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Company Overview

Zoetis is the largest player in the animal health pharmaceutical industry

Highlights

Investment Recommendation: BUY Current Price: \$122.95 Target Price: \$140.48 Upside Potential: 14.3%

History: The world's largest producer of pharmaceuticals for animal health. The company was a subsidiary of Pfizer until its spinoff in 2012.

Vision: Our products, services and people will be the most valued by animal health customers around the world.

Revenue Initiatives: Expend operations in key products and regions such as developing veterinary services for the companion animal segment.

Cost Initiatives: Major restructuring in 2015 which streamlined operations and brought operating margins from 23% to 32%.

Key Management

Management brings experience, creativity, and vision to the company.



Kristin Peck Chief Executive Officer



Glenn David Chief Financial Officer



Michael McCallister Chairman of the Board

Relative Stock Price Performance



Key Statistics

Healthcare Sector, Animal Health Industry, NYSE

Price (April 13th, 2020):	\$122.95
52 Week Range (\$):	\$90.14 - \$146.26
Enterprise Value (In MM):	\$65, 528
Market Cap. (In MM):	\$58, 000
Dividend Yield:	0.65%
3-Year Equity Beta:	1.03

LTM EV/Sales: 10.8x LTM EV/EBITDA: 26.8x LTM P/E: 36.4x **FY19 Revenues (In MM)**: \$6,260 **EBITDA (In MM)**: \$2, 430

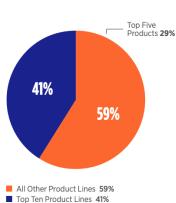
EBITDA Margin: 39.8%

Product Portfolio

Well diversified product portfolio treating a range of animal species across various international markets

Top Five Products

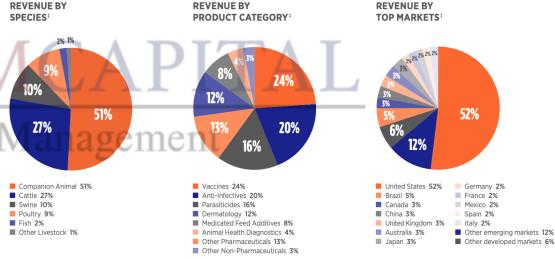
REVENUE BY PRODUCT CONCENTRATION



Product	Description	Species
Apoque®	Controls itching associated with allergic dermatitis and the control of atopic dermatiti	Dogs
Draxxin®	Single-dose low-volume antibiotic for the treatment and prevention of bovine and swine respiratory disease, infectious bovine keratoconjunctivitis and bovine foot rot	Cattle, sheep, swine
Revolution® / Stronghold®	An antiparasitic for protection against fleas, heartworm disease and ear mites in cats and dogs; sarcoptic mites and American dog tick in dogs and roundworms and hookworms for cats	Dogs, cats
Ceftiofur Injectable Line	Broad-spectrum cephalosporin antibiotic active against gram-positive and gram- negative bacteria, including ß-lactamase-producing strains, with some formulations producing a single course of therapy in one injection	Cattle, sheep, swine
Simparica®	A monthly chewable tablet for dogs to control fleas and ticks	Dogs

Revenue Breakdown

- Expected strong growth in poultry and aquaculture
- Flat to slightly down U.S. cattle market from reduced beef and dairy farm expansion
- Weak swine market from prolonged effects of African swine particularly impacting in China, however the market it showing signs of improvement from herd rebuilding
- Strong growth of 17% in the dermatology sector of companion animals led by the introduction of Simparica®
- Remainder of companion animal portfolio is expected to grow at 3%



Product Brands

Zoetis offers a diverse portfolio comprised of approximately 300 product lines that serve eight core species

Livestock Health Brands

Zoetis supports those who raise and care for farm animals with a range of products and services that offer tangible solutions to the many health and productivity challenges farmers face every day.



Companion Animal Health Brands

Zoetis' products help improve the quality and extend the lives of cats, dogs and horses. The company strives to make it easier for pet owners to maintain the health and wellness of their companions.



Business Model

Products to treat a variety of animals that treat varying conditions within 6 product categories

Revenue Drivers

Vaccines to prevent diseases of the respiratory, gastrointestinal and reproductive tracts or induce an immune response

Anti-infectives to prevent, kill or slow the growth of bacteria, fungi or protozoa

Parasiticides to prevent or eliminate external and internal parasites such as fleas, ticks and worms

Dermatology Products that relieve itch associated with allergic conditions and atopic dermatitis

Medicated feed additives that provide medicines, nutrients and probiotics Animal health diagnostics that provide disease detection capabilities for various species, including cattle, pigs and poultry

Other pharmaceuticals such as medicines for pain and sedation, as well as oncological and antiemetic products

51% Revenue from **Companion** Animal Products





48% Revenue from Farm Animal Products

Patents

Zoetis – Number of Patents	DEC '19	DEC '18	DEC '17	DEC '16	DEC '15	DEC '14	DEC '13	DEC '12	DEC '11
Patents	6,000	5,500	5,200	4,800	4,800	4,800	4,900	4,000	4,000
Change in Patents	500	300	400	0	0	-100	900	0	0

- **1,550 Pending Patents** across 50 countries, with a concentration on major markets like Australia, Brazil, Canada, China, Europe, Japan and the U.S.
- **Simparica Trio™** received approval in EU, Canada and U.S as a monthly triple parasiticide for dogs protecting against fleas, ticks and heartworm disease
- **ProHeart**® 12 obtained U.S. approval as a yearly injection to protect against heart worm disease
- Patent licenses are shared between Pfizer, Zoetis's parent company, for the development of their products
- Enforces patents vigilantly inside and outside the U.S.

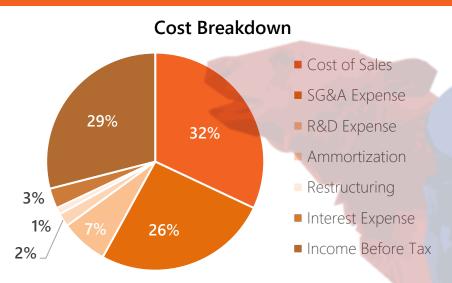
Notable Patent Expirations								
Product	Date	Revenue						
Selamectin	November 2019							
Draxxin®	February 2021	16%						
Excede® (Ceftiofur Line)	2024							



Business Model

Zoetis' main costs is driven by their R&D expenditures as well as the restructuring costs arising from their M&A activity

Cost Drivers



		Year Er	nded December 31,	
(MILLIONS OF DOLLARS)		2019	2018	2017
Revenue	\$	6,260 \$	5,825 \$	5,307
Costs and expenses:				
Cost of sales ^(a)	T	1,992	1,911	1,775
% of revenue		32%	33%	33%
Selling, general and administrative expenses ^(a)	J	1,638	1,484	1,334
% of revenue		26%	25%	25%
Research and development expenses ^(a)		457	432	382
% of revenue		7%	7%	7%
Amortization of intangible assets ^(a)		155	117	91
Restructuring charges and certain acquisition-related costs		51	68	19
Interest expense, net of capitalized interest		223	206	175
Other (income)/deductions—net		(57)	(83)	6
Income before provision for taxes on income		1,801	1,690	1,525
% of revenue		29%	29%	29%

Cost of Sales as a percentage of revenue decreased from prices increases, cost improvement and efficiencies, while it was offset by tariffs on some product along with the acquisition of Abaxis.

SG&A increased as a percentage of revenue after the the inclusion of Abaxis and Platinum Performance.

R&D increased from more spending on project investments as well as from the inclusion of Abaxis.

Restructuring Costs can be attributed from the acquisition of Abaxis

Acquisition of Abaxis

- Abaxis is a leading provider of veterinary point-of-care diagnostic instruments, was acquired July 2018
- Acquisition came with VetScan®, a portfolio of benchtop and handheld diagnostic instruments, rapid tests and associated consumables for cats and dogs
- Abaxis enhances Zoetis' offering towards veterinarians and customers in the companion animal sector
- Serves a large customer base in North America and is poised for expansion internationally



Management, Governance, and Ownership

Management brings experience, creativity, and vision to the company with Shareholders that believe in its core mission

Management & Governance



Kristin Peck, CEO was appointed January 2020. She had previously held the role of President of U.S. operations at Zoetis from 2015 and before that served as Group President from 2012, driving change and ushering Zoetis through their IPO.



Tim Bettington, President, U.S. Operations was appointed January 2020, joining Zoetis from Boehringer Ingelheim where he served for 12 years, most recently as NA Region Head of Commercial Operations for BI's animal health business.



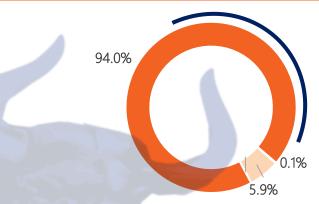
Catherine Knupp, President of R&D was appointed in 2012 and has been the driving force behind Zoetis R&D since their spin out from Pfizer. From 2005 to 2012 she served as Vice President of Pfizer's Veterinary Medicine Research and Development business unit.



Micheal McCallister – Chairman has served since 2013. Mr. McCallister was CEO for Humana from February 2000 until his retirement. During his tenure as CEO, Humana gained a reputation as one of the industry's leading people-focused innovative companies, to help individuals take control of their own health.

Zoetis Executive Team is highly skilled in the animal health field. Most are veterans with the company with experience averaging 9 years. Most of the team worked for Pfizer before their spinoff of Zoetis common shares are listed on the New York Stock Exchange ZTS in 2012. The executive team consists of 50% male and 50% (NYSE). Institutional investors hold 94% of the shares outstanding. female. The Board of Director is completely independent except for This institutional interest is the highest in the Animal Health Pharma the CEO, Kristin Peck who also serves as a board member. The industry. The top 10 largest shareholders hold 34% of the shares Board engages in a detailed review and discussion of the and none of them are activist investors that risk to move the share corporation's short and long-term strategy on an annual basis and price significantly. Although, Insider Ownership is small (0.1%), no risk of entrancement has been identified within ZTS' Leadership. Zoetis' board is very close with their significant shareholders.

Shareholder Ownership



- Institutional Ownership
- Insider Ownership (0.1%)

Retail Ownership

■ Top 10 Institutional Holders (34%)

		Position	
Top 5 Institutional Holders	Ownership	(000)	Activism
The Vanguard Group, Inc.	7.70%	36,573	Very Low
BlackRock Fund Advisors	5.04%	23,955	Medium
SSgA Funds Management, Inc. State Farm Investment Management	4.19%	19,883	Very Low
Corp.	3.82%	18,133	Very Low
AllianceBernstein LP	2.94%	13,954	Low



Industry Overview

UTMCM Healthcare Industry Group - April 15th, 2020

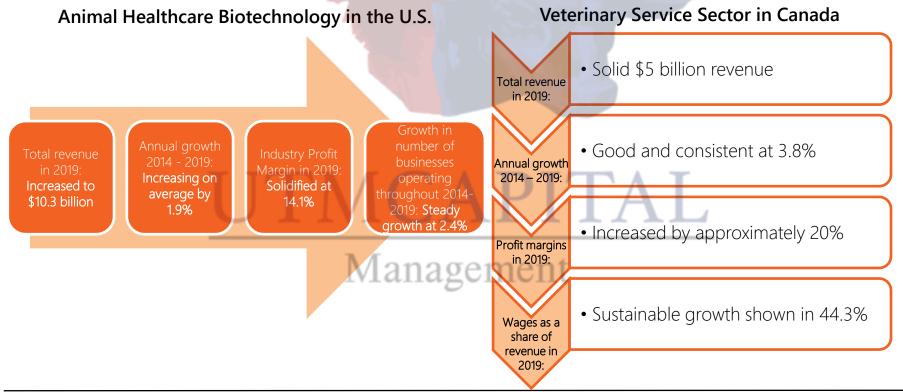


Industry Metrics

Animal health is a growing industry due to the increase in companion animals from a growing middle class

Animal Healthcare in North America

Zoetis is well-positioned to be considered as a player in two industries: Livestock Production Support Services, as well as Animal Health Biotechnology. However, our research points out that the majority of services/products the company offers would fall into category of a broader market - Animal Health. The Animal Health (Biotechnology) industry researches, develops, tests and distributes therapeutic drugs, diagnostic tools and preventive products for livestock and companion animals. The sector is an attractive, unconventional healthcare niche, with much of the inherent resiliency and defensive characteristics of human health care without the strict government regulations. The Animal Health Biotechnology industry is expected to steadily grow over the five years to 2024, with revenue forecast to increase an annualized 1.4% to \$11.0 billion. Accelerated growth in the number of pets and rising global demand for livestock products are likely to provide steady demand for industry products, while technological innovation in veterinary medicine is expected to extend the average lifespan of companion animals, fueling industry expansion.



Industry & Macro Outlook

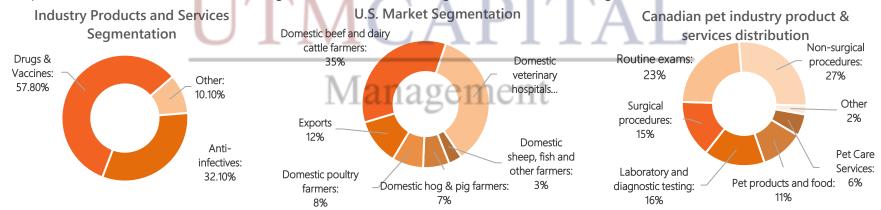
COVID-19 serves as a headwind but animal healthcare will always survive

Key Industry Trends

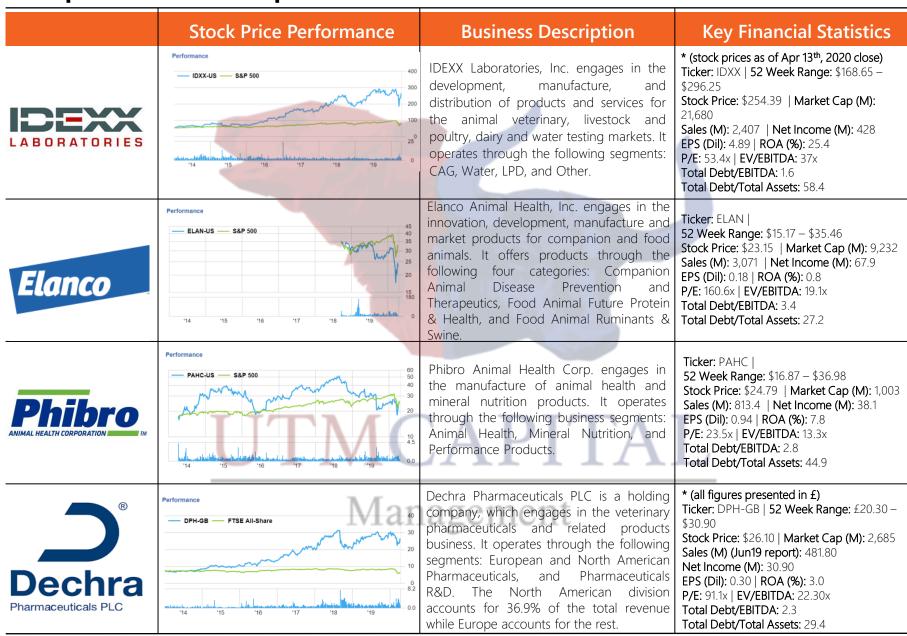
- Industry growth is largely fueled by research and development expenditure.
- Growing demand for companion animals and livestock has enabled companies to increase the price of their products.
 - o Rising demand from the global agribusiness to protect livestock produce will lead to gradual industry expansion.
- New Products: Companies have produced new vaccines and drugs to replace antibiotics.
- Increasing per capita disposable income encourages increased spending on pet health coupled with increasing pet ownership.
- Humanization of pets: 90% of dog owners and 86% of cat owners consider their pets as important members of their family.
- Increasing competition forces the industry to operate in a challenging trade environment.

COVID-19 Effects

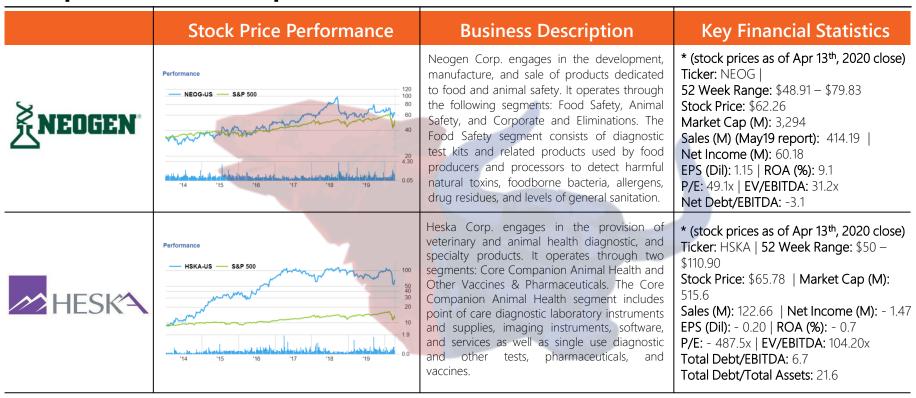
- Cyclicality of Discretionary Spending: the animal health market is relatively resilient to recessions (especially with veterinarian medicine being classified as essential business in North America). The sector has outperformed through the recent market sell off (down ~23% versus negative 31% for the broader market index (S&P 500) since the end of February).
- Alternative channels for product purchases are taking off fueled by increasing consumer preference towards online shopping.
- Pet Adoptions February pet adoptions accelerated, albeit not yet reflecting COVID-19 effects
- Pet Retail Tracker—Pet product sales rose due to price increased (from a volume perspective, pet care units were flat).
- Veterinary prescription growth momentum continues. Currently sales are growing at an average rate of 7.7%.
- FDA intends to temporarily suspend enforcement of portions of the federal veterinarian-client-patient relationship (VCPR) requirements relevant to certain FDA regulations which makes regulation less fierce during these uncertain times due to the virus.



Competitive Landscape



Competitive Landscape



Zoetis' Competitive Advantage

- The most profitable company in its segment
- ZTS maintains low leverage and significant balance sheet optionality similar to all the big pharma players with robust balance sheet strength. Among leveraged companies, ZTS is in the strongest position in terms of total debt, leverage, and the timing of maturity payments given their solid balance sheets and cash flow yield (which is important since a number of companies in the sector are not currently cash flow positive)
- The US dollar has strengthened significantly over the past several weeks, particularly relative to the Brazilian Real (BRL/USD down 21%), Mexican Peso (MXN/USD down 16%) and Australian Dollar (AUD/USD down 10%), where Zoetis has significant presence which poses as a headwind to Zoetis' large scale international operations but not to its competitors who mainly operate in one or a few countries.
- Zoetis' highly anticipated flea & tick products can turn into a main catalyst for the company in the wake of ZTS' pending Simparica Trio launch (already approved medicine by the FDA but not yet commercialized)
- Zoetis' strong cash flow generation allows it grow through M&A. The recent acquisition of Ethos Diagnostic Science (Feb 7th), a veterinary reference lab business dedicated to serving leading animal hospitals. This company serves the greater veterinary and researcher community which provides accurate and reliable results for animal diagnostics. This puts ZTS ahead of the game in animal diagnostics compared to peers.



Financial & Investment Analysis

UTMCM Healthcare Industry Group - April 15th, 2020



Financial Analysis

Zoetis has proven to be a leader in the industry by maintaining one of the highest margins in the business

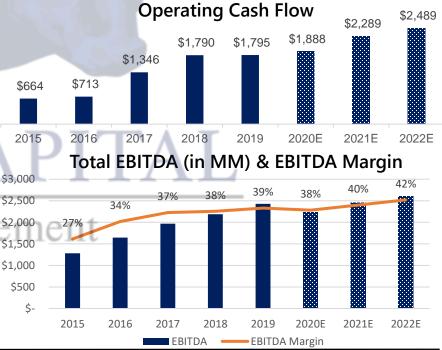
Profitability

Zoetis is the most profitable company in the industry with operating margin of 32% as of FY 2019 compared to the peer average of 21%. This is mainly due to better cost management practices. In 2015, ZTS went through a major operational restructuring to streamline operations and emphasize key products and regions which has brought their operating margin from 23% back in 2015 to about 32% today. We believe margins will continue to expand as management makes better use of their assets by focusing on expense reduction initiatives. Currently, their goal is to achieve ROA of 25% by 2023.

Operating Margin 34% 24% 14% 4% 2017 2015 2016 2018 2019 **ROA** 35% 25% 15% 5% 2016 2019 2015 -5% Zoetis --- IDEXX - - Elanco - · · Dephra - · Merck

Operating Forecast

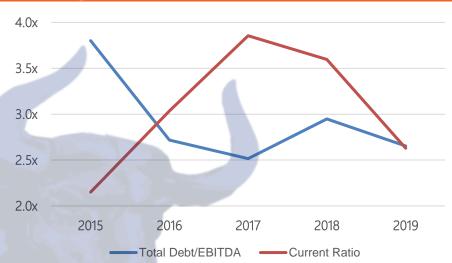
Our estimates assumes a lower operating cash flow in 2020 due to recent market developments surrounding COVID-19. Over the past month, the U.S. dollar has strengthened significantly. If this continues, we expect it to be a significant headwind to their international operations which can flow through the company's bottom line. Therefore, in our base case we assumed that EBITDA margins shrank in FY 2020 but picked back up in 2021 assuming the virus subsides by Q1 2020. Historically, Zoetis has been very successful at constantly increasing their operating cash flow while keeping their costs low. This has allowed them to have one of the highest EBITDA and Operating Margins in the industry.



Financial Analysis

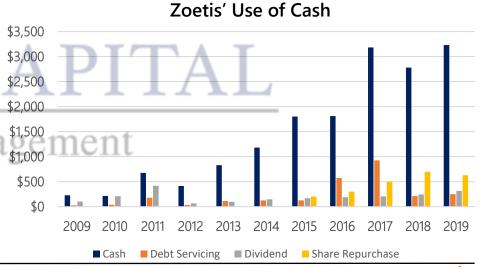
Solid Balance Sheet with Manageable Debt Levels

Zoetis currently has a Baa1 Moody Credit rating which makes its bond rating investment grade. The rating reflects its strong position as the world's largest producer of pharmaceuticals for animal health, and its good business diversity across geographic regions, species, and products. Moody has indicated that Zoetis' steady earnings growth will be the primary driver of deleveraging over the next two years following its acquisition of Abaxis in 2018. If the company continues to decrease its Debt/EBITDA ratio below 2.5x, Moody has indicated it would increase its credit rating which we believe is very possible considering its recent efforts in utilizing cash to pay down more debt. Similarly, Zoetis has been able to improve its liquidity ratio by bringing it closer to the industry average of 2.4x. We expect this ratio to come down as Zoetis makes better use of its NWC.



Strong FCF Generation Positions Zoetis Well for Unencumbered Growth

As of Fiscal Year 2019, Zoetis had cash, cash equivalents and short-term investments of \$1.9B, \$0.5B of short-term debt, and long-term debt of \$4.6B. We estimate free cash flow to be \$1.5B+ for 2020, expanding annually to \$2B+ by 2023, supporting annual dividend payments of \$400-800MM. We expect the company to suspend their share repurchases due to the recent market developments surrounding COVID-19. However, the big accumulation of cash on their balance sheet as seen from the graph on the right allows ZTS to have a cushion to stave off the loss of revenue from COVID-19 and positions them very well to make further bolt-on acquisitions of firms which they can now acquire at lower multiples. Finally, this cash also allows them to retain their employees thus continuing their R&D in Animal Pharmaceutical Drugs.



Investment Thesis

ZTS has a successful line of diverse products in an attractive market & recent market developments provide attractive valuation

Upside Potential from Blockbusters

- Zoetis currently has 12 blockbuster products/brands. Estimated sales of the combined products is of \$840MM in 2020 which could grow to \$1.2B by 2024 while improving margins for future growth.
- African Swine Fever (ASF) is a highly contagious, deadly virus affecting pigs that dampened 2019 sales in China. We expect ZTS to make increased revenue after 2020 when the virus subsides thus improving their bottom line. In August 2019, ZTS announced that it had filed in the LLS for two new pain medicines for cats and dogs.
- U.S. for two new pain medicines for cats and dogs. Approval of both drugs is expected in 2021 with estimated sales of \$800MM adding upside potential due to increased valuations.

COVID-19's Silver Lining

Recent market developments allows us to buy Zoetis below its historical valuation levels of 21.6x EV/EBITDA. At the end of 2019, ZTS EV/EBITDA multiple was of 27.1x which seems overvalued. However, at current market prices, the EV/EBITDA multiple stands at 20.7x which is below the 5-year average.

EV/EBITDA Multiple (2013-2019)

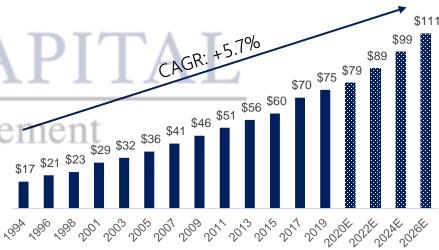


Leader in an Attractive Market

The Animal Health sector is an attractive, unconventional healthcare niche, with much of the inherent resiliency and defensive characteristics of human health care while unchained to associated risks such as third-party payors, health care reform, generic threats, and development inefficiencies. Fundamentals in terms of demand, pricing, and the utilization of medicines, vaccines, and diagnostics are improving, supporting increasing revenue and earnings growth assumptions in the long-term.

Zoetis is the market leader in animal health with 25% of the U.S. Market Share. The company has recently focused its research in companion animal medicine and diagnostics due to the higher growth rates realized in this market (5.7% CAGR as shown in the graph below). Currently, ZTS has control of almost 60% of the U.S. companion animal health market share.

U.S. Companion Animal Expenditure (in billions)



Investment Summary

A 12-month target price of \$140.48 offers upside potential of 14.3% from its April 13th closing price of \$122.95

Football Field Valuation

We issue a **BUY** recommendation on ZTS with a 12-month target price of \$140.48. This represents a total return of 14.3% from its April 13th closing price of C\$122.95. The main rationales for this upside potential is based on:

- 1) The relative attractiveness of the animal health market and ZTS's solid outlook for top- and bottom-line growth.
- 2) COVID-19 will subside by the end of 2020 and Zoetis' strong balance sheet will allow it to survive any short-term headwinds.
- 3) Upside potential from F/T/HW oral triple Trio, diagnostics expansion, ASF rebound, and injectable pain mAbs for cats/dogs which are currently under review by the FDA. We believe execution on these prospects will move Zoetis' share price higher.

To arrive to our target price of \$140.48, we used the following weights on our valuation:

- I. 40% on Comparable Analysis
- I. 50% on Discounted Cash Flow Analysis (Forecasted only 3 years due to the growing uncertainty around COVID-19)
- III. 10% on Analysts' Target Estimates

Base Case - New product launches in line with expectation and COVID-19 subsides by the end of 2020 (Upside of 22.6%).

Bull Case – New product launched better than expected and Macro factors (COVID-19) improve faster (Upside of 40.4%).

Bear Case – New product launches disappoint, COVID-19 poses as a significant headwind beyond 2021 (Downside of 7.9%).



Risks and Catalysts

We believe most these risks are manageable and provide limited downside

Catalysts

Increase in animal companionship globally

- Historical trends have seen pet ownership continue to rise with every generation.
- Pet ownership rates are increasing outside of North America as well.
- Therefore, as Generations Y & Z start to acquire more companion animals, Zoetis' revenue will have the potential to increase if the company maintains its market share.



Risks

(COVID) - COVID-19 short term economic impact (decline in pet ownership, supply chain impact, lowered worldwide animal protein consumption, etc.)

(CONS) - Lowered livestock consumption due to shifting consumer demands

(BANS) - Increased restrictions and bans on use of antibacterials on livestock

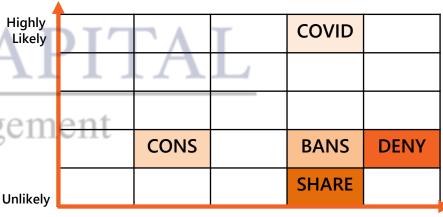
(SHARE) - New product launches or existing products fail to gain market share

Improvement of ASF in China

- African Swine Fever has dampened livestock sales in China since 2019.
- China has lost half of their pig population to this disease.
- However the outbreak is slowing and once dispelled, the bounce back in swine population will stoke international sales and have the chance to increase Zoetis' top line.



(DENY) - Approvals for new drugs are denied



Low Impact

High Impact





UTMCM Healthcare Industry Group - April 15th, 2020



Discounted Cash Flow Model – Assumptions (1/2)

	Assur	mptions Part	1 - Income S	tatement and	Cash Flow	Statement			
	46		listorical Perio	d	4	F	Projection Period		
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Income Statement Assumptions									
Sales (% growth)	0.0%	2.6%	8.6%	9.8%	7.5%	(15.0%)	(5.0%)	8.0%	9.0%
Base	0.070	2.070	0.070	0.070	7.070	1 (15.0%)	_ `	8.0%	9.0%
Upside						2 (10.0%)		7.0%	8.0%
Downside						3 (20.0%)		4.0%	7.0%
						, ,		l .	
Cost of Goods Sold (% sales)	33.6%	30.8%	30.6%	29.5%	27.7%	30.6%	30.6%	30.6%	30.6%
Base						1 30.6%	30.6%	30.6%	30.6%
Upside						2 29.6%	29.6%	29.6%	29.6%
Downside						31.6%	31.6%	31.6%	31.6%
SG&A (% sales)	39.6%	35.6%	32.3%	32.9%	33.5%	33.5%		33.2%	33.3%
Base					1	1 33.5%		33.2%	33.3%
Upside						2 32.5%		32.2%	32.3%
Downside						34.5%	34.2%	34.2%	34.3%
Depreciation & Amortization (% sales)	4.2%	4.9%	4.6%	5.3%	6.6%	4.9%	4.9%	4.9%	4.9%
Base		~ W . V		A		1 4.9%		4.9%	4.9%
Upside		1 1 / 1			/	2 4.4%		4.4%	4.4%
Downside		IV				3 5.4%		5.4%	5.4%
Cash Flow Statement Assumptions									
Capital Expenditures (% of sales)	-4.7%	-4.4%	-4.2%	-5.8%	-7.3%	(4.7%)		(4.7%)	(4.7%)
Base		IV.	Idlid	-5.8%		1 (4.7%)	1 1	(4.7%)	(4.7%)
Upside						2 (6.7%)	, ,	(6.7%)	(6.7%)
Downside						3 (2.7%)	(2.7%)	(2.7%)	(2.7%)

Discounted Cash Flow Model – Assumptions (2/2)

		Ass	sumptions P	art 2 - Balan	ce Sheet				
		ı	Historical Perio	d		Pro			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4
	2014	2015	2017	2018	2019	2020	2021	2022	2023
Current Assets						4			
Days Sales Outstanding (DSO)	71.8	68.2	68.6	64.9	63.3	67.4	67.4	67.4	67.4
Base		33.2		7/	33.3	1 67.4	67.4	67.4	67.4
Upside						2 65.4	65.4	65.4	65.4
Downside						3 70.4	70.4	70.4	70.4
								,	
Days Inventory Held (DIH)	334.9	364.3	321.1	295.2	296.6	322.4	322.4	322.4	322.4
Base						1 322.4	322.4	322.4	322.4
Upside						2 292.4	292.4	292.4	292.4
Downside						3 352.4	352.4	352.4	352.4
Description of Other Comment Assets (0) of select	20.00/	40.00/	22.00/	00.00/	20.00/	20.70/	20.70/	20.70/	20.70/
Prepaid and Other Current Assets (% of sales)	29.9%	19.9%	33.8%	33.9%	36.0%	30.7%	30.7%	30.7%	30.7% 30.7%
Base Upside						2 27.7%	27.7%	27.7%	27.7%
Downside					1000	3 33.7%	33.7%	33.7%	33.7%
Downside						3 33.1 70	33.1 70	33.1 70	33.1 70
Current Liabilities									
Days Payable Outstanding (DPO)	66.9	64.3	58.7	66.4	63.3	63.9	63.9	63.9	63.9
Base	T/T	77 /		A T	TI	1 63.9	63.9	63.9	63.9
Upside					ノロコ	2 67.9	67.9	67.9	67.9
Downside						3 59.9	59.9	59.9	59.9
Accrued Liabilities (% of sales)	8.5%	0.0%	0.0%	0.2%	8.5%	8.5%	8.5%	8.5%	8.5%
Base	0.070	0.070	0.070	0.270	0.070	1 8.5%	8.5%	8.5%	8.5%
Upside		Th.	1 0 10 0	~ ~ 100	0.40 +	2 6.5%	6.5%	6.5%	6.5%
Downside		IV	1ana	20III	ent	3 10.5%	10.5%	10.5%	10.5%
Other Current Liabilities (% of sales)	22.7%	17.4%	15.7%	15.5%	15.5%	17.4%	17.4%	17.4%	17.4%
Base						1 17.4%	17.4%	17.4%	17.4%
Upside						2 15.4%	15.4%	15.4%	15.4%
Downside						3 19.4%	19.4%	19.4%	19.4%

Capital Structure & WACC Calculation

TS		ZTS	
apital Structure	N 3///	WACC Calculation	
Common Equity		Cost of Debt	
Share Price (As of April 9th)	\$128.75	Pre-Tax Cost of Debt	2.73%
Shares Outstanding (Millions)	317.0	Income Tax Rate	0.75%
Market Capitalization	\$40,814	After Tax Cost of Debt	2.71%
Dalit	1		
<u>Debt</u> Short-Term Debt	CESE 0	Cost of Common Equity	0.770/
	\$535.0	Risk-Free Interest Rate	0.77%
Long-Term Debt	\$6,111.0	3-Year Adjusted Beta	1.03
Total Debt	\$6,646	Market Risk Premium	5.20%
		Cost of Common Equity	6.13%
Preferred Equity			
Preferrence Shares (\$ Millions)	\$0	Cost of Preferred Equity	
,		Preferred Dividend	\$0.00
Debt-to-Total Capitalization	14.0%	Preferred Equity	\$0
Common Equity-to-Total Capitalization	86.0%	Cost of Preferred Equity	0.00%
Preferred Equity-to-Total Capitalization	0.0%	Cook of Frontian Equity	010070
referred Equity to rotal Supitalization	0.070	WACC	5.65%
		WACC	5.65%
	Mono	gamant	
	IVIalla	gement	

Discounted Cash Flow Model – Base Case Output (1/2)

Discounted Cash Flow Analysis									
(Millions of Dollars)				Historical				Projected	
Calculation of FCFF	Units	2015	2016	2017	2018	2019	2020	2021	2022
Operating Scenario	1 Base	19				4			
Revenue		\$4,765	\$4,888	\$5,307	\$5,825	\$6,260	\$5,321	\$5,055	\$5,459
% Growth		0.0%	2.6%	8.6%	9.8%	7.5%	-15.0%	-5.0%	8.0%
Cost of Goods Sold (Excl. D&A)	and the same	1,599.0	1,505.0	1,622.0	1,720.0	1,735.0	1,626.3	1,545.0	1,668.6
Gross Profit		3,166.0	3,383.0	3,685.0	4,105.0	4,525.0	3,694.7	3,510.0	3,790.8
% Margin		66.4%	69.2%	69.4%	70.5%	72.3%	69.4%	69.4%	69.4%
Selling, General & Administrative		1,885.0	1,739.0	1,716.0	1,916.0	2,095.0	1,780.8	1,677.2	1,811.4
BITDA		1,281	1,644	1,969	2,189	2,430	1,914	1,833	1,979
% Margin		26.9%	33.6%	37.1%	37.6%	38.8%	36.0%	36.3%	36.3%
Depreciation & Amortization		199.0	240.0	242.0	308.0	412.0	261.3	248.2	268.1
BIT		1,082	1,404	1,727	1,881	2,018	1,653	1,585	1,711
% Margin		22.7%	28.7%	32.5%	32.3%	32.2%	31.1%	31.3%	31.3%
ncome Taxes		206.0	409.0	663.0	266.0	301.0	347.1	332.8	359.4
BIAT		876	995	1,064	1,615	1,717	1,306	1,252	1,352
ree Cash Flow Adjustments:		_							
Plus: Depreciation & Amortization		199.0	240.0	242.0	308.0	412.0	261.3	248.2	268.1
Less: Capital Expenditures		(224.0)	(216.0)	(224.0)	(338.0)	(460.0)	(250)	(238)	(257)
Less: Increase in NWC		A T					611	-26	-200
Free Cash Flow to Firm		5.650	7				\$2,428.3	\$1,711.9	\$1,676.3
Weighted Average Cost of Capital Discount Period	Į	5.65%		man	f-		1.0	2.0	3.0
Discount Feriod Discount Factor		IVI d.	Hage.	men	l		0.95	0.90	0.85
Present Value of FCFFs	-						\$2,298.5	\$1,533.8	\$1,421.6

Discounted Cash Flow Model – Base Case Output (2/2)

Exit Multiple Method

Enterprise Value	
Present Value of Projected FCF	\$5,253.9
Terminal Value	
Terminal Year EBITDA	\$1,979.4
Exit Multiple	24.1x
Terminal Value	\$47,703.4
Discount Factor	0.85
Present Value of Terminal Value	\$40,454.9
% of Enterprise Value	89%
Enterprise Value	\$45,708.8

Implied Equity Value								
Enterprise Value	\$45,708.8							
Less: Total Debt	\$6,111.0							
Less: Preferred Securities	\$0.0							
Less: Non-Controlling Interest	\$0.0							
Plus: Cash & Equivalents	\$1,934.0							
Implied Equity Value	\$41,531.8							
Shares Outstanding	317.0							
Implied Share Price	\$131.02							

Perpetuity Growth Method

Enterprise Value	Mars) a
Present Value of Projected FCF	\$5,253.9
17.00	1 A / L /
Terminal Value	
Terminal Year FCF	\$1,676.3
Perpetual FCF Growth Rate	2.3%
Terminal Value	\$50,075.7
Discount Factor	0.85
Present Value of Terminal Value	\$42,466.7
% of Enterprise Value	89%
Enterprise Value	\$47,720.6

Implied Equity Value								
Enterprise Value	\$47,720.6							
Less: Total Debt	\$6,111.0							
Less: Preferred Securities	\$0.0							
Less: Non-Controlling Interest	\$0.0							
Plus: Cash & Equivalents	\$1,934.0							
Implied Equity Value	\$43,543.6							
Shares Outstanding	317.0							
T								
Implied Share Price	\$137.36							

			Implied	d Share Price			
			_	Exit Multiple			-
	\$131.02	23.1x	23.6x	24.1x	24.6x	25.1x	
	6.2%	\$123.85	\$126.46	\$129.07	\$131.68	\$134.29	ζ
ب	5.9%	\$124.77	\$127.40	\$130.03	\$132.66	\$135.29	
WACC	5.7%	\$125.71	\$128.36	\$131.01	\$133.65	\$136.30	
>	5.4%	\$126.66	\$129.32	\$131.99	\$134.65	\$137.32	
	5.2%	\$127.61	\$130.29	\$132.98	\$135.67	\$138.35	

	Implied Share Price								
	Long Term FCF Growth Rate								
	\$137.36	2.1%	2.2%	2.3%	2.4%	2.5%			
311	6.2%	\$112.42	\$115.18	\$118.09	\$121.15	\$124.38			
\mathcal{Q}	5.9%	\$120.50	\$123.66	\$127.01	\$130.54	\$134.28			
WACC	5.7%	\$129.71	\$133.37	\$137.25	\$141.37	\$145.75			
>	5.4%	\$140.32	\$144.60	\$149.15	\$154.01	\$159.20			
	5.2%	\$152.67	\$157.73	\$163.14	\$168.94	\$175.18			

Discounted Cash Flow Model – Upside Case Output (1/2)

Zoetis									
Discounted Cash Flow Analysis									
(Millions of Dollars)		2015	2016	Historical 2017	2018	2019	2020	Projected	2022
Calculation of FCFF	Units	2015	2016	2017	2018	2019	2020	2021	2022
Operating Scenario	2 Upside					4			
Revenue		\$4,765	\$4,888	\$5,307	\$5,825	\$6,260	\$5,634	\$5,634	\$6,028
% Growth		0.0%	2.6%	8.6%	9.8%	7.5%	-10.0%	0.0%	7.0%
Cost of Goods Sold (Excl. D&A)		1,599.0	1,505.0	1,622.0	1,720.0	1,735.0	1,665.6	1,665.6	1,782.2
Gross Profit		3,166.0	3,383.0	3,685.0	4,105.0	4,525.0	3,968.4	3,968.4	4,246.2
% Margin		66.4%	69.2%	69.4%	70.5%	72.3%	70.4%	70.4%	70.4%
Selling, General & Administrative		1,885.0	1,739.0	1,716.0	1,916.0	2,095.0	1,829.2	1,813.0	1,909.8
EBITDA		1,281	1,644	1,969	2,189	2,430	2,139	2,155	2,336
% Margin		26.9%	33.6%	37.1%	37.6%	38.8%	38.0%	38.3%	38.8%
Depreciation & Amortization		199.0	240.0	242.0	308.0	412.0	248.5	248.5	265.9
EBIT		1,082	1,404	1,727	1,881	2,018	1,891	1,907	2,071
% Margin		22.7%	28.7%	32.5%	32.3%	32.2%	33.6%	33.8%	34.3%
Income Taxes		206.0	409.0	663.0	266.0	301.0	397.1	400.5	434.8
EBIAT		876	995	1,064	1,615	1,717	1,494	1,506	1,636
Free Cash Flow Adjustments:	T TOTAL			TOT		A T			
Plus: Depreciation & Amortization		199.0	240.0	242.0	308.0	412.0	248.5	248.5	265.9
Less: Capital Expenditures		(224.0)	(216.0)	(224.0)	(338.0)	(460.0)	(378)	(378)	(404)
Less: Increase in NWC							583	-72	-302
Free Cash Flow to Firm							\$2,702.5	\$2,060.8	\$2,003.9
Weighted Average Cost of Capital		5.65%		man	t-				
Discount Period		IVI d.	Hage	men	l		1.0	2.0	3.0
Discount Factor							0.95	0.90	0.85
Present Value of FCFFs							\$2,558.0	\$1,846.3	\$1,699.4

Discounted Cash Flow Model – Upside Case Output (2/2)

Exit Multiple Method

Enterprise Value	
Present Value of Projected FCF	\$6,103.7
Terminal Value	4
Terminal Year EBITDA	\$2,336.4
Exit Multiple	24.1x
Terminal Value	\$56,307.7
Discount Factor	0.85
Present Value of Terminal Value	\$47,751.8
% of Enterprise Value	89%
Enterprise Value	\$53,855.5

Implied Equity Value								
Enterprise Value	\$53,855.5							
Less: Total Debt	\$6,111.0							
Less: Preferred Securities	\$0.0							
Less: Non-Controlling Interest	\$0.0							
Plus: Cash & Equivalents	\$1,934.0							
Implied Equity Value	\$49,678.5							
Shares Outstanding	317.0							
Implied Share Price	\$156.71							

Perpetuity Growth Method

	Enterprise Value	е	
	Present Value of Projected FCF	\$6,103.7	Enterpr
	Terminal Value		Less: To
	Terminal Year FCF	\$2,003.9	Less: Pr
	Perpetual FCF Growth Rate	2.3%	Less: No
	Terminal Value	\$59,860.2	Plus: Ca
	Discount Factor	0.85	Implied
	Present Value of Terminal Value	\$50,764.4	Shares
T T	% of Enterprise Value	89%	1 A T
	Enterprise Value	\$56,868.1	Implied
			A

Implied Equity Value								
Enterprise Value	\$56,868.1							
Less: Total Debt	\$6,111.0							
Less: Preferred Securities	\$0.0							
Less: Non-Controlling Interest	\$0.0							
Plus: Cash & Equivalents	\$1,934.0							
Implied Equity Value	\$52,691.1							
Shares Outstanding	317.0							
-								
Implied Share Price	\$166.22							

			Implie	d Share Price	$\Gamma \perp \Lambda$, J.,	Implied	Share Price		
				Exit Multiple					Long ⁻	Term FCF Growt	h Rate	
	\$156.71	23.1x	23.6x	24.1x	24.6x	25.1x	\$166.22	2.1%	2.2%	2.3%	2.4%	2.5%
	6.2%	\$148.25	\$151.34	\$154.42	\$157.50	\$160.58	6.2%	\$136.40	\$139.71	\$143.18	\$146.84	\$150.70
\mathcal{Q}	5.9%	\$149.35	\$152.45	\$155.55	\$158.66	\$161.76	ე 5.9%	\$146.06	\$149.85	\$153.84	\$158.07	\$162.54
A	5.7%	\$150.45	\$153.58	\$156.70	\$159.83	\$162.95	5.7%	\$157.08	\$161.45	\$166.09	\$171.01	\$176.25
>	5.4%	\$151.57	\$154.72	\$157.86	\$161.01	\$164.16	5.4%	\$169.76	\$174.87	\$180.31	\$186.12	\$192.32
	5.2%	\$152.69	\$155.86	\$159.03	\$162.20	\$165.37	5.2%	\$184.52	\$190.56	\$197.03	\$203.97	\$211.43

Discounted Cash Flow Model – Downside Output (1/2)

Zoetis									
Discounted Cash Flow Analysis									
(Millions of Dollars)				Historical				Projected	
Calculation of FCFF	Units	2015	2016	2017	2018	2019	2020	2021	2022
Operating Scenario	3 Downside								
Revenue		\$4,765	\$4,888	\$5,307	\$5,825	\$6,260	\$5,008	\$4,607	\$4,792
% Growth	100	0.0%	2.6%	8.6%	9.8%	7.5%	-20.0%	-8.0%	4.0%
Cost of Goods Sold (Excl. D&A)		1,599.0	1,505.0	1,622.0	1,720.0	1,735.0	1,580.7	1,454.2	1,512.4
Gross Profit		3,166.0	3,3 83.0	3,685.0	4,105.0	4,525.0	3,427.3	3,153.1	3,279.2
% Margin		66.4%	69.2%	69.4%	70.5%	72.3%	68.4%	68.4%	68.4%
Selling, General & Administrative		1,885.0	1,739.0	1,716.0	1,916.0	2,095.0	1,726.1	1,574.8	1,637.8
EBITDA		1,281	1,644	1,969	2,189	2,430	1,701	1,578	1,641
% Margin		26.9%	33.6%	37.1%	37.6%	38.8%	34.0%	34.3%	34.3%
Depreciation & Amortization		199.0	240.0	242.0	308.0	412.0	270.9	249.3	259.2
EBIT		1,082	1,404	1,727	1,881	2,018	1,430	1,329	1,382
% Margin		22.7%	28.7%	32.5%	32.3%	32.2%	28.6%	28.8%	28.8%
Income Taxes		206.0	409.0	663.0	266.0	301.0	300.4	279.1	290.3
EBIAT		876	995	1,064	1,615	1,717	1,130	1,050	1,092
Free Cash Flow Adjustments:	TITI	\ \T \		TOT		A T			
Plus: Depreciation & Amortization		199.0	240.0	242.0	308.0	412.0	270.9	249.3	259.2
Less: Capital Expenditures		(224.0)	(216.0)	(224.0)	(338.0)	(460.0)	(135)	(124)	(129)
Less: Increase in NWC							622	46	-32
Free Cash Flow to Firm		76 //			4		\$2,157.8	\$1,469.5	\$1,449.1
Weighted Average Cost of Capital		5.65%	nage	men					
Discount Period			8				1.0	2.0	3.0
Discount Factor							0.95	0.90	0.85
Present Value of FCFFs							\$2,042.5	\$1,316.6	\$1,228.9

Discounted Cash Flow Model – Downside Case Output (2/2)

Exit Multiple Method

Enterprise Value	
Present Value of Projected FCF	\$4,588.0
Terminal Value	A
Terminal Year EBITDA	\$1,641.5
Exit Multiple	24.1x
Terminal Value	\$39,559.6
Discount Factor	0.85
Present Value of Terminal Value	\$33,548.5
% of Enterprise Value	88%
Enterprise Value	\$38,136.5

Implied Equity Value	
Enterprise Value	\$38,136.5
Less: Total Debt	\$6,111.0
Less: Preferred Securities	\$0.0
Less: Non-Controlling Interest	\$0.0
Plus: Cash & Equivalents	\$1,934.0
Implied Equity Value	\$33,959.5
Shares Outstanding	317.0
Implied Share Price	\$107.13

Perpetuity Growth Method

Enterprise Value	
Present Value of Projected FCF	\$4,588.0
	14 ()
Terminal Value	
Terminal Year FCF	\$1,449.1
Perpetual FCF Growth Rate	2.3%
Terminal Value	\$43,288.6
Discount Factor	0.85
Present Value of Terminal Value	\$36,710.9
% of Enterprise Value	89%
Enterprise Value	\$41,298.9

Implied Equity Value									
Enterprise Value	\$41,298.9								
Less: Total Debt	\$6,111.0								
Less: Preferred Securities	\$0.0								
Less: Non-Controlling Interest	\$0.0								
Plus: Cash & Equivalents	\$1,934.0								
Implied Equity Value	\$37,121.9								
Shares Outstanding	317.0								
T									
Implied Share Price	\$117.10								

				- /	~		
			Implie	d Share Price			
				Exit Multiple			
	\$107.13	23.1x	23.6x	24.1x	24.6x	25.1x	
	6.2%	\$101.18	\$103.34	\$105.51	\$107.67	\$109.84	1
\mathcal{Q}	5.9%	\$101.95	\$104.13	\$106.31	\$108.49	\$110.67	
WACC	5.7%	\$102.73	\$104.92	\$107.12	\$109.32	\$111.51	
>	5.4%	\$103.51	\$105.73	\$107.94	\$110.15	\$112.36	
	5.2%	\$104.31	\$106.54	\$108.76	\$110.99	\$113.22	

			implied	Share Price						
	Long Term FCF Growth Rate									
	\$117.10	2.1%	2.2%	2.3%	2.4%	2.5%				
en	6.2%	\$95.54	\$97.93	\$100.44	\$103.09	\$105.88				
\mathcal{C}	5.9%	\$102.53	\$105.26	\$108.15	\$111.21	\$114.44				
WACC	5.7%	\$110.49	\$113.66	\$117.01	\$120.57	\$124.36				
>	5.4%	\$119.67	\$123.36	\$127.30	\$131.50	\$135.98				
	5.2%	\$130.34	\$134.71	\$139.39	\$144.40	\$149.80				

Comparable Companies Analysis

High

Low

Zoetis		Current	% of	//		Enterprise Value			Price		
Comparable Companies Analysis		Share	52-Week.	Equity	Enterprise	LTM	2020E	LTM	2020E	LTM	2020E
Company	Ticker	Price	High	Value (in M)	Value (in M)	Sales	Sales	EBITDA	EBITDA	Earnings	Earnings
Zoetis	ZTS	\$128.75	\$146.26	\$60,432.00	\$65,528.00	10.8x	10.2x	26.8x	24.1x	36.4x	33.9x
IDEXX Laboratories Inc.	IDXX	\$258.88	\$296.25	\$22,037.00	\$23,000.00	9.9x	9.1x	37.2x	34.4x	53.4x	49.4x
Elanco Animal Health	ELAN	\$24.50	\$35.46	\$9,770.00	\$11,865.00	4.2x	4.8x	19.4x	16.0x	27.8x	23.8x
Dechra Pharmaceuticals	DPH	\$32.54	\$37.00	\$3,347.00	\$3,666.00	6.3x	5.6x	22.3x	20.5x	30.5x	28.2x
			4			V-1-1-1					
Mean						6.8x	6.5x	26.3x	23.6x	37.2x	33.8x
Median					17	6.3x	5.6x	22.3x	20.5x	30.5x	28.2x
High						9.9x	9.1x	37.2x	34.4x	53.4x	49.4x
Low						4.2x	4.8x	19.4x	16.0x	27.8x	23.8x
Implied Share Price											
Mean	_			-	n A	\$121.11	\$121.19	\$188.43	\$147.11	\$176.18	\$139.25
Median			1		' /	\$111.23	\$102.59	\$157.77	\$125.86	\$144.32	\$116.18



\$182.32

\$69.76

\$174.94

\$86.05

\$271.98

\$135.54

\$220.14

\$95.34

\$252.68

\$131.55

\$203.52

\$98.05