

CALCULATING TOMORROWS SAR VALUE FOR BETTER EXITS

By Sean Coffey

I am a part time trader who likes to fool around with Metastock formulae. I've got two indicators that I made that I will share with you and let you know why I made them. The first was as a result of my search for that perfect exit. As many will know the exit is the most important part of the trade, whether it is to protect capital or profits.

Having read many trading books and delved into the workings of the indicators presented there was one indicator that I had completely ignored mainly because of its name. It is the 'Parabolic stop and reverse'. As the name suggests the indicator tells you to change from short to long position as the indicator reverses. I, like many others, only traded long and thought that this indicator was not of any use to me.

If you only trade long you can use the long position part of this indicator and ignore the short side stop.

The main thing that attracted me to this is that the stop keeps rising, and if the share that you are following stops rising or goes side ways then the stop will soon be hit. I have had problems getting stuck in sideways moving stock and this indicator gets you out quite well. You should always look for re-entry though when stopped out.



I never use an indicator without knowing exactly how it is formulated. This indicator was developed by Welles Wilder. It is used to step price exit and entry points by acting as a trailing stop loss for long and short positions. As each new high is made, the SAR plots a dot below the price bar to indicate the exit point. The increase in the exit levels increases by steps of 0.02. This is the recommended step size. The resulting display is curved in a parabola. The stop level indicated by the dot on the display is the stop applied to the next day. When applied to daily charts this means the trader knows the intraday stop for the current trading day as this is derived from the previous end of day information.

Traders using intraday charts find this a more useful tool as the reaction time is reduced to a few minutes. In strongly trending stocks the SAR is a useful management tool

The SAR value of today is calculated on yesterday's data. It is the SAR value of yesterday + the difference between the highest high value in this run up and the SAR of yesterday, multiplied by the acceleration factor. The acceleration factor starts at 2% and has a maximum of 20%. It is increased by 2% every time the stock makes a new high from day one. So, the faster the stock moves up the SAR accelerates more.

Now the thing that fascinated me was that if the SAR stop of today is hit it is telling me what I should have done today while the market was open and that my software knew from yesterday's data what it was going to be but didn't tell me till after the market closed and I downloaded my data. Well I want to know today what tomorrow's SAR value will be so that I can act on it before the market closes if it gets hit so I wrote the following formula that I have called 'SAR tomorrow'. (Note this can also be applied to an intraday time frame)

```
data1:=If((H=HighestSince(1,Cross(L, SAR(.02,.2)),H) AND
H<>Ref(HighestSince(1,Cross(L,SAR(.02,.2)),H),-1)),PREVIOUS+.02,PREVIOUS);
value1:=data1-(ValueWhen(1,(SAR(.02,.2)>H),data1));value2:=
If(value1<.21,value1,.2);
(SAR(.02,.2)+(HighestSince(1,SAR(.02,.2)< Ref(SAR(.02,.2),-1) ,H) -
SAR(.02,.2))* value2)
```

Paste it into indicator builder in Metastock. From the chart you can see that the initial stop on day one is equal to the lowest low value of the last run, low on 3rd Jan was 0.33, initial SAR 0.33. The stop on day two adds 2% of the difference between the high 0.58 and the SAR 0.33 to give a value of 0.335. A new high is achieved on day two so the acceleration factor moves up to 4% of the difference between the latest high and the SAR. On the 7th Feb I knew that the stop for the following day was 0.5726, which was hit during the following day, and I exited the trade on the 8th. In this case I could have exited the day after the reversal signal but may not have achieved the same price, as 0.57 was the high.

I compared notes with a fellow trader and I found this to be enlightening. I was particularly excited about a chart pattern that I saw emerging and emailed my mate Mick and he replied that the stock had already had a good run up. Were both looking at the same set of data, I was looking where the chart was heading and he was looking where it had been. I got my calculator out and sure enough there were

some people that would have been sitting on large percentage gains. I had to have this quantified, so I made the following indicator. I call it 'percentage rise'.

```
dataarray:=Input("Data array. Enter a number 1=o, 2=h, 3=l, 4=c", 1, 4, 4);
value2:=If(dataarray=1,O,If(dataarray=2,H,If(dataarray=3,L,If(dataarray=4,C,C))
));
lookback:=Input("Lookback period",1,200,55);
((value2-LLV(L,lookback))/LLV(L,lookback))*100
```

Just paste it into indicator builder in Metastock and it will give you an idea of what profits some people are sitting on. It is interesting in that there are patterns that develop in particular stock. It is a good gauge of the mood of the market. I firmly believe that sentiment is a very important part of the masses valuation of a particular stock at a given time and this indicator attempts to capture that sentiment.