

Edward Kerschner, CFA
+1 212 713 2448

Michael Geraghty
+1 212 713 2581

Thomas Doerflinger, Ph.D.
+1 212 713 2540

Michael Krause
Associate Analyst

b c d

U.S. Market Commentary

The Good, the Bad or the Ugly?

October 7, 2001

Under (Almost) Any Profit Outlook, Stocks Look Cheap

- In today's highly uncertain environment, single-point forecasts seem problematic at best. Rather, consider three scenarios for 2002 S&P 500 operating EPS:
 - *Good*: Events of September 11 are isolated, and there is a clear victory in battle against terrorism—or at least perception of such. With consumer and business confidence on the mend, GDP growth is 3-4% throughout 2002. This scenario supports 2002 S&P 500 operating EPS of \$50-55, up 11-22% from 2001 (up 2-13% ex SFAS 142).
 - *Bad*: Although no clear victory over terrorism, in next few quarters terrorism does *not* become a part of everyday life in the U.S. After a moderate recession, growth resumes in Q2 2002. Growth outside U.S. is also muted. This scenario produces 2002 S&P 500 operating EPS of \$45-48, up 3-10% from 2001 (down 6% to up 1% ex SFAS 142).
 - *Ugly*: Terrorist activities and U.S. retaliation create an ongoing state of heightened uncertainty, which damages consumer confidence and discourages investment. Economic activity is severely impacted. This scenario suggests 2002 S&P 500 operating EPS of \$39-42, *down* 3-10% from 2001 (down 13-20% ex SFAS 142).
- Although not quite “ugly,” UBS Warburg’s economic forecast is still pretty “bad.” Following sub-par U.S. GDP growth of just 0-2% over four quarters (Q3 2000-Q2 2001), project three quarters of negative GDP through Q1 2002. And UBS Warburg economists recently slashed their forecasts of global real GDP growth for this year and next and are now calling for a slight *deceleration* in 2002.
- So, single point 2002 S&P 500 EPS estimate \$48.00 in this “bad” scenario; 2001 \$43.50.
- Although it is looking quite far ahead, margin improvement on top of sales acceleration suggests a return to a more normal profit environment late in 2002 and into 2003. While the exact timing of an earnings acceleration is uncertain, look for S&P 500 operating earnings to be approaching \$60 sometime over the next 24+ months.
- Despite cut in estimate of 2002 S&P 500 *operating* EPS, 2002 *normal* S&P 500 EPS remain unchanged at \$56.00. In periods of extreme earnings weakness, operating EPS will be well *below* trend-line. However, as economy gradually recovers, operating EPS should rebound toward trend-line EPS.
- Given most plausible normal EPS and interest rate inputs to valuation models, stocks continue to look attractive. Year-end 2002 S&P 500 normal value still 1570.

What Do We Know?

What do we know about 2001 EPS?

Fact: In the first half of 2001, S&P 500 operating EPS were \$24.17. Beyond that, we know *nothing*.

What do we know about 2001 EPS? Fact: In the first half of 2001, S&P 500 operating EPS were \$24.17. Beyond that, we know *nothing*.

The terrorist attacks damaged 2001 earnings in three ways that are conceptually distinct but difficult to disentangle:

- At least five industries—airlines, insurance, Wall Street, hotel/leisure and media—were directly impacted by the attacks.
- Companies in other industries, ranging from technology to chemicals to tires, have experienced logistical and operational problems because of disruption from the attacks.
- The blow to confidence has cut demand in many industries. Retailers are cutting orders. Auto sales have slowed. Oil and gas prices are dropping. M&A activity has slowed. The true breadth and depth of this drop in confidence is still unclear.

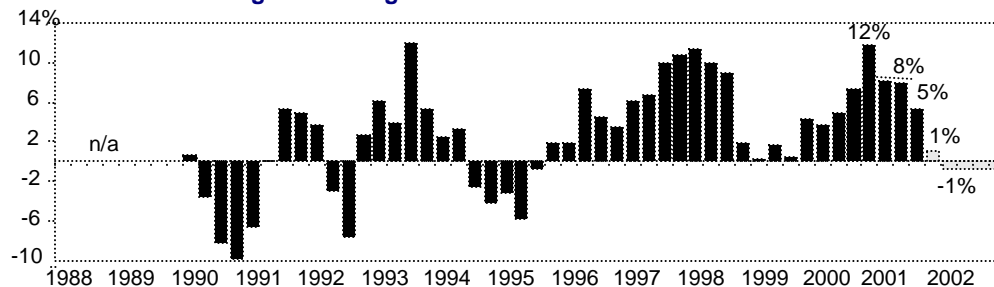
We estimate that the total decrement to Q3 earnings from the attack was on the order of \$2.00

Consensus estimates put Q3 operating EPS at \$10.70, but that number has been dropping \$0.05-0.15 per day for the last few days. Normally, just about now, this would be the low for the estimating cycle for Q3 earnings, with the figure trending up. Disappointments are warned early, and some companies now would usually beat consensus. But these are not normal times. We will arbitrarily assume that Q3 EPS end up at \$9.50 in a worst case, \$10.50 in a best case. Let's pick \$10.00. And based on where the bottom-up number was before the attack, we estimate that the total decrement to Q3 earnings from the attack was on the order of \$2.00—i.e., our \$10.00 estimate versus the \$12.00 consensus on September 10, 2001

Consensus estimates put Q4 operating EPS at \$11.94, but estimates will be slashed as analysts digest Q3 results and firms' comments about business conditions. (Q4 tends to be seasonally stronger than Q3, but likely not when U.S. real GDP is declining at a 2% annual rate.) We will arbitrarily assume that Q4 EPS end up at \$8.00 in a worst case (a level that would bring S&P 500 EPS back to 1994 levels), \$11.00 in a best case. (Q4 EPS could be as high as \$11.00 if we avoid a recession and most of the "one-off" earnings hits to such industries as insurance are confined to Q3.) Let's pick \$9.50.

A slight offset to all the gloom is that, at long last, U.S. firms are experiencing some currency relief. The UBS Warburg sales weighted dollar rose 5% in Q3, versus 8% in Q1 and Q2 (Chart 1). It is forecast to be even weaker in future quarters. To be sure, modest shifts in currency relationships are a fairly trivial matter in comparison to the onset of a recession. However, a weaker dollar does raise the likelihood that firms in such "defensive" industry groups as hospital supply, drugs, beverages and foods will meet or beat consensus estimates over the next couple of quarters.

Chart 1: UBS Warburg Sales-Weighted Dollar



Source: Department of Commerce, DRI, UBS Warburg LLC

Measuring these various impacts is extraordinarily difficult even for one firm, let alone the S&P 500 as a whole. Bottom line: Summing \$24.17, \$10.00 and \$9.50, we end up with \$43.67 for 2001 S&P 500 EPS. Caution seems in order; we'll round down to \$43.50. Our prior estimate was \$47.00.

What do we know about 2002 EPS? Virtually nothing. The current consensus is just under \$54.00, but that estimate has fallen over \$4.00 since September 11. Below we consider the likely level of 2002 S&P 500 operating EPS under three different scenarios.

The Ugly—S&P 500 2002 Operating EPS: \$39-42

What if, as our collective deepest fears suggest, the events of September 11 are not isolated? In other words, more terrorist activities and U.S. retaliation create an ongoing state of heightened uncertainty, which damages consumer confidence and discourages capital investment. Economic activity is severely impacted, with negative GDP growth until the middle of next year, and many companies go out of business.

For these S&P 500 companies, nominal revenues decline 2-5% and profit margins fall until the third or fourth quarter of 2002. Declining revenues plus a big drop in margins cause 2002 earnings to be 13-20% below 2001, in a range of \$35-38. However, earnings get a boost of about \$1.00 per quarter from SFAS 142, eliminating amortization of goodwill. So earnings drop 3-10% in 2002, in a range of \$39-42.

The Bad—S&P 500 2002 Operating EPS: \$45-48

In this scenario, our deepest collective fears prove unfounded. While there is no clear victory over terrorism, in the next few quarters terrorism does *not* become a part of everyday life in the U.S. The nation experiences a moderate recession in Q3 2001-Q1 2002, but economic growth resumes in the second quarter of next year. Growth outside the U.S. is also muted. Consequently, nominal sales of the S&P 500 grow at 2-4% in 2002, and corporate America is in considerable disarray for a couple of quarters. But margins stop falling by Q2 2002, and then improve modestly. Thus the average level of margins in 2002 is somewhat below that of 2001, while sales grow at a low-single-digit pace.

2002 current consensus EPS is just under \$54.00, but that estimate has fallen over \$4.00 since September 11.

For the year as a whole, the level of earnings in 2002 is fairly similar to 2001 on an “apples-to-apples” basis. However, quarterly comparisons are solidly up, year-on-year, in the second half of 2002 as margins rise sequentially and comparisons become very easy. In addition, earnings get a boost from SFAS 142. So earnings rise 3-10% in 2002 and have good momentum going into 2003.

The Good—S&P 500 2002 Operating EPS: \$50-55

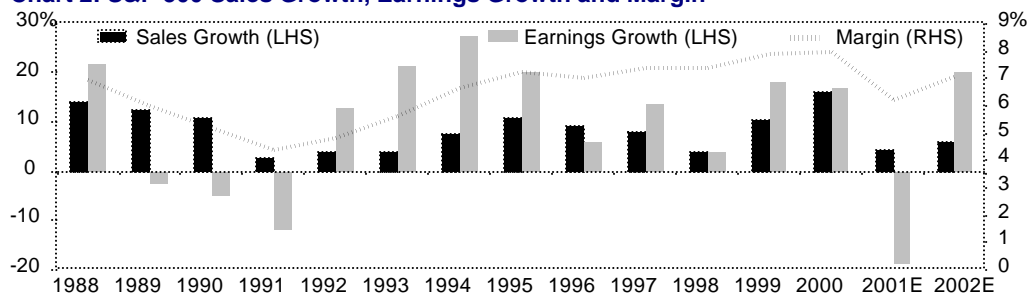
In this scenario, not only do our deepest collective fears prove unfounded, but there is a clear victory in the battle against terrorism—or at least the perception of such. In the next few months, America uses its military, financial and technological might to neutralize the terrorists responsible for the heinous September 11 attacks.

Meanwhile the excesses that existed before September 11 from the legacy of the dot.com mania have been eradicated. Most small start-ups that pressured established (i.e., S&P 500) tech companies have disappeared or have been taken over. Consumer demand improves and shoppers finally get around to spending their tax rebate checks, now that the terrorism threat has subsided. Christmas is surprisingly strong. With consumer and business confidence on the mend, the U.S. enters 2002 on a solid footing, and GDP growth is 3-4% throughout the year. In this good scenario, 2002 is a true recovery year, similar to 1992, that follows the slowdown/recession of Q3 2000 through Q3 2001.

In the simple math of S&P profits, when sales growth decelerates, margins get squeezed and earnings nosedive. Typically, however, companies then readjust costs so that, when GDP growth revives, significant sales growth resumes, capacity utilization rises, and margins expand. Higher margins on rising sales cause EPS to surge. As Chart 2 illustrates, in 1992 S&P 500 EPS rose 13% when sales accelerated just 1.3%.

In the simple math of S&P profits, when sales growth decelerates, margins get squeezed and earnings nosedive. Typically, however, companies then readjust costs so that, when GDP growth revives, significant sales growth resumes, capacity utilization rises, and margins expand.

Chart 2: S&P 500 Sales Growth, Earnings Growth and Margin



Source: Standard & Poor's, UBS Warburg LLC

In this scenario, sales rise about 6% in 2002, while margins bottom in Q3 2001 and then begin to expand nicely during the economic recovery. With average margins 50-70 basis points higher in 2002 than 2001, while sales rise 6%, the “apples-to-apples” earnings growth in 2002 is around 10% off of a relatively high 2001 base of \$45.00, for a 2002 earnings level of \$50.00. To this must be added \$4.00 for SFAS 142, yielding a 2002 S&P 500 EPS number of \$54.00, up 20% from 2001.

2002 S&P 500 Operating EPS: Cut to \$48.00 in a “Bad” Scenario

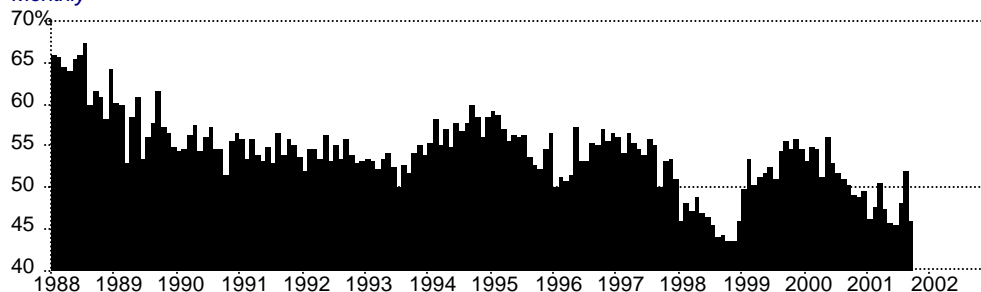
Although not quite “ugly,” UBS Warburg’s economic forecast is still pretty “bad.” Following sub-par real GDP growth of just 0-2% over four quarters (Q3 2000-Q2 2001), the firm projects three quarters of negative GDP: -1% in Q3 2001, -2% in Q4 2001, and -1% in Q1 2002. Over the balance of 2002, GDP rises at a moderate 3-3½%.

Although not quite “ugly,” UBS Warburg’s economic forecast is still pretty “bad.”

Foreign economies probably won’t be much stronger. In contrast to the U.S. recession of the early 1990s (when Europe, Japan and Asia were growing fairly well), the NAPM export order index is very depressed, approaching levels last seen during the worst days of the 1998 Asian financial crisis (Chart 3).

Chart 3: NAPM Export Order Index

Monthly



Source: DRI.

UBS Warburg economists recently slashed their forecasts of global real GDP growth for this year and next and are now calling for a slight *deceleration* in 2002:

	Old	New
2001 global real GDP Forecast	2.2%	1.9%
2002 global real GDP Forecast	3.3%	1.7%

This “bad” scenario—which, as noted, might well turn out to be too bearish—dictates a cut in our 2002 estimate of S&P 500 operating EPS to \$48.00 from \$56.00.

Essentially Recessionary, Despite Apparent Real GDP Rebound

Using UBS Warburg’s fairly “bad” economic forecast, let’s look at plausible trends in sales, margins and earnings in 2002.

Sales have two components—units and pricing—and both are forecast to be weak next year. UBS Warburg forecasts that in 2002 real GDP (a proxy for unit demand) will show this quarterly pattern: -1.0%, +3.0%, +3.2%, +3.5%. That sounds like a pretty decent rebound, but it isn’t. These figures refer to annualized change *from the prior quarter*. After GDP *declines* in H2 2001 and Q1 2002, it will move higher. Therefore, the *annual average* level of real GDP in 2002 is forecast to be up just 0.4%—virtually flat with 2001.

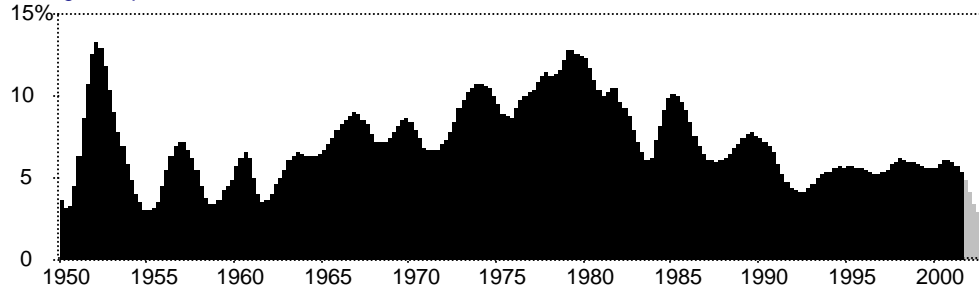
U.S. nominal GDP growth in 2002 of 2.4%, the lowest since 1958.

Pricing should also be weak. Capacity utilization should be considerably lower in 2002 than in 2001, and anemic global growth implies weak prices for oil, gas and industrial commodities. For example, OPEC is worried that Russia is grabbing market share by stepping up production. UBS Warburg looks for PPI inflation, on a Q4/Q4 basis, to decelerate from 3.7% in 2000 to 1.0% this year and 0.5% in 2002.

Low inflation plus minimal growth in real GDP should produce U.S. *nominal* GDP growth in 2002 of 2.4%, the lowest since 1958. Even by the end of 2002, year-to-year nominal GDP growth is forecast to be only 4.4%. Moreover, the annualized *two-year* change in nominal GDP growth (i.e., 2002 versus 2000) is forecast to be just 2.8%, the lowest since World War II (Chart 4). Clearly, U.S. firms are enduring a severe and prolonged period of economic weakness.

Chart 4: Two-Year Change in Nominal GDP

Rolling four-quarters, annualized

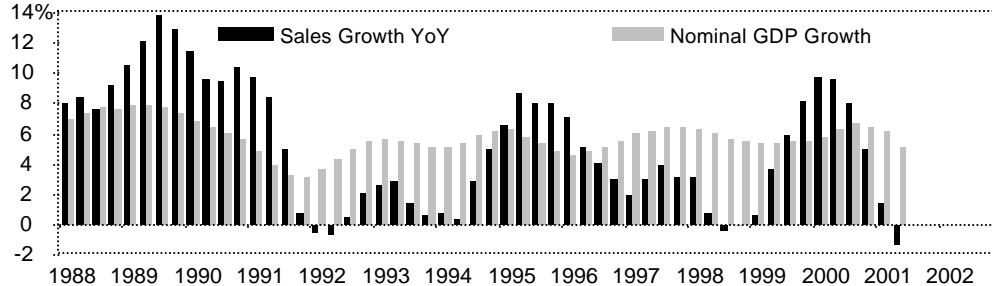


Source: DRI

Although S&P sales do tend to track nominal GDP *over the course of the cycle*, in recessionary years when commodity prices are weak sales tend to *lag* GDP; during boom years when commodity prices surge, the reverse is true (Chart 5). So 2.4% nominal GDP growth next year would be consistent with sales growth of around 2%. Whether it is 2% or 4% does not directly affect the forecast much; the key point is that a strong rebound in sales in 2002, which produces significant positive operating leverage, is not consistent with UBS Warburg's economic forecast.

Chart 5: Nominal GDP Growth Versus S&P Industrials Sales Growth

Rolling four quarter year-over-year change



Source: DRI, Standard & Poor's

Margins: Average Likely to Be Lower in 2002 Than 2001

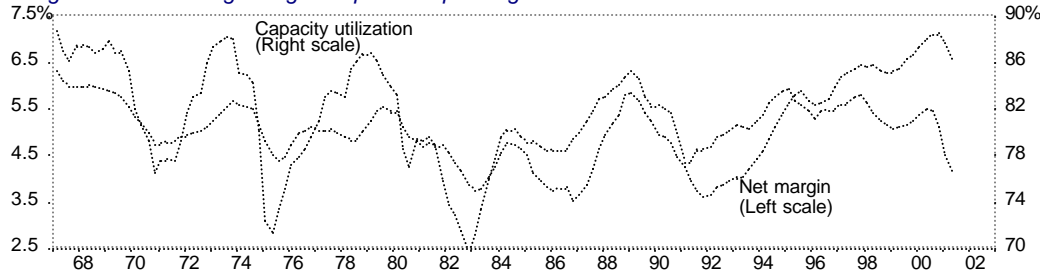
While sales are growing slowly in 2002, average profit margins should be below 2001 levels, even though real GDP is expected to expand in the last three quarters of the year. This is because capacity utilization in Q4 2002 will still be lower than the levels reached in 2001. However—and this is very important for equity investors—sequential margin improvement and easy comparisons should produce strong year-on-year S&P EPS growth in the second half of next year.

Sequential margin improvement and easy comparisons should produce strong year-on-year S&P EPS growth in the second half of next year.

Historically, the *level* of S&P industrial margins has tracked the *level* of capacity utilization pretty closely (Chart 6). In 1994, this relationship ended; since then, capacity utilization has trended down while margins have trended up irregularly. However, it remains true that the two variables *fluctuate together*. As Chart 7 clearly shows, when capacity utilization falls margins tend to decline as well. This is a general pattern that cannot be applied mechanistically to all situations. As noted earlier, the steepest margin declines are likely to occur at the top of the cycle, when cost structures reflect boom-time conditions and a downturn catches managements by surprise.

Chart 6: Capacity Utilization and S&P Industrials Net Margin, Quarterly Since 1967

Margin calculated using rolling four quarters operating EPS for S&P Industrials

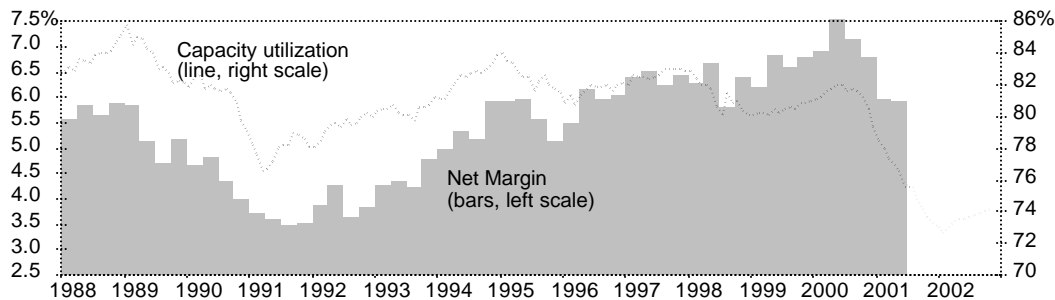


Source: DRI, Standard & Poor's.

UBS Warburg is forecasting steep declines in capacity utilization through the first quarter of 2002 and slight sequential increases thereafter. In that scenario, S&P 500 profit margins (excluding the direct costs of the attacks to insurers, airlines, etc.) should follow the pattern shown in Table 1. With companies so lean and mean, by mid-2002 even modest sales growth should produce decent sequential margin improvement.

Chart 7: Capacity Utilization and S&P Industrials Net Margin, Monthly Since 1988

Margin calculated using quarterly operating EPS for S&P Industrials



Source: DRI, Standard & Poor's, UBS Warburg LLC.

The average level of margins should be lower in 2002 than in 2001

Of course, we do not pretend to be able to forecast specific quarterly S&P profit margins. The key point is the general pattern: with capacity utilization plummeting in 2001 and Q1 2002, to be followed by a slow U.S. recovery and sluggish global growth, the average level of margins should be lower in 2002 than in 2001. (Note that a regression analysis of changes in capacity utilization versus changes in the S&P Industrials Net Margin shows a relatively high R-squared of 0.71.) This would be similar to the pattern in 1990-91, when there were also three down quarters for real GDP—Q3 1990, Q4 1990 and Q1 1991— and then a muted recovery for the rest of the year.

Table 1: Capacity Utilization and S&P 500 Net Margin Forecasts

		S&P 500 Net Margin	Sequential Change (bp)	Capacity Util. (%)	Sequential Change (bp)
2001	Q1	6.83%	-38	77.9	-244
	Q2	6.60	-23	76.4	-153
	Q3	6.28	-32	75.3	-110
	Q4	5.73	-55	74.2	-108
	Year	6.36		75.9	
2002	Q1	5.67	-6	72.9	-128
	Q2	5.82	15	73.3	37
	Q3	6.09	28	73.6	33
	Q4	6.44	35	74.0	38
	Year	6.01		73.4	

Source: UBS Warburg LLC

A More Normal Profit Environment Late in '02 and into '03

By the second half of next year, earnings should be rising at a strong 20-40% pace.

If sales rise 2% and margins fall from 6.36% to 6.01%, or about 35bp, earnings fall 3.6%. However, our analysis of margin trends was predicated on a typical margin pattern, which excludes what we estimate to be a \$2.00 decrement to Q3 2001 earnings from the terrorist attack, so this 3.6% decline would be from hypothetical 2001 earnings of about \$45.50. A 3.6% decline from \$45.50 gets us to just under \$44.00, to which must be added an estimated \$4.00 for SFAS 142, yielding 2002 S&P 500 EPS of \$48.00. Importantly, the bad news occurs now; by the second half of next year, earnings should be rising at a strong 20-40% pace (Table 2).

Although it is looking quite far ahead, margin improvement on top of sales acceleration suggests a return to a more normal profit environment late in 2002 and into 2003. While the exact timing of an earnings acceleration is uncertain, look for S&P 500 operating earnings to be approaching \$60 sometime over the next 24+ months.

Table 2: S&P 500 Earnings

		Reported	Change	Add back	Operating	Change
		EPS	yr/yr	major	EPS	yr/yr
				write-offs		
2001	Q1 A	\$9.18	-33.2%	\$3.16	\$12.34	-10.2%
	Q2 A	4.83	-64.2	7.00	11.83	-19.6
	Q3 E	8.00	-41.6	2.00	10.00	-30.5
	Q4 E	6.33	-30.2	3.00	9.33	-31.3
	Year	\$28.34	-43.3%	\$15.16	\$43.50	-22.9%
2002	Q1 E	\$8.17	-11.0%	\$3.00	\$11.17	-9.5%
	Q2 E	9.57	98.2	2.00	11.57	-2.2
	Q3 E	11.23	40.3	1.00	12.23	22.3
	Q4 E	11.03	74.3	2.00	13.03	39.7
	Year	\$40.00	41.2%	\$8.00	\$48.00	10.4%

Source: First Call, Standard & Poor's, UBS Warburg LLC

Year-End '02 S&P Normal Value Still 1570

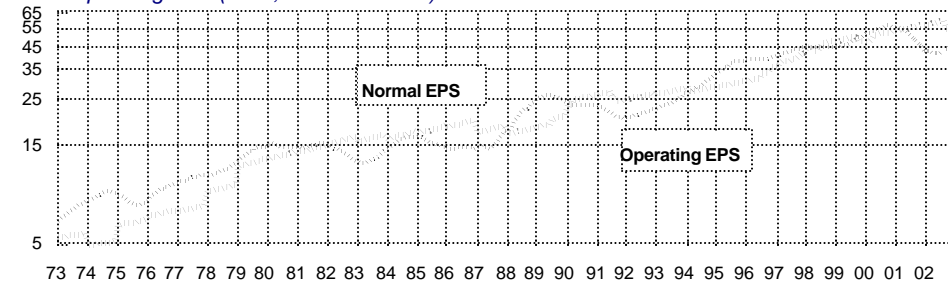
As we wrote in "Terrorist Attack" (September 12, 2001): "Even *before* these horrific events, we had concluded that, given the state of the economy, it was necessary to make changes to our earnings forecast and the inputs to our Equity Valuation Model." We cut 2002 S&P 500 *normal* EPS from \$61.25 to \$56.00. In addition, we lowered the normal S&P 500 dividend payout ratio from 30% to 28%, which lowered the S&P 500 normal P/E from 30x to 28x. As a result of lower 2002 normal EPS and a lower normal P/E multiple, year-end 2002 S&P 500 normal value was lowered to 1570.

As discussed above, our estimate of 2002 S&P 500 *operating* EPS is now \$48.00. However, our projected 2002 S&P 500 *normal* EPS remains unchanged at \$56.00, as does our year-end 2002 S&P 500 normal value of 1570.

As Chart 8 illustrates, *operating* EPS fluctuate around *normal*—or trend-line—EPS. In periods of unusual earnings strength, operating EPS will be *above* trend-line—as was the case in late 1999/early 2000. In periods of extreme earnings weakness, operating EPS will be *below* trend-line—as was the case in the early 1990s, *and as is the case today*. The years 2001-2002 are anything but normal for corporate America, which has been hit by back-to-back recessions: first an unofficial but severe industrial recession triggered by over-investment in tech and telecom (featuring 11 straight declines in industrial production), and then another recession associated with the terrorist attacks. The last time America had back-to-back recessions was 1980 and 1981-82, when Fed Chairman Paul Volcker was wrestling double-digit inflation to the ground.

Chart 8: S&P Operating EPS and Normal EPS

Actual operating EPS (2001, 2002 estimates) and normal EPS



Source: Standard and Poors, UBS Warburg LLC

In determining the normal P/E multiple to apply to those normal EPS, one key issue is the appropriate normal payout ratio:

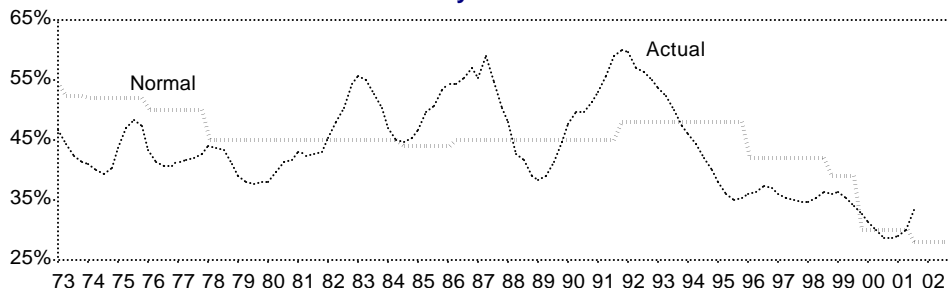
$$\text{Market P/E} = \frac{\text{Dividend Payout Ratio}}{\text{Equity Discount Rate} - \text{Earnings Growth Rate}}$$

(We assume an Equity Discount Rate of 8%—given a secular inflation expectation of 2% and a real equity discount rate of 6%—and a secular earnings growth rate of 7%).

In “Growing Up” (November 18, 1999), we announced that we were cutting the market’s normal dividend payout ratio from 39% to 30%. As we observed at the time, that cut “continues a trend that has been under way throughout the 1990s” (Chart 9).

As investors have been willing to be rewarded more in the form of stock price appreciation and less in the form of dividends (thanks, in part, to cuts in the capital gains tax and the continued double taxation of dividends), the S&P 500 normal payout ratio has declined. Indeed, reflecting the less important role of dividends, S&P 500 dividends per share fell by 3% in 2000 and are forecast to decline by another 3% in 2001 and then remain flat in 2002. So, with the actual payout ratio continuing to drift lower over the last 12 months—and expected to fall further still in the coming year (Chart 9)—a normal payout ratio of 28% seems appropriate

Chart 9: S&P 500 Normal and Actual Payout Ratio

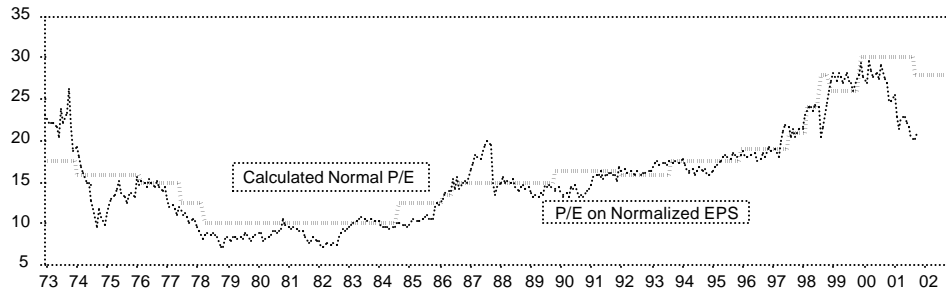


Source: Standard and Poors, UBS Warburg LLC

Given the equation outlined above, cutting the normal payout ratio to 28% had the effect of lowering the normal market P/E to 28x (Chart 10).

Chart 10: S&P 500 P/E

P/E on normalized EPS and calculated normal P/E



Source: UBS Warburg LLC

That normal P/E multiple of 28x combined with 2002 S&P 500 normal EPS of \$56.00 suggests a year-end 2002 normal S&P 500 value of 1570, implying significant appreciation potential for stocks.

S&P 500 dividends per share fell by 3% in 2000 and are forecast to decline by another 3% in 2001 and then remain flat in 2002.

Under (Almost) Any Profit Outlook, Stocks Look Cheap

But given how dramatically actual earnings estimates as well as the key inputs to our valuation models—normal earnings and interest rates—have changed in recent months, would stocks continue to look attractive if those inputs change again? As we illustrate below, given most plausible normal EPS and interest rate inputs to our valuation models, stocks continue to look attractive:

- If projected normal EPS were \$55, well-supported if the “good” scenario develops, and, as would seem likely, interest rates then backed up (e.g., short-term rates by 50 basis points, and 10-year bond yields by 10 basis points) stocks would still look very attractive (Chart 11).
- Alternatively, if those normal EPS were cut by \$5 to \$50 and rates remained unchanged, the case for equities would still remain very strong (Chart 12).
- Normal EPS could be lowered by \$10 to \$45 (it is likely then that interest rates would also move a bit lower), stocks would still be attractive (Chart 13).
- Even if normal EPS were cut \$15 to \$40 (and interest rates would also move still a bit lower), stocks would be essentially neutral on a P/E basis—although asset allocation relationships would be extremely attractive (Chart 14).

Given most plausible normal EPS and interest rate inputs to our valuation models, stocks continue to look attractive.

Chart 11: Stock Market Gauges*—2002 Normal EPS = \$55, T-Bill +50 bp, Bond +10 bp

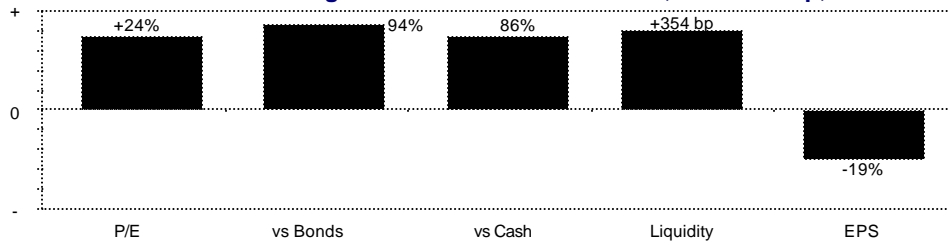


Chart 12: Stock Market Gauges*—2002 Normal EPS = \$50, Current T-Bill and Bond yield

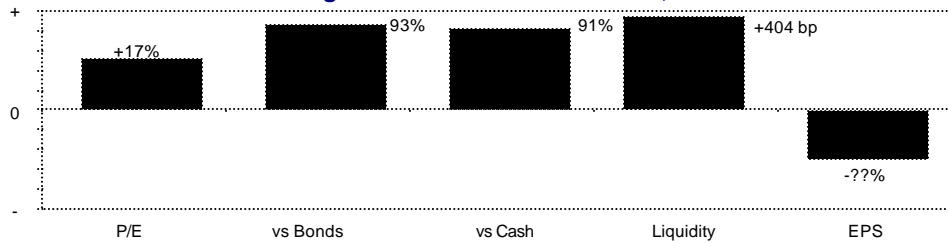


Chart 13: Stock Market Gauges*—2002 Normal EPS = \$45, T-Bill -50 bp, Bond -10 bp

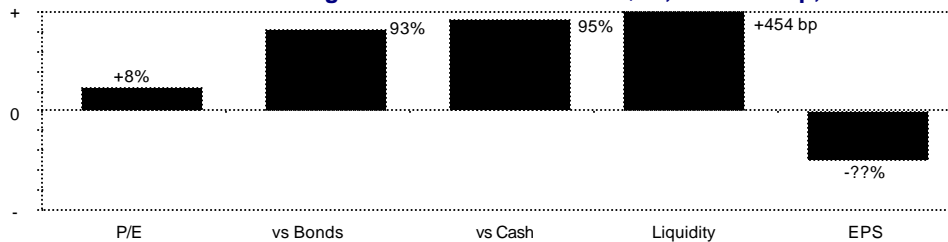
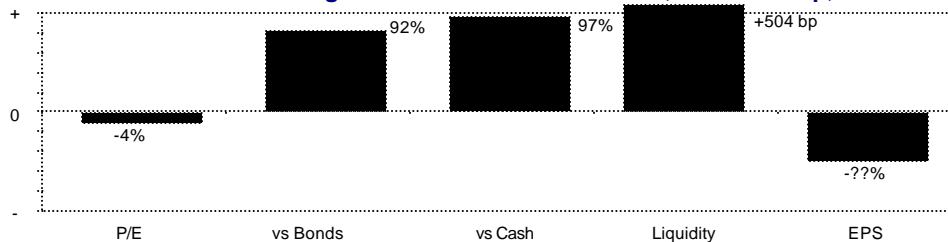


Chart 14: Stock Market Gauges*—2002 Normal EPS = \$40, T-Bill -100 bp, Bond -20 bp



*0 represents a neutral stock market gauge. The closer the bar to + the more attractive stocks are. The closer the bar to - the more unattractive stocks are. Assumes bond yields move 1bp for each 5 bp in T-bills.

Source: UBS Warburg LLC

Additional information available upon request

UBS Warburg LLC, 1285 Avenue of the Americas, New York, NY 10019 Phone: +1-212-713-2000

This report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. This report is based on information obtained from sources believed to be reliable but no independent verification has been made, nor is its accuracy or completeness guaranteed. This report is published solely for informational purposes and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments. Opinions expressed herein are subject to change without notice and the division, group, subsidiary or affiliate of UBS AG ("UBS") which produced this report is under no obligation to update or keep the information current. The securities described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. UBS and/or its directors, officers and employees may take positions in, and may make purchases and/or sales as principal or agent or UBS may act as market-maker in the securities or related financial instruments discussed herein. UBS may provide corporate finance and other services to and/or serve as directors of the companies referred to in this report. UBS accepts no liability for any loss or damage of any kind arising out of the use of this report. EEA: This report has been issued by UBS Warburg Ltd., a subsidiary of UBS AG, regulated in the UK by the Securities and Futures Authority. This report is for distribution in the UK to persons who are not UK private customers. US: This report is being distributed to US persons by either UBS Warburg LLC or UBS PaineWebber Inc., subsidiaries of UBS AG, or by a division, group or affiliate of UBS AG, that is not registered as a US broker-dealer (a "non-US affiliate"), to major US institutional investors only. UBS Warburg LLC or UBS PaineWebber Inc. accepts responsibility for the content of a report prepared by another non-US affiliate when distributed to US persons by UBS Warburg LLC or UBS PaineWebber Inc. Canada: This report is being distributed by UBS Bunting Warburg Inc., a subsidiary of UBS AG and a member of the principal Canadian stock exchanges & CIPF. Singapore: This report is being distributed in Singapore by UBS Warburg Singapore Pte. Ltd. For transactions, please contact your local sales representative. **Additional information will be made available upon request.**

© 2001. All rights reserved. This report may not be reproduced or distributed in any manner without the permission of UBS.