4 CHAPTER

FIBONACCI PRICE EXTENSIONS

In this chapter, I will show you multiple examples of Fibonacci price extensions, which are also run to set up possible support or resistance parameters for whatever market you are analyzing. Fibonacci price extensions are similar to price retracements, in that they are also run from prior lows to highs or from prior highs to lows, using only two data points to run the price relationships. The only difference is that with retracements, we are running the relationships of a prior swing that are less than 100 percent, or *retracing* the prior move, whereas with extensions, we are running the relationships of a prior swing that are *extending* beyond 100 percent of it. Even though you will more than likely be using the same price tool from your trading analysis program, these techniques are named differently to indicate whether the price relationship is occurring within the prior swing or extending beyond it.

Extensions are run from prior low-to-high swings using the ratios 1.272 and 1.618 for potential support. They are run from prior high-to-low swings using the ratios 1.272 and 1.618 for potential resistance. You may also add the ratios 2.618 and 4.236. I will use 2.618 as the third target for a trade setup, but I will look at 4.236 only if I am looking at a very extended move in a market and trying to look for a place where it might finally terminate.

I used the same Dynamic Trader tool shown in the retracement chapter to run the following price extension examples. Most analysis programs will run extensions from the same program tool, since they are also measured using only two price points on the chart. The math is the

same, with the only difference being that retracements are defined as less than 100 percent of a prior swing and extensions are defined as beyond 100 percent of a prior swing.

Note: What I call price extensions in my work are labeled EX Ret on the Dynamic Trader charts that you will see in the following examples. Robert Miner, my mentor, refers to these as external price retracements rather than price extensions.

Our first price extension example is illustrated on a daily Russell cash index chart (see Figure 4-1). The 1.272 and 1.618 extensions were run from the 4/21/06 high to the 4/27/06 low for possible resistance to the rally that started with the 4/27/06 low. In this case, knowing where the 1.272
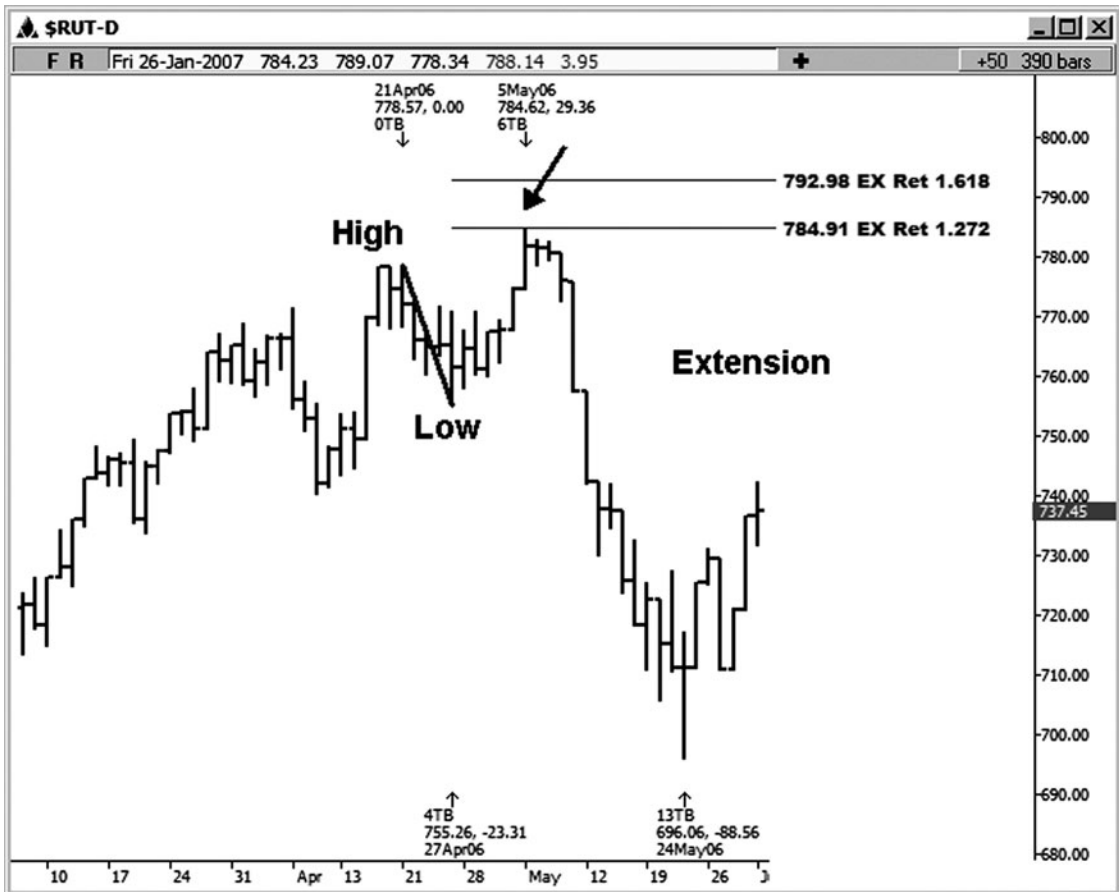

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extension was would have been extremely valuable to a trader, as a very healthy decline followed a test of this resistance.

This next price extension example is illustrated on a 60-minute crude oil futures chart (see Figure 4-2). Here we measured from the low made at 51.58 on January 12, 2007, to the January 15, 2007, high made at 53.38 and ran the 1.272 and 1.618 extensions for possible support. Note that an important low was made within ticks of the 1.618 extension, where a rally of over 2.00 was seen! One thing I have learned by using price extensions over the years is that many moves tend to terminate—*if only temporarily*—at these extensions.
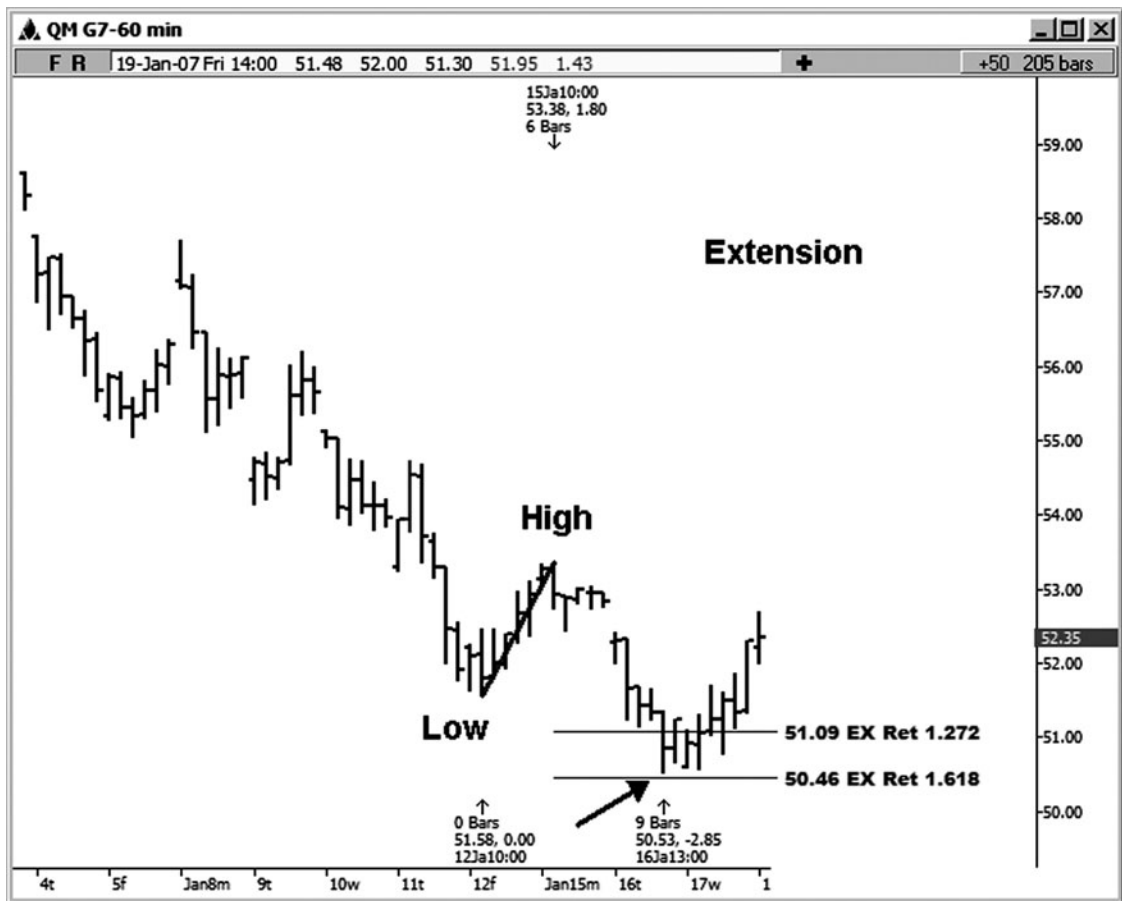

FIGURE 4-2

Let's look at another price extension example, this time on the mini-sized Dow. In Figure 4-3, we ran the high-to-low swing on this 15-minute chart to look for possible resistance on the way up. Notice that there was a minor decline off the 1.272 extension and then another minor decline off the 1.618 extension. The contract eventually rallied beyond both of these levels. This was not that unusual, since we were in a healthy uptrend, but these levels did offer some temporary resistance to the move, which is why as a trader you want to be aware of them.
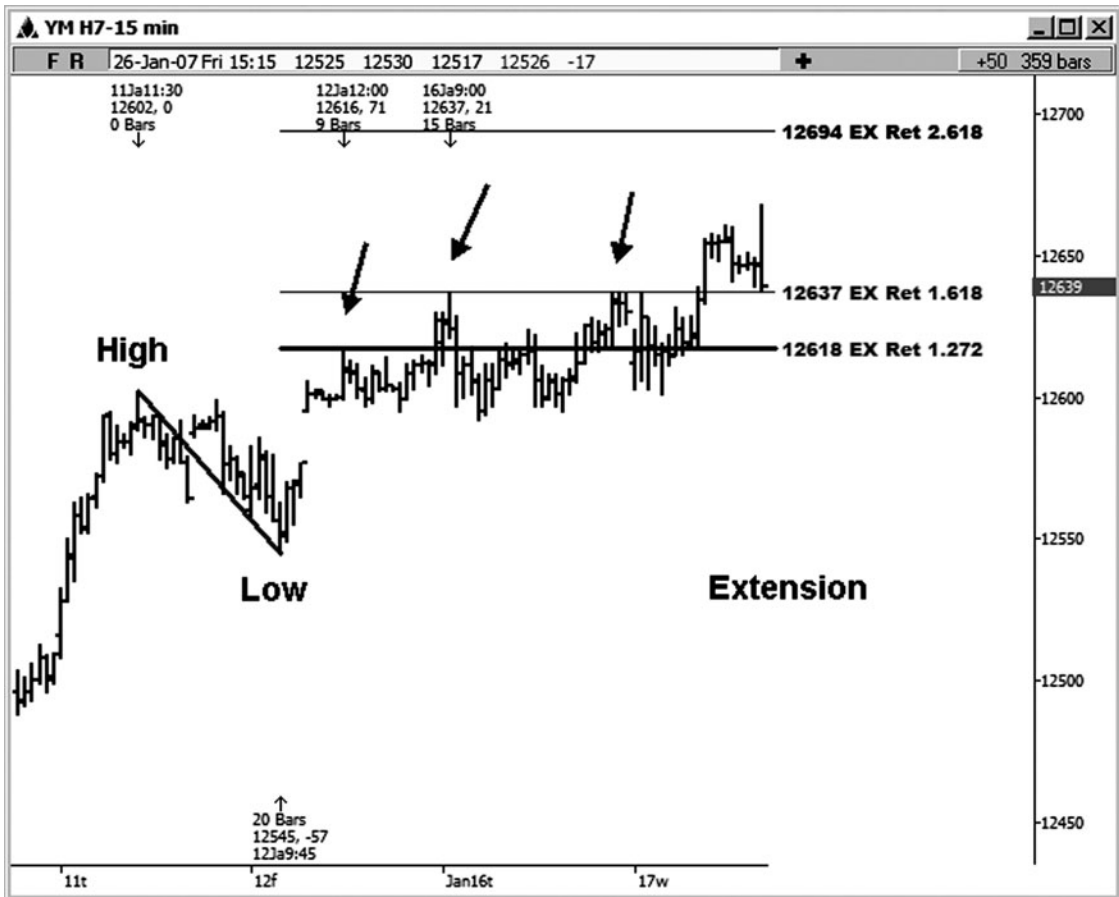

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The next extension example is on a 15-minute E-mini S&P contract (see Figure 4-4). We measured from the high made at 1435.75 to the low at 1429.25, looking for possible resistance on the way up. The S&P barely paused at the 1.272 extension, but did pause and show us a minor decline at the 1.618 extension. Again none of this was too surprising, since the 15-minute chart was showing a healthy bullish pattern.

FIGURE 4-4

Figure 4-5 is another example of an extension that was run on a 15-minute chart of the E-mini S&P contract. We measured a prior low-to-high swing (from the 1/17/2007 low of 1435.50, made at 2:15 p.m. central time, to the 1/18/2007 high of 1440.75, made at 9:00 a.m. central time) and ran the 1.272 and 1.618 price extensions for potential support. The S&P contract did not even pause at the 1.272 extension; however, a tradable low was made at the 1.618 extension of the same swing.
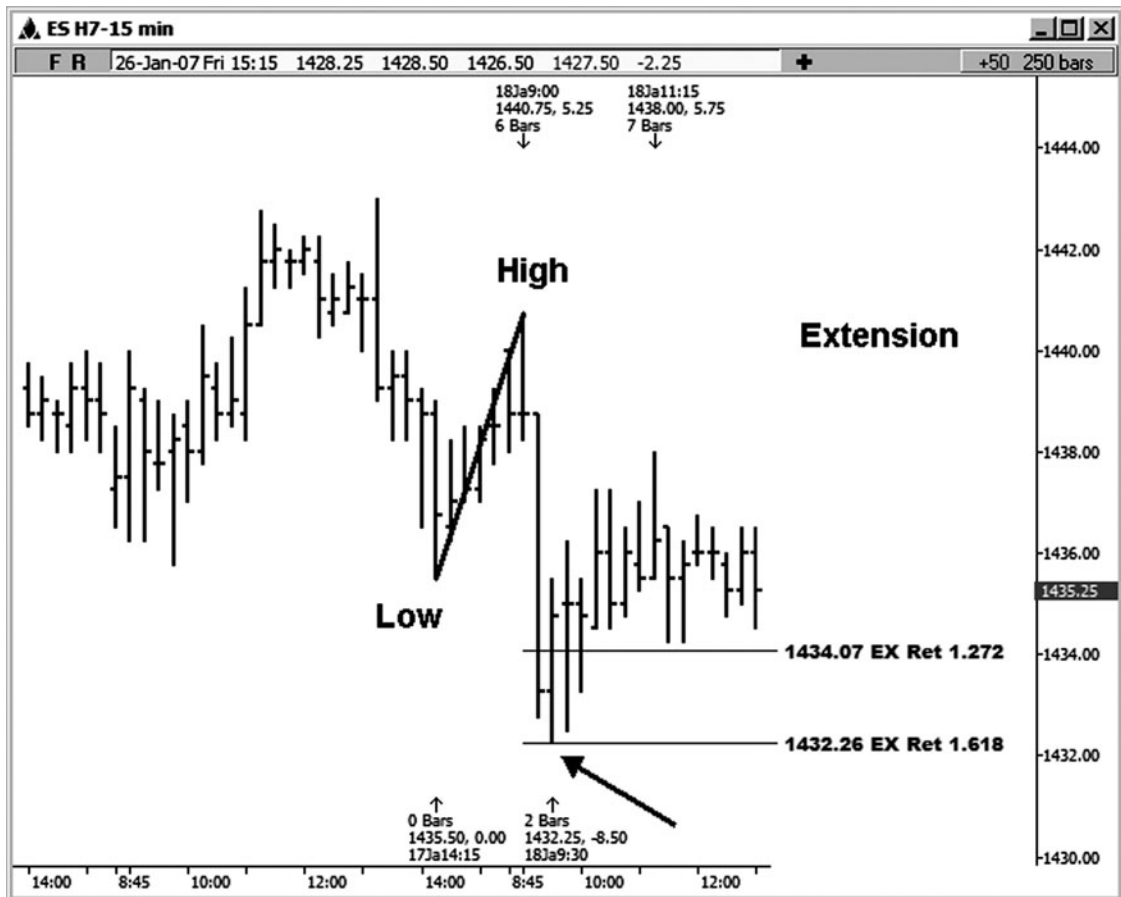

FIGURE 4-5

The next example of a price extension (see Figure 4-6) is made on the daily chart of the E-mini Russell contract. The 1.618 extension of the 12/05/06 high to the 1/9/07 low came in at 832.10 after the 1.272 extension was easily surpassed. One of the features on the Dynamic Trader software is that the program will automatically delete the price relationships that have been surpassed by a decent margin. In this case, this is why the 1.272 extension is not illustrated on the chart. The actual high was made at 831.90, just 2 ticks below this extension. A 58.70-point decline has followed this extension so far. I continually remind my traders to tighten up stops on their positions when we get near the 1.272 price extension of a prior swing or beyond it, since many moves terminate at least temporarily around extensions.
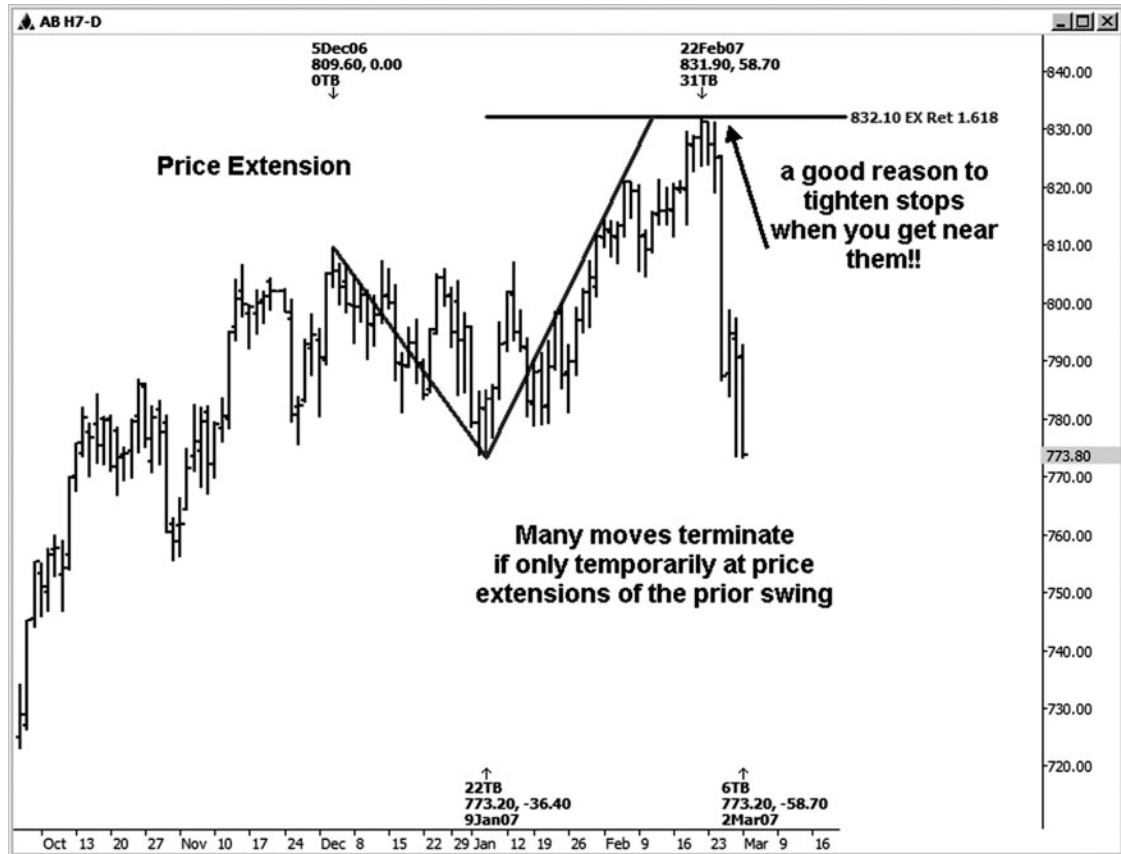

FIGURE 4-6

In Figure 4-7, we are looking at an extension on a daily chart of SBUX. Here, we measured from the 12/1/06 low made at 34.90 to the 12/5/06 high made at 37.14, looking for possible support. We did see a nice bounce around the 1.272 extension of this swing, although it was not a perfect hit. The low made on 1/26/07, however, was made within ticks of the 1.618 extension at 33.52. The actual low was made at 33.49.
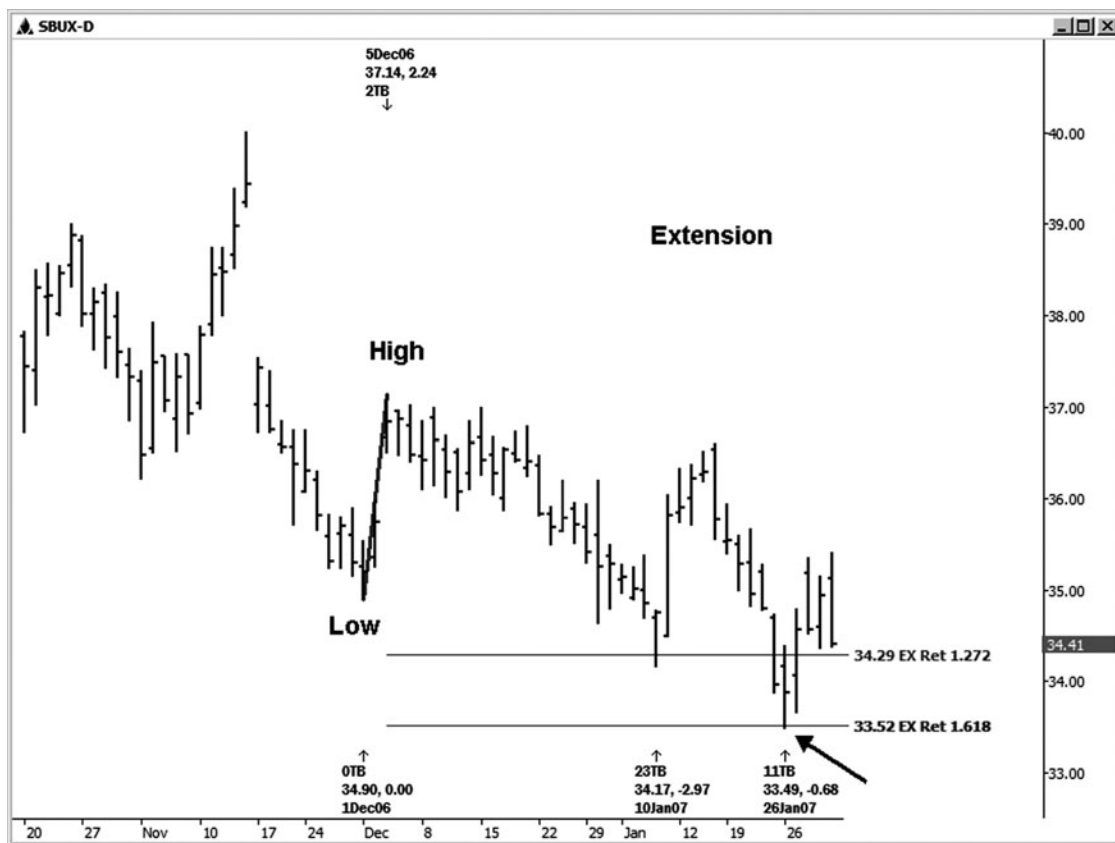

FIGURE 4-7

On the daily chart of IBM shown in Figure 4-8, we measured from the 11/29/05 high at 89.94 to the 7/18/06 low at 72.73, looking for possible resistance to the rally from the 7/18/06 low. In this case, the 1.618 extension provided such resistance. Again note that this was not a *perfect* hit: the extension came in at 100.58, and the actual high was made at 100.90. However, as long as a level is not taken out by a huge margin, I will typically leave it up on the chart and still watch for a possible reaction around it.

FIGURE 4-8

Google is a stock that seems to respect market geometry more often than not. In Figure 4-9, we measured from the 2/12/07 low made at 455.02 to the 2/22/07 high made at 484.24, looking for possible support at the price extensions. This stock barely stalled at the 1.272 extension, although we saw a tradable bounce after testing the area of the 1.618 extension.

FIGURE 4-9

In Figure 4-10, we ran the extensions on a daily chart of Intel, using the move from the 10/16/06 high at 22.03 to the 11/6/06 low at 20.32, looking for possible resistance. The 1.272 extension was hit and held exactly at the 22.50 level. A healthy decline followed this high.

FIGURE 4-10

On the daily chart of Home Depot in Figure 4-11, we ran the extensions of the move from the 11/1/06 high at 37.64 to the 11/14/06 low at 35.77, looking for possible resistance. In this case, the 1.618 extension produced a tradable high. This stock then resumed the uptrend after a healthy pullback from the 11/20/06 high. Keep in mind that many of these Fibonacci price relationships will *not* produce a change in trend and are violated every day. In later chapters I will show you examples where even a cluster of these price relationships fails to produce even a minor change in trend. This work is not magic, but if you learn how to use it properly, it *will* definitely provide you with a trading edge.
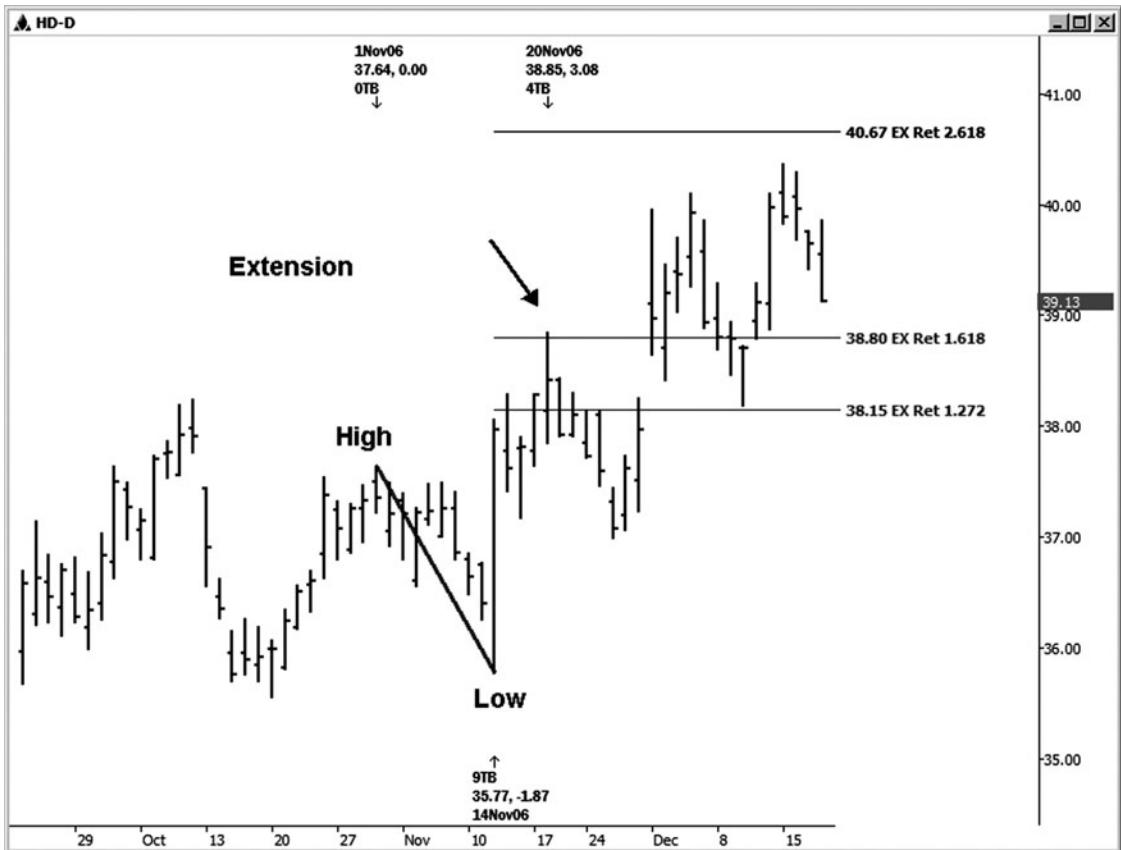

FIGURE 4-11

In the daily chart of Yahoo shown in Figure 4-12, we ran the extensions of the move from the 6/7/05 high at 38.95 to the 9/21/05 low at 31.60, which included multiple swings within this larger swing. We were looking for possible resistance at the 1.272 and 1.618 extensions on this chart. A tradable high was made just a few cents below the 1.618 extension at 43.49.
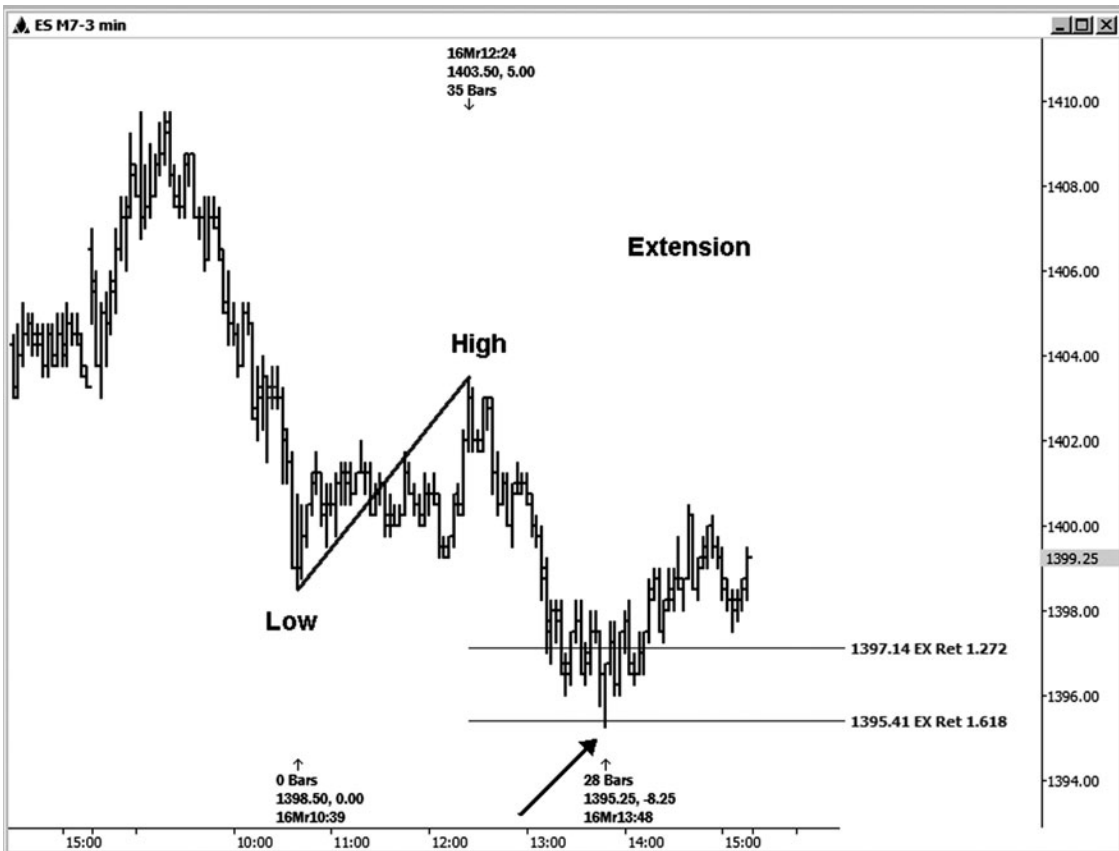

FIGURE 4-12

FIGURE 4-13

Fibonacci price relationships can be used on any time frame chart. Figure 4-13 is a three-minute chart of the E-mini S&P. Measuring from the 1398.50 low to the 1403.50 high, we would be looking for possible support at the extension of this swing. A tradable low was made off the 1.618 extension in this case.

Author Tip In my chat room, I use the auto-typer feature to remind my traders constantly that many moves terminate at extensions, since I see this occur so often.

This daily cash S&P chart (see Figure 4-14) is yet another example of the market turning on a dime when either the 1.272 or the 1.618 extension has been met. Taking the move from the 3/5/07 low to the 3/9/07 high, the 1.272 extension of that swing came in at 1364.13. The actual low was made at 1363.98. A dramatic 74-point rally has followed this low so far.
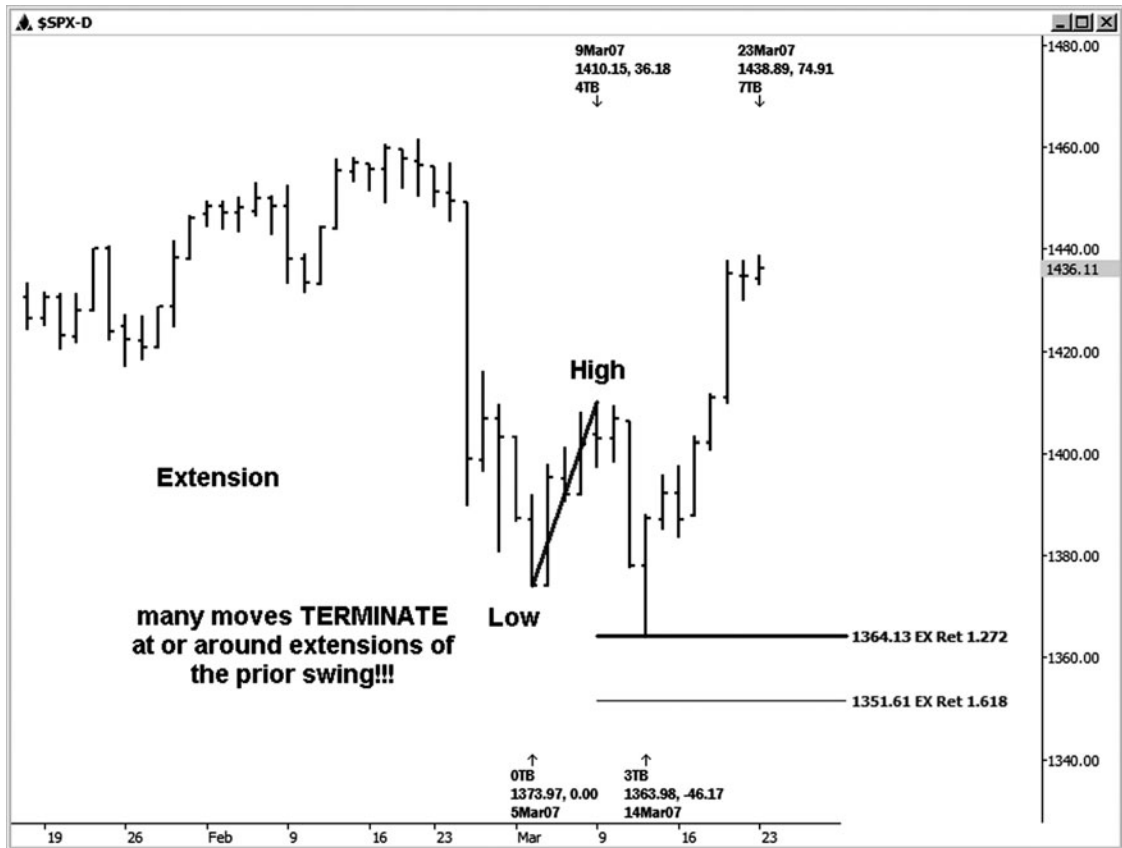

FIGURE 4-14

In this chapter, the chart examples have illustrated that many moves tend to terminate at the extensions of prior swings. These levels are well worth knowing as a trader. When you project them in advance, you have the advantage of knowing that the odds that the market move will terminate are higher than usual. Now it's time to look at Fibonacci price projections in our next chapter.