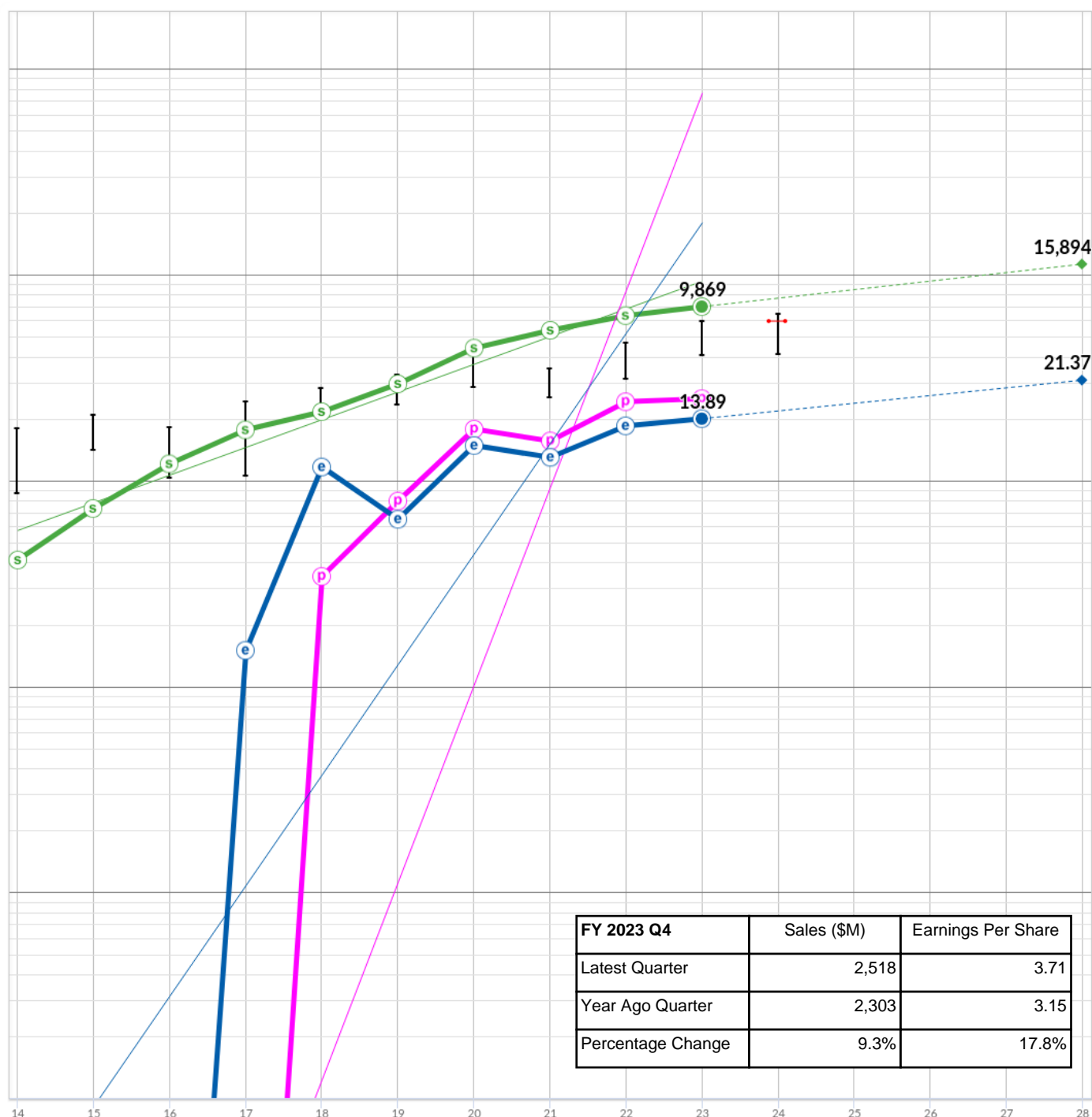


Stock Selection Guide

Company	Vertex Pharmaceutica		Date	03/08/24	
Prepared by	FWIC		Data taken from	BI Stock Data	
Where traded	NAS		Industry	Biotechnology	
Capitalization --- Outstanding Amounts	Reference				
Preferred (\$M)	0.0	% Insiders	% Institution		
Common (M Shares)	260.8		1.0	75.3	
Debt (\$M)	808.4	% to Tot Cap	4.4	% Pot Dil	1.2

Symbol: VRTX

1 VISUAL ANALYSIS of Sales, Earnings, and Price



- | | | | |
|-----------------------------------|-------|--|--------|
| (1) Historical Sales Growth | 36.3% | (3) Historical Earnings Per Share Growth | 244.1% |
| (2) Estimated Future Sales Growth | 10.0% | (4) Estimated Future Earnings Per Share Growth | 9.0% |

2 EVALUATING Management

Vertex Pharmaceutica

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Last 5 Year Avg.
% Pre-tax Profit on Sales	-126.6%	-54.0%	-4.0%	-0.6%	19.7%	33.5%	50.2%	36.0%	47.4%	44.4%	42.3%
% Earned on Equity	-65.7%	-61.7%	-11.2%	14.7%	71.0%	22.2%	32.9%	24.1%	25.3%	21.7%	25.2%
% Debt To Capital	43.4%	46.8%	42.1%	23.0%	11.8%	9.7%	9.7%	8.5%	6.1%	4.4%	7.7%

3 PRICE-EARNINGS HISTORY as an indicator of the future

This shows how stock prices have fluctuated with earnings and dividends. It is building block for translating earnings into future stock prices.

CLOSING PRICE 413.59 (03/08/24)

52-WEEK HIGH 448.40

52-WEEK LOW 283.60

	A	B	C	D	E	F	G	H
Year	Price		Earnings	Price Earnings Ratio		Dividend	% Payout	% High Yield
	High	Low	Per Share	High A / C	Low B / C	Per Share	F / C * 100	F / B * 100
2019	225.7	161.0	4.51	50.0	35.7	0.00	0.0	0.0
2020	306.1	197.5	10.29	29.7	19.2	0.00	0.0	0.0
2021	243.0	176.4	9.01	27.0	19.6	0.00	0.0	0.0
2022	324.8	214.7	12.82	25.3	16.7	0.00	0.0	0.0
2023	413.0	282.2	13.89	29.7	20.3	0.00	0.0	0.0
AVERAGE		206.3		27.9	19.0		0.0	
CURRENT/TTM			13.89	32.3	20.4	0.00	0.0	
AVERAGE PRICE EARNINGS RATIO: 23.5					CURRENT PRICE EARNINGS RATIO: 29.8			

4 EVALUATING RISK and REWARD over the next 5 years

Assuming one recession and one business boom every 5 years, calculations are made of how high and how low the stock might sell. The upside-downside ratio is the key to evaluating risk and reward.

A HIGH PRICE - NEXT 5 YEARS

Avg. High P/E 28.0 X Estimate High Earnings/Share 21.37 = Forecasted High Price \$ 598.4

B LOW PRICE - NEXT 5 YEARS

(a) Avg. Low P/E 20.0 X Estimate Low Earnings/Share 13.89 = Forecasted Low Price \$ 277.8

(b) Avg. Low Price of Last 5 Years 206.3

(c) Recent Market Low Price 214.7

(d) Price Dividend Will Support $\frac{\text{Indicated Dividend}}{\text{High Yield}} = \frac{0.00}{0.00\%} = 0.0$

Selected Forecasted Low Price \$ 277.8

C ZONING using 25%-50%-25%

Forecasted High Price 598.4 Minus Forecasted Low Price 277.8 = 320.6 Range. 25% of Range 80.2

Buy Zone 277.8 to 358.0

Hold Zone 358.0 to 518.3

Sell Zone 518.3 to 598.4

Present Market Price of 413.59 is in the **HOLD** Zone

D UPSIDE DOWNSIDE RATIO (POTENTIAL GAIN VS. RISK OR LOSS)

$\frac{\text{High Price} - \text{Present Price}}{\text{Present Price}} = \frac{598.4 - 413.59}{413.59} = 1.4$ To 1
 $\frac{\text{High Price} - \text{Present Price}}{\text{Present Price} - \text{Low Price}} = \frac{598.4 - 413.59}{413.59 - 277.8} = 1.4$

E PRICE TARGET (Note: This shows the potential market price appreciation over the next five years in simple interest terms.)

$\frac{\text{High Price} - \text{Closing Price}}{\text{Closing Price}} = \frac{598.4 - 413.59}{413.59} = 1.4468 \times 100 = 144.68 - 100 = 44.7\%$ % Appreciation

5 5-YEAR POTENTIAL

This combines price appreciation with dividend yield to get an estimate of total return. It provides a standard for comparing income and growth stocks.

A $\frac{\text{Indicated Annual Dividend}}{\text{Closing Price}} = \frac{0.00}{413.59} = 0.0000 = 0.0\%$ Current Yield

B AVERAGE YIELD - USING FORECAST HIGH P/E

$\frac{\text{Avg. \% Payout}}{\text{Forecast High PE}} = \frac{0.0\%}{28.00} = 0.0\%$

AVERAGE YIELD - USING FORECAST AVERAGE P/E

$\frac{\text{Avg. \% Payout}}{\text{Forecast Average PE}} = \frac{0.0\%}{24.00} = 0.0\%$

C COMPOUND ANNUAL RETURN - USING FORECAST HIGH P/E

Annualized Appreciation 7.7 %
 Average Yield 0.0 %
 Annualized Rate of Return 7.7 %

COMPOUND ANNUAL RETURN - USING FORECAST AVG P/E

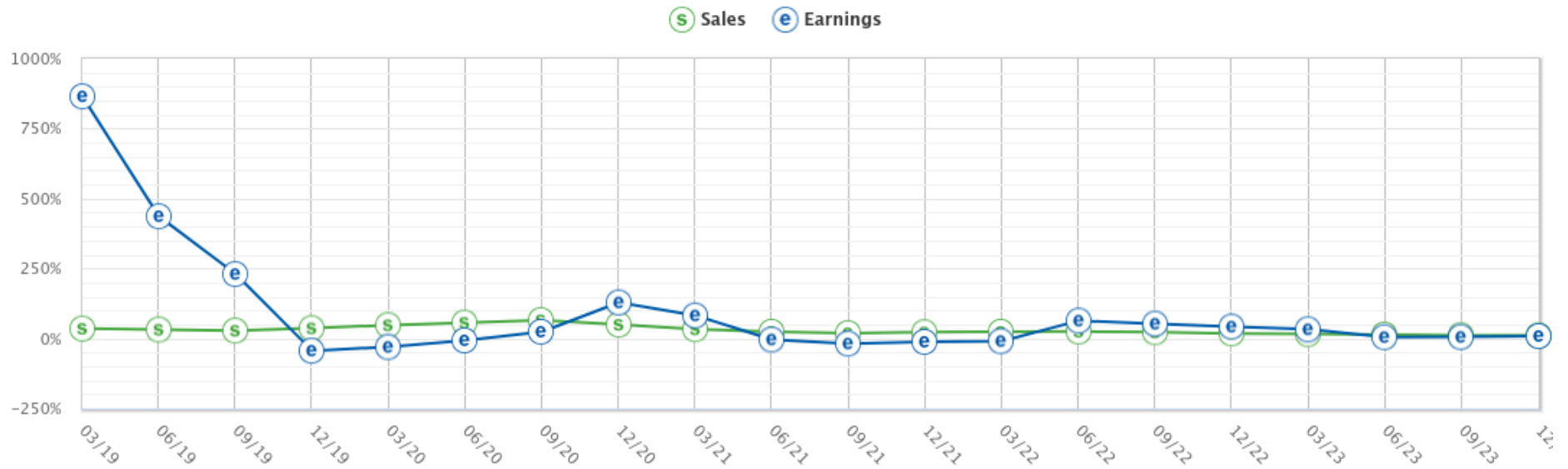
Annualized Appreciation 4.4 %
 Average Yield 0.0 %
 Annualized Rate of Return 4.4 %

Notes: VRTX - SSG_Arvind_3/11/24

Date	Subject	Description	Type
02/11/24	FIRE VRTX Q4 2023	<p>2024 Guidance For the current year, Vertex is projecting that its product revenue will come in between \$10.55 billion and \$10.75 billion, implying a growth rate at the midpoint of around 8% this year. Despite the expected growth, however, the consensus analyst price target for the stock is just under \$395, which implies that Wall Street expects the stock's value to come down within the next year.</p> <p>In January 2024, Vertex announced positive data from three late-stage studies on its investigational orally-administered non-opioid pain medicine, VX-548, to treat moderate-to-severe acute pain. Vertex plans to submit a new drug application ("NDA") with the FDA for VX-548 across a broad label in moderate-to-severe acute pain by mid-2024.</p> <p>VRTX continues to have a wide moat due to the length of its patents.</p>	Community
01/30/24	Dec. 2023 ValueLine Summary	<p>While the CF lineup and other key drug opportunities should be a boon, VRTX stock's long-term appeal is modest. Note that the Safety rank here has been raised to 1 (Highest). J. Susan Ferrara December 1, 2023</p>	Community
11/10/23	FIRE Q3 2023	<p>VX-548, is a non-opioid option for pain that is in Phase 2 & Phase 3 trials which as the potential to be a blockbuster drug for Vertex.</p> <p>December 8th, the FDA will give a ruling on drug therapy for sickle cell disease and Vertex has several promising drugs in the pipeline.</p> <p>Vertex was down Q3 because the sales of older CF drugs did not meet analyst expectations.</p> <p>Vertex is presently a hold</p>	Community
01/09/23	Vertex doing well	<p>Vertex continues to develop small molecules in the treatment of genetic diseases. Its recent collaboration with Maderna to package its RNA cystic fibrosis molecules in lipids is exciting. Sales and EPS continue on track. The recent decline in the Market makes shares inviting for long-term growth.</p>	Community
07/12/22	Pipeline Update	<p>VX-880 (T1D treatment) was taken off hold by the FDA. Proof-of-concept was confirmed and enrollment in the trial continues.</p> <p>Vertex offered an all cash buy out of ViaCyte, their biggest competitor in the T1D treatment race. This deal should close later in 2022.</p>	Community
04/01/22	Pipeline	<p>Vertex is making headway with a number of mid- or late-stage studies addressing such serious illnesses and conditions as sickle cell disease, beta thalassemia, Type 1 diabetes, kidney disease, pain, and protein deficiencies. The programs include Phase I/II clinical trial of VX-880, a stem cell-derived replacement therapy for Type 1 diabetes, and ongoing late-stage clinical trials on CTX001 for beta thalassemia and sickle cell disease, in collaboration with CRISPR Therapeutics</p>	Community
04/01/22	Valueline Comment on 2021 Results	<p>Big gains in the CF product portfolio, led by Trikafta/Kaftrio, catapulted revenues by 22% in 2021; EPS would have been higher were it not for a \$900 million payment to CRISPR Therapeutics under an amended R&D collaboration. EPS in 2021 was down 12% from 2020..</p> <p>Valueline thinks EPS will be \$12.00 in 2022, \$13 in 2023 and \$16 in 5 years.</p>	Community

Quarterly Growth Trend Data

Graph: Trailing 4 Quarters, Last 5 Years of Data



Quarterly Data									Last 12 Months Data								
Period	EPS		Pre-Tax Profit			Sales		Income Tax Rate	EPS	Pre-Tax Profit		Sales	Income Tax		%Change		
	\$	%Change	\$ Mil	%Sales	%Change	\$ Mil	%Change	\$		\$ Mil	%Sales	\$ Mil	%Rate	EPS	Pre-Tax Profit	Sales	
12/23	3.71	17.8	1,147.6	45.6	6.6	2,517.7	9.3	15.6	13.89	4,379.8	44.4	9,869.2	771.3	17.6	8.3	3.5	10.5
09/23	3.97	10.6	1,179.2	47.5	0.2	2,483.5	6.4	12.2	13.33	4,309.0	44.6	9,654.2	849.0	19.7	5.1	7.0	11.0
06/23	3.52	12.5	1,161.5	46.6	13.4	2,493.2	13.5	21.2	12.95	4,306.2	45.3	9,505.0	942.1	21.9	4.7	9.5	13.8
03/23	2.69	-9.1	891.5	37.5	-6.6	2,374.8	13.2	21.5	12.56	4,169.1	45.3	9,208.0	909.2	21.8	32.2	45.6	15.9
12/22	3.15	5.0	1,076.8	46.8	23.6	2,302.7	11.1	24.0	12.83	4,232.4	47.4	8,930.7	909.0	21.5	42.1	55.0	17.9
09/22	3.59	9.5	1,176.4	50.4	8.7	2,334.3	17.6	20.9	12.68	4,026.6	46.3	8,700.6	740.3	18.4	52.2	46.5	22.0
06/22	3.13	1,103.8	1,024.4	46.6	2,414.8	2,196.2	22.5	20.9	12.37	3,932.9	47.1	8,350.4	727.2	18.5	63.2	63.1	24.9

Quarterly Growth Trend Data

Graph: Trailing 4 Quarters, Last 5 Years of Data

Quarterly Data									Last 12 Months Data								
Period	EPS		Pre-Tax Profit			Sales		Income Tax Rate	EPS	Pre-Tax Profit		Sales	Income Tax		%Change		
	\$	%Change	\$ Mil	%Sales	%Change	\$ Mil	%Change			\$	\$ Mil		%Sales	\$ Mil	%Rate	EPS	Pre-Tax Profit
03/22	2.96	18.9	954.8	45.5	16.3	2,097.5	21.6	20.2	9.50	2,864.2	36.0	7,947.6	2,179.0	76.1	-9.5	-12.7	23.9
12/21	3.00	30.4	871.0	42.0	-2.0	2,072.6	27.3	11.6	9.03	2,730.4	36.0	7,574.4	2,078.9	76.1	-12.3	-12.4	22.1
09/21	3.28	29.6	1,082.7	54.6	45.2	1,984.2	29.0	21.3	8.33	2,748.1	38.5	7,129.7	2,232.7	81.2	-18.6	-5.4	19.0
06/21	0.26	-91.8	-44.3	-2.5	-105.4	1,793.4	17.6	251.2	7.58	2,411.2	36.1	6,683.8	1,893.9	78.5	-4.3	8.1	23.7
03/21	2.49	8.7	821.0	47.6	24.9	1,724.3	13.8	20.4	10.50	3,280.2	51.1	6,414.9	503.9	15.4	82.0	89.4	33.1
12/20	2.30	3.1	888.6	54.6	31.3	1,627.8	15.2	32.0	10.30	3,116.8	50.2	6,205.7	384.5	12.3	128.4	123.4	49.1
09/20	2.53	1,050.0	745.9	48.5	955.5	1,538.3	62.0	10.5	10.23	2,905.1	48.5	5,991.1	226.4	7.8	24.0	287.1	65.5
06/20	3.18	208.7	824.8	54.1	152.1	1,524.5	62.0	-1.5	7.92	2,229.9	41.3	5,402.7	218.9	9.8	-7.2	173.2	56.4
03/20	2.29	122.3	657.5	43.4	105.4	1,515.1	76.5	8.3	5.77	1,732.3	35.9	4,819.5	255.6	14.8	-30.5	145.4	47.6
12/19	2.23	-62.6	677.0	47.9	1,983.1	1,413.3	62.4	13.8	4.51	1,394.9	33.5	4,162.8	233.0	16.7	-44.2	132.4	36.6
09/19	0.22	-56.0	70.7	7.4	-48.2	949.8	21.1	18.6	8.25	750.5	20.7	3,619.7	-8,517.9	-1,135.0	230.0	10.3	27.9
06/19	1.03	28.8	327.1	34.8	51.0	941.3	25.1	18.3	8.53	816.3	23.6	3,454.4	-9,291.2	-1,138.2	436.5	545.3	31.7
03/19	1.03	27.2	320.2	37.3	49.2	858.4	34.0	16.1	8.30	705.8	21.6	3,265.2	-8,056.8	-1,141.6	865.1	1,393.1	35.2
12/18	5.97	1,430.8	32.5	3.7	-71.1	870.1	33.5	-4,593.0	8.08	600.2	19.7	3,047.6	-6,885.2	-1,147.1	676.9	3,925.9	22.5
09/18	0.50	222.0	136.5	17.4	132.7	784.5	35.7	5.9	2.50	680.2	24.0	2,829.1	23.6	3.5	220.5	730.8	23.2
06/18	0.80	1,042.9	216.6	28.8	510.0	752.2	38.2	4.8	1.59	126.5	4.8	2,622.8	12.1	9.5	54.4	-53.2	23.1
03/18	0.81	-18.2	214.6	33.5	-15.3	640.8	-10.3	-5.9	0.86	-54.6	-2.3	2,414.7	-6.2	11.4	22.9	-125.2	19.6
12/17	0.39	200.0	112.4	17.3	453.7	651.6	42.1	9.1	1.04	-15.7	-0.6	2,488.7	-2.1	13.3	326.1	76.7	46.2
09/17	-0.41	-156.3	-417.2	-72.2	-968.7	578.2	39.7	30.2	0.78	-107.8	-4.7	2,295.7	-2.0	1.8	186.7	34.1	38.2
06/17	0.07	126.9	35.5	6.5	297.0	544.1	26.1	12.2	1.03	270.3	12.7	2,131.3	-16.4	-6.1	191.2	224.5	36.8
03/17	0.99	682.4	253.5	35.5	928.1	714.7	79.5	1.6	0.70	216.8	10.7	2,018.8	-74.3	-34.3	142.4	155.6	56.3
12/16	0.13	141.9	20.3	4.4	126.7	458.7	9.8	-36.7	-0.46	-67.4	-4.0	1,702.2	26.4	-39.1	80.1	87.9	64.9
09/16	-0.16	59.0	-39.0	-9.4	57.8	413.8	33.6	-1.3	-0.90	-163.7	-9.9	1,661.4	48.3	-29.5	67.2	75.2	118.9
06/16	-0.26	66.7	-18.0	-4.2	90.6	431.6	159.9	-100.6	-1.13	-217.2	-13.9	1,557.4	64.1	-29.5	63.2	70.4	147.9
03/16	-0.17	79.5	-30.6	-7.7	84.6	398.1	187.4	-17.9	-1.65	-390.0	-30.2	1,291.9	32.5	-8.3	44.4	44.5	115.1
12/15	-0.31	58.1	-76.0	-18.2	57.4	417.9	189.1	1.8	-2.31	-557.8	-54.0	1,032.3	21.7	-3.9	26.4	24.2	77.9
09/15	-0.39	45.8	-92.5	-29.9	44.5	309.8	73.1	-1.4	-2.74	-660.3	-87.0	759.0	30.6	-4.6			
06/15	-0.78	-14.7	-190.9	-114.9	-20.3	166.1	20.0	-15.8	-3.07	-734.4	-116.9	628.1	35.1	-4.8			
03/15	-0.83	17.0	-198.4	-143.2	14.4	138.5	16.9	-0.2	-2.97	-702.3	-117.0	600.5	6.6	-0.9			
12/14	-0.74		-178.6	-123.5		144.6		-1.1									
09/14	-0.72		-166.6	-93.1		179.0		-2.1									

Quarterly Growth Trend Data

Graph: Trailing 4 Quarters, Last 5 Years of Data

Quarterly Data									Last 12 Months Data								
Period	EPS		Pre-Tax Profit			Sales		Income Tax Rate	EPS	Pre-Tax Profit		Sales	Income Tax		%Change		
	\$	%Change	\$ Mil	%Sales	%Change	\$ Mil	%Change	\$		\$ Mil	%Sales		\$ Mil	%Rate	EPS	Pre-Tax Profit	Sales
06/14	-0.68		-158.7	-114.6		138.4		-0.4									
03/14	-1.00		-231.7	-195.6		118.5		-0.4									