Bollinger Bands

Measuring Volatility in Real Time — Lesson Explainer

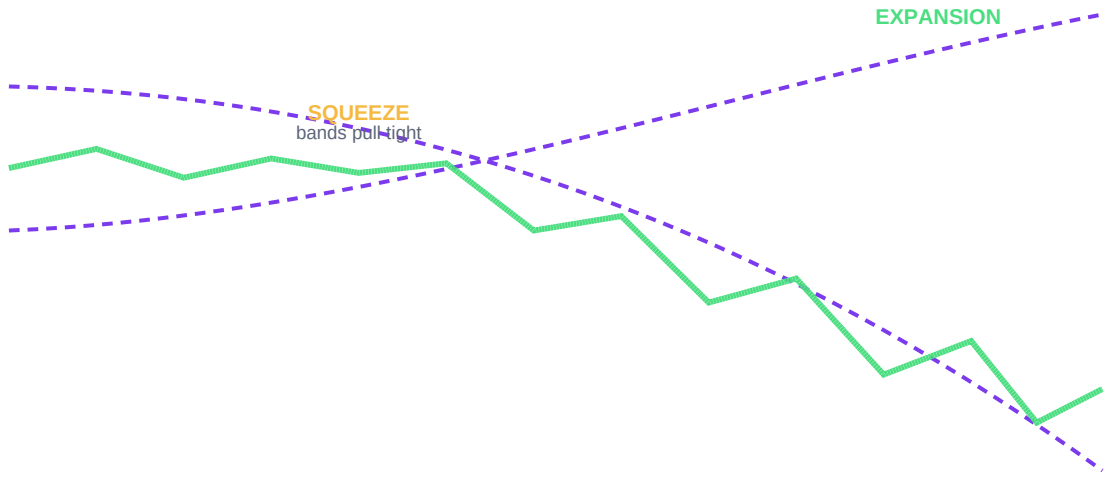
The Concept

A Bollinger Band is three lines plotted around price: a middle band (typically a 20-period SMA), an upper band (middle + 2 standard deviations), and a lower band (middle - 2 standard deviations). Bollinger Bands measure volatility, not momentum.

Standard deviation grows when price swings widely and shrinks when price is calm, so the bands widen during volatile stretches and narrow during quiet ones.

A squeeze (bands pulled tight) suggests volatility has compressed and often precedes a sharp move - in either direction. Touching a band isn't automatically overbought/oversold the way RSI's 70/30 is - in a strong trend price can ride a band for a long stretch.

Bands Squeezing, Then Expanding



5 Things to Know About Bollinger Bands

1. Bands measure volatility, not momentum or direction - unlike RSI or MACD.

2. A squeeze often precedes a big move, but doesn't tell you which direction.

3. Riding the band isn't automatically a reversal signal - trends can walk a band for a long stretch.

4. The bands adapt automatically as volatility changes, with no manual adjustment needed.

5. Bandwidth (the gap between bands) is a useful standalone measure to spot squeezes more precisely.

4 Things to Check When Reading Bollinger Bands

• Watch for the squeeze - the tighter the bands, the more likely a significant move is building.

• Check the trend first - price hugging the upper band in an uptrend is strength, not overbought.

• Pair it with momentum - combine a band touch with RSI or MACD to judge if the move looks stretched.

• Watch for the walk - repeated touches of one band without reverting signals sustained trend strength.

Worth knowing:
Bollinger Bands describe how much price has recently moved, not which direction it will move next. A squeeze flags rising odds of a breakout, but the breakout can go either way - pair it with trend and momentum tools.

Quiz — Answer the questions, then check the key on the next page

1. What do Bollinger Bands primarily measure?

A. The company's dividend yield
B. Volatility - how much price has recently moved
C. Trading volume
D. Momentum direction

2. What does a "squeeze" (bands pulled tight together) suggest?

A. The stock is about to be delisted
B. Trading has been halted
C. Volatility has compressed, and a significant move may be building
D. The company just paid a dividend

3. Does price riding the upper band in a strong uptrend automatically mean overbought and reversal?

A. Yes, always - price must revert to the middle band immediately
B. Yes, because bands can never be touched
C. No, because Bollinger Bands don't exist in uptrends
D. No - in a strong trend, price can "walk the band" for an extended stretch

4. SMA of $100, standard deviation of $1.5 - what is the upper band (SMA + 2xstdev)?

A. $103.00
B. $101.50
C. $100.00
D. $97.00

5. Why combine Bollinger Bands with a momentum tool like RSI or MACD?

A. It isn't useful, they measure the exact same thing
B. Bands show how much price is moving; RSI/MACD help judge if that move looks stretched
C. Combining indicators is against exchange rules
D. RSI and MACD replace the need for price data entirely

Answer Key

1. What do Bollinger Bands primarily measure?

Correct answer: B. Volatility - how much price has recently moved

Bollinger Bands are built from standard deviation, a measure of volatility - not momentum or direction like RSI or MACD.

2. What does a "squeeze" (bands pulled tight together) suggest?

Correct answer: C. Volatility has compressed, and a significant move may be building

A squeeze reflects compressed volatility, historically often followed by an expansion - though it doesn't say which direction.

3. Does price riding the upper band in a strong uptrend automatically mean overbought and reversal?

Correct answer: D. No - in a strong trend, price can "walk the band" for an extended stretch

Unlike RSI's overbought reading, touching a Bollinger Band isn't automatically a reversal signal.

4. SMA of $100, standard deviation of $1.5 - what is the upper band (SMA + 2xstdev)?

Correct answer: A. $103.00

Upper band = $100 + (2 x $1.5) = $100 + $3 = $103.00.

5. Why combine Bollinger Bands with a momentum tool like RSI or MACD?

Correct answer: B. Bands show how much price is moving; RSI/MACD help judge if that move looks stretched

Bands measure volatility (how much), while RSI/MACD measure momentum (how stretched) - together they give a fuller picture.