

Analysts

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Basic Information

Last Closed Price	GBP£15.02
12M Target Price	GBP£18.38
+/- Potential	+22.3%
Bloomberg Ticker	GSK LN
GICS Sector	Healthcare
GICS Sub-Industry	Pharmaceuticals

1Y Price v Relative Index



Key Financials

Market Cap	74.92B
Basic Shares O/S	4.99B
Free Float	98.7%
52-Wk High-Low	GBP 1408.80 - GBP 1648.80
Fiscal Year End	31-Dec-19

(GBP M)	FY16A	FY17A	FY18A
Revenue	27,889	30,186	30,821
EBITDA	7,062	8,648	9,928
Margin (%)	25.3	28.6	32.2
Net Income	912	1,532	3,623
ROA (%)	5.9	7.5	8.3
ROE (%)	15.3	51.3	113.0
EV/EBITDA	10.32	8.95	9.13
P/E Ratio	16.28	13.89	13.28
D/E Ratio	378.6	489.8	709.8

Key Executives

Emma Walmsley	Chief Executive Officer
Iain James	Chief Financial Officer
Mackay	

Healthy People, Healthier Gains

We are initiating coverage of GlaxoSmithKline PLC with a Buy rating and a GBP£18.38 12M price target.

1Q19 Earnings Review

- Total revenue was up 6% yoy at £7,661m; Pharmaceuticals sales revenue was up 4% yoy at £4,158m driven by strong sales in new respiratory products; Vaccines revenues up 23% yoy at £1,522m mainly due to high demand for Shingrix; Consumer healthcare revenue remained relatively constant at £1,981m
- Adjusted operating profit was £2,163m, 12% higher than Q1 2018; Adjusted operating margin of 28.2% was also 1.6% above Q1 2018's margin due to strong sales growth and phasing of R&D
- Adjusted EPS was 30.1p compared with 24.6p in Q1 2018, up 22% yoy. The improvement reflected an improved trading performance, the reduced non-controlling interest allocation of Consumer Healthcare profits following the buyout in Q2 2018 and a one-off benefit to the share of after tax profit of the associate, Innoviva.
- Net cash inflow from operating activities was £663m in the quarter (Q1 2018: £863 million) and free cash flow was £165 million (Q1 2018: £329 million). The reduction primarily reflected the adverse phasing of payments for returns and rebates, as well as the initial step-down impact from Advair generic competition and an increase in trade receivables as a result of strong sales in the quarter, partly offset by improved operating profits and lower contingent consideration payments compared with Q1 2018 which included a milestone payment to Novartis.

Investment Thesis

- Strengthened position in growing oncology market:** GSK's 2019 Acquisition of Tesaro and global alliance with Merck kGaA provides a strong foothold on the burgeoning oncology market.
- Consumer healthcare business spin-off to create accretive value:** Joint venture between GSK & Pfizer to produce strong synergistic benefits through the combination of their complementary portfolios.
- Cementing long-term market leader position through R&D:** In an industry which is highly dependent on innovation, GSK's ability to carry out significant R&D coupled with a high success rate of R&D and a strong pipeline of upcoming products puts it ahead others

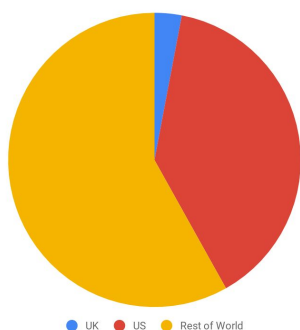
Valuation

Our 12-month price target from date of coverage is GBP£18.38. This represents a 22.3% upside compared to the last closed price of GBP£15.02. We believe that the strong sales from respiratory pharmaceutical products and Shingrix will continue throughout 2019 and the synergistic effects of GSK's Acquisition and partnerships will be reflected by late 2019.

Investment Risks

- Ongoing US-China trade war may drive up costs, leading to compression of margins
- Leadership position highly dependent on successful R&D. Poor results from R&D efforts may lead to them potentially losing their market leader position
- No-deal Brexit may compromise existing UK trade deals

Figure 1: Revenue Breakdown by Geography



Source: Annual Report 2018

Source: Bloomberg

Company Overview

GlaxoSmithKline (GSK) is a healthcare company incorporated in Dec 1999, with the goal of becoming a leading and trustworthy global healthcare business. Currently, it has market presence in around 160 countries, with three primary business lines: pharmaceuticals, vaccines and consumer healthcare.

Being a primary pharmaceutical manufacturer, GSK's clientele include pharmaceutical retailers - pharmacies, clinics, hospitals, etc. GSK's main competitors operate in the global healthcare conglomerate group, inclusive of giants like Pfizer, Merck&Co, Roche and Johnson&Johnson.

2018 Performance Review

- Group sales were at **£30.8 billion**, up 2% yoy.
- Cost of sales down 1.0% yoy - primarily reflecting favourable comparison with writedown of assets in 2017.
- SG&A costs up 0.1% yoy - primarily reflecting higher restructuring costs and investment in promotional product support, particularly for new launches in Respiratory, HIV and Vaccines.
- Total operating profit was £5,483 million in 2018 compared with £4,087 million in 2017. The increase primarily reflected a favourable comparison with charges in 2017 arising from the impact of US tax reform on the valuations of the Consumer Healthcare and HIV businesses and reduced asset impairments and restructuring costs in cost of sales and R&D.
- Standout product: Shingrix (vaccine for shingles) - sales of **£784 million** in launch year.
- Total group operating margin 17.8%; up 4.3% yoy.
- EPS more than doubled to 73.7p, expected dividend for 2019: 80p.
- 2019 targets: strengthening pharmaceutical pipelines to drive research and development efforts; major data readouts and positive newsflows for several new medicines.
- Corporate restructuring looks to pay off with more streamlined business structure.

Industry Outlook

Strong M&A tendencies amongst competitors

The healthcare sector has been competitive in recent years, with companies pursuing aggressive merger and acquisition plans, in order to expand and diversify their existing portfolio. This was seen in the 2018 US\$59b acquisition of Shire Pharmaceuticals by Takeda; as well as the 2019 US\$74b acquisition of Celgene Inc by Bristol Myers Squibb. In the context of intellectual property protection - where there is pressure on companies to constantly innovate and develop viable products to add into their patent portfolios, this tendency to pursue horizontal M&A opportunities concentrates market power to a few dominant firms as mergers and acquisitions allow for these firms to further expand their already large patent portfolio, and continue keeping the rights to produce these successful pharmaceutical products in years to come.

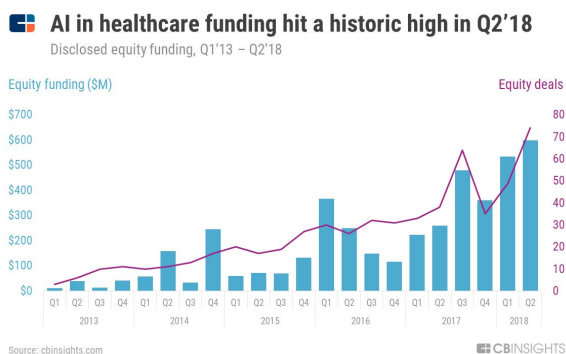
In 2019, another prominent theme in this aspect is the emergence of tech companies in the healthcare industry. Companies such as Amazon and Apple have announced plans to introduce healthcare technologies into their artificial intelligence platforms. These competitors will bring massive scale and capital resources into the healthcare market.

However, despite such strong M&A tendencies, the eventual impact on the business is uncertain,, as studies from BofAML have shown that clinical measures often remain unchanged without a clear post-implementation execution strategy.

Artificial Intelligence Revolutionizing the Pharmaceutical Industry

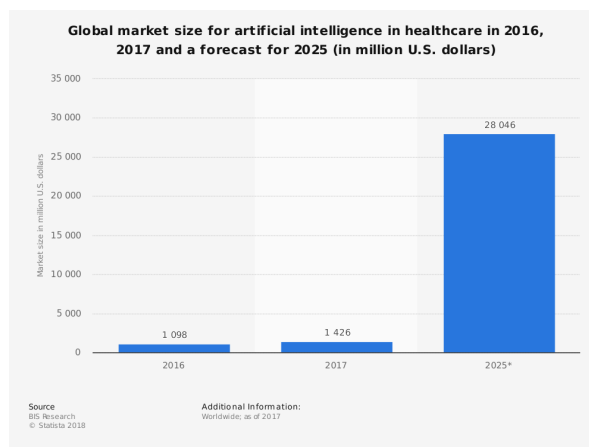
Over the years, healthcare has emerged as prominent area for artificial intelligence (AI) research and applications. According to CBInsights, in the private market, healthcare AI startups have raised \$4.3B across 576

Figure 2: AI in healthcare funding hit a historic high in Q2'18



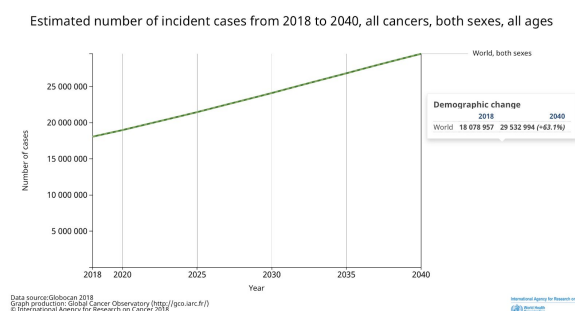
Source: CBInsights

Figure 3: Forecast for 2025 global market size for AI in healthcare



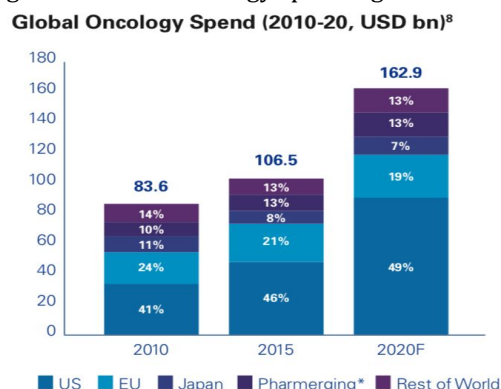
Source: Statista

Figure 4: Forecast of cancer incidence in 2040



Source: International Agency for Research on Cancer

Figure 5: Global oncology spending 2020 forecast



Source: KPMG

deals since 2013, topping all other industries in AI deal activity. Furthermore, pharmaceutical companies are increasingly experimenting with deep learning to design new drugs. For example, Merck has partnered with startup Atomwise and GlaxoSmithKline has partnered with Insilico Medicine to catalyze drug discovery and preclinical drug development. Acknowledging that the traditional drug creation process requires timelines of about 15 years, costs in excess of \$1bn and has a minuscule rate of success, global pharmaceutical companies are putting their faith in AI for future breakthroughs in drug development. With this growing trend of AI in healthcare, Statista has reported that the global market size for this industry will increase 28 folds from approximately \$1.5b in 2017 to \$28b in 2025.

Global shift in health focus

Aging populations and the rise of noncommunicable diseases are driving an industry shift away from curing disease in the short term toward preventing and managing disease and promoting overall well-being in the long term. Life expectancy continues to climb, with the number of people aged over 65 globally is estimated to be more than 668 million, 11.6% of the total global population.

At the same time, the middle class is experiencing significant growth. The Brookings Institute estimates 65% of the global population will be middle class by 2030. A rising middle class will fuel demand for more health options and a greater market for consumer healthcare.

Investment Thesis

1. Targeted Business Development Strengthens Position in Oncology Market

Amidst the forecasted trend of a 63.1% increase in global cancer incidence by 2040, GSK has made significant progress in its oncology pipeline with its January 2019 Acquisition of Tesaro and the February 2019 global alliance with Merck KGaA. The acquisition of Tesaro will add its ovarian cancer drug, Zejula to GSK's product profile while the global immuno-oncology collaboration with Germany's Merck KGaA to jointly develop and commercialize the latter's bifunctional fusion protein immunotherapy M7824 has the potential to address multiple difficult-to-treat cancers. This is in line with GSK collection of molecules with diverse mechanisms of action, providing an opportunity for many synergistic innovative cancer combinations.

As a result, GSK now has 16 assets in development, double from 8 as of July 2018 with eight studies ongoing or expected to be initiated in 2019 on M7824 including studies in non-small cell lung and biliary tract cancers. At the same time, GSK expects to launch 3 new cancer medicines in the next two years to capture the growing oncology market which is poised to be increase from \$106.5bn in 2015 to \$162.9bn in 2020.

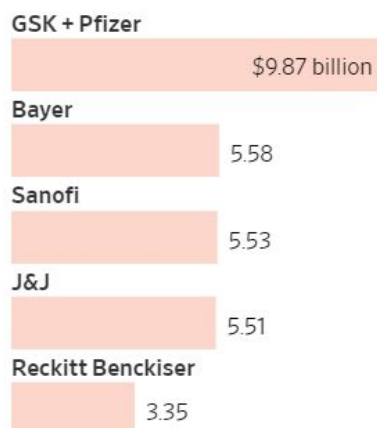
On the sideline, GSK is also divesting its non-core Consumer Healthcare nutrition business to Unilever and is forming a new joint venture with Pfizer to focus on its pharmaceuticals business, particularly oncology.

Therefore, capitalizing on the projected development of the cancer drug market, GSK's expansion of its oncology repertoire readily positions it to capture a greater share of this thriving industry and lead to increased sales.

2. Consumer healthcare business spin-off to create accretive value and is well positioned to capitalize on the healthcare trends

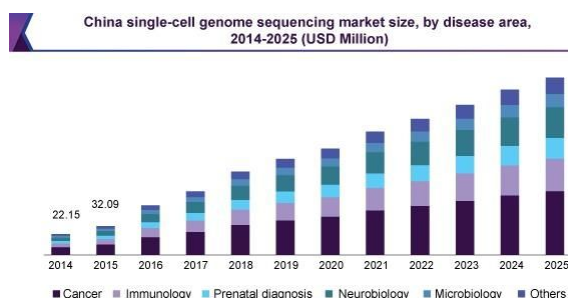
GSK & Pfizer has announced a joint venture for their divested consumer healthcare business. Together, they post a combined sales of \$12.7 bn,

Figure 6: Size of largest consumer healthcare players



Source: Nicholas Hall Group

Figure 7: China's genome sequencing industry projected growth



Source: Grand View Research

the largest OTC drug maker in the world. This joint venture will be well positioned to generate strong sales, cash flow and earnings growth through innovations and cost synergies. The proposed combination will include a highly complementary portfolio of trusted consumer brands including: GSK's Sensodyne, Voltaren and Panadol and Pfizer's Advil, Centrum and Caltrate and is expected to become the category leader in Pain Relief, Respiratory, Vitamin and Mineral Supplements, Digestive Health, Skin Health and Therapeutic Oral Health.

This divestiture also benefits GSK, leaving GSK with a healthier balance sheet as a sizeable portion of the group's £22bn debt could be carved into the consumer healthcare business. This move results in higher flexibility to invest in future opportunities for GSK.

GSK's long term growth story with the world's aging population is set to play out in the near future. Size is an important factor of consideration by the consumers according to PwC, where they are likely to trust treatments with large retails more than smaller providers and therefore, the new joint venture is set to capitalize on the growing demands of the aging population due to them being one of the largest OTC drug makers in the world.

3. Cementing long-term market leader position through R&D

Ability to carry out significant R&D

GSK's long-term growth is dependent on constant successful launches of new products in its three segments - pharmaceuticals, vaccines and consumer healthcare products. With strong cash flow and earnings, GSK has been able to increase R&D expenses by over 20% from FY15 to FY18, which has allowed it to launch drugs and vaccines ahead of competitors consistently.

R&D efforts resulting in strong pipeline of upcoming products

GSK's R&D efforts has shown consistent results, as proven by the strong pipeline of upcoming products. The company splits its product development into different stages - Phase 1, Phase 2, Phase 3 and Submitted for Approval. As of March 2019, GSK has 11 medicine and vaccines in the Phase 3 stage and 2 drugs for infectious disease in the final stage, awaiting approval. We expect the approval of these drugs to sustain sales increase over the coming years and with a further 31 products in the Phase 2 stage, visibility of earnings is strong. We believe that GSK is able to maintain their market leadership position, driven by its R&D efforts.

Increasing success rate of R&D

Across the industry, over 90% of drugs fail the testings and trials, and they end up not reaching the patients. GSK has crucially identified the reason - incomplete understanding of biological target of drug and human disease. In response, over 60% of GSK's new targets have been supported by human genetic evidence. This has been facilitated by the investment in UK Biobank, which gives GSK access to data of over half a million of volunteers. This gives them ability to use Artificial Intelligence to model where to find patients for clinical trials and even predict outcomes using virtual patients. We expect the initiative to increase the success rate of GSK's R&D efforts and speed up the process of drugs being ready for launch.

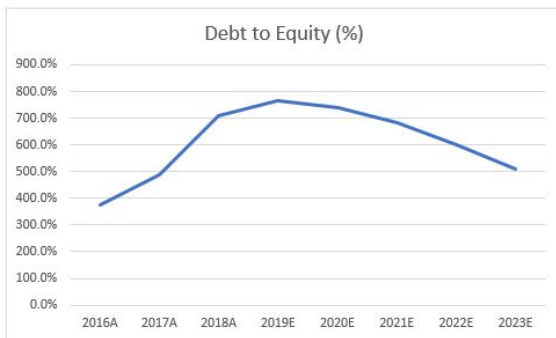
Overall, GSK has a sound R&D strategy that we believe will help sustain earnings growth moving forward, in an industry that relies ever so heavily on innovation.

Catalysts

- 1. Accelerated retirement of HighSeq systems as customers increasingly adopt the new NovaSeq system** - to drive short-term revenue growth and provide earning surprise
- 2. Clearing up of trade tensions between US and China, with a possible trade deal in the pipeline** - removal of tariffs on US imports to China to clear up hindrance in expansion plans in China

Financial Analysis

Figure 8: Trend of Debt to Equity ratio



Source: NUS Investment Society Estimates

	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Profitability Ratios								
Gross Margin (%)	68.1%	69.1%	68.5%	68.6%	68.6%	68.6%	68.6%	68.6%
EBITDA Margin (%)	21.3%	25.0%	27.0%	26.4%	25.5%	25.3%	24.9%	24.6%
Operating Margin (%)	19.0%	22.8%	24.8%	23.9%	23.8%	23.7%	23.6%	23.4%
Net Profit Margin (%)	3.8%	7.2%	13.1%	10.8%	11.2%	11.2%	11.3%	11.3%
Liquidity Ratios								
Quick Ratio (x)	0.58	0.37	0.47	0.46	0.42	0.41	0.39	0.38
Current Ratio (x)	0.88	0.60	0.75	0.75	0.70	0.67	0.65	0.63
Credit Ratios								
Debt to Assets (%)	31.7%	30.2%	44.8%	45.7%	46.3%	46.7%	46.7%	46.3%
Debt to Equity (%)	377.3%	487.9%	708.0%	765.4%	740.1%	683.5%	598.5%	509.0%
Interest Cover (x)	7.54	9.57	10.12	8.84	12.33	12.85	14.55	16.48
Efficiency Ratios								
ROA (%)	1.8%	3.8%	7.0%	5.9%	6.4%	6.6%	6.8%	7.1%
ROE (%)	21.4%	62.2%	110.2%	98.3%	101.7%	96.1%	87.9%	77.8%
ROIC (%)	22.2%	32.6%	22.7%	19.3%	19.7%	20.1%	20.6%	21.0%

Overview:

The chart above displays various financial ratios relevant in showing certain telling signs about GSK's current and projected performance 5 years forward, with specific attention paid to credit ratios which would tend to be more sensitive due to various factors we raised above in our investment thesis.

Stable Margins

We expect margins to remain relatively stable over the forecast period, with potential upside surprises from cost savings if UK manages to secure better trade deals independently post-Brexit. Although our base-case does not account for that given the uncertainty surrounding Brexit.

Improving Credit Ratios

Going forward, we foresee that GSK's leverage ratio to decline sharply as they proceed with the consumer healthcare spin-off. We believe that GSK would be able to leverage upon this improved debt ratio to attain more fundings from banks and financial institutions. This would produce the business with the necessary financing options, coupled with their improving cash position, we expect GSK to be able to deliver promising R&D innovations and good acquisitions.

Valuations

Valuation Price Target: **GBP18.38** (+22.3%)

DCF Model

A discounted cash flow analysis was used to estimate intrinsic value of GSK's share price. The firm's cash flows is forecasted over 5 years because GSK's revenue growth in the pharmaceuticals and consumer healthcare domains are expected to be consolidated and would be best reflected in burgeoning growth in the short term. The model is driven by sales of pharmaceuticals, consumer healthcare services, vaccines and corporate services on the revenue side. On the cost front, cost of sales, SG&A expenses, R&D expenses, working capital and CapEx serve as crucial parameters for projections due to how operating expenses limit

Figure 9: WACC Buildup

Cost of Equity	7.75%
Risk-free rate	0.988%
Beta	1.0171
Market Risk Premium	6.7%
Cost of Debt	2.43%
Pre-tax cost of debt	3.00%
Tax rate	19%
Market Cap (GBP\$'000)	74,595,178
Total Debt (GBP\$'000)	25,996,000
WACC	5.7%

Source: Bloomberg, Damodaran, NUS Investment Society Estimates

Figure 10: DCF Valuation, Terminal Growth Method

Perpetuity Growth Method	
Total PV of Projected FCFF	24,560,648
Long-term growth rate	0.0%
Final year FCFF	6,642,873
Terminal value	115,559,944
PV of terminal value	89,861,733
Enterprise value	114,422,381
Less: Debt	(25,996,000)
Add: Cash	4,517,000
Less: Minority interest	(688,000)
Add: Investments in associates	-
Implied equity value	92,255,381
NOSH	4,966,390
Implied stock price	\$ 18.58

Source: NUS Investment Society Estimates

Figure 11: DCF Valuation, Exit Multiple Method

Exit Multiple Method	
Total PV of Projected FCFF	24,560,647.90
Terminal year EBITDA	9,483,018.13
Exit EV/EBITDA	12.0x
Terminal value	113,796,218
PV of terminal value	88,490,224
Enterprise value	113,050,872
Less: Debt	(25,996,000)
Add: Cash	4,517,000
Less: Minority interest	(688,000)
Add: Investments in associates	-
Implied equity value	90,883,872
NOSH	4,966,390
Implied stock price	\$ 18.30

Source: NUS Investment Society Estimates

Figure 12: Sensitivity Tables

Terminal Growth Rate		4.7%	5.2%	WACC 5.7%	6.2%	6.7%
	-1.0%	19.30	17.38	15.74	14.33	13.10
	-0.5%	21.19	18.94	17.04	15.44	14.05
	0.0%	23.47	20.79	18.58	16.72	15.14
	0.5%	26.29	23.03	20.40	18.22	16.40
	1.0%	29.86	25.80	22.61	20.02	17.88

Exit Multiple		4.7%	5.2%	WACC 5.7%	6.2%	6.7%
	11.0x	17.65	17.23	16.81	16.41	16.02
	11.5x	18.43	17.99	17.56	17.14	16.73
	12.0x	19.20	18.75	18.30	17.87	17.44
	12.5x	19.98	19.50	19.04	18.59	18.15
	13.0x	20.75	20.26	19.78	19.32	18.86

Source: NUS Investment Society Estimates

upside to revenue growth; and GSK's core nature as a pharmaceutical producer, in which R&D is a crucial factor in allowing the business to maintain its competitive edge. The DCF model is constructed based on guidance from historical performance, annual report, industry outlook, along with investor day presentations.

Weighted Average Cost of Capital (WACC)

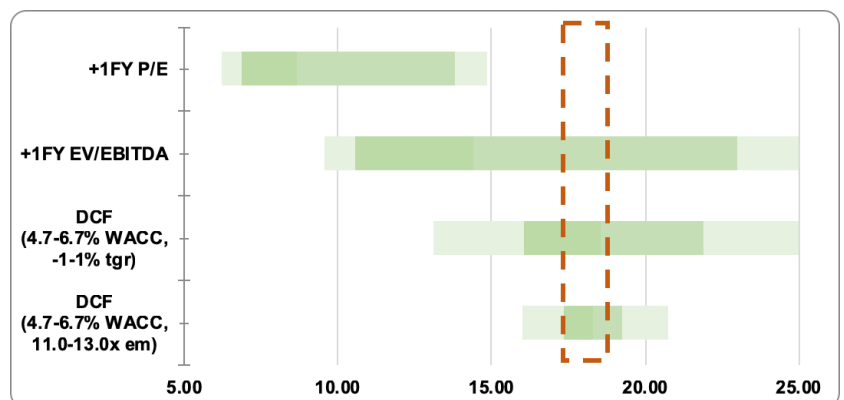
To calculate Beta, linear regression of GSK's stock price were run against the FTSE 100 Index for time frame of 12 months on a weekly basis and then averaged and adjusted. CAPM was used to estimate Cost of Equity, while the current debt outstanding was used during calculation of Cost of Debt in a weighted average manner. A corporate tax rate of 19% was used in computation of the interest tax shield. With the aforementioned figures, we arrive at a WACC of 5.7% for GSK.

Revenue Growth

Revenue growth for GSK in the model is based primarily on projecting percentage growth rates for each operating segment of GSK's business, namely pharmaceuticals, consumer healthcare, vaccines and corporate services. As GSK adopts its aforementioned business strategies, we expect upside in revenue growth in the next 2-3 years, most notably in vaccines and pharmaceuticals where the business line is projected to significantly outperform its 2018 figures. This revenue growth is driven primarily by the new developments in the oncology market and its R&D efforts paying off - both of which will result in significant payoff for the business' prospects.

Terminal Growth

Despite projecting strong growth in the near future, it is difficult to look far ahead into UK's future economic prospects due to the headwinds and uncertainty associated with Brexit. Hence, we take a more conservative stance and propose a terminal growth rate of 0%, as accounted for in the DCF model.



Relative Valuation

After identifying GSK's peer group, we found that GSK is currently undervalued compared to its core peer group. Hence, in our valuation, we proposed a 20% trading premium - a margin that we feel is appropriate given GSK's strong business prospects in the near future.

With reference to the football field above, we see that the DCF analysis and the forward EV/EBITDA analysis provide a rough consensus about GSK's implied target price. Overall, we took a blended mix of all 4 valuation methodologies and came to an implied 12M target price of \$18.38 GBP, which reflects a 22.3% upside to the current trading price. With that, we are confident of our Buy recommendation, and this validates our view of GSK's prospects in the next 12 months.

B1: Business Risk - Poor results from R&D

GSK's leadership position in the market is heavily reliant on positive R&D results to drive sales through new products. R&D efforts have allowed GSK to stay ahead of competition thus far. Should R&D efforts not materialise into marketable products, or the company loses out to competitors in terms of new drug/vaccine discovery, GSK may lose its market leader position. This may lead to a vicious cycle in which falling sales impact its ability to carry out significant R&D in future.

However, we believe that GSK's strategy regarding R&D is sound and this risk should be minimal.

M2: Market Risk - Prolonged trade tensions may lead to sustained increase in costs

With US President Donald Trump recently claiming that tariffs will continue to remain in place to ensure China complies with their commitments, China have been less willing to put forth commitments. There have even been reports claiming that China is pushing back on certain demands and backtracking on commitments they have previously made. We see a prolonged trade war disrupting supply chains significantly, which will inevitably lead to increased costs for GSK. This is likely to lead to a compression of margins as the company is unlikely to raise prices of drugs significantly.

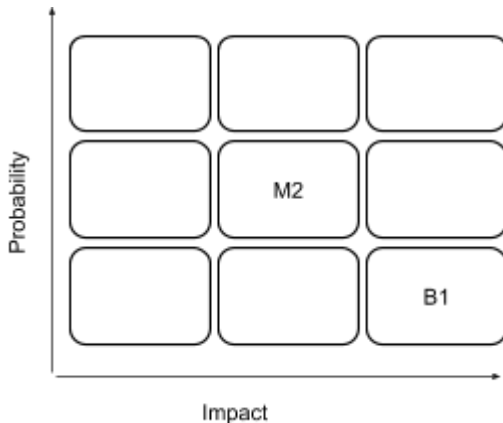
The positive side, however, is that GSK's revenue exposure to China is relatively limited, with over 63% of their revenue coming from the US and Europe.

P3: Political Risk - No-Deal Brexit may compromise existing UK trade deals

Should UK crash out of EU without a deal, UK will struggle to quickly negotiate free trade agreements with the rest of the world. We anticipate downside in both top line and margins due to potential delay in shipments and higher costs from potential tariffs.

We acknowledge the risk of no-deal has risen over the past few months, with multiple extensions already awarded to the original deadline of Article 50. Despite that, recent news coming out of the UK camp is more positive, with Theresa May reportedly willing to compromise with Labour and seek some form of customs union. This would entail closer ties with EU post-Brexit which should mitigate any disruptions from Brexit. Theresa May's willingness to compromise would also likely help them secure a deal before the October deadline.

Figure 13: Investment Risk Matrix



Source: NUS Investment Society Estimates

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Appendix:

Pro Forma Financial Statements

GlaxoSmithKline PLC
Financial Statements

	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E
	31 Dec 2016	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023
Income Statement								
Revenue	27,889	30,186	30,821	31,941	33,633	35,291	37,097	38,623
Cost of sales, exclusive of D&A	(8,907)	(9,317)	(9,714)	(10,042)	(10,574)	(11,095)	(11,663)	(12,143)
Gross profit	18,982	20,869	21,107	21,899	23,059	24,195	25,434	26,480
Operating expenses								
Selling, General & Administrative expense	(7,078)	(7,334)	(7,510)	(7,883)	(8,301)	(8,710)	(9,156)	(9,532)
Research & Development expense	(3,550)	(3,925)	(3,798)	(4,052)	(4,266)	(4,477)	(4,706)	(4,899)
Depreciation and Amortisation	(1,774)	(1,922)	(1,856)	(1,996)	(2,144)	(2,299)	(2,461)	(2,631)
Other operating expense	(1,292)	(799)	(309)	(320)	(337)	(354)	(372)	(387)
Operating income	5,288	6,889	7,634	7,647	8,011	8,356	8,739	9,030
Other income & expense								
Interest expense	(701)	(720)	(754)	(865)	(886)	(961)	(980)	(994)
Interest and Invest. Income	70	87	74	84	84	88	92	95
Income/(Loss) from Affiliates	5	13	31	-	-	-	-	-
Other Non-Operating Inc. (Exp.)	(21)	(24)	(15)	-	-	-	-	-
EBT Excl. Unusual Items	4,641	6,245	6,970	6,867	7,209	7,484	7,851	8,131
Restructuring Charges	(974)	(1,060)	(813)	-	-	-	-	-
Gain (Loss) on Sale of Invest.	207	101	19	-	-	-	-	-
Gain (Loss) on Sale of Assets	275	187	240	-	-	-	-	-
Asset Writedown	-	(690)	(134)	-	-	-	-	-
Legal Settlements	-	(166)	(117)	-	-	-	-	-
Other Unusual Items	(2,210)	(1,092)	(1,365)	(1,700)	(1,790)	(1,879)	(1,975)	(2,056)
EBT Incl. Unusual Items	1,939	3,525	4,800	5,166	5,418	5,605	5,876	6,075
Income Tax Expense	(877)	(1,356)	(754)	(1,712)	(1,795)	(1,857)	(1,947)	(2,013)
Net Income	1,062	2,169	4,046	3,455	3,623	3,748	3,929	4,062
Minority Interests	(150)	(637)	(423)	(361)	(379)	(392)	(411)	(425)
Net Income attributable to shareholders	912	1,532	3,623	3,093	3,244	3,356	3,518	3,637
Net income per share (GBP) attributable to GSK:								
Basic	0.19	0.31	0.74	0.63	0.66	0.68	0.72	0.74
Diluted	0.19	0.31	0.73	0.62	0.65	0.68	0.71	0.73
Weighted-average shares outstanding:								
Basic	4,860	4,886	4,914	4,914	4,914	4,914	4,914	4,914
Diluted	4,909	4,941	4,971	4,971	4,971	4,971	4,971	4,971

EBITDA	5,947	7,545	8,320	8,428	8,813	9,229	9,627	9,929
EBIT	5,288	6,889	7,634	7,647	8,011	8,356	8,739	9,030

Balance Sheet

Assets

Cash and equivalents	4,897	3,833	3,874	4,228	4,227	4,436	4,663	4,855
Short Term Investments	89	78	419	419	419	419	419	419
Trading Asset Securities	133	63	224	224	224	224	224	224
Total Cash & ST Investments	5,119	3,974	4,517	4,871	4,870	5,079	5,306	5,498
Account Receivables	4,615	4,672	5,176	5,198	5,473	5,743	6,037	6,285
Other Receivables	1,285	1,259	756	756	756	756	756	756
Notes Receivable	17	19	14	14	14	14	14	14
Total Receivables	5,917	5,950	5,946	5,968	6,243	6,513	6,807	7,055
Inventories	5,102	5,557	5,476	5,801	6,108	6,409	6,737	7,015
Prepaid Exp.	335	308	330	330	330	330	330	330
Other current assets	238	118	658	658	658	658	658	658
Total current assets	16,711	15,907	16,927	17,627	18,210	18,989	19,838	20,555
Gross Property, Plant & Equipment	21,477	21,156	21,825	24,086	25,769	27,535	29,391	31,324
Accumulated Depreciation	(10,669)	(10,296)	(10,767)	(12,500)	(13,692)	(15,012)	(16,468)	(18,063)
Net Property, Plant & Equipment	10,808	10,860	11,058	11,586	12,077	12,523	12,924	13,261
Long-term Investments	1,248	1,109	1,563	1,563	1,563	1,563	1,563	1,563
Goodwill	5,965	5,734	5,789	5,789	5,789	5,789	5,789	5,789
Other Intangibles	18,776	17,562	17,202	16,759	16,316	15,872	15,427	14,976
Deferred Tax Assets, LT	4,374	3,796	3,887	3,887	3,887	3,887	3,887	3,887
Other Long-Term Assets	1,199	1,413	1,640	1,640	1,640	1,640	1,640	1,640
Total Assets	59,081	56,381	58,066	58,852	59,482	60,263	61,068	61,672

Liabilities

Accounts Payable	3,596	3,528	3,645	3,875	4,080	4,281	4,501	4,686
Accrued Exp.	5,884	6,303	7,972	7,972	7,972	7,972	7,972	7,972
Short-term Borrowings	1,386	762	4,402	6,630	9,162	11,536	13,734	16,018
Curr. Port. of LT Debt	2,720	2,040	1,367	-	-	-	-	-
Curr. Port. of Cap. Leases	23	23	24	24	24	24	24	24
Curr. Income Taxes Payable	1,305	995	965	965	965	965	965	965
Unearned Revenue, Current	158	240	216	216	216	216	216	216
Other Current Liabilities	3,929	12,678	3,900	3,900	3,900	3,900	3,900	3,900
Total Current Liabilities	19,001	26,569	22,491	23,582	26,319	28,894	31,311	33,781
Long-Term Debt	14,620	14,221	20,227	20,271	18,515	16,946	15,378	13,423
Capital Leases	41	43	44	44	44	44	44	44

Unearned Revenue, Non-Current	-	22	19	19	19	19	19	19
Pension & Other Post-Retire. Benefits	4,090	3,539	3,125	3,125	3,125	3,125	3,125	3,125
Def. Tax Liability, Non-Curr.	1,934	1,396	1,156	1,156	1,156	1,156	1,156	1,156
Other Non-Current Liabilities	14,432	7,102	7,332	7,332	7,332	7,332	7,332	7,332
Total Long-term Liabilities	35,117	26,323	31,903	31,947	30,191	28,622	27,054	25,099
Total Liabilities	54,118	52,892	54,394	55,529	56,510	57,516	58,365	58,880
Equity								
Common Stock	1,342	1,343	1,345	1,345	1,345	1,345	1,345	1,345
Additional Paid In Capital	2,954	3,019	3,091	3,091	3,091	3,091	3,091	3,091
Retained Earnings	(5,264)	(6,920)	(2,122)	(3,002)	(3,731)	(4,348)	(4,803)	(5,139)
Treasury Stock	-	-	-	-	-	-	-	-
Comprehensive Inc. and Other	2,092	2,490	2,046	2,215	2,215	2,215	2,215	2,215
Shareholders' Equity	1,124	(68)	4,360	3,649	2,920	2,303	1,848	1,512
Minority Interest	3,839	3,557	(688)	(327)	52	444	855	1,279
Total Equity	4,963	3,489	3,672	3,322	2,972	2,747	2,703	2,792
Total Liabilities and Equity	59,081	56,381	58,066	58,852	59,482	60,263	61,068	61,672
Balance Check (A=L+E)	YES	YES	YES	YES	YES	YES	YES	YES

Cash Flow Statement

Operating:

Profit before tax	1,939	3,525	4,800	5,166	5,418	5,605	5,876	6,075
Share of profits of assocs & JVs	(5)	(13)	(31)	-	-	-	-	-
Interest expense net of interest income	664	669	717	781	802	873	888	899
Depreciation	978	988	954	1,070	1,192	1,320	1,455	1,595
Amortisation of intangibles	796	934	902	926	952	978	1,006	1,036
Impairment loss	226	1,061	350	-	-	-	-	-
Gain on sale of businesses	(5)	(157)	(63)	-	-	-	-	-
Gain on sale of intangibles	(178)	(46)	(201)	-	-	-	-	-
Gain on sale of associates	-	(94)	(3)	-	-	-	-	-
Gain on sale of equity investments	(254)	(37)	(4)	-	-	-	-	-
Gain on consumer healthcare hedging	-	-	(513)	-	-	-	-	-
Business acquisition costs	-	-	47	-	-	-	-	-
Taxes paid	(1,609)	(1,340)	(1,326)	(1,712)	(1,795)	(1,857)	(1,947)	(2,013)
Others	1,597	350	660	-	-	-	-	-

Changes in working capital

Decrease/(increase) in inventories	70	(461)	51	(325)	(307)	(301)	(328)	(277)
Increase in trade receivables	(188)	(287)	(429)	(22)	(275)	(270)	(294)	(248)
Increase in trade payables	96	11	131	230	205	201	219	185
Decrease in other receivables	381	74	17	-	-	-	-	-
Increase in other payables	1,989	1,741	2,362	-	-	-	-	-

Cash Flow from Operating Activities

	6,497	6,918	8,421	6,115	6,191	6,549	6,875	7,252
Capital Expenditure	(1,543)	(1,545)	(1,344)	(1,598)	(1,683)	(1,766)	(1,856)	(1,933)
Sale of Property, Plant, and Equipment	98	281	168	-	-	-	-	-
Cash Acquisitions	(56)	(91)	(153)	-	-	-	-	-
Divestitures	72	282	26	-	-	-	-	-
Sale (Purchase) of Intangible assets	(526)	(609)	(196)	(483)	(509)	(534)	(561)	(584)
Invest. in Marketable & Equity Secur.	576	169	(165)	-	-	-	-	-
Net (Inc.) Dec. in Loans Originated/Sold	-	-	-	-	-	-	-	-
Other Investing Activities	110	70	111	-	-	-	-	-
Cash from Investing	(1,269)	(1,443)	(1,553)	(2,082)	(2,192)	(2,300)	(2,418)	(2,517)

Short Term Debt Issued	1,013	-	81	6,630	9,162	11,536	13,734	16,018
Long-Term Debt Issued	-	2,233	10,138	-	-	-	-	-
Short Term Debt Repaid	(865)	(3,200)	(2,067)	(5,769)	(6,630)	(9,162)	(11,536)	(13,734)
Long-Term Debt Repaid	(18)	(23)	(28)	-	(1,756)	(1,569)	(1,568)	(1,955)
Issuance of Common Stock	89	56	74	-	-	-	-	-
Repurchase of Common Stock	(74)	(65)	-	-	-	-	-	-
Common Dividends Paid	(3,881)	(3,906)	(3,927)	(3,973)	(3,973)	(3,973)	(3,973)	(3,973)
Special Dividend Paid	(969)	-	-	-	-	-	-	-
Other Financing Activities	(1,687)	(1,475)	(10,660)	(781)	(802)	(873)	(888)	(899)
Cash from Financing	(6,392)	(6,380)	(6,389)	(3,892)	(4,000)	(4,041)	(4,231)	(4,543)

Foreign Exchange Rate Adj.	283	(100)	8	-	-	-	-	-
Net increase (decrease) in cash and equivalent	(881)	(1,005)	487	141	(0)	208	227	192
Cash and equivalents, beginning of period	5,486	4,605	3,600	4,087	4,228	4,227	4,436	4,663
Cash and equivalents, end of period	4,605	3,600	4,087	4,228	4,227	4,436	4,663	4,855

GlaxoSmithKline PLC
Revenue Drivers

	Units	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E
		31 Dec 2016	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023
Revenue Summary									
Pharmaceutical	GBP m	12,947	17,276	17,269	17,951	18,669	19,427	20,227	21,074
% y/y	%	nm	33.4%	0.0%	3.9%	4.0%	4.1%	4.1%	4.2%
Consumer Healthcare	GBP m	7,193	7,750	7,658	7,684	7,711	7,741	7,773	7,806
% y/y	%	nm	7.7%	-1.2%	0.3%	0.4%	0.4%	0.4%	0.4%
Vaccines	GBP m	4,592	5,160	5,894	6,307	7,253	8,123	9,098	9,744
% y/y	%	nm	12.4%	14.2%	7.0%	15.0%	12.0%	12.0%	7.1%
Corporate and others	GBP m	-	-	-	-	-	-	-	-
% y/y	%	nm	nm	nm	nm	nm	nm	nm	nm
Total Revenue	GBP m	24,732	30,186	30,821	31,941	33,633	35,291	37,097	38,623
% y/y	%	nm	22.1%	2.1%	3.6%	5.3%	4.9%	5.1%	4.1%
Pharmaceutical									
Total Pharmaceutical	GBP m	12,947	17,276	17,269	17,951	18,669	19,427	20,227	21,074
% y/y	%	nm	33.4%	0.0%	3.9%	4.0%	4.1%	4.1%	4.2%
Respiratory	GBP m	6,510	6,991	6,928	7,101	7,279	7,461	7,647	7,838
% y/y	%	nm	7.4%	-0.9%	2.5%	2.5%	2.5%	2.5%	2.5%
Established products	GBP m	2,541	5,558	5,147	5,301	5,460	5,624	5,793	5,967
% y/y	%	nm	118.7%	-7.4%	3.0%	3.0%	3.0%	3.0%	3.0%
ViiV Healthcare (HIV)	GBP m	3,556	4,350	4,722	5,005	5,306	5,624	5,961	6,319
% y/y	%	nm	22.3%	8.6%	6.0%	6.0%	6.0%	6.0%	6.0%
Immuno-inflammation	GBP m	340	377	472	543	624	718	826	949
% y/y	%	nm	10.9%	25.2%	15.0%	15.0%	15.0%	15.0%	15.0%
Consumer Healthcare									
Total Consumer Healthcare	GBP m	7,193	7,750	7,658	7,684	7,711	7,741	7,773	7,806
% y/y	%	nm	7.7%	-1.2%	0.3%	0.4%	0.4%	0.4%	0.4%
Total wellness	GBP m	3,726	4,001	3,940	3,979	4,019	4,059	4,100	4,141
% y/y	%	nm	7.4%	-1.5%	1.0%	1.0%	1.0%	1.0%	1.0%
Oral care	GBP m	2,223	2,466	2,496	2,508	2,521	2,534	2,546	2,559
% y/y	%	nm	10.9%	1.2%	0.5%	0.5%	0.5%	0.5%	0.5%
Nutritional healthcare	GBP m	674	680	643	611	580	551	524	498
% y/y	%	nm	0.9%	-5.4%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%
Skin health	GBP m	570	603	579	585	591	597	603	609
% y/y	%	nm	5.8%	-4.0%	1.0%	1.0%	1.0%	1.0%	1.0%
OTC medicines	GBP m	-	-	-	-	-	-	-	-
% y/y	%	nm	nm	nm	0.0%	0.0%	0.0%	0.0%	0.0%
Vaccines									
Total Vaccines	GBP m	4,592	5,160	5,894	6,307	7,253	8,123	9,098	9,744
% y/y	%	nm	12.4%	14.2%	7.0%	15.0%	12.0%	12.0%	7.1%
Corporate and Others									
Total Corporate and others	GBP m	-	-	-	-	-	-	-	-
% y/y	%	nm	nm	nm	0.0%	0.0%	0.0%	0.0%	0.0%

GlaxoSmithKline PLC
Financial Projections

		Units	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E
			31 Dec 2016	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022	31 Dec 2023
COGS and Operating Expenses										
Total Revenue	GBP m		27,889	30,186	30,821	31,941	33,633	35,291	37,097	38,623
Cost of sales	GBP m		8,907	9,317	9,714	10,042	10,574	11,095	11,663	12,143
% of revenue	%		31.9%	30.9%	31.5%	31.4%	31.4%	31.4%	31.4%	31.4%
Selling, General & Administrative expense	GBP m		7,078	7,334	7,510	7,883	8,301	8,710	9,156	9,532
% of revenue	%		25.4%	24.3%	24.4%	24.7%	24.7%	24.7%	24.7%	24.7%
Research & Development expense	GBP m		3,550	3,925	3,798	4,052	4,266	4,477	4,706	4,899
% of revenue	%		12.7%	13.0%	12.3%	12.7%	12.7%	12.7%	12.7%	12.7%
Other operating expense	GBP m		1,292	799	309	320	337	354	372	387
% of revenue	%		4.6%	2.6%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Other Unusual Items	GBP m		2,210	1,092	1,365	1,700	1,790	1,879	1,975	2,056
% of revenue	%		7.9%	3.6%	4.4%	5.3%	5.3%	5.3%	5.3%	5.3%
Income Tax										
Profit Before Tax	GBP m		1,939	3,525	4,800	5,166	5,418	5,605	5,876	6,075
Income Tax	GBP m		877	1,356	754	1,712	1,795	1,857	1,947	2,013
% tax rate	%		45.2%	38.5%	15.7%	33.1%	33.1%	33.1%	33.1%	33.1%
Working Capital										
Total Revenue	GBP m		27,889	30,186	30,821	31,941	33,633	35,291	37,097	38,623
COGS	GBP m		8,907	9,317	9,714	10,042	10,574	11,095	11,663	12,143
Accounts receivables	GBP m		4,615	4,672	5,176	5,198	5,473	5,743	6,037	6,285
Inventory	GBP m		5,102	5,557	5,476	5,801	6,108	6,409	6,737	7,015
Accounts payable	GBP m		3,596	3,528	3,645	3,875	4,080	4,281	4,501	4,686
AR as % of Revenue	%		16.5%	15.5%	16.8%	16.3%	16.3%	16.3%	16.3%	16.3%
Inventory as % of COGS	%		57.3%	59.6%	56.4%	57.8%	57.8%	57.8%	57.8%	57.8%
AP as % of COGS	%		40.4%	37.9%	37.5%	38.6%	38.6%	38.6%	38.6%	38.6%
PPE										
Revenue	GBP m		27,889	30,186	30,821	31,941	33,633	35,291	37,097	38,623
Plant, Property & Equipment										
Land and buildings	GBP m				7,811	8,425	9,071	9,748	10,461	11,203
Plant, equipment and vehicles	GBP m				12,537	13,522	14,559	15,647	16,790	17,981
Assets in construction	GBP m				2,140	2,140	2,140	2,140	2,140	2,140
Total Gross PPE	GBP m				22,488	24,086	25,769	27,535	29,391	31,324
Less: Accumulated depreciation	GBP m				(11,430)	(12,500)	(13,692)	(15,012)	(16,468)	(18,063)
Total Net PPE	GBP m				11,058	11,586	12,077	12,523	12,924	13,261
FY2018 PPE										
	Cost	% of total PPE	Avg useful life	% of capex						
Land and buildings	7,811	34.7%	35	38.4%						
Plant, equipment and vehicles	12,537	55.7%	10	61.6%						
Assets in construction	2,140	9.5%	na	0.0%						
Total PPE	22,488									
CAPEX	GBP m		1,543	1,545	1,344	1,598	1,683	1,766	1,856	1,933
CAPEX as % of revenue	GBP m		5.5%	5.1%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%
Capex added to										
Land and buildings	GBP m				614	646	678	713	742	
Plant, equipment and vehicles	GBP m				985	1,037	1,088	1,144	1,191	
Assets in construction	GBP m				-	-	-	-	-	

Total Depreciation	GBP m		1,070	1,192	1,320	1,455	1,595
Depreciation - Useful Life							
Depreciation of existing PPE	GBP m	954	954	954	954	954	954
Depreciation of new PPE	GBP m		116	238	366	501	641

Depreciation of land and buildings

Average useful life		35				
Fiscal year	Capex	2019E	2020E	2021E	2022E	2023E
2019E	614	18	18	18	18	18
2020E	646		18	18	18	18
2021E	678			19	19	19
2022E	713				20	20
2023E	742					21
Total Depre		18	36	55	76	97

Depreciation of plant, equipment and vehicles

Average useful life		10				
Fiscal year	Capex	2019E	2020E	2021E	2022E	2023E
2019E	985	98	98	98	98	98
2020E	1,037		104	104	104	104
2021E	1,088			109	109	109
2022E	1,144				114	114
2023E	1,191					119
Total Depre		98	202	311	425	544

Intangibles

Revenue	GBP m	27,889	30,186	30,821	31,941	33,633	35,291	37,097	38,623
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Intangible Assets

Goodwill	GBP m	5,789	5,789	5,789	5,789	5,789	5,789	5,789
Other intangible assets	GBP m	27,587	28,070	28,579	29,113	29,675	30,259	30,821
Total Gross Intangibles	GBP m	33,376	33,859	34,368	34,902	35,464	36,048	36,610
Less: Accumulated Amortisation	GBP m	(10,385)	(11,311)	(12,263)	(13,241)	(14,247)	(15,283)	(16,371)
Total Net Intangibles	GBP m	22,991	22,548	22,105	21,661	21,216	20,765	20,239

FY2018 Intangibles	Cost	% of total PPE	Avg useful life	% of capex
Goodwill	5,789	17.3%	na	0.0%
Other intangible assets	27,587	82.7%	20	100.0%
	33,376			

Purchase of Intangibles	GBP m	526	609	196	483	509	534	561	584
% of revenue	%	1.9%	2.0%	0.6%	1.5%	1.5%	1.5%	1.5%	1.5%

Added to									
Goodwill	GBP m				-	-	-	-	-
Other intangible assets	GBP m				483	509	534	561	584

Total Amortisation	GBP m	902	926	952	978	1,006	1,036
Amortisation of existing intangibles	GBP m	902	902	902	902	902	902
Amortisation of new intangibles	GBP m		24	50	76	104	134

Amortisation of other intangibles

Useful life 20

Fiscal year	Capex	2019E	2020E	2021E	2022E	2023E
2019E	483	24	24	24	24	24
2020E	509		25	25	25	25
2021E	534			27	27	27
2022E	561				28	28
2023E	584					29
		24	50	76	104	134

Interest Expense and Income

Revenue	GBP m	27,889	30,186	30,821	31,941	33,633	35,291	37,097	38,623
Cash and equivalents	GBP m	4,897	3,833	3,874	4,228	4,227	4,436	4,663	4,855
Cash as % of revenue	%	17.6%	12.7%	12.6%	13.2%	12.6%	12.6%	12.6%	12.6%
Minimum target cash balance	GBP m				4,015	4,227	4,436	4,663	4,855
% of revenue	%				12.6%	12.6%	12.6%	12.6%	12.6%
Total Interest Expense	GBP m				865	886	961	980	994
Cash flow before short-term borrowings									
Cash flow from operating activities	GBP m				6,115	6,191	6,549	6,875	7,252
Cash flow from investing activities	GBP m				(2,082)	(2,192)	(2,300)	(2,418)	(2,517)
Cash flow from financing activities (excl ST)	GBP m				(4,754)	(6,531)	(6,415)	(6,429)	(6,827)
(+) Beginning cash balance	GBP m				3,874	4,228	4,227	4,436	4,663
(-) Target cash balance	GBP m				(4,015)	(4,227)	(4,436)	(4,663)	(4,855)
Available cash before ST debt	GBP m				(861)	(2,531)	(2,374)	(2,198)	(2,284)

ST debt

Average interest rate		3.0%							
Beginning balance	GBP m			5,769	6,630	9,162	11,536	13,734	
(-) Repayments	GBP m			(5,769)	(6,630)	(9,162)	(11,536)	(13,734)	
(+) Additions	GBP m			6,630	9,162	11,536	13,734	16,018	
Ending balance	GBP m			6,630	9,162	11,536	13,734	16,018	
Interest expense from ST debt	GBP m			186	237	310	379	446	

LT debt

Type of LT debt	Principal	Maturity	Average i/r
European MTN	1,756	2020	0.0%
US MTN	1,569	2021	3.13%
US MTN	1,568	2022	2.85%
US MTN	1,955	2023	2.80%
European MTN	893	2024	1.38%
European MTN	670	2025	4.00%
US MTN	780	2025	3.63%
European MTN	1,526	2026	1.13%
European MTN	593	2027	3.38%
US MTN	1,372	2028	3.88%
European MTN	447	2029	1.38%
European MTN	673	2030	1.75%
European MTN	982	2033	5.25%
US MTN	390	2034	5.38%
US MTN	2,143	2038	6.38%
European MTN	694	2039	6.38%
European MTN	986	2042	5.25%
US MTN	386	2043	4.20%
European MTN	788	2045	4.25%
Other	100	na	0.00%

Beginning balance	GBP m				20,271	20,271	18,515	16,946	15,378
(+) Additions	GBP m				-	-	-	-	-
(-) Repayments	GBP m				-	(1,756)	(1,569)	(1,568)	(1,955)
Ending balance	GBP m				20,271	18,515	16,946	15,378	13,423
Interest expense from LT debt	GBP m				679	650	650	601	548
% interest	%				3.3%	3.3%	3.7%	3.7%	3.8%

Interest Income

Interest income	GBP m	70	87	74	84	84	88	92	95
Cash equivalents and ST investments	GBP m	5,119	3,974	4,517	4,871	4,870	5,079	5,306	5,498
% interest	%	1.4%	2.2%	1.6%	1.7%	1.7%	1.7%	1.7%	1.7%

Equity

Retained Earnings

Beginning Balance	GBP m				(2,122)	(3,002)	(3,731)	(4,348)	(4,803)
(+) Net income	GBP m				3,093	3,244	3,356	3,518	3,637
(-) Dividends paid	GBP m				(3,973)	(3,973)	(3,973)	(3,973)	(3,973)
Ending balance	GBP m				(3,002)	(3,731)	(4,348)	(4,803)	(5,139)

Dividends

EPS	GBP	0.19	0.31	0.74	0.63	0.66	0.68	0.72	0.74
Dividends per share	GBP	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
% payout ratio	%	426%	255%	109%	127%	121%	117%	112%	108%
NOSH	# 000				4,966,390	4,966,390	4,966,390	4,966,390	4,966,390
Dividends paid	GBP m				3,973	3,973	3,973	3,973	3,973

Minority Interest

Net Income	GBP m	1,062	2,169	4,046	3,455	3,623	3,748	3,929	4,062
Net income attributable to MI	GBP m	150	637	423	361	379	392	411	425
% of NI	%	14.1%	29.4%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%
Beginning Balance	GBP m				(688)	(327)	52	444	855
(+) Profit attributable to MI	GBP m				361	379	392	411	425
Ending balance	GBP m				(327)	52	444	855	1,279

DCF Calculation

		Historicals			Forecast Period				
		2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Revenue	GBP m	27,889	30,186	30,821	31,941	33,633	35,291	37,097	38,623
% y/y	%	nm	8.2%	2.1%	3.6%	5.3%	4.9%	5.1%	4.1%
Gross Profit	GBP m	18,991	20,869	21,107	21,899	23,059	24,195	25,434	26,480
Margin (%)	%	68.1%	69.1%	68.5%	68.6%	68.6%	68.6%	68.6%	68.6%
EBITDA	GBP m	9,162	10,114	9,928	8,428	8,813	9,229	9,627	9,929
Margin (%)	%	32.9%	33.5%	32.2%	26.4%	26.2%	26.2%	26.0%	25.7%
EBIT	GBP m	5,288	6,889	7,634	7,647	8,011	8,356	8,739	9,030
Margin (%)	%	19.0%	22.8%	24.8%	23.9%	23.8%	23.7%	23.6%	23.4%
Income Tax	GBP m	877	1,356	754	1,712	1,795	1,857	1,947	2,013
Tax rate (%)	%	29.4%	nm	80.9%	21.0%	21.0%	21.0%	21.0%	21.0%
NOPAT	GBP m	4,411	5,533	6,880	5,935	6,215	6,499	6,792	7,017
Margin (%)	%	15.8%	18.3%	22.3%	18.6%	18.5%	18.4%	18.3%	18.2%
Add: D&A	GBP m	1,774	1,922	1,763	1,996	2,144	2,299	2,461	2,631
% of revenue	%	6.4%	6.4%	5.7%	6.2%	6.4%	6.5%	6.6%	6.8%
Less: Capex	GBP m	(2,069)	(2,154)	(1,540)	(2,082)	(2,192)	(2,300)	(2,418)	(2,517)
% of revenue	%	-7.4%	-7.1%	-5.0%	-6.5%	-6.5%	-6.5%	-6.5%	-6.5%
Less: Increase in NWC	GBP m	(2,348)	(1,078)	247	(117)	(377)	(370)	(403)	(340)
% of revenue	%	-8.4%	-3.6%	0.8%	-0.4%	-1.1%	-1.0%	-1.1%	-0.9%
FCFF	GBP m	1,768	4,223	7,350	5,733	5,790	6,128	6,433	6,791
Period proration factor	#				0.67	1.00	1.00	1.00	1.00
Prorated FCFF	GBP m				3,822	5,790	6,128	6,433	6,791
Discount Period	#				0.50	1.50	2.50	3.50	4.50
Discount Factor	#				0.97	0.92	0.87	0.82	0.78
Discounted Cash Flow	GBP m				3,717	5,324	5,329	5,290	5,281

Comps Table

Name	Last Price	Market Cap	EV	GAAP P/E (x)			EV/EBITDA (x)		
	5-Oct-18	US\$mn	US\$mn	2019E	2020E	2021E	2019E	2020E	2021E
GlaxoSmithKline PLC	15.02	74,595	95,386	13.6x	12.9x	11.8x	9.3x	8.5x	8.3x
Core Peer Group									
Bayer AG	68.46	72,263	854	9.9x	8.8x	7.8x	8.1x	7.5x	7.0x
AstraZeneca PLC	6,286.00	105,655	949	23.6x	19.2x	16.1x	17.4x	14.4x	12.8x
Novo Nordisk A/S	334.85	124,419	1,040	20.4x	17.9x	16.2x	14.6x	13.6x	12.6x
Sanofi	79.12	111,710	2,218	13.8x	12.7x	11.8x	10.9x	10.1x	10.1x
Bristol-Myers Squibb Co	49.89	81,454	3,688	12.0x	10.9x	9.8x	9.3x	9.7x	6.1x
Average				15.9x	13.9x	12.3x	12.1x	11.1x	9.7x
Median				13.8x	12.7x	11.8x	10.9x	10.1x	10.1x
Name	Last Price	Market Cap	EV	GAAP P/E (x)			EV/EBITDA (x)		
	5-Oct-18	US\$mn	US\$mn	2019E	2020E	2021E	2019E	2020E	2021E
Full Peer Group									
GlaxoSmithKline PLC	1,513.80	99,728	3,590	13.6x	12.9x	11.8x	9.3x	8.5x	8.3x
Bayer AG	68.46	72,263	854	9.9x	8.8x	7.8x	8.1x	7.5x	7.0x
AstraZeneca PLC	6,286.00	105,655	949	23.6x	19.2x	16.1x	17.4x	14.4x	12.8x
Johnson & Johnson	138.02	367,516	11,412	16.1x	15.2x	14.1x	12.7x	12.0x	11.1x
Novo Nordisk A/S	334.85	124,419	1,040	20.4x	17.9x	16.2x	14.6x	13.6x	12.6x
Sanofi	79.12	111,710	2,218	13.8x	12.7x	11.8x	10.9x	10.1x	10.1x
Roche Holding AG	273.40	234,598	1,547	14.7x	14.1x	13.8x	10.8x	10.4x	9.6x
Novartis AG	92.60	235,247	10,070	17.0x	15.5x	14.3x	15.9x	14.8x	13.4x
Bristol-Myers Squibb Co	49.89	81,454	3,688	12.0x	10.9x	9.8x	9.3x	9.7x	6.1x
Pfizer Inc	41.19	228,679	20,010	14.3x	13.5x	12.2x	10.6x	10.4x	10.1x
Merck & Co Inc	81.49	210,344	521	17.4x	15.5x	13.9x	13.0x	11.9x	11.3x
Average				15.7x	14.2x	12.9x	12.1x	11.2x	10.2x
Median				14.7x	14.1x	13.8x	10.9x	10.4x	10.1x

