How to analyse trends

By Ng Ee Hwa

One of the most important steps in trading the stock market is to identify the stock prevailing trend. There are three types of trends namely uptrend, downtrend and sideway. Each represents the different collective sentiment of the stock market participants, namely bullishness in an uptrend, bearishness in a downtrend and indecision in a sideway market.

Hence, it is important to determine the trend before deciding on whether to take a long or short position in the market. In a bullish market or an uptrend, traders are more likely to take up a long position and willing to buy at higher prices and vice versa in a downtrending market. Knowing the trend, a trader can identify the tops and bottoms of the price movement for buying or shorting opportunities. Most traders prefer to trade along the trend as the rise or fall of the stock prices can be relatively easier to anticipate, hence increasing the probability of being right in the trade.

However, determining the trend is in fact just the first step of an effective trading strategy. The second and equally important step is to evaluate the strength of the trend. The stronger the trend, the higher the probability of riding the trend successfully. Moreover, confirming the strength of trend could help traders to identify any sign of trend weakness or trend reversal as a weakening trend may probably indicate the end of the current trend and start of a new trend. Thus, this article looks into how trends can be identified and the major technical aspects of the indicator used to determine the strength of the trend.

Trend analysis, though easy to understand, can be quite difficult to apply. Factors like defining the appropriate timeframe and the ability of drawing useful trend lines contribute to the complexity. Here, we cover the use of trend lines, moving averages and GMMAs to determine the direction of the trend. Trend lines are drawn by connecting two points on a chart - an uptrend line is drawn by connecting two successive higher lows and then extending it to the desirable time frame, while a downtrend line is drawn by connecting two successive lower highs and again extending it to the desirable timeframe. There are three common types of trend lines and they are classified into short-, mid- and long-term trend lines as shown in Figure 1.

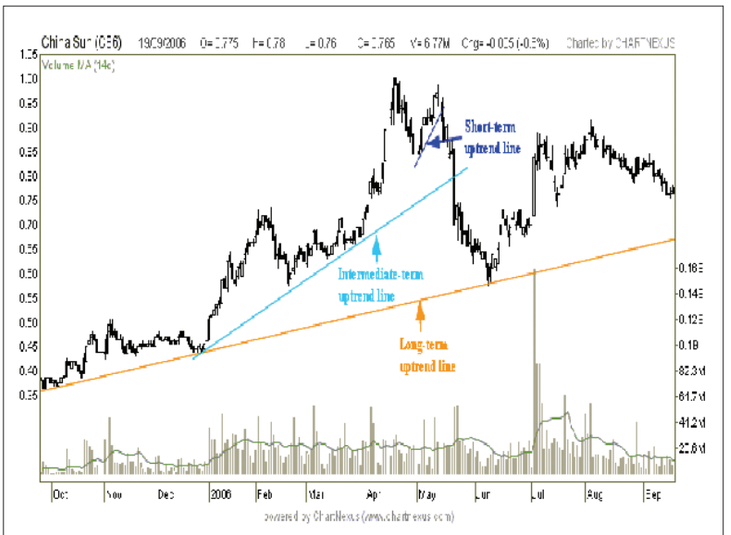

Figure 1: Short-Term, Mid-Term and Long-Term Trendlines

Technical indicators commonly used by technical analysis (TA) practitioners to determine the prevailing trend are the Moving Averages (MA) lines (normally 50 Days / 100 Days MA) and Guppy Multiple Moving Averages (GMMAs) lines. The MA lines make use of the simple moving average to indicate the direction of the trend. The MA lines sloping up with prices of the stock above is seen as an uptrend, while the reverse is true for a downtrend. In a sideway market, the 50 days and 100 days lines are observed moving together almost horizontally.

Meanwhile, the GMMAs make use of three sets of the exponential moving averages (EMA) lines to indicate the direction of the trend. The three sets of GMMA lines consist of short-term, mid-term and long-term EMA lines. In an uptrend, all three sets of EMA lines would normally slope upwards with the short-term EMA lines above the mid-term EMA lines, while the mid-term EMA lines are above the long-term EMA lines. On the other hand, the downtrend will have all three sets of EMA lines sloping downwards with the short-term EMA lines being the lowest, followed by the mid-term EMA lines. In a sideway market, the three sets of EMA lines will again be observed moving horizontally. Figure 2 shows the indication of the direction of the trend by the MA lines and the GMMAs.

After exploring the methods of the determination of the direction of the trend, we now present the most popular indicator used by TA practitioners to effectively measure the strength of the trend; the Average Directional Index (ADX). The ADX indicator developed by J Welles has been a favourite indicator used by traders to assist them in measuring the strength of the trend. The ADX indicator is an oscillator that consists of three lines; the +DI line, the -DI line and the ADX line. The ADX line is a derivative of +DI and -DI that provides the reading that oscillates between

Figure 2: Identification of Trend Using MA Lines and GMMAs

0 and 100. A reading of below 20 indicates a weak trend, while a reading above 40 indicates a strong trend.

In addition, an ADX reading strengthening from below 20 to above 20 may signify the end of a sideway market and the possibility of the formation of a trending market. On the other hand, ADX reading falling from above 40 to below 40 could signify that the current trend is losing strength and a trading range may develop. Some TA practitioners use the reading from the ADX to identify the potential changes in the stock market from trending to non-trending. Figure 3 shows how the ADX indicator measures the strength of the different trend conditions.

It is important to note that the ADX reading does not indicate the direction of the trend, but merely the strength of the trend. For example, an ADX reading of above 40 means that the strength of either the uptrend

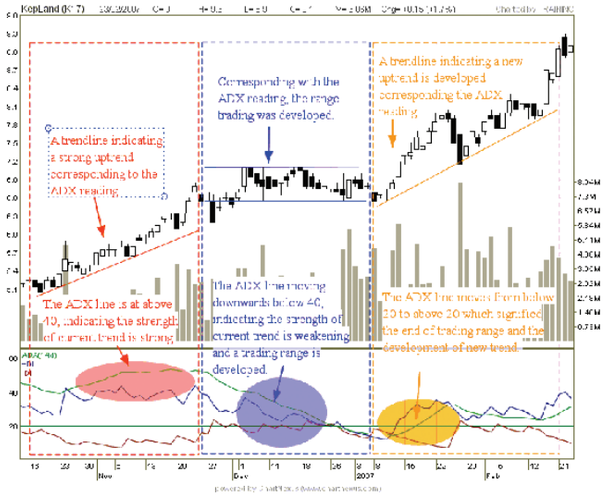

Figure 3: Direction and Strength of the Trend

or the downtrend is strong. Another technical signal using the ADX indicator is generated when the +DI line and -DI line crosses. A buy signal is generated when +DI line crosses over the -DI line, whereas a sell signal is generated when -DI line crosses over the +DI. However, buying or selling based on the crossover rule is insufficient as there are many whipsaws and hence, the accuracy of getting into the right trade based on crossover rule is low. Consequently, it is better to combine the crossover rule with the ADX reading. A crossing-up of +DI line over the -DI line with ADX reading between the +DI line and -DI line is a more accurate technical buy signal as shown in Figure 3 (highlighted in orange circle). On the other hand, a technical sell signal is obtained when the +DI line cross down the -DI line with ADX reading between both the +/- DI lines.

This article presented some of the important concepts in trend analysis, namely the determination of the direction of the trend, followed by a measure of its strength. Those steps should always be used as the first steps of an effective strategy based on TA. The concepts presented above can be easily implemented on charting software such as ChartNexus (free download at www.chartnexus.com). **SI**

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contribution US consumption makes to the global gross domestic product computation.

However, even though we can expect to see a slowing in growth, underlying inflation pressure in the major economies is expected to persist. A number of reasons may explain why this is so, but I feel we should look at two specific reasons, one of which is the commodities markets and in particular, oil. I'm sure you have heard economists and market practitioners talking of "geopolitical risk". Although fairly immeasurable, one can nonetheless see the effect that geopolitical risk has on the global economy. Increases in the oil price as a result of political instability in the Middle East for example will naturally have an inflationary impact in economies across the globe as producers pass this increase on to consumers through higher petrol prices.

There's an old saying that goes something like 'when the US gets the snivels, the rest of the world catches a cold!'. It is for this reason that data coming out of the US is so important.

Earlier in August, the Fed voted to keep rates at their current level and in so doing ended the run of 17 straight rate hikes we had seen up until that point. Despite the vote by the Fed to freeze rate increases, one Fed president in particular, Mr Jeffrey Lacker, thought that rates should have been increased by 0.25 per cent. What weight and significance his words carry in the global market place is neither here nor there, but what it does highlight is that inflation is still a key concern for policymakers in the US. In other words, it may indicate that the Fed is still not done with interest rate increases.

To add credibility to Mr Lacker's words is the recent release of the Labor Department's figures on labour costs, which, when compared with the productivity statistics, shows that labour costs have indeed increased and is rising at a rate higher than in the last five and a half years. Which brings me to the second reason – high labour costs can fuel a sustained increase in inflation. Higher labour costs get passed on to consumers through an increase in prices. So in that sense we cannot only blame higher energy costs for increases in inflation, but higher labour costs are also adding fuel to the fire.

Another very interesting development on the global stage is the policy position taken by the Japanese in recent months. For the first time in about six years, the Bank of Japan raised rates in July by 0.25 per cent, thereby ending the BoJ's zero rate policy. Looking at this very linearly, I think that is a very good thing and is much needed to get Japan out of its deflationary cycle. Japan is a consumer economy (consumption accounting for roughly 50 per cent of Japan's economic activity), so rising prices is what is needed to continue to stimulate GDP growth. Let's face it, why would you spend money on something now when next month it'll be cheaper, which is exactly what