

TIDE - MONEY HYPOTHESIS AND CRISIS OF STOCK EXCHANGE MARKET

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ABSTRACTS: Human body like an electric dipole antenna affected by conditions of surrounding environment. There is a hypothesis that moon tide has a connection with crisis of stock exchange market. It was claimed this situation can be seen in the 1998 world stock exchange market crisis. Based on the tide data of Hon-dau in Halong bay, where Newton has took information for establishing the gravitation law in his famous book “Principe”, we checked this hypothesis with 2008 world financial crisis and found a not clear but possible connection between the two evens.

Keywords: moon tide, crisis of stock exchange market.

GIẢ THUYẾT VỀ MỐI LIÊN QUAN GIỮA THỦY TRIỀU VÀ KHỦNG HOẢNG CỦA THỊ TRƯỜNG CHỨNG KHOÁN

TÓM TẮT: Cơ thể con người giống như một ăng-ten lưỡng cực điện bị ảnh hưởng bởi các điều kiện của môi trường xung quanh. Có một giả thuyết cho rằng thủy triều có một kết nối với cuộc khủng hoảng của thị trường chứng khoán. Các nhà khoa học đã công bố mối liên hệ này đã được nhìn thấy trong khủng hoảng thị trường chứng khoán thế giới năm 1998. Dựa trên các số liệu thủy triều của Hòn Dấu quận Đồ Sơn thành phố Hải Phòng trong vịnh Hạ Long, nơi mà Newton đã lấy thông tin cho việc thiết lập Định luật vạn vật hấp dẫn trong cuốn sách nổi tiếng của ông “Principe”, chúng tôi kiểm tra giả thuyết này với cuộc khủng hoảng thị trường chứng khoán Việt nam năm 2008 và thấy rằng có thể có thêm một bằng chứng nữa về kết nối giữa hai hiện tượng tự nhiên (thủy triều) và xã hội (khủng hoảng TTCK).

Từ khoá: Thủy triều, thị trường chứng khoán.

1. INTRODUCTION

In the last twenty years, modern science is increasingly interdisciplinary.

In particularly, interdisciplinary physics involves the combining of physics with one or more academic disciplines into

one research, give a rich understanding the picture of how the world works, and becomes a powerful tool in research of complex systems.

Human behavior is a dynamic phenomenon subject to biological, social and social-physics (a branch of interdisciplinary physics) influences [3, 4, 6, 7, 9, 11, 12]. Although psychological theories in general are not seen as a unified and coherent set of hypothesis, the idea that the human individual behavior is the final result of the human interactions with surrounding environment is ubiquitous. Biologic models are more adequate to explain the occurrence of physiological reactions that accompany emotions. Sociological models are essential to figure out how the symbolic value of given situation evokes innate defense mechanism. Social-physics models are mainly to investigate the link of human behavior with physical or social surrounding environments, then for formal explanations to find something similar in physics models and processes. Human behavior can be conceptualized as a merely complicated event but as being a complex system. According this approach, individual behavior is the final result of simpler elements interacting through define rules, leading to the emergence of new and unexpected states. Complexity has to do with intricate structures emerging from a system which itself is much simpler than its dynamics. In contrast, a system can be composed of several parts but without the emergence of new properties it can be more properly considered complicated but not complex.

As an example, in this work we concentrate our attention to investigate the influence of Moon tide on human behavior hypothesis. Everyone knows that the moon has a strong effect on the oceans. It pulls the ocean waters into massive tides. On the average the moon raises the entire ocean surface about six feet as the earth rotates. In a particular bay, the rise and fall may be far larger, due to the shape of the bay. In the oceans nowadays, tides can rise 50 feet. So in ocean tides, there is an average level, and a “personalized” level for each ocean. The same thing applies to the effect of the moon on markets. There is an average effect, and a “personalized effect”, but what is it that is being tugged by the moon? what links the moon to the intraday price swings?

Stock exchange market is a research subject of econo-physics (another branch of interdisciplinary physics) [1, 2, 5, 8, 10]. In the crisis moment, stock exchange markets have clearly chaotic behavior. Statistical Behavior of Chaotic Markets: many assume that markets are random. Not only can this be disproved by testing the price history for chaos, it can also be proved by examining the statistics of price action.

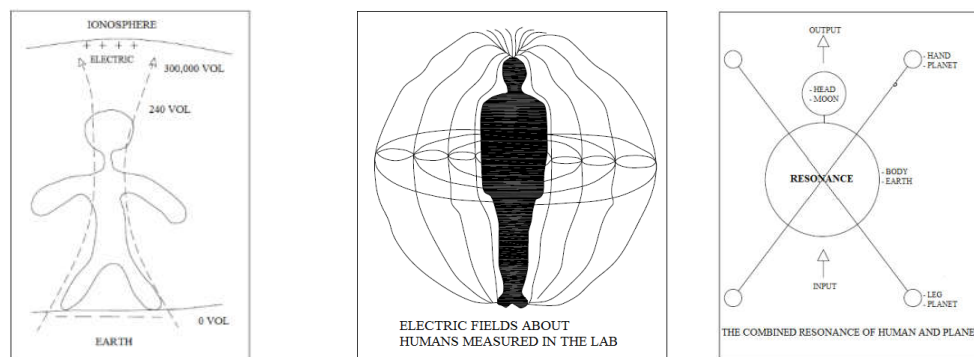
At present, physics modeling for complex systems has rapidly advanced due to their great and vast practical applications in science and modern technology. The philosophy base of that approach is the unity picture of the world, universe, nature, and reality. Some thing happen in some where could be found an analogy or some thing

similar in physics, and inverse. Physics modeling approach will be the main concept of this work.

In this work following the interdisciplinary physics concept and consider human behavior like a complex system, based on fact that human body like an electric dipole antenna affected by conditions of surrounding environment, we analyze and check the hypothesis that moon tide has affect to human behavior and possible have a connection with crisis of stock exchange market.

2. EMOTIONS ARE ELECTRIC CURRENTS HYPOTHESIS

It is a scientific fact that the earth's ionosphere is charged by the solar wind coming from the sun to a voltage of approximately +300,000 volts. The earth surface where a body man stands on is at 0 volts. This means that between the earth and the top of body's head is a voltage of approximately 240 volts. This is the earth's electric field. This voltage causes an electric current to flow through body. That current is over 2000 times as strong as the currents in body's neurons. Changes in the electric field can cause 10%-20% changes in the voltage in very short periods of time.



a) The ionosphere of the earth and humans

b) Electric field around humans

c) Humans as a synergistic result

Figure 1. Emotions are electric currents hypothesis

Man is trying to operating a 10 billion neuron neural network in that electric field. His brain is completely electrochemical. His brain is completed unshielded from this external field. Within body's brain are the neurons. Each neuron collects a number of inputs, adds them together, and if the value is over a certain level, generates an output signal. These signals are all small

voltages. The output signals become our decisions. Imagine that the decision to enter a trade about to be made. Inside the neuron the voltages added together are almost at the decision threshold. Suddenly, an external voltage adds just enough energy to the neuron to make the decision, even though the input data was not sufficient to make the decision. Man just made an "emotional" decision. On

days when the external currents flowing through body are extremely strong, he may make many emotional decisions. On days when the currents are weak, his decisions may be sound and “rational.”

3. CHAOTIC MARKET BEHAVIOR

The essential essence of chaos is balance. Any system which has more than one solution is chaotic. Markets are provably chaotic. There are mathematical tests which can test for the chaotic behavior of markets. These tests prove that chaotic behavior exists in all freely traded markets.

Markets always have two solutions. The buyers represent a force driving prices higher. The sellers represent a force driving prices lower. When the buyers and the sellers balance, prices will form a congestion zone. When that congestion zone ends, the balance has been tipped in favor of the buyers or the sellers. At that point a chaotic move occurs. That is the move that chaos traders are shopping for Statistical

Behavior of Chaotic Markets: many assume that markets are random. Not only can this be disproved by testing the price history for chaos, it can also be proved by examining the statistics of price action. Figure 2 shows a typical return distribution: the distribution of DJIA returns in 1801 days (2009-2011). In first look, this distribution shape like the “bell curve” of normal statistical. Actually, this distribution does not fit this curve. In a short time period, the peak of the curve near zero is far higher than forecast by normal statistics and could be approximated by Boltzmann distribution. In a long time period, the peak of actual distribution is skewed to one side. The left side of the curve falls below the normal distribution, while the right side is mostly above it. The third difference is that the tails at the extreme left and right ends of the curve exceed the normal distribution curve by a wide margin. These wide tails are the result of the chaotic breaks in markets.

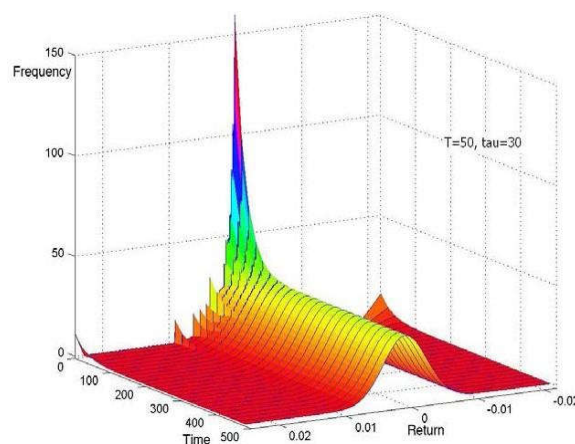


Figure 2. Typical return distribution: distribution of DJIA returns in 1801 days (2009-2011)

It is showed that chaotic systems display distribution curves like the curve in Figure 2. Such distribution curves are not described by the statistics that describe the normal bell curve. These commonly used statistics are called Gaussian statistics. Rather, chaotic systems require the use of a more exotic form of statistics know as Paretian statistics. Gaussian statistics assume that a price curve is smooth and has no gaps. Traders know that gaps exist in the price action of markets. Scientists recognized this fact and showed that all chaotic systems have gaps and that they need to be described using Paretian statistics.

4. MOON TIDES AND TRADING THE MARKET CORRELATION HYPOTHESIS

The moon is a major contributor to these tides in the earth's electric field. At new moon, the moon is between the earth

and the sun. It traps charges, lowering the voltage on the ionosphere, and on us. Human feel down and sad. At full moon, the moon reflects charges that have passed the earth back into the ionosphere, raising the voltage. Human feel giddy and happy and surely succeed of trade according to how human feel.

As the earth rotates, it moves the stock and commodity exchanges past the moon every day. It moves them under the moon, away from the moon, and to moonrise and moonset positions. These four positions can be found in the intraday price actions of stocks and commodities. Each stock or commodity has a different sensitivity to these electric tides. Just as the shape of a bay determines the response of the bay to the average tides, the nature of the market determines the response of the market to the moon tides in the earth's electric field.



Figure 3. The S&P 500 and Moon tide level on August 31, 1998, a day when the DOW dropped 512 points.

Figure 3 shows the S&P 500 on August 31, 1998, a day when the DOW dropped 512 points. The market did not follow the Moon tide early in the day, but started following it after an hour. The pattern started matching at A, then fit the low at B, and made the high at C. Then it dropped sharply into the close, “going chaotic” at D, where the Moon tide “jumped vertical.” At least one Moon tide subscriber recognized the fit between the market and the Moon tide and caught the big drop. Moon tides can give a trader a trading edge.

Figure 4 shows how the market is currently responding to the moon. The market peaked shortly after the new moon, ran down sharply into the full moon, and is now congesting into the solar eclipse, new moon. The sharp decline from the new moon to the full moon formed what I believe is leg 1 of a down going Chaos Clamshell. The current sideward congestion is begin caused by the solar eclipse holding prices up. This is a Chaos Balance Point. If the balance is broken by a move below the 922 level in the S&P, prices should move sharply down.

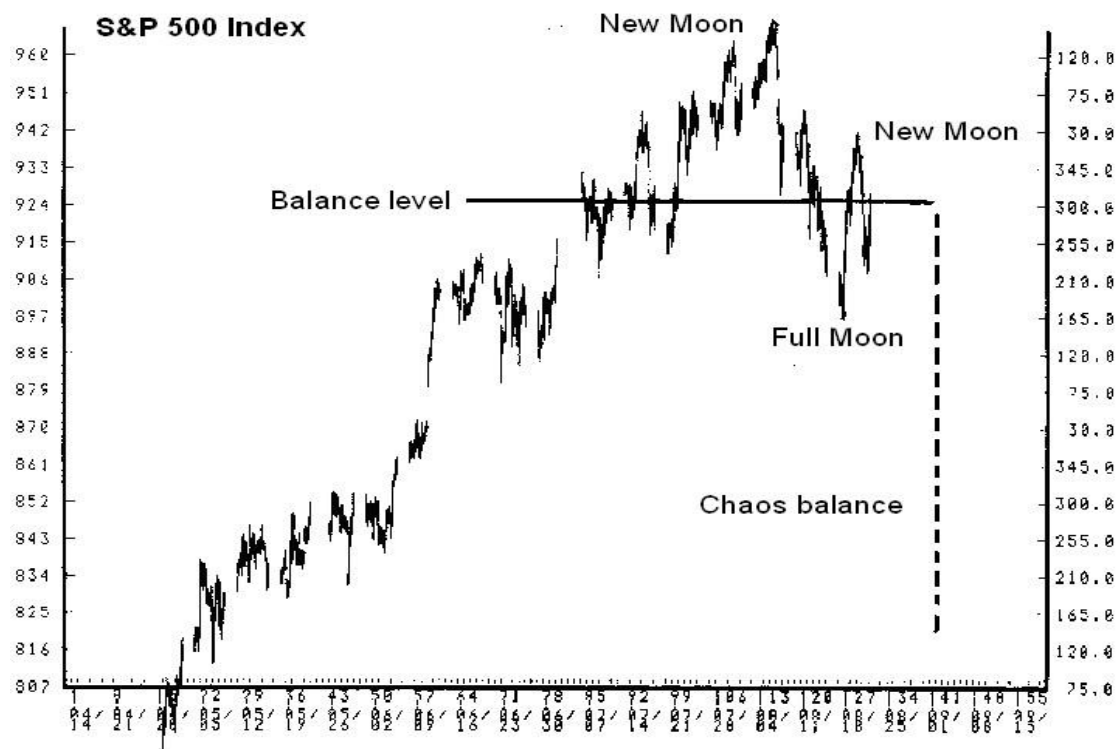


Figure 4. Typical respond of a market to the moon.

5. COMPARISON WITH HON-DAU MOON TIDE DATA BASE

In this part, based on the tide data of Hon-Dau in Halong bay, where Newton has took information for establishing the

gravitation law in his famous book “Principe”, we checked this hypothesis with 2008 Vietnamese stock exchange market

crisis and found some connection between the two events. Tides are commonly semi-diurnal (two high waters and two low waters each day), or diurnal (one tidal cycle per day). Tides in Hon-dau are diurnal (see figure 5). The crash of Vietnamese stock exchange market was happened on June 13, 2008 (see the figures 6). The Hon-dau tide

behavior from June 11, 2008 to June 15, 2008 is presented in the Figure 7. We can see some anomaly character, instead of normal diurnal there is unusual semidiurnal behavior with small amplitudes. Here have shown a possible connection between the two phenomena, as proposed in [3]. This will be a subject for further investigation.

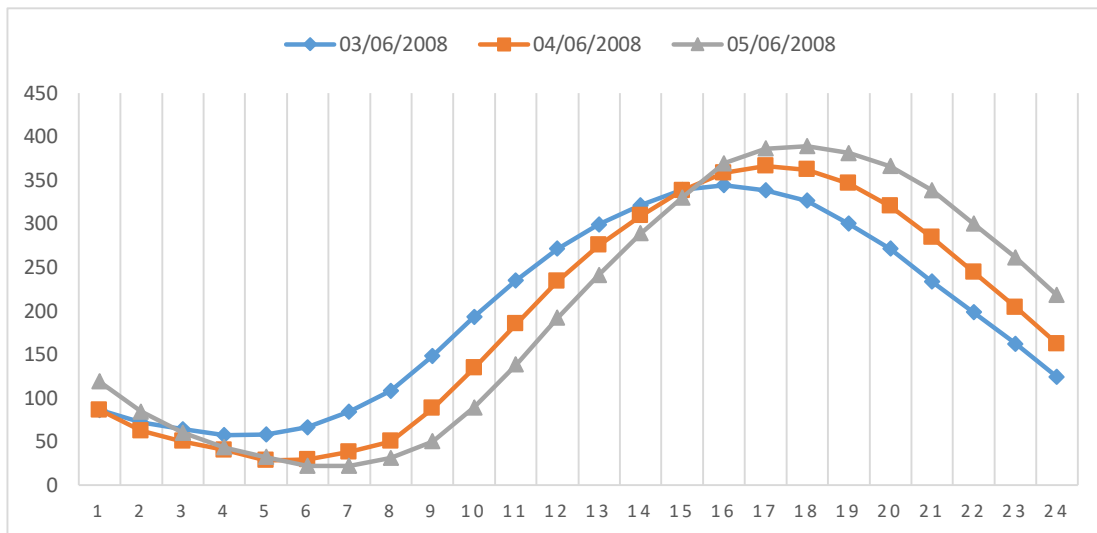


Figure 5. Typical Hondau tides are diurnal.



Figure 6. The crash of Vietnamese stock exchange market on June 13, 2008 [13].

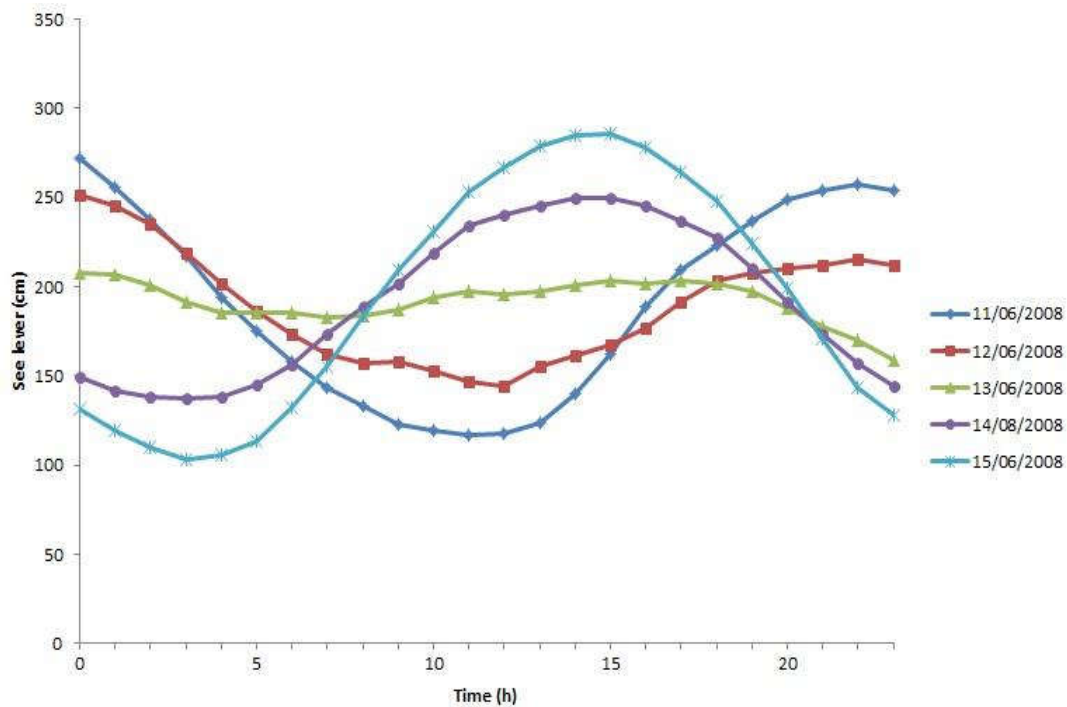


Figure 7. The Hon-dau tide behavior from June 11, 2008 to June 15, 2008 [14].

CONCLUSIONS

In this work, consider human behavior like a complex system, we investigate the hypothesis that human body might be like an electric dipole antenna affected by conditions of surrounding environment.

The moon is a major contributor to these tides in the earth's electric field and affects to human feeling. At new moon, the moon is between the earth and the sun. It traps charges, lowering the voltage on the ionosphere, and on human body. Human feel down and sad. At full moon, the moon reflects charges that have passed the earth back into the ionosphere, raising the voltage. Human

feel giddy and happy and surely succeed of trade according to how human feel.

Each stock or commodity has a different sensitivity to these electric tides. Just as the shape of a bay determines the response of the bay to the average tides, the nature of the market determines the response of the market to the moon tides in the earth's electric field.

We have checked this hypothesis by analyze the Hon-dau tide database for the Moon tide level on crash of Vietnamese stock exchange market on August 13, 2008 and shown that here might have unclear but possible some connection between the two phenomena. This fact will be a subject for further investigation.

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