How to avoid Black Swans with Point & Figure charts

Main topics

- Introduction: The daily job of technical analysts and what to expect from them.
- What is a Black Swan?
- Why are trend following tools good to deal with Extreme Events?
- Case studies on Point & Figure chart strategies
Don't try to be a hero!!

Preliminary talks about some popular market mantras

- **Financial markets “discount everything”**. Don’t try to be too smart!

- **“Most successful traders are contrarian investors”**. It may be true for aggressive traders but not for long-only asset managers.

- **“Don’t try to anticipate Black Swans”**. It is not possible to do so. It depends what you call a Black Swan!
Financial markets are great leading indicators!

“Wall Street indexes predicted nine out of the last five recessions”, Paul Samuelson

- Stockmarket prices are included in most leading indicators
- Markets **DO ANTICIPATE** most economic turning points
- They are amazingly accurate to forecast bankruptcies and major market disruptions

*Economics has never been a science - and it is even less now than a few years ago.*

*(Paul Samuelson)*
Stockmarkets even anticipate interruptions!

“Global Stock Markets in the Twentieth Century”, P. Jorion and W. N. Goetzmann

- 25 interruptions mostly in the 1930s and WWII
- Only four cases since the 1960s (Egypt in 1962, Argentina in 1965, Chile in 1971 and Portugal in 1974).

Performance of real stock prices a year before interruptions

-20% on average in 12 months before an interruption

Source: Philippe Jorion, William N. Goetzmann
What should I recommend to my clients today?

We need a routine, a methodology, a roadmap!

Typical questions from investors:

- **In a bull trend:**
  - Do you think it is time to sell? Don’t you think it is overbought?
  - How high do you think the market can go?

- **In a downtrend:**
  - Is the market oversold?
  - Should I buy now?
Contrarian thinking is good but ....

- A lot of people spend a significant amount of time trying to **anticipate inflexion points**
- Overbought markets can continue to rise and oversold markets will often continue to decline much longer than what most people think...
How can technicians add value to your trading?

Don’t expect too much from technical analysts!

- They listen to the markets (what people are doing, not what they are saying)
- They help to characterize trends: up / down or sideways?

- When you ask advice to a technician, please DO SELECT YOUR TIME FRAME or at least your favourite investment period
How can you make money in financial markets in the long run?
- Buy & Hold … and Pray
- Be an insider
- Be a genius (but you will also have to work hard…)
- Be disciplined! (not so easy)

If you are not Warren Buffet and don’t want to go to jail, trend following is what you need
- Keep losses small (and hopefully avoid Negative Black Swans)
- Avoid taking profits too early (to benefit from Positive Black Swans)
Statistical explanation of a Black Swan

Probability curve

\[ f(t;0,1) = N(0,1) \]

Trend following helps to avoid bankruptcies and abnormally low returns

Trend following helps to capture abnormally high returns
What is a Black Swan?

An “extreme” event that cannot be forecasted!

- A few examples of **Negative Black Swans**
  - Fukushima
  - 1929 & 1987 crashes
  - LTCM or Lehman failure
  - World Trade Center attacks

- **Positive Black Swans** also exist!
  - Penicillin
  - Post-it
  - Velcro
  - Marc Zuckerberg
  - Steve Jobs
Warning! Trend following is not Holy Grail!

- **You will lose money in trading ranges**

- Markets are trending around 20-30% of the time so it is **important not to miss strong trends**
Next step: which trend following tools should we choose?

There are plenty of techniques available!

- Moving averages (simple, exponential…)
- Oscillators like MACD
- Trendlines & chartist analysis
- Parabolic or other trailing stop methods
- Ichimoku charts
- Point & Figures
Why I like 3-box reversal Point & Figure charts

A lot of people criticize the subjectivity of technical analysis. **They are right!**

- Objective interpretation of patterns (unlike chartist analysis)
- Clear targets
- "Low-pass filter"
- Reduced lag compared to simple moving averages
- Automatic detection of trends with 45° trendlines (just 1 point needed!)

- They do help to reduce psychological biases
Explanation of P&F charts as an asymmetric filter

Point & Figure 1x3

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The power of 3 box size reversal P&F charts

Jeremy du Plessis: «The Definitive Guide to Point & Figure charts»

- Objective vertical & horizontal targets

- 45° trend lines define «the trend»

Source: Jeremy du Plessis
They do help to categorize your trades

**Contrarian ideas**

- High risk -> be reactive and use tight stop losses
- Preferably use high reward-to-risk ratios

**Trend-following ideas**

- You can put loose stops
- Trades are “less risky” so high reward-to-risk ratio not needed
Which box size should we choose?

- Depends on the **volatility** of the asset studied
- Depends on the investment **time frame** and portfolio **turnover** allowed

- My favourite settings on equities and indices:
  - Semi-log scales for daily charts (usually 0.5% / 1% / 2%)
  - Linear scales for intraday charts
  - Don’t use weekly or monthly prices for Point & Figure charts!
Identifying the primary trend with Point & Figure charts

Case study on Alcatel-Lucent: is this a bear trend?

Alcatel-Lucent between 1997 & 2014

2% x 3 daily close Point & Figure chart
Case study on Alcatel-Lucent (2% x 3): 45° lines help to define “the primary trend”

Alcatel-Lucent between 1997 & 2014

2% x 3 daily close Point & Figure chart with 45° trendlines
A basic trading strategy based on Point & Figure charts

Rules of TRADING MODEL #1:

- Favour long strategies when a market is above its ascending 45° support line
- Stay in cash when a market is below its declining 45° support line
A basic trading strategy based on Point & Figure charts

TRADING MODEL #1 on Alcatel, 2%-3 Point & Figure chart:

Buy & Hold: -89%
Long-only strategy: +74%
Another French stock with a similar bearish chart: Alstom!

Case study on Alstom (2%×3)

- Alstom between 1998 & 2014
- 2%×3 daily close Point & Figure chart with 45° trendlines
Why are results mixed on Alstom?

Case study on Alstom (Trading model #1, 2% x 3 Point & Figure chart)

Buy & Hold: -89%
Long-only strategy: -45%
Now have a look at a leading French stock!

Case study on Air Liquide (1%x3)

- Air Liquide between 1999 & 2014
- 1%x3 daily close Point & Figure chart with 45° trendlines

Too much whipsaws!
Case study on Air Liquide (trading model #1, 1%x3): difficult to beat buy & hold

Buy & Hold: +374% since 1998
Long-only trading strategy: +21%!
First conclusions on Point & Figure as a trading tool

- Better results on trending markets with high volatility
- Help to be in cash during bear markets
- Help to stay long during sustained bull markets

Main risks:
- Lot of false signals when volatility is low (reduce the box size!)
- You will lose money during trading ranges
- Trend reversal signals will come too late after exponential moves
Euro STOXX 50: 1% x 3 PF chart since 1987

Case Studies on P&F charts
Trading Model #1 applied to Euro STOXX 50 (1%x3)

- Buy & Hold since 1987: +257%
- Long only strategy: +298%
- Only 5 winning trades out of 20!! But...
- Average gain: +46%
- Average loss: -1.8%
Trading Model #1 with short selling allowed

Rules of TRADING MODEL #2:

- Favour long strategies when a market is above its ascending 45° support line
- Go short when a market is below its declining 45° support line
Trading Model #2 applied to Euro STOXX 50 (1%×3)

- Buy & Hold: 257%
- Long-short model: +266%
- Average gain: +30%
- Average loss: -2.5%
Next step: improving reactivity of P&F model

- What can we do to **reduce drawdown** after exponential moves like in 2000 and 2007?

- Several methods can help to solve this issue:
  - Internal trendlines
  - Track Point & Figure patterns
  - Use contrarian oscillators to buy the dips during bull trends / sell strength in a downtrend
  - Use moving averages or MACD on Point & Figure charts
1/ Use internal trend lines and patterns: case study on the year 2000 top

Euro STOXX 50 between 1990 & 2014

1% x 3 daily close Point & Figure chart with 45° trend lines
How can we reduce drawdowns?

1/ Use internal trend lines and patterns: case study on the year 2007 top

Fulcrum top

Euro STOXX 50 between 2003 & 2011
1% x 3 daily close Point & Figure chart with 45° trend lines
1/ Use internal trend lines and patterns

Euro STOXX 50 between 2009 & 2014

1% x 3 daily close Point & Figure chart with 45° trend lines
Trading Model #1 with buy & sell signals in an uptrend

Rules of TRADING MODEL #3:

- When the market is above its ascending 45° support line:
  - Buy when the index completes a double-top breakout
  - Close long on a double-bottom breakdown

- Stay in cash when the market is below its declining 45° support line

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Results of a P&F strategy #3 on Euro STOXX 50 (1%x3)

Disappointing results since 2010 because of whipsaws
Results of a P&F strategy #3 on S&P 500 (1% x 3)

Much better results on the S&P 500! Model is long since December 2011
Results of a P&F strategy #3 in a bear market applied to Euro STOXX 50

Short strategies are less rewarding than bullish ones (Model #3 in bear markets)
There are no limits!

- Filtering RSI signals with 45° trend lines
- Applying MACD to Point & Figure charts
- Using moving averages on Point & Figure chart to filter double-top and double-bottom signals
A smart model combining RSI and P&F trendlines!

Rules in a bull trend:
- RSI is overbought when >80
- RSI is oversold when <40

Rules in a bear trend:
- RSI is overbought when >60
- RSI is oversold when <20

Declining 45° resistance line

Rising 45° support line
Moving average applied to Point & Figure charts (8 periods)
And now, Ladies and Gentlemen….

Point & Figure charts applied to

Negative Black-Swan Events
• First warning on 8 October (double-bottom breakdown)
• Triple-bottom breakdown at the open on 19th October 1987
Strategy #3 applied to Dow Jones index in 1987-1990 (1%×3)

-40%

-23%
Case study on 1987 crash

Fine-tuning with 0.5%×3 box size on Dow Jones Industrials

- First double bottom breakdown on 16 September
- Second bottom breakdown on 9 October, 6 sessions before the crash!
Strategy #3 on Dow with a 0.5% x 3 box size in 1987-1990
The 1987 crash was a non event on Point & Figure charts!

No “trend reversal” in 1987 (1%\times 3 box size)!

45° degree support line
The main ascending 45° support line was support during 20 years (1% x 3)!

Line broken in September 2002
What about 1929?

The crash was not a “major event”. What happened a year later was more bearish…

- Double-bottom sell signal on 21 October, a week before the crash
- Vertical downside target at 242.88 broken on 28 October

Main 45° support line broken in October 1930
The exit signal was the break below the main 45° support line (strategy #1)
Strategy #3 applied to Dow between 2012 and 1946 (1%x3)
Case study on the 1929 crash

The 0.5% x 3 Point & Figure was even clearer

- Two consecutive double bottom sell signals
- Huge downside target at 243 validated on 21 October 1929
Now let’s have a look at Greece!

The 2008-2013 bear market could have been avoided

Main 45° support line broken in September 2008

Main 45° resistance line broken in October 2013
Flat on Greek stocks since 2000!

Trading model #1 applied to Greek stocks (1% x 3)
Double top/bottom strategy on Greek stocks

2014 is worst performance in 14 years on trading model #3!
What about Russian stocks?

Lot of whipsaws over the last three years!
Not so bad given difficult market conditions on trading model #3
Thank you for your attention!

Why I like 3-box reversal Point & Figure charts

- Objectivity

- Improve discipline and reduce the disastrous psychological bias on your trading

- You will spend less time trying to anticipate turning points and will sleep much better!