# Multi-factor Analysis of Option Pricing (BSM) and Prediction of Pricing Direction Under the Convergence of Phenomenal Worlds

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**Abstract.** In the development involving options pricing, models with data-based predictions of future volatility at their core have dominated, with their inclusion of elements such as implied volatility and the implication of Brownian motion, normal distributions under a variety of programmatic analyses acting to generate range values, structuring models that are evidence of the gradual formation of pricing concepts as trading researchers uncover predictions of asset values, and surfacing impediments to moving their pricing ranges to specificity. The development of the BSM is widely regulated by the mutual proximity between the acceptance of the model concept by traders in this period and the degree of sophistication in dealing with limited rationality. Facilitating efficient control of options markets and outlining later pricing directions. The initial understanding of the various interpretations of finite and infinite rationality of information, influenced by the complexity of specific value manipulation. The extension of uncertainty in its role generates the form of the scientific matrix of opposing terms - related phenomenal world concepts, regulated by the role of complex financial markets (the scientific matrix brought by the economists at the beginning of the market development contains its pricing model development), embodied by the transfer of the phenomenal world. The alternative phenomenal world model formed by the extension will be justified by considering the integration of feedback with external financial markets.

**Keywords:** Options pricing, delta dynamic hedging, paradigm subject matrix, the world of phenomena.

## 1. Introduction

Options trading began in the late eighteenth century in the United States and European markets where the financial derivatives regime was inadequate, and developed until the opening of the Chicago Board Options Exchange (CBOE) on 26 April 1973. The gradual standardisation of options pricing is a prime example of how financial innovation has contributed to improved economic performance. Options became widely used as companies were able to hedge various price and financial risks, and as investors were able to adjust their portfolios for risk. The need for purpose defined the creation of options. Its development and formation in integration with the market has brought about much research into pricing uncertainties. And will these unknown determinants affect future option pricing developments impeding market effectiveness? Can a new definition of options and pricing be generated? These studies, on the other hand, can be seen as additional unknown positive terms arising from option pricing, evolving in the opposite direction, proving that option generation may in fact not be limited to demand satisfaction, but act as a shift in the scientific matrix of the phenomenal world. These studies may be amplified to guide the original pricing concept to facilitate the replacement of devices in the phenomenal world.

# 2. Correlation Pricing Model (BSM) form Analysis Guided by Option Value Development

## 2.1. Options Development Factors and Causes Judgement

### 2.1.1 Development factors

The study of derivatives in financial markets has evolved into a large body of work. Its initial structure and pricing model analysis are increasingly being discussed in general terms. A wide range of factors surrounding the development of the various layers of options have also received extensive attention. Whether it is the historical financial market trading habits that have contributed to the emergence of options, the shift in traders' perceptions of risk, the purposeful guidance of mainstream institutions, or the pricing models that have followed the influence of volatility, transaction costs and other dominant factors in the evolution of options and the extent to which they have penetrated the market, the pricing models represented by the b s m have been heavily oriented towards incorporating market-oriented factors and are gradually covering many of the decisions that pricing has not been accurately introduced. The accelerating role of limited rationality due to complexity, the later analysis of the phenomenal world and the disciplinary matrix for the purpose of discussion, the future conceptualisation of pricing in the context of financial markets. This will all be included in the analysis. In fact, it can be seen that these developmental factors are articulated in a research-oriented manner, with the consequent active advancement of the traditional model of finance by means of a general de-scoping concept.

### 2.1.2 Summary of causes

The financial environment and the emergence of multiple forms of trading have allowed the role of continuous and immediate peer-to-peer trading to be reacted to meet the current needs of traders. The concept of options has been recorded as early as the ancient Greek period. Aristotle's book Politics records the story of the famous ancient Greek philosopher and astronomer Thales, which implies a similar application of options. Evidence of the initial demand for the idea of an option being acted upon by people. The later was extrapolated into a contract which gave the holder the right to buy or sell an asset at a fixed price on a particular date or at any time before that date. The environmental role of demand is undoubtedly the subjective formation of the researcher's generalisation of the application of options. Introducing the thought that the factors imposed on the presentation of options are even more diverse, influenced by the complex financial context, intervening in the initial shape of the model deduced to generate its relevant factors also acting on the evolution of options. It can be understood that any factor (which can be positive or negative) that acts on the formation of a financial market as it progresses towards diversification and efficiency will be generalised as a cause to study its impact. However, it lacks specificity in terms of scope. Thus, several studies have stated that the presentation of options tends to be more of an art than a value. [1]

## 2.2. Option Pricing and BSM

### 2.2.1 Option Pricing

The option price is intuitively tied to the future volatility of the underlying asset as an equilibrium. It is unrealistic to calibrate option pricing so that it offsets the maturity price to create a risk-free return. The relevant factors that determine the maturity price of an asset are range. with additional variability over time. Going to range based on time horizon, historical volatility, incurred volatility, implied volatility does not have a comprehensive value. It can be attributed to Brownian motion and there is no pattern to asset price fluctuations. It can also be thought of as the difficulty of capturing the behaviour of smaller time horizons as a result of a larger range of historical information not being fully available. At the same time chance and error are highly probable. In options pricing analysis motivated by trading behaviour, the precise determination of historical observed data can help derive the direction of traders' probable trades and the range of chance errors. Temporal differentiation in trader behaviour may cause some shifts in trading direction and present a worsening effect on later

trading behaviour. This statement imposes difficulties on precision determination. At the same time, the external environment and trader habits become parameters that add statistical weight. These cannot be precisely specified in statistical terms. Researchers are prompted to examine the stochastic nature of the trajectory of the underlying asset of an option... Extending macro-thinking from micro-judgments to macro-world extrapolation in conjunction with peripatetic trading behavior... Reference to quantum thought experiments... If the observation produces a change in the behaviour itself, then these analyses above, if treated permeably, may have an external influence on the development to change the outcome. But as mentioned in the theory of relativity, all inertial reference systems are affine, i.e. the form of physical laws is the same in any inertial reference system. Any physical law should be expressed in terms of a physical quantity that is independent of the reference system [2]. Adds complexity and difficulty to the equilibration of references.

If trader behaviour is inferred from a risk-neutral perspective based on predicted broad-based financial market moves. Habit-led traders' forecasts of volatility and trading behaviour widen the differentiation. In relation to habitual behaviour in trading, historical data allows the set of observables to reflect trader habits. Combining historical data volatility forecasts with implied volatility added to the analysis summarizes pricing, assuming options trading behavior is determined, options are priced at an arbitrary x, with the actual strike price y taking into account the time factor risk factor to produce z, converting z into a counterpart variable, using y as a reference to adjust z according to volatility, z is eventually combined with the addition of x. As y itself is still based on forecasts, adding conceptually does quantify and does not calculate specific values However, it makes sense in terms of the range of counterpart variables. However, this would be hampered by the fact that there are no rational investors who would exercise their options at a loss, which would lead to a gradual blurring of the counterpart variable. If the direction of the value itself is developed, the focus should be on the fact that the rights created are not exclusively for the unknown benefit of the above prejudice. which in options trading may not be applicable to forward trading based on the direction of the value decision guided by the immediate exchange. The option itself to attach a known risk should perhaps be valued more strongly. The absence of an underlying term would make it difficult to determine. If pricing is combined with various specificity measures, all assets should be valued while following the laws of financial market development, and the apparent spillover profits and losses generated should probably be priced in. It can be concluded that there are an infinite number of factors and data that affect pricing. On second thought, perhaps the use of options to hedge for profit will also contribute to the added value of options. It provides the right to make additional profits.

### 2.2.2 BSM derivation and program restrictions

Knowledge of BSM may extend to more relevant factors.

The process of change in the price of a security can be described by the drift rate of μS, the variance rate is ^σ^S.

The Ito process is expressed in terms of dS = μS dt+σS dz.

Dividing both sides simultaneously by S gives: dS/S = μ dt+σ dz.

From the above equation, after a short period of time, the value of the change in the security price ratio has to be ΔS/S = μ Δt + σε √Δt.

It can be seen that ΔS/S, slso has normal distribution characteristics

$$\Delta S/S \sim \Phi\ (\mu\Delta t,\ \sigma\sqrt{\Delta t}) \tag{1}$$

Stochastic processes to which derivative securities are subject.

According to Ito's reasoning, the price f of a derivative security should follow the following process.

$$Df = [\partial f/\partial S * \mu S + \partial f/\partial t + 1/2\ \hat{}\ \partial f/\partial \hat{}S\ \hat{}\sigma\ \hat{}S\ ]\ dt + \partial f/\partial S\ \sigma S\ dz \tag{2}$$

Process of natural logarithmic change in security prices.

Let f = lnS, since ∂f/∂S = 1/S, ^∂f/∂^S = -(1/^S), ∂f/∂t = 0.

Take into equation (1.2):

$$Df = (\mu - ^\sigma/2)\ dt + \sigma\ dz \tag{3}$$

The logarithm of the price of a security, f, follows ordinary Brownian motion and: InSr-InS~Φ [(μ-^σ/2) (T-t), σ√(T-t)].

We assume that the price of the security S follows a geometric Brownian motion: dS= μS dt + σS dz Rule.

$$\Delta S = \mu S\Delta t+\sigma S\Delta z \tag{4}$$

$$Df = [\partial f/\partial S * \mu S + \partial f/\partial t + (1/2) \wedge \partial f/\partial \wedge S \wedge \sigma \wedge S]\ dt + \partial f/\partial S\ \sigma S\ dz \tag{5}$$

$$\Delta f = (\partial f/\partial S * \mu S + \partial f/\partial t + 1/2 \wedge \partial f/\partial \wedge S \wedge \sigma \wedge S)\ \Delta t + \sigma S\ \sigma S\ \Delta z \tag{6}$$

In order to eliminate Δz, we can construct a system that includes one unit of short derivative securities and ∂f/∂S.

Units of the underlying securities are long to the portfolio. Make Π represents the value of the portfolio, then:

$$\Pi = -f + \partial f/\partial S * S \tag{7}$$

In Δt After time:

$$\Delta\Pi = -\Delta f + \partial f/\partial S\ \Delta S \tag{8}$$

Taking (1.4) and (1.6) into (1.8) gives

$$\Delta\Pi = (-\partial f/\partial t - 1/2 \wedge \partial f/\partial \wedge S \wedge \sigma \wedge S)\ \Delta t \tag{9}$$

Under conditions where there are no arbitrage opportunities: ΔΠ = r Π Δt

Taking (1.7) and (1.9) into the above equation gives (∂f/∂t + 1/2^∂f/∂^S^σ^S)Δt = r(f-∂f/∂S*S)Δt.

Reduced to: ∂f/∂t + rS ∂f/∂S + 1/2 ^∂ ^S ^ ∂f/∂ ^S = rf.

This is the well-known BS differential equation, which applies to the pricing of all derivative securities whose price depends on the price S of the underlying security. Under risk-neutral conditions, the expected value of a European call option at expiry (moment T) is Ê [max(Sr-X, 0)].

Its present value is

$$c=e\text{-}r(r\text{-}t)\ \hat{E}\ [\max\ (Sr\text{-}X,\ 0)] \tag{10}$$

The distribution of logarithmic stock values is

$$InSr\sim\Phi\ [InS + (r\text{-}\sigma 2/2)\ (T\text{-}t),\ \sigma\sqrt{(T\text{-}t)}] \tag{11}$$

This yields: C = SN(d1) - Xe-r(T-t) N(d2)

Of which:

d1 = In(S/X) + (r+σ2/2) (T-t)/σ√(T-t)

d2 = In(S/X) + (r-σ2/2) (T-t)/σ√(T-t) = d1-σ(T-t)

The above equation is the Nobel Prize winning B-S pricing formula. Implied Volatility is the value of volatility derived by substituting the price at which an option or warrant is traded in the market for the theoretical price model for warrants (the Black-Scholes model). Implied volatility roughly reflects the size of the expected move over a given time horizon, but the occurrence of random probabilities and the diversity of traders' own behaviour still make it unspecific. Volatility predictions at any point in time prior to the exercise of an option cannot be identical at another point in time and are constantly shifting, making accurate implied volatility calculations extremely costly. It cannot be directly related to known historical volatility. However, indirect analysis shows that historical and realized volatility is significantly correlated to modern implied volatility [3].

The volatility smile curve is a function of the implied volatility of an option and the strike price. It is more intuitive to consider the link between the two factors in the same plane, reducing the complexity of the judgement. (see Figure1) However, it is not entirely accurate, given the constant density of the normal distribution of strike prices, the deviations from the standard, the singularity of the function formation process, and whether its smile curve is considered to be a comprehensive and

accurate overview. In contrast, in considering price probability and volatility, the degree of financial environment harmony, and trader satisfaction can be incorporated as variables affecting the curve function. The volatility smile curve is more analytically meaningful. By looking at the distance between the difference in strike prices from the tail end to the middle end of the curve and the corresponding volatility, it is straightforward to determine that without changing the smile curve, increasing the strike price at the tail end causes volatility to slow down. A quick summary of the strike price volatility link. (attributed to the intervention of complexity treatment modeling under finite rationality). Stratification perspective develops, where two deterministic variables in the same period corresponding to related terms cannot act again in the same period. There is also the possibility of considering the exercise price and volatility in the same period with the addition of variable parameters, presenting a dynamic smile curve. The strike price is influenced by different factors, Different volatilities are judged to have a high probability of being the same strike price and are formed independently. (independent assumption terms cannot be fused). Implied volatility Strike price

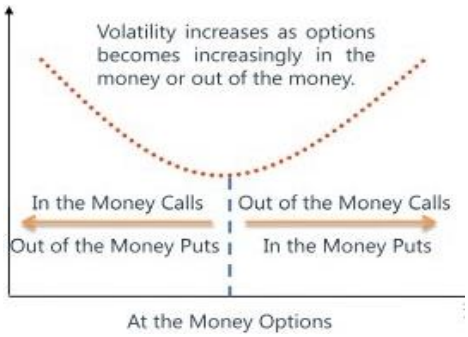


**Figure 1.** Smiling Curve

The option parity observed by the BSM becomes discussed with the option parity formula: C + Ke^-r(T-t) = P + S. But in the actual market the put option is greater than the call option. The no-arbitrage rule holds around. The output of the idea that the same future cash flows from different assets require equal investment up front. The link to BSM is that the risk-free interest of the portfolio is fixed as the expected option return measure. Option attributes should be attached to the option definition. BSM outlines the objective as being to equalise risk and create risk-free profits. Constructing a portfolio to lock in profit derivation. Is there an analogous value between portfolios and options? A rights-led option gives the right to forecast the underlying asset's price at maturity down to the strike price, which can be introduced as a factor based on overall financial market risk aversion, and multiplying different option movements by the factor subsequently eliminates the impact of forecast asset price error. A portfolio is classified as a smoothing of a single investment instrument over another instrument. It is judged to be the interaction of two separate investments. Its single investment then cannot act on the volatility. It may be assumed that option x is an independent asset generating a relationship z with asset price to maturity y, and that the single investment instruments x1 and x2 of the portfolio generate a relationship w in terms of interaction, with differentiated paths of purpose, complexity of execution and differences in form. The equal sign effect, if it were to occur, would require the price of the maturing asset y to be attributionally similar to the individual investment, but this is not feasible, as the option itself gives rights and the individual investment needs to be combined to produce the effect. The option pricing model seems to link them in terms of risk-free profits to produce a hard equality. However, the two profits do not lend themselves to a direct correlation. Because of the uncertainty of the option's parity and volatility value. It is also very confusing to price. Infinite profits can be made at the same time as a range of losses. Judging the pricing from a neutral perspective, it will tend to capture the benefit, shifting the original asset's expected return (1) from a correlated value based on Brownian motion and normal distribution predictions based on the status quo to a correlated value after adding (2) to this asset as the underlying option, which shifts the return upwards without regard to the probability of return, pricing it so that

it is aware of the complexities associated with the valuation of the return after incorporating both probabilities. However, it produces pricing that is not comprehensive, first assigning the same probability to the same return. Then the infinite loss of different probabilities in (1) is erased to the state of (2). However, the relative properties of probabilities and returns require the inclusion of very specific parameters and the results are not guaranteed to be accurately transformed but in terms of refining the analysis of the procedure, (1) is a direct link to the value of the option by buying first and selling later is incomplete. However, in conclusion, it is important to consider whether pricing can be extended away from this transformation to a macro approach, where future assets are specific and forecasts for the current period rely on absolute correlations of ranges and probabilities. The question of whether there is a substitution for transformation in terms of specific relevance is not answered at present, and it is the general direction to make it possible to produce as large probability values as possible with a high probability of reducing error through market information. Predictions have scope, facts only become concrete, will lead to multiple factors incrementally affecting the addition of maturity returns.

Looking deeper into the derivations in b s m, the deviations added to the multinomial equation approximation can be positive or negative, inclusive or independent. b s m and the various pricing derivations also have period deviations, and the different procedures in the derivation process also play a role in their complexity. And its complexity itself generates unknown bias fusion pricing (fundamentally the researcher's way of thinking is in antithetical combination with the disciplinary matrix, whose finite rationality property influences the degree of extrapolation of different procedures).

The practicality of BSM has often been questioned, the Black-Scholeds Merton argument and equation is a top-down general equilibrium theory that rests on the assumptions of operators who have full knowledge of the probability distribution of future outcomes, - in addition to a series of assumptions which, as we shall see, are highly mathematically invalid, the main one being the use of continuous trading to reduce the risk. The ability to do this only applies to a very narrow special case, namely the thin-tailed distribution (or, possibly, a jump in a well-known structure). The last "formula" Thorpe proposed, known as Black-Scholes-Merton, succeeds because of a simple property of Gaussians; you can by changing the standard deviation at the level of the density of the random variable. The Gaussian is used to represent any probability distribution, even if it has a fat tail. Often looking at the normal distribution in another form, a variety of elements can be analysed, and for the time being the market is mostly analysed in probability terms. The impact uncovered by the corresponding values of each probability value of its expansion differs (single values are integrated into the event to increase the impact). The probabilities are manipulated according to the degree. On the other hand, this impact does not necessarily fit perfectly into the normal distribution and, by inference, it is feasible to adapt different normal distribution densities for different options. The covariance (the rate of decline of the probability) from the top to the bottom cannot be precisely generated. It is not clear whether it is more influenced by historical data or future market forecasts (perhaps the future recurrence of historical events should also be changed in the data, observing the temporal nature) all prices are guided by the behaviour of historical and non-eventful events. Thin tails and fat tails are extremely influenced by the hardness of price sensitivity to events. In operational terms, a price is not exactly a "valuation". Valuation requires a strong theoretical framework that corresponds to the assumptions of the model and the fragility of the structure. For a trader, a "price" generated for the purchase of an option without knowledge of the future probability distribution is not a "valuation" but a stop-gap measure. Such prices are subject to change. Their beliefs are not reflected in the price. Whether or not they are finitely rational (or even interested in any form of probabilistic rationality), they are unaware of the transparency of information about the future state of the world and its probabilities [1]. The confrontation of model assumptions with real-world assumptions is a necessary step. For example, continuous processes or normal distributions often fail compared to real market data [4].

### 2.2.3 Reasonableness of BSM

However, the overall framework of the BSM is continuous and logical, and increases the number of possible research directions. The limitations are apparent but also map the way forward for deeper research. The researcher is not focused until its own limitations are formed. This hypothesis arises because there may not be a more precise procedure to support an alternative hypothesis. The pricer summarises the fixed value by generalising the behaviour of most financial traders, adding to the hypothesis. However, individual behaviour is diffusely differentiated. Making a model presentation is like specifying that all eggs should be put into one basket. Only a wide range of assumptions can be formulated so that the eggs tend to be identical in nature. But the actual eggs develop through their own properties to determine the type of y. If the assumptions are reduced to bring them closer to reality. The model would need to be set up in such a way that the model itself would develop relationships with a variety of opposites and different eggs. This would require the assumption that individual counterparts only act on the corresponding eggs. The complexity and statistical approach is difficult to apply. In fact the widespread use of BSM has led to a certain degree of valorisation of quotes into the market. Quotations are gradually becoming more valued. This is conducive to the positive development of financial markets. The Reich-Scholes model finds significant deviations of market prices from the theoretical option prices obtained from the Breck-Scholes model, and the dynamic hedging strategy verifies that these deviations are recognized in terms of market efficiency [5].

## 3. Other Option Formulas and Delta Hedging

### 3.1. Underlying Option Models

In the first decade after the publication of the Black-Scholes model, there were several key extensions and generalizations. Wiliam Margrabe developed a model for pricing the rights of one asset in exchange for another. Robert Geske developed an option pricing model with options as the underlying asset... Meanwhile the departure of American-style options is fraught with complexity. Ex-dividend evolved as the root ... Roll used the Geske model to show that a closed-form solution to the US call could be obtained Geske and Whaley subsequent refinements led to the formulation being referenced as the RolLGeske-Whalev model [6]. Samuelson and Thorp published option pricing formulas also Boness and Sprenkle somewhat similar, claiming that he actually had an identical formula to the Buccaneer-Scholes-Merton formula before Buccaneer Scholes and Merton published their theory [7]. It is also worth noting that Mckean derived a formula for the US perpetual put option, but did not assume continuous delta hedging. This formula was later amended by Merton to assume risk neutrality on the basis of continuous dynamic hedging [1].

### 3.2. Delta Hedging

The Black-Scholes approach to hedging options, known as dynamic hedging, decomposes the risky bonds of an option position by continuously trading the underlying stock and assume that the stock price satisfies dS, =uS dt + σS, dW, So=S for a constant μ, σ > 0, W for a standard Brownian motion whose risk can be completely eliminated at any option position. The number of shares held per option depends instantaneously on the sensitivity of the option price to the stock price, i.e. the option's delta [8]. Which is undoubtedly the subject of considerable research in the financial community. In its most basic setting, the Black Scholes delta hedge can be used to perfectly hedge a European call option where the underlying asset follows a geometric Brownian motion in an environment with no transaction costs and continuous trading. Hedging is at the heart of option pricing theory. Black and Scholes' hedge valuation model relies on the idea that options can be perfectly hedged using the underlying asset, making it possible to create a portfolio that exactly replicates the option. Hedging is also widely used to reduce risk, and the delta hedging strategy implied in Black and Scholes is often (at least roughly) applied by participants in the options market.

Optimal hedging strategies therefore have direct practical implications [9]. Focuses on the issue of transaction costs, and Leland makes a significant leap forward. He transformed the Buccaneer-Scholes delta hedging approach by incorporating transaction costs into the hedging decision. However, now that we have added discrete-time trading and proportional transaction costs to our environment, we are no longer able to hedge perfectly and thus incur hedging errors. We can evaluate hedging methods with the objective of maximising the utility of the portfolio value minus the option value. A first potential area of improvement to the classical hedging approach is to combine alternative objective functions, in particular the utility function. A second potential area of improvement to classical methods relates to their performance. A third potential area of improvement to classical methods is the possibility of hedging not only one-dimensional options, but also multidimensional options [10]. Dynamic delta hedging, which is now at the centre of both theory and practice, has been heavily criticised for its lack of realism. Moreover, dynamic delta hedging cannot be generalised to more general stochastic processes [11]. The constant changes in its definition process make its statistical computation infinitely complex. But option pricing may not necessarily be reduced to mathematical theory either.

## 4. Complexity and the Phenomenal World

### 4.1. Complexity of Disclosure and the Disadvantages of Hierarchical Thinking

For option pricing, this often reflects excessive complexity of form. There is a need to summarise current data, compound historical information and data on unoccurring information, and the disclosure of information is a changing existence. There are no situations where precise data can correspond to information output. It can change over time and is not fair. For example, the same information will have different data and analysis for different traders, the same data will have different amounts of information for different traders, information overload will occur, the form of thinking of the traders will hinder the development of information, and useless information will be heavily conscious. Now introduce finite rationality. To fix the idea, consider an investor with limited ability to process information. For example, the investor may be limited by his computing power, or the number of variables he can track is limited. In a world of infinite rationality, this does not matter. Since the investor can instantaneously process an infinite amount of information, he can instantly reduce complexity as long as he has the right information at hand. The intrinsic difference creates financial markets full of a large number of finite rational traders [12]. We consider that in the transformation of correct information and data, and any refinement of the study tends to quickly reduce the scope specificity as a de-conclusion. The conclusion, when observed in modified form, is that it is stratified with other data and information. (The degree of narrowing often determines the relevance of the stratification) is often singularly incomplete. This is the downside of our thinking. But this develops conflicts, and it is difficult to obtain deeper conclusions without using specificity to simplify them. For example, we always think in terms of derivatives (see Figure 2). But the presence of E is often not adapted to A. and can change in time as a parameter. We should consider how to derive E in such a way that it is in the same formal interval as A.

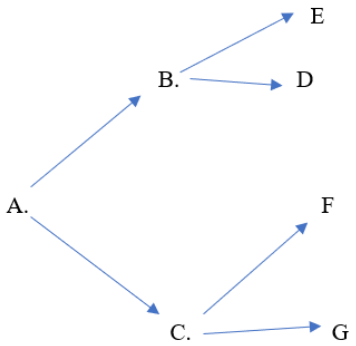


**Figure 2.** Random divergent paths of thought

### 4.2. Looking Back at Option Pricing and the Phenomenal World Unfolding

Relatedly, we cannot define pricing models that do not comprehensively correspond to the pricing ideas we have generated at the time. And finite rationality gives people a very high degree of randomness with respect to information, depending on how they are exposed to it at the time. But on the other hand, this is not good for the development of the market, it gives a limited degree of information formation in the market. The infinite information input and data transformation presented by infinite rationality will create unpredictable financial markets. It makes the perception of traders that pricing valuations are less likely to be derived. Infinite data due to infinity cannot be accurately summarised. In fact, pricing indicates that the researcher's perception of financial market information is specific. The pricing approach is estimated using one's own measure of the market, a measure that enables generalisation. The reasons for this include the influence of historical and transmission thinking and the generation of a correct thinking about the correct development of finance in the future. Kuhn's science has an explanation for this phenomenon. Acknowledging that he initially used the concept too freely, Kuhn later restricted it to two senses. 1. One was an attempt to retain the general sense that he had tried to capture in his original paper: this was the unifying influence on cognition that emerged in the context of socially limited scientific communities that were controlled through the exercise of patronage. Kuhn later referred to this as the 'disciplinary matrix'. 2. The other was a new attempt to focus attention on teaching strategies that were often the mutual succession of scientists. Kuhn called this indoctrination of learned intuition "exemplary. Its existence makes it inevitable, but its development is random. We observe from multiple scales that from the emergence of this model to the establishment of the model formula always follows a certain phenomenal world. The phenomenal world is the only one that appears in empirical investigations created by the central tenets of scientific orthodoxy, and the external world cannot be understood in this way. For Kuhn, scientists operate within their own internal phenomenal worlds and the adaptation of a new set of theories involves only transitions between different phenomenal worlds [13]. Trader's inertia of thought triggers a definite link between the phenomenal world and the external world, but its true relevance cannot be defined. It can also be argued, in philosophical form, that this phenomenal world thinking leads traders to produce specific behaviours that regulate the development of future markets. This scientific paradigm of thinking tends to make the researcher dependent, for example, on the model of relevance in order for the form of thinking to produce a determination of the correctness of the model. And this has developed into a necessary condition for a variety of problems in later years. Again, the analysis is how this model of how to evolve can lead to conscious conformity in the external world.

### 4.3. Echoes of the Pricing Model

BSM was derived by a specific phenomenon, including certainty, and was soon integrated into the financial markets and developed mutually, while its development brought actual pricing closer and closer. But perhaps the reason for this is due to its widespread research and practicality. It is also possible that the continued study of differences has tended to move away from inertial behaviour towards the application of BSM. We can predict that this continued development will perhaps move into a phenomenal world, a normal movement of the scientific matrix. In conclusion, the link between BSM and financial markets would be an interesting study. It is also a fusion of people's scientific forms of financial thinking with external markets. We cannot help but think about the reasons underlying its integration and the results. This certainly leads us to a specific and comprehensive matrix of disciplines. And to take an independent view of its development. But pricing is attributed to the development of a phenomenon or the emergence of another phenomenal world. The effectiveness of financial markets. In fact. This is an interaction. The development of a real market can cause a specific phenomenal world to progress or move due to the scoping of its fixed patterns. On the other hand, fusion makes it possible to realise that the probabilistic accuracy of predicting asset volatility in pricing also leads to similarities with the actual price to maturity, which in turn

justifies the limited and similar transformation of traders' information data, making the market efficient.

In this form inertial thinking is summarised by the derivation of the Brownian motion of BSM and the analysis of the evolution of the phenomenal world. We begin by analysing the formation of Brownian motion. Brownian motion is the never-ending irregular motion of particles suspended in a liquid or gas. The continuous random generation of this motion can be attributed to the collision of particles with each other. However, as the number of sizes tends to be infinite, the density of motion times, and their length, approaches infinity. To predict the state of motion of a particle at a given moment (assuming that the particle has no sense of self-motion) one needs to generalise the motion of the colliding particles, their direction and their extent. The infinity of the number of colliding particles in terms of size is infinite in terms of the number of variables added. And the infinite nature of the number of particles released per particle, incorporated into the size of the time size. The storage of energy due to the pre-collision cannot be determined. It is not possible to determine the specific properties of the colliding particles to determine the infinite nature of time, number of sizes, and the degree of correlation between the collisional inertia generating energy stores interfused to the next collisional collision generating effect. And an idea that is more explainable is that often a very small number of central prominence effects occupy the main tendency of people. And we have also investigated whether the decline of this slope of the normal distribution is determined as regular. No other factor is referenced with itself. (Of course, since the presentation of the results supports the subjective perception of no reference to regularity) does the direction of the shift, the uniqueness of the result, which is dependent on spatial uniformity in relation to other quantities previously predicted? In short, approximations are created according to this subjective concept. Often the phenomenal consciousness decides to ignore the infinitesimal tail presentation which does make sense, and the complexity of this approximation is sometimes too great to join many current patterns of a phenomenal world that cannot determine the direction, such as particle motion. The result is a large generalization of consciousness called random. And if this random motion is given a quantified probability of conjecture. It is necessary to refer to what we have just said about the uniqueness of the outcome in relation to the previously predicted quantity. In this analysis, the time interval in which the outcome occurs and the probability interval are two indeterminate correlation spaces belonging to a phenomenal world. It is not certain that there is a correlation factor. Probability arises from the fact that prior guidance and prediction is a phenomenal continuum of thought given to things by the researcher. The movement of the external world may not be clearly correlated with this continuum of thought. The recognition of the outcome in relation to the previous prediction may also arise from the subsequent development of this thinking. This may be a one-sided view, but it would be a way of thinking.

## 5. Conclusion

We consider how the later evolution and development of the phenomenal world changes form for BSM and various pricing models arising from random Brownian motion and normal distribution? If the previous assumptions hold and change direction, later in the probability development will tend towards tail rebound and the approximation will shift in definition and estimation. Randomness, on the other hand, will be a form of consciousness fixed by the researcher on a large scale, changing the scope or decomposition to produce an alternative interpretation. This interpretation will be standardised into an alternative definition of the correlation between outcomes and probabilities. This definition of the phenomenon will analyse another type of financial market derivative pricing. Under a financial market perspective, the validity of option pricing needs to be released more strongly and needs to be integrated with the actual quoted, expiry price to promote financial validity. Events and prices should be more linked, leading to a more substantive return to quotes. Of course, it should be generated more around the diversity of information and price feedback, which will result in a small density of comprehensive pricing. At the same time, there will be a response to the infinite diversity

of data. It is therefore possible to add standard volumes to respond to different data information, and the criteria for risk-free profits on portfolios should also be adjusted. Adding differentiation is a more precise answer. This needs to lead to another conceptual form of run to generate the response term needed to generate the final range model for differentiation. This is the unification of multiple samples of the same time scale with a range of the same time scale. Perhaps this would add an infinite number of correspondence terms. In other words, this approach observes that the importance of the inertial behaviour of a single financial mind cannot be ignored and is fundamental to the creation of all models. It will increase the integration with the financial market. Such forecasts cannot be clearly presented due to future execution and development. It draws too many assumptions and complex procedures. But it is certainly a transfer of the phenomenal world. But as Kuhn suggests, this transfer of the phenomenal world cannot be restricted to what arises from nature, but is rather a transfer of the scientist's thinking apparatus under logic, which leads us to question its developmental nature under fixed phenomena, but this may not need to be defined, since fundamentally the phenomenal world exists and transfers and thus infinitely creates the external world. At the same time, the study of its developmental nature is a way of connecting the options that are not scoped into the current phenomenal world while scoping its current apparatus, making it impossible to define the features that give rise to its own paradigm of creation.

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