INDICATOR 6 *Volatility*

Average True Range (ATR): How to Measure Volatility and Set Stops

ATR doesn't tell you where the market is going. It tells you how far it usually moves. That makes it one of the most useful tools for risk management.



What it is

The Average True Range was introduced by J. Welles Wilder in 1978. It measures volatility: the average size of price moves over a period. A rising ATR means bigger swings; a falling ATR means a calmer market.

How it's calculated

1. For each bar, find the **true range**: the largest of (high minus low), (high minus previous close) and (previous close minus low, as a positive number). Using the previous close captures gaps.
2. Average the true range over 14 periods using Wilder's smoothing.

ATR is shown in price units. An ATR of 1.50 on a stock means it typically moves about $1.50 per bar on that timeframe.

Default settings

14 periods.

How to read it

- **Rising ATR:** volatility is increasing, often during sell-offs or breakouts.
- **Falling ATR:** the market is calming down, often during steady trends or consolidations.

- **The level only makes sense relative to the price** and its own history. Compare ATR with its recent average, not with other markets.

Three practical ways to use it

1. **Stop placement.** Instead of a fixed distance, place your stop a multiple of ATR away from your entry, for example 1.5 to 2 times ATR. This keeps your stop outside normal market noise.
2. **Position sizing.** If you risk EUR 100 per trade and your stop is 2 ATR away, with ATR at EUR 2.50, your stop is EUR 5 away, so you'd trade 20 shares. When volatility rises, your position automatically gets smaller. See our risk management guide.
3. **Trailing stops.** A trailing stop set at a multiple of ATR below the highest price (often called a chandelier exit) lets you stay in trends while locking in profits.

Common mistakes

- **Reading ATR as a bullish or bearish signal.** It measures size, not direction.
- **Using the same stop distance in every market.** A 20-point stop can be tiny on one index and huge on another; ATR fixes that.
- **Ignoring ATR spikes** around news. Volatility can jump suddenly around data releases and central bank decisions.

Works well with

- **Bollinger Bands**, which also reflect volatility.
- **Any entry signal**, since ATR mainly helps with exits and sizing.

Quick summary

- ATR measures average price movement per bar.
- It's a risk management tool: use it for stops, sizing and trailing exits.
- It tells you nothing about direction.

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