Review

Systematic analysis of invariable and variable factors in securities' transaction of Tehran stock exchange

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ABSTRACT

This research will study the invariable and variable factors, whether they are internal factors or external factors, in transaction of Tehran stock exchange by a systematic method. Tehran stock exchange become unappealing for Domestic investors which is because of internal factors so this makes opportunities for foreign investor to become interested in Tehran stock exchange, also the financial crisis of 2007 and independence of Iran's economic on United States as a result of sanctions caused foreign investors' tendency toward Tehran stock exchange. Economic conditions and political and economic underdevelopment of Iran are main factors of Tehran stock exchange 'inactiveness. In comparison to USA, Turkey and Malaysia market, Some characteristics of Tehran stock exchange is more appealing for foreign investors so in this research this factor is analyzed and its results is indicated by diagrams and tables and at the end, from the study of Tehran stock exchange I will indicate its general results together with its advantages and disadvantages.

Keywords: Tehran stock exchange, system, foreign and domestic investors, predictability, risk, Gold and Currency, statics, political economy

INTRODUCTION

The methodology of general system theory tries to offer a thorough model in objectives, solutions, input and output data, processing, deductive and inductive analysis, technical and fundamental analysis (Bertalanffy, 1973).
In this research, because of the greatness of parameters the "The methodology of general system theory" has been used. "Tehran stock exchange" as a "system" which is in relation with economic cloud systems in international economics and macroeconomics, is under the influence of various internal and external data and variables.

This bourse, in microeconomics as the internal variables, is influenced by various factors which can be studied both by "fundamental analysis" and "technical analysis". Effective parameters in Iran's microeconomics are included of variables such as economic factors (inflation, interest rate) and political factors (government policymaking, political economy). Various psychological, sociological and political factors have major impact on Tehran bourse's function so, lots of input data has impacts on "efficiency and inefficiency of Tehran stock exchange" and at the same time the input of these data has a direct impact on functional output of bourse.

This research tries to study the invariable and variable factors, whether they are internal or external factors, in transaction of Tehran stock exchange by a systematic analysis. With proposing an assumption it tries to specify the impact of these factors for Iranian and foreign investors. In this study some of factors are almost invariable and can be variable in long-term period like

historical, cultural, underdevelopment and geopolitical factors which will be mentioned briefly.

Basic variables in this research are based on capital markets which fluctuate under the influence of macroeconomics, international economics and microeconomics.

RESEARCH METHOD

The addressees of this research are those who live outside of Iran and are willing to obtain thorough information about Tehran's Bourse and that's why both internal and external factors have been considered.

With above presupposition, Global economic system and its relationship with Iran's economics system and also the relationship of these two macro systems with micro system of Tehran's bourse have been scientifically studied. I tried to use an inductive method in comparing Tehran's bourse with bourse of Turkey, United States and Malaysia and provide an outlook for Tehran's Bourse.

The deductive method has been applied for accounting operations, capital efficient market, quality of financial reporting, coins and gold prices, and the impact of internal and external variable factors on predictability of Tehran's bourse index has been discussed.

In another words, in a systematic method, the input data in inside of Tehran's bourse system has been focused, both from inside and outside so the input data which are from outside such as global financial crisis on 2007, macro variables of international politics, the problems of underdevelopment and financial structure of developing countries with global economic growth have been also considered. (Katouzian 1980, 1995; Dadgar, 2005)

According to research method of this paper the main hypothesis of this research is as follow:

Hypothesis

In comparison to Turkey, United States and Malaysia, Tehran's bourse has been studied in multi variable GARCH model from the point of view of international economics, (Abounori and Abdollahi, 2010). Tehran's bourse is under the influence of changes which occur in global economics and global bourses so in this way it is reliable and significant.

For economic and political internal variables, high inflation, control of interest rate by government, risk

evolution and national currency devaluation, Tehran's bourse in not appealing for Iranian and domestic investors.

Main question of the research

Is Tehran's bourse appealing for foreign investors? How foreign investors can become familiar with evolutionary process and condition of this bourse?

Statement of problem

Iran is an ancient country which had the feudal and nomadic economic system until the First Pahlavi period. From the point of view of political economy, Iranian constitutional revolution was the revolution of new emerging urban classes against the power of Shah, Feudalists and Clerics. (Katouzian, 1989; Kamali, 2002; Abrahamian, 2010; Abrahamian, 2008)

The triangle of Shah, Feudalists and Clerics s was the obstacle for the growth of middle class and private sector. The Absolute power of Shah in distrainment of political opponents, the power of clerics in issuing the apostasy and distrainment of dissidents and religious opposition and the feudal power of tribes in spoliation and plundering of rival tribes prevent the capital accumulation and also the formation on new class against the above classes. Religious, feudal and royal tyranny was the main factors for Iranian backwardness in emergence of productive middle class and private sector in Iran. (Seyf, 2001; Alamdari, 2006)

Iran's relationship with west and business growth with west capitalist caused the emergence of a weak middle class which needed a modern nation-state. This nation-state emerged in Reza-Shah period with the suppression of feudalism and the power reduction of Clerics and maintenance   the kingship in a new way. In Iran's economy the finding of petroleum helped a lot to the growth of middle class. During the first and second Pahlavi regime in Iran, a powerful middle class had been shaped. This middle class saw himself only against the strong leverage of tyranny which was kingship so by the revolution of 1357(1979), the third factor of tyranny, kingship, was also destroyed. After 1979 because of global bipolar system and west support from Islamic fundamentalists against the Marxists, Clerics took the power again. Moreover, the Iranian religious-mystical culture couldn't accept the west culture, so the condition was available for the empowerment of Clerics. The second Pahlavi's   government was the strategic allied of

United States and because of that it supported the class of state capitalist and oil rent.

The empowerment of state capitalists, growth of domestic production and increase in importance and power of militants during the second Pahlavi period had become unpleasant for United States and west, so they stop supporting Mohammad Reza Shah Pahlavi and instead, they support the Islamic revolution secretly against the domestic Marxist party and the Soviet Union.

"Clerics" with their emphasis On "Bazaar class" stood against the "production-oriented Capitalism" and" factory owners". They start private property apostasy of "governmental capitalists" and the Islamic government possessed the artificial, economic rental and governmental private section of Pahlavi's period in an exclusive way.

During these political changes, Tehran's bourse has stopped its activity and then for Iran -Iraq war in became completely inactive and closed.

After wars, at the time of Akbar Hashemi Rafsanjani's presidential, the construction period began. A Major economic policy of Islamic republic of Iran at that time was the free-market economy which was tendencies toward the west capitalism and growth of private section (Ehteshami, 2006; Amir Ahmadi and Manochehr Parvin, 2006; Mirtorabi, 2008).

These policies continued with the fluctuations of Iran's political economy. Islamic republic of Iran became the propagandist for Islamic banking, Islamic insurance and Islamic capital market in the world; in this regard the Usury-Free Banking Act and also the issuance of Participation papers Act had been enacted. The most important issue in this field is renting based securities (Ijara-sukuk). Renting based securities are flexible securities which can be suitable and responsive for all kind of investors and issuers' needs. At the same time, these securities can keep the related rights and obligations and indicate alternative solutions for investment means with conventional fixed income such as deposit bonds, ABS (Asset -Backed Securities), bonds, FRANS. Another word renting base securities is the joint ownership document of a part of property or part of collection properties and the profits which will gain from this property (or properties) will belong holder of these renting based securities (Ijara-sukuk). It means that a company, has converted its properties to securities by the issuance of Sukuk and by selling Sukuk to investors, it can gain liquidity.

In nutshell, Sukuk is an Islamic means which is tradable and can be ranked Islamic economic system. It can meet the legal and religious problems of capital market. (Aram Bonyar, 2009)

In 1994, participation paper was created for increasing people's participation in economic activities and for providing variety in financial means and also providing financial sources for creation, completion and development of public and private profitable project through non-bank sources. Based on securities market law which was approved on 2005, securities define as follow: "securities are any kind of paper or document which provide the negotiable instrument for the owner or guarantee its profit" (Aram Bonyar, 2009).

Development of capital market in the last two decades of pre-revolution and construction period after revolution caused that the organizing and monitoring process on corporations become dissected in Iran's commercial law especially in its amendment on 1968. However, corporate governance as its today sense wasn't noteworthy until the few last years. At the beginning of 2000s, the managers of Tehran stock exchange, Majlis (Iranian parliament) research center, expert committee of ministry of economic and finance affairs started the studying of corporate governance in Iran. These analyses showed that one of the governing structures at international level is also exist in governance structure of Iranian corporations.

Corporate governance structures and be divided to two categories: internal governance structures and external governance structures. Internal governance structures are those systems and structures which all the accepted corporations in the bourse of a country are controlled by a limited number of influential and powerful shareholders. This shareholder can be categorizing in some groups which are: establishers, banks which providing credits, other corporations and even government. In not too far years, almost every commercial units were controlled by government either directly or indirectly so we can say that the corporate governance instructors were internal but in the last few years, it has been lot of effort for expansion of influence of capital market and that shows the will of state authorities for establishment of external governance structure. For example in the third and fourth development programs, it has been lots focus on privatizing the governmental organizations and this is actually a means for the establishment of external governance structures (Mashayekhi et al., 2008).

Along with development programs, legal monitoring and control which is based on commercial law (specially article 144 to 156), capital market law, laws and

procedures of Iranian association of CPAs (Certified Public Accountants) and laws and procedures of Iranian audit organization are the other factors which helped a lot for the establishment of external governance structures and control mechanisms in Iran's today economy. (Hasas Yegane, 2006)

Fortunately at the end of 2004, research and development center of Tehran stock exchange brokers, issued the first executive instructions of corporate governance in Iran. This instruction is consisted of 22 article and its contents was about the responsibilities of board of directors and shareholders, disclosure of financial information, accountability, auditing and necessary definitions. In 2006 According to ownership structure, the condition of capital market and commercial law, this instruction has been revised. In 2008 a new draft has been prepared and sent to the Tehran stock exchange in order to be approved.

It has to be mention that Iran's capital market is inexperienced right now and has recently started to move forward, and because of that, one can see characteristics of both internal and external governance structures in it. For example pension funds, insurance organizations, finance and credit institution have the most of share which is offered in Tehran stock exchange, so in practice minor shareholders are unable to control commercial units. On the one hand the auditing the financial statements of accepted companies is mandatory and on the other hand there is no appropriate system for monitoring the internal control of commercial units. Iran is among those countries which provide a little support for shareholders and creditors, the range of owners of commercial units is not that big and the authenticity of financial reporting of corporations is law and their corruption is high. (Mashayekhi et al., 2008)

Internal variables which have impact on Tehran's bourse

Internal variables which have impact on Tehran's bourse are not unrelated to external variables but cannot be studied here.

1) One of the most important internal influential factors is the notification of general policies of article 44 of Iran's constitution. (Norawsh and Hesarzade, 2010)

For the execution of this law, the authenticity of accounting profit in Tehran's bourse can attract more investment in this bourse. Iraj Norawsh and Reza Hesarzadeh have done an exclusive research in this

regard, they noted that: "by testing the hypothesis which were related to interest validity and economic situation of corporation showed that companies with limitation in their financing have lower interest validity in comparison to other companies , here, there is a significant relationship between interest validity of accounting and the value of company also there is a relationship between interest validity of accounting and fluctuation in cash flow of a next operation" (Norush, 2010)

A) According to paragraph 1 of article 110 constitution, the Notification of general policies of article 44 of Iran's constitution which is included of submission of 80% of factory shares and large state enterprises provides grounds for execution of very important goals such as acceleration in the growth of national economy, expansion in public ownership in order to provide social justice and poverty alleviation and the twenty- year outlook's goals.

For securities market, efficiency is very important because in this way the capital allocation which is most important factor in economic production and development can be done desirably. Moreover securities prices can be set properly and fairly. In another word the most important characteristic of an efficient market is that the set price of securities in the market is a proper index of its real value (Jahankhani and Abde Tabrizi, 1993).

The unfolding the bourse performance can help people to determine their investment strategy in order to make decision for share trade in the bourse. If the market has a low efficiently then the technical analysis becomes useless because there isn't any information in history of shares in order to be effective for future prediction. (Raei and Talangi, 2005)

In the markets which the performance information of corporation is not available or is given to participant gradually, investors will face with problems for choosing the best investment opportunities and at the end the optimal process of allocation and mobilization deviate resource from their original path. (Ghalibafe Asl and Nateghi, 1385)

Previous researches about efficiency in Iran are mostly conducted for testing the general efficiency of Tehran stock exchange, the fifty more active corporations in the bourse, small and large corporation and industries. In this paper the low information efficiency of top corporations of article 44 which is presented in Tehran stock exchange has been studied by the use of Leo and Mockingly variance ratio test. The low information efficiency of top corporations of article 44 shows if the shares prices of these corporations reflect the information

which is latent in the history of prices and has been resulted from the historical sequences of prices or not.

B) Experimental research and studies in Tehran stock exchange: The efficiency of Tehran stock exchange has been studied in numerous researches which have been conducted by the use of correlation method, Filter rule, Run Test, Variance Ratio Test, ARCH and GARCH family models. In following the results of some of these researches have been studies:

In 1374, Namazi and Shoshtarian had tested the low efficiency of Tehran stock exchange with the use of serial correlation coefficient method, normality test and filter method. The analyzed data was the daily and weekly prices of 40 firms from 1368 (1989) to 1373 (1994).

The results show the inefficiency of Tehran stock exchange at low level. About 83% of these firms, after calculating the commission the resulted returns from filter method was more than buy and hold strategy and a particular pattern has been observed in the share price behavior of Iran stock exchange. (Raei and Talangi, 1384(2005))

In 2005, Eslami et al, with the test of "comparison of returns average of filter methods with returns of buy and hold strategy" studied the efficiency of 50 most traded firms. The following the hypothesis definition of this research:

H0: The returns of filter methods ≤ the returns of buy and hold strategy
H1: The returns of filter methods ≥ the returns of buy and hold strategy

According to above, with specification of filter methods and buy and hold strategy for the data from 1989 to 1994, the comparison of the returns of filter methods with buy and hold strategy has been studied. The results of filter methods indicate that the returns of filter methods in smaller than the returns of buy and hold strategy. Based on the sampling method of this research, the efficiency of Tehran stock exchange for those firms which had trades at least in 70% trading days of the year was at low level.

In 2006, Ghalibafe Asl et al., have been tested the efficiency of Tehran stock exchange and some subsections of the market (large firms, small firms and different industries) from 2000 to 2004 by the use of ARCH and ARIMA family models. The findings of this research didn't approve the efficiency of Tehran stock exchange and its subsections.

In 2008, Babalouian and Ghalibafe Asl have been tested the efficiency of Tehran stock exchange and its subsections from 2003 to 2007 by the use of coefficient correlation, Run test, unit root test and variance ratio test. The following are the hypothesis does this research:

1- The efficiency of Tehran stock exchange is at low level.
2- The 50 most active firms in Tehran stock exchange are efficient at low level.
3- Tehran stock exchange in the section with high liquidity firms is efficient at low level.
4- Tehran stock exchange in the section with low liquidity firms is efficient at low level.
5- Tehran stock exchange in the section of various industries is efficient at low level.

The findings of this research didn't approve any of the above hypotheses from 2003 to 2007. So regarding the numerous pervious researches the low level efficiency of Tehran stock market has been rejected. There has to be mention that the study of Sadeghi Batani for the period of 1999-2004 indicates that efficiency of firms belong to those firms which have trades at least in 70% of trading days. (Shams et al., 2010)

2) The second internal variable is the changes in price fluctuations of Bahar Azadi coin and currency of Tehran Mercantile Exchange. Ahmad Ahmadpour and Marziye Nikzad have been studied this variable in a separate research. They noted that:" for determine the relationship between Bahar Azadi coin's cash market and future market, and since they are the only active future contracts and regarding to the nature of data we used the two variable GARCH model and Johansson Test. At the findings of Johansson Test indicates that there is long term relationship between the Bahar Azadi coin prices of cash market and future market, there are also some evidences which indicate that future market leads the cash market."(Ahmadpour, Nikzad, 2011).

3) Risk, price fluctuations and predictability of Tehran stock exchange
A) One of the supportive policies which is applied with the goal of investment risk decrease in Tehran stock exchange is the fluctuation limits rules which has been studied by Jalali Naeeini et al. sometimes these rules course an decrease in the market efficiency . According to findings of GARCH-M model, for considering the dissimilarity of conditional variance, after Appling of fluctuation limits rules the efficiency of Tehran stock exchange is decreased. (Naeeni et al., 1389)
B) The role of liquidity, currency and Bahar Azadi coin in fluctuations of Tehran stock exchange has been pointed out before. Bidgoli and Jola had studied the relationship

between capital structures and systematic risk of accepted firms in Tehran stock exchange. (Bidgoli, Jola, 2010). They had proposed that the use of financial leverage and the fluctuations of financial leverage degree can have impact on systematic risk on a very low percentage. There isn't any significant relationship between financial leverage and systematic risk on the level of 90% and 95%.

This systematic risk management is also studied by Talebnia and Barzigar particularly for pharmaceutical firms. The have noted that the unsystematic risk of pharmaceutical firms which has been accepted in Tehran's bourse is far more than their systematic risk. So the biggest risk which threaten the share returns of pharmaceutical firms is caused by the internal factor, the firm Management or pharmaceutical industry, in other word the market factors had a little impact on the risk of shares returns of pharmaceutical firms. We can surely say that, drug supplement is an obligation for all the governments in every situation since it is an essential and strategic commodity, so the medicine industry is not influenced by environmental developments.

Shortage of raw materials, medicine importation, production without attention to market requirements, low sale price, price control by government and the other factors cause increase in medicine industry (Talebnia and Barzigar, 2008).

c) Predictability of Tehran stock exchange's index

Analysts of Tehran's bourse show lots of interest in this regard. There are so many researches about this issue so we cannot mention all of them (Kordestani et al., 2011; Yazdi et al., 2008; Talane et al., 2011).

Samadi et al., had conducted a separate and thorough research by the use of random walk model, autoregressive model and 3models from family of autoregressive models such as autoregressive conditional heteroskedasticity in order to remove linear function in time series and they also use 5 test in order to diagnosis non-linear functions in residuals. These 5 tests are: McLeod-Li test, Engle-M test, BDS test, Bicovariance Test and Tsay test. According to findings of these studied models, the hypothesis that says there is random walk in series has been rejected so it proves that there is predictability in the studies series. This study and other researches of Kordestani et al verify the predictability of Tehran's bourse. (Samadi et al., 2009; Kordestaniet al., 2011)

International factors and variables in Tehran stock exchange.

Iran is a country with numerous neighbors which have two big seas on the north and south. So in this regard Iran has a geopolitics importance. This importance has caused an important geo-economics role for her (Fuller, 1991).

From a historical perspective, there are so many factors which caused the backwardness in Iran. Iran is among the underdevelopment or developing countries. Economic development of a country plays an important role in capital market and bourse of that country. Achieving economic development is related to freedom, democracy, production, structure of financial system and other factors. In developing countries, capital market is characterized by its financial services (Mohammad Gholi Yosefi, 2009; Salehabadi, 2010).

After the Islamic revolution in Iran, the economic development was based on Self-sufficiency and independence to foreigners. Moreover, the policy of state economy and fading the private section caused state capitalism, oil rents, corruption and gap between classes since 1980s (Moslinejad, 2005).

Revolutionary policies and international sanctions create a notable decrease in the dependency of Iran's economy to global economy. Consequently, with this decrease; Iran didn't affected by a lot of global economy's crisis. International financial crisis on 2007 starts when the housing prices blew out in United States, consequently the global bourses get affected while Tehran' bourse get a better growth for a while but according to more profound studies, in long term we will face the impact of this crisis on Tehran's bourse.

With the help of Auto regression Distributed Lag (ARDL) Moslem Ale Bosoyelm and Hossein Karimi showed that the crisis of 1977 had affected the Iran's economy through decrease in the demands for purchasing petroleum of the countries in crisis and falling of oil price (Ale Bosoyelm and Karimi, 2011). This crisis had some impact on Tehran stock exchange too. The other economic macro variables on international level have significant impact on Tehran's bourse. These impacts were on the efficiency of Tehran's bourse which was through money stock, inflation rate and Gross Domestic Product (GDP).

In 2008, In order to have an accurate understanding, Pourheydari and Pahlevan had compared the activity of Tehran's bourse with stock exchange of United States, Turkey and Malaysia. This study was based on the weekly data of shares index from October of 1997 to March of 2010 and indicated that from the efficiency of United States stock exchange there has been significant

and positive effects on these markets except Iran (Abonouri and Abdollahi, 2011). So we can conclude that Tehran stock exchange is appalling to foreign investors.

CONCLUSION

With thorough perspectives to functional system of Tehran stock exchange and with regard to situation of Iran's political economy, we can conclude that:

1. Iran's capital market is inexperience and developing.
2. The policies of government for supporting private section are increasing but they aren't successful.
3. For Iran's special political situation which is due to post-revolution period, Tehran stock exchange is appealing for foreign investors.
4. Internal factors and variable resulted in the inefficiency of Tehran stock exchange…
5. Tehran stock exchange is predictable.
6. Risk management in Tehran stock exchange is low particularly in Pharmaceutical Industry and is interesting for domestic and foreign customers.
7. For international sanctions, Iran's development programs are at slow basis and can be an opportunity for foreign investments.
8. In comparison to stock exchange of Turkey, Malaysia and United States, Tehran stock exchange is less affected by the international crisis of 2007 and downturn of United States stock exchange.
9. Independency of Tehran stock exchange from United States stock exchange is considerable for foreign investors especially at the time of United States crisis and downturn.
10. For government's control on currency and Bahar Azadi coin Rate and high inflation, Tehran stock exchange is not desirable for domestic investors.

The findings of this research approve the hypothesis

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The descriptive statics of return series

IRAN	MALEYSIA	TURKEY	USA	
0.003112	0.000680	0.004968	0.000280	Mean
0.001577	0.001439	0.007142	0.001568	Median
0.083735	0.265182	0.211158	0.113559	Maximum
-0.048757	-0.190268	-0.200256	-0.200837	Minimum
0.013819	0.033615	0.051866	0.027296	Standard deviation
0.956837	0.384017	-0.223326	-0.764582	Skewness
8.856100	13.12883	4.764419	9.136509	Kurtosis
1026.395	2790.244	89.58017	1081.534	Jargue Bera
0.000000	0.000000	0.000000	0.000000	P_Value

The statics of Dickey Fuller and Levin Box Test

USA	MALEYSIA	TURKEY	IRAN	
Statics of t in ADF Test				
-9.969394	-7.821838	-11.37712	-9.748638	Base on AIC Minimum
-26.49092	-16.27827	-020.26265	-9.748638	Base on SIC Minimum

The statics of Levin Box Test for return series

P_Value	Statics	P_Value	Statics	P_Value	Statics	P_Value	Statics	
0.097	2.0874	0.027	6.3271	0.000	32.919	0.000	255.86	Q(1)
0.088	3.3419	0.018	8.0399	0.000	39.844	0.000	258.76	Q(2)
0.042	8.2078	0.045	8.0474	0.000	45.672	0.000	437.82	Q(3)
0.062	8.9467	0.000	21.197	0.000	45.735	0.000	486.05	Q(4)
0.044	11.395	0.001	21.253	0.000	45.968	0.000	516.62	Q(5)
0.031	13.844	0.001	22.495	0.000	46.361	0.000	532.73	Q(6)
0.006	19.768	0.000	31.103	0.000	51.174	0.000	540.95	Q(7)
0.011	19.826	0.000	32.441	0.000	51.395	0.000	550.27	Q(8)
0.008	22.389	0.000	32.679	0.000	52.194	0.000	553.34	Q(9)
0.006	24.584	0.000	35.380	0.000	53.159	0.000	557.82	Q(10)
0.007	25.819	0.000	37.356	0.000	54.711	0.000	563.42	Q(11)
0.009	260654	0.000	38.252	0.000	54.711	0.000	565.22	Q(12)

The results of vector diagonal GARCH model

USA		MALEYSIA		TURKEY		IRAN		
Ratio	P_Value	Ratio	P_Value	Ratio	P_Value	Ratio	P_Value	μ_{0i}
0.0619	0.001570	0.001815	0.0218	0.003578	0.0214	0.0031	0.000954	μ0I
0.021649	0.7603	0.001866	0.9739	-0.022184	0.8262	0.598093	0.000	μ1I
								μ_{1i}
0.01603	0.4890	0.052984	0.0025	0.209588	0.000	0.006395	0.2523	μ2I
								μ_{2i}
0.019645	0.4740	0.049536	0.1995	0.282765	0.000	0.010242	0.1409	μ3I
								μ_{3i}
-0.091347	0.0317	0.139065	0.0001	0.363886	0.000	0.005157	0.6439	μ4I
								μ_{4i}
						0.109464	0.000	AI1
								a_{i1}
				0.022757	0.0168	0.000352	0.9942	AI2
								a_{i2}
		0.027914	0.0023	-0.034653	0.2514	0.000978	0.9402	AI3
								a_{i3}
0.076139	0.0001	0.004165	0.8505	0.025003	0.0381	0.01219	0.5651	AI4
								a_{i4}
						0.887226	0.000	BI1
								b_{i1}

The results of vector diagonal GARCH model continues

USA		MALEYSIA		TURKEY		IRAN		
Ratio	P_Value	Ratio	P_Value	Ratio	P_Value	Ratio	P_Value	
				0.970601	0.000	0.621822	06682	BI2 b_{12}
		0.956947	0.000	0.867656	0.000	0969840	0.000	BI3 b_{13}
0.907589	0.000	0.858455	0.0048	0.964361	0.000	0906855	0.000	BI4 b_{14}

The diagram of the process of stock index in USA, Turkey, Malaysia and Iran
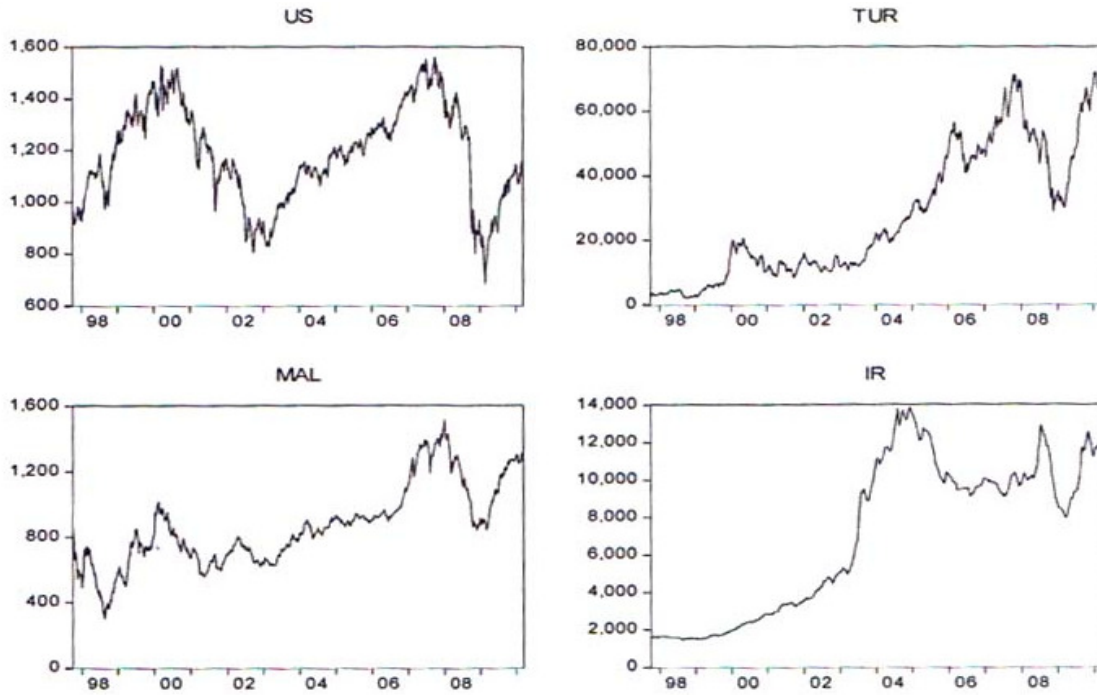
We can see these phenomenon's in bellow figure