

## Investors Intelligence Using Point & Figure Charts

*Point and figure (p&f) charts provide a simple, yet disciplined method of identifying current or emerging trends in stock prices. This brief guide aims to familiarise the investor with the basic concepts behind p&f charts and highlights some of the benefits from using them in one's investment procedure.*

### The balance between buyers and sellers

P&F charts map out the relationship between supply (created by sellers) and demand (created by buyers) at different price levels.

- When demand outstrips supply (more buyers than sellers), stock prices rise and this is depicted by a column of Xs on the chart.
- Conversely, when supply outstrips demand, (more sellers than buyers) prices fall and this is depicted by a column of Os on the chart.

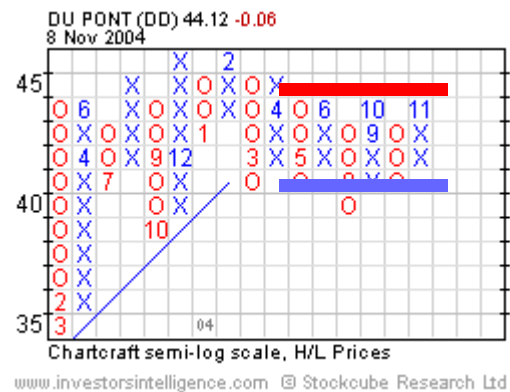
The objective of a p&f chart is to identify the points at which established supply/demand relationships change (these are known as "breakouts"). These changes will very probably lead to a future significant move in the stock price.

### An example, the chart of Du Pont shows a recent trading range of \$41-\$44:

At the \$44 level (red line) there is more supply than demand as sellers step in and prices retreat.

At the \$41 level (blue line) there is more demand than supply as buyers step in and prices rise.

In this case, a breakout (change in the supply/demand equilibrium) will occur when the range bands are breached on a move above \$44 or below \$41.



### What makes p&f charts so different?

There is no doubt that point & figure charts look very different from the now more common chart formats such as bar charts but with a little effort one quickly appreciates their simple yet effective approach – “point & figure charts shout where other charts merely stutter”. Notable features are as follows:

- **No time axis** - unlike bar or candlestick charts, p&f charts have no horizontal time axis – only price change generates chart action.
- **The 3 Box reversal rule** - P&F charts will not change direction (i.e. from a column of Xs to a column of Os) unless the price moves more than 3 'boxes' (or unit of price) in the opposite direction. There can therefore be no fewer than three boxes in a column. This reversal technique is one of the key strengths to p&f charting as it effectively filters out minor fluctuations to reveal patterns.
- **Semi log scale** - the Y axis scale on a p&f chart is graduated to allow one to view and compare similar signals for different prices stocks.
- **Clear cut signals** – what makes p&f charts so popular is the clarity of signal: each stock is either on a **buy** or on a **sell** and identifying when this signal changes is well-defined and easy to spot.
- **Support/resistance levels easy to identify** due to the almost diagrammatic box format.
- **Stop and target levels** are calculated for every breakout signal

## P&F Chart Construction

Our web site generates both the p&f charts and the resultant signals for you (and we e-mail you when a signal changes). However, it is important to have an understanding of how p&f charts are constructed. The following exercise aims to demonstrate how p&f charts develop and highlights just how quickly patterns emerge.

<p>A stock was recently floated at \$50. It moves steadily higher from \$50 to \$55, with hardly any pull-backs.</p> <p>The stock then starts to attract profit-taking and the price trades down by \$2 to \$53. However no movement is shown on the chart because the '3 box reversal rule' requires the price to move by three price units in the opposite direction below the highest point of the column of Xs i.e. <math>\\$55 - \\$3 = \\$52</math> before registering the move.</p>	<p>56          55 X          54 X          53 X          52 X          51 X          50 X</p>
<p>The stock then trades down to \$52, triggering the 3 box movement and the chart reverses down by 3 price units.</p>	<p>56          55 X          54 X O          53 X O          52 X O          51 X          50 X</p>
<p>Each subsequent move in the established direction is recorded as it happens. Here the stock trades down by another \$1 to \$51 so we add another O to the chart</p> <p>The stock could trade back up \$2 to \$53 but no chart action will be shown since the 3 box reversal rule requires three price unit movements above the \$51 low point to \$54 (i.e. <math>\\$51 + \\$3</math>) before registering on the chart..</p>	<p>56          55 X          54 X O          53 X O          52 X O          51 X O          50 X</p>
<p>The stock trades up by another \$1 to \$54, making a \$3 increase and so triggers a up reversal of the full price rise to \$54.</p>	<p>56          55 X          54 X O X          53 X O X          52 X O X          51 X O          50 X</p>
<p>As the stock price continues its upward movement, by \$2 to \$56, each new movement is registered on the chart. In this instance, we have our first breakout, a p&amp;f bull signal, generated when the current up column (Xs) moves above the previous up column of Xs</p>	<p>56 X          55 X X          54 X O X          53 X O X          52 X O X          51 X O          50 X</p>

## P&F Scaling

### Semi Logarithmic Scales

Stock charts use a semi-logarithmic scale so that price formations remain appropriate at different levels.

The classic scale is as follows:

Up to \$5	0.25 per box
\$5 - \$20	0.50 per box
\$20-\$100	1.00 per box
\$100 upwards	2.00 per box

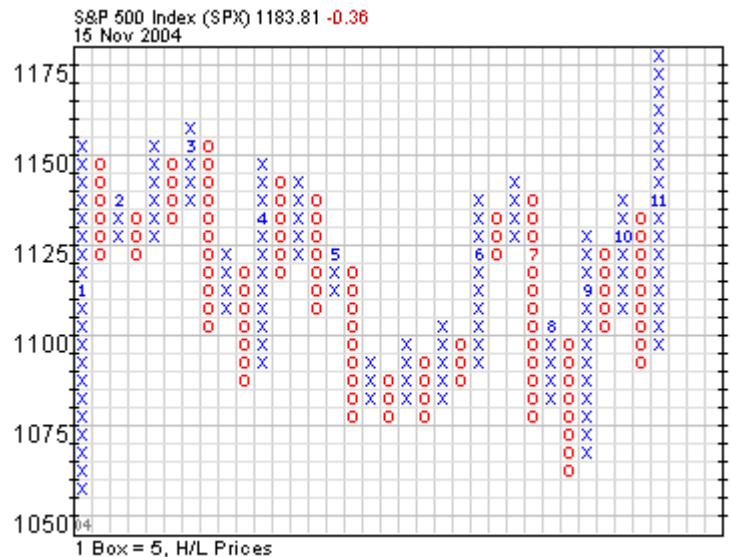
We have recently introduced the new extended semi-log scale which provides a more sensitive scale for low priced stocks and also handles high priced indices more appropriately.

Up to \$5	0.10 per box
\$5 - \$10	0.20 per box
\$10-\$20	0.50 per box
\$20-\$100	1.00 per box
\$200-\$500	5.00 per box
\$500-\$1000	10.00 per box
\$2000-\$5000	50.00 per box

### Fixed Scales

For indices, we generally use a fixed scale which is selected by balancing the necessary sensitivity with the efficacy of signals produced.

For example, the S&P500 index currently uses a 5 point box scale.



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For breadth indicators and other oscillators with scales from 0% to 100%, we use a fixed 2% scale i.e. using a 3 box reversal it takes a 6% move to reverse the indicator.

### P&F Support and Resistance Levels

Whilst we are fully acknowledge the warning 'past performance is no guarantee of future performance' **support** and **resistance** levels emerge as patterns showing how investors have *actually* behaved at certain price levels – ie the price at which demand for a stock outstrips supply (price 'support') and the price at which supply outstrips demand (price 'resistance'). A breach of these expected levels is important in signalling a new trend.

<p>Support levels are identified as a horizontal row of Os which represents a level at which demand overcomes supply i.e. where buyers feel confident to step in.</p>	<pre> O O           X OX X X X OXOXOXOX OXOXOXOX O O O O                 </pre> <hr/> <p><b>Support</b></p>
<p>Resistance levels are identified as a horizontal row of Xs which represents a level at which supply overcomes demand i.e. where sellers feel confident to step in.</p>	<p><b>Resistance</b></p> <pre> X X X X XOXOXOXO XOXOXOXO XO O OXO X       O O                 O                 </pre>

### Long Term Support Levels or “Green Zones”

An examination of long term p&f charts will often reveals levels at which stocks consistently find support (we reduce the display size of Xs and Os to do this). We refer to these levels as “green zones” from which we will be actively watching for new p&f bull trends to emerge since the next price moves are, on past performance, *likely* to be upward . We look for further confirmation such as selling climaxes (particularly if on high volume) and evidence of insider buying.



### Long Term Resistance Levels or “Red Zones”

Conversely, stocks reaching areas where they consistently find resistance are known as “red zones”. These are levels at which caution should be exercised, since the next price moves are, on past performance, *likely* to be downward. Here we would initiate a **stop loss policy** to limit our losses.



## Trend Lines

Trend lines are very important in point & figure analysis. The saying that 'the trend is your friend' is certainly true.

### The Bullish Support Line

Stocks above their bullish support line should be assumed to be in long term uptrends.

The line does not connect points and can therefore be drawn immediately when an uptrend begins. It is drawn from the lowest point made after the completion of a bear trend or a significant down move. It is always drawn at a 45 degree angle, intersecting ascending corners of the squares on the chart.

Long positions should be considered while the stock is above the bullish support line.

A break of a bullish uptrend line (that has been in place for a considerable amount of time) is considered to be a bearish event.

The bullish uptrend line for Cisco (shown below) has been in place since 2002.

By November 2004 (date of the chart) the stock has retraced below the bullish uptrend line and although there is a great example of horizontal support shown by four down columns of Os reversing back up at the same level.



### The Bearish Resistance Line

Stocks below their bearish resistance line should be considered to be in long term downtrends.

The line is drawn from the highest point on completion of a significant uptrend and is extended downwards at an angle of 45 degrees as far right as possible.

Short positions should be considered while the stock is below the line and any buy signals given below this line should be disregarded.

A break of the bearish resistance line is considered to be a very bullish event.

In the chart of Bristol Myers Squibb below, the price has remained below the bearish resistance line since December 2001. In February 2004, it failed again at the line.



## Relative Strength Charts

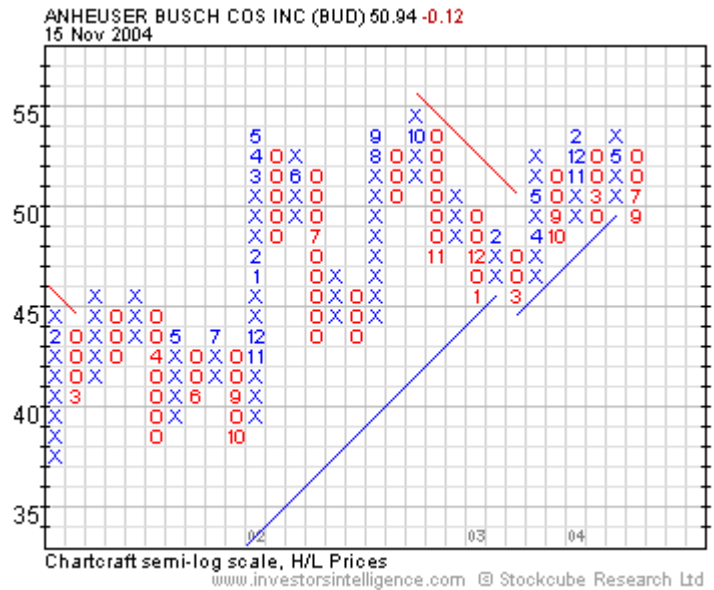
Movement of stocks, to a greater or lesser degree, is influenced by the trends of the headline market indices and it is often said that "a rising tide lifts all boats". Relative strength charts aim to eliminate this market factor providing a more accurate way of comparing a stock against its peers.

The relative p&f chart is a ratio of the stock price divided by the index price. The two indices most useful for relative purposes are the Dow Industrials and the S&P500 indices. To bring the ratio number up to a chartable level, we currently multiply the resultant ratio by 10,000 for Dow relative charts and 1,000 for S&P500 relative charts.

For example,

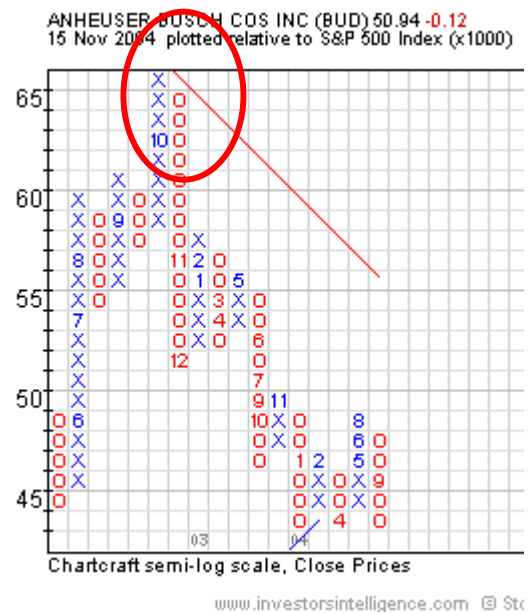
Anheuser Busch (BUD) is finding resistance at around \$54 but remains in a p&f uptrend.

What should we do with the stock?



Looking at the relative chart for BUD... it suddenly becomes much clearer...

The stock gave a p&f sell back in November 2002 – look at the downtrend in the relative chart since then!





## Determining Price Objectives

There are several methods for determining the price objective on a point & figure chart, the most popular is the vertical count method. This is a mathematical calculation applied to all new p&f signals that provides a good ball-park figure of what could be achieved from that signal. A quick risk reward ratio of any buy signal can be calculated by comparing the price objective to the stop loss level (below the prior down column for a p&f buy).

We would also suggest studying areas of overhead resistance and looking for the bearish resistance line when considering the likely upside potential for a stock.

<p><b>Calculations for a buy signal</b></p> <p><i>To determine the vertical count for a buy signal, count the number of Xs to the right of the low point, multiply by the box size and multiply by 3.</i></p> <p>For example, in the example opposite, the stock generated a triple top buy at \$56 but the low point was the first column of Os down to \$51.</p> <p>We therefore count the column of Xs next to this column i.e. 5 boxes multiplied by the box size (\$1) multiplied by 3 = \$15</p> <p>To get the price objective, we add \$15 to the low point i.e. \$51 + \$14 = \$65</p>	<pre> 56 O      X 55 OX X X 54 OXOXOX 53 OXOXOX 52 OXO O 51 OX 50 </pre>
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<p><b>Calculations for a sell signal</b></p> <p><i>To determine the vertical count for a sell signal, count the number of Os to the right of the high point, multiply by the box size and multiply by 3.</i></p> <p>For example, 4 boxes in down column to the right of the high point at \$56, multiplied by the box size (\$1), multiplied by 3 = \$12.</p> <p>Price objective subtract \$12 from high point \$56 = \$44.</p>	<pre> 56 X 55 X XOX 54 XOXOXO 53 XOXOXO 52 XO O O 51 X O 50 X </pre>
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