POPULAR INDICATORS — TESTED! BOOK 2

SUPERTREND ENGINE

TESTED ON REAL DATA

What works. What doesn't.
Proof inside.



Building 4 Tested Strategies with Bollinger, Stochastic, MACD and Multi-Timeframe Confirmation

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Supertrend Engine

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All test results in this book are hypothetical and based on historical data. See the important notice on the next page.

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Contents

Click a heading to jump to its page. Page numbers match the page numbers in your PDF reader.

Chapter 1: The Supertrend indicator: what it is and how to read it 6

1.1 What is this indicator? 6
1.2 How does it work? 6
1.3 ATR: the measure of volatility 7
1.4 The bands and the line 7
1.5 Changes of direction: Buy and Sell signals 8
1.6 Two versions: the community script and TradingView's built-in indicator 9
1.7 Settings guide and alerts 9
1.8 Reading the chart step by step 9
1.9 Limitations and things to watch 10
1.10 Quick reference 11

Chapter 2: Popular Supertrend setups: tested on gold 12

2.1 How did we test? 12
2.2 Strategy 1: Line Rider 13
2.3 Strategy 2: Trend Guard 14
2.4 Strategy 3: Triple Lock 15
2.5 Comparison and the effect of broker costs 16

Chapter 3: How well does it work on popular charts? 18

3.1 How was the test done? 18
3.2 Results 18
3.3 Where did the profit on gold come from? 19
3.4 The lesson from this chapter 19

Chapter 4: The ideal setting for each market: how to find it and how much it helps 20

4.1 How did we test? 20
4.2 Results: 12 development markets 21
4.3 Why did it not work? 22
4.4 Confirmation on holdout markets 24
4.5 How should you choose your own setting? 24

Chapter 5: Supertrend + other indicators: the strategies that passed the test 26

5.1 First: a trend filter on its own was not enough 26

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5.2 How did we test the combinations? 27
5.3 All candidates and their results 28
5.4 Strategy 1: Band Breaker (Bitcoin and Ethereum, 4-hour) 29
5.5 Strategy 2: Double Deck (higher-timeframe confirmation) 32
5.6 Strategy 3: Dip Picker (gold, 4-hour) 35
5.7 Strategy 4: Momentum Tailwind (gold, 1-hour) 37
5.8 A fragile pass: RSI Spring (Bitcoin, 1-hour) 40
5.9 Common ground and warnings 40

Chapter 6: Putting it into practice and managing risk 41

6.1 Preparing the chart 41
6.2 Trade checklists 41
6.3 Managing the stop by hand 42
6.4 Position size 43
6.5 How many strategies, and how much risk? 43
6.6 Alerts 44
6.7 Trade journal 45
6.8 Run your own test 45

Chapter 7: The limits of the tests and a final word 46

7.1 The past does not guarantee the future 46
7.2 Cost and trading assumptions 46
7.3 Data 47
7.4 The risk of multiple testing 48
7.5 Sample size 48
7.6 Differences between the test and real life 48
7.7 Final word 49

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CHAPTER 1

The Supertrend indicator: what it is and how to read it

1.1 What is this indicator?

Supertrend is a trend indicator that draws a single line below or above the price. When the line is below the price and green, the trend is considered up. When it is above the price and red, the trend is considered down. When a candle closes on the other side of the line, the line switches sides and colour. That moment is called a "Buy" or "Sell" signal.

There are three reasons why Supertrend is so popular. It is very easy to read: one line, two colours. It gives both a direction and a stop level, because the line is also a sensible place for a stop-loss. And it has only two settings, so it can be applied to any market in seconds.

This guide explains how the line is calculated, what the settings do and what to watch for on the chart. In the following chapters, we test the same line on 27 markets with seven years of real data.

1.2 How does it work?

On every new candle the indicator follows the same four steps:

1. **It finds the middle price:** the average of the candle's high and low.
2. **It measures volatility:** the average range of the recent candles (ATR).
3. **It draws two bands:** a lower band ATR × multiplier below the middle price, and an upper band the same distance above it.
4. **It sets the direction:** in an uptrend the lower band is shown; in a downtrend the upper band is shown. If a candle closes on the other side of the band being shown, the direction changes.

The key is a detail in step 3: **the band only moves in the direction of the trend.** In an uptrend the lower band can rise, but it cannot fall back. As the price rises, the line follows it; when the price pulls back, the line waits where it is. This is why the Supertrend line behaves like an automatic trailing stop.

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Figure 1.1 — The Supertrend line on a real chart: gold 4-hour, Supertrend(10, 3)

1.3 ATR: the measure of volatility

ATR (Average True Range) measures how far a candle typically moves. The "true range" is the distance between a candle's high and low; if the candle opened with a gap from the previous close, the gap is counted too. ATR is the average of these ranges over the last N candles.

What it means: in a quiet market ATR is small and the Supertrend line stays close to the price. In a busy market ATR grows and the line moves further away. In other words, the indicator sets its own stop distance according to the market's current volatility.

Settings: ATR Period (default 10) sets how many candles ATR averages over. A smaller value makes ATR more sensitive to the latest candles. With **Change ATR Calculation Method?** switched on (the default), ATR is smoothed with Wilder's method; with it switched off, a simple average is used. Our tests used the default (on).

1.4 The bands and the line

Two bands are calculated at a distance of ATR × multiplier from the middle price, but only one of them is visible on the chart at any time.

Trend	Visible line	Colour	How does the line move?
Up	Lower band, below the price	Green	Only rises; waits flat when the price pulls back
Down	Upper band, above the price	Red	Only falls; waits flat when the price bounces

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Settings: ATR Multiplier (default 3.0) sets how many ATRs the band stays away from the price. A small multiplier (for example 1.5–2) brings the line closer to the price: earlier signals, but more false turns. A large multiplier (4–6) moves the line further away: fewer signals, later turns and a wider stop. **Source** (default hl2) chooses how the middle price is calculated; our tests used the default.

Practical meaning: the multiplier is the indicator's most important setting. On the same market, raising the multiplier from 2 to 4 roughly halves the number of trades. Chapter 4 tests in detail which value is "best". The short answer: the value that looked best in the past was usually not the best one the following year.



Figure 1.2 — The effect of the multiplier: Supertrend(10, 2) and Supertrend(10, 4) on the same chart

1.5 Changes of direction: Buy and Sell signals

In a downtrend, if a candle **closes above** the previous candle's red line, the trend turns up: the line moves below the price, turns green and a **Buy** label appears on the chart. The opposite is a **Sell** signal.

What it means: the signal is confirmed when the candle closes. Before the close, the price may cross the line and come back; in that case there is no signal. If only the wick crosses the line and the close does not, the direction does not change.

How to use it: after the signal candle has closed, the trade is entered at the open of the next candle. That is also what we did in our tests. The line level on the signal candle can serve as the stop, and the stop is moved along as the line moves.

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CHAPTER 3

How well does it work on popular charts?

Partly. Without changing anything, we tested the three setups locked on gold on five more of the most popular charts: Bitcoin, Ethereum, EURUSD, GBPUSD and the S&P 500. We did not expect Supertrend on its own to make money in every market; the aim was to see how well it works. The answer is clear: it made a little money on the cryptocurrencies and lost money on forex and the S&P 500.

3.1 How was the test done?

- **Rules:** as locked in Chapter 2. Since there was no 15-minute data for these markets, Line Rider and Trend Guard, which were chosen on the 15-minute chart for gold, were run here on the 1-hour chart (this difference was recorded in the pre-registration).
- **Period:** January 2020 – October 2026, 1-hour chart.
- **Costs and swap:** a typical retail cost and annual swap for each market (table in Chapter 7), fixed before the results were seen.

3.2 Results

Each cell is the average result per trade in that market (costs and swap deducted). Each setup made between 316 and 1,225 trades in each market.

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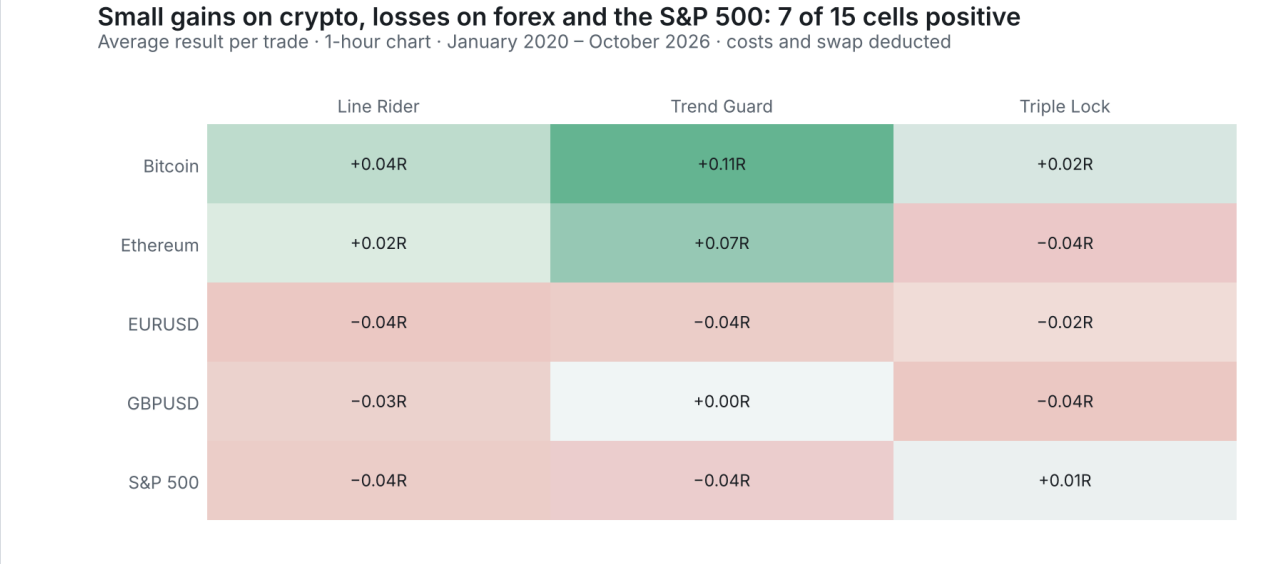


Figure 3.1 — Three setups × five popular markets: average result per trade (1-hour, 2020–2026)

How should you read it? The best result again came from Trend Guard with its 200 EMA filter: +0.11R on Bitcoin and +0.07R on Ethereum. The positive result on GBPUSD is too small to tell apart from zero. On EURUSD and the S&P 500, all three setups either lost money or broke even. Triple Lock could not repeat its good showing on gold in any market.

For transparency: in the first draft, we had also run the same setups on a wider basket of 11 markets. The picture was the same: Line Rider and Trend Guard stayed positive in 6 of the 11 markets, and Triple Lock in 2.

3.3 Where did the profit on gold come from?

- **Gold itself.** In the test period (July 2025 – October 2026), gold rose almost without a break. In such a one-directional market, almost any rule that rides the trend looks good; in Chapter 2 we saw that most of the profit came from long trades.
- **Trending and non-trending markets.** The markets where Supertrend made money (gold, Bitcoin, Ethereum) showed long, strong trends in 2020–2026. The 1-hour charts of EURUSD and the S&P 500, on the other hand, changed direction often, and every flip was a small loss.

3.4 The lesson from this chapter

Supertrend on its own is not a trading system; it is a tool for direction and stops. Used alone, its result depends on whether the market is trending. The real question is whether combining it with another indicator lets us choose more wisely when to enter a trade. Chapter 5 tests exactly that. Before that, we look at the question readers ask most: does finding a separate "ideal setting" for each market change the result?

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