Stock Selection Guide

Company	Vertex Pharmaceutica	Date	03/13/23
Prepared by	FWIC	Data taken from	BI Stock Data
Where traded	NAS	Industry	Biotechnology

Capitalization --- Outstanding Amounts		Reference	

Preferred ($M)	0.0	% Insiders	% Institution
Common (M Shares)	260.3	1.0	83.2
Debt ($M) 899.7	% to Tot Cap 6.1	% Pot Dil	1.3

Symbol: VRTX

1   VISUAL ANALYSIS of Sales, Earnings, and Price

14,383

8,931

17.40

12.82

FY 2022 Q4	Sales ($M)	Earnings Per Share
Latest Quarter	2,303	3.15
Year Ago Quarter	2,073	3.00
Percentage Change	11.1%	5.0%
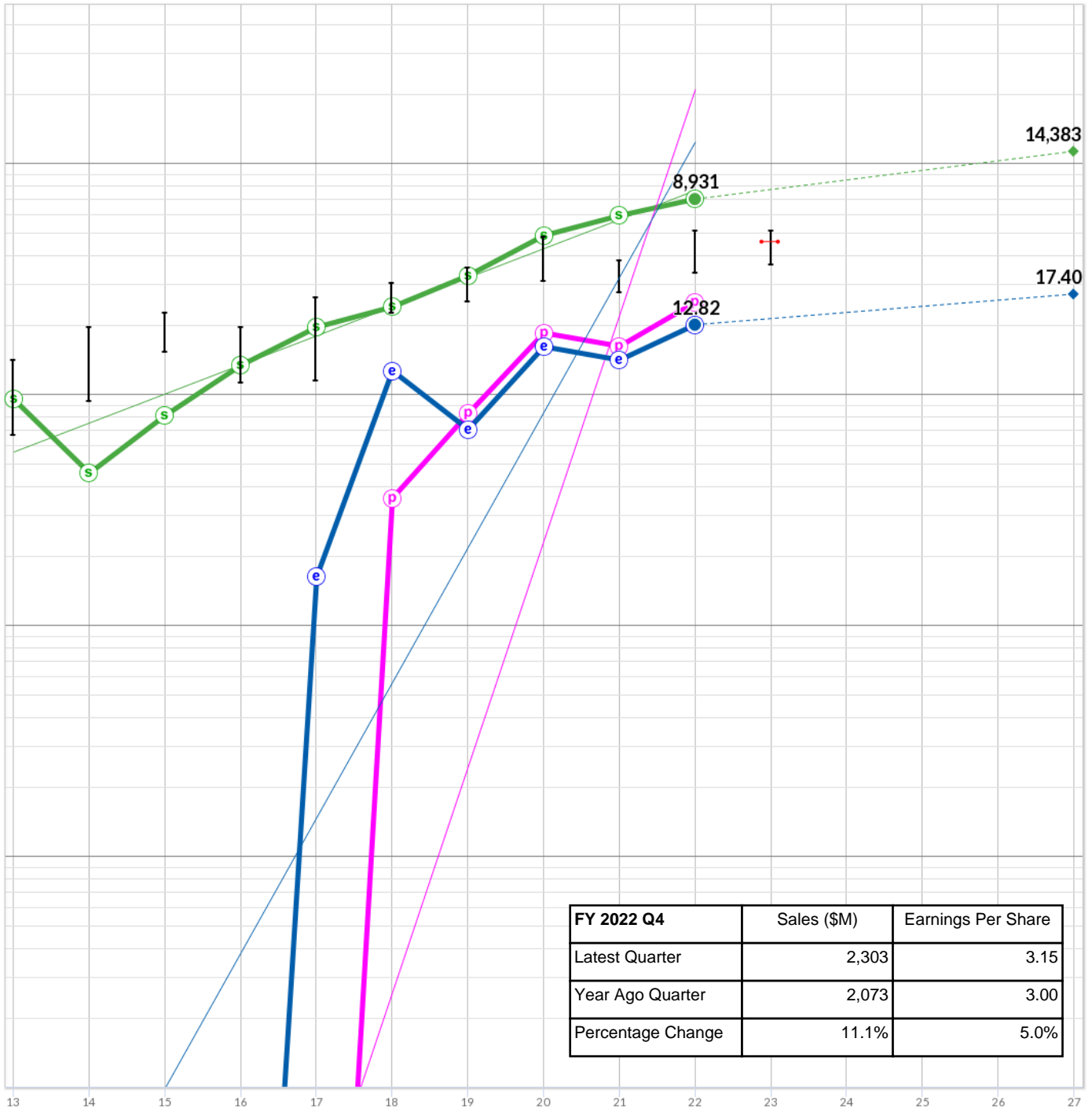
(1) Historical Sales Growth   33.6%

(2) Estimated Future Sales Growth   10.0%

(3) Historical Earnings Per Share Growth   284.8%

(4) Estimated Future Earnings Per Share Growth   6.3%

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Last 5 Year Avg.
% Pre-tax Profit on Sales	-80.5%	-126.6%	-54.0%	-4.0%	-0.6%	19.7%	33.5%	50.2%	36.0%	47.4%	37.4%
% Earned on Equity	-36.6%	-65.7%	-61.7%	-11.2%	14.7%	71.0%	22.2%	32.9%	24.1%	25.3%	35.1%
% Debt To Capital	27.2%	43.4%	46.8%	42.1%	23.0%	11.8%	9.7%	9.7%	8.5%	6.1%	9.2%

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 293.46 (03/13/23)   **52-WEEK HIGH**   325.19   **52-WEEK LOW**   233.01

	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
2018	193.8	144.1	8.09	24.0	17.8	0.00	0.0	0.0
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
AVERAGE		178.7		26.5	18.3		0.0	
CURRENT/TTM			12.83	25.3	18.2	0.00	0.0	
AVERAGE PRICE EARNINGS RATIO: 22.4					CURRENT PRICE EARNINGS RATIO: 22.9			

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   26.0   X Estimate High Earnings/Share   17.40   =   Forecasted High Price $ 452.4

B LOW PRICE - NEXT 5 YEARS

(a) Avg. Low P/E   18.0   X Estimate Low Earnings/Share   12.82   =   Forecasted Low Price $ 230.8

(b) Avg. Low Price of Last 5 Years   178.7

(c) Recent Market Low Price   176.4

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

Selected Forecasted Low Price $ 230.8

C ZONING   using 25%-50%-25%

Forecasted High Price   452.4   Minus Forecasted Low Price   230.8   =   221.6   Range.   25% of Range   55.4

Buy Zone   230.8   to   286.2

Hold Zone   286.2   to   397.0

Sell Zone   397.0   to   452.4

Present Market Price of   293.46   is in the   **HOLD**   Zone

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

$\frac{\text{High Price} \quad 452.4 \quad \text{Minus Present Price} \quad 293.46}{\text{Present Price} \quad 293.46 \quad \text{Minus Low Price} \quad 230.8}$ = $\frac{158.94}{62.66}$ =   2.5   To 1

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

$\frac{\text{High Price} \quad 452.4}{\text{Closing Price} \quad 293.46}$ =   1.5416   X   100   =   154.16   -   100   =   54.2   % 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 $\frac{\text{Indicated Annual Dividend} \quad 0.00}{\text{Closing Price} \quad 293.46}$ =   0.0000   =   0.0 %   Current Yield

B AVERAGE YIELD - USING FORECAST HIGH P/E

$\frac{\text{Avg. \% Payout}}{\text{Forecast High PE}}$ = $\frac{0.0 \%}{26.00}$ =   0.0 %

AVERAGE YIELD - USING FORECAST AVERAGE P/E

$\frac{\text{Avg. \% Payout}}{\text{Forecast Average PE}}$ = $\frac{0.0 \%}{22.00}$ =   0.0 %

C COMPOUND ANNUAL RETURN - USING FORECAST HIGH P/E

Annualized Appreciation   9.0 %

Average Yield   0.0 %

Annualized Rate of Return   9.0 %

COMPOUND ANNUAL RETURN - USING FORECAST AVG P/E
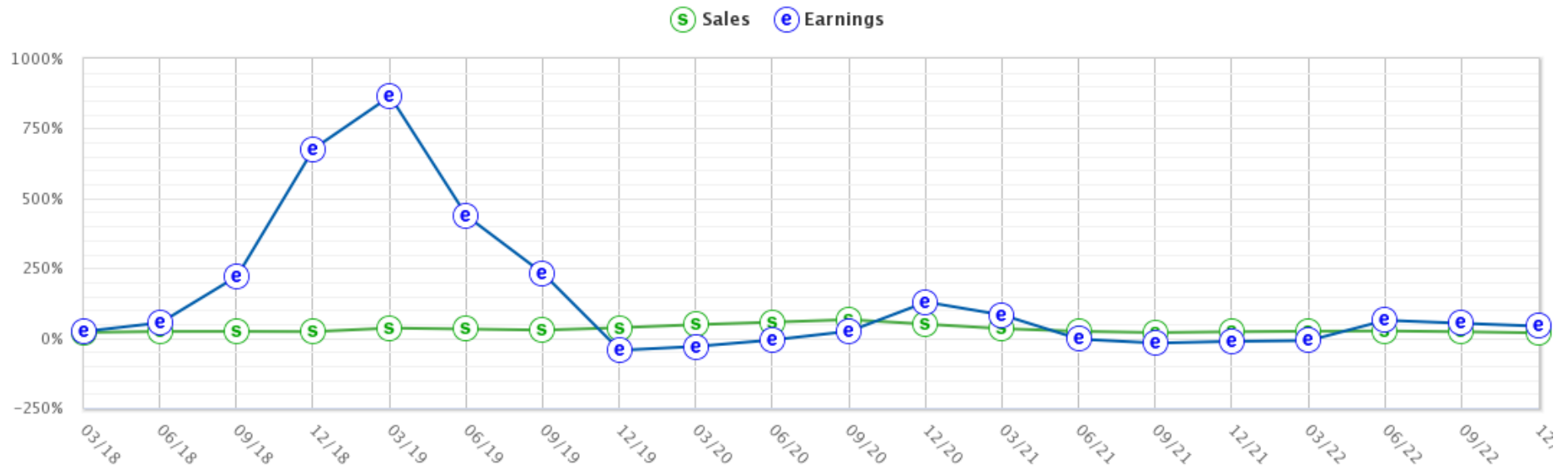
Annualized Appreciation   5.5 %

Average Yield   0.0 %

Annualized Rate of Return   5.5 %

Notes: VRTX - Arvind 3/14/23

Date	Subject	Description	Type
01/09/23	Vertex doing well	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.	Community
07/12/22	Pipeline Update	VX-880 (T1D treatment) was taken off hold by the FDA. Proof-of-concept was confirmed and enrollment in the trial continues. Vertex offered an all cash buy out of ViaCyte, their biggest competitor in the T1D treatment race.This deal should close later in 2022.	Community
04/01/22	Pipeline	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	Community
04/01/22	Valueline Comment on 2021 Results	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.. Valueline thinks EPS will be $12.00 in 2022, $13 in 2023 and $16 in 5 years.	Community
02/07/22	VRTX SHARES ARE UP at the end of 4thQtr	In 2022, Analysts' expect VRTX's revenues to increase 12% Y/Y to $8.5 billion after growing 22% Y/Y in 2021, which is largely attributable to the incredibly successful launch of Trikafta in late 2019. In the 4th quarter of 2021, Trikafta accounted for 82% of VRTX's product sales. Value Line (Dec 03 - 2021) sales growth estimates for LT (24-26) are Revenue 10,000 ($mil) and for EPS Growth for LT (24-26) are 15.5 These figures were taken into account in developing SSG: In forecasting sales growth (11%) and EPS growth (11.2%).	Community
08/01/21	Vertex not doing very well	The past two years has shown a significant drop in the value of the company's stock. We need more specific information about its potential to increase its value. SSG says it will happen but this is a pharmaceutical company and they are totally dependent on the success of the drugs in their development line.	Community
06/13/21	Another possible drug abandoned	Abandoning further development of VX-864 for alpha-1 antitrypsin deficiency ("AATD") made the stock price drop about 10% overnight.	Community

Company: Vertex Pharmaceutica

Symbol: VRTX

Quarterly Growth Trend Data

Graph: Trailing 4 Quarters, Last 5 Years of Data

(S) Sales (e) Earnings

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
12/22	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
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

Company: Vertex Pharmaceutica

Symbol: VRTX

Quarterly Growth Trend Data

Graph: Trailing 4 Quarters, Last 5 Years of 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
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	-24.0	26.4	-3.6
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	-51.2	14.6	-24.3
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	-84.5	8.2	-40.1
12/14	-0.74	-489.5	-178.6	-123.5	47.5	144.6	-58.8	-1.1	-3.14	-735.5	-126.7	580.4	7.3	-1.0	-53.9	24.6	-52.1
09/14	-0.72	-33.3	-166.6	-93.1	-28.7	179.0	-19.3	-2.1	-2.21	-897.2	-114.0	787.0	-96.3	10.7			
06/14	-0.68	-161.5	-158.7	-114.6	-149.9	138.4	-55.5	-0.4	-2.03	-860.0	-103.6	829.7	-97.9	11.4			
03/14	-1.00	30.1	-231.7	-195.6	47.7	118.5	-63.9	-0.4	-1.61	-764.8	-76.3	1,002.1	-93.3	12.2			
12/13	0.19		-340.3	-96.9		351.2		45.8									
09/13	-0.54		-129.4	-58.4		221.7		0.6									

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**
06/13	-0.26		-63.5	-20.4		310.8		2.8									
03/13	-1.43		-442.9	-134.9		328.4		29.4									