

**PART I**

**T**rading success is heavily dependent upon being on the right side of the trade and executing the trade at a reasonably optimal time. Neither concept is new. Both are much more difficult to do than they seem.

Take a moment to consider the implications of these two thoughts. What does it mean to be on the *right side* of a trade? For a technical trader, this almost always means that you are trading with the trend, but even that statement is somewhat ambiguous since it implies that the definition of a trend is known and that there is only one trend. Unless you read my first book, *Trend Qualification and Trading*,<sup>1</sup> you are probably unaware that not all trends are created equal and you are unlikely to have a keen appreciation for the fact that there are necessarily multiple trends spread across many time frames that exist simultaneously. What is more, trends across multiple time frames are not necessarily the same. In fact, they differ more often than not. As you can see, once you dig into the concepts a bit, the mental clarity of the high level thoughts quickly becomes murky.

For this reason, before jumping headfirst into a detailed consideration of how to find the highest probability trades, a preliminary discussion of some basic concepts is necessary. Hopefully this will simply be a refresher. Without a common and somewhat precise understanding of the terminology used throughout this book, much of the value will fall upon deaf ears.

<sup>1</sup>L.A. Little, *Trend Qualification and Trading* (Hoboken, NJ: John Wiley & Sons, 2011).

For that reason, Part I tackles the thorny question of trend and time frames as well as entry and exit timing. It is necessarily covered with reasonably broad brushstrokes yet with sufficient color to elucidate the general principles of qualified trend and anchored support and resistance. In this way, when I speak of a concept such as *a suspect bullish qualified trend on the short term time frame*, you will understand with exactness both the term and the implications.

Although the material is a review of prior concepts, it is by no means limited to dry definitions regurgitated at a pace that would make a snail appear to be a speed demon. Rather than bore readers of my prior work with three chapters that beg them to skim if not skip, I have instead added significant data to validate the assertion that all trends are not created equal. A distinction is made between trend and trade failures and some simplistic trading rules are implemented to show how timing of entry and exit can yield better trading results through the use of anchored zones.

The third chapter utilizes the Trading Cube to illustrate the broader influences that directly affect trade success and failure. Again empirical data is presented that strongly supports the idea that trading with the trend where that trend is confluent for the stock, the sector, and the general market for the time frame being traded is the most desirable trade set-up. Unfortunately, the market seldom makes it that simple.

The result of the first three chapters is much more than an overview of the basic concepts that comprise the neoclassical concepts of trend trading. Each chapter houses additional and previously unpublished data regarding trend and offers insight into how a trader can benefit from the knowledge. More importantly, these first three chapters lay the groundwork for what follows—finding and executing the best trade set-ups.

The concepts first presented in *Trend Qualification and Trading* are reinforced through real data and presented in a easily understandable manner. There are no fancy formulas, mathematical complexities, or unneeded mental fog. Trading need not be a theoretical formulation of complex and somewhat indecipherable thought. It does not have to depend on models so complex that the originator of the model must muddle through notes when trying to explain it. Elegance is typically hidden in simplicity, and neoclassical trend trading is just that. Like a fine wine it is beautifully simple yet complete and it only improves with time and practice!

**CHAPTER 1****Identifying and  
Qualifying Trend  
Probabilities**

**H**istorically, trend was generally defined as a series of higher highs and higher lows (bullish trend) or a series of lower highs and lower lows (bearish trend). This general definition took hold at the turn of the twentieth century and, for the most part, has held sway ever since.

In *Trend Qualification and Trading*,<sup>1</sup> a more precise and valuable definition of trend was proposed. It suggested the idea that significant price points could be systematically determined on a chart and that these price points would typically end up being at price extremes. These price extremes would have significance because any subsequent test of the price point would provide a comparison. Essentially, the volume on the prior price extreme could be compared to volume on the current price test. This comparison yields insight into the enthusiasm and conviction of the buyers and sellers. If market participants are willing to buy an increasing number of shares at new price extremes, then, for whatever reason, the buyers are expressing their belief that prices will go even higher. The same is true of sellers selling an increasing number of shares at lower and lower price extremes. By measuring this outward expression of conviction, the true equation of the supply and demand of the stock can be made and it is made at the price point where it matters, which typically is at price extremes.

This fundamental approach to a stock's supply and demand characteristics enables observers to gain a far better understanding of the *true trend*

<sup>1</sup>L.A. Little, *Trend Qualification and Trading* (Hoboken, NJ: John Wiley & Sons, 2011).

because trend transitions are necessarily determined at price boundaries. It allows one to qualify a trend, and that is important because with trend qualification, all trends are no longer viewed as equals. Some trends are better than others. A quick summary of how to determine trend follows.

**TREND DETERMINATION**

Figure 1.1 is a short-term annotated chart of Google. The annotations highlight each bar on the chart where a swing point high (SPH) or swing point low (SPL) is observed.

Swing point highs and lows are the result of a simple and methodical calculation. Starting at the leftmost bar on the chart, the high and low of the bar are noted. This high is the potential swing point high while the low is the potential swing point low. Next, the adjacent bar to the right is examined, and if the high is higher than the previous bar's high, this



**FIGURE 1.1** Swing Point Highs and Lows—Google (December 9, 2010 to March 9, 2011)

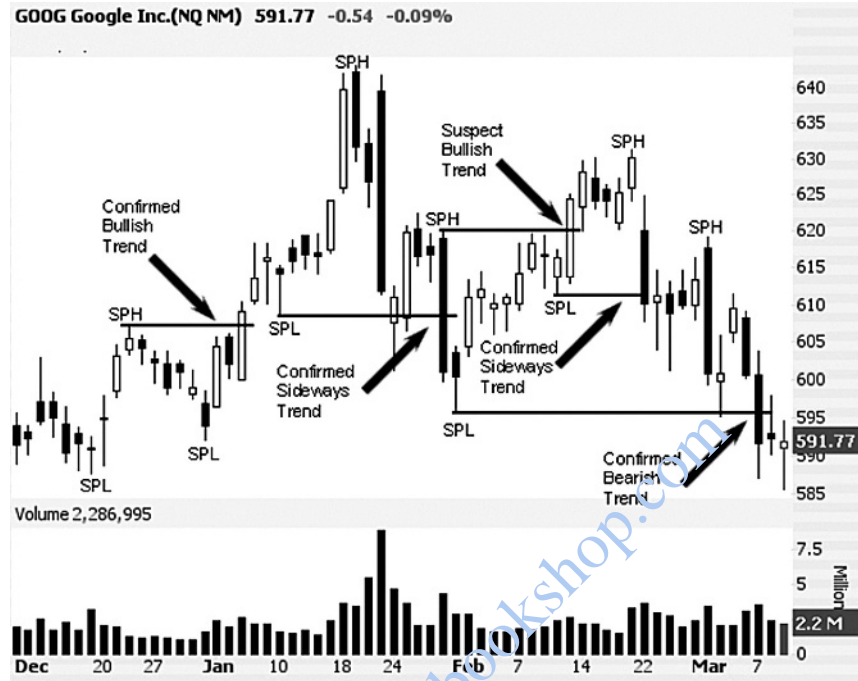
higher high becomes the potential swing point high. Likewise, the same operation is completed for the low. When six adjacent bars have been examined without a higher high having been found, then the potential swing point high becomes actualized and the high of the sixth bar is the new potential swing point high going forward. The same is true of lows. In this way, swing point highs and lows are consistently determinable, and the vast majority of these highs and lows end up signifying turning points and/or price extremes on the chart for the time frame under observation. In those cases where they do not, many times value is still produced when it comes to trend determination. In rare cases, they have little value.

With any systematic application of set and sometimes rigid rules, there are times where the price points line up in such a way that a glance at a chart intuitively suggests an up or down trend, yet the rules used to determine swing points fail to make the same determination. While six bars have been found to be optimal, this system is by no means perfect. There are times where a set of human eyes must recognize the deficiency and account for it accordingly in trading. In the vast majority of the cases, the rules outlined work extremely well and the advantages gained from a rigid set of rules when determining trend far outweigh the occasional misreads. In particular, when rigid rules are utilized they can be computer automated. In this way, the systematic and algorithmic trend determination process associated with the *neoclassical trend model* has significant and immeasurable advantages to the *classical trend model* it has replaced.

Once swing point highs and lows are determined, then trend can likewise be ascertained. Historically, trend took the form of three states: bullish, bearish, and sideways. In the neoclassical trend model of trend qualification, there are a total of seven states. *Suspect* and *confirmed* qualifiers are attached to each of the bullish, bearish, and sideways states and one additional *ambivalent* sideways state is introduced. For the six *bullish*, *bearish*, and *sideways* qualified states, trend transitions occur as the result of a swing point test. Only the ambivalent sideways case occurs without a swing point test. Figure 1.2 is the same chart of Google, annotated with qualified trend states.

This short-term chart provides a reasonably good example of trend qualification. Trends transition from one state to another repeatedly over time. Transitions are realized at swing points and are qualified at that time. Take the first trend transition (leftmost). The trend transitioned from an ambivalent sideways trend to a confirmed bullish trend. Why was it bullish, and what causes it to be confirmed?

It is bullish because a higher high is registered on the price bar where the horizontal line is drawn in. Because the close was over the previous swing point, a transition is guaranteed. The qualification comes as a result of a direct volume comparison between the swing point high bar that



**FIGURE 1.2** Trend Qualification Example—Google (December 9, 2010 to March 9, 2011)

was broken and the bar doing the break. The prior swing point high registered approximately 1.2 million shares, while the bar doing the break witnessed about 2.5 million shares or more than twice the amount. When volume expands on a swing point break (high or low) then the trend is qualified as *confirmed*. The adjective *confirmed* is used to signify permanence and determination. The idea behind confirmation is that, for whatever reason, buyers were willing to purchase a greater number of shares at higher prices than had heretofore been paid to obtain a share of this company's future.

Note that just because buyers found it reasonable to increasingly *pay up* to own Google shares at this particular time, doing so was no guarantee that the price would continue higher. They could have simply been wrong. Tomorrow an unforeseen event might have occurred that would have changed their minds. Many things can happen. There is never a guarantee in trading but there are probabilities, and the probabilities tell us that when a trend is confirmed it has a higher probability of continuing higher than if it is suspect. This is worth examining further.

**QUALIFIED TREND  
FAILURE PROBABILITIES**

The increased probability that suspect trends are less likely to continue their trends as compared to confirmed trends is borne out in the data. A trend failure occurs when an existing trend transitions from one qualified state to another. Trend failures, although not used in isolation as a reason to enter or exit a trade, are nevertheless useful to examine. The data set is rich with ideas and, with further refinement, offers excellent and significant insight for all market participants.

To test the increased probability of confirmed trends having longer staying power than suspect trends, data was gathered and applications written to determine each trend transition from the period of January 2002 through July of 2011 across all time frames. Time frames are discussed in more detail later but essentially there are three: the short, intermediate, and long term as observed through their corresponding daily, weekly, and monthly charts.

The data examined included all liquid stocks exclusive of exchange traded notes and funds for this period of time listed on the New York Stock Exchange (NYSE), the NASDAQ, and Amex stock exchanges. The determining characteristic used for trend termination was a trend transition. For example, if a trend transitioned from bearish (suspect or confirmed) to any form of bullish or sideways trend, then the trend was construed as having ended. If, however, a bearish trend (suspect or confirmed) transitioned to a differing bearish state (suspect or confirmed), then the trend was not considered as having ended. The reasoning behind this distinction with respect to trend termination is that this sort of action denotes a case where trend was reaffirmed either in a weaker or stronger form yet it had not ended.

After compiling this data for bullish, bearish, and sideways trends on all three time frames, there was a definite difference noted in the durability of confirmed trends as compared to suspect ones. In some cases the difference is not overly pronounced but is distinguishable nevertheless. In other situations, there are obvious and significant differences. The following series of charts display and extrapolate the findings for the three types of trends and their trend termination characteristics.

**Trend Failures (Suspect and Confirmed)**

Ask any market participant whether bullish or bearish trends are more prevalent, and the overwhelming response is that bullish trends are much more common. Although the data does bear out those assumptions, for

**TABLE 1.1** Occurrence Ratios for Trend Types for Differing Time Frames

Time Frame	Prevalence of Bullish Trends versus Bearish Trends
Short Term	11.03%
Intermediate Term	11.15%
Long Term	10.59%

Note that the data in Table 1.1 recognizes a trend *when it ends*, not when it begins. This implies that all trends that were in effect at the data sampling cutoff date (July 2011) are not represented in these data samples.

the most part, bullish trends are not in fact all that much more common than bearish ones. Depending on the time frame, bullish trends are approximately 10.5 percent to 11 percent more prevalent than their bearish counterparts as shown in Table 1.1.

Table 1.1 considers all trends irrespective of their qualification. In other words, it cares not whether a trend was suspect or confirmed just that it was bullish or bearish. From that perspective, the data confirms the notion that bullish trends are more likely to occur than bearish ones but again, the data is not nearly as lopsided as one would likely have guessed. A closer look also indicates that there is not much variation in the degree to which bullish trends outnumber bearish trends based on time frames either.

### WHAT IS THE TRADING SIGNIFICANCE?

The market tends to be bullish more than bearish, and that bullishness is reasonably equal across all time frames. Unfortunately, this snippet of knowledge does not offer the market participant a discernible trading advantage other than the fact that short selling an instrument must necessarily occur on a shorter time frame as compared to buying.

Table 1.2 takes this high level view of the data and begins to examine it in differing ways. Again, the metrics measure the occurrence of a given trend, but in this table the trends are qualified. Rather than just bullish trends compared to bearish trends, it is interesting to know whether the qualified trend of confirmed bullish or bearish is more prevalent than the suspect trend, and indeed it is.

**TABLE 1.2** Prevalence of Confirmed versus Suspect Trends

<b>Occurrence Ratios for Confirmed Trends versus Suspect Trends</b>	
<b>Time Frame</b>	<b>Bullish Trends—Confirmed versus Suspect</b>
Short Term	9.04%
Intermediate Term	4.95%
Long Term	40.87%
<b>Time Frame</b>	<b>Bearish Trends—Confirmed versus Suspect</b>
Short Term	9.42%
Intermediate Term	17.42%
Long Term	111.06%

This cross-sectional view reveals that *confirmed* bullish trends as compared to *suspect* bullish trends show a great deal of variation between time frames, particularly with respect to the long-term time frame. Long-term time frames are almost 41 percent more likely to be confirmed bullish rather than suspect. The same metric for confirmed bearish trends as compared to suspect ones shows a similar story but is even more pronounced for the long-term time frame. In this case, when bearish trends occur on the long-term time frame, they are 111 percent more likely to be confirmed rather than suspect. When you stop to think about it, this does make sense, since volume tends to expand when prices begin to fall over time.

Table 1.3 provides another view of this same data, but for the first time the concept of persistence is introduced. When a trend comes into existence, how long does it persist? Persistence is critical to a market participant because it is a measure of the expected duration. For the trend trader, this provides a predictive indicator for the increased probability of trend failure, providing value to both those betting for and against the prevailing trend.

The persistence aspect of the data in Table 1.3 is presented as a function of the number of bars for which the trend existed. For any time frame there exists a bar. On a daily chart, each day would be represented by a bar. Likewise, on a weekly chart, one bar would equal one week. Finally, on a long-term chart, one bar would represent one month's worth of data. Thus, when observing the data presented in Table 1.3, the leftmost column shows the number of bars that the trend persisted. All other rows in the table display the percentage of trends that persisted for the relationship depicted in the header for each column.

Starting with the first column entitled "Ratio of All Sideways to All Bullish and Bearish Trends," this set of data is probably the most

**TABLE 1.3** Comparative Analysis of the Ratio of Differing Trend Types with Respect to Time

Number of Bars	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	Ratio of All Sideways to All Bullish and Bearish Trends	Ratio of All Bullish to Bearish Trends	Ratio of All Confirmed Bullish to Confirmed Bearish Trends	Ratio of All Suspect Bullish to Suspect Bearish Trends	Ratio of All Confirmed Bullish to Suspect Bullish Trends	Ratio of All Confirmed Bearish to Suspect Bearish Trends	Ratio of All Confirmed Suspect Bullish to Suspect Bearish Trends
0 to 1	2,762.35%	117.94%	134.97%	102.53%	119.14%	90.51%	
1 to 5	194.03%	94.10%	94.99%	93.34%	87.64%	86.11%	
6 to 10	64.14%	94.79%	94.46%	95.12%	96.72%	97.41%	
11 to 15	40.73%	94.55%	94.35%	94.78%	106.78%	107.27%	
16 to 20	26.98%	99.98%	95.75%	104.91%	106.09%	116.24%	
21 to 25	17.87%	102.31%	97.60%	108.15%	112.13%	124.25%	
26 to 30	10.72%	97.77%	91.55%	106.60%	112.27%	131.45%	
31 to 35	6.89%	111.38%	109.66%	113.44%	115.95%	119.95%	
36 to 40	4.41%	121.18%	117.00%	126.37%	115.06%	124.26%	
41 to 45	2.48%	121.91%	119.03%	125.46%	117.17%	123.50%	
46 to 50	1.40%	138.15%	135.88%	140.90%	116.96%	121.28%	
51 to 55	1.10%	148.20%	146.14%	150.64%	115.13%	118.68%	
56 to 60	0.64%	137.85%	134.72%	141.80%	119.77%	126.06%	
61 to 65	0.41%	151.02%	148.58%	154.03%	119.82%	124.25%	
66 to 70	0.25%	168.11%	173.01%	162.73%	116.89%	109.95%	
71 to 75	0.18%	172.45%	166.07%	179.81%	106.43%	115.23%	
76 to 80	0.36%	173.67%	163.40%	186.10%	106.22%	120.98%	
81 to 85	0.08%	200.57%	202.84%	198.17%	107.99%	105.50%	
86 to 90	0.09%	200.28%	182.58%	222.81%	104.31%	127.29%	
91 to 95	0.04%	210.61%	208.74%	212.61%	105.61%	107.57%	
96 to 100	0.18%	250.00%	238.91%	262.37%	101.55%	111.53%	

revealing. The story this column tells unequivocally is that the persistence of all sideways trends is fleeting. Indeed, the number of occurrences of sideways trends that last for only a single bar when compared to both bullish and bearish trends is off the scale, clocking in at more than 2,700 percent. Unlike bullish and bearish trends, the persistence of sideways trends is virtually nonexistent. This data strongly suggests that the markets are mostly trending either in a bullish or in a bearish fashion with short periods of sideways activity in between.

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**WHAT IS THE TRADING SIGNIFICANCE?**

Sideways trends typically come into and go out of existence very quickly when compared to bullish and bearish trends. Their persistence is fleeting on a relative basis. Market participants typically trade sideways trends by selling the top of the sideways trading range and buying the bottom. With knowledge of this relative absence of trend persistence for sideways trends and with further data analysis still to come, profitable trading of sideways trends has strict parameters associated with the trade set-up.

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Moving to the third column, note that between 1 and 20 bars, the occurrence of bearish trends slightly outnumbered bullish ones, but bullish trends tend to increasingly outnumber bearish trends from 31 bars on, irrespective of the quality of the trend. Recognize that the data in this table represents a rather broad brushstroke view of the varying relationships between differing types of trends across all time frames. From this perspective though, this column strongly suggests that when trend persistence becomes reasonably extreme (80 bars or more), bullish trends have a much greater likelihood of being the trend observed.

Again, 80 bars is abstracted because the data in this table is derived for all samples across all time frames; thus, 80 bars on the short-term time frame implies approximately 4 months of trading, whereas for the intermediate-term time frames the equivalent timing would be 16 months or a little over a year's worth of time. For the long term, this would represent roughly a six-and-a-half-year trend.

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**WHAT IS THE TRADING SIGNIFICANCE?**

Bullish trends typically last longer than bearish trends. This needs to be engrained into the trading consciousness of all market participants—bearish trends will necessarily disappear more quickly than bullish ones.

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Columns 4 and 5 further dissect Column 3 into two component parts: confirmed bullish trends as compared to confirmed bearish trends (Column 4) and those where the quality of the trend was suspect (Column 5). In doing this you can see that for bearish trends, it is much more important that they be confirmed if they are to last.

### WHAT IS THE TRADING SIGNIFICANCE?

Bearish trends are more likely to fail after 15 bars than bullish trends if they are suspect. The implication is that if a market participant is short selling a stock because it is bearish, unless it is confirmed bearish, a trader must be quicker to pull the trade if it begins to falter once 15 bars is approached.

The final two columns consider the number of confirmed versus suspect trend occurrences for bullish (Column 6) and bearish (Column 7) trends. The numbers are reasonably well contained yet supportive of the notion that there are more confirmed trends than suspect ones for both bullish and bearish trends. This data complements the data presented in Table 1.2. Another noticeable characteristic of the data that span Columns 3 through 7 is that suspect trends generally outnumber confirmed trends at the short end of the time spectrum.

In summary, using the data from Columns 3 and 4, if a trend fails within the first 30 bars, it is more likely to have been a bearish trend. This data once again emphasizes that, in general, all bullish trends tend to last longer than bearish trends and that this is true for both qualified and unqualified trends. Generally speaking, if a trend lasts longer than 10 bars, it is more likely to be a confirmed trend (bullish or bearish). Persistence of trend is dependent on the quality of that trend.

### WHAT IS THE TRADING SIGNIFICANCE?

In general, the quality of a trend has a direct impact on the longevity of the trend. Since there is typically a greater probability of realizing profits with a longer lasting trend, Table 1.3 suggests that, generally speaking, confirmed trends offer a greater probability of a profitable outcome.

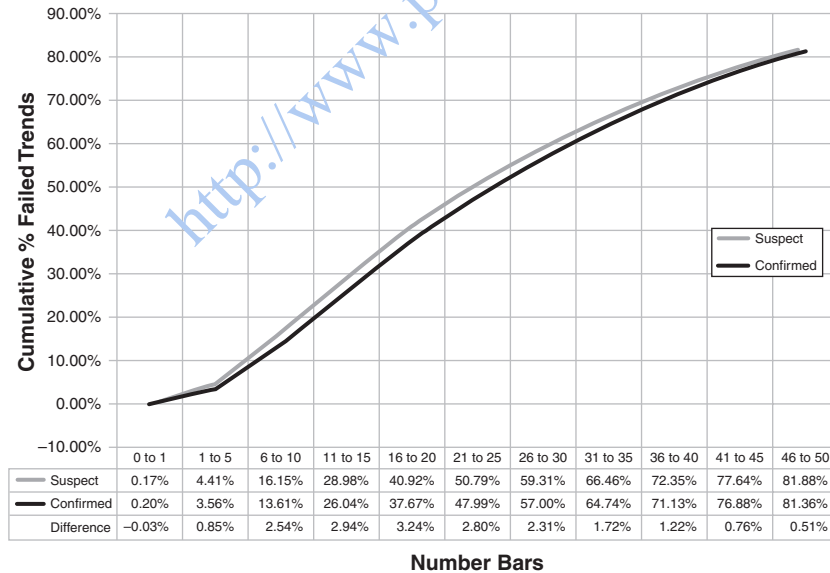
**Bullish and Bearish Trend Persistence** In general, for a market participant, there is great significance to the concept of persistence when trading. Generally, the longer a trend continues the better because it

typically takes a while for a market participant to recognize a trend and begin to trade it. If trend persistence is too short, then by the time a market participant jumps aboard it may simply be too late to profit by it and worse, the participant may lose.

Trend persistence can be examined in a number of ways, and Table 1.3 was one such method. The basic question is whether confirmed trends show a greater tendency to persist longer than suspect ones, and if so, are there particular trend types that have higher persistence probabilities than others? Do the data exhibit such characteristics? Is there a measurable probability that could be generically used to guide a market participant's approach to more consistent probability in their trading endeavors?

Before examining the data though, the definition of a trend failure is reemphasized. For a trend to fail, a trend transition must occur. A trend transition starts a trend and also ends it. For a trend transition to occur, price must exceed either a swing point high or a swing point low and close above or below it.

For several years I have postulated that there is a difference in persistence rates and that it is discernible. Using data from the January 2002 to July 2011 time period, Figure 1.3 is a comparison of suspect and confirmed trends on the short-term time frame, which, for the purposes of this study, is understood to mean a period consisting of three months of daily bars.



**FIGURE 1.3** Trend Failure Rate for Confirmed versus Suspect Bullish Trends on the Short-Term Time Frame (2002 to 2011)

Figure 1.3 displays the cumulative failure rate for qualified trends on the short-term time frame over the various bar intervals starting from 1 bar and proceeding through 50 bars in 5-bar intervals. The simplest way to read this graph (and others to follow) is to look to the sequence of numbers at the bottom of the graph. The first row is labeled “Suspect,” and each cell of the row contains the cumulative percentage of trend failures (a transition to a different trend) that occurred for a given number of bars since the trend began. The last row is the difference between suspect and confirmed persistence (suspect minus confirmed). If the number is negative, then the suspect trend lasted longer than confirmed trend, and if the difference is positive, then just the opposite was the case.

To illustrate, take a look at the fourth cell, which contains the value of 28.98 percent in the “Suspect” row. The cell just above denotes that somewhere between 11 to 15 bars, an existing trend failed and that the cumulative number of trend failures having occurred starting with 1 bar up until 15 bars is 28.98 percent.

Juxtaposed to this are confirmed trends, which show a lesser number of cumulative failures (26.04 percent) for the same number of bars. The difference between these two failure rates is 2.94 percent and is the increased cumulative probability that a suspect trend is more likely than a confirmed trend to fail within 15 bars of the trend having begun on this time frame, which is the short term.

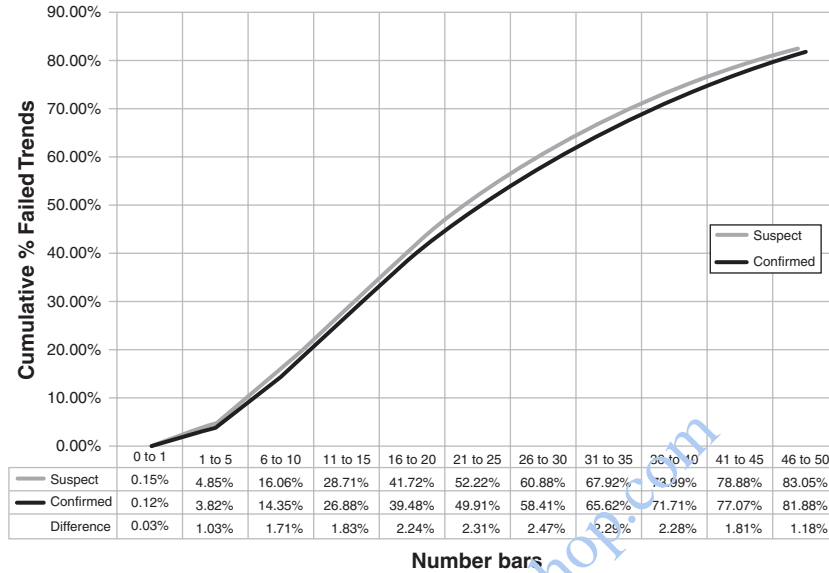
Is 2.94 percent significant? After all, it is not that large of a difference. Consider that in trading, a small advantage, when wrapped within a trading plan, can create large profits over time. There is a lot more to be said about trading plans and trade set-ups, but for now, suffice it to say that this measurable difference over a longer period of time in which the data is believed to be representative of the population being extrapolated to is indeed significant.

Figure 1.4 is the same comparison but for the intermediate-term time frame, which, for the purposes of this study, is defined as one year of data where each bar represents one week.

On this time frame, the variance between the two cumulative failure rates is slightly less pronounced as compared to the short-term time frame, but again it shows an increased probability of failure for suspect versus confirmed trends.

### **WHAT IS THE TRADING SIGNIFICANCE?**

For both short and intermediate-term time frames, after the first five bars, bullish trends offer a greater probability of trading success when compared to suspect trends. The increased probability is generally around 2 to 2.5 percent.

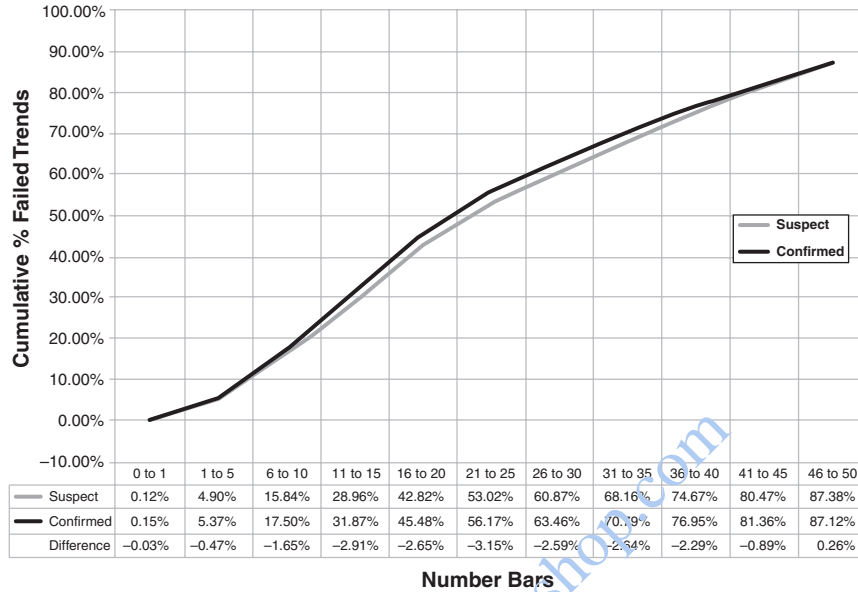


**FIGURE 1.4** Trend Failure Rate for Confirmed versus Suspect Bullish Trends on the Intermediate-Term Time Frame (2002 to 2011)

Moving to the long-term time frame, Figure 1.5 shows the cumulative failure rate for bullish trends where each bar is one month in duration.

As can be seen in this figure, unlike the other time frames, for the long-term time frame suspect trends are more durable than confirmed ones. This stands in stark contrast to the expected results. Does it mean that on this time frame trend qualification has little value or, worse, that the assumptions made about qualified trends are just plain wrong?

Fortunately the answer appears to be neither. The reason for the aberration is found within the data itself and is a testament to just how devastating the 2008–2009 bear market really was. You have no doubt heard that the declines experienced in the economy as well as the stock markets were the worst since the Great Depression, and the data bears that out. Due to the algorithmic nature of swing point determination, the volume expansion experienced during the late 2008 and early 2009 declines left an abundance of swing point highs where volume was tremendous on the monthly bars. The result was that when prices finally began to rise in 2009 and on through 2011, these high volume swing points, once surpassed, resulted in trend transitions that were overwhelmingly suspect yet they persisted. A confluence of factors, not the least of which included unprecedented



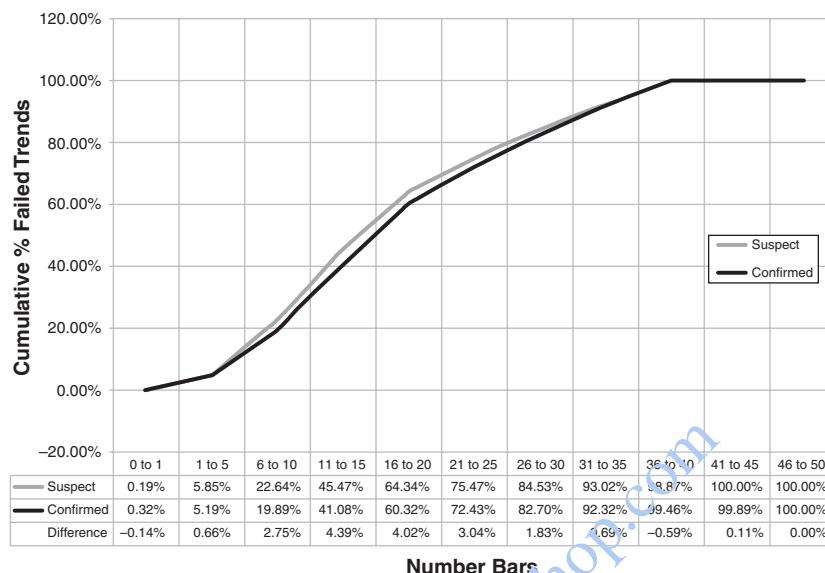
**FIGURE 1.5** Trend Failure Rate for Confirmed versus Suspect Bullish Trends on the Long-Term Time Frame (2002 to 2011)

actions taken by the Federal Reserve that served to prop up equity prices, has resulted in this aberration.

To illustrate this, consider Figure 1.6, which represents the same data points but only from 2002 to 2007. Once again, the familiar pattern of suspect trends failing prior to confirmed trends is restored.

Although this explanation does nothing to change the fact that there are situations where, for some period of time, the probabilities that favor the termination of suspect trends at a faster rate than confirmed trends do not hold true, the fact is that this period of history was indeed historic.

It also underscores the fact that even though a trend is suspect, that in itself does not necessarily mean that the trend will fail. A suspect trend, on all time frames, has a higher probability of failure prior to a confirmed trend—nothing more. How much more probable is contained in the prior figures. Although it differs on each time frame and is dependent upon how far the trend has already extended in terms of the number of bars that have transpired, the increased probability varies from about 2 to 4 percent. This may not seem like much, but in trading it is huge to have that kind of an edge in your favor.



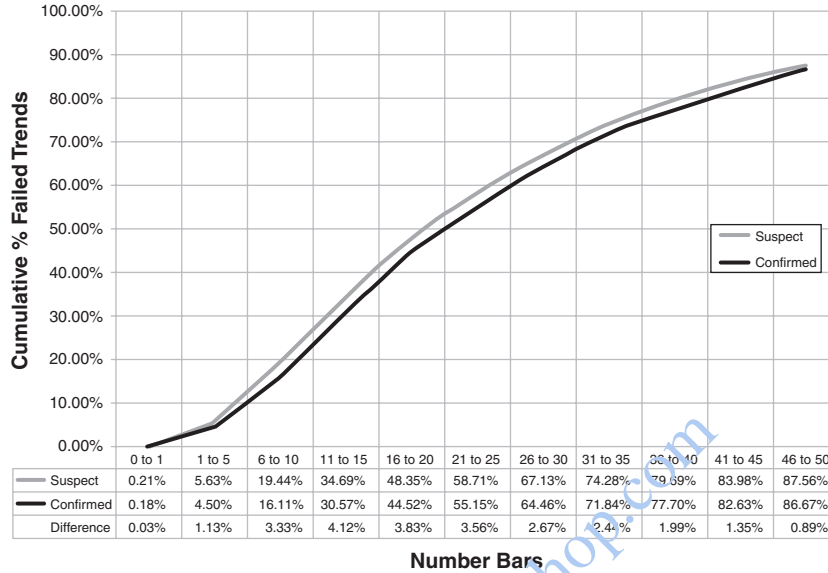
**FIGURE 1.6** Trend Failure Rate for Confirmed versus Suspect Bullish Trends on the Long-Term Time Frame (2002 to 2007)

**WHAT IS THE TRADING SIGNIFICANCE?**

Suspect trends will not necessarily fail because they are suspect; they just have a higher probability of failure when compared to confirmed trends. A market participant should resist the attempt to short sell a suspect bullish trend because it is suspect. In fact, a market participant should generally not trade against an established trend regardless of its qualification unless attempting to time a turn, and in those cases, there need to be other technical factors that support such a stance.

So, what about bearish trends? Do they exhibit the same sort of failure characteristics when comparing suspect to confirmed trends? Indeed they do. Figure 1.7 exhibits the short-term time frame trend failure probabilities for a bearish trend termination.

Another comparison that can be made is to compare Figure 1.3 to 1.7, which reveals a steeper slope for the failure rate in Figure 1.7 as compared to Figure 1.3. The unavoidable implication is that bearish suspect trends are more apt to fail faster than its suspect bullish trend brethren.



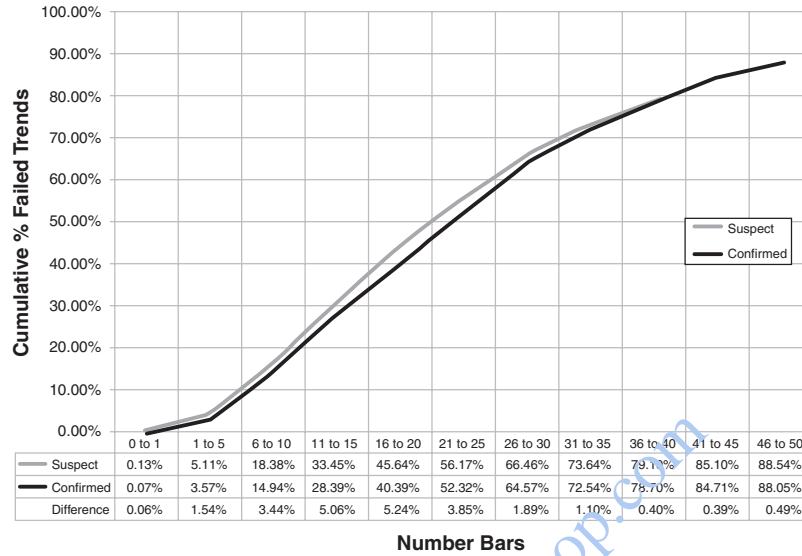
**FIGURE 1.7** Trend Failure Rate for Confirmed versus Suspect Bearish Trends on the Short-Term Time Frame (2002 to 2011)

What’s true of short-term bearish trends is even truer on the intermediate term as shown here in Figure 1.8.

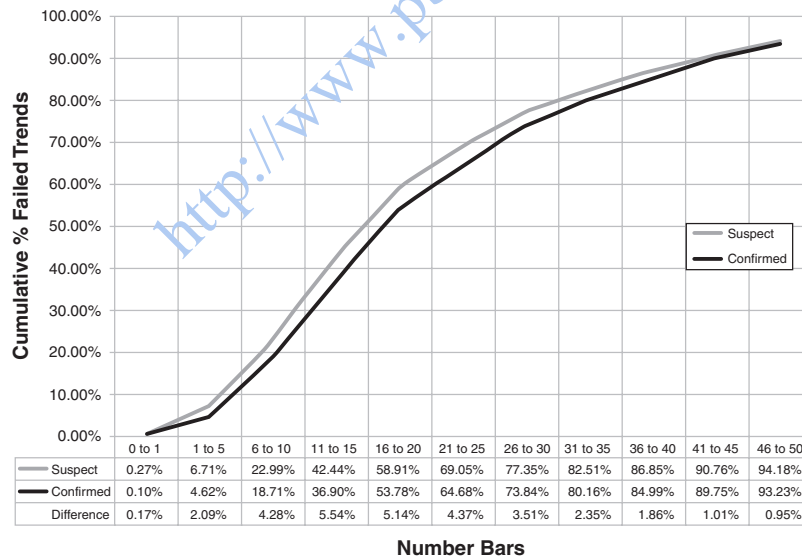
Not only is a bearish suspect trend more apt to exhibit a trend failure on this time frame, but the increased probabilities top 5 percent from 11 to 20 bars. Is this an aberration again as a result of the historical turmoil witnessed during the 2008 debacle?

Logically, it makes sense that when selling does begin, if volume swells as price depreciates (confirmed bearish trend), then the intensity of the selling is not as likely to reverse (fail) quickly. Add to this fact the knowledge that the vast majority of the stocks follow the general market (see Chapter 3 for the data behind this assumption) and that all general market indexes experienced confirmed bearish trends during this time, then one would expect to find that the difference between the failure rates of suspect versus confirmed trends would be less during the late 2008 to early 2009 period.

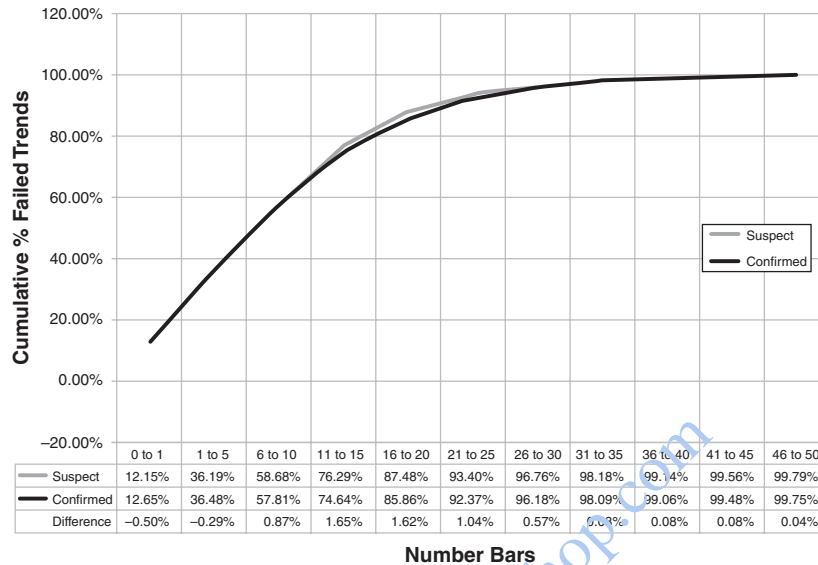
Indeed the data bears these facts and assumptions out. The next two figures take the same data displayed Figure 1.8 and once more divide the data into two groups—from 2002 to 2007 (Figure 1.9) and from 2007 to 2011 (Figure 1.10).



**FIGURE 1.8** Trend Failure Rate for Confirmed versus Suspect Bearish Trends on the Intermediate-Term Time Frame (2002 to 2011)



**FIGURE 1.9** Trend Failure Rate for Confirmed versus Suspect Bearish Trends on the Intermediate-Term Time Frame (2002 to 2007)



**FIGURE 1.10** Trend Failure Rate for Confirmed versus Suspect Bearish Trends on the Intermediate-Term Time Frame (2007 to 2011).

Notice the flatness of the curve in Figure 1.10 as opposed to Figure 1.9. The shape of the curve is indicative of a fast move lower (which turned most stocks bearish on this time frame) followed by an equally fast move back higher, forcing an end to the bearish trend. Think back about this period. That is what happened. The market cascaded lower into March of 2009 and then reversed quickly off the lows.

Once more, as before, given the historical declines and volume swells witnessed in the late 2008 to early 2009 period, the data is somewhat distorted for this period of time. In this case, the historic failure rates of confirmed versus suspect trends is likely *understated* and that the rates will likely top 5 percent over time.

**WHAT IS THE TRADING SIGNIFICANCE?**

Bearish trends differ from bullish trends in two important ways.

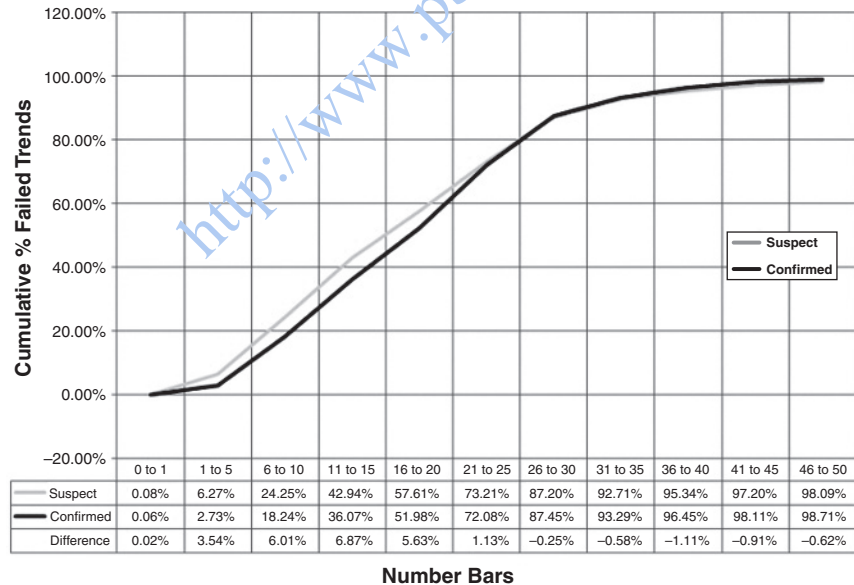
1. Confirmed bearish trends tend to have a much higher probability of persistence when compared to suspect bearish trends. This is true of both short and intermediate-term time frames with increased probabilities for persistence approaching 5 percent.

- 2. Overall, bearish trends fail sooner than bullish trends (compare Figures 1.3 and 1.4 versus 1.7 and 1.8).

The implication to a trader is that bearish trends, when confirmed, offer greater opportunity versus risk, and they do so in a more compacted time period. If the trend can be joined quickly, the opportunity exists for faster profits and with a greater probability of success.

The risk for those holding long positions is just the opposite when a confirmed bearish trend comes into existence, for the losses can mount very quickly.

Finally, when previously viewing the long-term time frame for bullish trends we noted the uncharacteristically higher occurrence of confirmed versus suspect trend failures. Unlike bullish long term trends, this is not the case for confirmed bearish trends. If the data is sliced up again between pre-2007 and post-2007, it suggests that the tendency for suspect trends to fail sooner than confirmed trends is understated in Figure 1.11. Note that this is consistent with what was seen in Figures 1.9 and 1.10.



**FIGURE 1.11** Trend Failure Rate for Confirmed versus Suspect Bearish Trends on the Long-Term Time Frame (2002 to 2011)

**WHAT IS THE TRADING SIGNIFICANCE?**

Both long- and intermediate-term bearish trends have excellent failure probability distinctions between confirmed and suspect trends—probabilities that range from 4 to 7 percent between 6 and 20 bars. There are a number of ways that a market participant could exploit this probability distribution, such as a spread trade not only across trading instruments (short selling the confirmed bearish trend and buying the suspect bullish trend) but, better yet, doing this when the stock being shorted is at the beginning of its trend (between 1 and 10 bars, for example) while the stock being purchased in an equal dollar amount is nearing the end of its likely lifespan (20 bars or more, for example).

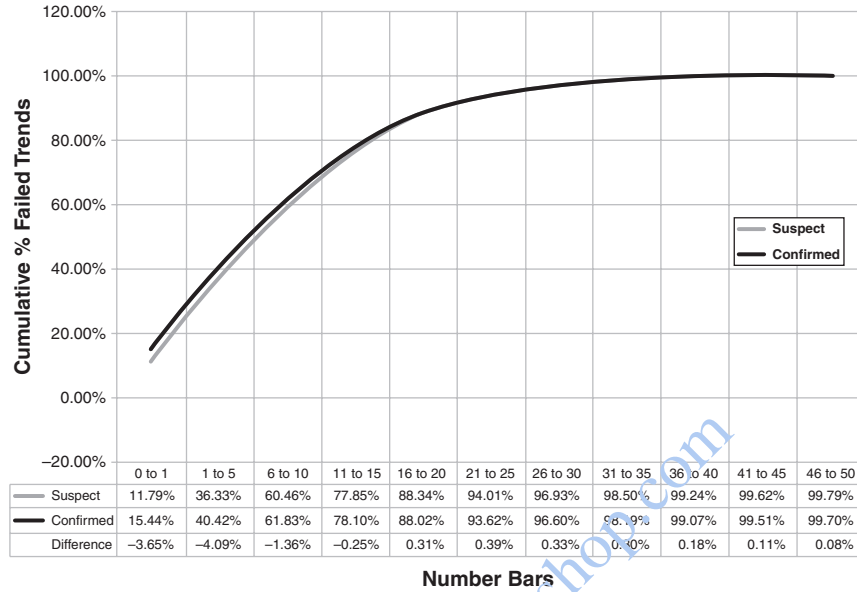
Figures 1.3 to 1.11 considered qualified trend persistence for both bullish and bearish trends. The data offers a glimpse into the probabilities for trend continuance based on how long the trend has already persisted. Generally speaking, qualified trends offer a market participant an increased insight into the likelihood of trend failure in general and more specifically for suspect and confirmed trends. Since the vast majority of trading systems are grounded in trend in one form or another, having increased insight into failure probabilities has value. With this kind of data in front of you, it does not take a lot of imagination to consider numerous ways to utilize the data to one's advantage.

**WHAT IS THE TRADING SIGNIFICANCE?**

As another example, in Figure 1.11 the probability matrix is screaming out that if a long-term bearish trend is confirmed, the probability that it will fail during the first five bars is a minimal 2.73 percent. If this is Bar 1 or 2 of a long-term bearish trend, then you know that there is a 97.27 percent chance that the bearish trend will persist for at least four more bars (months in this case). Furthermore, it is a fact that when a suspect trend has witnessed persistence for more than 11 bars, the probability of seeing trend failure is almost 7 percent greater than if you are trading a confirmed trend.

**Sideways Trend Persistence**

In the preceding paragraphs, both bullish and bearish trend failure probabilities were considered, but what about sideways trends? They are trends, too. Do they share the same characteristics?

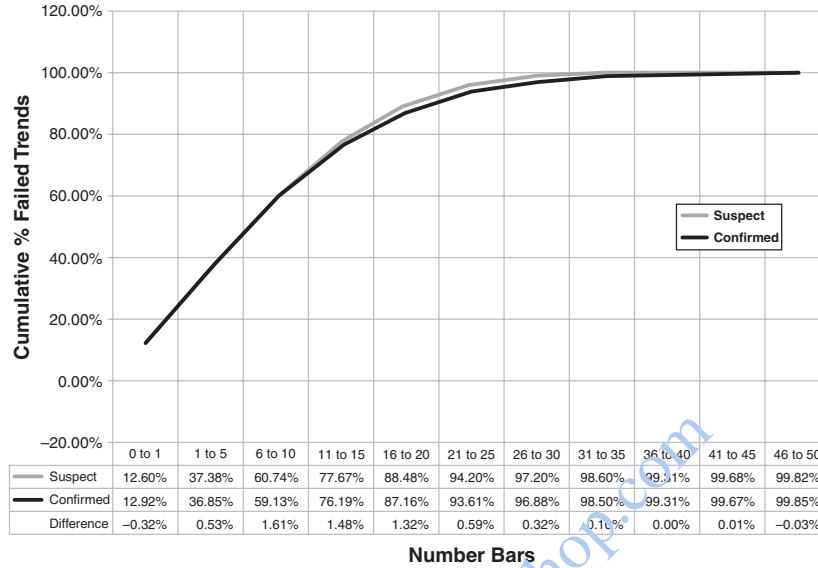


**FIGURE 1.12** Trend Failure Rate for Confirmed versus Suspect Sideways Trends on the Short-Term Time Frame (2002 to 2011)

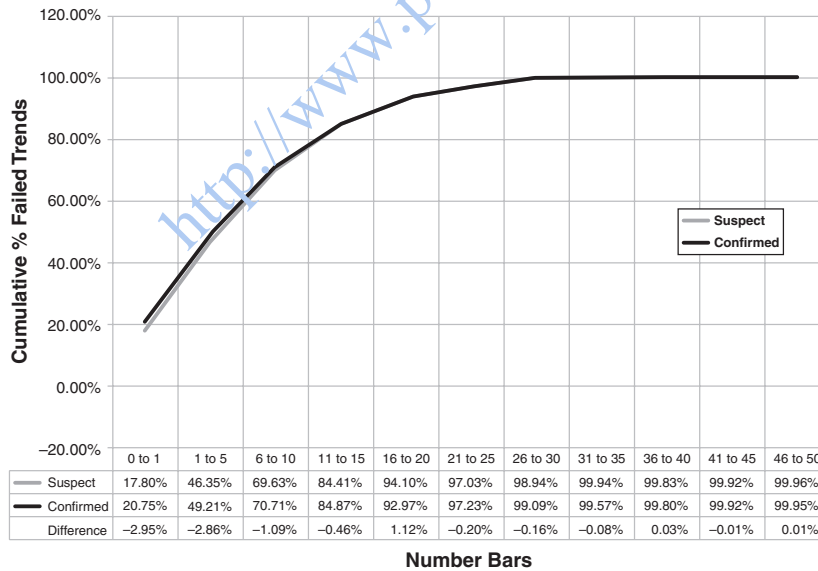
In my previous book, *Trend Qualification and Trading*, I considered sideways trends as akin to a way station between bullish and bearish trends. My trading experience led me to believe that they shared the same qualified trend characteristic—that is, that suspect trends would show less likelihood to persist as compared to confirmed trends—but the data have proved that assumption to be somewhat misguided. The next three figures (1.12 through 1.14) are for sideways trends that fail. Note that, unlike bullish or bearish trends, sideways trends can fail in one of two ways. They can either transition to a bullish or to a bearish trend. Bullish trends only have one way to go—down. Similarly, bearish trends can only fail by reversing and heading higher. Not true of sideways trends because they are in the middle of bullish and bearish.

In the following figures, sideways trend termination is shown as one data point independent of whether the replacement trend (the one transitioned to) was bearish or bullish. The characteristic difference between the two transition directions appears reasonably insignificant, so there is not really a reason to examine them exhaustively.

Upon observation, there are three noteworthy facts displayed across all three time frames for sideways trend termination. The first is that the



**FIGURE 1.13** Trend Failure Rate for Confirmed versus Suspect Sideways Trends on the Intermediate-Term Time Frame (2002 to 2011)



**FIGURE 1.14** Trend Failure Rate for Confirmed versus Suspect Sideways Trends on the Long-Term Time Frame (2002 to 2011)

difference between trend failure rates for suspect versus confirmed trends is not all that significant. The intermediate-term time frame is the only one of the three time frames that sees a consistently higher rate of failure for suspect trends as compared to confirmed trends, but even then, it is reasonably minor.

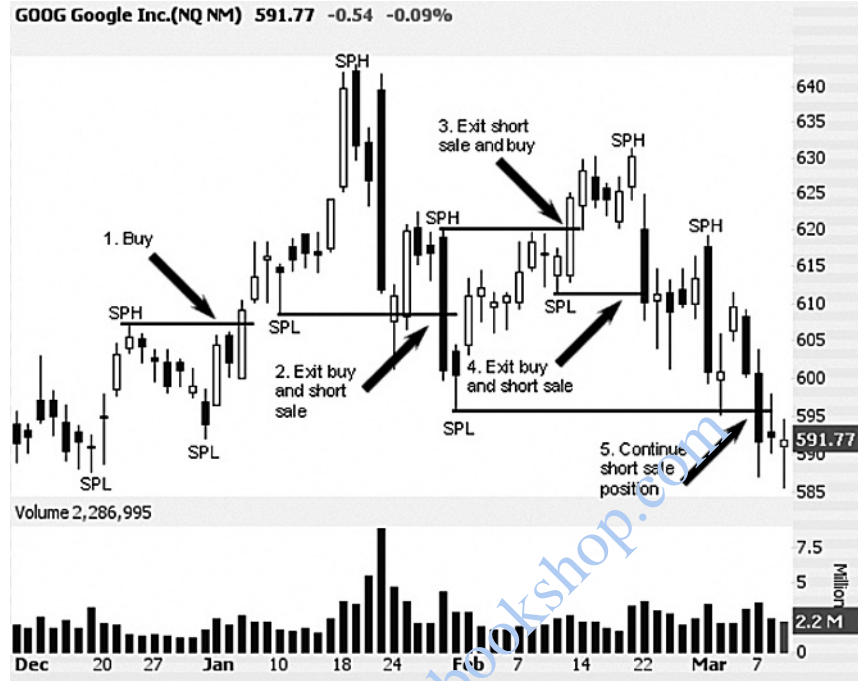
A second and somewhat consistent observation (true of two of the three time frames) is that confirmed trends are more likely to fail than suspect sideways trends during the first 10 bars. Although there is probably a reasonable rationalization for this fact, it is not clear as to what it is. Again, other than one particular data point, the increased failure rates are not all that much greater.

Finally, the most valuable takeaway is that sideways trends have a very high probability of failing within 10 to 15 bars across all three time frames. In fact, some 70 to 80 percent of all sideways trends fail regardless of their qualification (suspect or confirmed) within 15 bars. They simply do not last very long comparatively and are little more than way stations between bullish and bearish trends.

### **QUALIFIED TRADE FAILURE PROBABILITIES**

In the prior section, the focus was centered on trend failures where a failure was measured as a trend transition. Returning to Figure 1.2, there were five trend transitions in the chart resulting in four different trend failure categorizations. The first qualified trend was confirmed bullish and it persisted for 15 bars before it met its fate. At that point, a confirmed sideways trend replaced it and lasted for 9 bars before failing, and so forth and so on. The rate of failure (trend failure) between suspect and confirmed trends is the entire premise behind the statement that *unlike men, not all trends are created equal*. Though extremely valuable and somewhat profound, the trend failure data previously presented simply validate the fact that trends have qualitative differences and a market participant can both recognize and trade off of those differences. But there are other ways to look at failures. One such way is to draw a distinction between failures as they apply to trends as opposed to trades. Allow me to digress.

When trading, the objective is to locate and utilize some criterion to enter into a trade. The success or failure of the trade is predicated on whether money is made or lost. The parameters for trade exit in the failure case can be based upon many factors—subjective or objective. For example, some market participants always use a particular percentage loss as a stop out.



**FIGURE 1.15** Example Where Trend and Trade Failure Are Identical—Google (December 9, 2010 to March 9, 2011.)

If, for example, the losses mount to the point that they are more than 7 percent, then the trade is closed at a loss. There are countless strategies for trade exit that trigger a trade failure.

Now, if the trading parameters for trade failure exit are aligned identically to trend failure, then trend and trade failure will necessarily be exactly the same. To illustrate, Figure 1.15 is the same chart of Google once more (Figure 1.2) but this time annotated to identify the entry and exit price points based entirely upon trend failure. No attempt is made to exit with a profit—just to identify where the trade would fail if the exit criterion for trade failure was exactly the same as trend failure.

In this illustration, each time trend transitions to a differing trend state, the trade fails right along with the trend failure. They are the same. Although this could be the case, trade failure exit criteria are highly unlikely to be identical to trend transition. Most market participants do not enter a trade based on a trend transition and exit based on a failure of that trend. Market participants typically utilize trend as one factor as part of a larger set of factors to trigger trade entry and exit. It may be a factor but

typically it is not the only factor. For this reason, trend and trade failures are generally not the same.

Qualified trends are primarily concerned with direction and the strength of the directional price movement. Trend, per se, is not necessarily meant to be the trigger for trade execution. Said another way, trend really is not meant for timing trade entry and exit. Trend tells a market participant which way to point—not when to start pointing. To know when to point requires additional timing tools that complement trend transition.

Thus far, all the data presented have centered on *trend failure*, which is quite different from *trade failure*. Trade failure accounts for the needs of a market participant to time entry and exit within the context of trading a qualified trend. Trade success and failure is all about optimizing both trade entry and exit for both the success and failure possibilities.

### **Trade Failures (Suspect and Confirmed)**

In the preceding analysis, a trend was assumed to have failed when the trend transitions to a differing trend type. Assuming that the real objective of trading is trade success and knowing that there is an apparent value in trading qualified trends, the question arises as to whether the data presented previously differ if *failure* is defined differently. For example, what if the definition of a *trade failure* is revised from a trend transition to a trade below the breakout bar that begins a bullish trend? Similarly, a *failure* for a bearish trade would be a trade above the breakout bar that begins a bearish trend. Would the results prove to be better or worse than what were observed previously? Realize that this is only one of a myriad of trade entries and exit timings, but it is a simple one that can be utilized to illustrate the concept of marrying qualified trend to entry and exit timing.

To illustrate this revised *failure criteria*, Figure 1.16 once more takes the same Google chart and illustrates how a trade failure would appear based on the preceding stop out criteria in the two bullish buy set-ups. The bearish short set-ups could have been illustrated as well but essentially are the same idea—just the opposite direction. Rather than clutter the chart too much, just the bullish set-ups and resultant stops are identified.

When comparing Figure 1.15 to 1.16, it is quite apparent that there is a distinct difference between trade and trend failures. In this particular example, use of the trade failure criteria did not really change the outcome much, but in many cases it significantly reduces the trend's persistence and avoids what would otherwise be significant drawdowns in an investor's capital.

To examine the effects when using trade failure criteria rather than trend failure criteria on the question of suspect versus confirmed trend

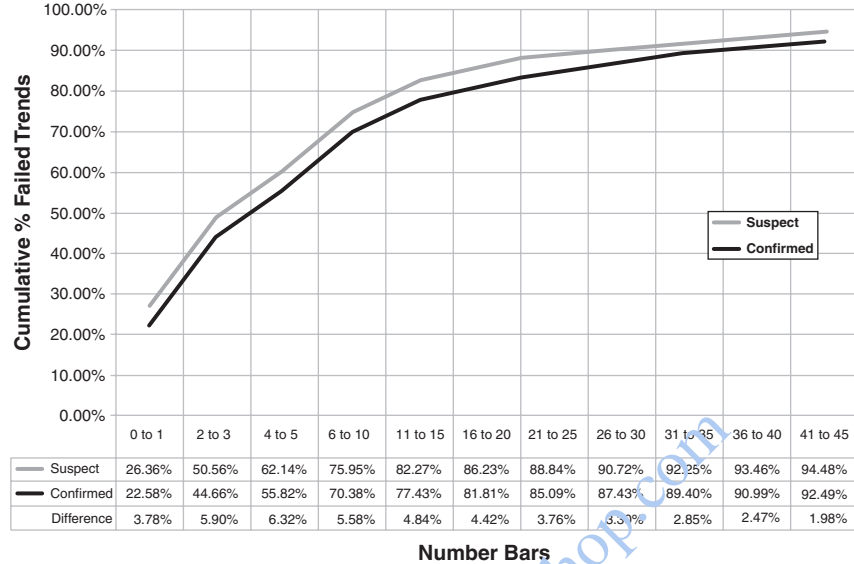


FIGURE 1.16 Google Bullish Trade Failure Example

transitions, the same raw data used in the prior examination was again utilized and simulations were run with a change to the single variable—the notion of when a failure occurs. So rather than a failure occurring upon a trend transition, a failure is instead defined as a trade below the opposite extreme of the bar that resulted in a trend transition. For a bullish trend transition, this implies a trade and close below the low of the breakout bar. For a bearish trend transition, then, it implies a trade and close over the high of the breakout bar.

The results are remarkably different, as seen in Figure 1.17. For a direct comparison, use Figure 1.3 as the equivalent time period and trend direction.

The significance of the difference is unmistakable. In Figure 1.3, the cumulative trend failure rate from zero through five bars was less than 5 percent for both confirmed and suspect trends. In the case where a trade back below the low of the breakout bar is used as the failure criteria for the trade, more than 60 percent of the trades fail before five bars (note the granularity of the bar observations is greater in this graph than previous graphs).



**FIGURE 1.17** Cumulative Trade Failure Rate for Confirmed versus Suspect Trades on the Short-Term Time Frame for Bullish Trends (2002 to 2011) (Failure Based on a Violation of Breakout Bar’s Opposite Price Extreme)

If you stop to think about it, this makes a lot of sense. To fail early when a failure has to be a trend failure (such as it was in Figure 1.3), price must collapse precipitously or a prior swing point low must be located in close proximity to the swing point high that was just broken. Neither of these conditions is common and thus, the odds of an immediate trend failure are unlikely.

In Figure 1.17, though, the use of a trade failure stop out results in more than 76 percent of all suspect trend breakouts failing within 10 bars of the trend transition. Even confirmed trades witness a failure rate of just over 70 percent using this stop out criterion.

From a trading perspective, it is unlikely that this particular stop out criterion is worth pursuing but it does shed additional light on another data point that does have critical significance. That data element is the pronounced difference observed between suspect and confirmed trend failure rates when using differing stop out criteria.

In Figure 1.3, the largest observed difference between suspect and confirmed trend never registered more than 3.24 percent. Recall that Figure 1.3 measures *trend failures*. Here in Figure 1.17, the difference escalates to over 6 percent for three to four bars’ duration and in general is much

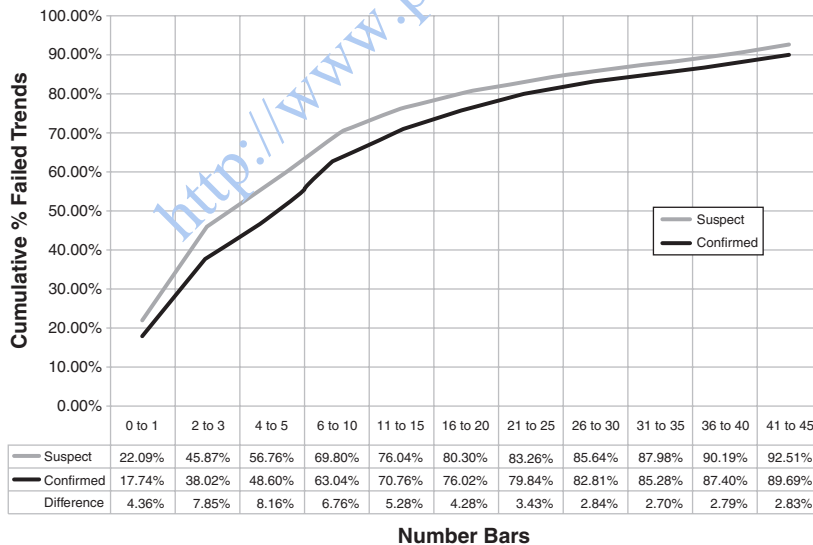
higher across all sample rates. Note that the only difference is that now the failure is based on a different criterion—it is now a *trade failure*.

**WHAT IS THE TRADING SIGNIFICANCE?**

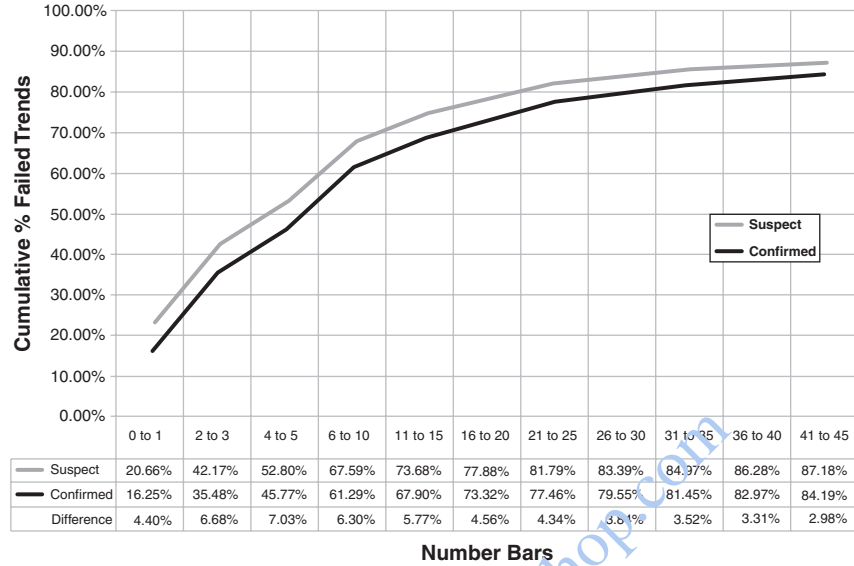
These data overwhelmingly suggest that, with the proper stop out criterion, the difference in confirmed versus suspect failure rates is significant and emphasizes that confirmed trends should be a trader’s preferred trend.

For completeness, the following figures illustrate that the results observed in Figure 1.17 are consistently true across the intermediate- and long-term time frames for bullish trends. Likewise, the results are evident in bearish trends as well. Since sideways trends have been shown to be a way station between bullish and bearish trends, they are no longer analyzed during the remainder of the book.

Figures 1.18 and 1.19 display the results for the intermediate and long-term trends, respectively, based on the same trade failure criterion reflected in Figure 1.17.



**FIGURE 1.18** Cumulative Trade Failure Rate for Confirmed versus Suspect Trades on the Intermediate-Term Time Frame for Bullish Trends (2002 to 2011) (Failure Based on a Violation of Breakout Bar’s Opposite Price Extreme)



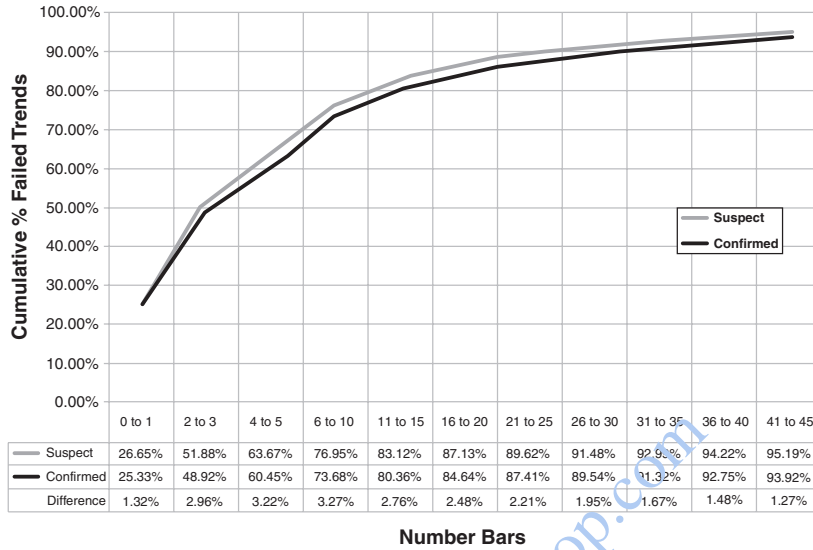
**FIGURE 1.19** Cumulative Trade Failure Rate for Confirmed versus Suspect Trades on the Long-Term Time Frame for Bullish Trends (2002 to 2011) (Failure Based on a Violation of Breakout Bar’s Opposite Price Extreme)

In each of these graphs, the pronounced difference between suspect and confirmed trade failures remains as such. Although bearish trend trade failures continue to show a demarcation between suspect and confirmed trends, it is not nearly as well defined as what was observed for bullish trends. An attempted rationalization of this is that bullish accumulation and market tops have differing characteristics when compared to price mark downs and market bottoms. Selling tends to be climatic and swift whereas buying tends to be more systematic and slow.

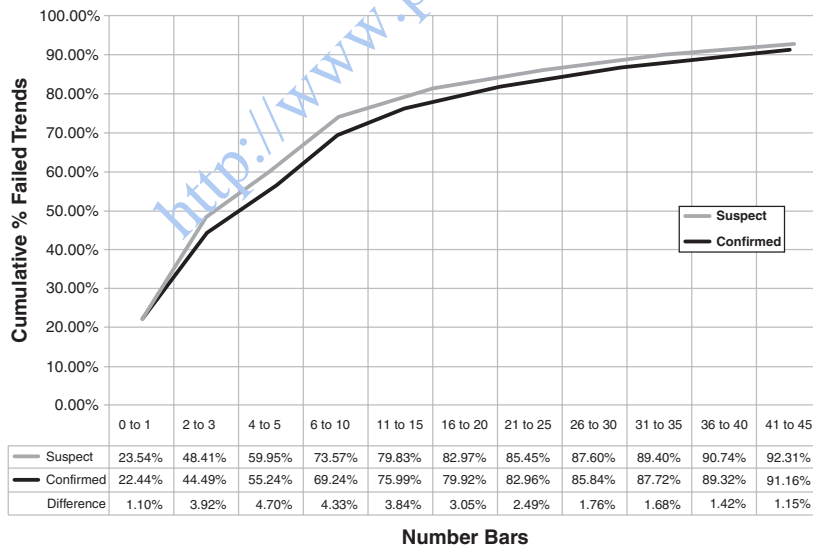
For completeness, Figures 1.20 through 1.22 display the results of the same trade failure criterion for short, intermediate, and long-term bearish trade failures, respectively.

**SUMMARY**

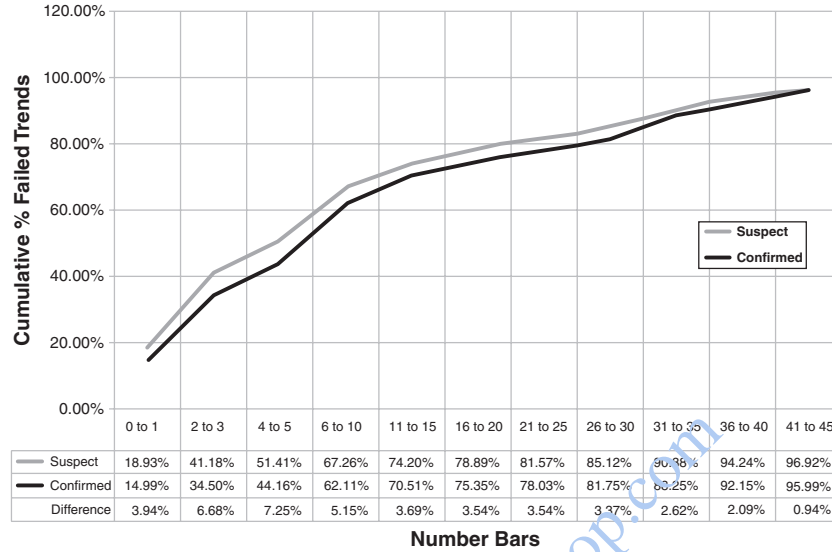
All serious market participants understand that trading is primarily based on probabilities. If they do not, they should not be trading. There is no guaranteed trade. Most anything can happen and, if you trade long enough, it probably will.



**FIGURE 1.20** Cumulative Trade Failure Rate for Confirmed versus Suspect Trades on the Short-Term Time Frame for Bearish Trends (2002 to 2011) (Failure Based on a Violation of Breakout Bar's Opposite Price Extreme)



**FIGURE 1.21** Cumulative Trade Failure Rate for Confirmed versus Suspect Trades on the Intermediate-Term Time Frame for Bearish Trends (2002 to 2011) (Failure Based on a Violation of Breakout Bar's Opposite Price Extreme)



**FIGURE 1.22** Cumulative Trade Failure Rate for Confirmed versus Suspect Trades on the Long-Term Time Frame for Bearish Trends (2002 to 2011) (Failure Based on a Violation of Breakout Bar's Opposite Price Extreme)

In the preceding figures (Figures 1.3 through 1.14), it was observed that, in almost all situations, confirmed trends have a higher probability of continuing than suspect trends when utilizing trend transition as the criterion for trend failure.

By broadening the definition of a failure to *trade failure* and defining that as the case where price trades below the opposite extreme price of the bar where the breakout occurs, a significant distinction between suspect and confirmed trends is evidenced. The differing trade failure rates begin to uncover the possibilities that trend qualification provides to a market participant. If a suspect trend breakout has a trade failure probability rate that is 6 percent higher than a confirmed trend over the first five bars of a trend transition breakout, that sort of knowledge can be very valuable indeed.

What remains, however, is to expand the baby steps taken thus far to include additional entry and exit criteria that can greatly enhance a market participant's success rates as well as profit potential. To do that requires the expansion of this somewhat simplistic start to include additional timing criteria. In *Trend Qualification and Trading*, it was noted that trend provides direction while anchor zones provide timing, so what better place to move but to anchor zones. With anchor zones, further refinements to trade failure can be made and a more valuable trading system pursued.

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