What Works On Wall Street — Chapter 17 Case Study:
Do Sales Increases Work Better than Earnings Gains?

Does the Percentage Change in Cash Flow Help?
What About Looking at Standardized Unexpected Earnings?
Is a Composited Form of Earnings Growth Superior to any Single Factor Measurement?

Since the publication of the first edition of *What Works on Wall Street,* I have been asked these very questions on many occasions. Let's address them in turn, beginning with an examination of sales, as opposed to earnings, gains. The question seemed reasonable to many readers, since price-to-sales ratios often worked so much better than price-to-earnings ratios.

Nevertheless, I've found that buying stocks with the best one-year sales increases actually perform considerably *worse* than those with the highest one-year earnings gains. Table 17.CS1 shows the results of buying the various deciles from All Stocks based on annual gains in sales.

T A B L E 17.CS1

Summary Results for YoY Sales Growth Decile Analysis of All Stocks Universe, January 1, 1964 to December 31, 2009

Decile	$10,000 Grows to:	Average Return	Compound Return	Standard Deviation	Sharpe Ratio
1 (Highest)	$270,481	10.97%	7.43%	25.27%	0.10
2	$1,047,685	13.09%	10.64%	20.82%	0.27
3	$2,008,417	14.18%	12.22%	18.55%	0.39
4	$1,848,151	13.70%	12.02%	17.23%	0.41
5	$2,685,784	14.49%	12.93%	16.52%	0.48
6	$2,737,089	14.42%	12.98%	15.91%	0.50
7	$2,170,265	13.81%	12.41%	15.76%	0.47
8	$1,635,825	13.18%	11.72%	16.13%	0.42
9	$1,346,035	12.96%	11.25%	17.47%	0.36
10 (Lowest)	$298,199	10.18%	7.66%	21.44%	0.12
All Stocks	$1,329,513	13.26%	11.22%	18.99%	0.33

The decile of stocks from the All Stocks Universe with the best one-year increase in revenues has performed very poorly since 1963. For the period between December 31, 1963 and December 31, 2009, the group had a compound average annual return of 7.43 percent, turning $10,000 into just $270,481, considerably worse than a similar investment in the All Stocks universe, which compounded at 11.22 percent and turned $10,000 into $1,329,513 over the same period. Its Sharpe ratio was a low .10 compared to .33 for All Stocks. Risk and downside ratio were very high, coming in at 25.27 and 17.91 percent respectively. The performance was absolutely dreadful, excepting the two stock market bubbles in the late 1960s and late 1990s.

When you focus on just the top 50 stocks by sales growth, you see the performance is considerably worse. Between December 31st, 1963 and December 31st, 2009 the top 50 stocks by sales growth compounded at just 3.88 percent, turning $10,000 into only $57,631, a return that badly trailed the 5.57 percent you would have earned sitting in riskless 30-day U.S. T-Bills. Take inflation into consideration and the investment looks even worse: $10,000 in 1963 would need to

be worth $69,936 in 2009 just to break even. Both the top decile and top 50 stocks by annual sales growth do well *only* in highly speculative markets, and even then you can be fairly certain a bear market is not too far off. Look at 1967, which John Dennis Brown called "a vintage year for speculators" in his book *101 Years on Wall Street*—the top decile by sales growth soared 86 percent while the top 50 gained 107 percent! In 1999, perhaps the most speculative year in the last four or five decades, the top decile of stocks by annual sales gains went up 86 percent and the top 50 soared by 134 percent. Yet those gains could not last—over the next three years the top decile by sale growth plunged 33 percent per year, turning $10,000 into $3,068. The top 50 were eviscerated, losing 45 percent a year and turning $10,000 into just $1,660, essentially wiping the investor out. As for base rates, they were uniformly negative, with the top decile beating All Stocks in only three percent of all rolling ten-year periods. It should come as no surprise that the best ten years for the decile of best annual sales gains stocks came in February 2000, the same month the NASDAQ was hitting record highs. Table 17.CS1 shows the returns for all deciles by year-over-year sales growth for All Stocks.

Thus, we see that along with all the other high-ratio stocks, those with high one-year sales serve as an excellent proxy for stock market excess. They do well only when investors get really excited about new issues with dramatically improving sales without the more dispassionate and rational view that companies eventually have to make money in order to reward investors. Whenever these high sales growth stocks are doing inordinately well, investors should cast a gimlet eye at the overall market.

Large Stocks with the highest annual sales gains fared little better, turning $10,000 into $310,131, a compound return of 7.75 percent. Both risk and downside ratios were high, 21.07 and 15.18 percent respectively, and the Sharpe ratio came in at a low .13. Like the All Stocks group, base rates were negative, with the group beating Large Stocks in only 19 percent of all rolling ten-year periods.

Thus, good performance from this group seems to only occur when we're at the end of a speculative market bubble and should again caution us to what might lay ahead. Table 17.CS2 shows all deciles for sales growth from the Large Stocks universe.

T A B L E 17.CS2

Summary Results for YoY Sales Growth Decile Analysis of Large Stocks Universe, January 1, 1964 to December 31, 2009

Decile	$10,000 Grows to:	Average Return	Compound Return	Standard Deviation	Sharpe Ratio
1 (Highest)	$310,131	10.20%	7.75%	21.07%	0.13
2	$650,640	11.30%	9.50%	18.00%	0.25
3	$580,746	10.75%	9.23%	16.56%	0.26
4	$738,156	11.16%	9.80%	15.68%	0.31
5	$936,377	11.65%	10.37%	15.20%	0.35
6	$946,246	11.64%	10.40%	14.98%	0.36
7	$969,532	11.62%	10.46%	14.54%	0.38
8	$664,485	10.71%	9.55%	14.58%	0.31
9	$708,969	10.92%	9.71%	14.88%	0.32
10 (Lowest)	$511,516	10.53%	8.93%	17.02%	0.23
Large Stocks	$872,861	11.72%	10.20%	16.50%	0.32

Percentage Change in Cash Flows

Many think that cash flow is a more important measure to determine the health of a company. Table 17.CS3 shows the deciles when ranked by percentage change in annual cash flow, with decile one being the ten percent of stocks from All Stocks with the highest percentage change and decile ten being the ten percent of stocks from All Stocks with the lowest percentage change in cash flow.

T A B L E 17.CS3

Summary Results for YoY Net Operating Cash Flow Growth Decile Analysis of All Stocks Universe, January 1, 1964 to December 31, 2009

Decile	$10,000 Grows to:	Average Return	Compound Return	Standard Deviation	Sharpe Ratio
1 (Highest)	$1,163,271	13.86%	10.89%	22.82%	0.26
2	$2,004,889	14.68%	12.21%	20.77%	0.35
3	$1,749,243	13.95%	11.88%	19.08%	0.36
4	$2,272,042	14.21%	12.52%	17.24%	0.44
5	$2,037,796	13.67%	12.25%	15.84%	0.46
6	$1,598,757	12.97%	11.66%	15.25%	0.44
7	$1,457,367	12.79%	11.44%	15.51%	0.42
8	$1,185,499	12.49%	10.94%	16.64%	0.36
9	$938,270	12.34%	10.38%	18.69%	0.29
10 (Lowest)	$221,995	9.91%	6.97%	23.15%	0.09
All Stocks	$1,329,513	13.26%	11.22%	18.99%	0.33

Clearly, you want to avoid the ten percent of stocks with the lowest percentage change in cash flow, since that decile returned just 6.97 percent over the 46 years of the study. Indeed, if you focus on the 50 stocks from All Stocks with the lowest percentage change in cash flow, you'd really get burned—that group earned just 2.97 percent per year over the 46 years of the study, considerably worse than an investment in U.S. T-bills and well behind inflation.

Yet decile one—those stocks with the highest percentage change in cash flow—offered little help to investors either, compounding at 10.89 percent per year, 0.33 percent worse than an investment in the All Stocks universe, which earned 11.22 percent per year over the same period. Thus, investors are best off simply avoiding the stocks with the lowest percentage gain in cash flow.

Large Stocks

Table 17.CS4 shows the deciles from the Large Stocks universe, revealing much the same results as the deciles from All Stocks —simply avoid those Large Stocks with the lowest percentage change in cash flow.

T A B L E 17.CS4

Summary Results for YoY Net Operating Cash Flow Growth Decile Analysis of Large Stocks Universe, January 1, 1964 to December 31, 2009

Decile	$10,000 Grows to:	Average Return	Compound Return	Standard Deviation	Sharpe Ratio
1 (Highest)	$527,435	11.16%	9.00%	19.76%	0.20
2	$833,689	11.78%	10.09%	17.38%	0.29
3	$815,579	11.53%	10.04%	16.34%	0.31
4	$874,681	11.50%	10.21%	15.24%	0.34
5	$896,041	11.44%	10.27%	14.58%	0.36
6	$714,506	10.87%	9.72%	14.48%	0.33
7	$756,649	11.00%	9.86%	14.40%	0.34
8	$858,434	11.37%	10.16%	14.79%	0.35
9	$747,050	11.18%	9.83%	15.67%	0.31
10 (Lowest)	$247,423	9.12%	7.22%	18.60%	0.12
Large Stocks	$872,861	11.72%	10.20%	16.50%	0.32

Like we saw with All Stocks, you're not going to add any value by focusing on the stocks with the *greatest* percentage gains in cash flow, since decile one also underperforms the Large Stocks universe. Thus, as we found with All Stocks, the best this factor can offer is showing you which stocks to avoid.

Standardized Unexpected Earnings

Another popular way to look at stocks is to concentrate on those issues where there is a large jump in recent earnings relative to a trailing eight-quarter average for the stock, or standardized unexpected earnings (SUE). You're essentially comparing a stock's *recent* earnings performance to its performance over the previous two years, the theory being that stocks with the greatest change in recent earnings over trailing earnings should go on to do better than those whose recent earnings lagged the trailing eight-quarter number. Table 17.CS5 shows the results for the All Stocks universe (Because of the need to analyze a full eight quarters to generate results, this analysis begins with an investment made on February 28, 1967).

T A B L E 17.CS5

Summary Results for SUE Decile Analysis of All Stocks Universe, March 1, 1967 to December 31, 2009

Decile	$10,000 Grows to:	Average Return	Compound Return	Standard Deviation	Sharpe Ratio
1 (Highest)	$1,473,036	14.37%	12.36%	18.75%	0.39
2	$1,090,034	13.48%	11.57%	18.34%	0.36
3	$1,171,721	13.59%	11.76%	17.95%	0.38
4	$1,140,879	13.48%	11.69%	17.78%	0.38
5	$1,395,589	14.03%	12.22%	17.86%	0.40
6	$1,164,735	13.53%	11.75%	17.75%	0.38
7	$977,504	13.07%	11.29%	17.78%	0.35
8	$863,896	12.79%	10.97%	17.99%	0.33
9	$590,100	11.86%	9.99%	18.34%	0.27
10 (Lowest)	$285,398	10.19%	8.14%	19.41%	0.16
All Stocks	$831,506	12.99%	10.87%	19.36%	0.30

We see from Table 17.CS5 that there is indeed more symmetry to standardized unexpected earnings than to the other factors we've reviewed in this case study. Decile one—those stocks with the highest SUE scores—was the best performing decile, earning an average annual compound return of 12.36 percent, compared with 10.87 percent for the All Stocks universe, and decile ten—those stocks with the lowest SUE scores—was the worst performing. Decile ten earned an average annual compound return of 8.14 percent, well below All Stocks 10.87 percent. A review of the base rates for deciles one and ten show consistency and symmetry as well. Decile one beat the All Stocks universe in 92 percent of all rolling five-year periods and 100 percent of all rolling ten-year periods. Conversely, decile ten performed terribly, beating the All Stocks universe in just three percent of all rolling five-year periods and in no rolling ten-year periods.

Large Stocks
The results for Large Stocks are considerably different than the results from All Stocks. Here, as Table 17.CS6 shows, those Large Stocks with the worst SUE scores were terrible investments, but those with the best SUE scores also failed to beat the universe.

T A B L E 17.CS6

Summary Results for SUE Decile Analysis of Large Stocks Universe, March 1, 1967 to December 31, 2009

Decile	$10,000 Grows to:	Average Return	Compound Return	Standard Deviation	Sharpe Ratio
1 (Highest)	$503,283	11.13%	9.58%	16.76%	0.27
2	$625,016	11.63%	10.14%	16.43%	0.31
3	$672,510	11.74%	10.32%	16.00%	0.33
4	$714,209	11.86%	10.48%	15.74%	0.35
5	$707,431	11.87%	10.45%	15.95%	0.34
6	$522,040	11.06%	9.67%	15.85%	0.29
7	$688,166	11.79%	10.38%	15.91%	0.34
8	$488,947	10.95%	9.51%	16.18%	0.28
9	$444,909	10.72%	9.26%	16.24%	0.26
10 (Lowest)	$336,968	10.15%	8.56%	17.06%	0.21
Large Stocks	$627,084	11.73%	10.14%	16.89%	0.30

Perhaps market capitalization is relevant here, since the All Stocks universe includes small- and mid-cap issues. Because these smaller cap stocks aren't as widely followed by analysts as their larger cap brethren, it is possible that earnings surprises from the smaller issues offer a larger arbitrage opportunity. For now, suffice it to say that in both the All Stocks and Large Stocks universes, you are well advised to avoid the stocks with the worst SUE scores, since they perform consistently worse than their respective universes.

A Composited Index of Earnings Per Share Percentage Change; Cash flow Percentage Change; and Standardized Unexpected Earnings

Perhaps, as we saw in Chapter Fifteen when we looked at Composite Value Factors, we can enhance the performance of earnings growth by combining the three variables into a composite made up of the three factors we have reviewed here: percentage growth in earnings per share; percentage growth in cash flow per share and standardized unexpected earnings growth. As we did before, for each combined group of factors, we assign a percentile ranking on a scale of 1 to 100. If a stock has earnings per share percentage gains in the highest one percent of the universe, it will receive a rank of 100 and if it has earnings per share percentage gains in the lowest one percent of the universe it will receive a rank of 1. We will do the same for each of the factors, and again assign a neutral rank of 50 if the earnings factor is missing from the data. Once all factors are ranked, we add up all the rankings and assign the stocks to deciles based upon their overall cumulative scores. Those with the highest scores are assigned to decile one while those with the lowest scores are assigned to decile ten.

Thus, the stocks in decile one would have the highest percentage changes in earnings per share, percentage change in cash flow and highest standardized unexpected earnings, whereas the stocks in decile ten would have the *lowest* percentage change in earnings growth, etc. Let's begin by looking at Table 17.CS7, which shows the returns by decile from the All Stocks universe.

T A B L E 17.CS7

Summary Results for the Growth Composite Decile Analysis of All Stocks Universe, January 1, 1964 to December 31, 2009

Decile	$10,000 Grows to:	Average Return	Compound Return	Standard Deviation	Sharpe Ratio
1 (Highest)	$1,497,433	14.55%	11.50%	23.10%	0.28
2	$2,332,332	14.77%	12.58%	19.54%	0.39
3	$2,485,557	14.59%	12.74%	18.00%	0.43
4	$1,991,642	13.91%	12.20%	17.31%	0.42
5	$1,580,312	13.22%	11.63%	16.75%	0.40
6	$1,226,947	12.60%	11.02%	16.73%	0.36
7	$1,493,875	13.08%	11.50%	16.74%	0.39
8	$1,148,440	12.48%	10.86%	17.00%	0.34
9	$895,833	12.07%	10.27%	17.99%	0.29
10 (Lowest)	$253,476	9.94%	7.28%	22.04%	0.10
All Stocks	$1,329,513	13.26%	11.22%	18.99%	0.33

The results are somewhat of a mixed bag, with decile three performing the best over the full test period, beating the All Stocks universe by an average 1.52 percent per year. Decile one also beat the All Stocks universe, but by a much smaller margin of 0.28 percent per year, statistically insignificant.

Like we saw with the single factors, the true value of the composited growth factor is in showing us which stocks to avoid—decile ten, made up of the ten percent of stocks from All Stocks with the worst composited growth factor scores, returned just 7.28 percent per year, some 3.94 percent worse than the All Stocks universe. If we look at 25- and 50-stock portfolios based on the

6

composite, we again see that the best use of the factor is showing us what to avoid. The 25 stocks from All Stocks with the worst composite growth factor score returned just 1.93 percent per year, whereas the 50 stocks with the worst score returned 2.62 percent. Deplorable returns, even before we take inflation into account.

Large Stocks

Table 17.CS8 shows the results for Large Stocks. Here, decile one fails to beat the Large Stocks universe, and indeed only deciles two and three managed to beat the universe, and not by much. Consistent with what we saw with All Stocks, the worst performing decile was decile ten, which earned 8.22 percent a year.

T A B L E 17.CS8

Summary Results for the Growth Composite Decile Analysis of Large Stocks Universe, January 1, 1964 to December 31, 2009

Decile	$10,000 Grows to:	Average Return	Compound Return	Standard Deviation	Sharpe Ratio
1 (Highest)	$693,041	11.75%	9.65%	19.44%	0.24
2	$1,171,044	12.46%	10.91%	16.66%	0.35
3	$878,147	11.58%	10.22%	15.65%	0.33
4	$775,861	11.23%	9.92%	15.37%	0.32
5	$678,784	10.83%	9.60%	14.93%	0.31
6	$634,459	10.69%	9.44%	15.09%	0.29
7	$701,907	10.91%	9.68%	14.94%	0.31
8	$744,407	11.11%	9.82%	15.30%	0.32
9	$638,990	10.86%	9.46%	15.94%	0.28
10 (Lowest)	$377,930	9.92%	8.22%	17.62%	0.18
Large Stocks	$872,861	11.72%	10.20%	16.50%	0.32