**Price Discovery Function – A Guide to Determine Future Spot Price**

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**Abstract**

Market places in Europe, subcontinent, and China brought large number of collections of traders to determine prices of goods. In modern times derivatives traders in Chicago Mercantile Exchange (CME) used hand signals and verbal cues to determine prices for the trading . Those parties having sufficient and quality information can have an advantage as traders can act before others get that information in trading. When new information arrives in the market it changes both the current and future prices in the [market](https://www.investopedia.com/terms/m/market.asp) and therefore can change the price at which both sides are willing to trade. The transparency of information can be detrimental to a market because it increases the risks for traders moving large or significant positions. Price discovery is a process which determines market prices, mostly through interactions between buyers and sellers. Price discovery is a method for determining the spot price of a commodity. Price discovery is a process which determines market prices through interactions between buyers and sellers. Price discovery is the overall process, whether explicit or inferred of setting the [spot price](https://www.investopedia.com/terms/s/spotprice.asp) or the price of an asset. In the market volatility plays a key role in determining the position of enter or exit . In a highly volatile market traders need to constantly use price discovery to understand what’s the apt price to shell out for a specific asset. Therefore, the process of price discovery comes into play in a volatile market for creating the position situation.

.**Key Words**- Price, Discovery, Mechanism, Valuation

**Introduction**

Price discovery is a process which determines market prices, mostly through interactions between buyers and sellers in volatile market. Price discovery process is a method for determining the spot price of a commodity through interactions between sellers and buyers as a price discovery process or price discovery mechanism. Price discovery is the overall process, whether explicit or inferred, of setting the [spot price](https://www.investopedia.com/terms/s/spotprice.asp) or the proper price of an asset, security, commodity, or currency in volatile market. The process of price discovery looks at a number of tangible and intangible factors, including [supply and demand](https://www.investopedia.com/terms/l/law-of-supply-demand.asp), investor risk-aversion attitudes, and the overall economic and geo-political environment in derivative market. Simply put, it is where a buyer and a seller agree on a price and a transaction occur in the market.Rather than consider price discovery to be a specific process, it should be considered the central function in any marketplace, whether it be a financial [exchange](https://www.investopedia.com/terms/e/exchange.asp) or the local farmer's market. The market itself brings potential buyers and [sellers](https://www.investopedia.com/terms/s/seller.asp) together, with members of each side having very different reasons for trading and very different styles.. By allowing all buyers and sellers to come together, these markets allow all parties to interact and price establishment. Price discovery is influenced by a wide variety of factors which can be affected investment decision. Among these factors are the stage of market development, its structure, security type, and information available in the market. Those parties with the quality information can have an advantage as they can act before others get that information. When new information arrives, it changes both the current and future condition of the [market](https://www.investopedia.com/terms/m/market.asp) and therefore can change the price at which both sides are willing to trade. The transparency in information can be detrimental to a market because it increases the risks for traders moving large or significant positions.

**Understanding the Price Discovery Function**

Price discovery involves finding where supply and demand meet in trading process. The [supply curve](https://www.investopedia.com/terms/s/supply-curve.asp) and the [demand curve](https://www.investopedia.com/terms/d/demand-curve.asp) intersect at a single price, which then allows a transaction to occur. The shape of those curves is subject to many factors, from transaction size to background conditions of previous or future scarcity or abundance. Location, storage, [transaction costs](https://www.investopedia.com/terms/t/transactioncosts.asp), and buyer/seller psychology also play a vital role in market. The term itself is relatively new, price discovery has been around for millennia as a process. In the Middle East and market places in Europe, the Indian subcontinent, and China brought together large collections of traders and buyers to determine prices of goods. In modern times, derivatives traders in the pits of the Chicago Mercantile Exchange (CME) used hand signals and verbal cues to determine prices for a given commodity. Electronic trading has replaced most manual processes with mixed results. While it has significantly increased trading volumes and liquidity, electronic trading has also resulted in more volatility and less transparency regarding large positions.

**The role of demand and supply in price discovery**

Demand and supply forces are an important aspect of the market as they drive movement of prices. When there is a buyer-seller balance, it is indicative of the balance between demand and supply. The demand-supply balance can be spotted on the price chart when one looks at aspects such as [resistance](https://www.angelone.in/knowledge-center/share-market/resistance-in-stock-market) and support. Support is the area where there buyer demand is high and price doesn’t move down further. Resistance is the area on the price chart where there’s an increased seller demand, and price gets resistance and does not move up further in the market. This helps traders assess price discovery areas or areas where there’s a demand-supply balance for a security or asset and affixing of spot price. Volatility plays a key role in determining whether a buyer opts to enter or exit a position. In a highly volatile market, traders need to constantly use price discovery to understand what’s the apt price to shell out for a specific asset. Therefore, the process of price discovery comes into play in a volatile market situation.

**Importance of price discovery**

It is not enough just to know what price discovery is but also to understand why it matters. It matters simply because markets are constantly changing and assessing whether a security is overbought or under bought helps those buying and selling. The trader can assess whether a security is [trading](https://www.angelone.in/open-trading-account-online) below or above the market value. This helps them take a call on whether to open a short or long position. Price discovery helps establish whether the market price of a security is fair for both sellers and buyers in the market. Price discovery is at the heart of any exchange, determining the value of an asset and ensuring that buyers and sellers come together to arrive at that value. The mechanism or process of price discovery is dependent on many factors and demand and supply is the one of the important factor in the demand-supply balance. It is important also to bear in mind that price discovery is not the same as valuation, although they sound like the same terms. Valuation is not driven by the markets and is all about the fair value of an asset, whereas price discovery involves the market price of an asset that is arrived at by buyers and sellers. A knowledge of price discovery helps the trader take long or short positions and is therefore an important element for anyone interested in trading.

**How does price discovery functions works in future market?**

**Case No 1**

**Spread Analysis: Prioritizing price discovery over Speed**

The company launched its roadshow with an offering price range for SHLX of $19.00 - $21.00 per common unit, with a proposed unit offering size of 37.5 million units (MLPs issue Limited partnership units instead of shares). Due to strong demand during the roadshow the deal was oversubscribed and priced the evening of October 28 at $23.00 with an increased offering size of 40 million units (46 million with the exercise of the underwriter’s over allotment option) for a $1.06 billion IPO. In the minutes elapsed at 9:30 a.m. ET market open the following morning and the first trade of SHLX, DMM Geier went through a progression of several opening price indications that they were designed to foster in price discovery process and attract contra-side interest. In co-ordination with input from the underwriter, Geier opened SHLX at $32.00 – a nearly 40% premium to the offering price. The key to SHLX’s open – and the opening of all NYSE stocks for trading is that the NYSE IPO process allows banks to have real-time input through their lead Floor traders. During this process, NYSE DMMs use an electronic order book that displays all bids and offers, which provided the ability to inject various price points to gauge the interest at each level in trading. The underwriter’s able guidance of the DMM and their lead Floor trader evaluates that information to identify the best price and time to open the stock. Further ,rarther than relying on an algorithm to open SHLX at $32, the bank was able to use information provided by the NYSE DMM to evaluate the pricing around that point before determining it was the best price.

**Case No 02**

**Communication to the Crowd: Listed Company, Underwriters, Floor Brokers, etc.**

Throughout the opening process, DMMs are responsible for communicating accurately and efficiently with multiple parties. They provide a transparent view to both the underwriter and indications of interest to the trading crowd, enabling the underwriter to make the most informed decision on opening price, volume and time, and allowing trading desks and investing firms to evaluate their strategies with respect to the IPO. They maintain open communication with NYSE Floor Brokers; and, importantly, DMMs provide transparent communication to the newly listed company. This open, transparent communication at the time of to the stock market opening efficiently. It enables the DMM to distill information so that shareholders can make buy and sell decisions regarding the stock. In the case of SHLX, Geier updated the crowd more often as the price indications narrowed and IMC’s Corporate Relations team communicated with the management team at SHLX during the price discovery process. After companies go public on the NYSE, DMMs have a continuing obligation to maintain fair and orderly markets for their assigned securities. They operate both manually and electronically in effort to provide lower volatility through increased liquidity during daily opens, closes, and periods. highs , lows of trading imbalances or instability. And, just as they do with IPOs, DMMs (in conjunction with the NYSE MAC Desk) serve as a conduit for information between the listed company and the market. DMMs are on the NYSE trading floor throughout the day monitoring the market and passing relevant information along to listed companies when necessary.

**Price Discovery vs. Valuation**

Price discovery is not the same as [valuation](https://www.investopedia.com/terms/v/valuation.asp). Where price discovery is a market-driven mechanism, valuation is a model-driven mechanism. Valuation is the [present value](https://www.investopedia.com/terms/p/presentvalue.asp) of presumed [cash flows](https://www.investopedia.com/terms/c/cashflow.asp), interest rates, competitive analysis, technological changes both in place and envisioned, and many other factors. Other names for valuation of an asset are [fair value](https://www.investopedia.com/terms/f/fairvalue.asp) and[intrinsic value](https://www.investopedia.com/terms/i/intrinsicvalue.asp). By comparing market value to valuation, some analysts can determine if an asset is overpriced or underpriced by the market. The [market price](https://www.investopedia.com/terms/m/market-price.asp) is the actual correct price, but any differences may provide trading opportunities if and when the market price adjusts to include any information in the valuation models not previously considered.Valuation involves determining an asset or firm’s asset in the present time. Valuation is not a process that is driven by the market but price discovery on the other hand is driven by the markets. Valuation is analytical and is based on factors such as the cash flow that can be expected in the future and rate of interest, for instance. An asset’s valuation was referred to by terms such as intrinsic/fair value. This is not the same as market value, which is an asset’s price in a market. Market value depends on demand-supply forces, which can keep changing. The difference in the two values also reflects the difference between valuation and price discovery.

**Conclusion**

Price discovery function act of determining a common price for an asset when seller and buyer interact in a regulated exchange. Because of the efficiency of the futures markets and the ability for the instant dissemination of information, bid and ask prices are available to all participants and are instantly updated across the globe. Price discovery is the result of the interaction between sellers and buyers, or in other words, between supply and demand and occurs thousands of times per day in the futures markets. This auction type environment means that a trader can find trades that they feel are fair and efficient. The bids and offers on the futures market constantly change with supply and demand, and with news from around the world. Since every piece of news could potentially impact the supply or demand of a specific asset, buyers and sellers adjust their prices to reflect these changing factors with every trade that is made in that market. Price discovery refers to setting a fair market price for an asset through the interaction of demand and supply forces in the market and other aspects related to transactions. It is the central function in any marketplace, including an online one. Price discovery function is much helpful to measure whether a currency, security, or commodity is oversold or overbought. It helps determine if sellers or buyers are more dominant in a market.

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