Summary: herding behaviour in latent order books

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In market micro-structure, the study of how the price of financial assets.
An asset is resource owned by a company or multinational. It can produce positive economical value and can be converted to cash (e.g. Apple, Google, etc,..).
Asset's price is affected by planned execution of a certain volume of orders Q, called *meta-orders*. Investors can be private ones(*investments banks, etc..*) or public(*treasury ministries, public banks, etc...*).
In fact, there are very well established empirical results that proved the existence of *Universal laws* regulating the mechanics of an order book, a list of orders that records the interest of Buyers and Sellers of a particular asset or financial instrument. A matching tool is used to determine which orders can be fulfilled and at which price.
This aspect has an important implication that, perhaps, goes against a common misconception: financial markets are not as susceptible by global news media as one may think.
Indeed, most of price movements are exclusively an endogenous effect which derives from the market micro-structure rather than events in the world's political or economic environment, for instance
As in many problems in theoretical physics, *Universality* allows one to abstract from microscopic details, and focus on global parameters that describe the system; this means constructing a *"coarse-grained"* model that should be able to reproduce the above mentioned law. Therefore, in the price dynamics there should be some large scale phenomena emerging from the order book's microscopic dynamics.
Furthermore, *Universal Laws* regarding the price imply that its behavior is independent on the period in which the exchange happened, the geographical position or even the kind of contract traded (Bitcoin, options, futures, ...).
The total orders visible, daily, are much less than total Market Capitalization, and the quantity which is visible in the order book is again many orders of magnitude smaller.
Market Capitalization is the total market value of an asset (maybe owned by a third company) and it is obtained multiplying the current price of one share or order, times the total number of shares.It can be expressed in different currencies.

Subsequently, the *latent order book* has been introduced, which contains the intentions of the traders in the market that are not yet visible in the *revealed book*, playing an important role in the formation of the price.
Mathematical models have been built to explain this phenomena, together with more intense empirical research in order to understand the extent of validity of the square-root law.
More recently, there is evidence of a square-root/linear cross-over behavior of price returns and this is well described in the models of latent order books , but it would be interesting to see this in our simulation, even if unfortunately, it does not seem the case.

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