



# **BUSINESS, ECONOMICS OR INVESTMENTS, MARKET LIQUIDITY**

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## **MARKET LIQUIDITY**

Stock market is regarded as an inevitable constituent of any economy as it significantly influences the progress of industry and trade of the country. It is a market in which the issue and trading of securities of public limited companies takes place. The transactions in stock market can happen either through over-the-counter or through well-regulated stock exchanges. The stock market provides the investors a part of ownership equivalent to their investments while enabling the companies to meet their capital requirements.

Market liquidity is regarded as an imperative factor affecting the efficiency of the market and that acting as an indicator of market depth. It also incorporates the capacity of a market to absorb the risk premium while executing the trades. Therefore, it is considered as an important factor influencing the price discovery mechanism in the market. Liquidity in the market is considered to be exerting significant influence in determining the pricing uncertainties, which are arising out of the existence of asymmetric information, leading the market prices to diverge temporarily from the equilibrium price. Thus, market liquidity plays a vital role in defining the efficiency of a market during the price discovery mechanism in the market. Thus, liquidity of a stock or the market as a whole is an important concern for investors as well as policy-makers. Harris (1990) defines liquidity as “the willingness of some traders to take the opposite side of trade that is initiated by someone else at low cost”. For an investor, holding an asset which is more liquid enriches its value in the market place as the asset can be sold without resulting in a large impact on the price. This provides an allure to

the asset and thus benefits the holder of the asset.

## **MEASURES OF MARKET LIQUIDITY**

Cherif & Kaouther (2010), in their study aimed at analyzing macroeconomic and institutional factors determining the stock market development in MENA region, used a traded value ratio which is a simple 23 ratio of turnover to GDP to measure liquidity. Similarly, Levine & Zervos (1998) measured liquidity in terms of the ratio between turnover and market capitalization. These measures, however, are not capable enough to capture the liquidity during smaller episodes of trading activity. For instance, such ratios calculated out of monthly or annual data pertaining to market capitalization, turnover, or GDP are irrelevant to measure liquidity on a daily or an intraday basis as such variables will hardly make any change during shorter span of time. Therefore, in spite of the greater convenience in terms of easiness in data handling and lesser computational time offered by such low-frequency measures of liquidity, it is essential to make sure that the most appropriate measure is used so that the actual liquidity can be arrived at. Given this, it is continued to be an area of constant debate among financial scholars and practitioners that which measure is the best to measure liquidity. This section summarizes different measures used to quantify liquidity in the literature.

Understanding the patterns in liquidity as estimated from various dimensions of cost, price and volume enables us to comprehend the liquidity behaviour of the market. Liquidity is found to be exhibiting patterns in the cross-section and over time. These patterns can be

aroused due to the design of an exchange that includes the trading mechanism adopted, the regulatory framework in existence and due to the presence of algorithmic traders and foreign institutional investors (FIIs).

Liquidity patterns in all the financial markets follow some stylized facts. One such is the U-shaped pattern of the measures.

The liquidity patterns show all the measures have the expected shapes, with many of them having the expected U-shape.

Indian stock market is essentially an order driven market. It is dominated by the traders who are benefited with the deciding power to be either a supplier of liquidity or demander of liquidity. If they choose to be supplier of liquidity, they place nonmarketable limit orders and thus maintain or refill the order book. On the other hand, if they resolve to be demander of liquidity, they place marketable counter-orders to empty the order book. It is these traders who are determining the intraday patterns in various measures of liquidity rather than the common investors who trade in smaller quantities.

The patterns of liquidity in the Indian stock market is found to be U-shaped for all the measures used in the study covering three dimensions of liquidity viz. cost, quantity and time. However, the implications of such similar patterns are contradictory in nature in such a way that a U-shaped pattern in cost dimensional measures indicate greater transaction costs at both ends of trading hours demonstrating lesser liquidity during such times as against a U-shaped pattern in the volume and time dimensional measures indicating trades in greater quantities with a greater speed at the opening and closing hours of the market implying greater liquidity during such time periods. Given this, the study employed more sophisticated multidimensional measures that combine the effects of two or more dimensions of liquidity. These hybrid measures also exhibit U-shaped patterns. Therefore, the study points out that higher volumes in Indian stock market is not associated with lower transaction costs as against the general theory. In fact, it identifies that increase in the trading volume widens the spread in Indian stock market. This confirms that there is a general U-shaped pattern in liquidity prevailing in Indian stock market indicating that the market is less liquid towards

both business ends. The study attributes the U-shaped pattern in the quantity and time dimensional measures to the dominance of volume traders irrespective of wide spreads expecting higher returns resulting from greater volumes of trade.

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exhibiting a statistically significant impact on liquidity. Further, the study documents that liquidity of individual securities co-move with market-wide liquidity in Indian stock market in general as well as on the basis of size factor. Liquidity of larger firms is found to be more sensitive to the changes in market-wide liquidity.

## **CONCLUSION**

Finally, the study identifies that liquidity risk as well as level of liquidity are significantly priced in Indian stock market. Therefore, it validates the liquidity-adjusted capital asset pricing model in Indian stock market indicating that the investor expects greater returns for holding securities that are less liquid or that bear a greater liquidity risk. Overall, analyzing the dynamism of liquidity in Indian stock market, the study reveals that it is the cost dimension determining the liquidity in Indian stock market. Analyzing the relationship between liquidity, volatility and trading activity, it is revealed that the transaction cost increases with increase in market-wide volatility as well as trading activity. The tests for examining liquidity commonality also provide that the commonality is predominantly visible in cost dimensional measures. Thus, it can be confirmed that cost dimension is the most important determinant of liquidity in Indian stock market.

But this has differing explanations depending on which measures we are referring to. Most of the volume and time related measures reveal a U-pattern that suggests that the market was liquid both at the beginning and the end of the trading hours; the depth measures do not exhibit such a pronounced U-shape. The spread related measures, however, clearly reveal a different picture where the U-shape means the liquidity is low towards both the business ends. Some of the combined measures of volume with spread, also show that the market was not so liquid. This highlights that higher volume is not associated with narrower spreads.

So, the investors are suggested to trade during mid-hours of the day in order to reduce the costs of trading. They are advised not to respond to increased trading activities in the market and to avoid investing in larger securities. One should consider the level of liquidity and liquidity risk of securities while

deciding the investment and portfolio diversification strategies.

## **REFERENCES**

1. Nelson, D. B. (1991), "Conditional Heteroskedasticity in Asset Returns: A New Approach", *Econometrica*, The Econometric Society, Vol. 59, pp. 347-370.
2. Nicholas, A. and Nicholas, P. (2011), "Stock Returns Volatility: The European Big Three Before And During Crisis", *International Journal of Economic Research*, Serial Publication, Vol.8, No.2, pp.153-177.
3. Peter, E. E. (1994), "Fractal Market Analysis: Applying Chous Theory to Investment and Economics", John Wiley & Sons Publisher, New York, US.
4. Sonpal, A. (2006), "Butterfly Effect on the Stock Markets", *Treasury Management*, pp. 23-43.
5. Sorab, G. S. and Caroline, J. W. (1990), "The Stock Market Crash of 1987: A Crisis of Capitalism?" *Indian Economic Journal*, Vol. 38, No. 2, pp. 82- 99.