

Trend Analysis

If there is a theme to all of our work it is this: the more commonsense an approach is, the more effective it works. Nothing is more commonsense than trend analysis.

In fact, successful financial analysis is largely just following trends. If all you can do is follow trends, you may not be an outstanding financial analyst; but you, at least, will be a good one.

In this report, we demonstrate the incredible illuminating powers of trend analysis. We define what it is and show how, despite what some believe, trends are not already factored into prices.

The Trend is Your Friend

We have built the most sophisticated models imaginable designed to forecast stocks and the economy. We have left no stone unturned in trying to dig up the very best components to include in those models. We have tested literally thousands of variations of different variables. And after all of this effort, we have come to one indisputable conclusion.

The single best predictor of future change of any variable is the most recent change of that very same variable. If you want to forecast the growth in sales over the next three years, for instance, start with the growth in sales over the previous three years. Start with the most recent trend.

Study the trend in sales, earnings, cash flows, and other financial statistics and you will have at your disposal almost as much insight as some of the best minds on Wall Street. Utilizing other statistics might add detail. But the detail is useless if you cannot see the broad picture. Trend analysis lays out the broad picture.

How to Calculate Trend – A Demonstration

To calculate the trend in any variable over a period of time, simply take that variable at the end period of time and divide it by that same variable at the beginning period of time. It is also very advisable to take a natural log.¹

As an example, let's study Amazon's sales over two three-year periods of time, from 2011 – 2014 and from 2014 – 2017. Amazon's sales at the end of 2011 were \$48.08 billion. Amazon's sales three years

¹ Taking a natural log has the amazing effect of converting that growth rate into the continuous growth rate (or the growth that results from continuous compounding). The base e (a mathematical constant that defines the natural log) was given to us by Leonard Euler (with a big assist from John Napier). Like the bell-shaped curve and pi, the base e tends to show up in nature again and again (which is an indication of its fundamental importance), and it behooves you to understand it, or at least understand how to use it.

later, at the end of 2014, were \$88.99 billion. Its sales growth over this three-year period of time should be calculated in the following way:

$$\frac{\text{Sales 2014}}{\text{Sales 2011}} = \frac{\$ 88.99 B}{\$ 48.08 B} = 1.8509$$

$$\frac{\text{Ln}(1.8509)}{3} = 0.205 = 20.5 \%$$

This equation says that Amazon's sales over this three-year period of time grew by 85.1 % ($88.99 \div 48.08 = 1.8509$). If you take a natural log of 1.8509 and divide by three (since this was a three-year period of time), Amazon's sales grew at a continuous rate of 20.5 percent over this three-year period.

Now, let's look at Amazon's sales over the subsequent three-year period, from 2014 – 2017. Amazon's sales at the end of 2017 were \$177.87 billion. And its sales growth from 2014 to 2017 can be calculated in the following way.

$$\frac{\text{Sales 2017}}{\text{Sales 2014}} = \frac{\$ 177.87 B}{\$ 88.99 B} = 1.9988$$

$$\frac{\text{Ln}(1.9988)}{3} = 0.2308 = 23.1 \%$$

You would have obtained an uncannily accurate forecast for sales growth over the period from 2014 to 2017 by simply looking at sales growth from 2011 to 2014. A forecast of 20.5 % would have been very close to the actual growth rate of 23.1 %.

Trend in Profits – A Second Demonstration

In fact, trend analysis works so well, many people believe it, therefore, must be useless for analyzing and selecting stocks. If a trend works so well at forecasting the future trend, then there is no way this information is not already factored into the price of stocks. And therefore, trends must be useless in analyzing stocks.

The people who believe this are wrong.

Let us demonstrate. The trend most heeded, calculated, watched, and picked over by investors is the historical growth in profits. If any historical trend is priced in already, it would be this one. We will demonstrate that even this basic trend is not priced in already.

We studied the trend in operating profit over a 15-year period and measured its ability to predict future stock return (change in share price plus dividend yield). Specifically, we studied (roughly) the 2,000 largest companies in the U.S. stock market starting in 2004. We separated these stocks based on their

historical growth in operating profit over the previous eight years (roughly one business cycle). We then measured how much each returned over the subsequent 12 months. We then rebalanced and repeated this process every year until 2018 (the last full year before issuing this report). This was a 15-year period, 2004 – 2018.²

We considered those stocks with profit growth in the top 16 % to be the “Fast Growers” and those stocks with profit growth in the bottom 16 % to be the “Slow Growers.” We used 16 % because the top and bottom 16 % are (roughly) one standard deviation from the average, and those stocks that are one standard deviation from the average can be considered to be in a different class.

This is how these fast and slow growers performed over this 15-year period.

15-Year Average Return (2004 – 2018)

	Return
Fast Growers	10.5 %
Average (All)	9.6 %
Slow Growers	8.9 %

Fast growers outperformed slow growers by almost 2 %. Furthermore, the Fast Growers clearly outperformed the average, and the Slow Growers clearly underperformed the average.

Those who say profit growth is priced in already are wrong. In our study, we did not differentiate stocks on price, risk, or any other characteristic. We simply separated stocks on historical profit growth. And those with the highest historical profit growth clearly outperformed those with the slowest historical profit growth.

A Slight Out Performance is Good

Some might say the outperformance was so slight, it was not worth it. But those who say that don't understand the nature of the market.

Even the most powerful no-nonsense variables provide just a modest amount of insight; however, there is a cornucopia of no-nonsense variables. And when you combine these no-nonsense variables together, the result is breathtaking.

The trend in profit is not really a special number. In fact, it is because it is so ordinary that we chose it. There are many other trends (and many other statistics in general) very similar to trend in profit. They are just as ordinary, sensible and effective as trend in profit.

² Furthermore, we multiplied the annual returns with each other instead of added them. In this way, volatile stocks that really did not achieve a higher return would not appear as though they achieved a higher return.

In other words, this modest outperformance is welcome, not unwelcome. This modest outperformance is the reason that millions of investors overlook and dismiss these uncomplicated and reliable numbers. This modest outperformance is just one reason why we are confident that conducting this no-nonsense analysis will always work.

Summary

All effective research requires a basic framework as a starting point on which to build a more complete analysis. In stock research, that framework is trend analysis.

Do not dismiss this simple but powerful analysis. On the contrary, make trend analysis the foundation of your approach. Trends are the most fundamental of the “fundamentals.”