AN INTRODUCTION TO ICHIMOKU

by Gilbert Li

Traders in Europe are hearing more and more about the power of Ichimoku charting. So what is it and what makes it superior to traditional techniques?

The Ichimoku Kinko Hyo Japanese charting technique was developed before World War II with the aim of portraying - in a snapshot - where the price was heading and the right time to enter or exit the market. This was all performed without the aid of any other technical analysis technique or study.

The word Ichimoku can be translated to mean "a glance" or "one look". Kinko translates into "equilibrium" or "balance", with respect to price and time, and Hyo is the Japanese word for "chart". Thus, Ichimoku Kinko Hyo simply means "a glance at an equilibrium chart", providing a panoramic view of where prices are likely to go and the position one should undertake.

Invented by a Japanese journalist with a pen name of "Ichimoku Sanjin", meaning "a glance of a mountain man", Ichimoku charts have become a popular trading tool in Japan, not only with the equity market, but in the currency, bond, futures, commodity and options markets as well. The technique was published over 30 years ago but has only gained international attention within the last few years.

Calculation

The Ichimoku chart consists of five lines. The calculation for four of these lines involves taking only the midpoints of previous highs and lows, similar to moving average studies. Yet even with this simplicity, the completed chart is able to present a clear perspective of the price action.

The five lines, as shown in Figure 1, are calculated as follows:

1) Tenkan-Sen = Conversion Line = (Highest High + Lowest Low) / 2, for the past 9 periods

2) Kijun-Sen = Base Line = (Highest High + Lowest Low) / 2, for the past 26 periods

3) Chikou Span = Lagging Span = Today's closing price plotted 26 periods behind

4) Senkou Span A = Leading Span A = (Tenkan-Sen + Kijun-Sen) / 2, plotted 26 periods ahead

5) Senkou Span B = Leading Span B = (Highest High + Lowest Low) / 2, for the past 52 periods, plotted 26 periods ahead

The Kumo, or cloud, is equal to the area between Senkou Span A and B.

Ichimoku uses three key time periods for its input parameters: 9, 26, and 52. When Ichimoku was created back in the 1930s, a trading week was 6 days long. These parameters therefore represent one and a half week, one month, and two months respectively. Now that the trading week is 5 days, one may want to modify the parameters to 7, 22, and 44.

Interpretation

As can be seen from the formulas, Ichimoku is very similar to moving average studies. And like moving averages, buy and sell signals are given with the crossover technique.
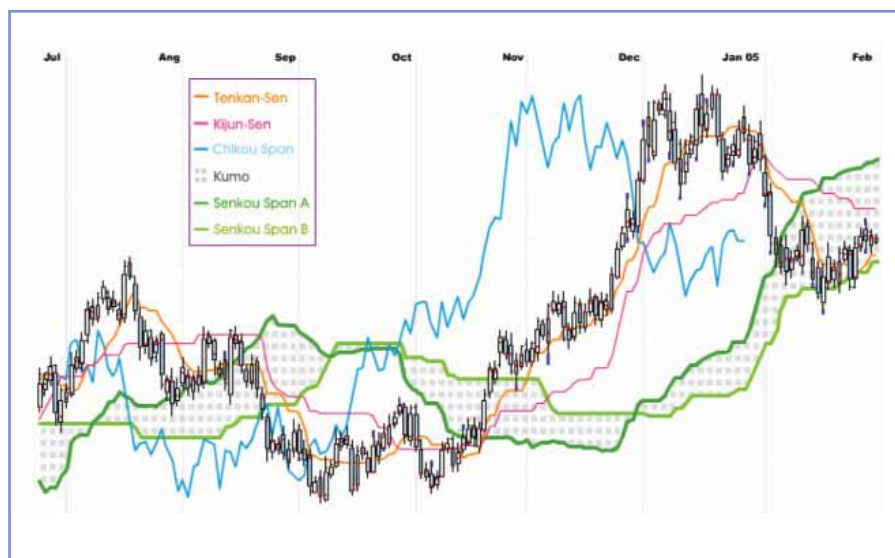
Figure 1. Definition of Ichimoku Kinko Hyo

A bullish signal is issued when the Tenkan-Sen (orange line) crosses the Kijun-Sen (purple line) from below. Conversely, a bearish signal is issued when the Tenkan-Sen crosses the Kijun-Sen from above.

Moreover, there are, in fact, different levels of strengths for the buy and sell signals of an Ichimoku chart. First, if there was a bullish crossover signal and the price, at that time, was trading above the Kumo (or cloud), this would be considered a very strong buy signal. In contrast, if there was a bearish crossover signal and the price, at that time, was trading below the Kumo, this would be considered a very strong sell signal. Secondly, a normal buy or sell signal would be issued if the price was trading within the Kumo when the crossover took place. Thirdly, a weak buy signal would be issued if there was a bullish crossover that occurred while the price was trading below the Kumo. On the other hand, a weak signal would be issued if there was a bearish crossover that occurred when the price was trading above the Kumo.

Another striking feature of the Ichimoku charting technique is the identification of support and resistance levels. These levels can be predicted by the presence of the Kumo. The Kumo can also be used to help identify the prevailing trend of the market. If the price is above the Kumo, the prevailing trend is said to be up. And if the price is below the Kumo, the prevailing trend is said to be down.

A final feature of Ichimoku is the Chikou Span. This line can also be used to determine the strength of the buy or sell signal. If the Chikou Span was below the closing price and a sell signal was issued, then the strength is with the sellers, otherwise it is a weak signal. Conversely, if there was a buy signal and the Chikou Span was above the →

Figure 2. GBP/USD ProSticks Ichimoku Daily Chart

Figure 3. USD/JPY ProSticks Ichimoku Daily Chart

price, then there is strength to the upside, otherwise it can be considered a weak buy signal. This feature can also be incorporated into the other signals.

Application

Most traditional technical analysis techniques are based on the open, high, low, close or average price. Others may use volatility while fixed scales such as Fibonacci numbers have also been applied. But the results are the same. Support and resistance levels are always depicted as a point or a line.

With Ichimoku charts, it is the Kumo that quantifies support and resistance levels and the Kumo that can be used to project these levels into the future. It's therefore important to note that (unlike its traditional counterparts) the support/resistance level given by the Kumo appears as a layer of varying thickness, with the thickness being related to prior market volatility.

Let's now illustrate the Ichimoku technique with an example.

Figure 3 is an Ichimoku daily chart of USD/JPY. Between August and October 2004, the price was in a trading range within the Kumo, which acted as

a support level. At point A, the price tested the bottom of the Kumo and this support level held. Afterwards, the price traded around this level before it surged temporarily higher but failed to create new highs. Soon after, the price retested the low (point B) made by point A. This coincided with a break below the Kumo which has since narrowed (i.e. lower volatility) and soon afterwards a huge downtrend commenced once the previous lows were taken out.

In general, the thickness of the Kumo can be related to the strength of the current support/resistance level. A thin Kumo implies the current volatility of the market has lessened and the price has been narrowed into a range that a strong breakout to either side is imminent. On the other hand, a thick Kumo implies a strong support/resistance level coupled with high volatility.

Short & long-term implications

One might wonder then what implications Ichimoku has regarding short-term versus long-term trading. One general application is that by comparing a daily and a weekly chart, a price channel can be identified.

This can be illustrated with the USD/JPY weekly chart in Figure 4.

One can quickly observe that the price has been trading below the Kumo on a weekly basis for the past two and a half years. Comparing this with the daily chart in Figure 3, one can see that the price drop in October 2004 coincided with the price hitting a strong weekly resistance level.

So by comparing Ichimoku charts of different time frame, one can gauge where support and resistance levels exist and then better position oneself in the market.

This article only scratches the surface of this wonderful charting technique and as more charting applications provide this tool for traders, I believe that most traders will not want to trade without it.

Figure 4. USD/JPY ProSticks Ichimoku Weekly Chart

Gilbert Li is chief operating officer at ProSticks.com