€ 6,615	€ 6,860	€ 7,107
(+) Depreciation & Amortization	€ 4,461	€ 4,504	€ 4,624	€ 4,738	€ 4,850	€ 4,961	€ 5,069	€ 5,175	€ 5,278	€ 5,378
(-) Capital Expenditures	(€ 3,399)	(€ 3,440)	(€ 3,535)	(€ 3,604)	(€ 3,687)	(€ 3,768)	(€ 3,843)	(€ 3,921)	(€ 3,997)	(€ 4,070)
(-) Change in Net Working Capital	(€ 1,200)	(€ 213)	(€ 417)	(€ 473)	(€ 440)	(€ 433)	(€ 438)	(€ 423)	(€ 416)	(€ 408)
Unlevered Free Cash Flow	€ 1,216	€ 6,060	€ 6,098	€ 6,338	€ 6,620	€ 6,894	€ 7,164	€ 7,446	€ 7,725	€ 8,006
Discounted Free Cash Flow	€ 1,189	€ 5,405	€ 4,964	€ 4,708	€ 4,487	€ 4,265	€ 4,045	€ 3,836	€ 3,632	€ 3,435
Sum of PV of UFCF	€ 39,928									

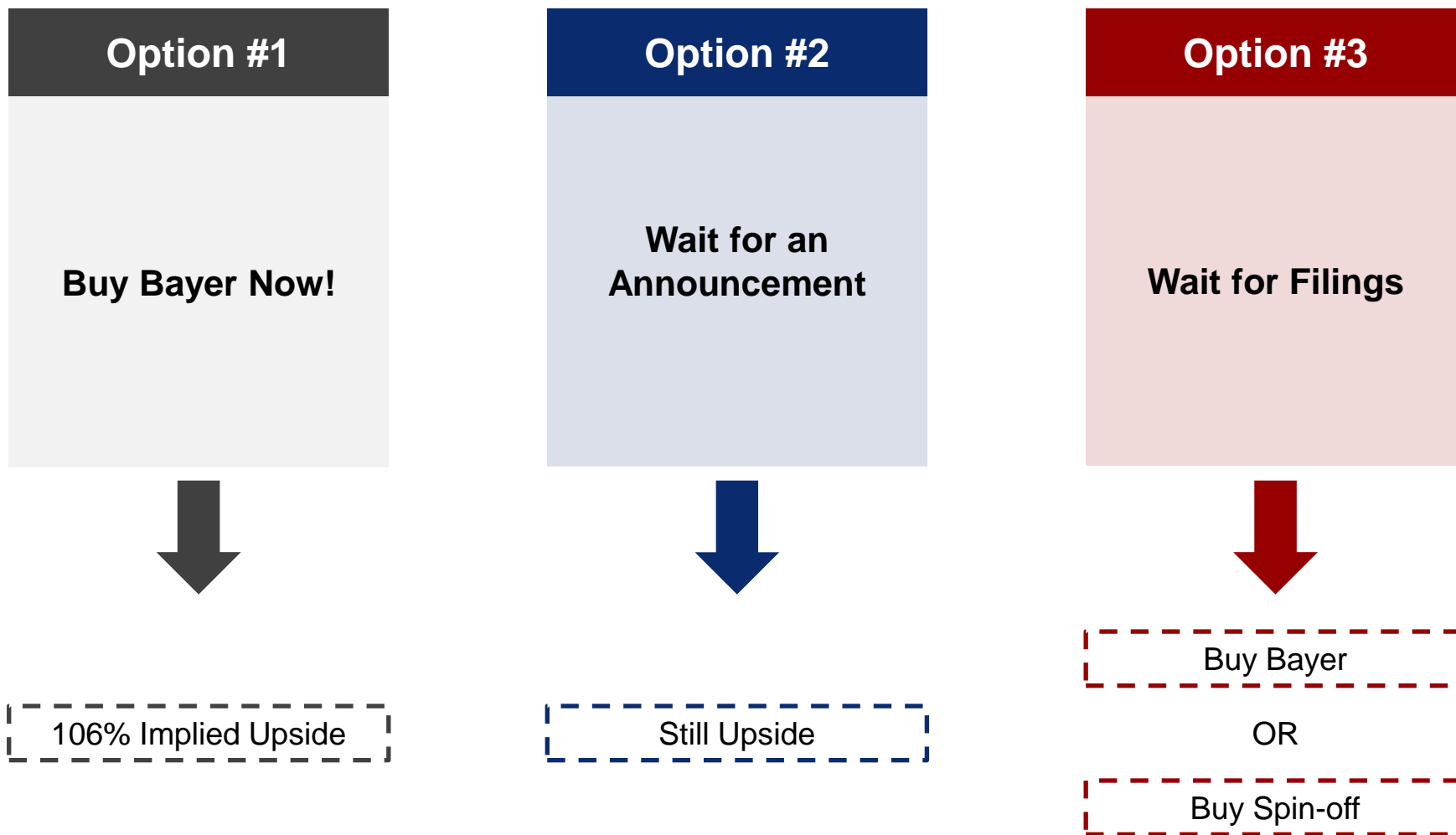
DCF Assumptions	
Tax Rate	23.0%
WACC (including 2% premium)	9.6%
Exit Multiple - Crop Science	10.0x
Exit Multiple - Pharma	10.0x
Exit Multiple - Consumer	12.0x
Exit Multiple - Other	10.0x
Weighted Average Exit Multiple	10.3x

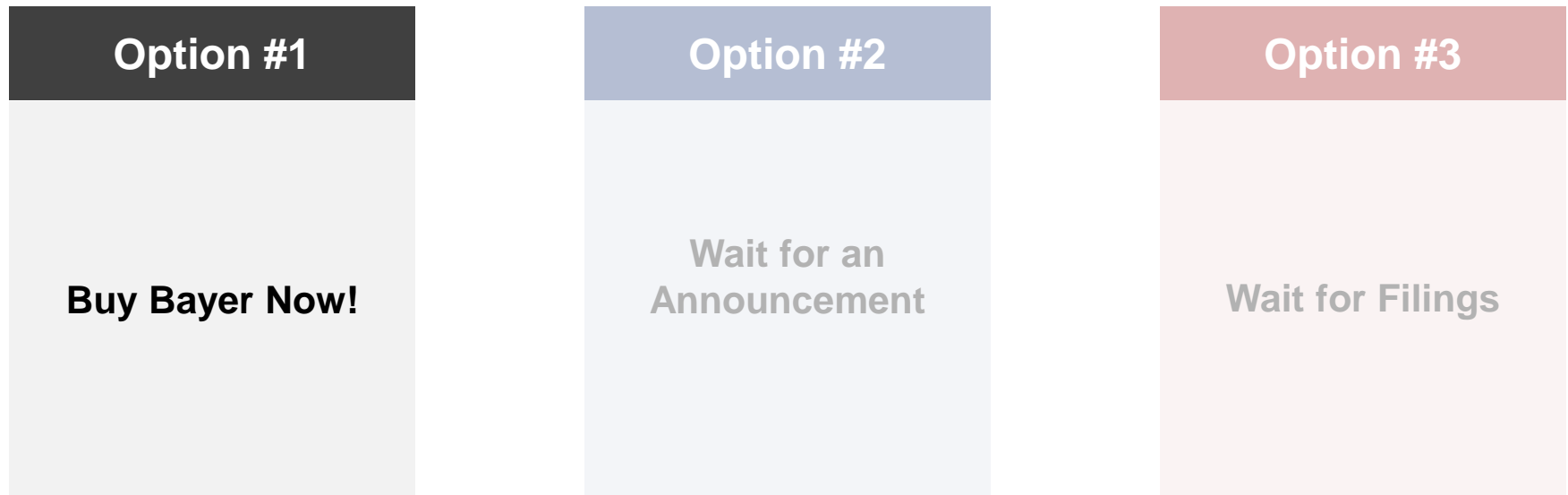
Bridge to Equity	
Exit Multiple Method	
Discount Rate	9.6%
Sum of PV of Cash Flow	€ 39,928
PV Terminal Value - Crop Science	€ 28,079
PV Terminal Value – Pharma	€ 28,753
PV Terminal Value – Consumer	€ 9,412
PV Terminal Value – Other	(€ 2,113)
Sum of PV of Terminal Value:	€ 64,131
Implied Terminal Enterprise Value	€ 104,059
(+) Minority Interest	€ 167
(+) Cash	€ 9,306
(-) Debt	(€ 47,424)
(-) Provisions	(€ 4,000)
Implied Equity Value	€ 62,108
Shares Outstanding	982.40
Implied Share Price	€ 63.22
Implied Upside/Downside	106.87%

Sensitivity Analysis		WACC				
		11.6%	10.6%	9.6%	8.6%	7.6%
Exit Multiple	8.3x	27%	45%	64%	85%	108%
	9.3x	45%	64%	85%	108%	133%
	10.3x	62%	83%	106%	131%	158%
	11.3x	80%	102%	127%	153%	182%
	12.3x	98%	121%	147%	176%	207%

Sources: Company filings, Capital IQ

What are the options



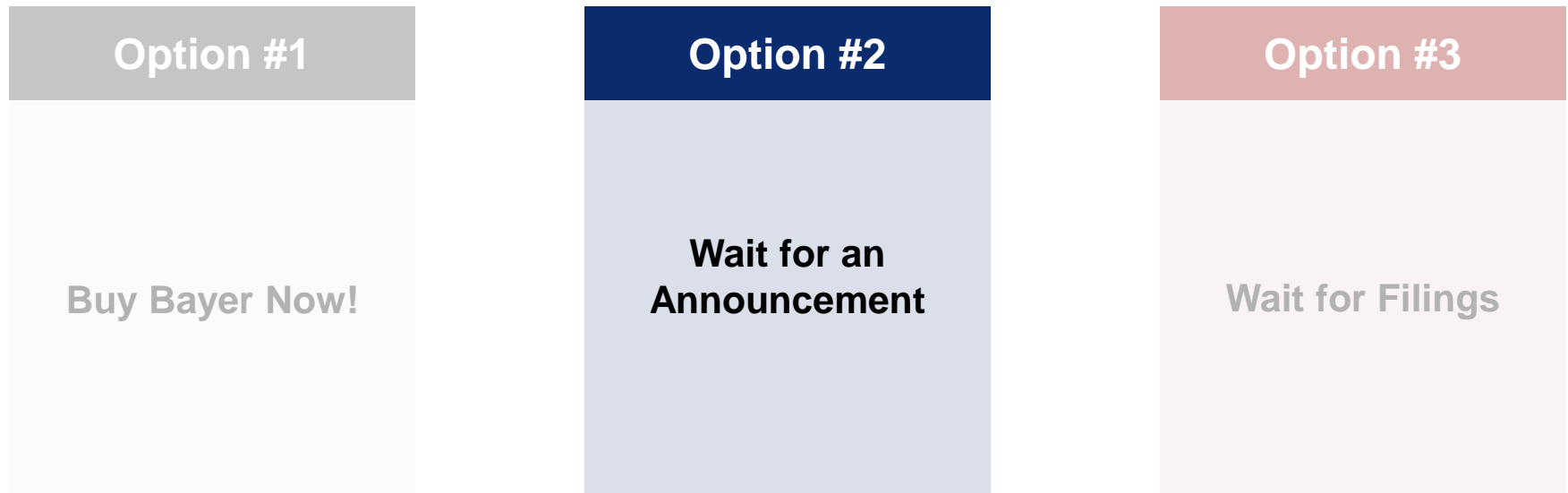


Pros

- Likely the highest returns if all goes to plan
- “De-risked” entry point

Cons

- Lowest visibility on main risks
- \$4B of provisions estimated by management
- Difficult to tell when management incentives will begin to come into play

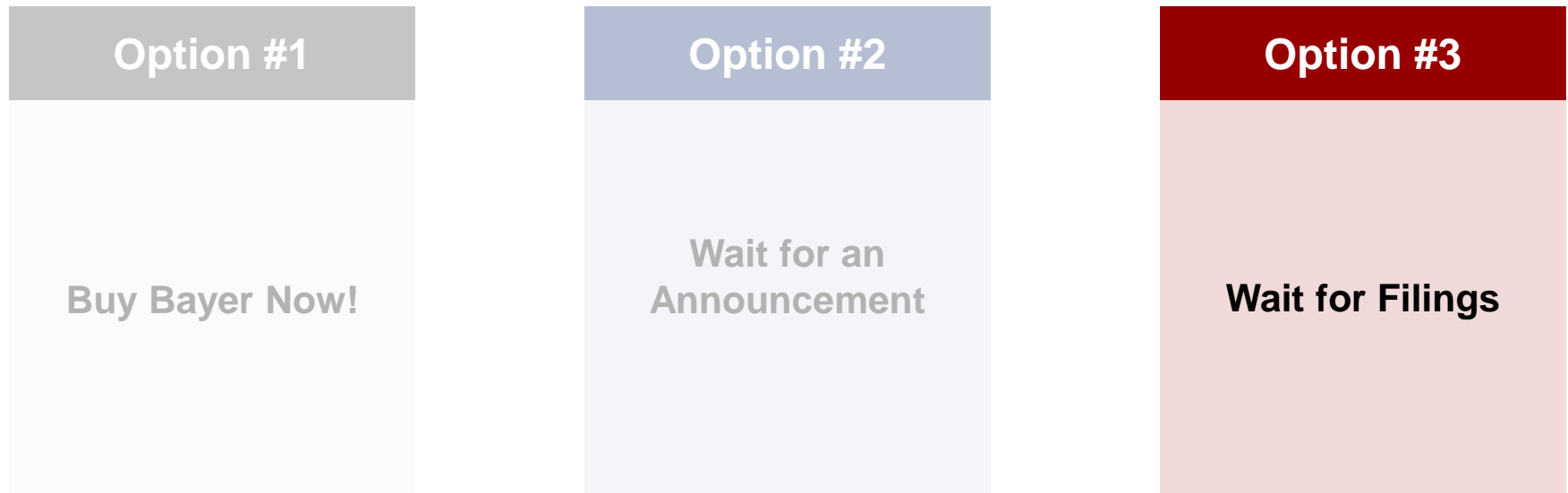


Pros

- Higher visibility into which segment is being spun-off and how
- Possibly additional information on other risks (management share purchases, litigation, etc.)

Cons

- Difficult to tell what the market is pricing in if price jumps
- Missing out on partial or significant multiple appreciation
- No information on structure of spin-off

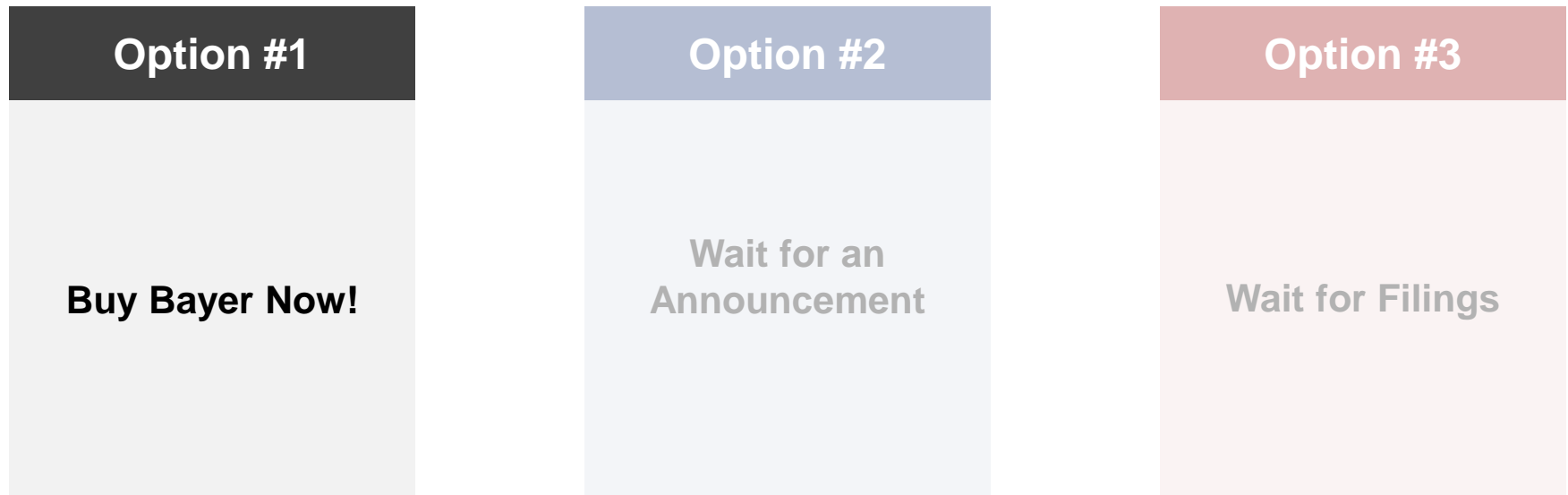


Pros

- Additional optionality as to which corporation we want to purchase
- Possibility of a hidden gem in the spin-off

Cons

- More pricing-in may have taken place
- May have to wait past our HIM tenure even if we choose to buy Bayer
- If we choose to wait and buy the spin-off, will be past all our HIM tenures



We believe the **best option is the first one**, since it doesn't remove our ability to play the other options and provides the most risk asymmetry. We recommend **a small initial position**, allowing us to build during price weakness and **partially sell on a potential rally**

Desautels Capital Management

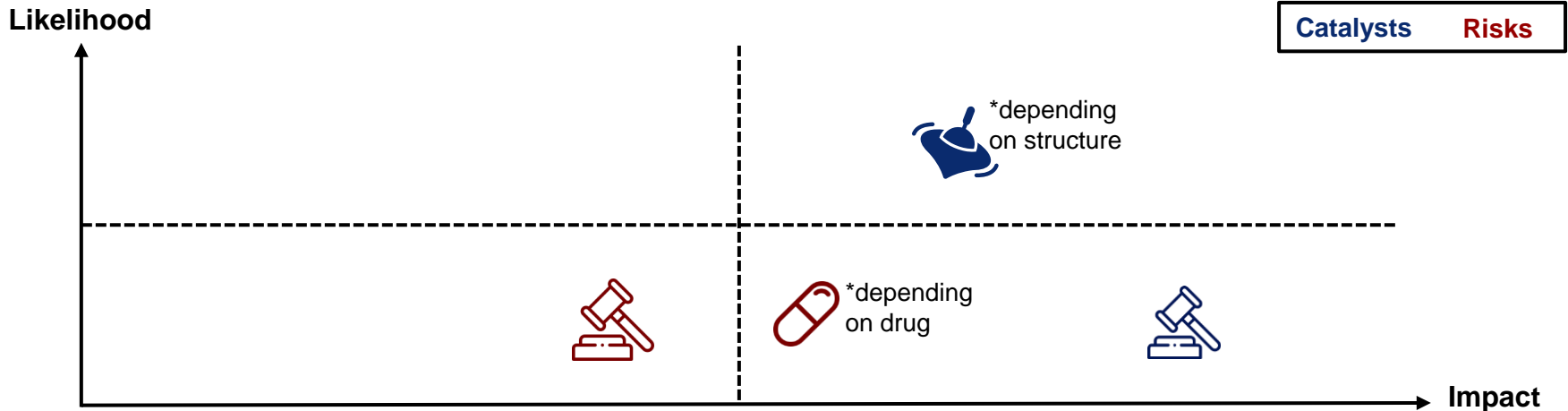
Honours in Investment Management

Risks & Catalysts

Section V



Likelihood vs Impact Matrix



Significant settlements or progress in litigations

With the recent losses, Bayer may be encouraged to push for settlements rather than continue with trials



Announcement of a spin-off

With the recent dips in share price, Bayer will be feeling the pressure from investors to move things along and progress with a spin-off



Additional negative litigation news or increased provisions

Before this recent slew of losses, Bayer seemed to be out of the woods. The recent losses could bring on more lawsuits and, improbably, lead to increased litigation provisions



Negative pharmaceutical pipeline news

Given this is a pharma company, there is always the possibility of drug trial failure, and these are basically impossible to predict

Source: Bloomberg, Company Filings, Earnings Call Q3 22, Healthline, S&P Capital IQ

Desautels Capital Management




Honours in Investment Management

Appendix

Section VI!



Hazard for Investor to Invest in Bayer based on its Structure

	Risk	Fact
 <p>Limited Investor Understanding</p>	<p>The complexity of conglomerates deter some investors who prefer simplicity and pure-play exposure</p>	<p>Bayer mostly covered by pharmaceutical analysts, now it has 7 chemical analyst and 12 pharmaceutical analyst; Consumer Health is completely ignored as no consumer staples analyst covers it</p>
 <p>Lack of Synergy</p>	<p>There are less strategic advantages and shared resources among Crop science and other segments</p>	<p>The synergy from the acquisition of Monsanto is decreased from the expected 1.5B to 1.2B more divestment is needed to obtain antitrust approval and lack of cost synergy due to specific executives for specific industry</p>
 <p>Capital Allocation Concerns</p>	<p>Investors are skeptical about low efficiency that Bayer allocates capital across its various businesses.</p>	<p>Bayer needs to sacrifice more earnings to resolve the litigations instead of improving R&D or margins</p>




Source: US Gov, Company Filings

Investors neglect the huge potential of crop market from its severe litigation situations.

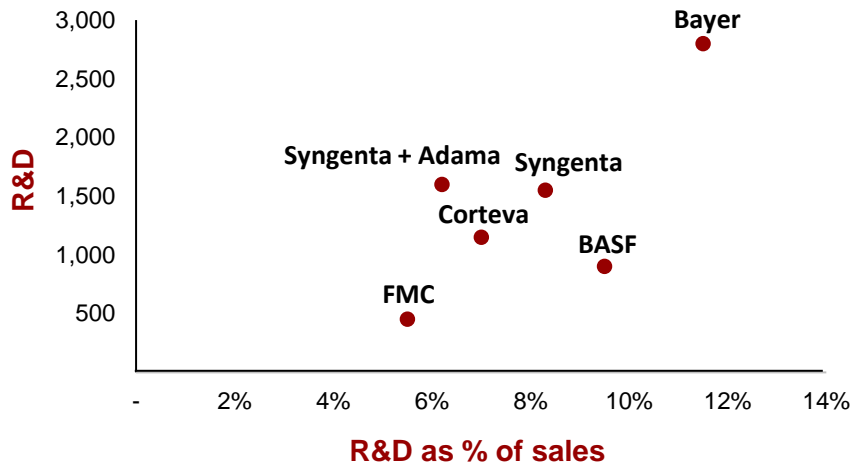
(in EUR\$ millions, unless noted)

Bayer is the global leader in crop market

Leader In a Growing Industry

<p>Better function of products relative to peers lead to high market share</p> 	<p>Increasing usage of GMO seeds trigger more sales revenue for Bayer</p> 	<p>Industry leading R&D team with doubled expense to peers</p> 
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R&D investment compared to peers



Source: Statista

Why the sales is increasing when “Roundup” is sued?



- There are more than 6,500 food deserts across the U.S., impacting more than 19 million Americans
- According to Crop life Canada, **about 50% more land is needed** to grow the same amount of food each year without herbicides



- “Roundup” is relatively cheaper compared to other herbicides
- “Roundup” has availability in various formulations, allows for flexibility in application methods, and this leads to lower application costs.

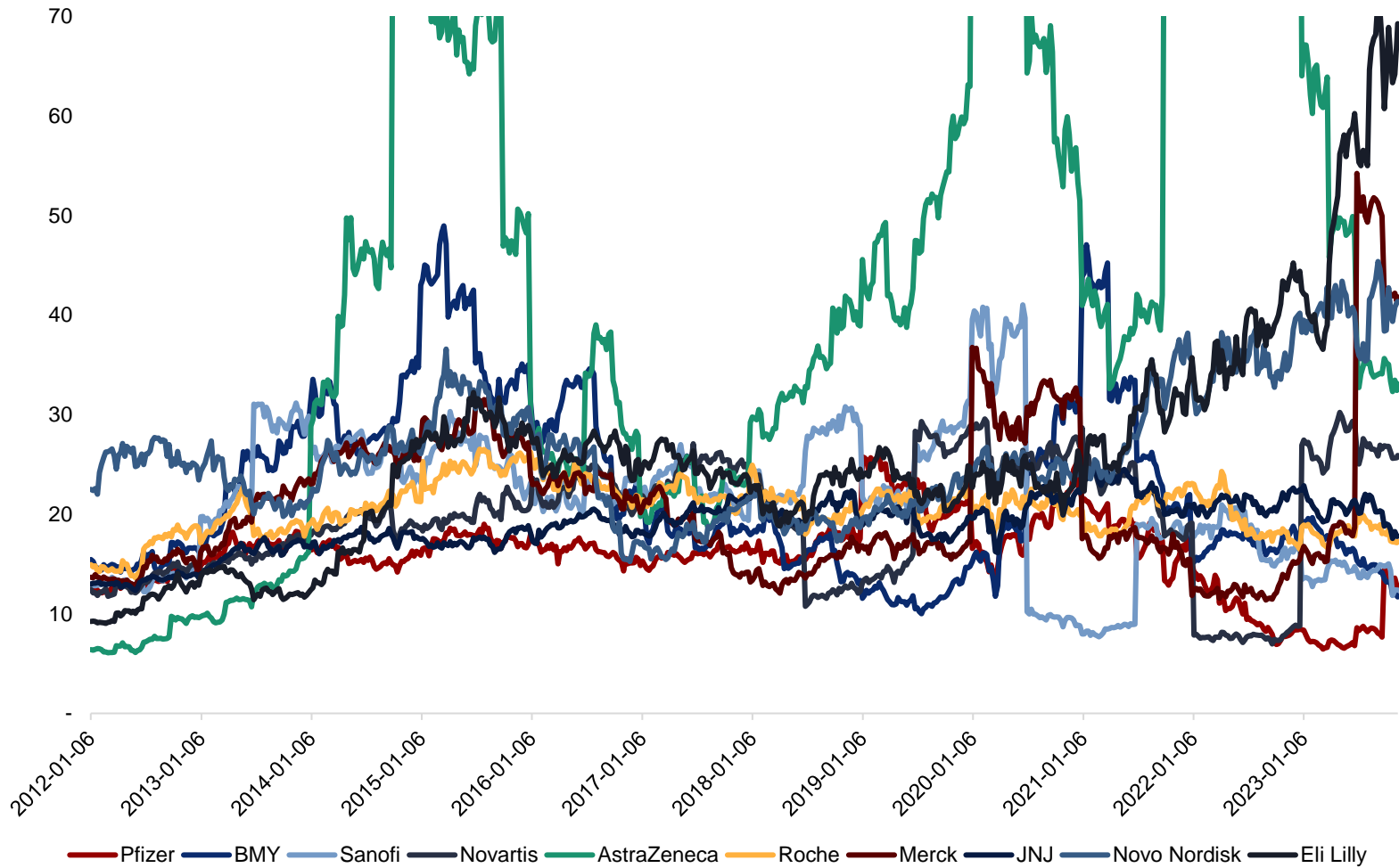


- Broad-spectrum weed control, since it's **non-selective herbicides**
- **No residual soil activity**, allows for the planting of different crops shortly after Roundup application without concerns about herbicide carryover



- Most farmers still trust institutions like European Commission and US EPA.
- Last week, European Commission just extended 10 years for legal usage of glyphosate in European countries

PE Multiples Over Time



IARC's carcinogen classifications COMPOUND INTEREST

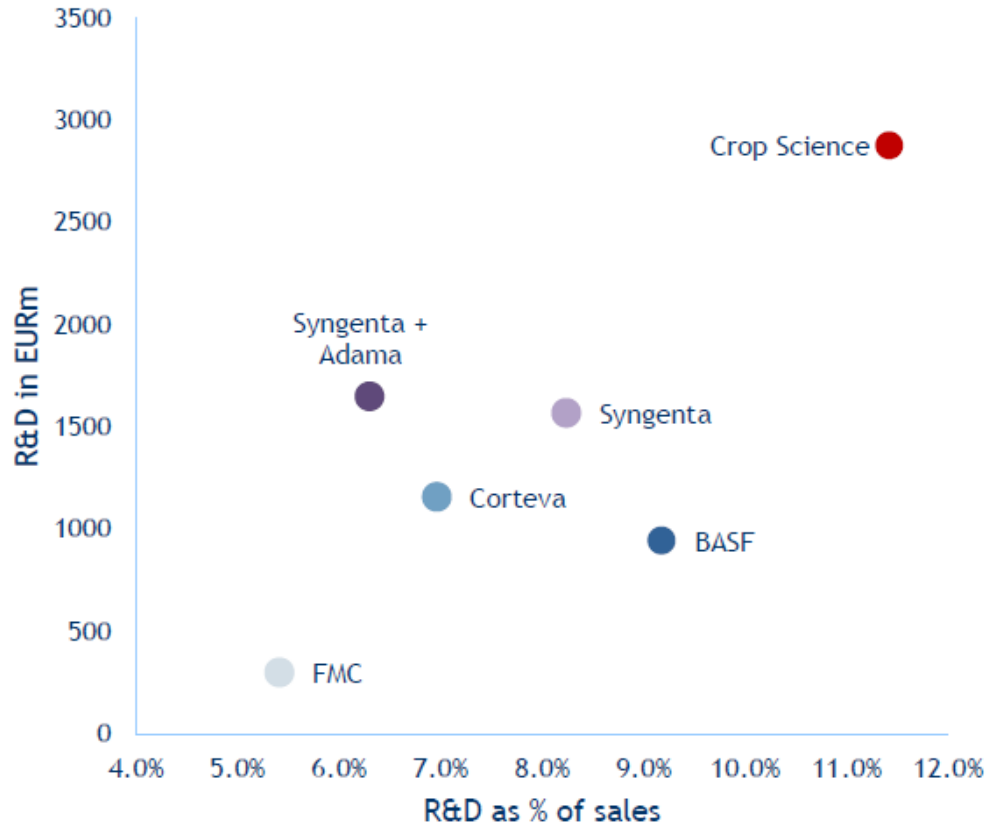
The International Agency for Research on Cancer (IARC) classifies substances to show whether they are suspected to cause cancer or not. It places substances into one of four categories depending on the strength of evidence for their carcinogenicity.

Group	What does it mean?	What does it include?
GROUP 1	<p>Carcinogenic to humans</p> <p>Sufficient evidence in humans, or strong evidence with a relevant mechanism identified.</p>	<p>Smoking tobacco, exposure to solar radiation, alcoholic beverages, processed meats.</p>
GROUP 2A	<p>Probably carcinogenic to humans</p> <p>Limited or no evidence in humans. Sufficient evidence in animals.</p>	<p>Emissions from high temperature frying, steroids, exposures from working in hairdressing, red meat, night shift work.</p>
GROUP 2B	<p>Possibly carcinogenic to humans</p> <p>Limited or no evidence in humans. Limited to insufficient evidence in animals.</p>	<p>Gasoline & gasoline engine exhaust, welding fumes, pickled vegetables, aloe vera whole leaf extract.</p>
GROUP 3	<p>Carcinogenicity not classifiable</p> <p>Inadequate evidence in humans. Inadequate evidence in animals. Often means further research needed.</p>	<p>Tea, coffee, static magnetic fields, fluorescent lighting, polyethylene.</p>
GROUP 4	<p>Probably not carcinogenic</p> <p>Evidence suggesting a lack of carcinogenicity. This group has not been used since 2019.</p>	<p>1 Only 1 substance ever placed in this group of all substances assessed.</p> <p>Caprolactam, used in the manufacture of synthetic fibres, was the only substance ever placed in this group, but was moved to group 3 in 2019.</p>

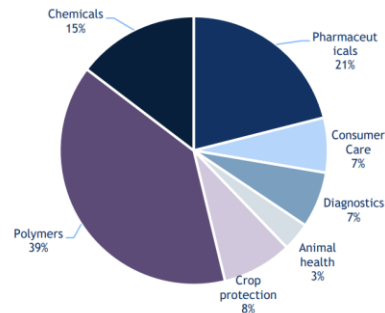
The IARC'S index only tells us how strong the evidence is that something causes cancer. Substances in the same category can differ vastly in how much they increase cancer risk.

www.compoundchem.com © Andy Brunning/Compound Interest 2023 | Creative Commons Attribution-NonCommercial-NoDerivatives licence.

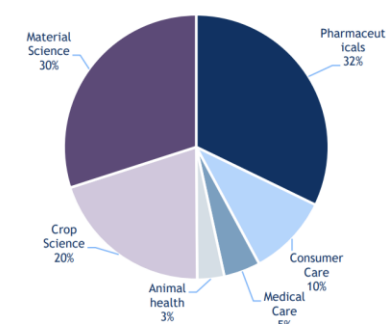
Crop Science R&D spend is double its peers



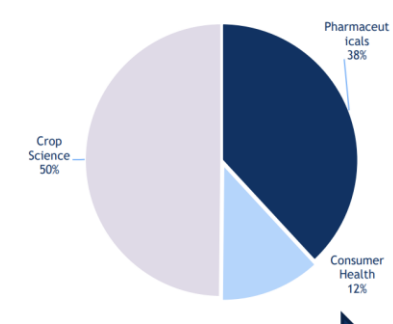
Bayer 2000 sales by division



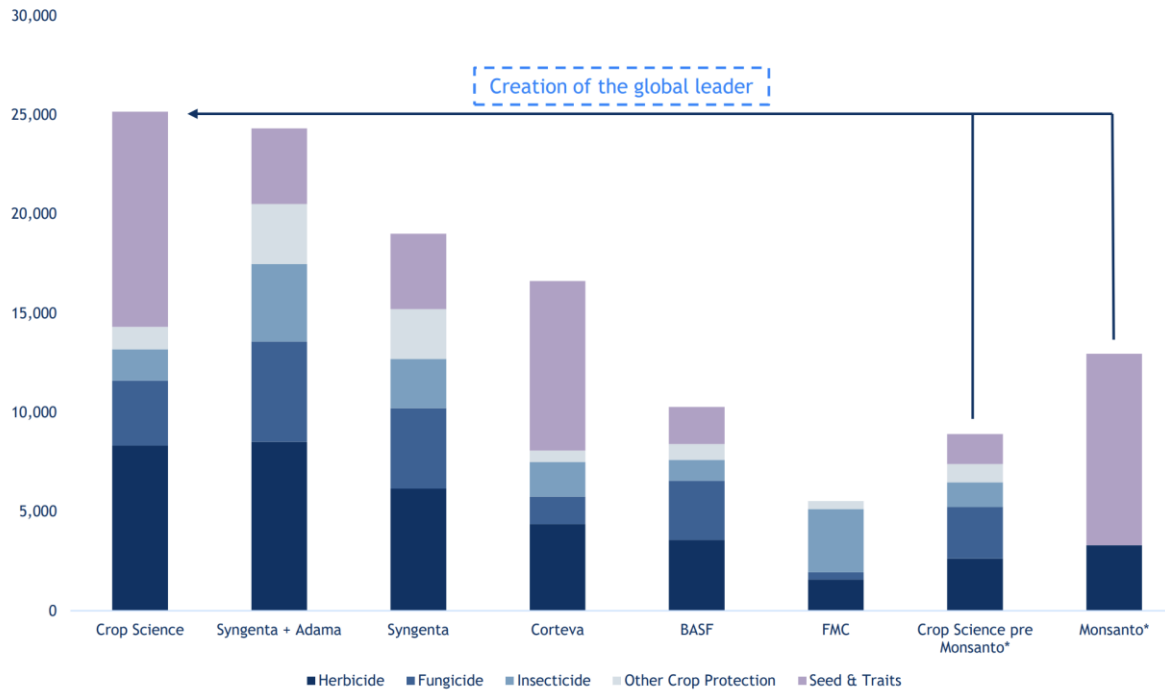
Bayer 2010 sales by division



Bayer 2022 sales by division



2022 sales in €m by sub-segment for the main players



Dupont: Agriculture Segment

	2016	2017	2018
Revenue	6,173	7,515	14,301
<i>Growth %</i>		22%	90%
Operating income	2,322	2,611	2,705
Operating margin	38%	35%	19%

Corteva Operating Margins

	2019	2020	2021	2022
Revenue	13846	14217	14655	17455
<i>Growth %</i>		3%	3%	19%
Operating income	-316	675	2346	1426
Operating margin	-2%	5%	16%	8%

Merck: Women's Health Segement

	2018	2019	2020
Revenue	9,777	7,777	6,532
<i>Growth %</i>		-20%	-16%
Operating income	2,729	3,696	2,752
Operating margin	28%	48%	42%

Organon Operating Margins

	2021	2022	2023
Revenue	6304	6174	6184
<i>Growth %</i>		-2%	0%
Operating income	1529	1120	1091
Operating margin	24%	18%	18%

Abbot: Proprietary Pharma Segment Operating Margins

	2010	2011	2012
Revenue	15,389	17,080	18,012
<i>Growth %</i>		11%	5%
Operating income	6,592	7,202	7,948
Operating margin	43%	42%	44%

Abbvie Operating Margins

	2013	2014	2015	2016	2017	2018	2019
Revenue	18790	19960	22859	25638	28216	32753	32266
<i>Growth %</i>		6%	15%	12%	10%	16%	-1%
Operating income	5664	3411	7537	9340	9545	6383	12983
Operating margin	30%	17%	33%	36%	34%	19%	40%

Forecasted Income Statement



	Historical					Forecasted									
	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Income Statement															
1 Revenues															
Crop Science	€ 14,280	€ 19,845	€ 18,847	€ 20,219	€ 25,178	€ 23,164	€ 23,395	€ 24,097	€ 24,786	€ 25,459	€ 26,113	€ 26,747	€ 27,359	€ 27,945	€ 28,504
YoY Growth		39.0%	(5.0%)	7.3%	24.5%	(8.0%)	1.0%	3.0%	2.9%	2.7%	2.6%	2.4%	2.3%	2.1%	2.0%
Pharmaceuticals	€ 16,767	€ 17,977	€ 17,290	€ 18,371	€ 19,263	€ 18,300	€ 18,483	€ 18,853	€ 19,230	€ 19,614	€ 20,006	€ 20,407	€ 20,815	€ 21,231	€ 21,656
YoY Growth		7.2%	(3.8%)	6.3%	4.9%	(5.0%)	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Consumer Health	€ 5,451	€ 5,472	€ 5,054	€ 5,293	€ 6,080	€ 6,080	€ 6,262	€ 6,450	€ 6,635	€ 6,815	€ 6,990	€ 7,160	€ 7,323	€ 7,480	€ 7,630
YoY Growth		0.4%	(7.6%)	4.7%	14.9%	0.0%	3.0%	3.0%	2.9%	2.7%	2.6%	2.4%	2.3%	2.1%	2.0%
All Other Segments	€ 2,645	€ 447	€ 372	€ 203	€ 219	€ 265	€ 229	€ 238	€ 244	€ 237	€ 239	€ 240	€ 239	€ 239	€ 239
Enabling Functions and Consolidation	(€ 2,401)	(€ 196)	(€ 163)	(€ 5)	(€ 1)	(€ 56)	(€ 21)	(€ 26)	(€ 34)	(€ 27)	(€ 29)	(€ 30)	(€ 29)	(€ 29)	(€ 29)
Total Revenues	€ 36,742	€ 43,545	€ 41,400	€ 44,081	€ 50,739	€ 47,752	€ 48,349	€ 49,612	€ 50,859	€ 52,097	€ 53,320	€ 54,523	€ 55,706	€ 56,866	€ 57,999
2 EBITDA															
Crop Science	€ 2,651	€ 4,714	€ 4,536	€ 4,698	€ 6,867	€ 4,864	€ 4,965	€ 5,168	€ 5,370	€ 5,573	€ 5,774	€ 5,974	€ 6,171	€ 6,365	€ 6,556
Margin	18.6%	23.8%	24.1%	23.2%	27.3%	21.0%	21.2%	21.4%	21.7%	21.9%	22.1%	22.3%	22.6%	22.8%	23.0%
Pharmaceuticals	€ 5,598	€ 5,861	€ 6,016	€ 5,779	€ 5,873	€ 5,124	€ 5,360	€ 5,514	€ 5,673	€ 5,835	€ 6,002	€ 6,173	€ 6,348	€ 6,529	€ 6,713
Margin	33.4%	32.6%	34.8%	31.5%	30.5%	28.0%	29.0%	29.3%	29.5%	29.8%	30.0%	30.3%	30.5%	30.8%	31.0%
Consumer Health	€ 1,096	€ 1,142	€ 1,114	€ 1,190	€ 1,367	€ 1,398	€ 1,447	€ 1,498	€ 1,548	€ 1,598	€ 1,647	€ 1,694	€ 1,741	€ 1,787	€ 1,831
Margin	20.1%	20.9%	22.0%	22.5%	22.5%	23.0%	23.1%	23.2%	23.3%	23.4%	23.6%	23.7%	23.8%	23.9%	24.0%
All Other Segments	€ 515	€ 143	€ 178	€ 95	€ 151	€ 141	€ 129	€ 140	€ 137	€ 136	€ 138	€ 137	€ 137	€ 137	€ 137
Enabling Functions and Consolidation	(€ 891)	(€ 386)	(€ 383)	(€ 583)	(€ 745)	(€ 570)	(€ 633)	(€ 649)	(€ 617)	(€ 633)	(€ 633)	(€ 628)	(€ 632)	(€ 631)	(€ 630)
Total EBITDA	€ 8,969	€ 11,474	€ 11,461	€ 11,179	€ 13,513	€ 10,958	€ 11,269	€ 11,671	€ 12,111	€ 12,508	€ 12,927	€ 13,350	€ 13,766	€ 14,187	€ 14,607

	Historical					Forecasted									
	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Income Statement															
3 D&A															
Crop Science	€ 2,782	€ 2,745	€ 2,278	€ 2,456	€ 2,748	€ 2,775	€ 2,858	€ 2,940	€ 3,020	€ 3,098	€ 3,173	€ 3,245	€ 3,315	€ 3,381	
% Revenue	14.0%	14.6%	11.3%	9.8%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	11.9%	
Pharmaceuticals	€ 1,038	€ 984	€ 986	€ 1,137	€ 1,035	€ 1,045	€ 1,066	€ 1,087	€ 1,109	€ 1,131	€ 1,154	€ 1,177	€ 1,200	€ 1,224	
% Revenue	5.8%	5.7%	5.4%	5.9%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	
Consumer Health	€ 331	€ 321	€ 336	€ 364	€ 379	€ 390	€ 402	€ 413	€ 424	€ 435	€ 446	€ 456	€ 466	€ 475	
% Revenue	6.0%	6.4%	6.3%	6.0%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	
All Other Segments	€ 71	€ 67	€ 70	€ 72	€ 70	€ 71	€ 71	€ 70	€ 71	€ 71	€ 70	€ 71	€ 71	€ 70	
Enabling Functions and Consolidation	€ 276	€ 249	€ 214	€ 227	€ 230	€ 224	€ 227	€ 227	€ 226	€ 227	€ 226	€ 226	€ 226	€ 226	
Total Depreciation & Amortization	€ 0	€ 4,498	€ 4,366	€ 3,884	€ 4,256	€ 4,461	€ 4,504	€ 4,624	€ 4,738	€ 4,850	€ 4,961	€ 5,069	€ 5,175	€ 5,278	€ 5,378

Forecasted Balance Sheet Items



Balance Sheet Items															
1 Capital Expenditures															
Crop Science	€ 1,030	€ 1,414	€ 1,317	€ 1,240	€ 1,786	€ 1,561	€ 1,576	€ 1,624	€ 1,670	€ 1,715	€ 1,760	€ 1,802	€ 1,843	€ 1,883	€ 1,921
% Revenue	7.2%	7.1%	7.0%	6.1%	7.1%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%
Pharmaceuticals	€ 888	€ 974	€ 1,386	€ 1,308	€ 1,317	€ 1,340	€ 1,354	€ 1,381	€ 1,408	€ 1,437	€ 1,465	€ 1,495	€ 1,525	€ 1,555	€ 1,586
% Revenue	5.3%	5.4%	8.0%	7.1%	6.8%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%
Consumer Health	€ 228	€ 222	€ 170	€ 207	€ 200	€ 214	€ 221	€ 227	€ 234	€ 240	€ 246	€ 252	€ 258	€ 263	€ 269
% Revenue	4.2%	4.1%	3.4%	3.9%	3.3%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
All Other Segments	€ 213	€ 101	€ 66	€ 93	€ 43	€ 67	€ 68	€ 59	€ 65	€ 64	€ 63	€ 64	€ 64	€ 63	€ 64
Enabling Functions and Consolidation	€ 9	€ 209	€ 199	€ 156	€ 293	€ 216	€ 222	€ 244	€ 227	€ 231	€ 234	€ 231	€ 232	€ 232	€ 231
Total Capital Expenditures	€ 2,368	€ 2,920	€ 3,138	€ 3,004	€ 3,639	€ 3,399	€ 3,440	€ 3,535	€ 3,604	€ 3,687	€ 3,768	€ 3,843	€ 3,921	€ 3,997	€ 4,070
2 Net Working Capital															
Accounts Receivable	€ 14,137	€ 14,851	€ 12,157	€ 12,980	€ 13,450	€ 13,580	€ 13,750	€ 14,109	€ 14,464	€ 14,816	€ 15,164	€ 15,506	€ 15,843	€ 16,172	€ 16,495
DSO	140.4	124.5	107.2	107.5	96.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8
Inventory	€ 11,132	€ 10,650	€ 10,961	€ 11,314	€ 13,636	€ 12,584	€ 12,738	€ 12,988	€ 13,372	€ 13,688	€ 13,996	€ 14,324	€ 14,631	€ 14,934	€ 15,234
DIH	310.9	236.7	254.4	242.3	263.5	253.4	253.4	253.4	253.4	253.4	253.4	253.4	253.4	253.4	253.4
Accounts Payable	€ 6,038	€ 6,426	€ 5,678	€ 6,792	€ 7,545	€ 7,003	€ 7,089	€ 7,228	€ 7,442	€ 7,617	€ 7,788	€ 7,971	€ 8,142	€ 8,311	€ 8,478
DPO	168.6	142.8	131.8	145.4	145.8	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0	141.0
Accrued Expenses	€ 1,277	€ 1,278	€ 1,215	€ 1,123	€ 3,573	€ 1,994	€ 2,018	€ 2,071	€ 2,123	€ 2,175	€ 2,226	€ 2,276	€ 2,326	€ 2,374	€ 2,421
% of Revenue	3.5%	2.9%	2.9%	2.5%	7.0%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%
Net Working Capital	€ 17,954	€ 17,797	€ 16,225	€ 16,379	€ 15,968	€ 17,168	€ 17,381	€ 17,799	€ 18,272	€ 18,712	€ 19,145	€ 19,583	€ 20,006	€ 20,422	€ 20,830
Change in NWC		(€ 157)	(€ 1,572)	€ 154	(€ 411)	€ 1,200	€ 213	€ 417	€ 473	€ 440	€ 433	€ 438	€ 423	€ 416	€ 408
Total Revenue	€ 36,742	€ 43,545	€ 41,400	€ 44,081	€ 50,739	€ 47,752	€ 48,349	€ 49,612	€ 50,859	€ 52,097	€ 53,320	€ 54,523	€ 55,706	€ 56,866	€ 57,999
COGS	€ 13,069	€ 16,423	€ 15,727	€ 17,045	€ 18,886	€ 18,126	€ 18,348	€ 18,709	€ 19,262	€ 19,716	€ 20,160	€ 20,633	€ 21,075	€ 21,511	€ 21,943
Gross Margin	64.4%	62.3%	62.0%	61.3%	62.8%	62.0%	62.1%	62.3%	62.1%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%

Discount Rate Assumptions

Risk Free Rate	4.84%
Equity Risk Premium	6.00%
Pre-Tax Cost of Debt	7.00%
WACC Premium	2.00%

Beta Calculations

1 Comparable Companies

Name	Ticker	Levered β	Debt	% Debt	Equity Value	% Equity	Tax Rate	Unlevered β
Bristol-Myers Squibb Company (NYSE: BMY)		0.37	€ 37,497	28%	€ 95,027	72%	23%	0.28
Pfizer Inc. (NYSE: PFE)		0.58	€ 36,172	19%	€ 155,189	81%	23%	0.49
GSK plc (LSE: GSK)		0.29	€ 23,949	27%	€ 65,291	73%	23%	0.23
Eli Lilly and Company (NYSE: LLY)		0.33	€ 15,744	3%	€ 488,814	97%	23%	0.32
Merck & Co., Inc. (NYSE: MRK)		0.38	€ 29,381	11%	€ 236,849	89%	23%	0.35
AstraZeneca PLC (LSE: AZN)		0.18	€ 28,601	14%	€ 181,464	86%	23%	0.16
Novartis AG (SWX: NOVN)		0.51	€ 25,688	13%	€ 179,019	87%	23%	0.46
Merck KGaA (XTRA: MRK)		0.67	€ 10,428	13%	€ 68,238	87%	23%	0.60
Sanofi (ENXTPA: SAN)		0.46	€ 21,212	16%	€ 107,696	84%	23%	0.40
Roche Holding AG (SWX: ROG)		0.2	€ 27,650	12%	€ 198,217	88%	23%	0.18
Reckitt Benckiser Group plc (LSE: RKT)		0.1	€ 10,138	19%	€ 44,109	81%	23%	0.08
AbbVie Inc. (NYSE: ABBV)		0.48	€ 59,326	21%	€ 224,298	79%	23%	0.40
Corteva, Inc. (NYSE: CTVA)		0.8	€ 1,614	5%	€ 30,633	95%	23%	0.77
Novo Nordisk A/S (CPSE: NOVO B)		0.2	€ 3,456	1%	€ 415,250	99%	23%	0.20
Abbott Laboratories (NYSE: ABT)		0.68	€ 16,485	9%	€ 158,757	91%	23%	0.63
FMC Corporation (NYSE: FMC)		0.9	€ 3,146	34%	€ 6,149	66%	23%	0.65
Median		0.42	22580	13%	156973	87%	0.23	0.37
Bayer	BAYN	1.16	41652	51%	40722	49%	23%	0.65

2 Veralto

Name	Ticker	Unlevered β	Debt	% Debt	Equity Value	% Equity	Tax Rate	Levered β
Current Capital Structure:	VLTO	0.37	41652	51%	40722	49%	23%	0.67
"Optimal" Capital Structure:	VLTO	0.37	22580	13%	156973	87%	23%	0.41

WACC

1 Cost of Equity

Cost of Equity Based on Comparables, Current Capital Structure:	8.84%
Cost of Equity Based on Comparables, "Optimal" Capital Structure:	7.32%
Cost of Equity Based on Historical Beta:	11.80%

2 WACC

WACC, Current Capital Structure:	7.09%
WACC, "Optimal" Capital Structure:	7.08%
WACC, Current Capital Structure and Historical Cost of Equity:	8.56%
Average WACC Produced by All Methods:	7.58%
Average WACC Produced by All Methods + Premium:	9.58%

Crop Science	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	€ 2,117	€ 2,190	€ 2,309	€ 2,430	€ 2,553	€ 2,676	€ 2,801	€ 2,926	€ 3,050	€ 3,175
(-) Taxes	(€ 487)	(€ 504)	(€ 531)	(€ 559)	(€ 587)	(€ 616)	(€ 644)	(€ 673)	(€ 702)	(€ 730)
NOPAT	€ 1,630	€ 1,686	€ 1,778	€ 1,871	€ 1,966	€ 2,061	€ 2,157	€ 2,253	€ 2,349	€ 2,445
(+) Depreciation & Amortization	€ 2,748	€ 2,775	€ 2,858	€ 2,940	€ 3,020	€ 3,098	€ 3,173	€ 3,245	€ 3,315	€ 3,381
(-) Capital Expenditures	(€ 1,561)	(€ 1,576)	(€ 1,624)	(€ 1,670)	(€ 1,715)	(€ 1,760)	(€ 1,802)	(€ 1,843)	(€ 1,883)	(€ 1,921)
(-) Change in Net Working Capital	(€ 598)	(€ 106)	(€ 208)	(€ 236)	(€ 219)	(€ 216)	(€ 218)	(€ 211)	(€ 207)	(€ 203)
Unlevered Free Cash Flow	€ 555	€ 2,779	€ 2,805	€ 2,905	€ 3,051	€ 3,183	€ 3,309	€ 3,444	€ 3,574	€ 3,702
Discount Factor	0.98	0.89	0.81	0.74	0.68	0.62	0.56	0.51	0.47	0.43
Discounted Free Cash Flow	€ 542	€ 2,478	€ 2,282	€ 2,157	€ 2,066	€ 1,967	€ 1,866	€ 1,772	€ 1,677	€ 1,585
Sum of PV of UFCF	€ 18,393									

Bridge to Equity - Crop Science

Exit Multiple Method

Discount Rate	9.6%
Sum of PV of Cash Flow	€ 18,393
Terminal Value - Crop Science	€ 65,559
PV of Terminal Value:	€ 28,079
Implied Terminal Enterprise Value	€ 46,472

Pharmaceuticals	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	€ 4,089	€ 4,315	€ 4,449	€ 4,586	€ 4,726	€ 4,871	€ 5,019	€ 5,172	€ 5,328	€ 5,489
(-) Taxes	(€ 941)	(€ 992)	(€ 1,023)	(€ 1,055)	(€ 1,087)	(€ 1,120)	(€ 1,154)	(€ 1,189)	(€ 1,225)	(€ 1,262)
NOPAT	€ 3,149	€ 3,323	€ 3,425	€ 3,531	€ 3,639	€ 3,751	€ 3,865	€ 3,982	€ 4,103	€ 4,226
(+) Depreciation & Amortization	€ 1,035	€ 1,045	€ 1,066	€ 1,087	€ 1,109	€ 1,131	€ 1,154	€ 1,177	€ 1,200	€ 1,224
(-) Capital Expenditures	(€ 1,340)	(€ 1,354)	(€ 1,381)	(€ 1,408)	(€ 1,437)	(€ 1,465)	(€ 1,495)	(€ 1,525)	(€ 1,555)	(€ 1,586)
(-) Change in Net Working Capital	(€ 458)	(€ 81)	(€ 159)	(€ 180)	(€ 168)	(€ 165)	(€ 167)	(€ 161)	(€ 159)	(€ 156)
Unlevered Free Cash Flow	€ 596	€ 2,933	€ 2,951	€ 3,029	€ 3,144	€ 3,251	€ 3,357	€ 3,473	€ 3,590	€ 3,709
Discount Factor	0.98	0.89	0.81	0.74	0.68	0.62	0.56	0.51	0.47	0.43
Discounted Free Cash Flow	€ 583	€ 2,615	€ 2,401	€ 2,249	€ 2,129	€ 2,009	€ 1,893	€ 1,787	€ 1,685	€ 1,589
Sum of PV of UFCF	€ 18,940									

Bridge to Equity - Pharma

Exit Multiple Method

Discount Rate	9.6%
Sum of PV of Cash Flow	€ 18,940
Terminal Value - Crop Science	€ 67,132
PV of Terminal Value:	€ 28,753
Implied Terminal Enterprise Value	€ 47,693

Consumer Health	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	€ 1,020	€ 1,057	€ 1,096	€ 1,135	€ 1,173	€ 1,211	€ 1,248	€ 1,285	€ 1,321	€ 1,356
(-) Taxes	(€ 235)	(€ 243)	(€ 252)	(€ 261)	(€ 270)	(€ 279)	(€ 287)	(€ 296)	(€ 304)	(€ 312)
NOPAT	€ 785	€ 814	€ 844	€ 874	€ 903	€ 933	€ 961	€ 990	€ 1,017	€ 1,044
(+) Depreciation & Amortization	€ 379	€ 390	€ 402	€ 413	€ 424	€ 435	€ 446	€ 456	€ 466	€ 475
(-) Capital Expenditures	(€ 214)	(€ 221)	(€ 227)	(€ 234)	(€ 240)	(€ 246)	(€ 252)	(€ 258)	(€ 263)	(€ 269)
(-) Change in Net Working Capital	(€ 144)	(€ 26)	(€ 50)	(€ 57)	(€ 53)	(€ 52)	(€ 53)	(€ 51)	(€ 50)	(€ 49)
Unlevered Free Cash Flow	€ 201	€ 958	€ 968	€ 996	€ 1,035	€ 1,070	€ 1,103	€ 1,137	€ 1,170	€ 1,202
Discount Factor	0.98	0.89	0.81	0.74	0.68	0.62	0.56	0.51	0.47	0.43
Discounted Free Cash Flow	€ 197	€ 854	€ 788	€ 740	€ 701	€ 661	€ 622	€ 585	€ 549	€ 515
Sum of PV of UFCF	€ 6,211									

Bridge to Equity - Consumer Health

Exit Multiple Method

Discount Rate	9.6%
Sum of PV of Cash Flow	€ 6,211
Terminal Value - Crop Science	€ 21,974
PV of Terminal Value:	€ 9,412
Implied Terminal Enterprise Value	€ 15,623

Other	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	(€ 729)	(€ 798)	(€ 807)	(€ 778)	(€ 794)	(€ 793)	(€ 788)	(€ 792)	(€ 791)	(€ 790)
(-) Taxes	€ 168	€ 184	€ 185	€ 179	€ 183	€ 182	€ 181	€ 182	€ 182	€ 182
NOPAT	(€ 561)	(€ 614)	(€ 621)	(€ 599)	(€ 611)	(€ 610)	(€ 607)	(€ 610)	(€ 609)	(€ 608)
(+) Depreciation & Amortization	€ 300	€ 294	€ 298	€ 297	€ 296	€ 297	€ 297	€ 297	€ 297	€ 297
(-) Capital Expenditures	(€ 283)	(€ 289)	(€ 303)	(€ 292)	(€ 295)	(€ 297)	(€ 294)	(€ 295)	(€ 295)	(€ 295)
(-) Change in Net Working Capital										
Unlevered Free Cash Flow	(€ 136)	(€ 610)	(€ 626)	(€ 594)	(€ 610)	(€ 610)	(€ 604)	(€ 608)	(€ 607)	(€ 607)
Discount Factor	0.98	0.89	0.81	0.74	0.68	0.62	0.56	0.51	0.47	0.43
Discounted Free Cash Flow	(€ 133)	(€ 544)	(€ 510)	(€ 441)	(€ 413)	(€ 377)	(€ 341)	(€ 313)	(€ 285)	(€ 260)
Sum of PV of UFCF	(€ 3,616)									

Bridge to Equity - Consumer Health

Exit Multiple Method

Discount Rate	9.6%
Sum of PV of Cash Flow	(€ 3,616)
Terminal Value - Crop Science	(€ 4,934)
PV of Terminal Value:	(€ 2,113)
Implied Terminal Enterprise Value	(€ 5,729)

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