

Performance Assessment of a Daily Cryptocurrency Trading Strategy on Solana/Euro

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Definition: I propose a daily trading strategy on the SOL/EUR market that targets +3% profit and applies a –1% stop-loss from the buying price. Considering taxes and exchange fees, these thresholds (3% TP and 1% SL) appear to be the optimal values. However, it is unclear whether this strategy is feasible or profitable in practice. How it works for different profit like 10%

Goal: Evaluate the performance and practicality of this fixed-threshold daily trading system for SOL/EUR, where each position aims for:

- Take-profit: +3%
- Stop-loss: –1%

Key Questions:

Is achieving a daily +3% profit target realistic?

If yes, how many trades can be expected per day?

What is the waiting time distribution for buy/sell signals?

When is the optimal time to buy?

When is the optimal time to sell?

How well does the 1% stop-loss protect against risk?

What is the maximum loss that may occur during long waiting periods (e.g., 15% drawdown)?

Data Source:

Historical 1-minute candlestick data for SOL/EUR was downloaded from: Binance Data Portal (monthly spot data at 1-minute resolution). From this website: <https://data.binance.vision/?prefix=data/spot/monthly/klines/SOLEUR/1m/>

Data Acquisition Steps:

Downloaded monthly 1-minute SOL/EUR files (Jan 2024 → Jul 2025).

Extracted each monthly compressed file individually.

Pre-Processing Steps:

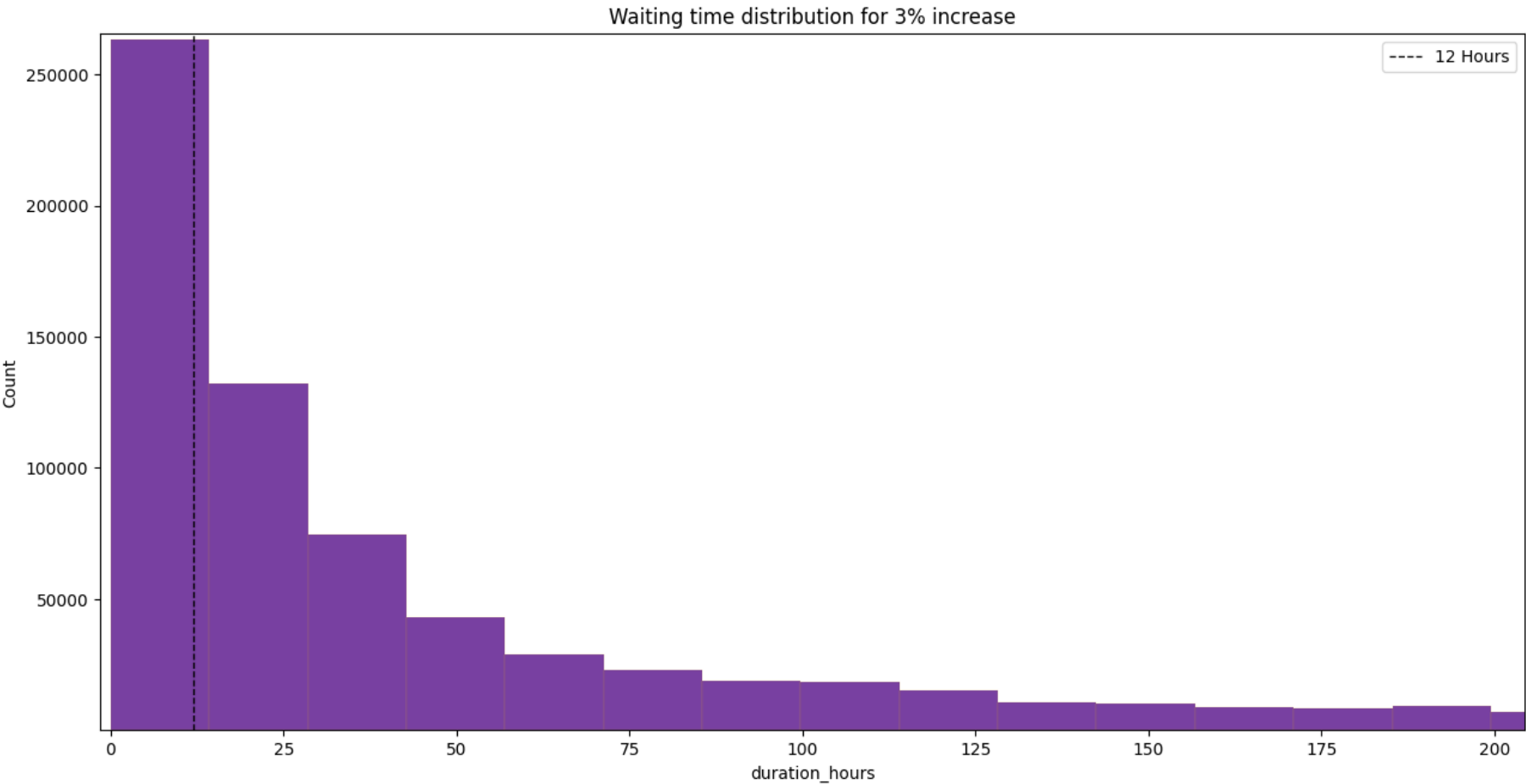
Merged all monthly files from Jan 2024 to Jul 2025

Performed streaming merge to avoid loading entire dataset in RAM.

Converted timestamp: Transformed the open_time column into proper datetime format.

I want to know how much should I wait for 3% increase at price? → duration between buy and sell

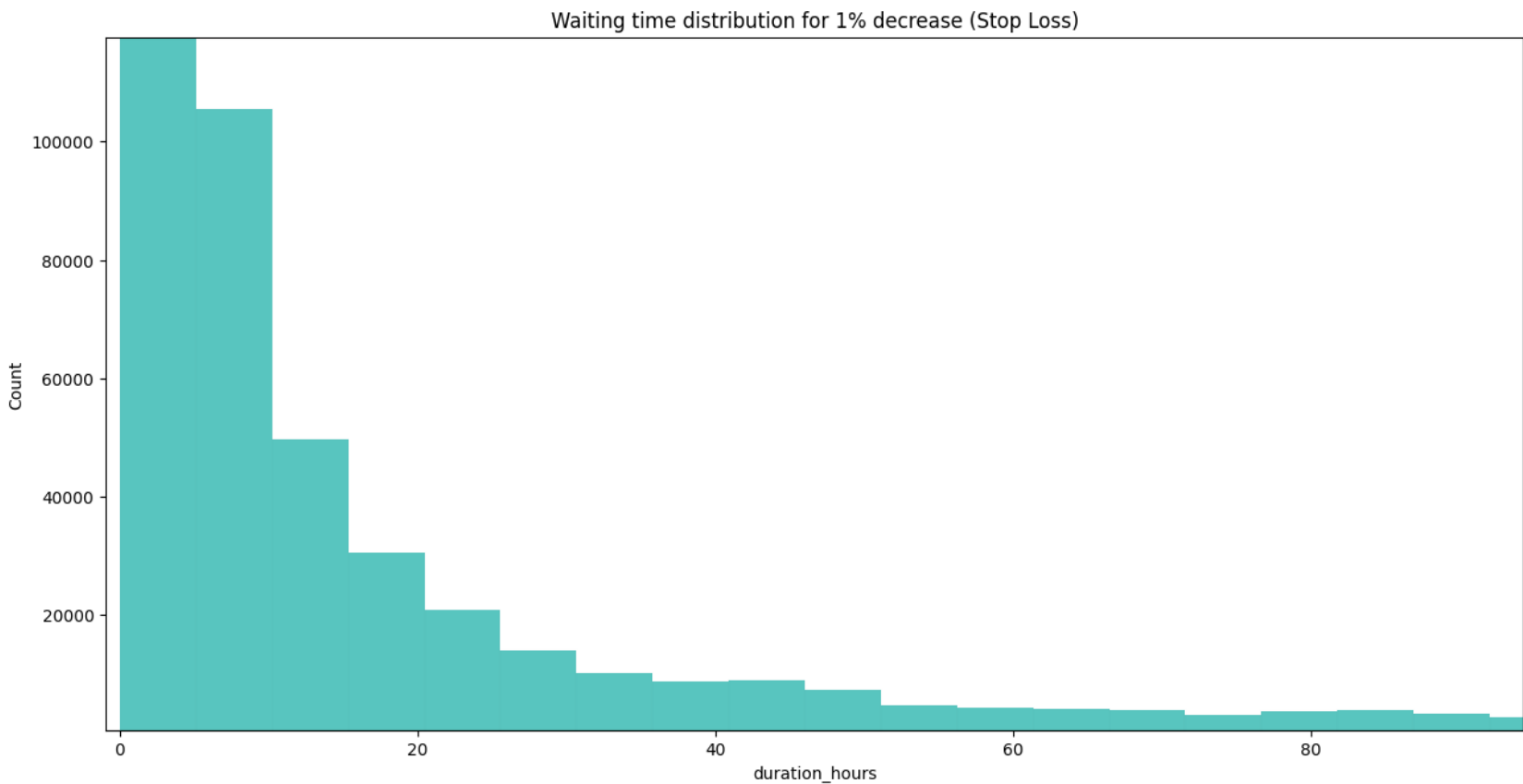
Most of 3% increase have happened less than 12 hours.
The probability for daily trading is less than 30%.



3% increase within	In total
1 hour	1.43%
2 hours	3.81%
3 hours	6.5%
6 hours	14.65%
12 hours	28.74%
24 hours	44.92%
36 hours	54.38%
48 hours	60.64%

Stop Loss is 1%

Almost 20% of decrease happens less than 1 hour after buying.
It means, it's possible before profit price hits the stop loss and exits the market.



1% decrease within	In total
1 hour	19.31%
2 hours	32.69%
3 hours	41.64%
6 hours	56.85%
9 hours	64.69%

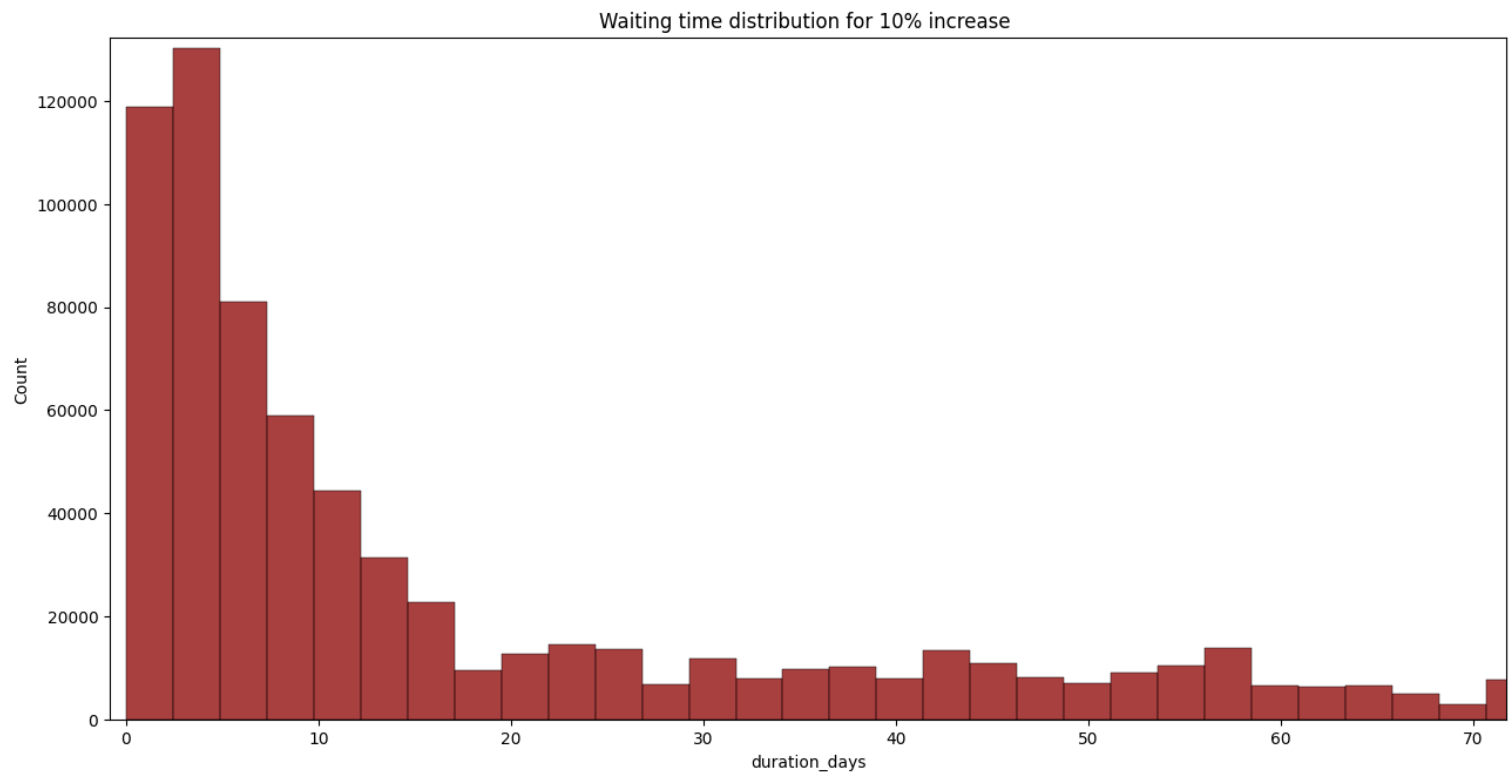
I want to know how much should I wait for 10% increase at price? → duration between buy and sell

Finding:

After entering a position and waiting 3 days, the probability of reaching +10% profit is only ≈ 20%.
To achieve a high certainty of reaching +10% profit, the required waiting time becomes much longer.

Interpretation:

The 10% target is rarely reached quickly.
Longer waiting times significantly increase exposure to market risk and do not make practical sense for a daily or short-term trading strategy.



10% increase within	In total
3 days	20.28%
5 days	33.75%
7 days	42.68%
10 days	52.46%
14 days	60.57%
17 days	64.73%
20 days	66.21%
30 days	72.77%

Waiting time for different profit?

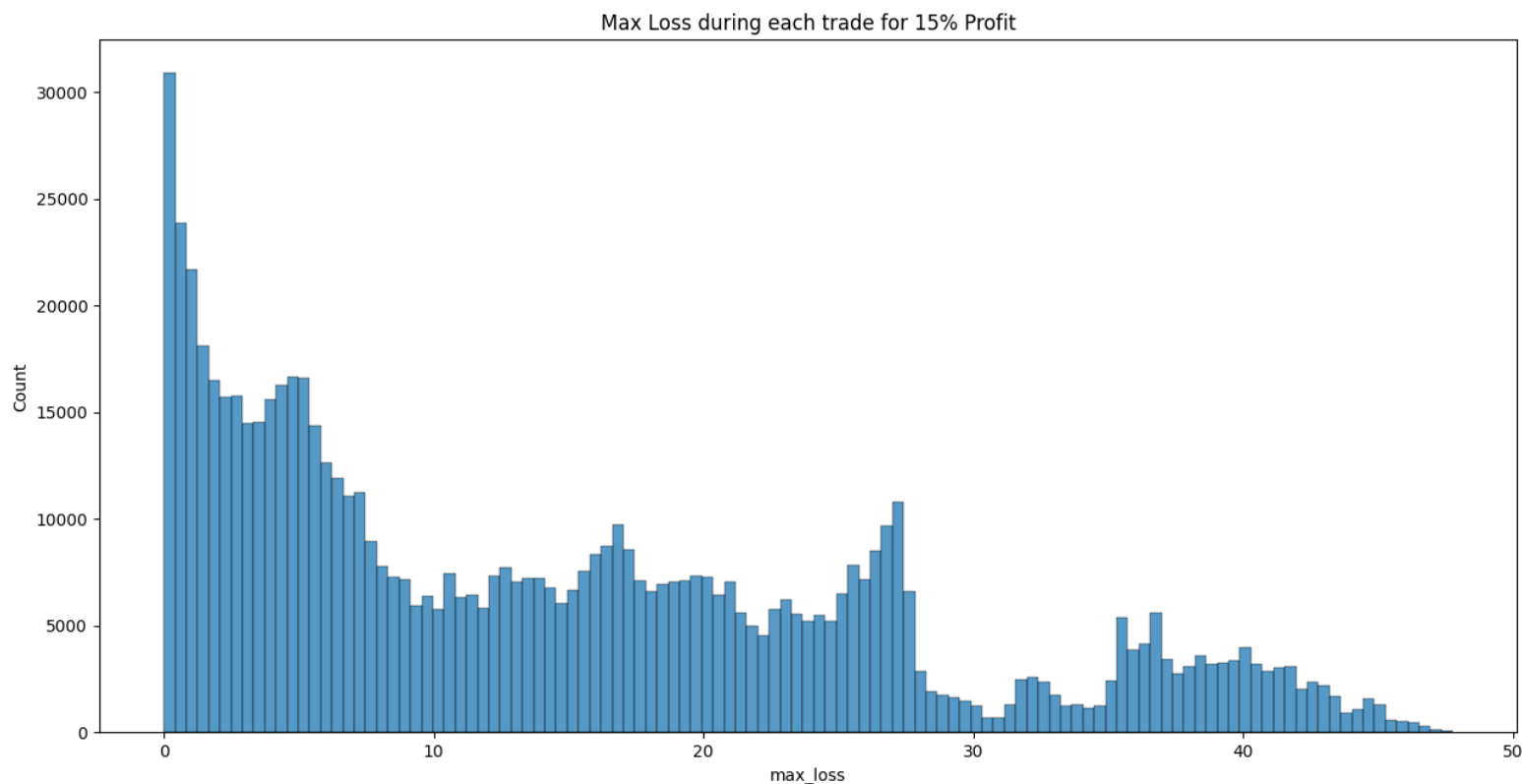
10% increase within	In total	15% increase within	In total	20% increase within	In total	25% increase within	In total
3 days	20.28%	3 days	7.09%	3 days	3.45%	3 days	1.75%
5 days	33.75%	6 days	19.16%	6 days	10.19%	6 days	6.07%
7 days	42.68%	9 days	29.99%	9 days	17.76%	9 days	11.31%
10 days	52.46%	12 days	38.98%	12 days	27.34%	12 days	16.78%
14 days	60.57%	15 days	46.73%	15 days	33.58%	15 days	22.65%
17 days	64.73%	21 days	55.77%	21 days	46.79%	21 days	36.06%
20 days	66.21%	30 days	65.04%	30 days	57%	30 days	48.89%
30 days	72.77%	39 days	71.59%	45 days	70.55%	54 days	70.78%

Finding:

Based on the historical SOL/EUR data, the 3% profit target is typically reached within ~2 days, not within a single day. In contrast, achieving larger gains such as 10% or 15% becomes more reasonable when allowing longer holding periods.

Risk Analysis: Maximum Loss Before Achieving +15% Profit

- For trades targeting +15% profit, the required waiting time in the market becomes significantly longer.
- During this extended holding period, the data shows a high probability ($\approx 70\%$) of experiencing a drawdown of around -21% before the price ever reaches +15%.
- This introduces substantial risk and psychological pressure, and may trigger stop-loss rules or capital constraints.



Max loss less than	In total
3%	19.63%
6%	34.58%
9%	43.98%
12%	50.14%
15%	56.96%
18%	64.79%
21%	71.59%
24%	76.92%

Final Strategy:

- ✓ Daily trading with a 3% profit target is not realistic. Historical data shows that reaching +3% usually requires more than one day.
- ✓ A +10% profit target is reached with $\approx 70\%$ probability after about 1 month of waiting.
- ✓ A +15% profit typically requires at least ~ 39 days. These longer-term targets involve less short-term risk compared to forcing daily trades.
- ✓ If higher profit is desired while keeping risk reasonable, a 3% profit target is still valid, but not on a daily basis. A more practical approach is trading with a minimum holding time of ~ 2 days.