

## **Newsletter 6 – July 27, 2003**

It's a long while since newsletter 5 (so sue me <g>) ... here's the state of play then:-

Newsletter 5 was last September, since then I've co-authored a book, turned down a licensing deal (the offer was derisory), had one magazine article published and am still negotiating another, the program is some 70 updates further on, and there's another magazine review in the pipeline.

So I hope you'll understand I've been a bit busy – I still chat a lot via email with users, but I've actually fallen down on the newsletter front, which I didn't want to do because this is where I get to talk about development, trading, and anything else I feel like... this is as close to fun as I get! (Okay, I do take a few breaks now and then, but solving the market riddle remains a major interest).

### **Development:**

Recently I updated the security code (which I buy off another company) and it promptly disagreed with the installer I used to turn the program into a nice double clickable package... as the new security code is nicer to customers I therefore scouted round for a better installer – the security company helped check that their code and my new installer, InstallShield Express 4, would run okay on a whole bunch of platforms. IS4 isn't exactly a click and you're done sort of program (no matter what the ads say) so there've been a few glitches getting the new versions and patches packaged up... sorry, I'm learning how to use it as fast as I can!

As far as the program itself goes – there've been loads of changes since 2.25 (I think that was the latest version when newsletter 5 came out) – the major changes have been to add several new signals to the armoury and to add backtesting, so I'll cover them in that order.

### **New Signals:**

If you look at the signals listed in P&F books they're almost all breakout signals – they're really suited to trending markets, only a few like the Buying/Selling Climax attempt to find tops and bottoms as trend reversal signals. I'll reiterate my official position here, I learned a fair amount from Tom Dorsey's books, a lot from Burke (Cohen's disciple) and I'm not having a go at them, but I've been concerned over the last few years that the writing on P&F seems to keep trotting the same old stuff out – when people write about P&F they seem to either ignore things like 'how often the signal is a winner' or they quote a study from 1960... there appears to be little original research in P&F, and despite the fact that it's 'just one more way to do TA' it is approaching the status of a religion with some adherents – I've argued (and quit in disgust, frankly) with people who produce the most outlandish arguments to support conventional P&F ideas even though testing those ideas shows them to be either worthless or offering no noticeable effect. An

example of this is the 'traditional' scaling of P&F boxes as per Burke, Dorsey, Stockcharts (who offer log as an alternative, good for them)... I've compiled endless tables of results for the past 15 years, I've found the following out:

**Box size has little effect** on the percentage of trades that win, it does alter the number of signals given. If you get 400 trades signalled using a 2x3 chart and 200 winners, then you swap to a 10 x 3 box you tend to get maybe 50 trades but the same 50% winners. Altering box size doesn't make you more or less likely to win, it alters the number of trades signalled. Bigger boxes = less trades. I'm not saying that an individual who hand tweaks each chart, setting each and every chart up by hand, can't improve the sort of figures seen in this report... It's rather hard to manually track hundreds of shares that way of course! For those of us looking to scan hundreds or even thousands of shares you **can't** do this, it's impossible.

**Chart type** – Log, Rng Log, Traditional, Range, Cbsing – they all work, and it's a real swings and roundabouts case here... if log boxes do better one day then traditional works better the next. There seems to be no noticeable advantage of one chart type over another.

My apologies to those who disagree – I have LOTS of data to back this stuff up, if you want to argue I'm only interested in people quoting figures.

**Commonsense doesn't work**, I'd be the first to agree that a good idea deserves to pay off, the fact remains that testing produces results that don't make sense... just because "it's obvious that X should happen" doesn't make it so – I'm sorry, but many sensible ideas, when you go and test them, don't work... you might think that such and such a signal should do well when the market is trending up, but when I've tested ideas like this the results have been poor... To put this into some kind of perspective I've been really wracking my brains for all sorts of good ideas (PV10, PV50 and the RSI signals for example from the backtest csv file), and I've really gone at it for the past 6 months or so, it's only in the past couple of weeks I've found something I think is useable. A simple rule is that **just because something makes sense, sounds right, and 'ought to work' that doesn't mean it will.**

A follow on comment here on a personal note – I've tested a huge amount of things out, I doubt that 5% of the serious traders out there have matched the effort I've put into this... so whilst I'm happy to be told where I've gone wrong (I'd rather be sheepish and in profit than stand on my dignity and lose money) I'm not interested in 'logical' arguments that aren't supported by hard facts – show me the data, and tell me how to check it for myself, and I'll listen. All I'm asking for here is that those who want to argue put some effort into proving their case, just as I have. I really would be happy to hear of some clever idea to hit 80% winners that I've overlooked <g>

So, signals then –

Breakout signals form the bulk of P&F signals, but if you chat to P&F users you'll find a recurrent theme – trading pullbacks, where instead of taking the initial double top or whatever you wait two more columns... you wait for the DT to turn down into an O

column, ideally this then reverses back into an X column as it bounces off a support line. I designed the 'Pullback' to find this sort of situation.

The second signal I included was a 'Zig Zag' – this involves the chart climbing (for a long, the short version is obviously the opposite) then forming a new consolidation pattern – ie it finds one of those charts where there's a noticeable flagpole climbing out of a consolidation area that then becomes a consolidation in a higher chart area. The new consolidation has to be bullish – the bottoms of the pattern can't be falling, for example – and the signal is given when an X column starts to climb. The idea here is known as a 'measured move' when doing TA with Bar or Candles charts etc – a chart consolidates, climbs, consolidates again, then the uptrend resumes. The pattern I called the Zig Zag is finding that sort of move, so obviously it's effective when a market is trending for a good while....and not much use if the market is 'trading' – ie moving sideways with swings that peter out after a few percent.

Finally I added the Upturn/Downturn – the downturn is the opposite of the upturn, so I'll describe the upturn, which is bullish. I take no credit for this, I've been trawling for years to find good ideas and I've always deeply respected W.D.Gann's efforts, and I've spent time on a number of other TA ideas seeing if they'd help out... so I produced a sort of P&F equivalent of a Swing Trade formation designed to locate trend changes – there are a few checks in addition to the dips, but it basically amounts to this:

Find three bottoms where the second is lower than the first, but the third fails to match the second, and that's a failure of the bottom indicating an impending trend reversal to an uptrend. There are other checks that boil down to timing the entry, but the up/downturn is intended to find market tops and bottoms where the trend direction has reversed.

These three signals therefore amount to the :-

Pullback that tries to get you into the lower price region of a breakout, you could trade this by exited at a fixed 5-10% profit perhaps, the pullback getting you in at the start of the upswing when the share is trading, and if the share goes on to uptrend you'd just stay aboard for the ride.

Zigzag designed to ride a trend that starts, then consolidates, then resumes

Upturn that attempts to locate trend changes

The problem with the traditional signals is they are mainly breakout based, and whilst great when shares are trending they'll whipsaw you to death when the share is in a trading range – you'll be going long as the price is about to turndown, and short immediately prior to the upturn.... And your stops will be too high to avoid whipsaws, or too far away to prevent big losses. Signals like the pullback allow you to place a technical stop under the consolidation, so if the share eventually breaks out several columns later you've got in near the bottom and not been stopped out.

## Backtesting

The main gist here. The program has developed greatly in this area, I have concentrated so far on finding ways to improve the ratio of winners:losers. I'd like to start with a few simple ideas –

Developing a trading system involves setting up several 'modules', you need to get a few ducks in a row to do it successfully. You need to know how often your chosen signal is correct – how many winners does it produce? Let's consider that....

## Winners percentage – signal reliability

Reliability is what we use to describe the win %. 'some signals are 70% effective' you might read. Marc Rivalland's Swing Trading book suggests on p147 figures like 80% found by Prof R.E.Davis in the dim past were unachievable these days, and he goes on to estimate 55-65% for stocks, and for today's market Marc suggests it's difficult to sustain 70%. If anything I'd say this is optimistic, Marc quotes studies by Kermit Zeig, who is about to release a new book on the subject co-authored by Heinrich Weber... I know that 'cos my publisher is bringing it out and Heinrich and I chatted about it over the winter <g> (I was told that Pfsan was being used in the book for charting, whether that came to pass or not I don't know). Anyhow, for those interested here's a link to the book on the publisher's site:

<http://books.global-investor.com/pages/book.htm?BookCode=16076>

I've looked at various stocks, to see how good P&F has been since 1990. So far I've examined the FT30, FT100, FT250, FT350, and a 'basket' of 155 UK large and midcaps. For the USA I looked at the S&P400, S&P100, S&P500, and a 'basket' of 200 large/mid stocks. Testing 8 patterns, and all sorts of things like indicators, different exits, and so forth generates an immense amount of data – I'm going to quote a small part of that here, restricting myself to data that conveys useful info... I'll explain that – I said above that altering box size didn't affect the win ratio consistently... I'm not saying that there isn't an optimum box size for an individual chart, I'm saying that if you scan with 2% log selected you'll get similar win percentages to a scan using 0.5, 1 or 5%... when a scan produces a noticeable improvement in one case it is almost invariably seen to be a flash in the pan.... Scan using traditional boxes and see Double tops go from 46% winners to 53% in one year and the following year the figures are 48% and 43% - statistical anomalies even out over time, I've seen enough sets of data to be confident that I'm ignoring temporary glitches and concentrating on effects that really are present.

Testing for win % - this has **got to be even**– I'm absolutely amazed that people don't recognise the requirement for a 'fair' test. A winner is a share that breaks a 'profit loss' set 10% above the entry price, a loser breaks a 10% stop below the entry. Whichever is hit first causes the trade to exit.

Requiring a risk : reward of 3:1 (for example) and setting the profit stop to 30%, stoploss to 10%, is to investigate a trading strategy, **not** the underlying signal reliability. To develop a system

- 1) Find out how often your signals are good
- 2) Work out how to manage the money so that the result of (1) makes a profit

As an example, if you find that Double tops are 45% reliable using the +/- 10% system, then there is no point developing a system where you slap £5000 on each trade and exit when told to because you'll have 55 losers 'at even money' for every 45 winners... even worse when dealing costs etc are included. If you have 55% winners that changes – a £5000 buy on each and every trade will make money, not a lot of course, but the better than even win rate will cover trading costs and produce a small profit. If you have 70% winners then you can either exit at +/- 10% and make a nice return, or you can investigate the effect of setting profit at 15%, loss at 10% perhaps... you'll probably see the win % drop, but a simple bit of maths will show you if altering the tactic in this way produces better returns or not.

The point is that there is an underlying 'fair' test that tells you the win % when the win/loss limits are equidistant from the entry price. I would suggest that you want a signal that, when win/lose are equidistant from the entry price, produces better than 50% winners.... This is a profitable system.

I've had a few 'chats' with people telling me that 20% winners is tradeable... fine, enjoy it, I'll settle for 60% winners thanks. I see nothing admirable or sensible in making the best of a bad system, if you really are making money from one winner in five (which I very much doubt, frankly) then I suggest you find better signals to trade, your money management skills are obviously superlative, and will make you a fortune once you start using better signals.

A 'fair' test using Pfscan's backtesting facility is to set profit and stop loss at the same fixed figure, I use 10% but you'll find the percentages don't change a lot provided you keep the same value for each (eg 20/20, 30/30) – as usual improvements in one run are usually offset by losses in another, there seems no advantage in setting any particular percentage. I use 5% slippage on entry – I would think twice if the price moved more than 5% from the previous close and I wanted to open a trade.... Again this has little effect seemingly, yet another case where I thought the effect might be obvious but in reality it had no discernable effect. Perhaps I ought to point out here that a lot of the times I say 'this had no effect' I actually expected different myself – ie some of these points are examples of my own favourite ideas going down in flames!

Okay, so I set 5% either side for the entry, then set a fixed profit stop 10%, fixed stop loss 10%, and ran the shares through.

I'm now going to describe the FT100, covered in 3 year segments from 1 April 93 - 1 April 96, then 1/4/96-99, and 1/4/99-1/4/2002. A decent system should be transferable, if I find anything of use then it ought to work for other share groups and markets. Pfscan 2

allows you to view a month by month breakdown of trades of course, so as well as looking at the market in these 3 year blocks I'll be looking at monthly returns later on.

Why these blocks? Easy enough – I would describe the UK and US markets as being this sort of shape...

Early 1990s – building the basis for the bull market of....

Mid to Late 1990's the major bull market, almost surely the biggest anyone alive today will witness, and a feeding trough for Motley Fool style 'growth' investors. A bit of an oddity, in other words – tulipmania and that sort of thing isn't out of place to describe this period.

Spring 2000 – the markets peaked at new Year, the party is now over

Post 2000 – bear market, occasional small rallies that do little except strip money from confused small investors

We **might** be approaching a period (I'm thinking year end here) where the market evens out a bit – I'm not overly optimistic, 'big crash' is still a possibility and goodness knows where the US economy is heading, but I'd call 2000+ a case of 'sideways or down with a few rallies'. It's convenient and logical to check the period 93-02 in 3 year blocks, then take what we discover and see if the ideas generated produce good trades in 2002 to today... ie we backtest over 93-02, and then test 02-03 to see if what we discovered works. You should always backtest on one set of data then check the ideas on 'new' data. If you use recent data to make your rules up then of course the win rate will be high – and it'll usually go downhill from tomorrow onwards. I intend to take what I learned and apply it to the FT350 post 2000, and the S&P500. Good results in the large cap FT100 should, if the ideas really are worth using, result in improved returns in the large/midcaps of the 350/500. This way I hope to avoid anomalies caused by using the UK index – perhaps being in the FTSE causes certain effects not seen in other indices!

In light of this I see March/April 2000 as a nice place to separate the bull pre 2000's from the bear post 2000's, and I've long thought that bear market tactics should differ from bull market ones. That seems obvious to me, notwithstanding my comment about commonsense, but whenever I suggest that the bull market signals aren't working and we need to change I get all sorts of half baked complaints telling me I'm being stupid. Oddly enough **nobody** yet has offered any data in support when they contradicted me... apparently "I'm just wrong, okay?" Well, here's my proof –

## The FT100, from 1993 – 2002

Data – I took the FT100 constituents of a few months back, some of these shares didn't exist in 1993, but I didn't want to swap the shares over during the test... what this means is that the FT100 was 75 shares in 1993 and 89 in 1996 – the number of trades reflects the change, but the overall percentages are based on enough trades to avoid worrying that the 'missing shares' somehow affect things too badly. I tested 6 signals in my latest run, the Catapults and Triangles didn't generate enough trades to be happy that the percentages were accurate – 6 trades in 3 years means every trade is worth over 16%....

1/4/93-96	Nil	RSI40	RSI50	MACD	MF30	MF50
DT	64	-	-	63	-	-
TT	61	-	-	60	-	-
RVSL	(only 9 trades!)	-	-	-	-	-
Zig	50	-	-	62	-	-
Pull	56	-	56	63	50	51
Upturn	57	-	-	57	-	-

**Table 1 – FT100 April 93 – April 96 Win % long signals**

What do we see here? These are the win % of each signal, a dash indicates that less than 10 trades occurred (sometimes zero) so these results are ignored... There's too much opportunity for a single 'fluke' trade to swing the results. Columns are (left to right) the signal, I ran Double tops, Treble tops (normal, spread and ascending combined) Bear Signal Reversal, Zig Zag, Pullback, and Upturn. Column 2 shows the win % of the signal on its own with no other filters. All other columns are showing the result of combining a further filter with the 'raw' P&F signal... eg RSI40 – as well as the P&F signal entry only occurred if the RSI was climbing, and the RSI value was 40 or less. RSI50 – as RSI40 but the RSI was 50 or below (ie midpoint), MACD – the MACD was climbing and above the signal line, MF30 the Money Flow was climbing and between 0 and 30, MF50 as MF30 but upper limit was 50. Charts are all based on 2% log charts. Percentages vary, number of trades varies, as the percentage or chart type is altered, but in no consistent manner other than to say that the number of trades reduces as box size increases. Consequently I could have used 1,2, or 5% log charts, range charts, or traditional and seen the same sort of effects here. I think this points to an underlying 'truth' here – the basic method employed (P&F) is the main factor in how well it works, settings used within that method have a variable effect on returns but (apparently) to a lesser degree... it's the fact that you are using P&F that says you'll see 50-70% returns, by tweaking the box size you might see 55-70 instead of 50-65%.... although I doubt the effect will be that marked.

RSI and Money Flow tend to revert to 50, they are oscillators that work best in trading markets, they give false signals in trending markets. RSI is oversold at 30, MF at 20 - I therefore tested them in combination with the P&F signal by testing them at their 'oversold level plus 10'... ie looking for shares recovering after a fall, and those that were below 50 still but climbing – expecting these to be perhaps a little less likely to reach the midpoint than their more oversold cousins, but still on the 'room overhead' side

of the market. I would expect them to work badly pre 2000, when the market was predominantly in uptrend, and well since 2000 as downtrends in the bull market tend to be quite sharp and most of the time I expect a sideways market.

MACD is better in trending markets – I expected it to be better pre-2000 than after therefore. Bear in mind that all markets have counter trend rallies, or periods when a trending market goes flat, a flat market trends... so for periods within each 3 year block the effectiveness will vary, sometimes markedly. What we're after here is a few good rules of thumb that tell us how to spot a good time to trade, and what to trade when that occurs.

Look at Table 1 then, what do we see? I'd describe this as the sort of picture Marc Rivalland describes, the percentages for signals is in the 55-60 range mainly, the Zig Zag and Pullback have been improved by the use of MACD, more to the point the MACD has improved these signals without reducing the effectiveness elsewhere – the Double Tops, for example, show no benefit for adding MACD into the equation but a single percent reduction in reliability is okay... the actual figures for these trades was 171 winners out of 268 trades for the double top, shrinking to 166/262 using MACD. When you find something that helps in places without having a significant downside it's worth keeping an eye on. RSI and Money Flow limits reduced the number of trades to single figures – put simply just about **all** signalled trades had MF and RSI showing overbought to some extent. The RSI and MF weren't much use therefore – during this period the FT100 is roughly U shaped, early in 95 (midpoint in this 3 year section) the 95-99 uptrend kicks into life. Let's see what 96-99 produces then....

<b>1/4/96-99</b>	<b>Nil</b>	<b>RSI40</b>	<b>RSI50</b>	<b>MACD</b>	<b>MF30</b>	<b>MF50</b>
<b>DT</b>	62	64	61	63	65	63
<b>TT</b>	62	-	-	62	-	68
<b>RVSL</b>	59	-	-	61	-	-
<b>Zig</b>	59	-	61	63	-	52
<b>Pull</b>	64	60	63	67	56	51
<b>Upturn</b>	55	-	62	55	67*	57

**Table 2 – FT100 April 96 – April 99 Win % long signals**

The \* by that 67% indicates a low total, this was 8 winning trades out of 12, and I'm a little dubious about relying on such a small sample. For this period the UKX (FT100 index) was climbing steadily with very few countermoves, barring one big dip in autumn 1998 which promptly rebounded.

A good uptrending market for the most part, and there's no great advantage to using MACD (the best of the bunch) but there's the odd percent improvement there. RSI looks a useful extra on the upturn, but that might be an anomaly.. worth keeping an eye on however. As there are no RSI40 trades, or too few to register, the average share RSI must have been quite high. The Money Flow seems to have boosted the Upturn a couple of points...for the most part it's not impressive (dropping Pullback from 64% to 51% isn't

good) so I'd assess Money Flow as adding a few percent to the Double/Treble breakouts, whilst hampering the pullback badly.

This 'good for breakouts, bad for reversals/pullbacks' doesn't mean it's inconsistent – the pullback is an attempt to produce decent trades during times that breakouts underperform, so seeing an indicator working with one signal type rather than another isn't a surprise.

What about post TMT boom then? Let's see....

<b>1/4/99-02</b>	<b>Nil</b>	<b>RSI40</b>	<b>RSI50</b>	<b>MACD</b>	<b>MF30</b>	<b>MF50</b>
<b>DT</b>	50	76	61	49	49	54
<b>TT</b>	46	-	68	46	-	48
<b>RVSL</b>	54	-	56	49	-	54
<b>Zig</b>	61	-	57	-	-	64
<b>Pull</b>	50	53	48	62	50	51
<b>Upturn</b>	51	71	63	51	77*	58

**Table 3 – FT100 April 99 – April 2002 Win % long signals**

77\* - 10 winners out of 13... an impressive return, but again each trade causes a big jump in the percentage so I wouldn't rely on this figure.

For this period the UKX topped (as the Millenium dawned) just scraping 7000, declined fairly gently through 2000, then the bear market took hold – September 11<sup>th</sup> saw a mighty dip of course, by April 2002 the market had bounced back and was holding around the 5000-5100 level prior to a fall from mid 2002 onward. Currently the market is just about banging its head against the downtrend that started in late 2000, personally I expect it to drop shortly <g>

So, with a low but climbing RSI there's a HUGE 26% boost seen, which rapidly swindles to a still handy 11% boost as the RSI moves from the sub 40 level to the 40-50 range.

Actual wins/trades were 551/1107 for the signal alone, 22/29 for signal plus RSI40, and 108/176 for signal plus RSI50. It's arguable that the low trade number of the RSI40 system allows odd results to creep in, but I suspect there's still a good underlying improvement there even if 76% isn't matched too often. The 61% of RSI50 suggests that it's no fluke – look at the trebles, improved from 46% winners to 68%! Zig Zag and Pullback suffer a little from RSI50 (a 3% boost for the latter from RSI40 of course), and the Upturn is similar to the DT in that the RSI40 produces very few trades (15 wins of 21) but the RSI 50 (66/105) shows it's not a random boost, RSI climbing out of the oversold region really does seem to deliver in the bear market.

MACD has worked with the Pullback, that's an improvement in all three tables by adding the MACD to the pullback signal, giving 63%, 67%, 62% for the three sets of data for this signal... that's a tradeable set of returns I would suggest.

Money Flow adds the occasional percentage point, but I'd argue it is pretty ineffective compared to the other signals. So, here are the signals and combinations I think I've found so far....

- Pullback signal combined with MACD climbing and above the signal line
- Double Top, Treble Top and Upturn plus RSI, RSI should be climbing, RSI should be less than 50, and I'd prefer it to be 40 or below.
- The Zig Zag plus MACD might be useable, but I'd avoid it as I don't see it being better than the above signals.
- The Bear signal reversed seems to give high percentages but very very few trades when combined with RSI. As it's impossible to hang your hat on something giving 2-6 signals in 3 years per 100 shares I'm going to ignore it in favour of more tradeable signals.

There are now things we can do to try this out – for example, the data covered the period up to early 2002 for the FT100, so let's see how these signals have performed over the past year in the FT250 as a check...I've put XXX in the 'unused' boxes, the ones for signals I didn't pick as tradeable. The 'raw' signal totals are also given as usual.

1/4/02+	Nil	RSI40	RSI50	MACD	MF30	MF50
<b>DT</b>	57	56	59	XXX	XXX	XXX
<b>TT</b>	59	67	70	XXX	XXX	XXX
<b>RVSL</b>	XXX	XXX	XXX	XXX	XXX	XXX
<b>Zig</b>	XXX	XXX	XXX	XXX	XXX	XXX
<b>Pull</b>	50	XXX	XXX	56	XXX	XXX
<b>Upturn</b>	61	55	66	XXX	XXX	XXX

**Table 4 – FT250 April 2002+ Win % long signals**

(oh, for US readers, please note UK date format is DD/MM/YY)

Aren't all these tables fun? You should see how many I've pored over...! Okay, did it work then? Double Tops lost a point with RSI 40, and the Upturn did badly with it – dropping 6 percent, but a small boost to DT, a nice gain for Trebles, the Pullback adds 6% and 5% to the Upturn using the RSI50.... I'm a bit disappointed by the Double Top, which I'd call a case of no better, no worse overall, whilst the rest show distinct promise – the treble tops RSI50 trading would have seen you make 27 trades this past 16 months, winning 19 times.

As the FT250 wasn't used at all in compiling these ideas I'd say there's definitely merit in considering them for trading – the trick (as ever) is to turn these percentages into something you can trade.

I'm not going to look at that now, that's for another time, what I intend to do now is run these ideas past the S&P500... if I used the same signals as in table 4 for the S&P500 from April 2000 to date how would I have got on? Let's find out – I'm now testing ideas gained in one market on a different one, a really good system is one that allows you to trade other markets as well....

<b>1/4/00-current</b>	<b>Nil</b>	<b>RSI40</b>	<b>RSI50</b>	<b>MACD</b>	<b>MF30</b>	<b>MF50</b>
<b>DT</b>	52	60	54	XXX	XXX	XXX
<b>TT</b>	51	63	52	XXX	XXX	XXX
<b>RVSL</b>	XXX	XXX	XXX	XXX	XXX	XXX
<b>Zig</b>	XXX	XXX	XXX	XXX	XXX	XXX
<b>Pull</b>	51	XXX	XXX	50	XXX	XXX
<b>Upturn</b>	53	62	56	XXX	XXX	XXX

**Table 5 – S&P500 April 2000+ Win % long signals with selected indicators**

Okay, the RSI effect drops off quickly here, but the RSI40 gives a nice boost for all three chosen signals. The Pullback/MACD combo is disappointing, but you can't win them all I guess.

Overall – well, it looks to me like perhaps the UK and US markets require a bit of a tweak... why RSI below 40 is 'the' figure in the US whilst it would seem RSI < 50 is the UK optimum I don't know, perhaps oversold levels kick in at different points in the markets – perhaps there's some way to decide the appropriate level (other than trial and error) ... of course I might just have discovered how to determine it – spot the value that the P&F signal reliability peaks at <g>

I think there's a decent basis for building a trading system here – there's a long way to go yet, as a simple 10% profit/stop exit can doubtless be improved on, but I think this is as close as I'm likely to get to finding 'the' signals to trade... Treble Tops with RSI climbing but below 50 for the UK, and the same but using 40 for the US. I think I'd be tempted to use the Upturn plus RSI as well, if I needed more trades.

It would probably be sensible to keep run a backtest regularly, to see if the percentages start to dip – I haven't checked the longest losing run or anything like that here, but I'd assume that no signal will work for ever and there'll come a time when it's sensible to stop using these. The next thing I intend to tackle is figuring out the exit – that'll have to wait for another day.

DaveB