

For any underlying, price action can be sorted into two major “moods”.

The first mood can be referenced as a “trending market”. This behavior is observed to occur roughly 20% of the time:

- Higher average wins and lower average losses are commonly observed here
- The phrase “let your winners run and cut your losers short” rings true especially in a trending market.
- Adding to a position in a trending market is recommended if the underlying price action is strong.

The second mood is known as a mean reverting market. This behavior is observed to occur roughly 80% of the time:

- There is a clearly identifiable range that the price has been bouncing between, built out of a plethora of failed breakouts and breakdowns.
- The mean price acts as an attractor (think of a powerful magnet attracting unsuspecting operators back towards the mean price over time).
- It is advised to cut both winners and losers rapidly, as mean reversion could occur at any time.

As markets mean revert more often than not, we refer to this setup as a “Failed Volatility Breakout”, or FVBO for short.

A FVBO setup uses standard Bollinger Bands and Keltner Channel indicators as its two range-bound quantitative indicators. Although commonly used for price action identification, BBANDs and KCs can also be used to identify attendant areas of low volatility (price is coiling requiring less than normal volume to move it), and areas of high volatility (price breaks outside the range and requires more than normal volume to sustain it).

## Step 1: Volatility Compression Identification

The first step is to sniff out when volatility is compressed, and the environment is primed for an explosive move. This is akin to a rattlesnake coiled, rattling its tail and warning an unsuspecting operator that an explosive is imminent.

- Bollinger Bands *must* be inside the Keltner Channel on *both* ends.



Figure 1: Identification of compressed price action

So, now an operator waits for the price action to move sharply (in either direction) leading to a volatility expansion. This occurs when a candle closes outside one side of a bollinger band and keltner channel. At this moment, an increased number of operators are caught offside, and a miniature battle is ongoing regarding the fate of the move.

**Step 2: Confirm the Failed Breakout**

After closing outside of the BBAND and KC in step one, we patiently wait for the next complete bar to confirm the breakout has failed or slowed down considerably. Technically, we define this as the “signal bar”.



Figure 2: A bar showing signs of trend exhaustion.

### Step 3: Entry & Stop Loss Placement

We place a sell-stop (to short) or a buy-stop (to long) one tick below the low of the signal bar. It does not matter if the signal bar dipped back between the BBAND/KCs, the breakout bar already tipped its hand.

Now we patiently wait to see if our sell-stop (short) gets filled during the next trading session. If the sell-stop (short) does not get filled in the next trading session, repeat the process regarding sell-stop placement but set levels off of this most recent signal bar.

Place a stop loss one tick above the high of the signal bar if short, and one tick below the low of the signal bar if long.

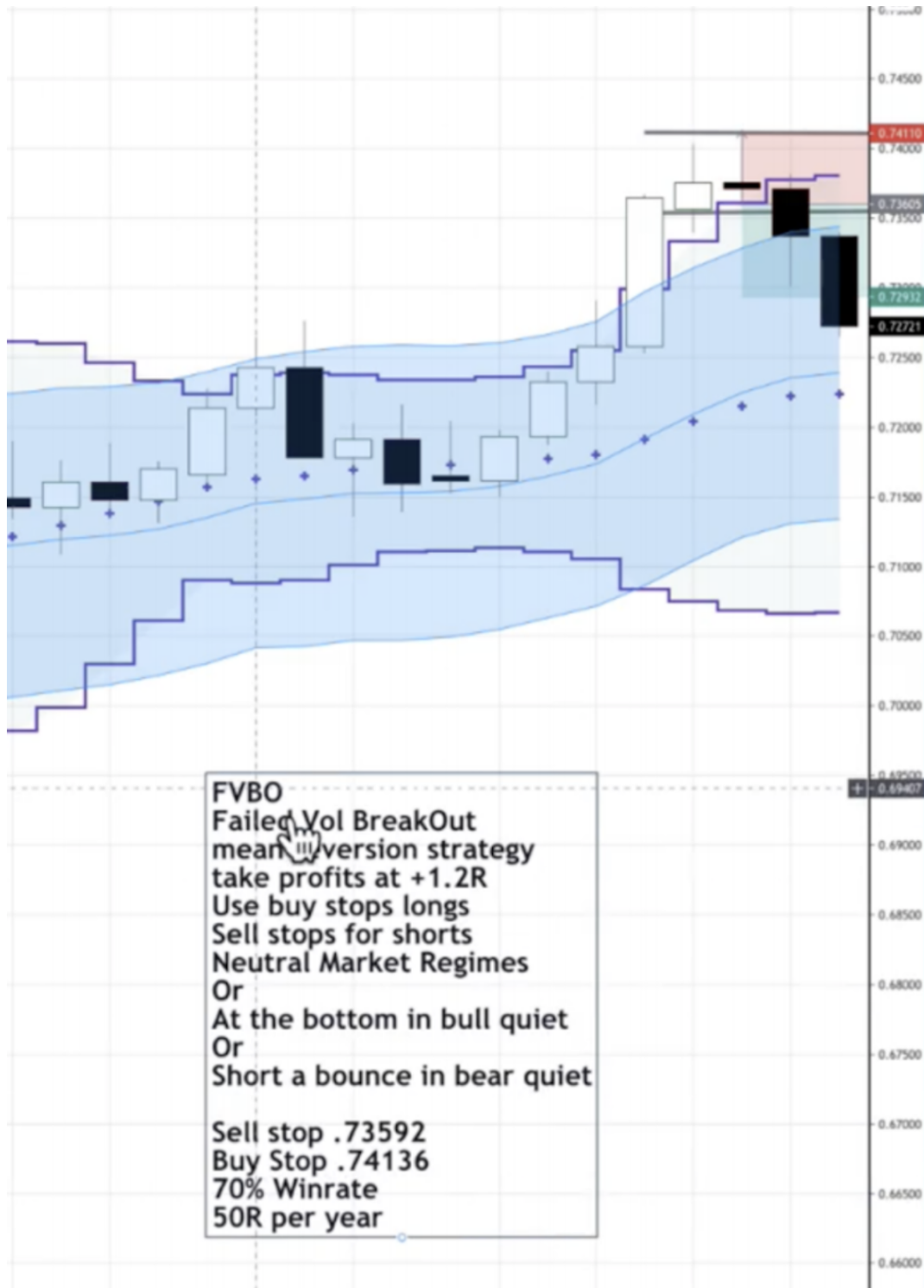
### Step 4: Take Profits

Immediately after getting filled, place a profit target (limit order) at midline of BB, or where a predefined r-threshold has been hit.



Figure 3: Profit target placement.

Complete FVBO Example



But, what about the other twenty percent of the time where the market actually does trend in a set direction?

A **Volatility Breakout Strategy** captures the 20% of the time a market is ripping and does not fail a breakout. This is observed in a bull-quiet regime. Place the stop loss wide, at the bottom of the breakout candle. Place the buy stop a tick above the high of the breakout candle. Add to position if directionality confirms manually. An example of this is shown below:

