TECHNICAL ANALYSIS MASTERCLASS

Intermediate level - (Module 6) Introduction to Ichimoku & Market Profile

NOMURA

Fixed Income, Global Markets Europe

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A brief look back at history

400 mln yrs - (Paleozoic era) – the sponge, starfish and chambered nautilus.

50,000 BC - Early stone age begins (fire possibly discovered)

15,000 BC - Works of art appear

4,700 BC - Possibly beginning of the Babylonian calendar

4,241 BC - Egyptian calendar was introduced.

4,000 BC - Pyramid of Giza, interesting mathematical/astronomical traits

3,113 BC - Age of Pisces 13th Aug 3113 BC to end 21st Dec 2012

1,832 BC - Rhind papyrus (geometry of Triangles), but no concept of zero

1,500 BC - Oldest Egyptian sundial.

325-265 BC - Euclid "13 Books of the elements"

300 AD - Concept of Zero from Indian and Mayan cultures

552 AD - Buddhism introduced in Japan

A brief look back at history

1202 - 'Liber Abaci' is published by Leonardo Pisano (Fibonacci)

1228 - 'Liber Abaci' is edited and 4 other books written by Pisano

1345 - Peak of worlds biggest financial crash (Bardi & Peruzzi)

1440 - Invention of movable type – led to textbooks becoming available

1509 - Luca Pacioli 'the divine proportion' illustrations by Leonardo Da Vinci

1611 - J. Kepler arrives at Fibonacci sequence independently

1710 - First rice exchange opens using empty coupons at Dojima, Japan

1803 - Munehisa Homma writings on his trading principles (b.1724 d.1803)

1868 - Japan changes from Wasan to Western style mathematics.

1902 - Dow dies - William P.Hamilton takes up principles, 27 years to write.

1938 - Monograph entitled The Wave Principle is published. (Elliott Wave)

1969 - Ichimoku becomes widely available by Hosoda

1987 - Peter Steidlemeyer publishes market profile charting techniques.
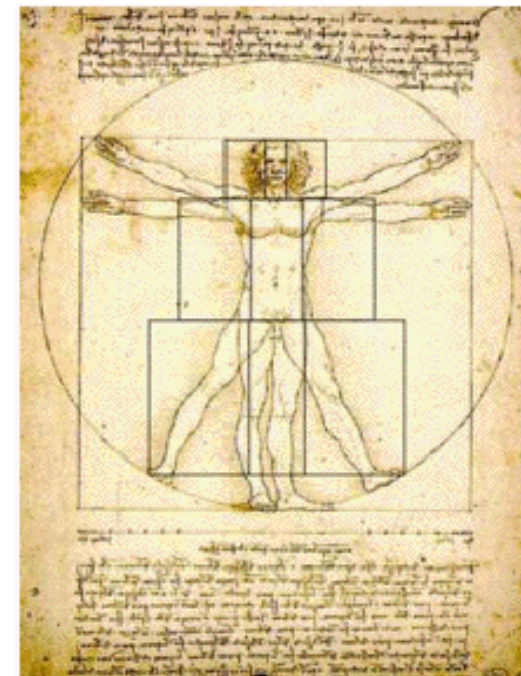
Introduction to Ichimoku – The History

The term "Ichimoku" can be translated from Japanese as   "instant view' or "one glance",

"Kinko" is the equivalent of "equilibrium" or "balance" and "Hyo" means "chart".

Hence the full name "Ichimoku Kinko Hyo" actually means "one glance cloud chart" or more appropriately "Instant view of the balance chart".

Goichi Hosoda developed Ichimoku Kinko Hyo in the early Showa era (1926-1989) and copyright is owned by Kabushiki Kaisha Hendou Souken.

However, Hosoda, a Japanese newspaper writer, only published his findings in 1969 and from that point forward Ichimoku Kinko Hyo has become a permanent feature in Japanese trading rooms.

Introduction to Ichimoku

The series of lines are very similar to moving averages and are based upon high and low prices.

The two Senkou Span (leading) lines are pushed forward in time to represent past support and resistance – similar in concept to the idea that once established, support will continue to provide support until broken when it becomes resistance. The area between the two Senkou Span lines is shaded to make it look like a cloud.

This "cloud" not only defines the trend, but acts as support and resistance for price.

Cloud = Kumo

Ichimoku study = 5 lines are used

1. Tenkan-Sen or Conversion Line = (Highest High+ Lowest Low)/2, for the past p1 periods (9)
(similar to ma but uses high and low not closes measures the strength of the market)

2. Kijun-Sen or Base Line = (Highest High + Lowest Low)/2, for the past p2 periods (26)
(In general, the market trend is bullish when prices are above the base line)

3. Senkou Span A or Leading Span A = (Tenkan-sen+Kijun-Sen)/2, for the past p2 periods (26)

4. Senkou Span B or Leading Span B = (Highest High + Lowest Low)/2, for the past p3 periods, (52) plotted p4 (26) periods ahead.

5. Chikou Line lagging line the most current closing price plotted 26 periods behind the optional

By default p1=9,p2=26,p3=52,p4=26.

**Kumo**, or cloud is the area between Senkou Span A and B.

A Buy signal is when the Tenkan-Sen crosses Kijun-Sen from below.

A Sell signal is when Tenkan-Sen crosses Kijun-Sen from above.

Clouds play the role of support/resistance areas and help identify trends.
When the price is above the clouds, the trend is bullish. When the price is below the clouds,
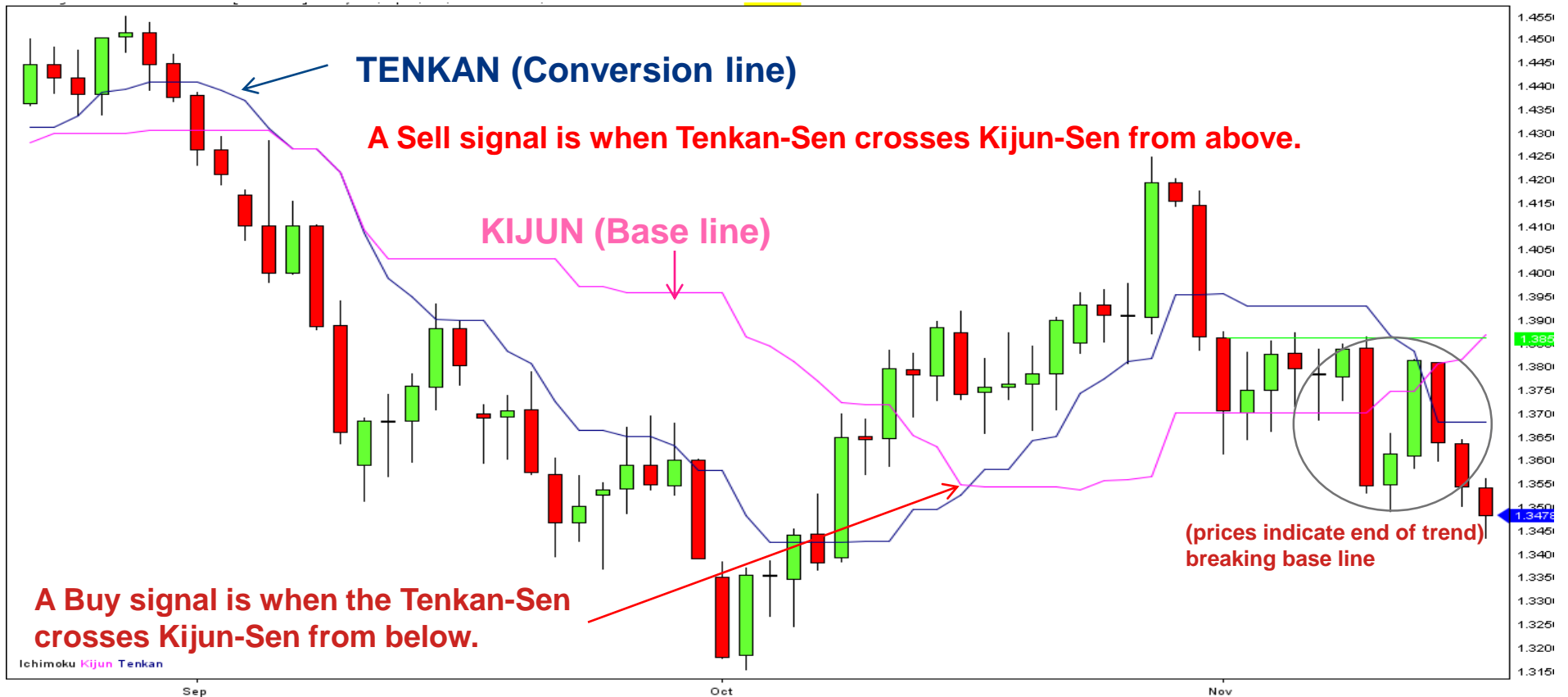**the trend is bearish.**

Tenkan - or Conversion Line   - Daily EUR/USD
(Highest High+ Lowest Low)/2, for the past p1 periods) (9)
(similar to ma but uses high and low not closes measures the strength of the market)

TENKAN (Conversion Line)

Ichimoku Tenkan
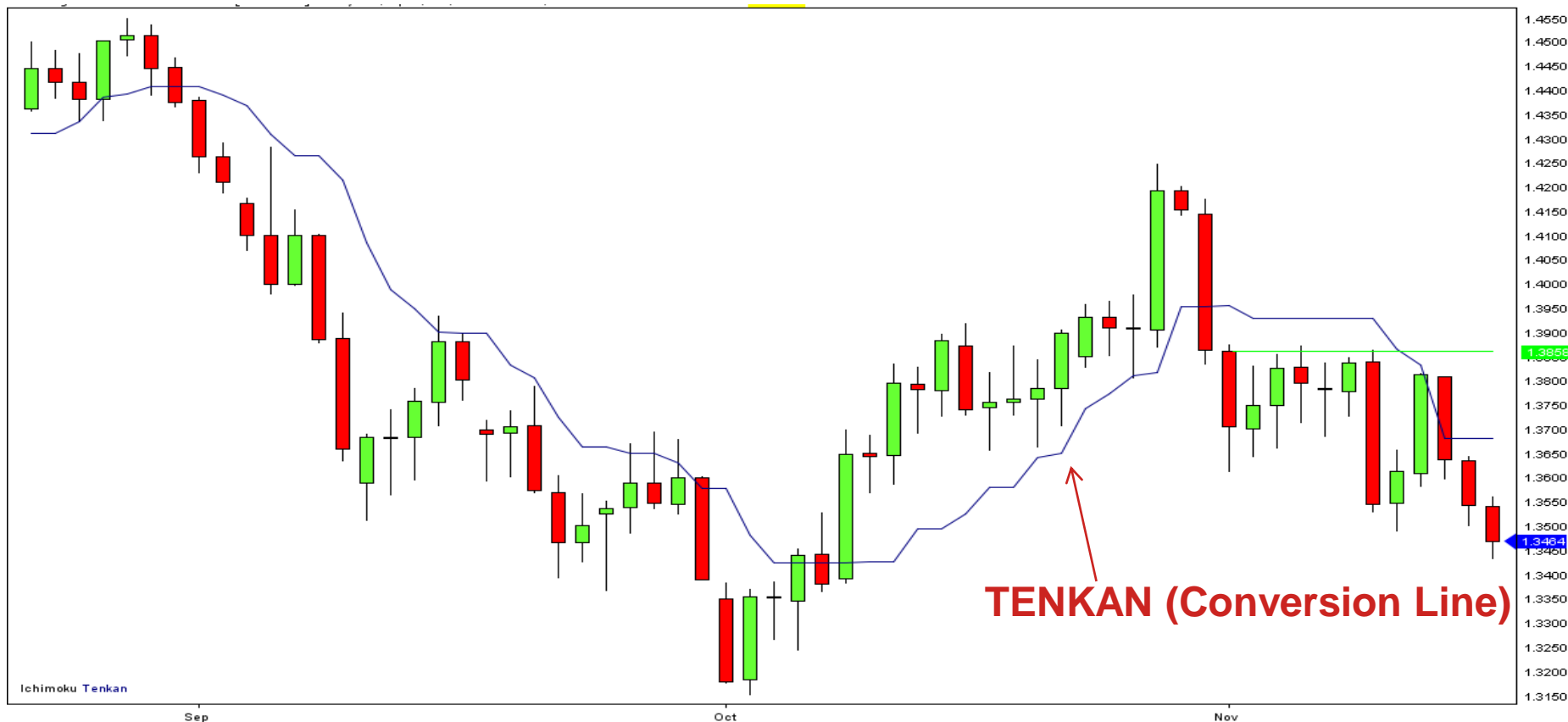
Kijun-Sen or Base Line - Daily EUR/USD
(Highest High + Lowest Low)/2, for the past p2 periods (26)
(In general, the <u>market trend is bullish when prices are above the base line</u>)

TENKAN (Conversion line)

A Sell signal is when Tenkan-Sen crosses Kijun-Sen from above.

KIJUN (Base line)

(prices indicate end of trend) breaking base line

A Buy signal is when the Tenkan-Sen crosses Kijun-Sen from below.

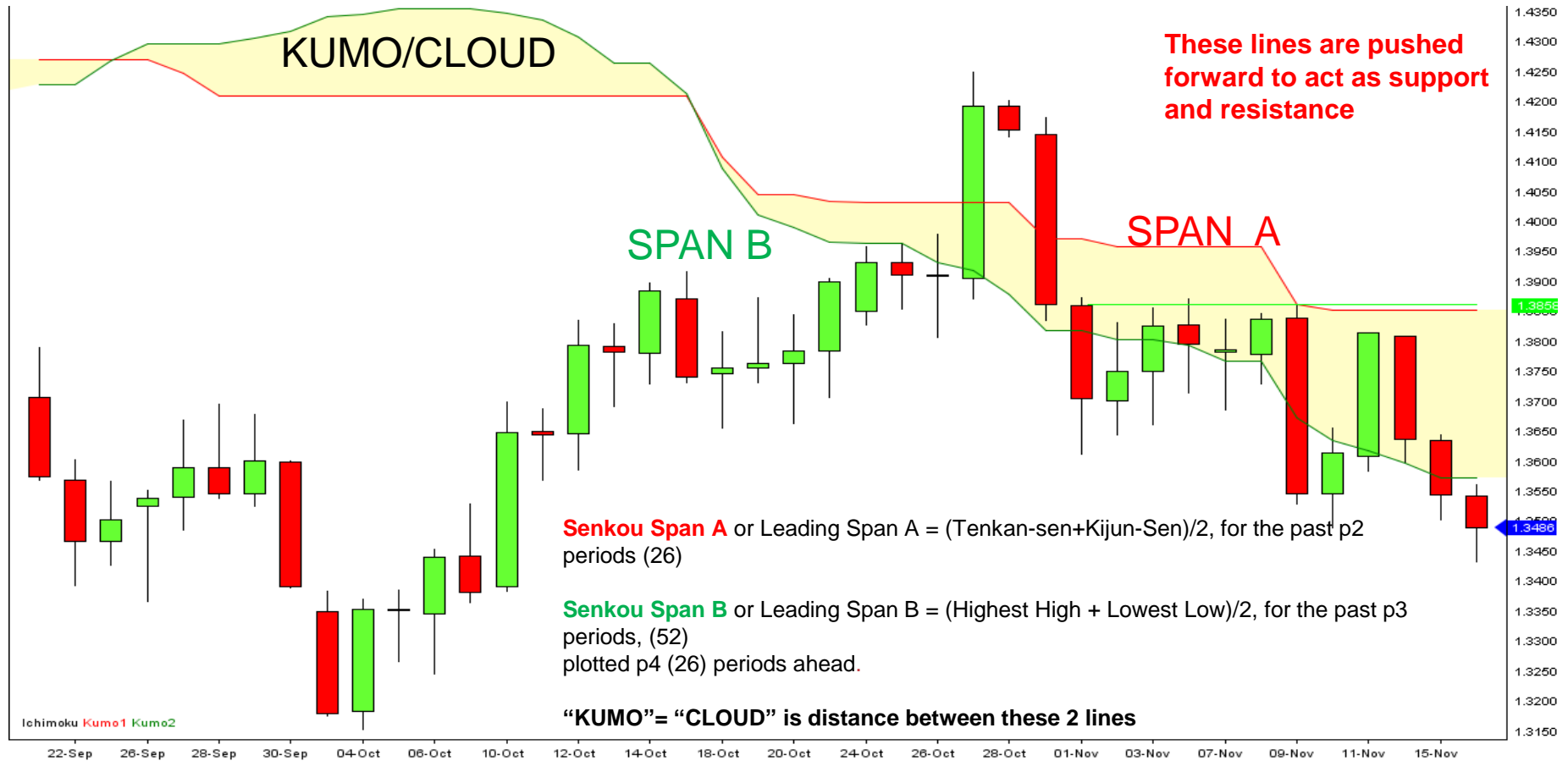Ichimoku Kijun Tenkan

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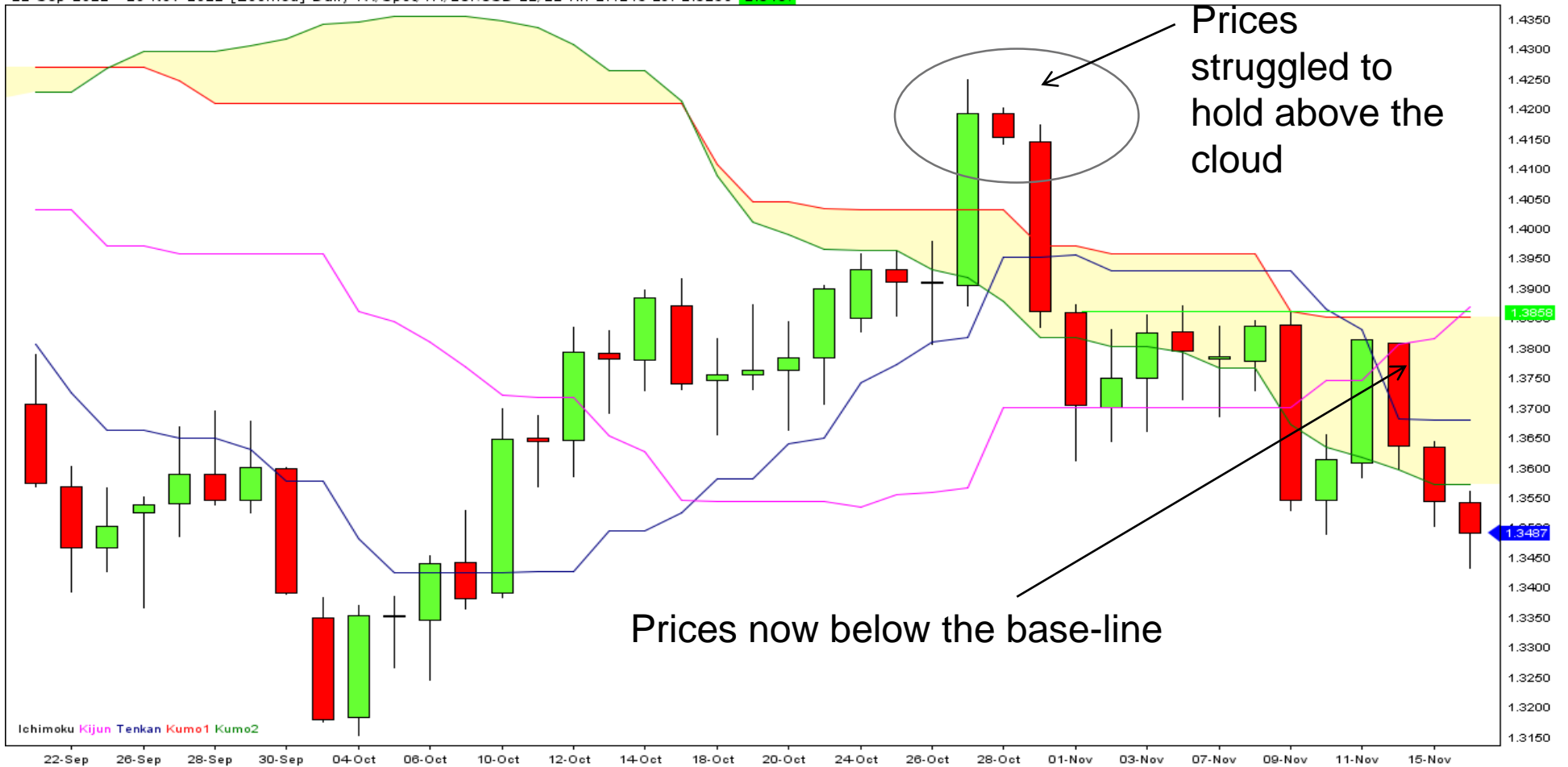
SENKOU SPAN LINES

SENKOU SPAN A - The average price of the conversion and base line values plotted as a number of periods in advance. The number of periods in the Lead & Lag Period field determines how far in advance the value is plotted. For example, if the value in the Lead & Lag Period field is 26 days, the Leading Span A line extends 25 days past the end date. (26 periods typically).

SENKOU SPAN B - The average of the high and low prices for a past number of periods plotted in advance. The number of past periods is twice the number in the Lead & Lag Period field. The number of periods in the Lead & Lag Period field determines how far in advance the value is plotted. (52 periods typically).

Ichimoku – Span lines – EUR/USD Daily chart

KUMO/CLOUD

These lines are pushed forward to act as support and resistance

SPAN B

SPAN A

Senkou Span A or Leading Span A = (Tenkan-sen+Kijun-Sen)/2, for the past p2 periods (26)

Senkou Span B or Leading Span B = (Highest High + Lowest Low)/2, for the past p3 periods, (52)
plotted p4 (26) periods ahead.

"KUMO"= "CLOUD" is distance between these 2 lines

Ichimoku Kumo1 Kumo2

4 lines together – EUR/USD

Prices struggled to hold above the cloud

Prices now below the base-line
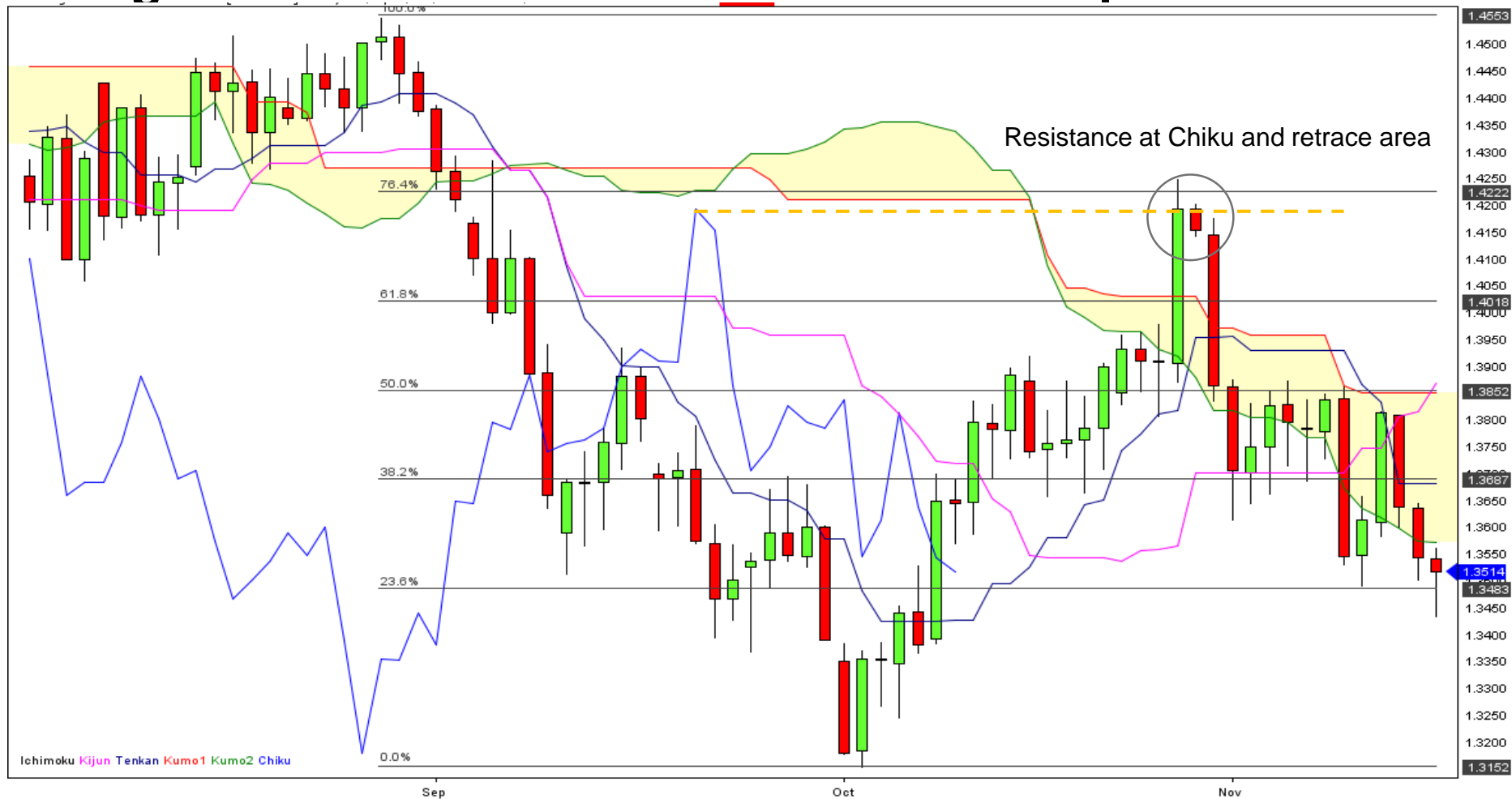
Ichimoku Kijun Tenkan Kumo1 Kumo2

EUR/USD – Chiku line

Overall strength - Strength is shown to be with the sellers if the Chikou Span is below the current price. Strength is shown to be with the buyers when the opposite is true. (26 day lag of prices).

CHIKU LINE

Ichimoku Chiku

All together now for EUR/USD and some simple retracements

Resistance at Chiku and retrace area

Historical context – for consideration

Note that Ichimoku relies on only three different time periods in its calculations: 9, 26 and 52. Those periods stem from a history when the system was developed prior to WWII. Japanese financial markets used to be open for trading on Saturdays, meaning that the trading week was 6 days long. As a result, the number 9 represents a week and a half of trading; 26 equals the number of trading days in a typical month (30 minus four Sundays); and 52 equals two months of trading days.

Japanese markets now trade only five days per week and 22 days in a typical month, so some practitioners of Ichimoku suggest revising the parameters to seven or eight, 22 and 44.

9 days = 1 ½ weeks trading

26 days = 30 days – 4 Sundays thus 1 month

52 days = 2 months

EUR/JPY – Daily chart

Prices still way below the "Cloud" or "Kumo" at present.

Chiku line failed above the Kijun line

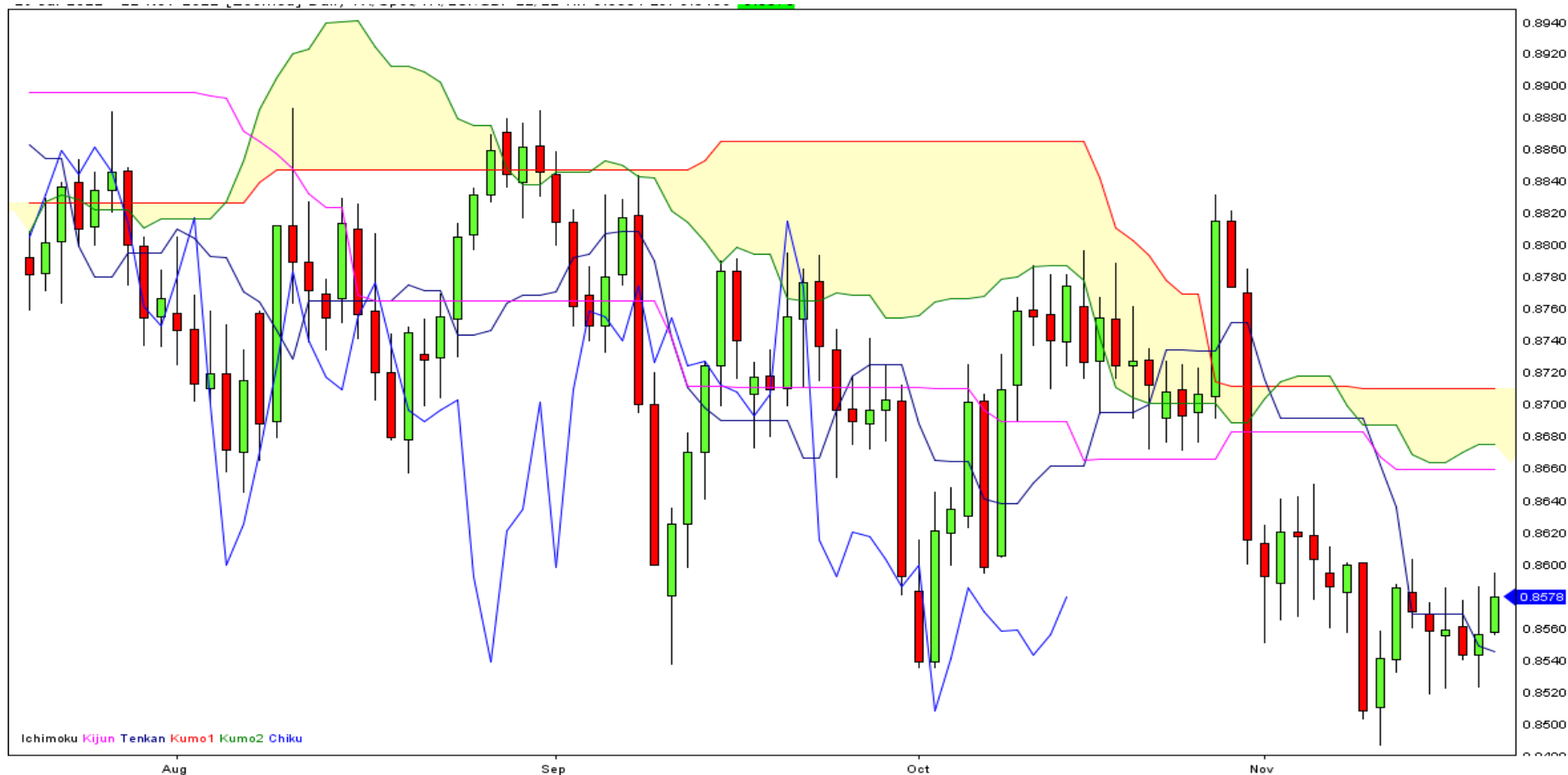Ichimoku Kijun Tenkan Kumo1 Kumo2 Chiku
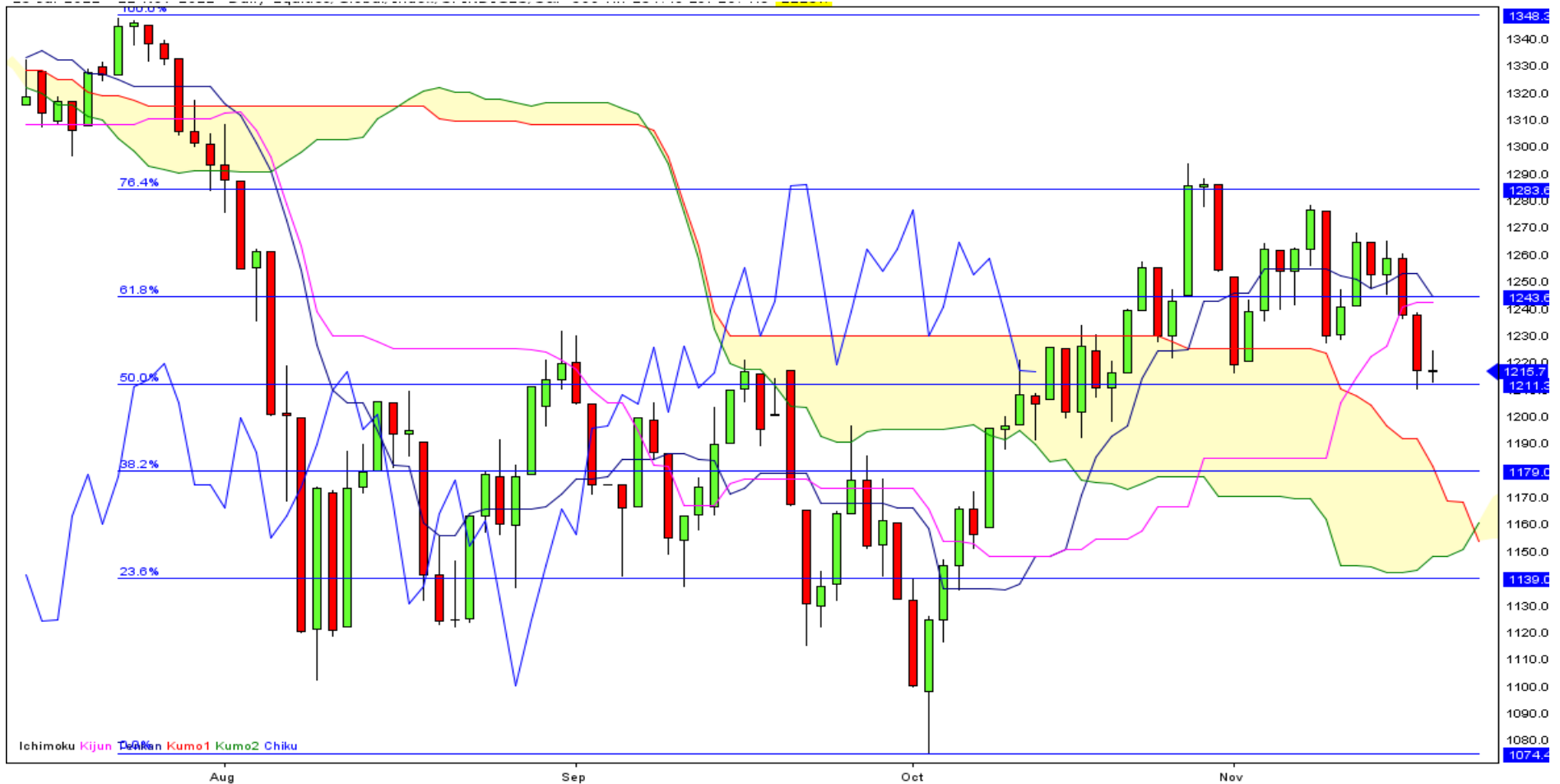
GBP/PLN – Daily chart

Strong trend here price action above all the lines so waiting for a signal of fatigue still
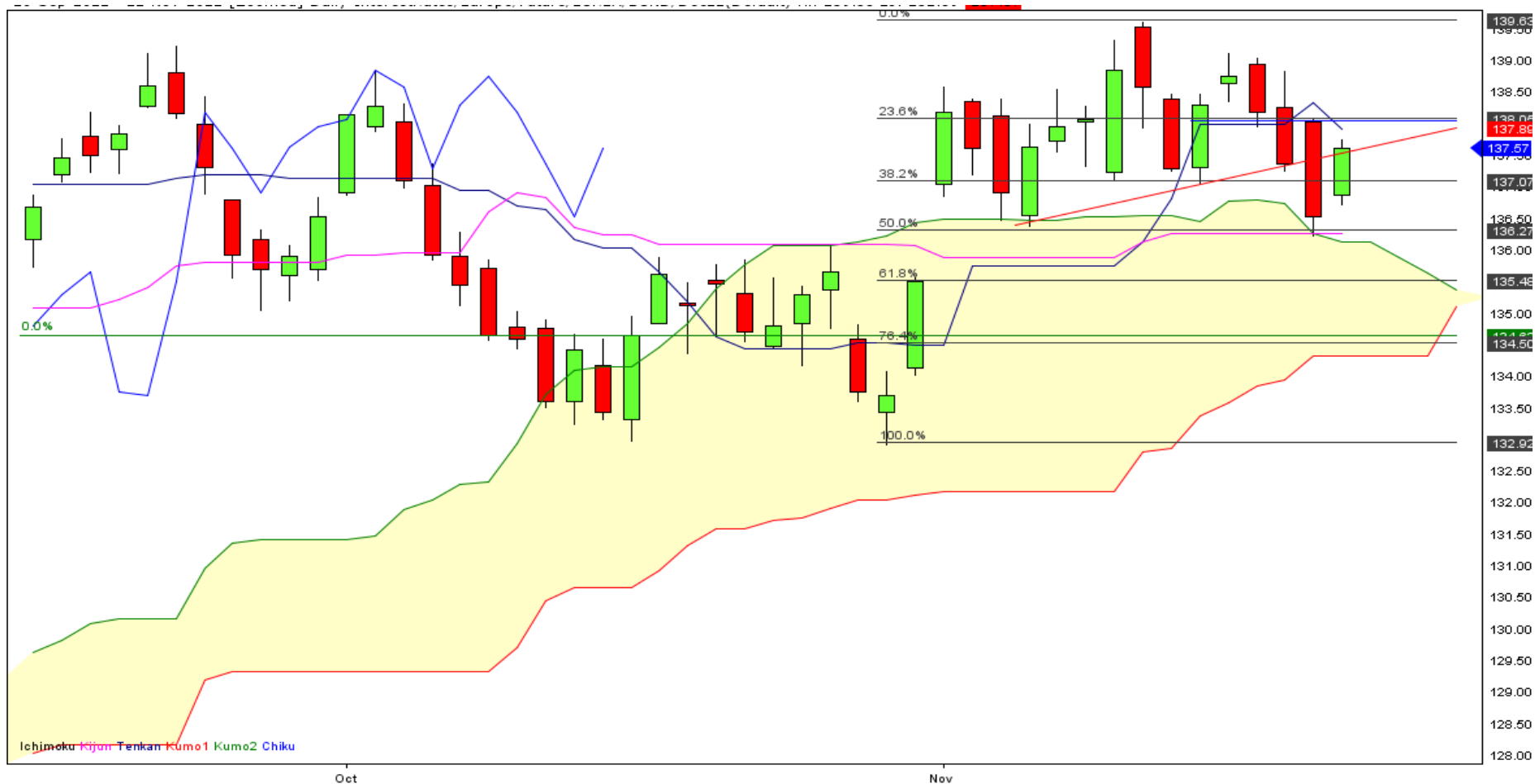
EUR/GBP – Daily chart what can you see?

S&P500 – Daily chart what can you see?

Bund Z1 – Daily chart what can you see?

Ichimoku summary - checklist

Good for bigger trend plays when you want to figure out is this the start of a potential big trend move.

Used like a moving average oscillator so easy to follow. Quite often black box models have some derivation of the lines in their calculations.

Keeps you in a trend when it is against you short term, by using the base line as support/stop loss trigger.

-**Strong signals** - A strong buy signal occurs when the Tenkan-Sen crosses above the Kijun-Sen from below. A strong sell signal occurs when the opposite occurs. The signals must be above the Kumo.

-**Normal signals** - A normal buy signal occurs when the Tenkan-Sen crosses above the Kijun-Sen from below. A normal sell signal occurs when the opposite occurs. The signals must be within the Kumo.

-**Weak signals** - A weak buy signal occurs when the Tenkan-Sen crosses above the Kijun-Sen from below. A weak sell signal occurs when the opposite occurs. The signals must be below the Kumo.

-**Overall strength** - Strength is shown to be with the sellers if the Chikou Span is below the current price. Strength is shown to be with the buyers when the opposite is true.

-**Support/resistance levels** - Support and resistance levels are represented by the presence of the Kumo. If the price is entering the Kumo from below, then the price is at a resistance level. If the price is falling into the Kumo, then there is a support level.

- **Trends** - Trends can be determined by simply looking at where the current price is in relation to the Kumo. If the price stays below the Kumo, then there is a downward trend (bearish). Alternatively, if the price stays above the Kumo, then there is an upward trend (bullish).

INTRODUCTION TO MARKET PROFILE CHARTING

•Market profile (MP) uses the **evolving market as its database** rather than past market history.

•MP is a present tense information source.

•It **looks for price distribution by using the bell curve**.

•MP does not try to predict the future based on the past, but tries to identify the underlying conditions of the current market's movement for **continuation** or **change.**

•Primarily it tries to organise chaotic, seemingly random market activity into meaningful, measurable data segments that can be captured, defined and then monitored.

•MP uses the bell curve to this by organising the data.

•Displays price, volume and time frame, on a single chart.

Market profile interpretation

MP invented by J.P. Steidlmayer

The underlying premise is that market players have different timeframes, and those with shorter timeframes are forced into action by price movement, while those with more time have more options. Therefore, not all market players are active at the same time. The more the market moves, the more these players become involved and the easier it becomes to trade. This leads to some observations:

As prices go up, buying eventually diminishes, and vice-versa for a falling market.

Trends continue until the last long-term buyer or seller executes their trade.

Market profile interpretation

There are two types of activity: <u>initiative and responsive</u>.

Initiative activity occurs when players buy at or above (or selling at or below) the red value line, which indicates an opinion on future direction.

Responsive activity occurs within the value area.

Market Picture divides the trading day into 30-minute sessions for analysis.
If you can figure out quickly enough which profile shape is forming on any given day, then within a few hours of the market's opening, you can reasonably infer where the markets may trade for the balance of the day. This is a huge advantage for those trading based on intraday movement, especially sell-side dealers, buy-side proprietary traders, and outright speculators.

Day traders use this method to establish the **market's balance** and to look for price levels that bring players into the market. This is where prices have gone low enough to bring in longer-term buyers and high enough to attract long-term selling. Most day traders try to establish these levels in the **first hour of the day.**
Those who follow the Steidlmayer method try to classify the day into 5 basic distribution profiles.

But first some concepts…

The bell curve

## What does normal distribution mean?

In statistics when you take a random sample of a population and measure them for height, you can draw a chart showing how many people are represented at each unit of height.

A "normal distribution" would show a clustering of people

around the average height with less and less people as you move towards the extremes. Very short people and very tall people are less frequent than people close to the average height. (The "mean").

A plot of the number of people at each unit of height would show a bell shaped curve (a normal distribution), with 68% of the total sample within one standard deviation of the average height.

A normal distribution, with the first 3 std's in each direction ⟶

The normal distribution curve
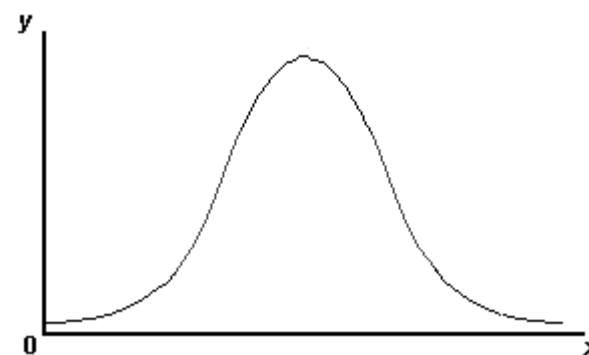
The bell curve & standard deviation

68%

-3 -2 -1 0 1 2 3
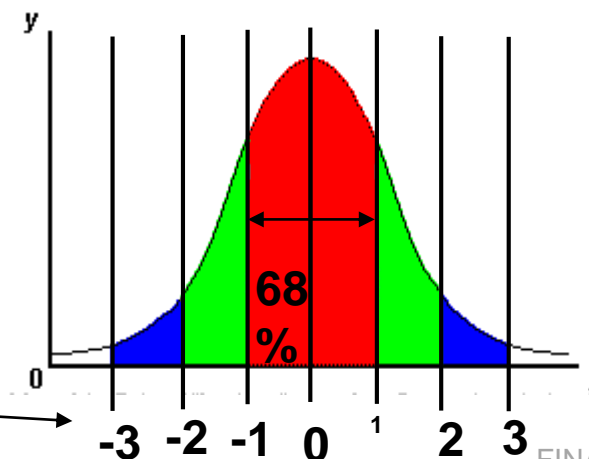
Standard deviation calculation

(a) Find the average of all the data points.

2+4+6+3+5 = 20

20/5= 4

(b) Sum all the squares of all the data points.

4+16+36+9+25 = 90

(c) Divide the sum of the squares of all nine data points (b) by the number of data points within the series. In this case we have five items of data.

90/5 = 18

Subtract the square of (a) from (c) 18-16=2

The Square root of (d) is 1 standard deviation = 1.414

The bell curve and market profile

In a market with good two-way trading, and where the market has established a range, the same type of price distribution will be seen.

Most activity will occur towards the middle of the range with the extreme prices seeing little or no activity and volume.

When price action is plotted using MP, the same bell shape curve distribution will be seen with the minor difference that the price will be on the vertical axis whereas normally in a statistical chart it would be on the horizontal.

MP tells you about the fairness or unfairness (degree of acceptance) of the current price levels.

Price

A Market profile chart

The trading day is divided into half hour periods which are labelled alphabetically.

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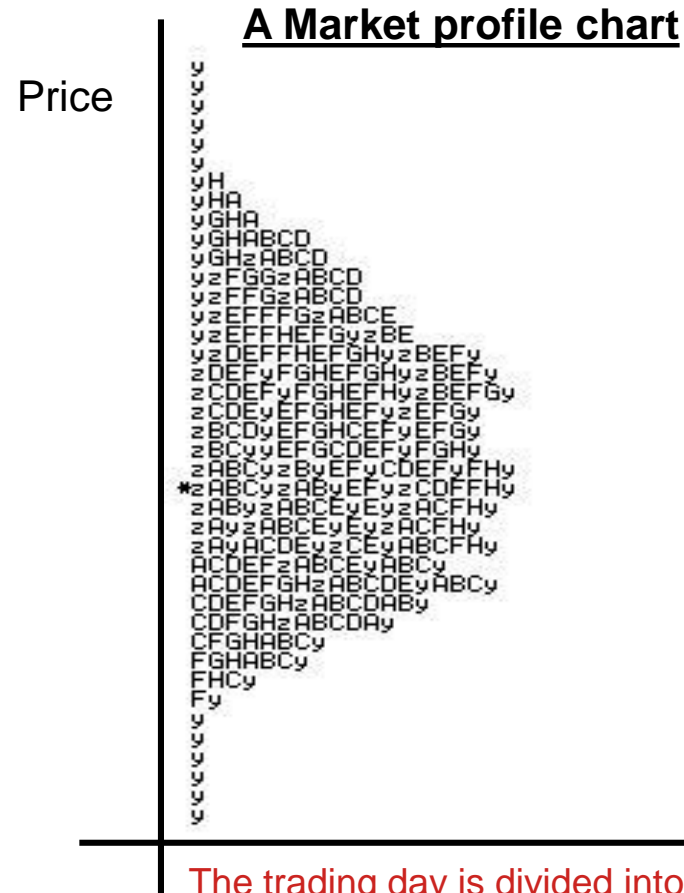
Market profile terminology/concepts

•**TPO's (Time price opportunity)** : representing each trading 30 min interval by a new letter.

•**Initial balance:** two time periods (the first hour combined)

•**Range extensions:** any movement beyond the initial balance is called a range extension and signifies something has changed because of the other time frame buyer/sellers presence. The local is not responsible for any major moves in the market.

•**The range** : refers to the entire height of the Profile – from high to low.

•All activity below the initial balance is the other time frame **seller range extensions**. All activity above the initial balance is other time frame **buyer range extension**.

•**Value area:** is where 70% of the days trading volume occurs. The value are can be easily calculated using TPO's or actual volume/price figures.

Market profile concepts

The market place advertises opportunity by offering price away from value.

- A response to this opportunity can be absent.

- A response can be present, taking advantage of the opportunity.

- A response can be opposite, overtaken by initiating activity unperceived by the market place at that moment. *Activity is one which goes counter to the promotion for which the market is advertising.*

- The marketplace is controlled and regulated through the distribution of price and time, yielding types of natural organisation which produce balance (a "fair" area where two-sided trades take place).

- 5) The combination of all these components in an active phase is called market activity.

- 6) Market activity is composed of a range of time-price opportunity occurrences, TPO being the market's basic unit of measurement.

Market profile terminology/Concepts

Single-print buying tail: *Must be at least two TPO's long* indicating that other timeframe buyers responded strongly to prices advertised below the value, rejecting price out of the lower range in one time period. The longer the tail, the stronger the other time frame activity.

Single-print selling tail: *Shares the same significance as the other time frame buying tail*. The seller reacted to higher prices quickly moving price lower. Attempts to auction beyond the single print tail by trading up in that price range in subsequent time periods met strong resistance, showing seller strength at those prices.

Point of Control: *The longest line of TPO's closest to the centre of the range.* This is where most price activity occurred during the day (Therefore the fairest price in the day timeframe).

Closing range: is the markets last indication of sentiment for the day. It's used as a *reference point* again at the following sessions open to see if the underlying sentiment has changed.

Profile example

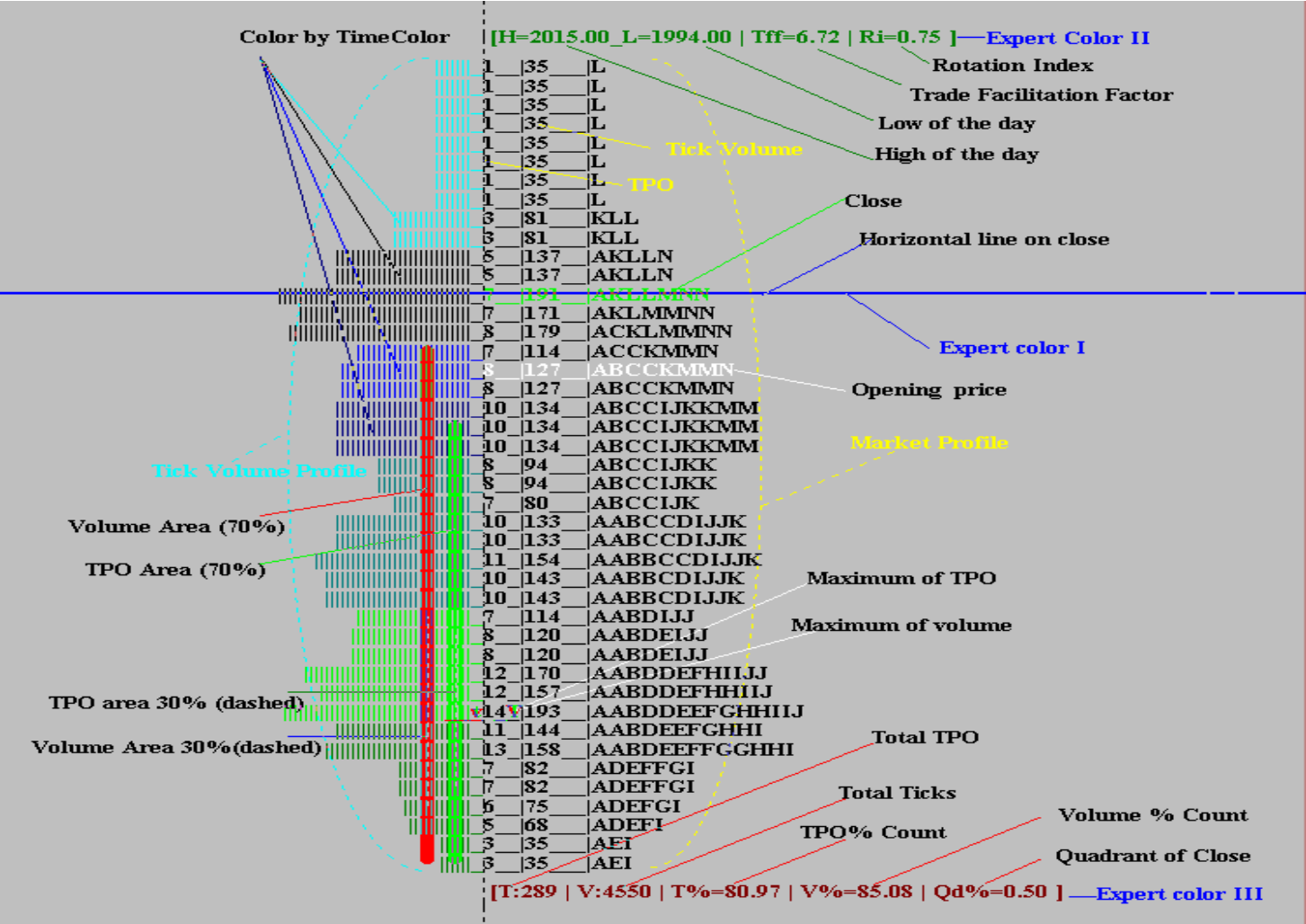|	A-B	A-D	A-L
97 10/32	A	A	A
97 9/32	A	A	A
97 8/32	A	A	A
97 7/32	A	A	A
97 6/32	A	AC	AC
97 5/32	A	AC	AC
97 4/32	AB	ABC	ABC
97 3/32	AB	ABCD	ABCD
97 2/32	AB	ABCD	ABCDGL
97 1/32	AB	ABCD	ABCDGHJLM
97 0/32	AB	ABD	ABCDGHJLM
96 31/32	AB	AD	ABDFGHILM
96 30/32	A	AD	ADFGGHIJL
96 29/32	A	A	ADEFGHIJL
96 28/32		D	DEFJL
96 27/32		D	DEFJL
96 26/32	.	D	DEJKL
96 25/32	.	.	EJKL
96 24/32	.	.	KL
96 23/32	.	.	K
96 22/32	.	.	K
96 21/32	.	.	K
96 20/32	.	.	K
96 19/32	.	.	K
96 18/32	.	.	.
96 17/32	.	.	.

Initial balance

Range extension

Single print selling tail

Closing range

The range

Value area

Control point

Responsive buyer

Single print buying tail

Market profile chart

Point of control

The point of control is the equivalent of the average when calculating Standard Deviation.

In the case of market profile, it is not an actual average, but the price at which the greatest amount of activity takes place during the day.

There are 3 different methods available to define this point of greatest activity:
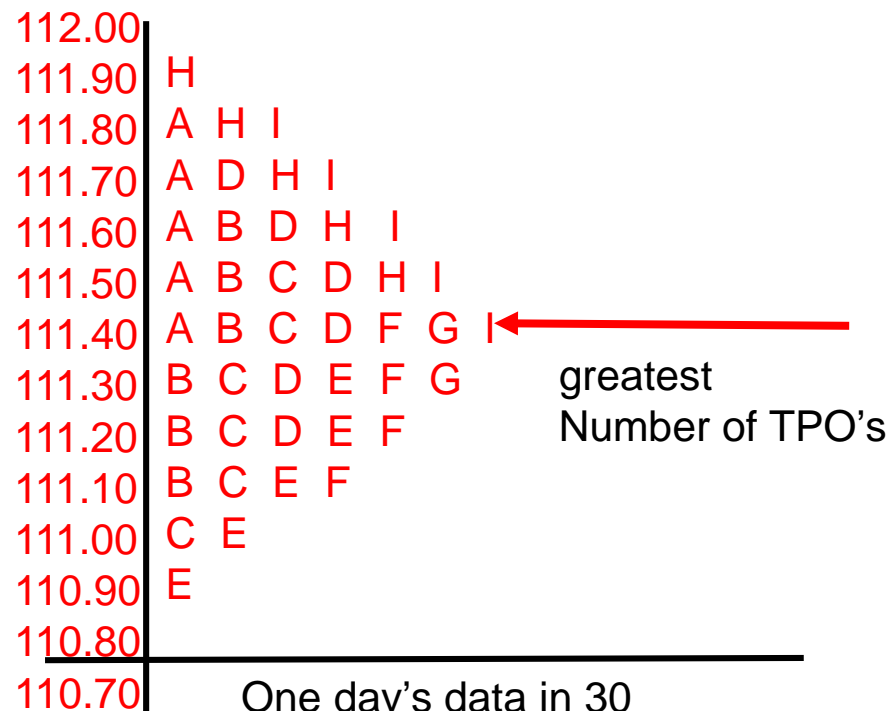
1) HIGHEST NUMBER OF TPO's

2) GREATEST TICK VOLUME

3) HIGHEST ACTUAL VOLUME

POINT OF CONTROL – Highest number of TPO's

Find the **price with the greatest number of Horizontal TPO's** against it.

If there were found to be more than one price with the highest number of TPO's then **choose that price nearest to the centre of the total day's range.**

Price	TPO's
112.00	
111.90	H
111.80	A H I
111.70	A D H I
111.60	A B D H I
111.50	A B C D H I
111.40	A B C D F G I ← greatest Number of TPO's
111.30	B C D E F G
111.20	B C D E F
111.10	B C E F
111.00	C E
110.90	E
110.80	
110.70	

One day's data in 30 minute increments per letter

POINT OF CONTROL – Greatest Tick Volume

If you are using software to run Market Profile,

Look for the price where the **greatest tick volume** occurs.

This is the price at which the market has seen the greatest number of price changes, which is a **substitute for true volume**. This will be the point of control and should take precedence over the TPO method.

112.00	
111.90	H
111.80	A H I
111.70	A D H I
111.60	A B D H I
111.50	A B C D H I
111.40	A B C D F G I ← greatest tick volume
111.30	B C D E F G
111.20	B C D E F
111.10	B C E F
111.00	C E
110.90	E
110.80	
110.70	
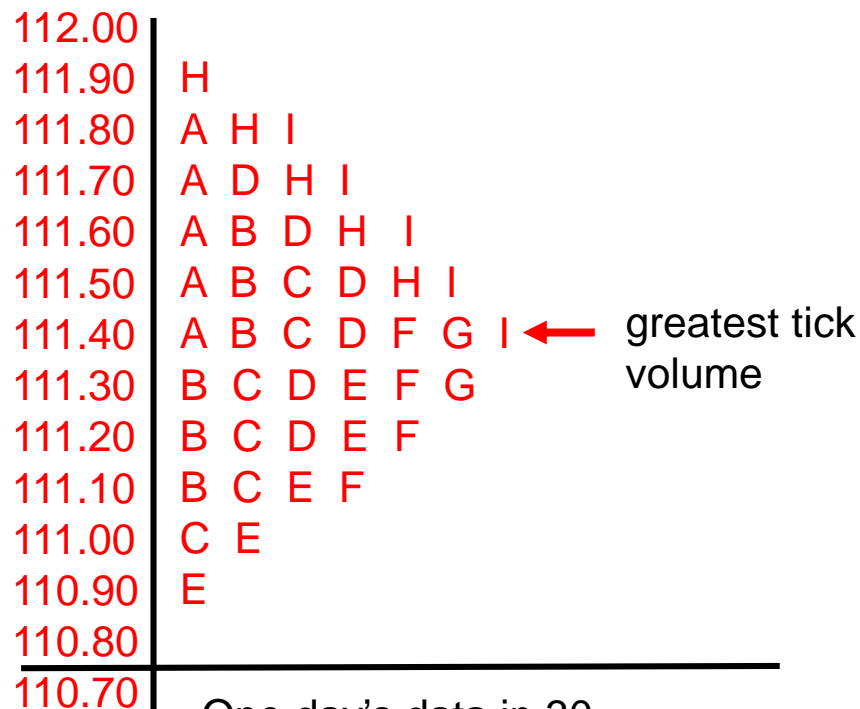
One day's data in 30 minute increments per letter

POINT OF CONTROL – Highest actual volume

In theory this should be the most accurate, but in practice most of the time it unfortunately is not.

The difficulty is actually finding out the real information. Be aware that while many exchanges report volume, it is notoriously inaccurate.

Some exchanges report identical volume for most trades (ie. every trade might be assigned with a volume of 50 lots) and then the total volume figure is adjusted during the day when the picture becomes clearer.

This will give a profile based on tick volume where the unadjusted trades occur and an incorrect jump in volume where the adjustments appear. In this case you are better off using the previous two methods as you would be working with incorrect volume data.

Price					Volume	
112.00						
111.90						
111.80	A	H			4213	
111.70	A	D			13221	
111.60	A	B	D		14333	
111.50	A	B	C		19887	← Highest actual volume
111.40	A	B	C	D	18898	
111.30	B	C	D		16554	
111.20	B	C	D		12110	
111.10	B	C			3901	
111.00	C				1189	
110.90						
110.80						
110.70						

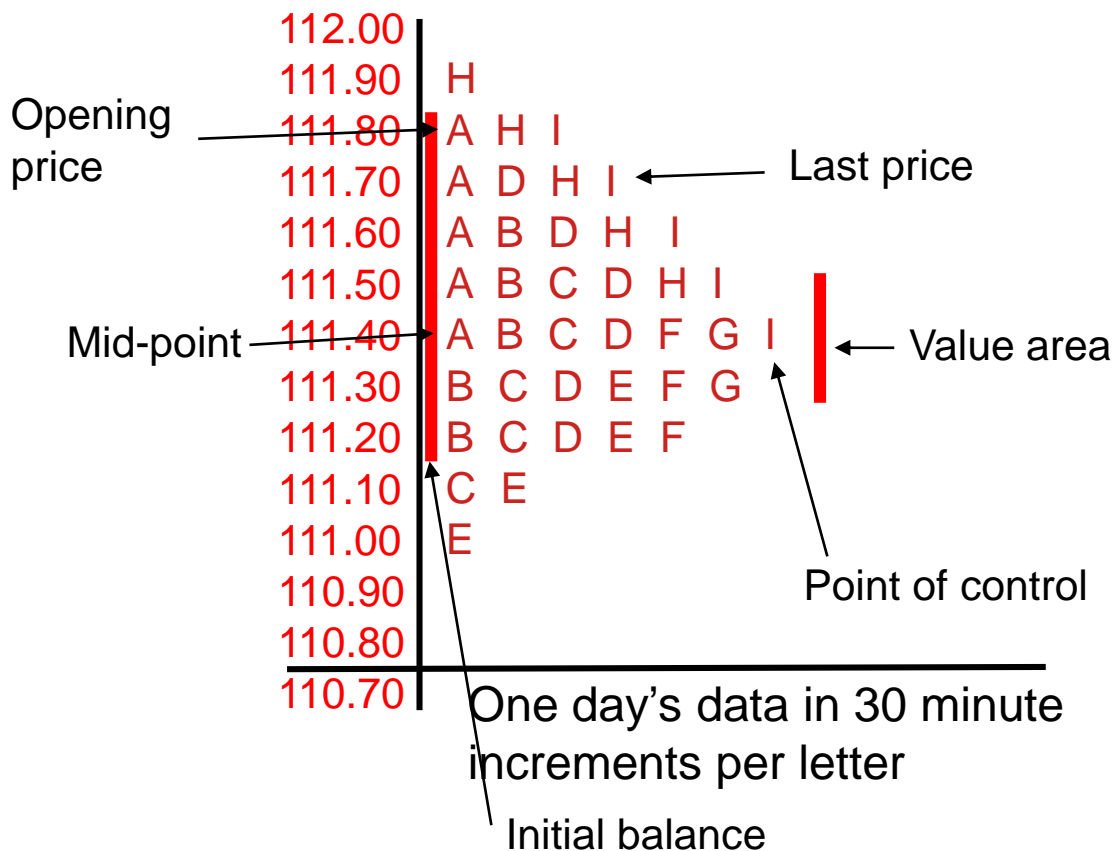One day's data in 30 minute increments per letter

Market profile – One big auction

The market price action is in effect an auction.

Prices are raised until sellers appear or lowered until buyers appear.

All participants do not have the same view as to their optimal timeframe, and therefore the raising of prices by short-term players may well be met by sellers who have a long-term view as well as sellers who are trading only for a quick turn.

The same holds true for prices being driven lower by short-term players and being met by long-term buyers.

Opening price

112.00
111.90   H
111.80   A H I
111.70   A D H I   ← Last price
111.60   A B D H I
111.50   A B C D H I
Mid-point — 111.40   A B C D F G I   ← Value area
111.30   B C D E F G
111.20   B C D E F
111.10   C E
111.00   E
110.90
110.80
110.70

Point of control

One day's data in 30 minute increments per letter

Initial balance

Initiative and Responsive Price Action

Market participants either try to move prices away from an area which was previously accepted as being an acceptable area of value or they try to bring prices back to the value areas when they have moved away.

Recognising the difference between these two types of price action is key to understanding the information that Market Profile is providing you with, and more importantly for you to be able to trade successfully using this methodology.

Two Day Analysis: Initiative or Responsive Action

Having established the value area for day 1, we are now analysing trading for the following day.

If we observe price action that is not only moving the price away from the previous day's value area, but is also accepting these new levels, then price action is initiative.

If, on the other hand, we see the price move away from the value area and it becomes apparent that market action is looking to reverse the move, the price action is responsive.

There are 5 basic distribution profiles

MP Basic distribution profiles : Non-trend day

The market will normally have a very narrow range with limited market participants.

Even the short-term traders will show limited interest. Volume will be low.

A popular trading tactic with this type of pattern is to stay out of the market until a break occurs and then to go with it.

Normally you should expect to see an increase in volume on this type of breakout.

Unless you have very low trading costs and excellent facilities for executing trades, it would be advisable to stay out of this type of market.

This pattern is often seen in European markets on a U.S. holiday.

1152 ABC

1151 ABCDEFJK

1150 ABCDEFGHIJKLM

1149 ABCDEFGHIJKLM

1148 ABFGHKLM

MP Basic Distribution profiles – Normal Distribution

There will be no range extensions
The range for the day will be set in the first hour

Money is made by selling rallies above the Point of Control and buying dips below this level, (generally best attempted in the last third of the range).

A wide range in the initial balance coupled with the single Print Tails on both the top and the bottom is often a good indication that the market is going to range trade for the entire day.

Initial balance sets up the
range for most of the day

```
1152
1151  B
1150  BCIK
1149  ABCIK
1148  ABCFIJK
1147  ABCFHIJK
1146  ACEFHJIC
1145  ACEFGHIJK
1144  ADEGHJK
1143  ADEGHJK
1142  ADEGK
1141  DG
1140  D
```

MP Basic Distribution Profiles – "Teardrop"

•A day when there is rapid directional movement before it
•levels of then forms the bulk of the distribution at the lower
•end of the range.

•This is normally driven by fundamental events that move the market
• to a knee jerk response which then comes to terms with the news
•and settles.

•The initial balance tends to offer the range extremes for the
•session.

1152 A

1151 A

1150 A

1149 A

1148 A

1147 A

1146 ABI

1145 ABDFHGI

1144 BCDFGHI

1143 BCDFGHI

1142 BCDFGHI

1141 BCDEFG

1140 BCEF

1139 BE

MP Basic Distribution Profiles – The "Trend day"

The first characteristic of a Trend Day is the **initial balance is normally small.**

A small base makes it easy for an object to be toppled over and, as we have mentioned earlier, it is no different in the market place.

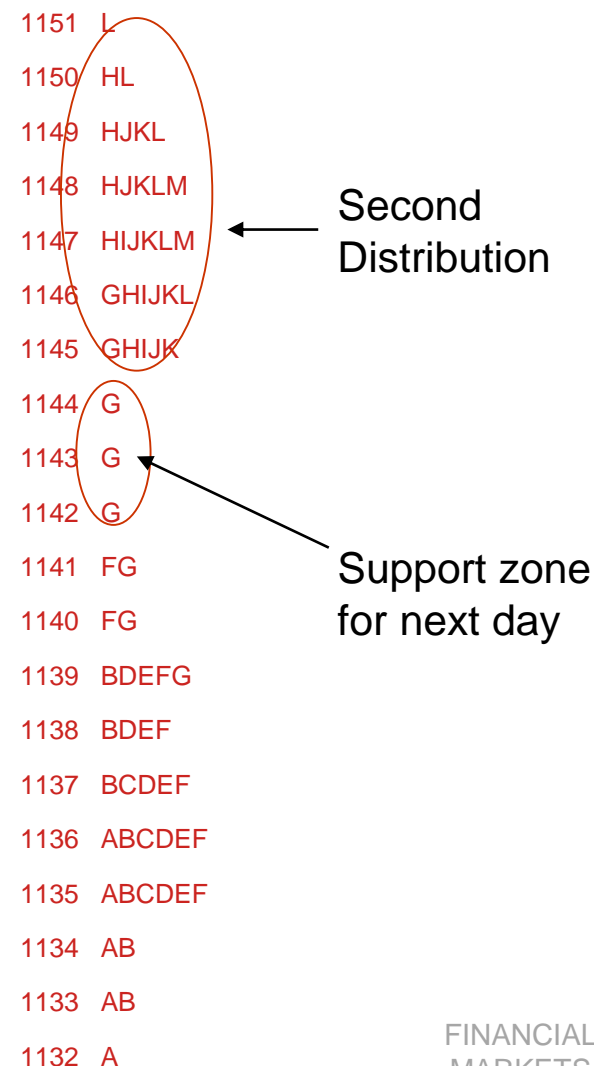Range extremes appear in **multiple time periods and in one direction.**

The locals or short-term traders cannot get control of the market as the traders/investors with longer term views have taken control.

It is usual to find that where you may have 10 or more TPO's at the control
point on a normal day, it is likely that on a Trend Day you will see **only 4 or 5 TPO's at the widest point.**

1152	ABC
1151	ABC
1150	ABDE
1149	BCDEF
1148	CDEFG
1147	CEFG
1146	EFGH
1145	FGH
1144	GHI
1143	HIKL
1142	HJKL
1141	IJKLM
1140	IJKLM
1139	IJKLM
1138	I

MP Basic Distribution Profiles – "Multiple Distribution Trend"

•Short-term shift from one trading range to another trading range.

•Maybe the market was expecting some news (eg. payrolls).

•The I.B. will be small but there is a good chance that range
•extensions will have been seen, albeit relatively small.

•As expected the news breaks the market will move quickly to a
•new level, leaving a series of single TPO prints (more likely 2 prints).

•One the market reaches this new level it doesn't continue to trend.

•It is almost as if the market has started afresh and the market will
•start to form a pattern like a Normal Day.

•**With this pattern it is very important to watch the late trading within that day.   In this example support will surface where the single TPO's lie under the secondary distribution.**

1151	L
1150	HL
1149	HJKL
1148	HJKLM
1147	HIJKLM
1146	GHIJKL
1145	GHIJK
1144	G
1143	G
1142	G
1141	FG
1140	FG
1139	BDEFG
1138	BDEF
1137	BCDEF
1136	ABCDEF
1135	ABCDEF
1134	AB
1133	AB
1132	A

Second Distribution

Support zone for next day

The Intra-day TPO count: Key for predicting future market activity

This count highlights the balance between buying and selling activity in relationship to previously accepted values.

This analysis may be started at any time after the initial balance has been made, but tends to be more accurate from the 4th period and thereafter.

The first item to be identified is the Point of Control (PofC) and this should be done by finding the price level with the greatest number of TPOs against it, or in the case where a number of price levels have the same high number of TPOs the price in this group nearest the mid-point of the total range for the day.

The next step is count the total of TPOs above the (PofC), excluding single TPOs.

Why exclude these TPOs ?

We are looking to see where the market participants have their net long positions located and the chances are that single TPOs are going to be extremely low volume areas. By only including multiple TPO price levels we are only including levels where the best opportunity of two way trading has taken place.

Once you have counted the TPO's above the (PofC), repeat this step for the TPOs below the (PofC), excluding single TPOs.

The Intra-day TPO count (Identifying trading opportunities)

```
6285 | A
6280 | A
6275 | A D E
6270 | A D E F
6265 | A C D E F
6260 | A C D E F
6255 | A C D E F
6250 | A B C D E F
6245 | A B C D E F G   (35)
6240 | A B C D E F G
6235 | A B C D E F G  (44)
6230 | A B C D E F G
6225 | A B C D E F G
6220 | A B C E F G
6215 | A B C F G
6210 | A B C F G
6205 | A B G
6200 | B G
6195 | B G
```
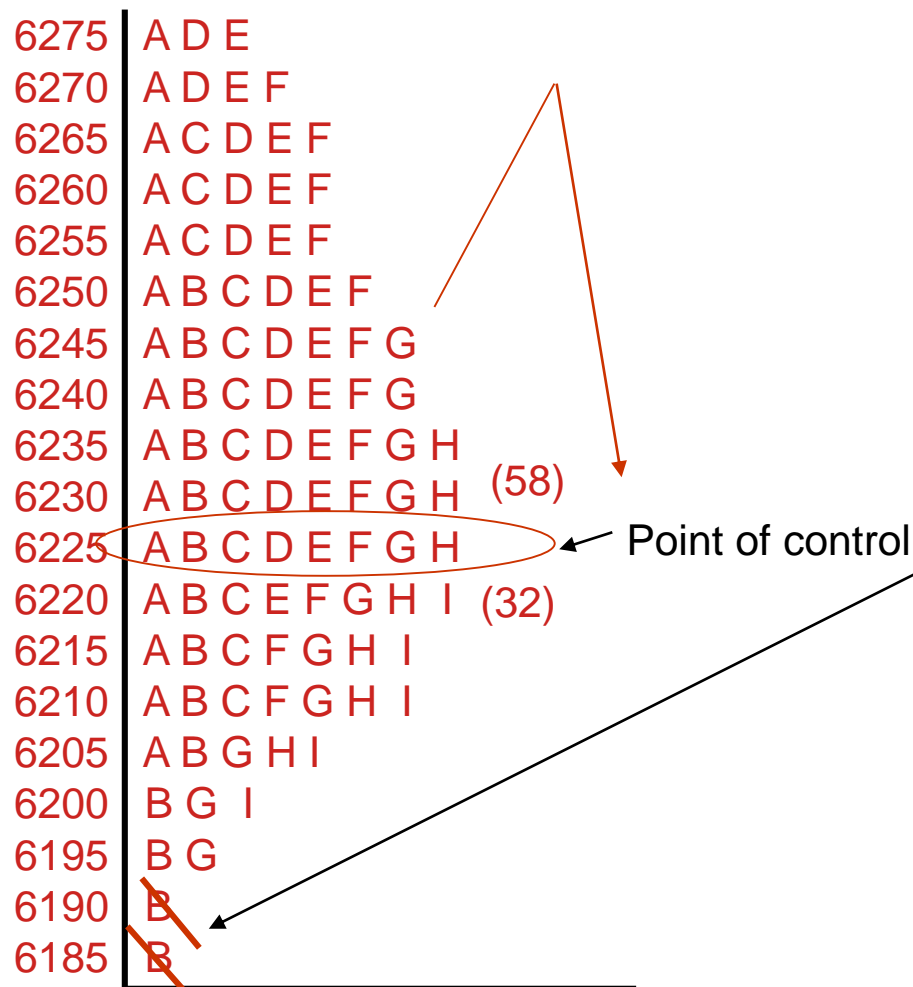
Intra-day TPO count with imbalance putting pressure to turn the market back up towards the POC at

....6240

Point of control

Note the single prints are not included in the count

The Intra-day TPO count

```
6275 │ A D E
6270 │ A D E F
6265 │ A C D E F
6260 │ A C D E F
6255 │ A C D E F
6250 │ A B C D E F
6245 │ A B C D E F G
6240 │ A B C D E F G
6235 │ A B C D E F G H
6230 │ A B C D E F G H   (58)
6225 │ A B C D E F G H
6220 │ A B C E F G H I   (32)
6215 │ A B C F G H I
6210 │ A B C F G H I
6205 │ A B G H I
6200 │ B G  I
6195 │ B G
6190 │ B
6185 │ B
```

← Point of control

As trading continues, the P of C shifts lower and the TPO count is now putting pressure on the market to the downside.

Again no single prints are included.

Identifying trading opportunities from the TPO count

By trading in line with the trend, the overall position of the price area and the TPO count, you will have the possibility of making trades with a very high probability of success.

The importance of the overall position of the price area must also be stressed.

While the current trend is important, it should be remembered that a chart shows a line moving higher is not a chart that says "This price is going up". It actually says "This price went up".

Only by looking at other factors can you imply a probability of whether the apparent trend will continue. If the price currently being traded is at the extremes of a longer term distribution, then the probability that the trend is likely to reverse is much higher.

Moving back to the intra-day price action, the dynamics change when the markets build an imbalance in the TPO's either side of the POC and the POC shifts towards the side with the greater number of TPO's (which would be the normal situation).

This will shift the imbalance to the other side of the POC and put pressure on the market in the direction of the change seen in the POC.

A market where two or three reversals of this nature are seen fairly often develops into the type where the days range is exceeded on numerous occasions on both sides.

Identifying trading opportunities from the TPO count.

Each breakout into new high or low ground on the day is followed by a failure and a return to the other extreme. The market is deemed as choppy and becomes a trend followers nightmare. For the MP trader this represents multiple trading opportunities with small risk.
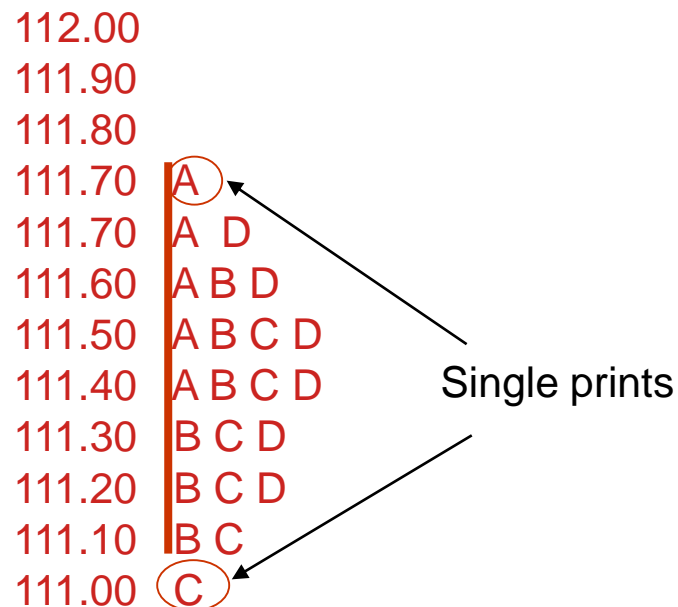
SINGLE TPO COUNTS

When the market only prints one TPO against a series of prices, it is a sign of rejection.
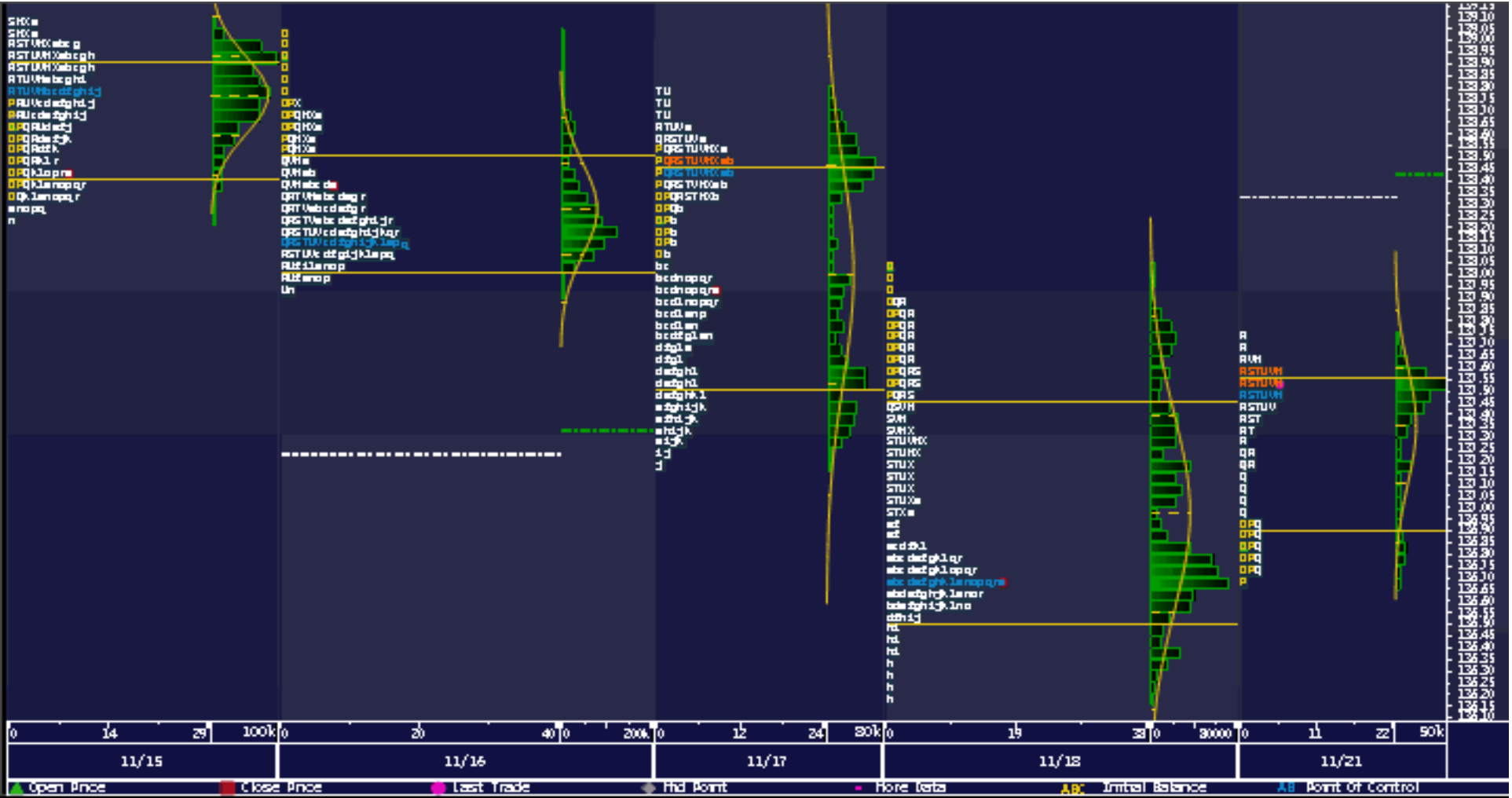
The absence of single TPOs does not in itself mean that a price has been accepted as being of value.

In the case there a where a price trades to a new daily extreme it is possible that it does so towards the end of a half-hour time period. The next period then comes into play before the market has had time to reject the move.
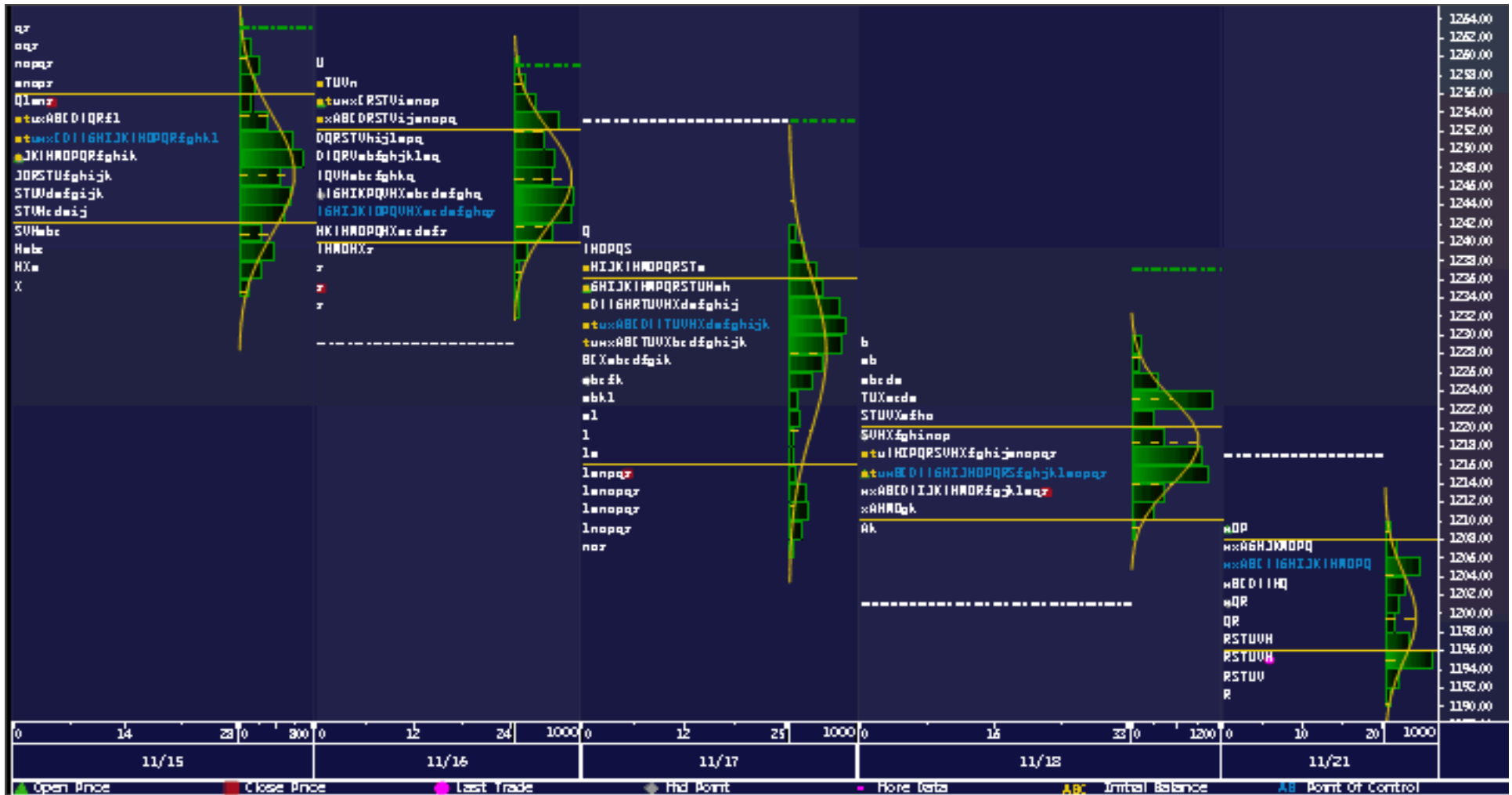
In this case you are likely to see double TPOs at the rejected level, but the rejection is equally as valid as that where only a series of single TPOs have been seen.
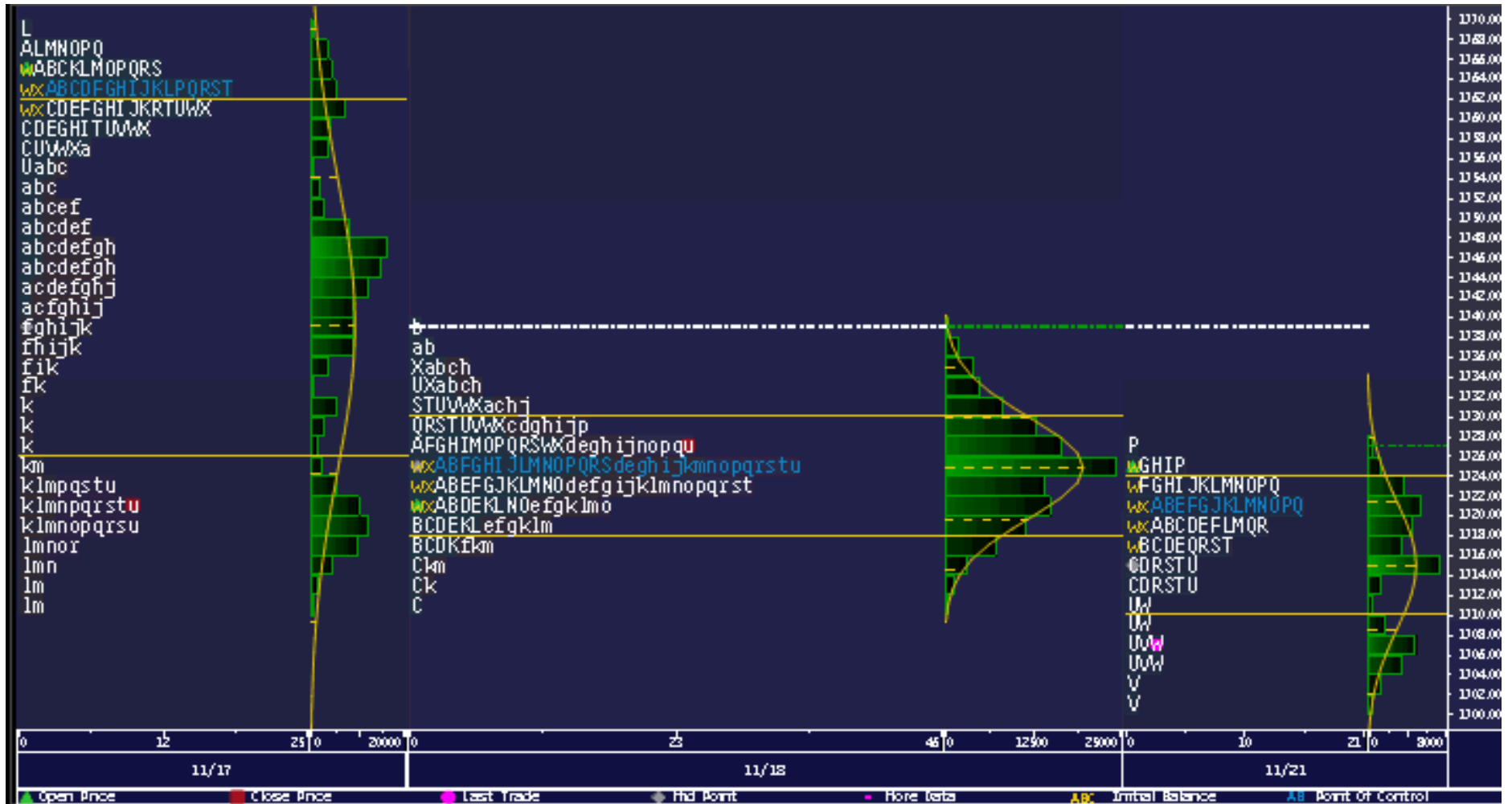
Price	TPOs
112.00	
111.90	
111.80	
111.70	A
111.70	A D
111.60	A B D
111.50	A B C D
111.40	A B C D
111.30	B C D
111.20	B C D
111.10	B C
111.00	C

Single prints

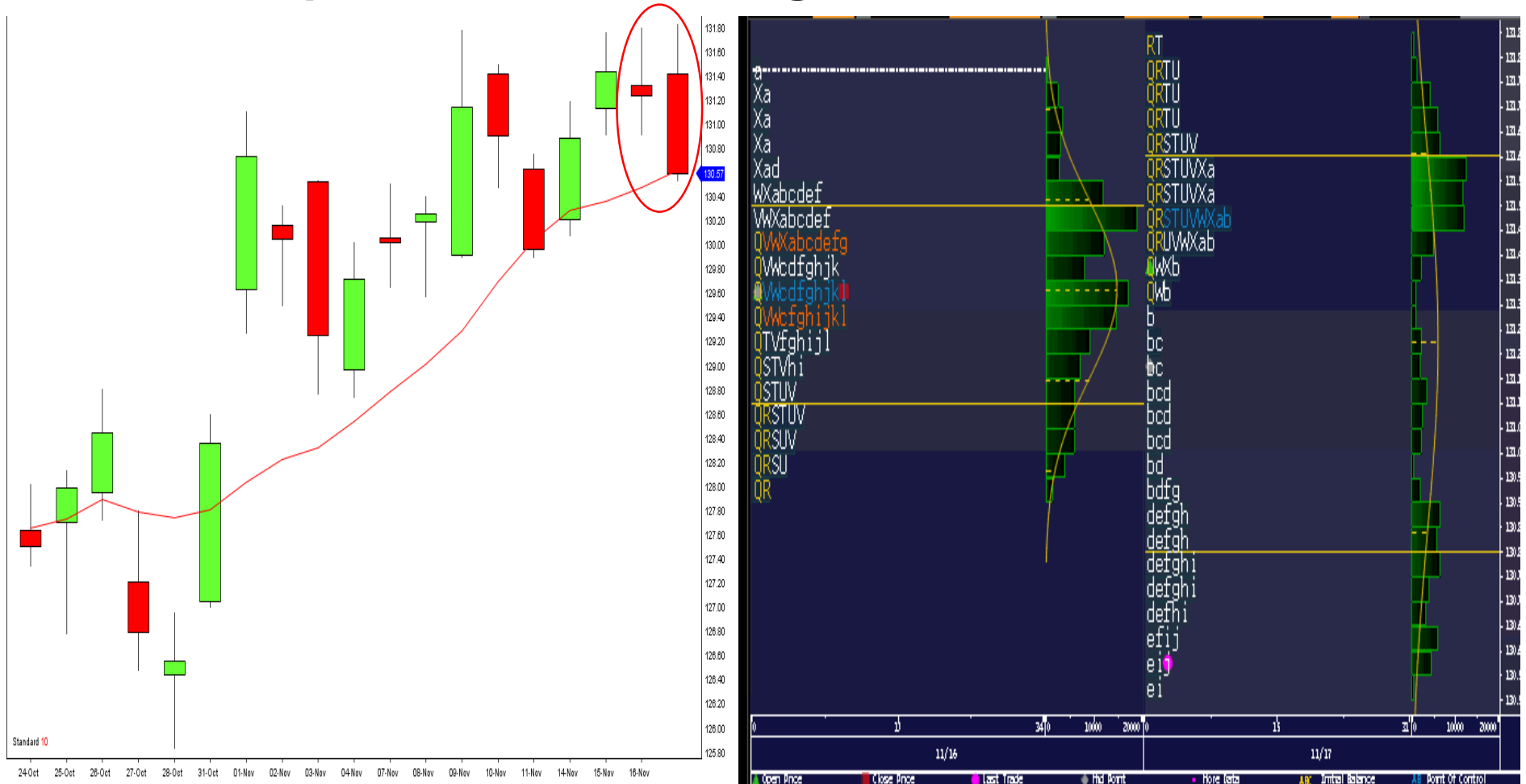# RXZ1 – what can we see?

S&P 500 Z1 what can we see?

SPOT GOLD – what can you see?

Gilt Z1 compare the different signals from the same data

Market profile - Summary

ADVANTAGES:

MP is one of the few analysis technique that tells the trader/analyst what the current situation is in the market.

Many other techniques have a high degree of probability built into the analysis and once the analysis has been made it is difficult for that indicator to give a quick signal that the market sentiment is changing. This is the reason why many analysts use a variety of indicators to monitor the markets.

With MP it is possible to maintain control using solely the one method, although that does not mean that it is not possible to enhance these signals with additional information.

DISADVANTAGES:

•Lack of quality targeting

•Could argue that as the information that the system gives you is always current, then targets become far less important.

•Targets are more important when your methodology is slow to react to changes. When the target is still accurate in the longer term, it gives the trader confidence to remain in the position.

•MP is not really designed to predict, it provides the analyst with the tools to visualise the market's future potential development.

•This not as the same as predicting.