ALPHABET INC. (NASD) - GOOG (Class C - non-voting) & GOOGL (Class A - voting)

Company Description:

Mountain View, CA-based Alphabet operates the world’s leading Internet search engine. The company derives revenues primarily through delivering targeted advertising. Revenues are also derived from the licensing of search technology and solutions to enterprises. Revenues United States, 46%; international, 54%. Has 62,000 employees. Officers & directors own 93.7% of Class B; Executive Chairman: Dr. Eric Schmidt. Co-founder & Chief Executive Officer: Larry Page. Cofounder: Sergey Brin. www.google.com. Abc.xyz

Basic Description:

The net profits have grown at an astonishing 36% rate over the last ten years. Of course, P/E levels have been above market averages and have been lowering as growth slows. GOOG has not rewarded shareholders with dividends or share buybacks. Instead, GOOG has retained its capital with most of it as cash on the balance sheet. GOOG is also a rare case of net profits growing faster than EPS. By consistently issuing shares (at high P/Es), GOOG has expanded equity growth while diluting per share value. Most of this appears to be compensation driven as excess cash has built. Returns on capital are average, but superior when adjusted for cash. Revenue growth has been even more rapid than net profits - a divergence driven by narrowing operating margins somewhat offset by declining tax rates. Recently, operating margins have expanded - likely due to the restructuring of "search" related as a segment and "other bets" as another segment.

Profitability Description:

GOOG has had narrowing profit margins due to heavy investments in new ideas. These investments are not broken out and many appear to be "long shots,' but have been required for GOOG to retain its premier online media positioning. For example, as internet usage has moved from the desktop to the mobile phone, investment in Android (now over 1 bln) has proven critical. In the same way, video is becoming more important as internet speeds have improved and GOOG has positioning through YouTube's dominance in user-generated videos. Another example is GOOG's committment to giving the world's population internet connectivity and speed. Towards that end, GOOG has invested in fiber infrastructure in several U.S. cities and purchased drones and air balloons to deliver internet in undeveloped markets. GOOG has also invested in applications in cars. Expensive, but more expensive to lose positioning. GOOG has used its shares and cash to either purchase companies or invest through heavy R&D in the next new thing by asking "what if…".

Core Advantage Description:

GOOG is the world's leader in search and this creates advantages of scale: better brand awareness, better amortization of research dollars and better visibility of competitive threats. The management team is young and also is the founding group - giving a "founders feel" to company decisions. The result is an agile but sizeable competitor in search, devices and ecommerce. The primary risk is the changing nature of "search" as it moves more rapidly to purchase. Yahoo did not move from desktop to mobility, while GOOG was developing and providing Android software for free. GOOG's dominance does not insure future success, but a platform for new "bets," such as AI led developments that will change purchase process from "search" to "intent" to "request." AOL become dominant and then irrelevant - dominance does not provide guarantees.

Investment Thesis:

GOOG has traded at high multiples of earnings, shareholder equity, revenues and cash flows. The company's success has exceeded expectations and rewarded investors. Given the secular tailwinds on search, mobility and video, GOOG should continue to meet the challenges of a 10% growth rate with roughly 30% operating margins over the next decade. In addition, our analysis assumes the net cash ($110/share) is deployed at a similar rate or returned to shareholders.

Purchase Description:

We would recommend patient, value-oriented investors pay up to $550 (15x earnings plus cash of 100/share) for GOOG with a sell price of $930 (2X capl charge and P/E historical due to potential as a Tier I) as a Tier II investment due to the company's market position and size.

				FY End			Stock Price			Market Value (in mlns)						
				December			$800.00			$549,872.00						
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	*2016*	*2017*
Net Profit (mln)	99.7	105.6	405.9	1,518.4	2,940.7	4,203.7	5,299.3	6,520.4	8,505.0	9,737.0	10,788.0	12,214.0	14,306.0	16,348.0	*20,250.0*	*24,375.0*
EPS	$0.21	$0.22	$0.72	$2.46	$4.98	$6.71	$6.72	$10.26	$13.24	$14.97	$16.36	$18.18	$20.47	$23.78	*$29.35*	*$35.33*
Operating EPS	$0.21	$0.22	$0.73	$2.55	$4.76	$6.71	$8.41	$10.26	$13.24	$14.97	$16.36	$18.18	$21.02	$23.78	*$29.35*	*$35.33*
Ave. P/E Ratios			NM	NM	43.4	40.7	27.6	21.5	20.3	19.1	19.8	24.6	27.0	26.6		
Yrly Price Low			42.5	86.3	165.8	218.5	123.7	141.4	216.8	236.5	278.3	347.8	489.0	487.0	663.0	
Yrly Price High			100.8	223.1	256.5	373.6	348.7	313.0	315.4	323.4	387.0	560.5	614.0	780.0	800.0	
Dividends Paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	*0.0*
Dividends PS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	*$0.00*	*$0.00*
Ave. Div. Yld.			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*0.00%*	*0.00%*
Shares Outstdg.	470.0	470.0	554.7	594.5	618.0	626.6	630.2	635.5	642.6	650.3	659.3	672.0	680.6	687.3	*690.0*	*690.0*
Buyback $ (mln)			(6,069)	(6,154)	(4,966)	(2,534)	(864)	(1,209)	(1,879)	(2,150)	(3,007)	(5,758)	(4,754)	(4,257)	(1,946)	0
Shr. Equity (mln)	188	603	2,929	9,419	17,040	22,690	28,239	36,004	46,241	58,145	71,715	87,309	104,500	120,331	*145,525*	*167,000*
Book Value PS	$0.40	$1.28	$5.28	$15.84	$27.57	$36.21	$44.81	$56.65	$71.96	$89.42	$108.77	$129.92	$153.54	$175.07	*$210.91*	*$242.03*
LT Debt (mln)	6.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,986.0	2,988.0	2,236.0	3,228.0	1,995.0	*2,000.0*	*2,000.0*
Return On Eq.	53.09%	17.52%	13.86%	16.12%	17.26%	18.53%	18.77%	18.11%	18.39%	16.75%	15.04%	13.99%	13.69%	13.59%	*13.92%*	*14.60%*
Return On Capl.	51.31%	17.47%	13.86%	16.12%	17.26%	18.53%	18.77%	18.11%	18.39%	15.93%	14.44%	13.64%	13.28%	13.36%	*13.73%*	*14.42%*

Investment Characteristics

Earnings Analysis:		Use Of Earnings Analysis:	
Growth Rate %:	36.02%	Avg Div Payout Rate:	0.00%
Quality %:	98.76%	Avg Stk Buyback Rate	-35.05%

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Revenues (mln)	439.5	1,465.9	3,189.2	6,138.6	10,605.0	16,594.0	21,796.0	23,651.0	29,321.0	37,905.0	48,400.0	59,825.0
SPS	$0.94	$3.12	$5.75	$10.33	$17.16	$26.48	$34.58	$37.21	$45.63	$58.29	$73.41	$89.03
Adj. Sales (mln)												

Sales Analysis:		Sales Analysis (last 5 yrs.):	
Growth Rate %:	37.02%	Growth Rate %:	18.35%
Growth Rate PS %:	33.04%	Growth Rate PS %:	16.95%

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Oper. Margin	51.40%	42.00%	39.10%	38.50%	38.10%	35.50%	36.00%	40.40%	39.00%	34.70%	29.40%	28.00%
Tax Rate	46.10%	69.50%	52.30%	32.00%	26.70%	25.90%	9.50%	22.20%	21.20%	21.00%	19.40%	15.70%
Deprec. (mln)	17.8	43.9	128.5	256.8	494.4	807.7	1,212.2	1,240.0	1,067.0	1,396.0	1,988.0	2,781.0
Depreciation %	17.85%	41.57%	31.66%	16.91%	16.81%	19.21%	22.87%	19.02%	12.55%	14.34%	18.43%	22.77%

Summary: Share issuer ability has been critical to enhanced growth rates and probably retention/labor issues.

Description & Analysis of Profitability (in mlns):

	Item		2008		2009		2010		2011		2012		2013		2014		2015	
	Sales	22.9%	**21,796**		**23,651**		**29,321**		**37,905**		**50,175**		**59,825**		**66,001**		**74,989**	
	Google/Google websites		*21,796*		*23,651*		*29,321*		*37,905*		*46,039*		*55,519*		*45,085*		*52,357*	
	Google Network Members websites														*13,971*		*15,033*	
	Other (mainly digital content)														*6,945*		*7,151*	
	Motorola/ Other Bets										*4,136*		*4,306*				*448*	
	Internal Costs:	24.2%	**15,164**		**15,339**		**18,940**		**26,163**		**37,415**		**45,859**		**49,505**		**55,629**	
	Cost of prod/Traffic acq costs to GNMs		*8,622*	*39.6%*	*8,844*	*37.4%*	*10,417*	*35.5%*	*13,188*	*34.8%*	*17,176*	*34.2%*	*21,993*	*36.8%*	*9,864*		*10,242*	
	Traffic acq costs to dist partners														*3,633*		*4,101*	
	Other cost of revenues														*12,194*		*13,821*	
23%	*R&D*		*2,793*	*12.8%*	*2,843*	*12.0%*	*3,762*	*12.8%*	*5,162*	*13.6%*	*6,793*	*13.5%*	*7,952*	*13.3%*	*9,832*	*14.9%*	*12,282*	*####*
27%	*Sales and marketing*		*1,946*	*8.9%*	*1,984*	*8.4%*	*2,799*	*9.5%*	*4,589*	*12.1%*	*6,143*	*12.2%*	*7,253*	*12.1%*	*8,131*	*12.3%*	*9,047*	*####*
22%	*General and administrative*		*1,803*	*8.3%*	*1,668*	*7.1%*	*1,962*	*6.7%*	*2,724*	*7.2%*	*3,845*	*7.7%*	*4,796*	*8.0%*	*5,851*	*8.9%*	*6,136*	*8.2%*
	DOJ / Motorola								*500*	*1.3%*	*3,458*	*6.9%*	*3,865*	*6.5%*				
	EBITDA:	20.8%	**7,844**		**9,552**		**11,448**		**13,138**		**14,748**		**16,747**	28.0%	**21,475**	32.5%	**24,423**	32.6%
	Depreciation		*1,212*		*1,240*		*1,067*		*1,396*		*1,988*		*2,781*		*4,979*		*5,063*	
	Free Cash Flow:	17.6%	**5,485**		**8,742**		**7,430**		**9,700**		**11,475**		**9,389**		**10,516**		**14,508**	
	Capital Expenditures		*2,359*		*810*		*4,018*		*3,438*		*3,273*		*7,358*		*10,959*		*9,915*	
	Operating earnings	19.5%	**6,632**	30.4%	**8,312**	35.1%	**10,381**	35.4%	**11,742**	31.0%	**12,760**	25.4%	**13,966**	23.3%	**16,496**	25.0%	**19,360**	25.8%
	External Costs:	3.8%	**2,405**		**1,792**		**1,876**		**2,005**		**1,972**		**1,752**		**2,568**		**3,012**	
	Impairment of equity investments		*1,095*		*0*		*0*		*0*		*0*		*0*		*0*		*0*	
	Interest and other income		*(316)*		*(69)*		*(415)*		*(584)*		*(626)*		*(530)*		*(763)*		*(291)*	
	Income taxes		*1,626*		*1,861*		*2,291*		*2,589*		*2,598*		*2,282*		*3,331*		*3,303*	
	Earnings:	25.3%	**4,227**	19.4%	**6,520**	27.6%	**8,505**	29.0%	**9,737**	25.7%	**10,788**	21.5%	**12,214**	20.4%	**13,928**	21.1%	**16,348**	21.8%
	Dividends Paid:		**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**	
	Share Repurchase:		**(864)**		**(1,209)**		**(1,879)**		**(2,150)**		**(3,007)**		**(5,758)**		**(4,754)**		**(4,257)**	
	Stmt of CFs														*(648)*		*1,232*	
	Net Bness Acquisitions:								**1,900**		**10,568**		**1,448**		**4,502**		**236**	

Summary:

cpc - cost per click; cpi - cost per impresson; ctr - click through ratio
keywords for cpc are min 5 cents, but as high as $55 for auto insurance cpcs
VL does not include amortization of intangibles; we do.

Balance Sheet (in millions):

		2009	2010	2011	2012	2013	2014	2015
Assets:	24%	**40,497**	**57,851**	**72,574**	**93,798**	**110,920**	**131,133**	**147,461**
Cash and cash equivalents		10,198	13,630	9,983	14,778	18,898	18,347	16,549
Investment securities		14,287	21,345	34,643	33,310	39,819	46,048	56,517
Accounts receivable, net		3,178	4,252	5,427	7,885	8,882	9,383	11,556
Other current assets		1,504	2,335	2,705	4,481	5,287	6,907	5,492
Land, property and equipment, net		4,845	7,759	9,603	11,854	16,524	23,883	29,016
Goodwill and intangible assets		5,678	7,300	8,924	18,010	17,558	20,206	19,716
Deferred income taxes and other		807	1,230	1,289	3,480	3,952	6,359	8,615
Liabilities:	35%	**4,493**	**11,610**	**14,429**	**22,083**	**23,611**	**26,633**	**27,130**
Current loans, notes and debt paya		0	3,465	1,218	2,549	3,009	2,009	3,225
Accounts payable		216	483	588	2,012	2,453	1,715	1,931
Other payables		2,531	6,048	7,107	9,776	10,446	13,081	14,154
Long-term debt		0	0	2,986	2,988	2,236	3,228	1,995
Long-term liabilities		1,746	1,614	2,530	4,758	5,467	6,600	5,825
Shareholder's Equity:	22%	**36,004**	**46,241**	**58,145**	**71,715**	**87,309**	**104,500**	**120,331**
Common stock		15,817	18,235	20,264	22,835	25,922	28,767	32,982
Retained earnings		20,082	27,868	37,605	48,342	61,262	75,706	89,223
Accumulated other comprehensive		105	138	276	538	125	27	(1,874)

Summary:

Description & Analysis of Debt Levels (in mlns):

Summary: Debt is a four-letter word. Debt causes the years of repayment of capital to equity shareholders to stretch out into the more distant future. Even worse, debt can cause the best business model to become the property of bondholders in a rough economic environment.

Total Debt-Capital: The measure of total debt to total capital is useful when book value is a good measure of a firm's worth. This is particularly true of traditional businesses where property, plant and equipment are important. Further, it helps to have this ratio in capital intensive businesses with cyclical earnings.

Total Debt:	27,130	Here, deferred income taxes have been excluded.
Total Capital:	147,461	Here, deferred income taxes have been excluded.
Ratio:	18.40%	

Long Term Debt-Cap.: The measure of long term debt to total capital is useful when total debt is distorted by the high presence of current assets being financed by current liabilities. Again, the measure works best within a traditional industry setting. The ratio helps position the equity shareholders.

L. T. Debt:	5,220	Here, the current liabilities have been excluded.
L. T. Capital:	125,551	Here, the current liabilities have been excluded.
Ratio:	4.16%	

Net Income Payback: The measure of how quickly total debt is repaid by net income is a conservative measure, as it includes debt such as current liabilities, that are financed by current assets and excludes some sources of cash, such as noncash amortization numbers.

Total Debt:	27,130
Net Income:	16,348
Years Payback:	1.7

L.T. Debt:	5,220
Net Income:	16,348
Years Payback:	0.3

Addback Net Inc. Paybac The measure of how quickly debt is repaid by addback net income is a good measure, as it starts with GAAP net income and adds back expenses on an after-tax basis that are clearly discretionary, such as business acquisitions to better analyze the strength of the repayment stream.

L.T. Debt:	5,220	
Net Income:	16,348	
Addback:	73,066	Merger charges, writedowns above the line, dep. Amort below the line less capex
Years Payback:	-4.2	

Interpretations: Debt is not an issue for GOOG.

Industry Overview

GOOG is an online media company and held that space directly with YHOO. However, lines are blurred as competition heats up. Like MSFT has moved into devices to maintain operating systems and tools, so too has GOOG moved into operating systems and browsers. In the same way as FB has moved into advertising, so too has GOOG moved into social media. Finally, as ecommerce companies like AMZN seek to remove the middle provider, so too has GOOG moved into ecommerce.

Industry Comparisons

Operating Statistics:

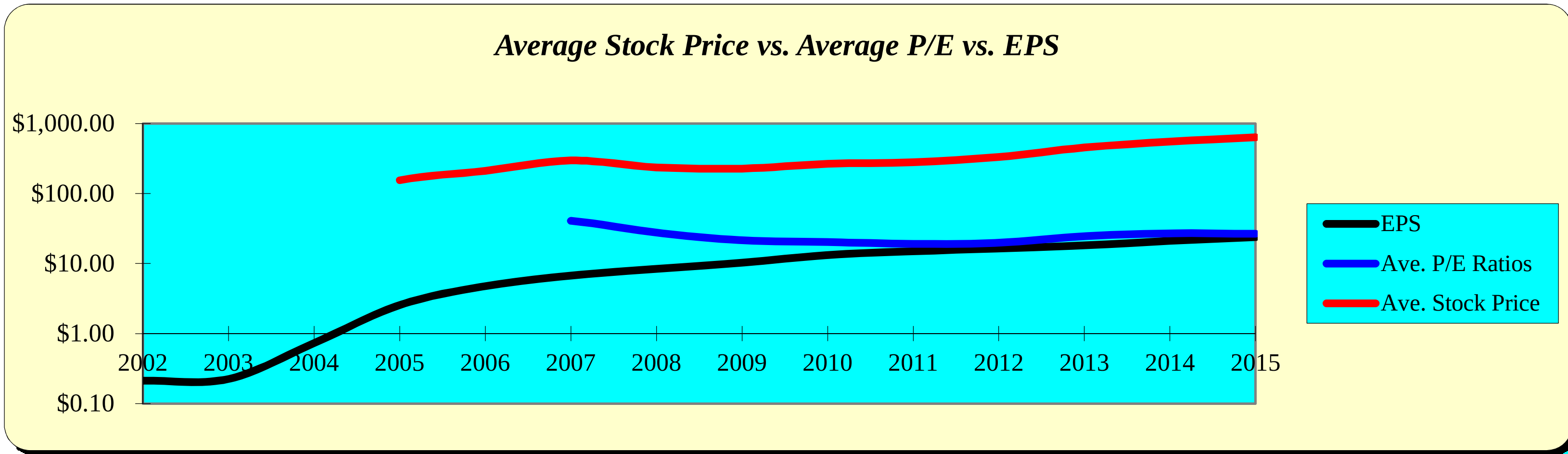
Company	Yrs.Paybk	Sales	ROC	Operating Margin
GOOG	-4.15	$88,000	13.73%	33.50%
MSFT	-2.20	$93,500	20.50%	37.50%
FB	-3.10	$26,200	15.50%	55.00%
AMZN	0.00	$131,500	9.50%	8.40%
BIDU	4.50	$11,000	7.50%	21.00%

Market Statistics:

Company	P/B	P/E	Divd. Yld.	EV/Sales
GOOG	3.79	27.3	0.00%	6.27
MSFT	6.52	21.4	2.60%	5.24
FB	6.65	44.3	0.00%	14.62
AMZN	18.51	142.4	0.00%	3.02

Qualitative Characteristics

	Positives:	Negatives:
vice:		
Pricing Power:		Limited
Durability:	No	
Brand Appeal:	Yes	
Unique Importance:	Yes	
Role Of Media:	Yes	
Toll Bridge:	Yes	
Global Opportunity	Yes	
Competition		Yes, with Yahoo (direct) to FB (indirect)
Economic Risk:		Yes
Government Role		Yes
Role Of Technology:		Yes (movement to mobility changes search)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
EPS	$0.21	$0.22	$0.73	$2.55	$4.76	$6.71	$8.41	$10.26	$13.24	$14.97	$16.36
Ave. P/E Ratios			NM	NM	43.40	40.70	27.60	21.50	20.30	19.10	19.80
Ave. Stock Price			71.65	154.70	211.13	296.05	236.18	227.20	266.10	279.95	332.63

Price/Earnings Ratio: used -	$29.35
Nine year average low P/E is	19.2
Nine year average high P/E is	32.2
If we set the purchase at the ave. Nine year low P/E, the price implied is:	**$564.48**
If we set the sell at the ave. Nine year high P/E, the price implied is:	**$944.30**

Price/Sales Ratio: used -	$127.54
Nine year average low P/S is	4.63
Nine year average high P/S is	7.79
If we set the purchase at the ave. Nine year low P/S, the price implied is:	**$590.02**
If we set the sell at the ave. Nine year high P/S, the price implied is:	**$993.49**

Price/Book Ratio: used -	$210.91
Nine year average low P/B is	3.13
Nine year average high P/B is	5.33
If we set the purchase at the ave. Nine year low P/B, the price implied is:	**$659.63**
If we set the sell at the ave. Nine year high P/B, the price implied is:	**$1,123.66**

Price/Cash Flow Ratio: used -	$35.00
Nine year average low P/CF is	15.0
Nine year average high P/CF is	22.9
If we set the purchase at the ave. Nine year low P/CF, the price implied is:	**$524.52**
If we set the sell at the ave. Nine year high P/CF, the price implied is:	**$802.02**

Initial Rate of Investment	
Current Price	$800.00
Current EPS	$29.35
Initial ROI	**3.67%**

Relative Value to Investment In T-Bonds	
Current EPS	$29.35
T-Bond Rate	6.00%
Relative Value	**$489.13**

Valuation as an Equity Bond:	
Current BV	$210.91
Current ROE	13.92%
Retained %	115.05%
Net BV Growth	16.01%
BV in Year 10	$931.16
EPS in Year 10	$129.57
Valueat20.P/E	$2,591.43
Total Dividends	$0.00
Total F.Value	$2,591.43
Purchaseat14%	**$699.02**

Valuation on Earnings Growth:	
Current EPS	$29.35
EPS in Year 10	$76.12
Ave. P/E Ratio	27.06
Valueat20.P/E	$1,522.41
Price Return	6.65%
Dividend Return	0.00%
Total Return	6.65%
Purchaseat14%	**$410.66**
Sell@5%	**$738.67**

Capital "charge"
28,000
0.12
0.1
0.6
0.06
466,667
-67,846
534,513
690
774.66
464.79
929.59

History of Buys/Sells

Statement of Cash Flows (in millions):

	2008	2009	2010	2011
om Operations				
Earnings From Continuing Operations	$4,227	$6,520	$8,505	$9,737
Depreciation & Amortization	$1,500	$1,524	$1,396	$1,851
Stock-Based Compensation	$961	$1,074	$1,282	$1,974
Other	$1,165	$198	($102)	$1,003
h From Operations	**$7,853**	**$9,316**	**$11,081**	**$14,565**
om Investing				
Acquisition of Business	($3,320)	($108)	($1,067)	($1,900)
Acquisition of PP&E	($2,359)	($810)	($4,018)	($3,438)
Net Purchase of Mktable Securities	$0	($7,036)	($6,886)	($12,926)
Other	$360	($65)	$1,291	($777)
h From Investing	**($5,319)**	**($8,019)**	**($10,680)**	**($19,041)**
om Financing				
Proceeds From Debt	$0	$0	$3,463	$726
Purchase of Common Stock	$0	$0	($801)	$81
Other	$87	$233	$388	$0
h From Financing	$87	$233	$3,050	$807
f Exchange Rate Changes	($46)	$11	($19)	$22
ease in Cash and Equivalents	$2,575	$1,541	$3,432	($3,647)
nd Equivalents at Beginning of Year	$6,082	$8,657	$10,198	$13,630
nd Equivalents at End of Year	$8,657	$10,198	$13,630	$9,983

Summary:

Even though the company operates in the technology space, which normally requires continual re-investenment in the business, Google generates excess cash flow. Over the last four years the company has generated $1.3 billion in additional cash and also increased its' marketable securities portfolio by $26.8 billion. The company now has over $44 billion in cash and marketable securities. That represents about $113 per share in cash and marketable securities.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales (mln)	$37,905.00	$51,939.15	$71,169.38	$97,519.51	$133,625.65	$183,099.92	$250,891.82	$343,783.34	$471,067.52	$645,478.08	$884,463.33	#########
SPS	$58.29	$78.72	$106.32	$143.58	$193.91	$261.88	$353.68	$477.65	$645.07	$871.18	$1,176.55	$1,588.96
Earnings (mln)	$9,737.00	$13,342.08	$18,281.92	$25,050.72	$34,325.63	$47,034.53	$64,448.85	$88,310.74	$121,007.37	$165,809.79	$227,200.09	#########
EPS	$14.97	$20.22	$27.31	$36.88	$49.81	$67.27	$90.85	$122.70	$165.71	$223.79	$302.23	$408.17
Operating EPS	$14.97	$20.22	$27.31	$36.88	$49.81	$67.27	$90.85	$122.70	$165.71	$223.79	$302.23	$408.17
Shares Outstdg.	650.28	659.78	669.41	679.19	689.11	699.17	709.38	719.74	730.25	740.92	751.74	762.72
Buyback $ (mln)	($3,412.88)	($4,676.48)	($6,407.92)	($8,780.43)	($12,031.34)	($16,485.89)	($22,589.71)	($30,953.45)	($42,413.82)	($58,117.34)	($79,635.01)	#########
#ShresBuyback	(9,496,962)	(9,635,660)	(9,776,383)	(9,919,162)	(10,064,025)	(10,211,004)	(10,360,130)	(10,511,434)	(10,664,947)	(10,820,703)	(10,978,733)	#########
Ave. P/E Ratio	24.00											