

Truths about stop-losses  
that nobody wants to believe

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# Agenda

- How stop losses have performed over 150 years of testing in 3 research papers
- What type of stop loss performed best?
- Do they increase or decrease returns
- What about false signals
- What stop loss % is the best to use?
- Exactly how to implement a stop loss strategy
- Questions and answers

# How have stop loss strategies performed? – Study 1

- Paper [When Do Stop-Loss Rules Stop Losses?](#)
- Simple 10% stop loss applied to arbitrary portfolio
- When exceeded the portfolio was sold and invested in long term US government bonds
- Moved back into the stock market once the 10% fall recovered
- Applied US markets over the 54 period year period January 1950 to December 2004

# How have stop loss strategies performed? – Study 1

- Over the 54 year period the strategy provided higher returns while limiting losses
- When invested in stocks - higher return than bonds 70% of the time
- Stopped-out periods (in bonds) the stock market outperformed only 30% of the time
- Stop-out periods uniformly distributed over time – not only major crashes driving the results
- After the bursting of the tech bubble got into market to quick (10% too low)

# How have stop loss strategies performed? – Study 2

- Paper [Performance of stop-loss rules vs. buy and hold strategy](#)
- Compared trailing and traditional stop-loss strategy to buy and hold
- Invested in Stockholm 30 Index in Sweden with quarterly rebalancing
- 11 year period between January 1998 and April 2009 (Internet bubble and financial crisis)
- Tested stop-loss levels from 5% to 55%

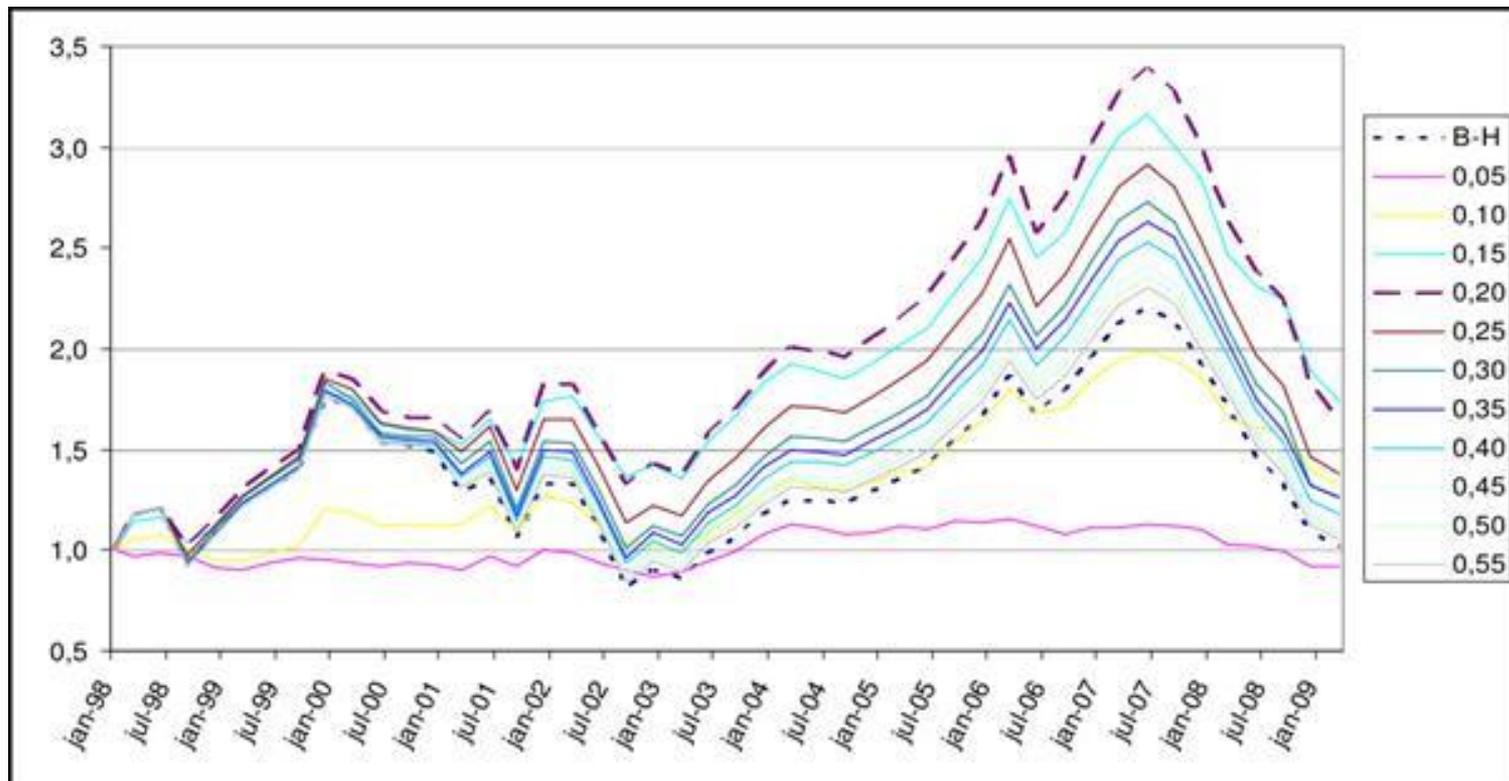
# How have stop loss strategies performed? – Study 2

Trailing stop-loss performed best

<u>Trailing Stop-loss</u>	B-H	5%	10%	15%	20%	25%
Cumulative	1.29%	-8.14%	31.75%	73.91%	63.60%	38.02%
Mean	0.80%	-0.12%	0.84%	1.67%	1.71%	1.37%
Variance	0.0154	0.0015	0.0048	0.0090	0.0126	0.0134

<u>Traditional Stop-loss</u>	B-H	5%	10%	15%	20%	25%
Cumulative	1.29%	39.69%	57.10%	53.31%	36.13%	21.62%
Mean	0.80%	0.95%	1.38%	1.47%	1.30%	1.11%
Variance	0.0154	0.0044	0.0078	0.0107	0.0126	0.0136

# How have stop loss strategies performed? – Study 2



*Cumulative returns of each strategy – Trailing stop loss strategy*

# How have stop loss strategies performed? – Study 3

- Paper [Taming Momentum Crashes: A Simple Stop-loss Strategy](#)
- Simple momentum strategy
  - Each month buying the 10% of companies with largest 6 month price gain
  - Selling short the 10% of companies with the largest price fall over the past six months
- 85 years from January 1926 to December 2011 to all US domestic companies

# How have stop loss strategies performed? – Study 3

	Average Return %	Standard Deviation	Sharpe	Skewness	Mininum Return %	Maximum Return %
Market performance	0.65	5.43	0.19	0.19	-29.13	39.85
Momentum Strategy	0.99	6.01	0.17	-1.18	-49.79	45.11
Momentum & 10% Stop Loss	2.32	4.61	0.50	1.54	-15.37	44.87
Momentum & 15% Stop Loss	1.93	4.85	0.40	1.28	-17.43	46.52
Momentum & 20% Stop Loss	1.62	4.99	0.33	1.04	-16.79	47.13

Average Return %: Average excess return over the market per month

# Research Summary

- Three different strategies tested over 150 years showed that even a simple stop-loss strategy provided higher returns while lowering losses
- Trailing stop loss is better than a fixed percentage stop-loss
- Best stop-loss percentage 15% or 20%
- Stop loss strategy lets you avoid market crashes
- Stop-loss strategies lowers wild down movements
  - increasing your risk adjusted returns

# How to implement it?

- The strategy we use in the [Quant Value newsletter](#)
- Use a trailing stop-loss strategy
- Only look at the stop-loss once a month
  - If daily too volatile and trading too much – high trading costs lowers your return
- Sell when trailing stop-loss level of 20% has been exceeded
- Measure the trailing stop-loss in the currency of the company's primary listing. This means a Swiss company in Swiss Francs (CHF) even if your portfolio currency is Euros
- Reinvest the cash from the sale in the best idea that currently fits with your investment strategy
- Don't leave stop loss orders with your broker

# Questions and answers

There is no such thing as a stupid question

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