

# The description of the first financial market: Looking back on Confusion of confusions by Joseph de la Vega

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The first financial market in the world was the 17th-century stock exchange in Amsterdam. Joseph de la Vega's description of it in his mythic *Confusion of Confusions* (1688) was the very first analysis of a stock market. As the title states, de la Vega, who traded shares, saw the market as a vast disorder that normally produces order but also, given the crashes that, soon following on this market's creation, could generate chaos. Instead of a single description of this chaos, several viewpoints are presented in the form of a dialog between a subtle philosopher, a circumspect merchant and a clever shareholder.

How to describe a market?<sup>(1)</sup> So many explanations and theories have been proposed by economists, sociologists and anthropologists from various schools of thought, who have used different concepts and adopted miscellaneous approaches. They generally describe stock exchanges as an established order, institutional, regulatory or even social. But by doing so, do they not partly obliterate the object they are trying to elucidate?<sup>(2)</sup> Can a market be described from the single perspective of order alone?

Markets appear, when we try to observe them, to be a thoroughly disorderly process that leads to an order: the pricing system. We need but look back on photographs of the Paris Stock Exchange before it became electronic. It is not surprising that Oskar Lange (1936 & 1937)

thought we should be able to attain the same order — an efficient pricing system — through a mechanism that works in a much more orderly manner than the market. This idea has turned out to be improbable: markets do, in fact, create order<sup>(3)</sup> but through a process that is disorderly and must remain so.

In other words, markets seem of special interest for illustrating the idea that description is the key to the process of theorization (DEPEYRE & DUMEZ 2008).

The first financial market was set up in Amsterdam during the 17th century. Its success was considerable; its scope and the strange newness of its operations struck the imagination. Joseph de la Vega was, in 1688, the first person to describe/explain it. His book, titled *Confusion of Confusions*, took the form of a dialog — as if the market were to be explained as a disorder and as if there could be but a single viewpoint for describing and analyzing it.

<sup>(1)</sup> On the problem of descriptions, see: DUMEZ (2010, 2011 & 2013). This article has been from French by Noal Mellott (Omaha Beach, France). Most of the passages from de la Vega were provided in English by the author.

<sup>(2)</sup> According to Kierkegaard (2009, p. 184), some explanations alter what they are supposed to explain: "What at all does it mean to explain something? Is explaining something a question of showing that the unclear matter in question is not this but something else? That would be a curious explanation. You would think it was the function of explanation to render it evident that the something in question was that definite thing, so that the explanation remove not the thing but the unclarity. Else the explanation is something other than an explanation; it is a rectification."

<sup>(3)</sup> This order is open to discussion, since markets also create disorder. This brings up the same question. What, in a market process, has to be put in order and what does not have to be? There is no dearth of economists for demonstrating that insider trading used to create order in a market.

## Confusion of confusions

We do not know how many copies of the original edition of this mythic book exist. There is one in The Hague, another in Göttingen, a single specimen in the United States (Kress Library). Maybe half a dozen in all? Portions have been translated from the original Spanish into English (DE LA VEGA 1957).

Joseph Penso (or Penço) Felix de la Vega Passarinho, the author who signed under the name Joseph de la Vega, was a member of the Jewish community from the Iberian Peninsula. His family probably came from Portugal, evidence of this being his patronymic. His father was born near Cordova. Imprisoned by the Inquisition, he forsook his faith, but once freed, returned to it and moved to Antwerp, then Hamburg and finally Amsterdam. This well-known banker soon figured among the most influential members of the city's Jewish community. He founded the first Talmudic school there. Two of his four sons, including Joseph, the youngest, stayed in the capital of the province of Holland, and the two others went to London.

Joseph was probably born around 1650. At the age of 17, he wrote a play in Hebrew, *Asira Tiqva*, which made him famous. His family meant for him to enter the rabbinate, but he decided to embark on a career in finance. Meanwhile, he continued publishing collections of poems, novels, books on ethics, etc. He claimed he had traded shares, had made and lost a fortune five times over.

In 1688, he published *Confusion des Confusions*. Why did he write this book? For three reasons, he said: for the pleasure; as a lesson to people not familiar with this special form of commerce (according to him, the most useful in the world); and as a warning to them about various forms of fraud. He chose the title because "*in this stock-exchange business, one moved in a world of darkness which nobody wholly understood and no pen was able really to describe in all its intricacies*" (p.12). The confusion came from darkness and a contradiction (as pointed out in the introduction to this article): "*this enigmatic business which is at once the fairest and most deceitful in Europe, the noblest and the most infamous in the world, the finest and the most vulgar on earth. It is a quintessence of academic learning and a paragon of fraudulence; it is a touchstone for the intelligent and a tombstone for the audacious, a treasury of usefulness and a source of disaster, and finally a counterpart of Sisyphus who never rests as also of Ixion who is chained to a wheel that turns perpetually*" (p.3). A recurrent image is the labyrinth. To illustrate this confusion and this contradiction, the author chose as form four dialogs between three characters: a subtle philosopher, a circumspect merchant and a knowledgeable shareholder.

The author might have initially intended this book to be a manual for his brothers in London, to explain to them how shares were traded, a new business activity being launched in England. The author then decided to make it into a literary work. The writing of the manuscript was well advanced when the stock market crashed. Parts were then rewritten or enlarged but in a way

that damages the book's coherence. According to the shareholder in one of the dialogs, a French version was planned for international circulation. However it never came out.

In the following pages on de la Vega's book, we shall not focus on the historical description and analysis of the Amsterdam stock exchange but instead point out his remarks about salient characteristics of financial markets in the abstract. A theme running through this book calls attention to one of them: the essential complexity of financial markets. This characteristic, which has two dimensions — technical complexity and the complexity of positions — gives rise to a series of points of equilibrium between contradictory tensions.

## Technical complexity

The operation of the Amsterdam stock exchange, the first modern exchange to operate on a large scale, seemed awesomely complex, defying any description. All current techniques, sometimes in a special or nascent form, were already being used.

Speculation focused not so much on shares as such but on differences in prices. Most of the shares traded were of the Dutch East Indies Company (VOC: *Vereenigde Oost-Indische Compagnie*), created in 1602. In 1621, a West Indies Company was founded, but it represented a small part of the market. We know that the VOC also issued bonds, but de la Vega said nothing about this. He did however mention government bonds, a large, stable market.

The Amsterdam exchange operated on the basis of a monthly (instead of daily) settlement of accounts. Transactions took place for a month without anything actually changing hands. On the 20th of each month, operations came to a halt. The *rescontrants*, who oversaw compensation on the settlement date, received or paid the differences on account. Purchases were often made thanks to loans, which generally covered 4/5 of the price, thus providing significant leverage.

There was a thriving forward market, since parties could agree to a transaction beyond the monthly settlement date. Both "call" and "put" options could be taken on shares. One party accepted to transfer to the other a certain number of shares at a specified price and date, or else declared that it would buy a certain number of shares at a specified price and date if they were offered for sale. In all cases when such an option was signed, the buyer paid the seller a premium depending on the total price of the shares and on the duration up till the date of the actual transaction. If the option was not taken up, the premium was lost. Forward contracts could be extended in time. It was also possible to cover one option by another of the contrary sort.

Shares were, we might say, dematerialized. Transactions seldom involved physically going to the company's head office (which de la Vega described as "magnificent") and then to the bank of Amsterdam for the settlement. Since, as pointed out, buyers and sellers

played on price differences, the loss or gain amounted, in most cases, only to the sum of these differences.

Stock market practices ranged widely from basic techniques to more sophisticated strategies. The jargon echoed this complexity (pp. 14-15):

— *Merchant: I really thought that I was at the construction of the Tower of Babel when I heard the confusion of tongues and the mixture of languages on the stock exchange. Sometimes they used Latin words such as 'opsie', sometimes Dutch ones such as 'bichile', and sometimes French ones such as 'surplus'*<sup>(4)</sup>

— *Shareholder: As to the confusion of tongues on the Exchange, I am not to be blamed for it. The jargon was coined by the necessities of the business, then became customary and proved to be practical. I sell the phrases at cost prices and profit nothing save the effort to bring them forward and to explain them.*<sup>(5)</sup>

Matching this complexity of techniques was the complexity of positions.

## The complexity of positions

To operate effectively, the stock market depended on a heterogeneity of positions, in other words, a multitude of players with several sources of information as well as diverse but typical behaviors in the market. De la Vega, who knew what he was talking about, drew up a classification of social groups in the stock market.

In the first group were the “princes of exchange”, wealthy notables and big capitalists. They made long-term investments and received dividends. They seldom went to the stock exchange for transactions; they passed their orders through brokers. When a crash occurred, they generally did not lose their sang-froid, for they were thinking in terms of the long run.

The second group was made up of merchants who regularly traded in shares but from the perspective of minimizing risks. They covered their positions with options, forward pledging contracts or “insurance for exchanges”. They turned to profit the information gleaned through their business contacts, their goal being moderate but sure gains. They did not imagine finance as an end in and of itself, but as an auxiliary to their trade in merchandise. Even when they speculated, it was almost certain that they would buy shares in cash for the purpose of selling them later at a profit. Some merchants, like the aforementioned princes, refused to go to the stock exchange. Others preferred going there; they thus avoided paying commissions to brokers, but they also enjoyed trading directly with colleagues. When they relied on brokers, they expected a discount on commissions, since brokers appreciated having solvent, dependable clients. To their advantage, merchants were keen for information on market trends.

<sup>(4)</sup> The “surplus” mentioned by the merchant was the difference between values when contracts were settled.

<sup>(5)</sup> Opsie, a word used by the merchant, is a Dutch variation on the Latin optio.

They applied the principle that, in business, you are never better served than by yourself.

The stock exchange was attended, above all, by persons from the third group, professional speculators. They used leverage and wanted to make money. Their transactions usually involved “regiments, i.e., lots of about twenty shares. Their behavior was mysterious, unfathomable: *“The labyrinth of Crete was no more complicated than the labyrinth of their plans”* (p.5). Experiencing internal turmoil, they hesitated between their common sense and opinions in the marketplace, between their personal choices and mimesis: *“But what surpasses all these enormities... and what is hardly believable (because it seems to be complete fancy rather than overexaggeration) is the fact that the speculator fights his own good sense, struggles against his own will, counteracts his own hope, acts against his own comfort, and is at odds with his own decisions... There are many occasions in which every speculator seems to have two bodies so that astonished observers see a human being fighting himself. If, for example, there arrives a piece of news which would induce the speculator to buy, while the atmosphere prevailing at the stock exchange forces him to sell, his reasoning fights his own good reasons. At one moment his reasoning drives him to buy, because of the information that has just arrived; at the other, it induces him to sell because of the trend at the Exchange”* (p. 22). According to de la Vega’s estimate, approximately twenty very big speculators were operating on the Amsterdam market.

Brokers formed the last group. Official brokers took an oath before municipal authorities, swearing not to trade in shares for their own account. A *numerus clausus* severely restricted their number. They formed the only party legally qualified to undertake transactions. However there was a host of free brokers, who could undertake transactions for their personal profit. Most were reliable. As de la Vega pointed out, a broker could not last in this trade without inspiring confidence.

In fact, the stock market combined technical complexity with this complexity of the viewpoints of the parties interacting there. Owing to this combination, the market was an indeterminate mechanism beyond the control of knowledge as such: *“He who makes it his business to watch these things conscientiously, without blind passion and irritating stubbornness, will hit upon the right thing innumerable times, though not always. At the conclusion of his observations, however, he will find that no perspicacity will divine the game and no science is sufficient here. For as the wealthy people [on the Exchange] also look for a countereffect when the tendency is unfavorable, and as the indisposition of the Exchange is cured in the same way as the sufferings of a leper in Asia, namely, by a poisonous medicine, unfavorable news need not be regarded as fatal”* (pp. 11-12).

This complexity generated tensions that were tempered with unstable points of equilibrium in the market itself and in the behaviors adopted by the parties to transactions. The market is inherently opaque.

## Between practical rationality and irrationality

In a turbulent stock market, behaviors might become irrational: "Owing to the vicissitudes, many people make themselves ridiculous because some speculators are guided by dreams, others by prophecies, these by illusions, those by moods, and innumerable men by chimeras" (p. 10). Nonetheless, general principles may, according to de la Vega, serve as guidelines for actions balancing between the extreme of illusions and the illusory extreme of belief in a source of knowledge that would let someone control the market.

De la Vega formulated four rules: "The first rule in speculation is: Never advise anyone to buy or sell shares. Where guessing correctly is a form of witchcraft, counsel cannot be put on airs. The second rule: Accept both your profits and regrets. It is best to seize what comes to hand when it comes, and not expect that your good fortune and the favorable circumstances will last. The third rule: Profit in the share market is goblin treasure: at one moment, it is carbuncles, the next it is coal; one moment diamonds, and the next pebbles. Sometimes, they are the tears that Aurora leaves on the sweet morning's grass, at other times, they are just tears. The fourth rule: He who wishes to become rich from this game must have both money and patience" (p. ???). During a setback, the investor must boldly face the situation instead of running away like a coward. The person who does not lose hope and has enough money to hold steady will ultimately win.

## Between economic rationality and speculative bubbles

In the long run, economic rationality prevails in the stock market. At the time when Joseph de la Vega lived, three factors carried weight: the situation in the Indies, European politics and the market's opinion of itself. More often than not, opposite opinions push the market in different directions, some up, others down. As de la Vega pointed out, some speculators bought upon hearing good news from the Indies, while others were selling because of the uncertain political situation in Europe.

This confrontation between differing viewpoints is essential to the market. It cannot be separated from speculation, which amplifies market trends or even launches a trend "artificially", out of phase with major economic factors. De la Vega quite rightly wrote: "The expectation of an event creates a much deeper impression upon the exchange than the event itself. When large dividends or rich imports are expected, shares will rise in price; but if the expectation becomes a reality, the shares often fall" (p. 14). Whoever dreams of a reasonable market out of which extreme speculation has been chased is... just dreaming.

At the most, we can try to limit excessive speculation. In 1687, Nicolaas Muys van Holy, a jurist in Amsterdam, published a book against speculation. He railed against trading shares without putting up any initial payment

(short selling) and against insider trading (by VOC directors or political leaders privy to insider information). He called for rules requiring that transactions be declared and taxed. After a stormy debate, city authorities adopted his point of view. On 31 January 1689 a tax was introduced on transactions (GEPKEN *et al.*, 2005).

## The regulated market and its double

This leads us to the problem of regulating the stock market. At the time, regulations were minimal and usually subtle.

As mentioned, whereas the brokers under oath were not allowed to undertake operations for their own account, brokers not under oath, with an informal status, operated along the sidelines. Furthermore, all transactions were subject to taxation. Despite these forms of regulation, the major danger looming over the stock market came from speculative bubbles.

The risk of a bubble was amplified by unsecured purchases of shares. An edict by Frederick Henry of Nassau forbade this. But efforts were made to come up with a subtler solution for restricting abusive excesses without hampering market dynamics. In effect, the risk was shifted onto brokers, who could accept or not accept unsecured orders. If a broker accepted such an order, his client who did not pay could invoke the edict. He was not to blame but the broker who had accepted his order without verifying whether it had been secured. In such a case, the client was not forced to pay, and the broker had to take the loss.

De la Vega explained that unsecured transactions occurred but that the system ended up regulating itself under pressure from the law (the edict) but not because of it. In fact, the edict was very seldom invoked as a defense, and then only in grave cases of insolvency. In less serious situations, broker and client made arrangements together, the client doing everything possible to reimburse his debt in order to be able to go on speculating. Under pressure from official regulations, the market regulated itself.

## Conclusion

As Bruno Latour (2005) has pointed out, nothing is harder than making a description. Furthermore, a theory is not interesting and seminal if it is not associated with one or more descriptions. The case of markets illustrates this quite well, as the academics who have tackled the task know full well. As they have realized, describing a market by using diagrams or figures is an amazingly complex exercise. It is probably better to imagine a set of overlaying maps, like those showing a country's physical geography, population, resources, etc. (FINE 1998).

De la Vega's unprecedented description of the first stock market, in Amsterdam, makes two fundamental points. First of all, a market can only be described as a state of confusion, an opaque machine with unforeseeable

results<sup>(6)</sup>. Secondly, mechanisms for making behaviors and transactions transparent must be introduced, up, in particular to avoid insider trading, frequent on the Amsterdam market, in particular by VOC directors.

A market is, in essence, a combination of transparency and opacity. The nature and forms of this combination are what must be described and studied, while bearing in mind that describing opacity is not the same thing as describing transparency, and that describing a combination of opacity and transparency is a daunting challenge. This is the reason it is so hard to describe a stock market. Besides, a market can only be described from several viewpoints. Since the market operates through a confrontation between different viewpoints/positions, its description requires a multiplicity of viewpoints. This is remarkably expressed through the form of de la Vega's book: a dialog. Too often, pundits who study markets try to propose a single, clear view. De la Vega reminds us that, to be right, a description of a market must render the latter's essential "confusion", and that it is impossible to construct a single view of such a complex reality.

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<sup>(6)</sup> Buchanan & Vanberg (1991, p.176): "Future parts of a market simply do not exist; they are, by definition, not present. There are, at any point in time, many potential futures imaginable, based on more or less informed reflections. Yet, which future will come into existence will depend on choices that are yet to be made."