

# VANTAGEPOINT INTERMARKET NEURAL NETWORKS

**I**t has long been lamented in technical analysis circles that indicators that appear to work so well are in fact lagged in their response and therefore hindered in their predictive ability. The challenge to the humble moving average has always been to somehow make it more predictive.

VantagePoint (VP), launched in the early nineties from Florida based Market Technologies, goes some way towards that goal, demonstrating a high degree of accuracy from the results of its five independent neural networks.

Neural nets have been around for a while now. Often their main drawback is that of the complexity of the output and time taken to analyse and compute the results. These limitations often make these models difficult to apply in an active trading environment.

Even though the technology "under the bonnet" is rather complex with

VP, the outputs are simple to understand and easy to apply. VP's accuracy and simplicity are without doubt two of the key reasons for the product's success and longevity. The company has continued to prosper since its inception in 1979 whilst most other end-of-day software companies have fallen by the way.

#### **Markets covered**

Each of VP's 43 markets is sold as a bespoke module. Additional markets are being progressively introduced each year. Of interest to the institutional market is the imminent release of 13 currency pairs based on 24 hour cash forex data, as opposed to the seven futures market based currency modules available at the moment. In addition to this, Market Technologies also plans to release a module for the DAX Index (cash or futures) sometime in the second quarter of 2005.

#### **Intra-market relationships**

In the late 1980's it became obvious, especially with the advent of the 1987 crash, just how interrelated markets had become - even on an intra day

basis. The interrelatedness of markets is now a critical consideration for any trader or investor.

VP uses data input from nine separate markets in order to run its five neural net outputs. The outputs, which can be displayed in chart format or as a report, are generated at the end of each trading day and give predictions that go several days forward.

Their British pound model, for example, uses inputs from the US Dollar Index, Eurodollar, EuroFX, Comex Gold, Japanese Yen, Swiss Franc, S&P 500, 10 Year US Treasury notes as well as the British pound itself. In most cases cash, futures or continuous contract data can be chosen as the input from an easy to use input configuration table.

Data is provided by either CSI or Genesis via a daily internet data download. Both are well known and accurate sources of end of day data. Errors are automatically back corrected by these companies.

#### **The five neural nets**

There are five neural nets, each providing their own piece of the picture.

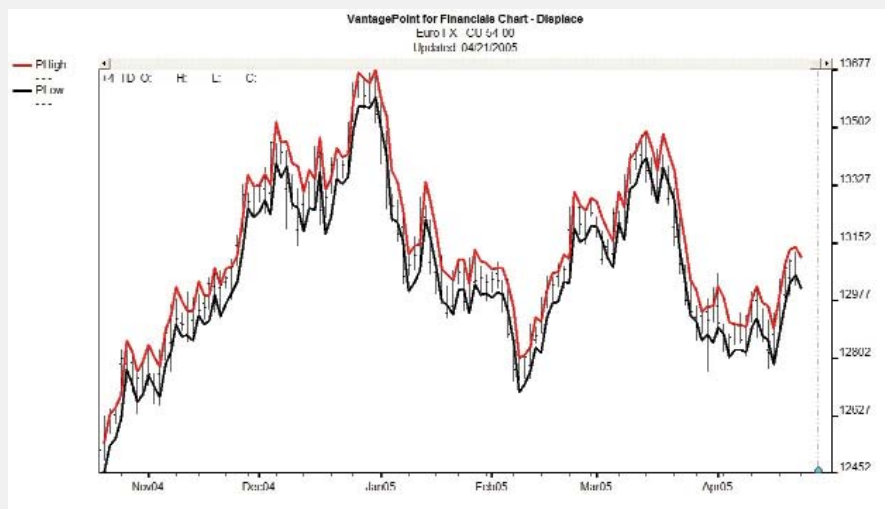


Figure 1.

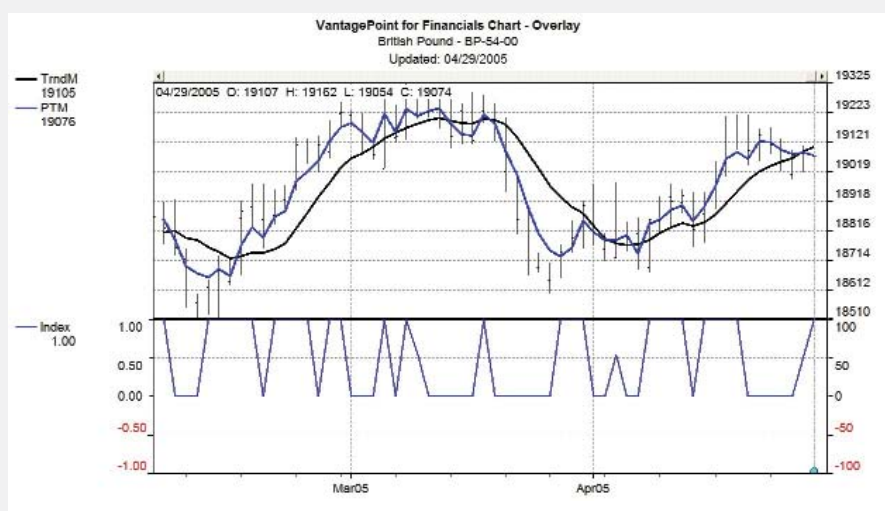


Figure 2.

The first and second neural nets have the job of predicting the price range for the next trading day - the first net predicts the high and the second net predicts the low (Figure 1). A statistically accurate idea of the area a high or low will take place in the following day's market can clearly be put to very good use in many intra-day trading strategies. More than one trader we spoke to was using the high and low target areas to judge entry and exit points on intra-day trades - sometimes in conjunction with other indicators.

When we compared for example, VP's predicted next day highs and lows with Support 1 and Resistance 1

pivot points, VP performed far better. One reason being that pivot point levels for the following day rely on the previous day's range. Since narrow days often follow expansive days, pivot points have this inherent flaw that VP does not appear to suffer from. However, consistently predicting the next day's high and low with 100% accuracy is impossible and even VP sometimes misses the mark. VP is, however, a relatively accurate and reliable predictive probability tool.

A third neural network issues a "Neural Index" (Figure 2). This indicates whether or not the market is likely to top or bottom out (in other words, change trend direction) in the

next two days. Some traders use this index as a filter to take intra-day positions in conjunction with the intra-day predicted high or low, selling close to or at the predicted high if the market in question is predicted to fall or buying at or near the predicted low if the neural index shows a likely uptrend.

The fourth network predicts the five-day moving average for two days into the future and the fifth and final neural network predicts the ten-day moving average for four days into the future (Figures 3 and 4). Several of the traders we interviewed for this article used a crossover of the predictive averages with a corresponding change in the neural index in order to generate a signal.

### VP in practice

The five outputs are often used in combination to confirm each other. However, VP is a set of indicators and not a system. As such, each trader develops his or her own systems and trading techniques from VP's output.

For example, one futures trader we spoke to looks at all 43 markets each day and has developed a form of momentum indicator from the averages in order to reliably detect when the market is coming into a turn. He will then use this in combination with the neural index output and try also to time his entry according to the predicted high or low. Therefore, even for a longer term position, he uses VP to optimize his entry point. Surprisingly, this trader now only uses VP, having apparently given up on other packages.

All VP indicators can be charted and tabulated in a user defined output. Output formats include oscillators (that are based around a zero line) and allow users to compare predicted output with the current data. For example, Phigh Diff is a derivative indicator that shows the difference between the predicted high →

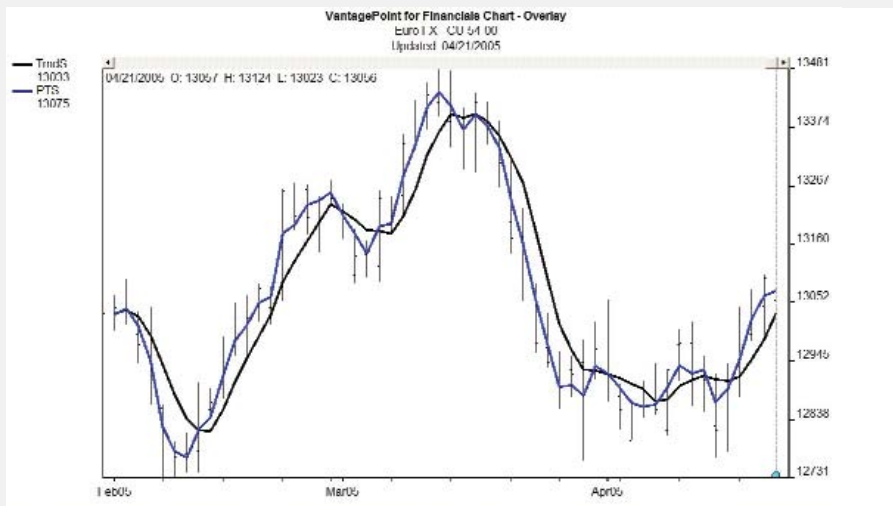


Figure 3.

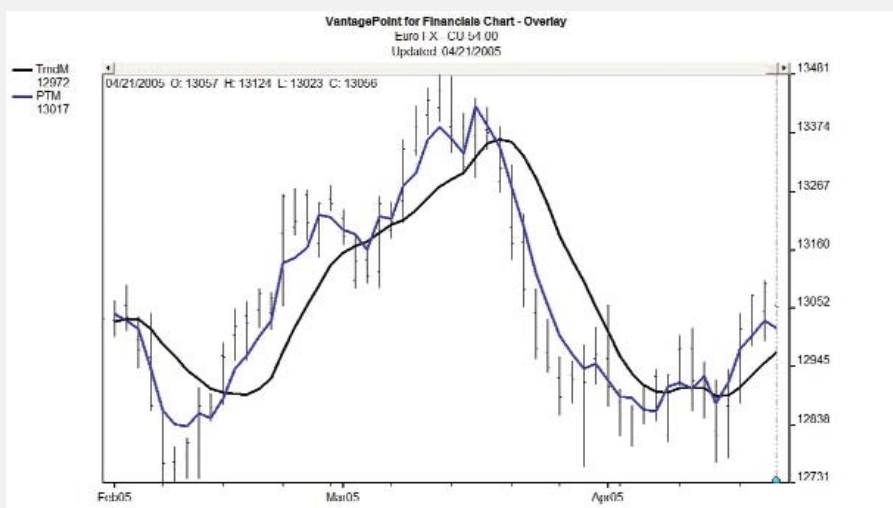


Figure 4.

for tomorrow and today's actual high. In addition, a historical output report is available that will show all results in a user defined table, going back just under three months.

### Case study

Mark DiMaggio, a broker with Opportunities in Options from California, uses VP to manage a wide variety of private futures and options portfolios. He also sometimes works in conjunction with clients who have the VP software.

As many traders are unwilling to carry the overnight exposure in their positions in what DiMaggio describes as "the sleep factor", he uses calendar

ratio spreads in markets such as crude oil, silver, bonds and the euro in order to maximise the return while being able to quantify the risk. He claims that although he may use various indicators and chart patterns to get the bigger picture, VP plays a critical role in timing position entry. He credits VP for taking him (and his client portfolio) into a recent and profitable short position in crude oil.

Even more important though, DiMaggio asserts that VP gives him staying power in a position. Whilst some clients will inevitably choose to bank profits early on in a move, DiMaggio claims that VP, being both predictive and accurate, enables him

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to stay short or long thus allowing the full potential of the move to be realized.

*VP is sold with a minimum of three markets (chosen from the 43 available) and starts at US\$3,500 for individual clients. Additional discounts are available for 6, 10, 15, 21, 30 and all 43 markets. Contact Market Technologies, LLC for institutional pricing. Free forecasts are available by request at their website, [www.tradertech.com](http://www.tradertech.com).*

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