Using and Understanding ST_DynaRange

DynaRange is a technical indicator which predicts how far a move might travel. In this way, it is different from other indicators which might serve to highlight the direction of trend, or when momentum might be changing. DynaRange is built on the observation that when certain patterns appear a move is proportionally complete. So when it observes those patterns it can plot support or resistance levels where a move might end. Let’s look at an example from a monthly chart of AAPL to see what DynaRange does.

We can see that from a high in 2007, AAPL begin to turn down. Once the move down continues far enough and the indicator sees the technical signature which it is looking for, it begins to draw possible spots where it might end as rows of green dots for support. There are five rows of dots marking five possible levels although two are below the bottom of the screen. Likewise, possible resistance for up moves is shown as rows of red dots. Notice that the down move ended at the first level. This is what DynaRange does.

At the most basic level you now know how to interpret DynaRange. Look for the possibility that up moves might end at red DynaRange resistance levels and down moves might end at green DynaRange support levels.

However, there are some common questions about DynaRange, some of which naturally arise when looking at the APPL chart, or other charts. For example:

1. What is the best timeframe for using DynaRange?
2. How come DynaRange doesn’t always show targets? For example, at the 2007 high in AAPL, or in the move up subsequent to turning up at support.
3. How come DynaRange sometimes blows through levels? Like the red dots on the left side of the monthly AAPL chart.
4. Can DynaRange find the beginning of moves? The move up in AAPL seems to have started at DynaRange support.
5. How do you know which level DynaRange will stop at (if any)?

The remainder of this guide is aimed at answering these questions as well as addressing other topics which can help as you think about how to integrate DynaRange into your own trading system. In going through the discussion, keep in mind that the one and only job of DynaRange is to show visually the mathematical price relationship which projects where a move might end.

**Why Doesn’t DynaRange Show Targets?**

There are two reasons why DynaRange might not show targets:

1. DynaRange hasn’t put in the price action which the indicator needs to do its calculations; or
2. Price has already gone through all available DynaRange levels.

Consider again the monthly chart of AAPL. On the left side of the chart AAPL seems to easily travel through all the red targets on the left side of the chart. Once it does there are no new targets on the monthly chart and there won’t be unless AAPL pulls back enough so that the indicator identifies a new move on the monthly timeframe.

It might seem odd to say this about a monthly chart, but one way to interpret this action is that the sustained buying is lasting long enough that an even larger timeframe is needed to use DynaRange to anticipate where it might end. Yet even within that context, there will be moves up and down which can be seen and which can be seen with DynaRange and which can be actionable.

If we look at a daily chart of AAPL from late 2007, we can see that there are DynaRange levels even though there were no levels on the monthly chart. Let’s dig in and see what we can see.
Starting first with the move up from an August 16, 2007 swing low, notice that the first DynaRange levels appear on August 22nd and then six bars later they move. In this game the goal line can move and if DynaRange gets additional information during the move to reset the levels it will. It is perfectly normal.

After the levels move, price seems to climb from level to level almost like a flight of stairs:

- It runs right into the first level and then pulls back a bit.
- Then it runs to the second level and pauses for a bit.
- Action at the third level is a bit sloppier but price chops there for a bit, including a spike down to the second level before continuing.
- Then it runs up to the fifth level before running out of steam.

It seems that each of these levels was good in its own way. When we talk later about how to put all the pieces together, we’ll need to be aware that while these levels are important we don’t know ahead of time whether a level will stop price. For now, just notice the behavior.

After the move in AAPL fails at the fourth DynaRange level from the first series red dot resistance levels, it pulls back to the first daily DynaRange support level and heads back up.

Again on the way back up into the December high. In this last leg up, notice the following:

- It runs into the first resistance level and gets a small pullback.
- Then it runs into the second level and pulls back.
- A final series of additional highs doesn’t end at a level.
This last observation is important. It would have been possible to find a “perfect” example where every turn on the chart is exactly at a level. Such an example, however, wouldn’t be instructive.

The important observation here is that DynaRange showed us many support and resistance levels where moves ended and where price took a break within a move. Our job is to figure out how to best put this information to use.

**So Which Timeframe is best to use?**
The best answer is to use a timeframe that is actionable to the trade. If, as an example, you look for Squeeze setups to stay in for 8-10 bars or so, using DynaRange on the same timeframe as the Squeeze seems to work well across many symbols and timeframes to anticipate where the move might terminate. Look, for example, at the AAPL squeeze below on a daily chart. It fires short and AAPL travels to the third DynaRange level before running out of steam.

As you think about how to integrate DynaRange into your trading and the setups you use, you might find that slightly different timeframes. That is, you might find that if you enter on a 30-minute chart for signals that a 60-minute DynaRange works better for exits. Or a 15-minute. Or something else.

The point is that DynaRange measures moves on any timeframe. There is no substitute for testing what works best with the setups you use.

**Which DynaRange Level Will Price Stop At?**
The first thing to note is that price doesn’t need to stop at any DynaRange Level. But they come into play often enough that it can become an important part of your trading strategy. The second thing to
note is that there’s nothing within DynaRange which will tell you that price is stopping at one particular level or another.

Other technical indicators can help identify whether price is likely to go through a DynaRange level or not. Oscillator divergence is a typical technical signal that a move might be running out of steam. I like to use the Ready, Aim, Fire! indicator which was designed specifically to try and determine if price is likely to travel through a level or not. On the AAPL daily example above it fired right as AAPL bounced from DynaRange support.

**How About Using DynaRange to Enter Trades?**

We have seen several examples where price has reversed at a DynaRange level, so can the indicator also be used for entries? After all students of the Roman philosopher Seneca the Younger (and fans of the band Semisonic) know that “every new beginning is some other beginning’s end.” It is always safer to take partial profit at a DynaRange than it is to enter a trade blind at that level. Nevertheless, there can be good entries if you have other reasons to enter at a level.

Your reasons will likely depend on what types of setups you take and what other analysis you look. The primary technique I like to use is to find a trend which appears incomplete and then use DynaRange on a smaller timeframe chart to find where pullbacks within that trend might end. As an example, let’s look at this weekly chart of Corn:

Notice that in June Corn ran into resistance at both a Voodoo Fireline and DynaRange resistance at the same spot where a Ready, Aim, Fire! signal was generated. If one was nervous about taking this trade
then it might be wiser to wait for the move to start selling off and then by bounces by drilling down to something like an hourly chart. You can see below that after the high was struck at 448, each subsequent bounce ran into DynaRange resistance below that level.

Selling at those levels might still have been tricky as they were so close to the prior high and Corn hadn’t yet established a clear trend down. But it is still possible to look further forward into the move and use DynaRange as a way to find sellable bounces within a downtrend as shown below.
Scalping with DynaRange

I view scalping with DynaRange intraday as a special case of using DynaRange for entries. Therefore, just like described in the entries discussion above, it is important to have other reasons to want to trade a particular direction and perhaps have other reasons to look for trades in a particular area. When used in that context, I have found DynaRange useful in finding intraday opportunities.

I particularly like using DynaRange intraday on tick charts or volume charts (not available on TOS, but available on all other platforms which have DynaRange). The number of ticks or volume to use will likely vary by instrument and also may vary over time. Right now I prefer a 1000 volume chart trading the ES and here’s an example of a setup from this morning.
Keep in mind, that like all entries, I already had a reason to want to short the ES in the morning. DynaRange just gave me my spot.

I see no reason why the indicator wouldn’t work on other bar styles like Range, Renko, etc. but you’ll want to verify on your own whether they work.

Formatting DynaRange

DynaRange has no settings which need adjusting. It should just work. You can, however, adjust the visual appearance or the support and resistance lines in the same manner as any indicator lines can be changed on your particular platform. However, one important thing you’ll want to do is set up your charts so that DynaRange levels don’t affect your chart scaling. If you don’t make this adjustment, you’ll likely know it as the price scale will get squished to accommodate all of the possible levels and all of the price bars will be squeezed together near the center of the chart.

Setting the scaling properly varies by platform.

Settings in ThinkOrSwim

1. From the Style menu chose Settings...
2. Go to the Price Axis tab in the style settings window
3. Make sure that the check box for the Fit Studies option is unchecked.

Settings in TradeStation

1. Right-click the chart and choose Format Symbol.
2. Go to the Scaling tab in the Format Symbol menu
3. Make sure that the check box for the Expand Range to include Analysis Techniques option is unchecked.
Settings in NinjaTrader
The DynaRange indicator is built with the Auto-Scale option already set to false so no adjustment should be needed.

Settings in eSignal version 11 or 12
1. Right click on the price axis of the chart
2. Ensure that there is a check mark next to the “Scale Price Data Only” option. If there isn’t, click it so that a check mark appears.