Animal Health
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November 3, 2017

COMPANY UPDATE / ESTIMATE CHANGE / PRICE TARGET CHANGE

Key Metrics

ZTS - NYSE (as of 11/02/17)		$67.31
Price Target		$81.00
52-Week Range		$48.24 - $67.85
Shares Outstanding (mm)		492.4
Market Cap. ($mm)		$32,922
1-Mo. Average Daily Volume (000's)		588,809
Institutional Ownership		96%
Debt / Total Capital		57.3%
ROE (TTM)		55.9%
Book Value / Share		$4.10
Price / Book Value		16.4x
Indicated Dividend / Yield	$0.42	0.6%
TTM Operating Margin		31.7%

Non-GAAP EPS FYE 12/31

	2016A	Prior 2017E	Curr. 2017E	Prior 2018E	Curr. 2018E
1Q	$0.48		$0.53A	$0.61	$0.62
2Q	$0.49		$0.53A	$0.64	$0.66
3Q	$0.52		$0.65A	$0.70	$0.74
4Q	$0.47	$0.60	$0.64	$0.65	$0.68
Year	$1.96	$2.31	$2.35	$2.59	$2.71
P/E	34.4x		28.6x		24.9x

Figures may not add up due to rounding

Revenue ($b)

	2016A	Prior 2017E	Curr. 2017E	Prior 2018E	Curr. 2018E
1Q	$1.16		$1.23A	$1.30	$1.32
2Q	$1.21		$1.27A	$1.36	$1.38
3Q	$1.24		$1.35A	$1.40	$1.42
4Q	$1.28	$1.36	$1.38	$1.43	$1.45
Year	$4.89	$5.19	$5.23	$5.49	$5.57

***Company Description** – Based in Parsippany, New Jersey, Zoetis develops, manufactures, and markets pharmaceuticals and biologicals for both livestock and companion animals. The company also offers diagnostic products, genomic services, and other services to their customers, which primarily include livestock farmers, veterinarians, and pet owners. Most of the company's products aid in the healthcare of cats, dogs, equine, swine, beef and dairy cattle, sheep, poultry, and fish.*

Zoetis Inc.

ZTS – NYSE – Buy – 2

Companion Animal Segment Shines; Raising Price Target and Reiterating Buy Rating

- **3Q17 Results:** Zoetis reported revenues of $1.35 billion, growth of 9% from the same period a year ago. This beat our estimate of $1.33 billion and the Street consensus of $1.32 billion. Non-GAAP EPS of $0.65 fell just shy of our estimate of $0.66 but exceeded the Street consensus of $0.62.
- **Positive Highlights:** The poultry and fish segments exceeded our estimates and partially offset a cattle disappointment in the livestock business. The companion animal business generated 18% growth, well above our bullish estimates.
- **Negative Highlights:** The GAAP gross margin registered at 67.7% versus our estimate of 69.5% and the Street consensus of 68.5%. We remind investors this metric has been volatile for multiple reasons, but management commentary suggests gross margin volatility should be somewhat tamer going forward. As noted above, the cattle segment underperformed our assumption.
- **Outlook and Estimates:** The long-term story remains positive in our view, and we encourage investors to have confidence in management's ability to prevail through headwinds in swine and ignore the short-term volatility of the gross margin. Furthermore, the momentum in the companion animal business is hard to miss. We increased our FY17 revenue estimate to $5.23 billion from $5.19 billion and increased our FY17 non-GAAP EPS estimate to $2.35 from $2.31. We also increased our FY18 revenue estimate to $5.57 billion from $5.49 billion and increased our FY18 non-GAAP EPS estimate to $2.71 from $2.59.
- **Valuation:** Zoetis closed yesterday at 30.1X trailing operating EPS and 25.2X our next twelve months operating EPS estimate. This forward multiple is slightly below its three year average of ~26X. We are maintaining our Buy rating and raising our price target to $81 from $76. See page 4 for price target derivation.

Note Important Disclosures on pages 7 and 8
Note Analyst Certification on page 7

ADDITIONAL COMMENTARY

Revenues in millions	3Q17 Revenue	Y/Y Growth	Quick Comment
Cattle	424	-1.9%	Weakness in US too much to offset strength elsewhere
Swine	147	1.4%	Strength elswhere offset by competition and VFD in US
Poultry	119	7.2%	MFAs performing well with the RWA push by producers
Fish	39	56.0%	Strong growth likely aided by delayed revenues from Q2
Other	25	13.6%	
Livestock Total	**754**	**2.6%**	Driven by international growth as U.S. revenues declined
Companion Animal	**580**	**18.4%**	Dermatology and Simparica strength
Contract Mfg.	13	-19%	
Total Revenue	**1,347**	**8.5%**	

Source: Company Reports

Performance Review

- Revenue growth of 8.5% received a modest boost from currency exchange rates. Essentially all of the revenue growth was driven by volume, as price declines associated with promotional activities in the U.S. offset price increases in international markets. Volume growth was driven purely by new products in the companion animal (CA) segment.
- International growth was strong at 12%, with a 1% boost from currency. Australian revenues jumped 21% operationally year-over-year as cattle, sheep, and CA all performed well. Brazilian operational growth of 14% was delivered by both livestock and CA. Canadian growth was muted at 2% operationally. Chinese revenues were up 22% on a constant currency basis, led by both swine and CA growth, with management highlighting CA vaccines due to increased medicalization of pets and population growth. Zoetis generated 7% operational growth in the U.K., although currency headwinds continued. Germany, Spain, and Mexico all posted double-digit operational growth for the quarter.
- U.S. revenue growth of 6% was led by new CA products. The livestock business actually declined 6%, as the cattle and swine segments continue to face the headwind of Veterinary Feed Directive (VFD) regulations.
- The VFD provided more of a headwind than management expected and has subtracted an estimated $30 million off the top line in cattle and swine year-to-date. Healthier animals and tough comps from last year also pressured the U.S. cattle business. Management stated they expect growth in 4Q17 and 2018. Strength in Brazil continued despite significant political uncertainty and bad publicity (such as food adulteration) for the industry and favorable market conditions aided in Australia. Other key international markets were stable or positive.
- Swine strength in other key markets such as China and Brazil helped overcome domestic weakness as a result of competition in vaccines and VFD. Despite having improved the portfolio over the past year, management stated progress is coming slower than expected in regaining domestic market share, but also noted the company is gaining traction with small and medium-sized producers.
- Poultry growth came in spite of the VFD. Zoetis has multiple medicated feed additives (MFAs) that are not critical to humans and therefore give producers an option with more retailers and consumers demanding poultry raised without antibiotics (RWA). The movement also bolsters vaccine usage.
- The fish segment more than made up for a weak 2Q17 caused by pricing discussions in Chilean salmon markets and also experienced strong uptake of a new vaccine for pancreatic disease in Norwegian

markets. Management remains confident in the aquaculture market prospects long-term, particularly as they look to expand beyond their current concentration in salmon.

- The CA segment continues to be dominated by the rapid uptake of the dermatology portfolio (Apoquel and Cytopoint). The two products stayed above the $100 million mark ($124 million to be exact) for a second consecutive quarter. More importantly, in our view, management raised the long-term guidance for the dermatology portfolio to be over $500 million annually (versus $400-$500 million previously). Management stated this quarter showed yet again more dermatology cases are treated with one of these options (59% versus 55% in 2Q17) in the U.S. Simparica sales increased $5 million sequentially, and management remains confident in its long-term potential.
- The gross margin missed our estimate this quarter, but management maintained guidance, implying a higher 4Q17 print than we expected prior to the quarter. Management commentary makes us think the gross margin volatility is not quite over yet but may not be as bad in 2018 as it was in 2017.
- Core operating expenses of $424 million were in line with our estimate ($425 million) as SG&A expenses were lower than expected but R&D expenses were higher than our estimate. After factoring in the above, the GAAP core operating margin was 36.2% versus our estimate of 37.4%. The non-GAAP core operating margin was 36.6% versus our estimate of 38.2%.
- Non-core operating expenses were $75 million versus our expectation of $64 million. The GAAP tax rate was lower than our estimate, while the non-GAAP tax rate was similar to our estimate. GAAP EPS of $0.61 was lower than our estimate of $0.62. Non-GAAP EPS of $0.65 was just shy of our estimate of $0.66 and well above the Street consensus of $0.62.

Balance Sheet and Cash Flow Review

- Zoetis has generated $738 million in cash from operations year-to-date, a 73% increase year-over-year. The company has invested about $141 million in property and equipment this fiscal year and $82 million in acquisitions (Nexvet). Zoetis repurchased $125 million in shares in each of the first three quarters this year and paid just over $50 million in dividends in each quarter.
- Zoetis experienced an increase in leverage ratios due to the issuance of $1.2 billion in long-term debt, of which $750 million will be used to pay down debt coming due in 1Q18. Long-term debt (including principal due in the next year) now stands at 57.3% of total capital. Total debt / Equity is 3.6X. Despite fairly high leverage ratios, we remain comfortable with Zoetis' balance sheet due to the stability of the business and strong liquidity; the current ratio is 2.8X. EBITDA/ net interest was 12.0X in 3Q17 and FCF / net interest was 7.3X. We consider the dividend and our projected dividend increases to be well covered.

Guidance Update

	Previous Guidance	Updated Guidance
Revenue	5,150 - 5,250	5,225 - 5,275
Gross Margin	~67%	~67%
SG&A	1,285 - 1,325	1,310 - 1,335
R&D	365 - 385	375 - 385
Other Expenses	~160	~160
Tax Rate	~29%	~29%
EPS	2.30 - 2.37	2.34- 2.39
GAAP EPS*	2.12 - 2.21	2.16 - 2.23

**All other items are on a non-GAAP basis; all figures in millions except per sh*

Source: Company Reports

ESTIMATES UPDATE & OUTLOOK

From a top line perspective, there were really only two key changes, as other changes were modest tweaks. We lowered our cattle revenues, more as a result of the disappointment this quarter than any real concerns. On the other hand, we significantly increased our estimates for the CA portfolio. Reflecting the impressive growth of the product set, we now expect the dermatology portfolio to pull in $500 million in revenues next year versus our previous expectations of ~$425 million.

Despite the noteworthy gross margin miss, changes were modest. We remain confident in management's expectations for the metric and see this quarter as more of a timing issue. We admit it could be a choppy path to the 2020 goal (~200 basis point expansion from FY16) but this picture will take time to come into clearer focus. We lowered SG&A expense estimates noticeably as expense control has been impressive even while increasing marketing for the dermatology portfolio. We tweaked R&D expenses higher.

After making modest tweaks to estimates for non-core operating expenses and lowering expected tax rates to reflect international growth, our FY17 non-GAAP EPS estimate is now $2.35 versus $2.31 previously. Our FY17 revenue estimate is $5.23 billion versus $5.19 billion previously. For FY18, we increased revenue expectations to $5.57 billion from $5.49 billion and non-GAAP EPS to $2.71 from $2.59.

We remain confident in the company's long-term story and stress the tremendous momentum of the CA portfolio in the short-term as reasons to buy this well-managed company.

VALUATION & SUITABILITY

Zoetis closed yesterday at 30.9X trailing operating EPS and 25.2X our next twelve months operating EPS estimate. To determine our price target, we took the average forward P/E seen since the efficiency initiative was announced (~26.7X) and incorporate a DCF model to recognize impressive cash flow generation. Applying the 26.7X multiple to our 4Q18 / 2019 non-GAAP EPS estimate, we derive a $78 price target. Using an unchanged WACC of 9.3% and a two-stage growth model for free cash flow to equity, we calculate an $84 price target. We use the two-stage growth model due to confidence in the intermediate outlook for the company. However, we think it would be too aggressive to use our 7% growth rate (used for five years beyond our FY19 estimates) into perpetuity. Thus, our second stage growth rate assumption is a much more conservative 3%. Taking the average of these two valuation methodologies, we derive an $81 price target. We note this is up from $76 previously, as each valuation method resulted in a $5 higher price target.

Suitability

Zoetis is well diversified in terms of products, customer base, and geographies. The company's industry has an attractive secular growth profile and the CA segment is recession-resistant, in our opinion. However, the company's livestock customer base is subjected to commodity cycles. Further, Zoetis has a limited history as a publicly traded company and is fairly levered. Finally, we view the company's status as a growth stock as another risk to consider. Given these factors, our suitability rating is a 2.

RISKS & CONSIDERATIONS

- **Dependence on livestock industry** – Zoetis derives a significant amount of revenue from customers in or associated with the agricultural industry, which is subject to many factors beyond their control, such as weather or disease outbreaks.
- **Changes in consumer attitudes –** The companion animal business is dependent on consumers continuing to view their pets as a member of the family and treating them accordingly. A change in this attitude could halt the humanization of pets and harm Zoetis' outlook. Additionally, lower consumption of animal protein could hurt Zoetis customers and thereby reduce demand for Zoetis products.
- **Competition –** The animal health business is highly competitive and attracts significant capital and new competitors. Innovative new products or solutions from competitors could displace Zoetis products.
- **Integration of acquisitions** – Zoetis has been fairly acquisitive throughout its history, and we anticipate that to continue. Failure to successfully integrate acquisitions could lead to financial results below expectations.
- **Failure of R&D and/or new products** – Zoetis also internally develops new products and product lines. Failure to successfully develop and sell new products could harm profitability.
- **Legal** – Product lawsuits are common in the health care sector. An unfavorable court decision could hamper the ability to market a product, whether a current patent under Zoetis is successfully challenged or Zoetis is determined to have infringed upon the patent of a competitor.
- **Regulatory** – Most Zoetis products must go through various regulatory agencies for approval. Further, the companion animal market could undergo a significant shift if any new regulations are introduced regarding veterinary prescription practices. On the other side of the business, the livestock industry is also subject to significant regulatory requirements and oversight. These situations create uncertainty for both Zoetis and its customers.
- **Emerging markets exposure –** Zoetis derives a significant portion of its revenues (~22% in 2016) from emerging markets. These markets tend to be riskier due to political, economic, and/or currency instability.

ZOETIS INC.										ZTS: BUY
In millions	2014	2015	2016	1Q17 A	2Q17 A	3Q17 A	4Q17 E	2017 E	2018 E	2019 E
*Fiscal Period End**	12/31/2014	12/31/2015	12/31/2016	4/2/2017	7/2/2017	10/1/2017	12/31/2017	12/31/2017	12/31/2018	12/31/2019
Income Statement										
Livestock	3,103	2,958	2,881	703	689	754	821	2,967	3,129	3,318
Companion Animal	1,632	1,756	1,956	517	568	580	548	2,213	2,391	2,532
Other	50	51	51	11	12	13	11	47	48	49
Total Revenue	**4,785**	**4,765**	**4,888**	**1,231**	**1,269**	**1,347**	**1,380**	**5,227**	**5,568**	**5,899**
Gross Profit	**3,068**	**3,027**	**3,222**	**788**	**829**	**912**	**950**	**3,479**	**3,757**	**4,020**
Gross Margin %	*64.1%*	*63.5%*	*65.9%*	*64.0%*	*65.3%*	*67.7%*	*68.9%*	*66.6%*	*67.5%*	*68.2%*
SG&A	1,643	1,532	1,364	309	336	328	350	1,323	1,349	1,426
R&D	396	364	376	90	86	96	109	381	396	409
Core Operating Income	**1,029**	**1,131**	**1,482**	**389**	**407**	**488**	**491**	**1,775**	**2,012**	**2,185**
Core Operating Margin %	*21.5%*	*23.7%*	*30.3%*	*31.6%*	*32.1%*	*36.2%*	*35.6%*	*34.0%*	*36.1%*	*37.0%*
Non-core Expenses**	209	586	254	52	62	75	73	262	265	262
GAAP Pretax Income	**820**	**545**	**1,228**	**337**	**345**	**413**	**418**	**1,513**	**1,747**	**1,923**
GAAP Pretax Margin %	*17.1%*	*11.4%*	*25.1%*	*27.4%*	*27.2%*	*30.7%*	*30.3%*	*28.9%*	*31.4%*	*32.6%*
Effective Tax Rate	*28.4%*	*37.8%*	*33.3%*	*29.1%*	*28.4%*	*28.3%*	*29.0%*	*28.7%*	*29.0%*	*28.8%*
GAAP Net Income***	**583**	**339**	**821**	**238**	**247**	**298**	**297**	**1,080**	**1,239**	**1,368**
Non-GAAP Adjustments	207	550	154	23	14	24	19	80	82	82
Non-GAAP Net Income	**790**	**889**	**975**	**261**	**261**	**322**	**316**	**1,160**	**1,321**	**1,450**
Diluted Shares O/S	502.0	502.0	498.2	495.3	494.0	492.4	491.3	493.2	488.4	484.4
GAAP Diluted EPS	**$ 1.16**	**$ 0.68**	**$ 1.65**	**$ 0.48**	**$ 0.50**	**$ 0.61**	**$ 0.60**	**$ 2.19**	**$ 2.54**	**$ 2.82**
Non-GAAP Diluted EPS	**$ 1.57**	**$ 1.77**	**$ 1.96**	**$ 0.53**	**$ 0.53**	**$ 0.65**	**$ 0.64**	**$ 2.35**	**$ 2.71**	**$ 2.99**
Dividends per share	**$ 0.288**	**$ 0.332**	**$ 0.380**	**$ 0.105**	**$ 0.105**	**$ 0.105**	**$ 0.105**	**$ 0.420**	**$ 0.480**	**$ 0.560**
Balance Sheet										
Cash and Equivalents	882	1,154	727	629	712	1,988	2,455	2,455	2,382	3,130
Other Current Assets	2,583	2,676	2,663	2,754	2,879	2,913	2,701	2,701	2,834	2,940
Total Current Assets	**3,465**	**3,830**	**3,390**	**3,383**	**3,591**	**4,901**	**5,156**	**5,156**	**5,216**	**6,070**
Net PP&E	1,318	1,307	1,381	1,368	1,355	1,388	1,404	1,404	1,480	1,562
Other Assets	1,805	2,776	2,878	2,898	2,863	3,006	2,983	2,983	2,941	2,903
Total Assets	**6,588**	**7,913**	**7,649**	**7,649**	**7,809**	**9,295**	**9,543**	**9,543**	**9,637**	**10,535**
Current Liabilities	1,086	1,781	1,117	1,730	1,784	1,746	1,881	1,881	1,248	1,817
Non-Current Liabilities	4,165	5,041	5,033	4,284	4,272	5,523	5,524	5,524	5,528	5,032
Total Liabilities	**5,251**	**6,822**	**6,150**	**6,014**	**6,056**	**7,269**	**7,405**	**7,405**	**6,776**	**6,849**
Total Shareholders' Equity	**1,337**	**1,091**	**1,499**	**1,635**	**1,746**	**2,019**	**2,138**	**2,138**	**2,861**	**3,686**
Cash Flow Statement										
Cash Flow from Operations	626	664	713	119	180	439	693	1,431	1,627	1,735
Cash Flow from Investing	(187)	(1,115)	(214)	(48)	(40)	(128)	(55)	(271)	(237)	(251)
Cash Flow from Financing	(154)	755	(903)	(176)	(64)	956	(171)	545	(1,463)	(737)
Free Cash Flow to Equity	**446**	**1,557**	**94**	**77**	**129**	**1,622**	**638**	**2,466**	**640**	**1,484**

**Zoetis fiscal periods end on Sundays, with the exception of year-end, which is always December 31st*
***Includes amortization, restructuring and M&A costs, net interest expense, and other expenses*
****Includes allocation to non-controlling interests, which are not shown in this table*
Source: Company Reports and Hilliard Lyons estimates

Additional information is available upon request

Analyst Certification

I, Kurt A. Kemper, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject company(ies) and its (their) securities. I also certify that I have not been, am not, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

Important Disclosures

Hilliard Lyons' analysts receive bonus compensation based on Hilliard Lyons' profitability. They do not receive direct payments from investment banking activity.

Definitions of Ratings:
Buy - We believe the stock has significant total return potential in the coming 12 months.
Long-term Buy - We believe the stock is an above average holding in its sector, and expect solid returns to be realized over a longer time frame than our Buy rated issues, typically 2-3 years.
Neutral - We believe the stock is an average holding in its sector, is currently fully valued, and may be used as a source of funds if better opportunities arise.
Underperform - We believe the stock is vulnerable to a price set back in the next 12 months.

Definitions of Suitabilities:
1. A large cap, core holding with a solid history.
2. A historically secure company which could be cyclical, has a shorter history than a "1" or is subject to event driven setbacks.
3. An above average risk/reward ratio could be due to small size, lack of product diversity, sporadic earnings or high leverage.
4. Speculative, due to small size, inconsistent profitability, erratic revenue, volatility, low trading volume or a narrow customer or product base.

	Hilliard Lyons Recommended Issues		Investment Banking Provided in Past 12 Mo.	
Rating	**# of Stocks Covered**	**% of Stocks Covered**	**Banking**	**No Banking**
Buy	39	32%	8%	92%
Hold/Neutral	74	60%	9%	91%
Sell	8	7%	0%	100%
Restriction	2	2%	100%	0%

As of 5 October 2017

Other Disclosures

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