

ADAPTIVE FINANCIAL MARKET AND ITS ADAPTATION TO INVESTMENT BEHAVIOR / FIELD RESEARCH IN THE IRAQI MARKET FOR SECURITIES

Ola Fadhil Alwan & IyadTahir Mohammed

University of Baghdad / Faculty of Management and Economics

RESEARCH METHODOLOGY

THE FIRST TOPIC

The methodology of the research constitutes a plan of action that diagnoses the problem of the study, its purpose and objectives, trying to answer the problematic and cognitive problems, and applying it by trying to reach an understanding of the phenomenon being investigated. Therefore, the methodology is a step in achieving the objectives of the research studies. Accordingly, the present topic presents a presentation of the methodology of the research, including: - The problem of research, its importance, its objectives and research hypotheses, and the tools used in collecting data and information, and statistical methods to present the results and analyze them as follows:

1- Research problem

At present, the concept of financial market efficiency is an issue that is gaining importance in both academia and business in terms of investment practices and government policies, which usually have a detrimental effect on stock markets. Some researchers believe that the emerging market securities market is not Efficient because of their operational characteristics and the nature of investors. Various studies have been conducted on the test of weak financial market efficiency. On this basis, the problem of research is determined in the framework of the following questions:

1. Is it possible to verify the measurement of the moral correlations between the various sectors of the Iraqi market for securities with the period of time or losses or lags (Lag)?

2. Is it possible to test and identify what the adaptive financial market assumptions are and try to create a situation of alignment with efficient financial market assumptions?

3. Do stock prices in the Iraqi stock market follow a defiant model, or are they characterized by random movement in stocks?

4. Is it possible to test the assumptions of the financial market adapted to the Iraqi environment in light of the problem of study and research hypotheses?

2. Importance of research

The importance of the research is to address the subject of the efficient financial market, which is one of the topics that have received the interest of researchers in financial management and still absorbs many researches and subjects, because it provided the theoretical and empirical basis which is the basis of the study, as well as the possibility of combining the ideas of the efficient financial market with topics Others have a behavioral or irrational dimension, which contradicts the most important hypotheses provided for. This contradiction is the most important thing that makes the assumptions of the financial market adaptive as a modern subject that can be developed over different times. The importance of the study can be summarized in the following points:

1. The study is based on one of the most important methods of financial management, which is the analysis of time series that are widely used in the analysis of financial markets.

2. The study is characterized by the introduction of one

of the most important current and important topics for the fact that the adjustment of the financial market is one of the main advantages of the financial markets.

3. The financial market adaptive assumptions of the financial markets are a target for financial institutions because they achieve fairness and transparency for investors. It also provides them with the opportunity to invest justly because the ability of the financial market to achieve adjustment and thus to achieve the efficiency of financial markets which work on the absence of the possibility of extraordinary returns, leading to an investment push forward.

4. The study deals with one of the financial theories that aims to study and develop financial and mathematical models to understand the movements of stock prices and their impact on the financial and economic factors of countries as well as the extent to which they are affected by the movements of financial markets and the behavior of investors.

3. Research objectives

The aim of this research is to provide a conceptual framework for the subject of adaptive financial market assumptions and to discuss financial behavior which is characterized by the expansion of the content of its information because it is concerned with many aspects that confirm the departure from investors making rational decisions which were first discussed by sociologists and psychologists, Psychology with economics, which resulted in the basic subject of research is the assumptions of the financial market adaptive. The present study also seeks to use the method of analysis and experimental testing and a diagnostic perspective for the purpose of reaching concrete scientific facts by researching the environment in Iraq and as follows:

1. Determine the efficiency of the financial market and the extent of the possibility of achieving extraordinary returns in the environment of the Iraqi market for securities, in light of information asymmetry and the reflection on the pattern of investment in general
2. Address the issue of the financial market adapted and develop clear information on the extent and possibility of adaptation to the Iraqi financial market and the role of

improving the image of the financial reality as much as possible.

3. Test the adaptive financial market assumptions by testing regression models in time series analysis, which is a modern statistical subject.

4. Examining and diagnosing the subjectivity of the adaptive financial market and taking into consideration the "financing behavior" aspect, which is an inseparable part of the subject of the financial market adapted to reach clear visions on the subject in order to make a number of recommendations in an attempt to upgrade the Iraqi financial market.

4- Financial and statistical methods

First: Financial Methods:

It is worth mentioning that the variables dealt with in the study derived their laws from the items and paragraphs of "Iraq market for securities", according to the laws used in their dealings and in their directory of companies and as follows:

$$1\text{-Turnover Ratio (\%)} = \frac{\text{Number of shares traded for the full year}}{\text{number of shares issued (nominal capital)}} \times 100$$

$$2\text{- Earnings per share (\%)} = \frac{\text{Current price} - \text{Previous price}}{\text{Previous price}}$$

Second: Statistical Methods:

It is divided into the capital market adjustment test: Linear Tests Non used to measure the "adjustment of the Iraqi market for papers" and divided into: -

A) Autocorrelation Test

Based on Ghazani & Araghi (2014), Hiremath & Kumari (2013), we will first extract autocorrelation coefficients (ρ_k) and then use a testLjung and Box's (1978) portmanteau Q-statistic This test is known as:

$$LB = n(n + 2) \sum_{k=1}^m \left(\frac{\widehat{\rho}_k^2}{n - k} \right)$$

n: - represents the number of views

m: Length of waste or lag

This test is divided by the distribution of a kai box with a degree of freedom (m-1).

2. After the previous step based on the study (Hiremath&Kumari, 2013) we will extract the Runs Test. The frequency is defined as the change in prices by the same signal, which is one of the nonparametric tests. It has been used extensively to verify dependency In the time series that the sequential link test was unable to detect. This test is based on the fact that if the data series are random, the number of actual frequencies in the series should be close to the number of expected duplicates, which is called Expected number of runs (ER) and extracted as follows:

$$ER = \frac{X(X - 1) - \sum_{i=1}^3 c_i^2}{X}$$

Representing the total number of sessions

Ci: number of returns changes of each category of sign (i = 1, 2, 3)

The number of yield changes in each category, with reference to (i = 1, 2, 3)

When X is large, the ER equation will be close to the natural distribution so that the zero standard test can be used for Standard Z statistic.

5. Community and research sample

The sample of the study consists of 21 companies whose shares are traded in the financial market and for the period (2008-2016) and the use of adaptive financial market tests has been written. Special statistical programs have been written for the purpose of reaching

the statistical results Because all these tests are non-linear because of the novelty of the subject.

6- Hypotheses of the study

The study was based on the main hypotheses as well as the sub-hypotheses arising from them as follows:

A-Measuring the adjustment of the Iraqi market for securities

To test the main hypothesis that the Iraq stock market is adjusted.

And based on the sub-hypotheses derived from the main hypothesis and according to the variables of the study as follows:

The Iraq Stock Exchange is a financial market adapted to the behavior of investment through the variable turnover ratio

B - The Iraqi Stock Exchange is a financial market adapted to the behavior of investment through the variable return on the stock

CHAPTER II THE THEORETICAL SIDE ADAPTIVE FINANCIAL MARKET ASSUMPTIONS

X: total number of runs

The concept of an efficient financial market hypothesis was widely accepted among researchers for many years and reached its peak in the 1970s. However, due to the large changes in the financial markets and the irrationality of some participants in the financial market, the efficient financial market hypothesis must be reviewed to achieve performance. As a result, the concepts of finance behavior were used as an input to try to explain the behavioral biases that occur in the financial markets. The researchers also assumed the irrationality of investors that occur as a result of behavioral biases (cognitive and emotional) A new approach called "Adoptive Market Assumptions" was adopted by Andrew Lo in 2004, although the EMH hypothesis is still debated, but a real analysis of the

financial market must be conducted rather than merely theoretical valuation models of efficient financial market assumptions Which are still as theory and do not always work correctly under the real financial market.

First: - The concept of adaptive financial market

The interpretation of the efficient financial market assumptions has changed in recent years and the suffering of how to determine an appropriate view of the mechanism of financial markets has so far led researchers to arrive at what is known as the "adaptive financial market assumptions", which examined financial markets from an evolutionary point of view that allows researchers Of economics, economics and finance, in an attempt to find explanations and predictions that help to make the right decision for investors (Sadeghnia, 2013: 39). Many researchers have recently been interested in economics, finance, psychology, operations research as well as research on anatomy, brain, cognitive science, and many new ideas that are likely to be a different combination (Marco, 2007: 678).

Lo noted that adaptive financial market strategies may be reduced for some time and then return to the possibility of achieving returns when environmental conditions become more favorable to such situations. Therefore, the trading rules are not only reduced, but again to achieve returns when the financial market conditions are good as seen It is not appropriate to assume that the market should move towards an efficient situation. On the contrary, the AMH assumptions are concerned with complex market dynamics such as cycles, trends, and Crashes Bubble (Lo, 2005: 25) Research also suggests that the advanced efficiency of stock markets is that all stock returns in the MENA region are long-term memory and are not efficient markets compared to some markets in countries such as Turkey, Egypt and other markets in the region, due to the existence of some variables such as the average trading and capitalization of the market, and the index of self-dealing which plays a role in the causes of the differences leading to inefficiency in the stock markets in the Middle East (Rejichi&Aloui, 2012: 43) Lo therefore proposes a new version of the EMH EMH hypothesis It suggests that valuable insights can be drawn from a biological perspective, which calls for an

evolutionary alternative to the efficiency of the financial market and therefore suggests that a new model of financial market efficiency hypotheses (EMH) can be adapted to the principles of finance behavior in an intellectually compatible manner. This model is called Farmer (2002), before being formally framed by Lo 2004. He also noted that there is a lot of behavioral bias in funding that is consistent with the evolutionary model For individuals to learn and adapt to the changing environment, and the influence of these forces For evolutionary financial companies and participants in the financial market that determines the efficiency of markets and the performance of investments and businesses and industries (Lo, 2005: 30) and indicated research to summarize the idea of accommodative financial market is through practical outputs (Wilcox & Gebbie, 2016: 35) and as follows:

1. The relationship between return and risk is unstable (non-linear).
 2. The risk varies over time.
 3. Pleasure situations occur in a limited manner.
 4. The market follows Max & Wax strategies.
 5. The need for adaptation and innovation because they are the most important reasons for presence in the financial market.
 6. The possibility of staying in the financial environment is all that matters to the investor.
- While the efficient financial market hypothesis adopted a number of implicit assumptions about the relationship between return and risk (Lo, 2013: 18) as follows:
1. The relationship between return and risk is linear.
 2. The relationship between financial and market variables is constant over time and in different circumstances.
 3. The parameters of the relationship between financial variables are accurate.
 - 4 - rational expectations of investors.
 5. The returns of financial assets are usually fixed (ie, constant distribution over time).
 6. Financial markets are efficient.

This means that the principles of competition, innovation, reproduction, and adaptation are more useful for understanding internal workings in the financial industry than laws similar to the laws of physics, such as Rational Economic Principles. This means that financial market prices do not necessarily reflect always All the

available information can even deviate from rational pricing relationships from time to time due to strong emotional reactions such as fear and greed Fear and Greed (Lo, 2005: 35).

The EMH hypothesis suggests that there is a possibility of achieving expected returns by taking a measure of risk, whereas the AMH assumptions suggest that the relationship between return and risk varies and changes over time. The best way to achieve a consistent level of expected returns is to adapt to Changing market conditions through the development and multiplicity of capacities that suit each set of diverse environmental conditions, and the organizational principle in determining the development of markets and financial technology is simply the possibility of presence in the financial environment, which is the common goal of all participants in the financial market either The issues of maximizing profit, maximizing interest, and general balance are certainly important aspects, but they relate to the market and environment (Todea, 2009: 495).

Also, according to AMH, mistakes are repeated but investors learn from them and adjust them according to economic behavior. Therefore, the approach to the equilibrium situation is unlikely to occur at any time, and the adjustment is driven by competition instead of Speaking independently of the market In other words, batch forces are to survive in the financial market and thus a specific market environment is determined through the natural selection process through Interactions between participants in the financial market (Shahid, 2017: 298). Through a research Which were presented to determine the validity of the hypotheses ADAPTED financial market through the expense of bilateral link statistics bi-correlation in the sub-samples animated sub-sample windows with fixed length frames, and found that the predictability of non-linear nonlinear emerging markets Asian follow a path evolutionary Evolutionary Time Path (Lim, 2008: 285).

Second: - Intellectual ideas about the adaptive financial market **Intellectuals on the Adaptive Financial Market**

The application of evolutionary ideas to economic behavior is not new to the researchers of the history of economic thought, including Thomas Malthus, who

pointed out that the biological aspect of the population increase in engineering rates, while the natural resources increase at the rate of calculation only and then access to many negative results resulting from that increase has been affected Both Darwin and Wallace have these arguments (Hirshleifer, 1977: 89). Wilson first applied systematically the principles of competition, reproduction, and natural selection of social interactions, giving surprising explanations for certain types of human behavior, such as altruism, justice, choice of relatives, language, choice of colleague, religion, ethics, abstract thought as Wilson In this new field, social biology and its beginnings have generated considerable controversy because of some of its potential effects on social engineering and birth control. These ideas have recently been exported to a number of economic and financial fields (Wilson, 1975: 76).

Financial markets are not the product of human evolution, but rather biological, rather than laws, with the same basic principles of mutation, competition, and natural selection that determine the life history of a herd of antelope also apply to the financial and banking industry, albeit with different populations (Lo, 2005: 85). The researchers argue that emotional responses are an important factor in addressing the real time of financial risk, and that they are an important element of an investor's skills that lie in his ability to direct emotion, consciously or Without awareness of specific methods, especially emotions, which are the basis of reward and punishment system that facilitates the choice of certain behavior (Lo, 2013: 323-392). From an evolutionary perspective, passion is a powerful adaptive tool that dramatically improves how participants learn effectively from their environments. These evolutionary foundations are a simple way to compare the participants 'and investors' financial market speculation and the global financial competitiveness of the markets in terms of huge rewards that slowly accumulate in order to survive in the financial environment. The adaptive financial market hypothesis can be referred to as a new version of the efficient financial market hypothesis, and adaptive market assumptions :-

1. Individuals Act in Their Own Self interest
2. Individuals Make Mistakes .
3. Individuals Learn and Adapt.
4. Competition drives adaptation and innovation

5. Natural Selection Shapes Market Ecology .
6. Evolution Determines Markets Dynamics

**CHAPTER III
PRACTICAL SIDE**

Second: Measuring the adjustment of the Iraqi market for securities

In order to adjust the stock market, we will first extract the autocorrelation coefficients (ρ_k) and then test the Ljung and Box's (1978) portmanteau Q-statistic test, where this test is known as:

$$LB = n(n + 2) \sum_{k=1}^m \left(\frac{\widehat{\rho_k^2}}{n - k} \right)$$

n: represents the number of views
 m: Length of the lag
 This test is divided by the distribution of a kai box with a degree of freedom (m-1).
 To capture the changing efficiency or changing nature of the market (adaptive capacity), we produce the Runs Test, one of the parametric tests. This test changes the test signals each time as the positive (negative) changes and so on. , Run is defined as the sequence of price changes with the same signal, and then we produce the expected numbers called (Expected number of runs (ER)) and extracted as follows:

$$ER = \frac{X(X - 1) - \sum_{i=1}^3 c_i^2}{X}$$

X: total number of runs

Ci: number of returns changes of each category of sign (i = 1, 2, 3)

When X is large, the ER equation will be close to normal distribution, so the N-hypothesis can be used as standard Z statistic. In the case of this test with the LB test, the market will be adjusted. If the market is not adjusted, the market is not adjusted or if one of the tests is not valid, the market will be adjusted. In order to measure the adjustment of the financial market, it will be through the following variables: Turnover Ratio 2. Earnings Per Share (EPS)

1- Turnover Ratio: To test the first sub-hypothesis arising from the second main hypothesis: The hypothesis of the study: that the Iraqi stock market adjusted through the variable turnover ratio of the stock. Mean of the results of Table 20 is a number of indicators to be addressed in the table. Mean represents the mean for all years (2008-2016). Minimum and Maximum represents the highest and lowest statistical value for the years of study while SD) Represents the standard deviation. Skewness refers to the torsion and the negative torsion is to the left. The positive torsion is in the right direction, whereas the kurtosis refers to flattening. The flattening and spacing, if they are symmetrical in terms of the graph, we will use linear tests (If they are asymmetrical or similar), then we will use the Nonlinear Tests Non-scientific tests) in the analysis of results and data, as well as that both torsion and flattening do not affect the statistical results only used in the description of the data The results of the benefit and statistical significance of the results are reviewed through the results of Table (20) Results The results of the standard deviations achieved the highest deviations in 2012 as they reached (20.905) and the lowest values for the years 2009,2014 and 11.445.11.669 respectively. Skewness), Ie, the torsion indicates the positive deviation of the whole sample which indicates that the returns are going to the right compared to the natural distribution. This indicates that the positive returns may be greater than the negative returns, whereas (Kurtosis) ie flattening indicates that the dividend distribution was sharp Compared to normal distribution.

Table (1) descriptive statistics of the variable turnover ratio

Sample Period	Mean	Minimum	Maximum	S.D	Skewness	Kurtosis
Full sample	12.144	0.060	85.020	15.547	2.289	5.325
2008	8.284	0.060	36.690	9.378	1.594	2.849
2009	11.119	0.700	43.960	11.669	1.556	2.317
2010	12.087	0.840	48.060	12.911	1.674	2.638
2011	15.352	0.060	62.690	19.220	1.748	1.919
2012	16.475	1.450	66.890	20.905	1.603	1.525
2013	14.133	0.660	63.220	19.020	1.800	2.422
2014	10.723	0.900	49.300	11.445	2.406	6.275
2015	10.095	0.460	62.390	13.679	3.070	11.094
2016	11.027	0.100	85.020	18.323	3.614	14.554

The results of Table (1) indicate that all the results of the research sample were not significant. It is possible to indicate that the values of significance are indicated by the asterisk. However, the results for all years were not significant. Stocks do not have automatic correlation. They should achieve independent returns with each other and for all years of study. That is, stock returns are highly reliable with each other, implying that the distribution of stock returns does not follow the random traffic model. (2) We note that all LB tests and time

regression (5, 10 and 15) were insignificant for all years of study except for the series in general where they (ER), which is shown by the standard Z values, which will be compared with the z-score at the level of (0.05) and the (1.96). We observe that the standard Z values and for all years are smaller Of their tabular value and this means accepting the hypothesis that the Iraqi stock market is not adjusted through the variable turnover ratio They are).

Table (2) Time regression test with grade test for variable turnover ratio

Sample Period	LB(5)	LB(10)	LB(15)	Runs Z Statistics
Full sample	0.104 (12.39)*	0.059 (16.82)	0.214 (29.46)*	1.2802
2008	-0.074 (2.68)	0.137 (6.65)	-0.072 (9.35)	1.1321
2009	-0.334 (4.59)	-0.062 (9.33)	0.006 (17.29)	1.0495
2010	-0.046 (2.20)	-0.026 (5.24)	0.027 (7.36)	1.0682

2011	-0.151 (6.90)	-0.122 (10.59)	-0.044 (23.68)	1.2520
2012	0.274 (7.44)	0.332 (14.15)	0.239 (21.31)	1.2689
2013	0.240 (8.11)	-0.117 (15.15)	-0.065 (17.82)	1.3458
2014	-0.190 (4.55)	-0.176 (9.53)	0.001 (10.38)	1.0673
2015	0.048 (3.42)	-0.074 (8.59)	-0.006 (10.35)	1.3550
2016	-0.061 (0.65)	-0.072 (1.46)	0.008 (3.14)	1.6616

2. Earnings per share

To test the second sub-hypothesis arising from the second main assumption: (The Iraqi stock market is adjusted through the variable EPS) it can be indicated through the results of Table (3) that the average returns are positive for the whole sample, and the results of Skewness Indicating that the positive deviation of the whole sample indicates that the returns are going to the right compared to the natural distribution, which indicates that the positive returns may be greater than the negative returns, whereas (Kurtosis) ie flattening indicates that the distribution of returns was sharp compared to natural distribution .

Table (3) descriptive statistics of the variable return per share

Sample Period	Mean	Minimum	Maximum	S.D	Skewness	Kurtosis
Full sample	0.214	0.003	3.422	0.376	4.931	32.414
2008	0.205	0.019	0.452	0.108	0.172	0.070
2009	0.231	0.010	2.162	0.448	4.406	19.869
2010	0.157	0.007	1.191	0.248	3.955	16.885
2011	0.130	0.003	0.394	0.109	1.171	0.888
2012	0.253	0.008	1.338	0.317	2.502	6.765
2013	0.369	0.007	3.422	0.750	3.763	15.172

2014	0.192	0.008	1.237	0.296	2.734	7.863
2015	0.199	0.010	1.172	0.342	2.024	2.909
2016	0.189	0.017	1.418	0.369	2.793	7.175

As for the results of the table (3), it can be said that the results of the research sample were significant values for the sample in general, especially in 2013. This means that there is an automatic correlation between the existence of revenue independence and the possibility of predicting returns. The results of all the years except (2013) were not significant and the lack of morale indicates that the returns of shares do not have automatic correlation should achieve independence of the returns with each other and for all years of study, that the returns of shares are highly reliable with Each other, and so indicates within The distribution of stock returns does not follow the random walk model. In Table 2, most LB tests and time regression (5, 10, and

15) were insignificant for all years of study except for the series in general. Morality in this test showed a recurrence of time in 2008, (ER), which is shown by the standard Z values, which will be compared with the Z scale at the level of significance (0.05), which is (1.96) where we note that the standard Z values for most years are Smaller than their tabular value. This means that the Iraqi stock market is not adjusted through the variable return on stock (except 2013) which was The value of the Z standard is larger than its tabular value. This means accepting the hypothesis that the Iraqi stock market is adjusted for this year, and also note in the series in general that the market is air conditioned through the variable return on the stock ie the realization of the hypothesis that (Iraq Stock Exchange adjusted Through the variable EPS).

Table (4) Time regression test with grade test for EPS variable

Sample Period	LB(5)	LB(10)	LB(15)	Runs Z Statistics
Full sample	-0.091 (17.26)*	-0.116 (27.82)*	-0.079 (39.89)*	1.9970*
2008	-0.329 (10.45)	-0.016 (21.10)*	-0.022 (25.93)*	0.5268
2009	0.007 (0.37)	-0.017 (0.63)	-0.010 (1.33)	1.9394
2010	0.005 (0.36)	-0.104 (1.31)	-0.038 (2.56)	1.5796
2011	-0.161 (5.49)	0.002 (5.88)	0.004 (14.31)	0.8385
2012	-0.056 (7.90)	-0.116 (9.27)	-0.166 (13.39)	1.2530
2013	-0.024 (1.79)	-0.066 (2.46)	-0.076 (4.32)	2.0325*
2014	-0.003 (10.36)	-0.098 (11.23)	-0.097 (16.41)	1.5417

2015	-0.038 (13.07)*	-0.101 (14.15)	-0.147 (20.69)	1.7186
2016	-0.038 (5.15)	-0.085 (5.94)	-0.090 (8.74)	1.9524

The results of the sub-hypotheses related to the second main hypothesis, which showed most of the time reverberations are not valid as well as most of the tests of grades is not valid and in the case of the indication of some years, we note that the significance is either in the grade test or the test of regression time and in a few of them appeared morale on Monday and as in the following table According to the ratio of each variable:

Table (5) Percentage of the significance of conditioning assumptions for the study years

The percentage of complete insignificance	Full significance ratio	Proportion of grade test significance	Time reversal indication ratio	Variables
%100	%0	%0	%0	Turnover Ratio
%100	%0	%11	%0	Earnings per share

Therefore, it can be said that the main hypothesis of the study is rejected, which states that (Iraq Stock Exchange is not adapted)

THE FOURTH CHAPTER CONCLUSIONS

1 - The statistical results of the test (financial market adaptive) indicated that the flattening and spacing of the results of the study can be said that both were asymmetrical, ie, their results are not governed by any unified laws or statistical tables can be unified for the other studies because the subject of the financial market adapted from the topics Modern statistical tools and modern testing and based on the results of the torsion and flattened results of the study has been the use of nonlinear tests non-scientific tests. As the twisting or flattening of the evidence of its advantages, it does not affect the accuracy of the results only in the description of the data, so actually emerged from the description of

the data of the study torsions negative turn left and then another positive turned to the right, but the researcher deliberately not to address them graphs because it will not affect On the findings of the study of realistic and concrete, but will be addressed by these graphs as a kind of inclusion in the study stuff that will not benefit from anything.

2 - Based on the results of the study can accept the hypothesis of nothingness for all years and that the Iraq market for securities is not adapted through the variables of the study, and we note that the standard Z value of the series in general is larger than the value of z table, meaning that it has significant significance, The time of the time series can be said by accepting the hypothesis

of the study that the Iraqi market for securities is adjusted through the variables of the study.

3 - It can be said based on the results of the study rejected the hypothesis of the study, which states that (the Iraqi market for securities adapted through the variables of the study) for the second main hypothesis, which states (Iraq market for securities is not adapted).

REFERENCES

1. Aurélio, Marco, (2015) "ADAPTIVE MARKETS HYPOTHESIS: AN EVOLUTIONARY VIEW ABOUT THE RELATIONSHIP BETWEEN ENVIRONMENTAL FACTORS AND MARKET STRUCTURE", Electronic copy available at: <http://ssrn.com/abstract=2641194>
2. Lo, A., Repin, D. and Steenbarger, B. (2005) "Fear and greed in financial markets: An online clinical study", American Economic Review 95
3. Lo, Andrew W. (2013) "The Adaptive Markets Hypothesis. Market Efficiency from an Evolutionary Perspective. [interactive]. The Journal of Portfolio Management 30th Anniversary Issue, 2004. [Previewed 25rd Oct 2013]. Access via the Internet: http://web.mit.edu/alo/www/Papers/JP_M2004_Pub.pdf
4. Rejichi, I.Z., Aloui, C., (2012) "Hurst exponent behavior and assessment of the MENA stock markets efficiency", Res. Int. Bus. Finance 26 (3), Saeedi, A., Miraskari
5. Wilcox & Gebbie (2016) "Quantifying Emergence, Risk and Information in Financial Markets" School of Computer Science and Applied Mathematics University of the Witwatersrand, Johannesburg, South Africa.
6. TODA, ALEXANDRU, et al (2009) "ADAPTIVE MARKETS HYPOTHESIS: EVIDENCE FROM ASIA-PACIFIC FINANCIAL MARKETS" The Review of Finance and Banking Volume 01, Issue 1, Year 2009, Sprint ISSN 2067-2713 online ISSN 2067.
7. Lim, K. P., Brooks, R. D., & Hinich, M. J. (2008) "Nonlinear Serial Dependence and the Weak-Form Efficiency of Asian Emerging Markets" Journal of International Financial Markets, Institutions and Money, 18(5).
8. Hirshleifer, J., (1977) "Economics from a Biological Viewpoint", Journal of Law and Economics 20.
9. Wilson E., (1975) "Consilience: The Unity of Knowledge. New York: Alfred
10. Halari, A. (2013) "An Analysis of Monthly Calendar Anomalies in the Pakistani Stock Market: A Study of the Gregorian and Islamic calendars. University of Dundee: PhD. Thesis.