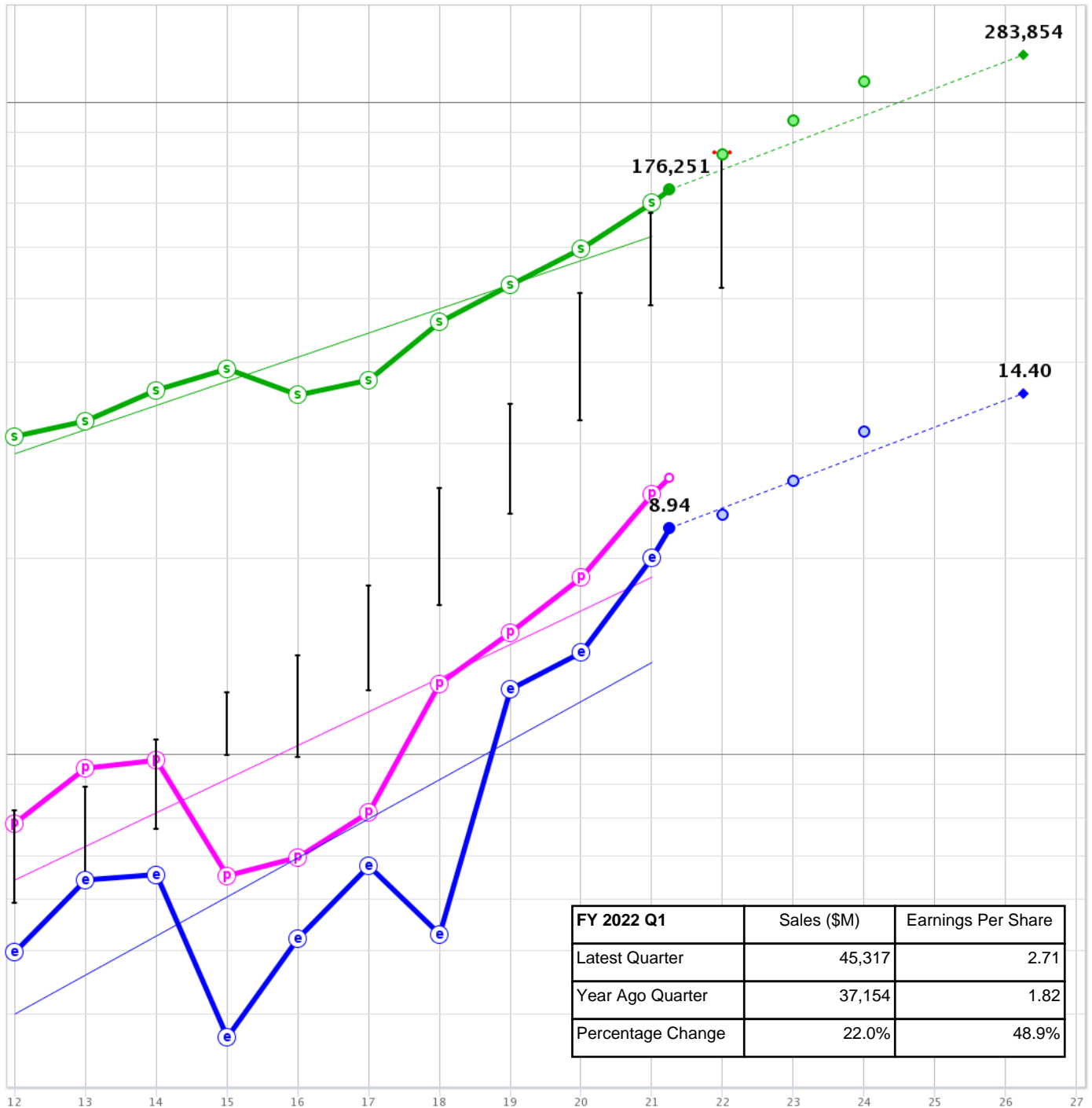


Stock Selection Guide

Company	Microsoft		Date	11/08/21	
Prepared by	HENRIKSON		Data taken from	BI Stock Data	
Where traded	NAS	Industry	Software - Infrastructure		
Capitalization --- Outstanding Amounts	Reference				
Preferred (\$M)	0.0	% Insiders	% Institution		
Common (M Shares)	7,567.0	6.1	62.0		
Debt (\$M)	63,338.0	% to Tot Cap	29.4	% Pot Dil	0.7

Symbol: MSFT

1 VISUAL ANALYSIS of Sales, Earnings, and Price



- | | | | |
|-----------------------------------|-------|--|-------|
| (1) Historical Sales Growth | 8.9% | (3) Historical Earnings Per Share Growth | 14.8% |
| (2) Estimated Future Sales Growth | 10.0% | (4) Estimated Future Earnings Per Share Growth | 10.0% |

2 EVALUATING Management

Microsoft

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Last 5 Year Avg.
Pre-tax Profit on Sales	30.2%	34.7%	32.0%	19.8%	23.1%	25.7%	33.1%	34.7%	37.1%	42.3%	34.6%
% Earned on Equity	24.4%	28.0%	24.8%	13.2%	21.9%	30.0%	20.6%	40.8%	38.1%	45.0%	34.9%
% Debt To Capital	15.3%	16.5%	20.1%	30.6%	42.7%	54.4%	49.7%	43.4%	37.5%	32.3%	43.5%

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 336.99 (11/08/21)

HIGH THIS YEAR 338.79

LOW THIS YEAR 208.16

	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
2017	72.9	50.4	2.71	26.9	18.6	1.53	56.5	3.0
2018	102.7	68.0	2.13	48.2	31.9	1.65	77.5	2.4
2019	138.4	94.0	5.06	27.4	18.6	1.80	35.6	1.9
2020	204.4	130.8	5.76	35.5	22.7	1.99	34.5	1.5
2021	271.7	196.3	8.05	33.7	24.4	2.19	27.2	1.1
AVERAGE		107.9		30.9	21.1		46.3	
CURRENT/TTM			8.94			2.48	27.7	
AVERAGE PRICE EARNINGS RATIO: 26.0				CURRENT PRICE EARNINGS RATIO: 37.7				

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 14.40 = Forecasted High Price \$ 374.3

B LOW PRICE - NEXT 5 YEARS

(a) Avg. Low P/E 21.1 X Estimate Low Earnings/Share 8.05 = Forecasted Low Price \$ 169.9

(b) Avg. Low Price of Last 5 Years 107.9

(c) Recent Market Low Price 130.8

(d) Price Dividend Will Support $\frac{\text{Indicated Dividend}}{\text{High Yield}} = \frac{2.48}{3.04\%} = 81.7$

Selected Forecasted Low Price \$ 269.0

C ZONING using 25%-50%-25%

Forecasted High Price 374.3 Minus Forecasted Low Price 269.0 = 105.3 Range. 25% of Range 26.3

Buy Zone 269.0 to 295.3

Hold Zone 295.3 to 348.0

Sell Zone 348.0 to 374.3

Present Market Price of 336.99 is in the **HOLD** Zone

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

$\frac{\text{High Price} - \text{Present Price}}{\text{Present Price} - \text{Low Price}} = \frac{374.3 - 336.99}{336.99 - 269.0} = \frac{37.36}{67.99} = 0.5$ To 1

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

$\frac{\text{High Price} - \text{Closing Price}}{\text{Closing Price}} = \frac{374.3 - 336.99}{336.99} = 1.1109$ X 100 = 111.09 - 100 = 11.1 % 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 $\frac{\text{Indicated Annual Dividend}}{\text{Closing Price}} = \frac{2.19}{336.99} = 0.0074 = 0.7\%$ Current Yield

B AVERAGE YIELD - USING FORECAST HIGH P/E

$\frac{\text{Avg. \% Payout}}{\text{Forecast High PE}} = \frac{46.3\%}{26.00} = 1.8\%$

AVERAGE YIELD - USING FORECAST AVERAGE P/E

$\frac{\text{Avg. \% Payout}}{\text{Forecast Average PE}} = \frac{46.3\%}{23.55} = 2.0\%$

C COMPOUND ANNUAL RETURN - USING FORECAST HIGH P/E

Annualized Appreciation 2.1 %
Average Yield 1.8 %
Annualized Rate of Return 3.9 %

COMPOUND ANNUAL RETURN - USING FORECAST AVG P/E

Annualized Appreciation 0.1 %
Average Yield 2.0 %
Annualized Rate of Return 2.1 %

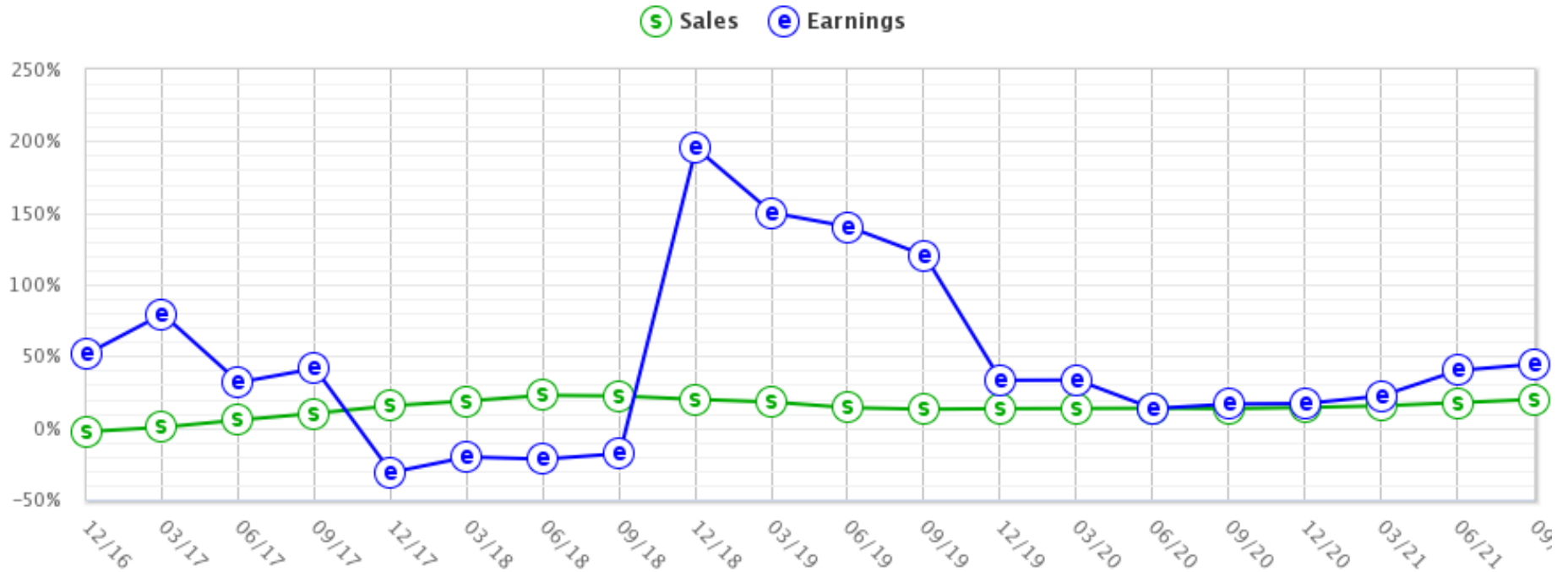
Notes: MSFT 11/8/21

Date	Subject	Description	Type
11/09/21	Judgements for Nov 2021	I used a conservative analysts' and Better Investing Member Sentiment estimates for sales and earnings growth of 10%. For High Price, used average high PE of 30 giving a high price of \$374 (a tad higher than Value Line's \$370). For Low Price I used 20% lower than the current price. This seems reasonable given the explosive growth of MSFT's cloud computing (AZURE) and its centrality to MS Office 365, gaming, and other subscription applications.	Study
10/14/21	VC MSFT Notes	Sales. New CEO started in 2014. Only considering 2015 and onward in analysis	Community
08/12/21	Updated SSG 8/12/21	I just lost an excessive set of notes. M* Notes summary based mostly on my memory --Had an new CEO starting in 2014 --Developed Azure software, a products allowing companies to move to the cloud at their speed --Moved key product software to subscription basis, Like Office 365 --Moved the number of users of LinkedIn up by 36% since purchase of LinkedIn. --Improved and taking advantage of their SQL software. --Gaming console has been expanding but is realistically still a 4-6 year time horizon --We believe revenue growth will be driven by Azure, Office 365, Dynamics 365, and LinkedIn. Azure, in particular, is the single most critical revenue driver over the next 10 years, in our view, as hybrid environments (where Microsoft excels) drive mass cloud adoption. We believe the combination of Azure, DBMS, Dynamics 365, and Office 365 will drive above-market growth as CIOs continue to consolidate vendors --FV =\$325, Current price =\$286.95 --Net Margins 36.45% --ROA 19.3% --++ I think there is more potential than what my SSG shows, and we should hold on to our position in MSFT	Community
05/04/21	MSFT Update 4 May 21 LO	Update study incorporating May 7, 2021 VL Data. Adjusted Sales Growth % so that it would achieve 240,000 (\$mill) Revenues projection. This resulted in a 10.9% growth rate. Adjusted Earnings Growth % so that it would achieve 11.00 EPS projection, which resulted in a 14% growth rate. I used VL's 28% Payout projection. I left unchanged SSG's High PE of 33 and Low PE of 22.1. Current PE is 37.1. I reduced MSFT price at time of study, \$246.38, which gave me a Low Price of \$197.10 resulting in an U/D ratio of 2.1:1 and Hold recommendation with a Buy below \$239.30. CAR using High PE is 8.6% CAR using Average PE is 6.9%.	Community
04/12/21	4.12.2021 update	Microsoft is in the hold range. The company bought AI software company Nuance. This company serves the healthcare industry with 55% of doctors and 75 % of radiologists using the application.	Community

10/12/20	update Oct 2020	<p>Microsoft is a stable growth company, increasing productivity in Business processes by 12% in 2020. The intelligent cloud increased by 24% as Azure revenue grew 56%.</p> <p>Microsoft also won 13 slots in the European Android auction, That translates into Google and the winner displaying their search engines at the same time in European countries. That also should increase earnings.</p>	Community
08/04/20	8.4.20	<p>Microsoft aim to finish TikTok deal by Sept 15</p> <p>Stock up 5% as a result of the news 8/3</p> <p>Added 90 billion to market cap</p> <p>TikTok 50 billion acquisition</p> <p>High performers on enterprise side; dominate office suites (also linked in) but opportunity on consumer side</p> <p>Poor performers on personal devices/phones etc.</p> <p>Exception- XBOX which targets similar demographic</p> <p>Best tech company to buy because they aren't under antitrust scrutiny (FB, Amazon)</p> <p>US, Canadian, Australia, New Zealand; not entire company</p> <p>TikTok forecasted 1 bil this yr n 6 bil revenue in 2021</p> <p>Get up and linked were great acquisition; CEO Kevin Mayer getting smart risky deals right</p> <p>Compete/threat to Facebook</p> <p>Trump lifted ban of TikTok</p>	Community
04/30/20	"MSFT" from Morningstar 4-30-20	<p>Despite COVID-19 macro concerns, Microsoft continued its string of impressive quarters, with meaningful upside to revenue, operating margin, and EPS. Microsoft experienced some dislocation, highlighting that it was seeing pressure in the hardest hit industries (travel, hotel, restaurant, etc.) and SMB, which was offset by an uplift in other areas, notably Microsoft 365, including Teams, gaming, and Azure. The company was focused on meeting immediate customer needs during a challenging situation. We remain impressed with Microsoft's ability to drive revenue and margins at this scale, and we continue to believe there is more to come on both the revenue and margin fronts. Results continue to underscore our thesis, which centers on customer adoption of hybrid cloud environments with Azure. Microsoft continues to use its dominant position of on-premises architecture to allow customers to move to the cloud easily and at their own pace, which we believe will continue over the next five years. We modestly lowered our near-term estimates while making some minor long-term adjustments, which result in a 6% increase in our fair value estimate to \$196 per share. We see loosely 10% upside to this high-quality wide-moat name. Importantly, we view results and guidance as constructive for the broader software group. For the March quarter, revenue grew 15% year over year to \$35.0 billion, compared with our model at \$34.6 billion and CapIQ consensus at \$33.7 billion. For the entire note, please see our updated analyst report.</p> <p>Dan Romanoff, CPA</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	
09/21	2.71	48.9	20,524.0	45.3	27.3	45,317.0	22.0	0.1	8.94	75,502.0	42.8	176,251.0	7,789.9	10.3	44.4	33.7	19.8
06/21	2.17	48.6	19,405.0	42.0	44.6	46,152.0	21.3	15.2	8.05	71,102.0	42.3	168,088.0	9,780.1	13.8	40.0	34.1	17.5
03/21	2.03	45.0	17,236.0	41.3	34.2	41,706.0	19.1	10.3	7.34	65,119.0	40.7	159,969.0	9,176.9	14.1	22.3	24.7	15.3
12/20	2.03	34.4	18,337.0	42.6	30.2	43,076.0	16.7	15.7	6.71	60,726.0	39.6	153,284.0	9,462.6	15.6	16.9	21.8	14.2
09/20	1.82	31.9	16,124.0	43.4	27.1	37,154.0	12.4	13.8	6.19	56,474.0	38.4	147,114.0	9,028.8	16.0	16.6	22.4	13.3
06/20	1.46	-14.6	13,422.0	35.3	6.6	38,033.0	12.8	16.5	5.75	53,036.0	37.1	143,015.0	8,743.0	16.5	13.4	21.4	13.6
03/20	1.40	22.8	12,843.0	36.7	22.5	35,021.0	14.6	16.3	6.00	52,210.0	37.6	138,699.0	5,835.8	11.2	33.3	25.0	13.5

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	
12/19	1.51	39.8	14,085.0	38.2	35.6	36,906.0	13.7	17.3	5.74	49,853.0	37.1	134,249.0	5,536.2	11.1	33.2	24.9	13.3		
09/19	1.38	21.1	12,686.0	38.4	24.1	33,055.0	13.7	15.8	5.31	46,153.0	35.6	129,814.0	5,313.4	11.5	120.3	19.2	13.0		
06/19	1.71	50.0	12,596.0	37.4	17.9	33,717.0	12.1	-4.7	5.07	43,688.0	34.7	125,843.0	4,793.7	11.0	140.3	19.8	14.0		
03/19	1.14	20.0	10,486.0	34.3	21.4	30,571.0	14.0	16.0	4.50	41,772.0	34.2	122,211.0	6,840.2	16.4	150.0	33.3	18.0		
12/18	1.08	231.7	10,385.0	32.0	13.3	32,471.0	12.3	18.9	4.31	39,927.0	33.7	118,459.0	6,347.4	15.9	195.2	39.5	19.8		
09/18	1.14	35.7	10,221.0	35.1	28.0	29,084.0	18.5	13.7	2.41	38,711.0	33.7	114,906.0	20,652.3	53.4	-18.0	50.0	22.2		
06/18	1.14	37.3	10,680.0	35.5	92.6	30,085.0	29.0	16.9	2.11	36,474.0	33.1	110,360.0	19,820.9	54.3	-21.9	57.6	22.7		
03/18	0.95	55.7	8,641.0	32.2	46.1	26,819.0	21.4	14.1	1.80	31,339.0	30.3	103,592.0	14,336.8	45.7	-20.4	49.6	18.7		
12/17	-0.82	-224.2	9,169.0	31.7	44.1	28,918.0	20.0	168.7	1.46	28,614.0	28.9	98,863.0	13,431.4	46.9	-31.1	42.6	15.4		
09/17	0.84	40.0	7,984.0	32.5	49.9	24,538.0	20.0	17.6	2.94	25,808.0	27.4	94,035.0	2,407.2	9.3	41.3	31.9	10.1		
06/17	0.83	112.8	5,545.0	23.8	65.7	23,317.0	13.1	-17.5	2.70	23,149.0	25.7	89,950.0	1,828.2	7.9	31.7	17.2	5.4		
03/17	0.61	29.8	5,916.0	26.8	17.5	22,090.0	7.6	18.9	2.26	20,951.0	24.0	87,247.0	2,921.1	13.9	79.4	43.0	0.4		
12/16	0.66	6.5	6,363.0	26.4	8.7	24,090.0	1.2	18.3	2.12	20,071.0	23.4	85,688.0	3,128.1	15.6	51.4	24.4	-2.7		
09/16	0.60	5.3	5,325.0	26.0	-3.4	20,453.0	0.4	11.9	2.08	19,563.0	22.9	85,394.0	2,870.9	14.7	39.6	7.9	-5.9		
06/16	0.39	197.5	3,347.0	16.2	290.6	20,614.0	-7.1	6.7	2.05	19,751.0	23.1	85,320.0	3,109.8	15.7	40.4	6.7	-8.8		
03/16	0.47	-23.0	5,036.0	24.5	-22.7	20,531.0	-5.5	25.4	1.26	14,648.0	16.9	86,886.0	-940.8	-6.4	-47.7	-45.4	-8.3		
12/15	0.62	-12.7	5,855.0	24.6	-25.4	23,796.0	-10.1	14.6	1.40	16,129.0	18.3	88,084.0	-1,112.9	-6.9	-43.5	-40.9	-5.7		
09/15	0.57	5.6	5,513.0	27.1	-6.5	20,379.0	-12.2	16.2	1.49	18,124.0	20.0	90,758.0	-767.1	-4.2	-41.6	-33.6	-0.8		
06/15	-0.40	-172.7	-1,756.0	-7.9	-126.7	22,180.0	-5.1	-82.0	1.46	18,507.0	19.8	93,580.0	-468.7	-2.5	-44.5	-33.5	7.8		
03/15	0.61	-10.3	6,517.0	30.0	-6.3	21,729.0	6.5	23.5	2.41	26,840.0	28.3	94,782.0	6,824.1	25.4	-9.7	-2.0	13.7		
12/14	0.71	-9.0	7,850.0	29.7	-0.4	26,470.0	8.0	25.3	2.48	27,280.0	29.2	93,456.0	6,603.8	24.2	-8.5	-2.7	12.0		
09/14	0.54	-12.9	5,896.0	25.4	-8.0	23,201.0	25.2	23.0	2.55	27,308.0	29.8	91,505.0	6,026.9	22.1	-5.2	-2.2	13.9		
06/14	0.55	-6.8	6,577.0	28.1	7.0	23,382.0	17.5	29.9	2.63	27,820.0	32.0	86,833.0	5,803.3	20.9	1.2	2.8	11.5		
03/14	0.68	-5.6	6,957.0	34.1	-8.5	20,403.0	-0.4	18.6	2.67	27,388.0	32.9	83,347.0	4,981.9	18.2	36.9	28.8	9.6		
12/13	0.78	2.6	7,878.0	32.1	1.4	24,519.0	14.3	16.8	2.71	28,034.0	33.6	83,433.0	5,219.9	18.6	48.1	40.0	14.4		
09/13	0.62	17.0	6,408.0	34.6	15.8	18,529.0	15.7	18.2	2.69	27,926.0	34.7	80,370.0	5,281.5	18.9	45.4	36.3	11.1		
06/13	0.59	1,083.3	6,145.0	30.9	1,611.7	19,896.0	10.2	19.2	2.60	27,052.0	34.7	77,849.0	5,193.3	19.2	30.0	21.5	5.6		
03/13	0.72	20.0	7,603.0	37.1	19.5	20,489.0	17.7	20.4	1.95	21,266.0	28.0	76,012.0	15,664.5	73.7					
12/12	0.76	-2.6	7,770.0	36.2	-5.7	21,456.0	2.7	17.9	1.83	20,026.0	27.5	72,930.0	14,719.1	73.5					
09/12	0.53	-22.1	5,534.0	34.6	-24.3	16,008.0	-7.9	19.3	1.85	20,495.0	28.3	72,359.0	15,149.4	73.9					
06/12	-0.06		359.0	2.0		18,059.0		237.1											

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
03/12	0.60		6,363.0	36.6		17,407.0		19.7									
12/11	0.78		8,239.0	39.4		20,885.0		19.6									
09/11	0.68		7,306.0	42.1		17,372.0		21.5									