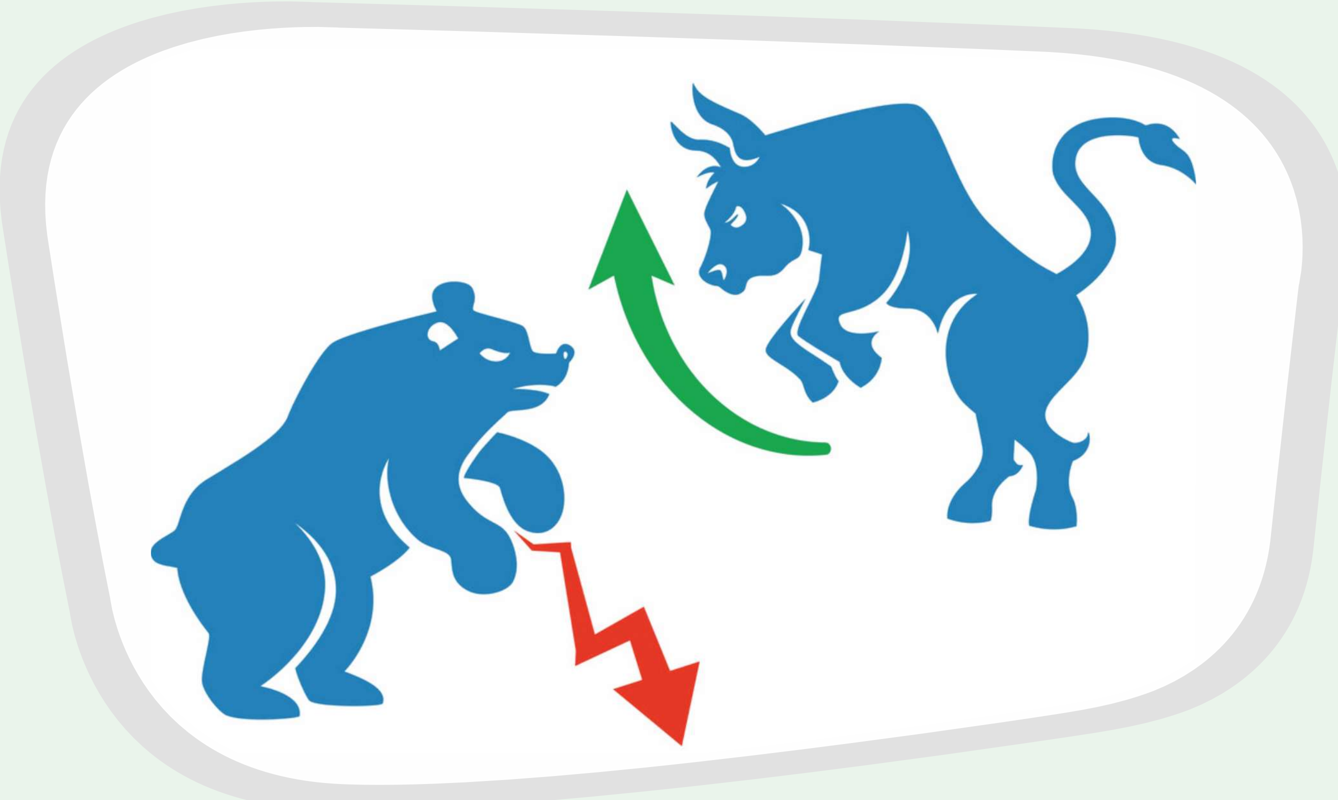


DAY STRUCTURES IN MARKET PROFILE

In any market analysis, data used by market participants for decision making can be categorized in two parts:

1. Fundamental information
2. Ongoing market generated information

Fundamental information includes tools and techniques given by conventional Technical Analysis / Fundamental Analysis, where projections are on basis of past data. However, market information generated on continuous basis is more significant and meaningful because it's a real time data confirmed by actual transactions. To overcome this limitation of conventional tools, Market profile may come to rescue.

Market profile is a charting technique conceived and developed by J. Peter Steidlmayer, while trading at Chicago Board of Exchange (CBOT). Market Profile (hereinafter referred to as "MP") is a decision support tool rather than a buy / sell trading system. Nothing can predict future, not even MP.

MARKET PROFILE AND ITS USE

MP graphic is a bell curve which organizes price over time. As the day unfolds, Market profile graphic continues to develop and organizes ongoing market activity.

MP can be used on any instrument and any time-frame.

MP as a concepts can be used in various ways:

1. Using MP for overall analysis
2. Integration of specific MP concepts with price action studies, technical indicators etc. to develop a trading system
3. To address psychological biases arising from lack of understanding of market's structure

ORGANIZING PRINCIPLES OF MARKET PROFILE

The Steidlmayer theory of markets is that the market is an organized medium, that expresses human behaviours, in different price areas at a given point in time, always presenting an opportunity to someone. Market activity is influenced by a wide variety of participants, operating under a wide variety of time frames and motivations.

The sole purpose of any market is "trade facilitation." i.e. financial markets exist to provide platform for exchange of goods (i.e. stocks, bonds, F&O contracts for commodities / indices / currencies etc.) between buyers and sellers. Further, trades are conducted in market at prices where both buyers and sellers are available. Therefore, Markets don't really move up and down because demand is greater than supply or vice-versa, in fact, it happens because markets are finding the best place to conduct business.

The fundamentals of any market activity are: price and volume. They move over a period of time, to facilitate trade, in pursuit of value. Value of underlying is key force behind all the transactions in market. *Price away from value represents opportunity.* The relationship between value and price is not written in stone because the conditions that affect value are continually in flux. Also, it is not the development or event per se that affects the value but the perception of the event which is influenced by confidence or uncertainty.

Further, the organizing principles of MP explain that *market activity is not arbitrary or random.* If market activity is regarded as random, it suggests that highly sophisticated market participants would be trading or investing millions of dollars in vacuum. Considering the daily movement of dollars by market participants, the idea that they would make huge trades without considering value is just not credible.

Market fundamentals and technical patterning may be accurate or misleading, may evolve and become anachronistic, but the fact remains: *If funds are flowing into a market—whether it's an individual security or a sector or an art auction—then the market eventually auctions higher. If funds are flowing out, the market eventually auctions lower.* This way MP is different than most trading approaches because it is wholly liquidity driven.

Whether the market activity is short- or long-term depends on the trader's behavior. *Short- or long-term activity is defined by a trader's behavior in relation to price-not by classification as a local exchange member or as a commercial institutional player* (trading for the house account). Both categories of traders are active throughout the range. On any given point in time, long term and short-term activity exist simultaneously in marketplace and one has to be separated from other to understand the forces at play.

Asymmetric opportunities are a theme of successful trading / investing. By monitoring the activities of long / short term traders as the day unfolds, it is possible to identify whether a particular day could be trending day or range bound day and plan our trade positions accordingly.

INITIAL BALANCE RANGE AND DAY STRUCTURES

Both the short term and long-term trader have a role to play in facilitating trade. Since the short-term trader seeks fair price, his role is to find price where two sided trades can occur. This is called Initial balance range i.e., IB. Generally, IB is formed in first one hour of the day. As sessions get longer, IB may extend up-to 2 hours. (As the financial contracts underscore, initial balance parameters can change)

When high low parameters held in IB session are held throughout the day, the short-term trader is said to be in control. But when long term trader enters the market with enough volume, he can disturb IB and extend the range in one direction, thus establishing new high / low parameter for the day.

On any given day, depending on whether short term or long-term trader is in control, it will lead to range

Short term Trader's activity	Long term Trader's activity
Desires for fair price as he has to trade today	Desires for advantageous price, so he can wait
Short term buyers and short-term sellers – do trade with each other – at the same time at same price because their objective is same	Since long term buyer's and long-term seller's objectives are different* - they do not trade with each other – at the same price at same time.
Responsible for balanced phase i.e. keeps market in range	Responsible for moving markets directionally, leading to range extension causing imbalance

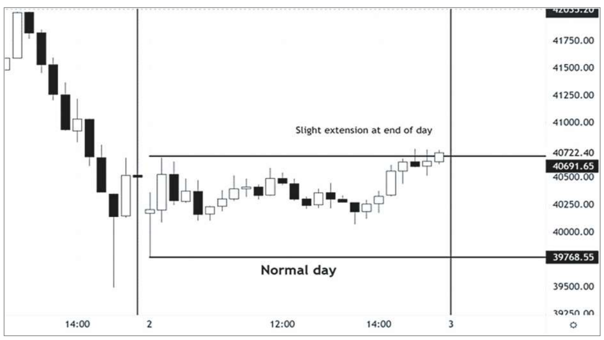
* Longer term buyer wants to buy low and longer-term sellers wants to sell high. So the same price can't be advantageous to both at same time.

extensions (i.e. trending days) or range bound movements (i.e. sideways days). So, typically there are 4 types of day structures which can be recurrently observed in any market.

The day structures can be classified as follows:

Normal day

- On this day, short term trader is in control and long-term trader is not very active.
- Generally, Short term trader sets parameters for the day's range and for entire session, market rotates within IB range.
- Any range extension is usually slight and occurs late in the day. (In other words, no range extension or very little extension)

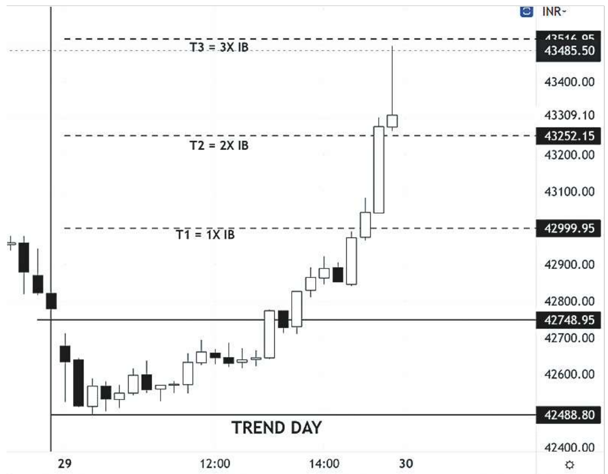


Normal variation day

- Long term trader is more active, and extends range past IB area. The control is roughly divided between long- and short-term traders.
- On this day, short term trader's initial parameters do not hold. There is directional movement which extends the range and sets a new high / low parameter.
- Maximum range extension on normal variation day is around 1X of IB. (Note that, 1X is roughly estimated, it can be anywhere from a few ticks to about 1X the IB)

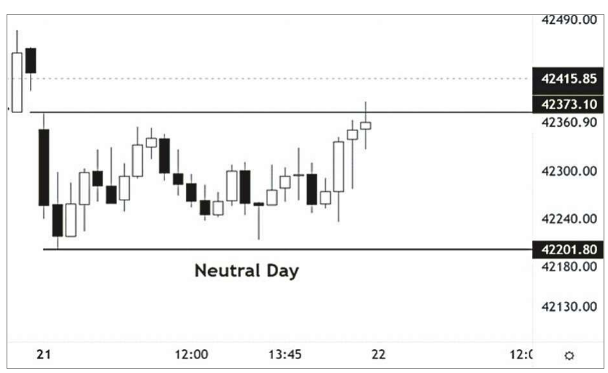
Trend day

- On trend day, clearly the longer-term trader is in control.
- The market moves in one direction and closes on directional extreme.
- Generally, range extension on trend day can be 2X of IB or more.
- As long-term trader exerts maximum influence, trend days are the days when markets are most imbalanced, thus providing asymmetric trading opportunities.



Neutral day

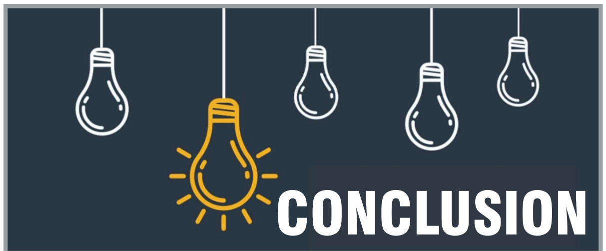
- When range extension is in both directions, it's a neutral day.
- On neutral day, range extends on both sides, but no net influence from longer term trader.
- In other words, when longer term traders extend range in both directions, one range extension generally cancels out the balance. So longer term trader has no net influence on session. Basically, the short-term trader is in control.



- Often, the market uses these days to change direction Accordingly, on normal variation and trend days, one may look for momentum opportunities.

IMPORTANT POINTS TO NOTE

- The concepts of IB and day structure must be used in context with prevailing trend and other studies.
- It is prudent to apply this study on highly liquid instruments.
- For refining accuracy, one may explore the co-relation between IB range and ATR for respective instrument, on preferred time frame.
- For instruments trading in 24 - hour session, Initial Balance concept may become less important or needs further exploration.
- The concept of range formation and extension by long / short term traders can be further applied to weekly and monthly time frames.



In today's age of information overload, the best source of reliable, unadulterated information is market itself. 'Market Profile' is perhaps one the most under-rated and neglected areas, especially for novice traders / investors. The day structures discussed herein are just one of the elements of MP technique. Therefore, exploring the profiles and tools therein is definitely worth the experiment.

SOURCES / REFERENCE MATERIAL

1) *CBOT's 'A Six-Part Study Guide to Market Profile'*
2) *Steidlmayer on Markets: Trading with Market Profile by J. Peter Steidlmayer, Steven B Hawkins*
3) *Markets in Profile by James F. Dalton, Robert Bevan Dalton, Eric T. Jones,*
4) *Mind over Markets by James F. Dalton, Eric T. Jones, Robert B. Dalton*

About the Author

Varsha Kulkarni is a proprietary Trader and Investor. She is a qualified Chartered Accountant. Her journey in markets started with mutual funds and her curiosity led her to learn further. Since the last 3 years, she has been actively trading in Indices, Currencies, and Equity markets. Her approach in Trading is partly systematic and partly discretionary with primary focus on price action. She is a member of the Advanced InvesTrade Forum.