

Money Flow Index

The Money Flow Index includes both price and volume in its calculation. If the average price for the day is higher than yesterday then the Money Flow is positive and added to the indicator, while if the average price is lower than yesterday the Money Flow is negative and subtracted from the indicator. The exact calculation of the Money Flow Index is very similar to the calculation of the relative Strength Index (RSI) with volume included. The Money Flow Index will fluctuate between 0 and 100, but will never reach the extreme levels.

The most common interpretation of the indicator is as an overbought/oversold indicator. This is denoted when the indicator moves above or below the reference level. In the chart below of Commonwealth Bank the Money Flow Index reference levels are shown at 30 and 70 as blue lines on the charts. When the price moves beyond these levels the price reaches an overbought or oversold condition and a reversal in the price is likely.



Using Market Analyser we can test the effectiveness of this strategy in the markets today. I am using the Trading System in the Platinum version of Market Analyser to create the results that you see here today. Once you have successfully developed a strategy you can use the Analyser tool in Market Analyser to provide you with signals on a daily basis.

MA Trading System

In the Trading System we are going to develop a strategy based on entering a long trade when the Money Flow Index indicates an overbought condition, ie is registering below 50.

The test shares we will assess are the Top 20 Australian companies from 1/1/2005 up to 31/12/2008. This test period includes the bear market of 2002 as well as the credit crisis of 2008. Initially while developing the strategy the exit used will be to exit after 1 day of trading to take either a profit or a loss. Later we will apply a trailing type exit strategy.

I tested a range of different timeframes to determine the timeframe I would use. The chart below is shown for a 10 day timeframe for the Money Flow Index.



Using the 10 day Money Flow Index delivers a profit of approximately \$37,000 following this strategy. These are reasonable results based on \$100,000 worth of capital and a trade size of \$5,000. Testing different time frames failed to produce better results with 5 days and 14 days making \$30,000 and a 20 day timeframe delivering \$25,000.

The Money Flow Index tested above considered whether the index was above or below 50. Below 50 is oversold, but not really an extreme for the indicator. So we can consider different levels to trigger an oversold condition. The chart below shows what happens when the Money flow Index is below 40 to trigger an entry signal.



With the 10 day money flow below 40 the strategy now makes \$35,000 with less drawdown during 2008. Testing different values for the level of oversold showed that the 10 day money flow below 30 makes \$25,000 from around 2000 trades, while the 10 day money flow below 20 makes \$8,500 from just 600 trades.

As the trigger level becomes lower there are less and less trades that occur. Consequently the profit made will become less. But remember, we have not yet considered brokerage, less trades is not necessarily a bad thing when building a strategy to deliver overall profitability.

What a Difference a Day Makes

Maybe there are better days of the week to trade this strategy, so let's take a look at how this plays out. The results in the table below show what happens when you trade just one set day of the week following this strategy. We have set the parameters to 10 days and a trigger level of 40 to enter the trades.

Day of Week	Profit
Monday	\$4,845
Tuesday	\$8,482
Wednesday	-\$2,903
Thursday	\$13,093
Friday	\$9,959

Wow what a difference a day makes! So make sure you take Wednesday off and if you have to take the occasional long weekend and miss Monday, that is ok too. If you want to work only one day a week, make sure it is a Thursday. Now adding the criteria to not trade on Wednesday produces the following results.



The strategy profit improves reaching \$37,000, with a very strong performance in the tail end of 2008. So it is time to add a different exit strategy, other than getting out one day after we get in, to see whether we can improve the results further.

Exit Strategy

Using a trailing stop, that is moved up each day following the share price as it rises, dramatically improves the results of this strategy.



Setting a stop at 2% produces a profit of almost \$90,000 in 4 years, and a stop at 4% produces \$80,000 while a stop of 6% sees the return drop to \$65,000. This is all far better than just exiting one day after entry.

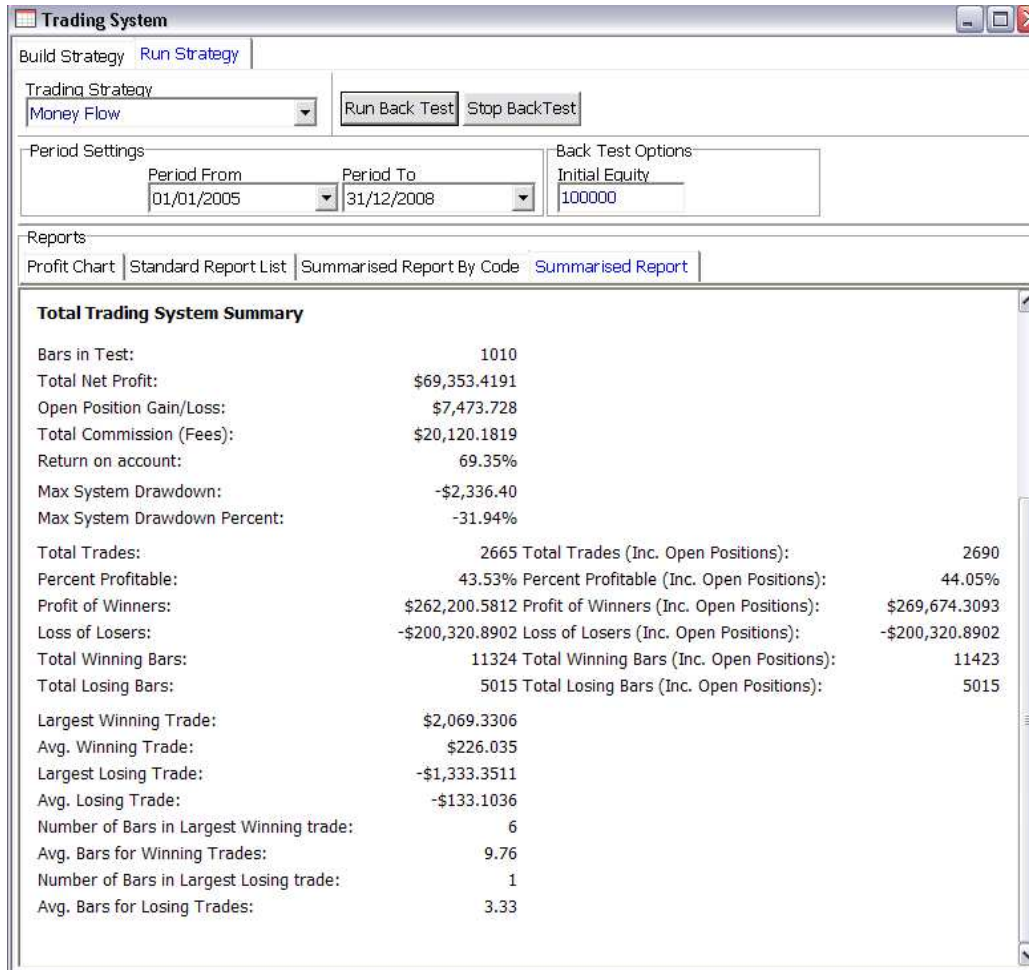
Brokerage

I have not yet been able to find a broker that will execute my trades for free so we have to add in the cost of brokerage to make the trades. Based on a fee of 0.15% of the trade value the following results are achieved.



The strategy now makes \$69,353 on a \$100,000 investment over four years. These are excellent results when compared to the market return of -8.2% during this same time.

While the strategy is profitable we can examine the detail of the strategy more closely. Taking a look under the bonnet of the strategy we get the following statistics.



The strategy is profitable 43% of the time and delivers an average win of \$226 and an average loss of -\$133. The win% is low at 43%, but the risk reward at 1.69 allows the strategy to be profitable overall. It would be possible to improve the results of this strategy by entering only the trades that do start to climb after the signal is received. The strategy that has been tested here enters all trades once the Money Flow Index crosses below 40. In some cases the shares may not have turned up and waiting for the price on the day of entry to break above the previous days high is very likely to see a dramatic improvement in the already good results.

Testing the strategy over a longer time period, from 2000 – 2008, shows that the strategy produces a gain of \$160,000 in eight years.



There are many variations on this trading strategy with any number of days that could be used for the Money Flow Index and the reference level and exits can also be altered. Here I have tested some of but not all the possible combinations. You can test all these ideas with an upgrade to the Platinum Market Analyser.

Conclusion

The Money Flow index can be used as the basis of a successful trading strategy. The day of the week can make a difference when searching for good trading results. A trailing stop used as an exit makes a dramatic difference to the profitability of this strategy and it can be further enhanced by only taking trades that do start to climb after the oversold signal is received. You can find the companies that meet the entry criteria on a daily basis by using the Analyser Tool in Market Analyser.