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Article *in* SSRN Electronic Journal · March 2008

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INEFFICIENT STOCK MARKET GENERATED BY ADVERSE INFORMATION

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Niagara University

Friday, 05 March, 1999

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AVOIDING THE INEFFICIENT STOCK MARKET GENERATED BY ADVERSE INFORMATION

ABSTRACT: *This paper aims to search the high volatility of stock prices in stock market crises produced by adverse information, throughout investigating the links between stock price volatility and the institutional features of the major stock exchanges as exist in practice. The study finds that the causes of stock market crises reside in First, the noise trading and overreaction of stock traders. Second the increasing linkage among the international stock markets. Third, the effect of the option markets. Fourth some of the present institutional features of the stock market structure.*

The paper suggests reforms to curb the possible causes of stock market instability. The reforms relate to regulations concerning bearer share certificate, outside stock trading, controlling of high price fluctuations, price quotations, and stock dealing methods and cash settlement systems. In addition, the paper discussed the ***holding own share's model*** *as a new financial instrument to support the stock market price in case of market crises.*

Introduction

In the last decade, the international stock market witnessed in-stable conditions in the major exchanges as the two market crashes of October, 1987 and October 1989. In addition, the ratio of changes in stock prices indices reached in many of the international stock exchanges two digit numbers in short periods, which are not justified by the market or economic rules. For example, the average rate of price indices for the major twelve international stock markets fell down about 22% during 1990 [ASE in 1990]. The very high price fluctuations -up and down- continued in 1991 and 1992. The above phenomenon in the stock market has the following features:

First, it is associated with the international major stock market rather than the local stock markets. Second, it is related to the industrial developed markets and not to the new emerging equity markets. The new emerging equity markets have low correlation with developed markets [Harvey, 1995 and Bekaert, 1995].

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Third, it may be connected to some institutional features of the international stock markets.

Fourth, the market crisis initiates in one stock market and spreads out to all other stock markets across continents, because of the increasing linkages and interactions among the international stock markets.

Fifth, there are no obvious or agreed upon reasons for the occurrence of such crises and high stock price volatility.

Table No.
Changes in Returns For Stock Equity for Different Indices
Between 1998 and 2000

Regional Markets	1998	1999	First Half 2000
All Countries	-25.3	66.4	-9.0
Asia	-11.0	69.4	-10.5
Europe and Middel Eaest	-26.0	79.6	-7.0
Latin	-35.1	58.9	-5.1
All Mature Market (MSCI Worl)	24.8	25.2	-2.3
US S& P 500	28.6	21.0	-0.4
U. S. Nasdaq	39.6	85.6	-2.5

Source: IMF **International Capital Markets**, Sempteber, 2000

The above high stock price changes raise the question of the efficiency of the present stock market. The stock prices are supposed to respond to accounting data, dividends, and economic facts under the hypothesis of the market efficiency. However, in many cases as we witnessed in the last decade, the price movements are influenced by other conditions such as: the adverse information affect, the noise trading, and the overreaction of traders in stock markets, which will be defined in this study as inefficient stock market. Thus may lead to stock market crises in which price movements, shares trading and traders' behavior become unpredictable.

By the end of 1998, the IFCI composite index of Emerging stock markets performance stood about half of lts July 1997 level, having falling about 45% in seventeen month period (IFC Fact book, 1999).

Purposes of the Study

Accordingly, the inefficient stock market situation and the adverse effect of overreaction and noise trading on price volatility need to be examined in various ways and under different conditions and assumptions. Thus, this paper aims to participate in this regard. In more details this paper is intended to accomplish the following purposes:

First: To investigate the causes of the emerging inefficient stock market that may lead to a market crisis.

Second: To discuss possible reforms of stock exchange regulations that may be helpful in alleviating the effect of market crisis, mainly the regulations concerning price movements, cash settlement, pricing systems, trading and dealer systems and other regulations.

The above issues will be discussed based on scrutinizing the related literature concerning the empirical studies dealing with the stock price volatility and market inefficiency cases. Reviewing of the literature related to concepts of inefficient, price volatility and imperfect stock market in various conditions. And investigating the links between stock price volatility, stock trading behaviors, and the institutional features and market structure of the major stock exchanges that exist in practice.

Causes of the Stock Market Inefficiency:

There are no clear causes of the stock market inefficiency, many empirical studies and official reports which investigated the late two stock market crashes concluded contradictory findings and stated various causes. In addition, there are various opinions among different groups of experts concerning the total elements that minimize the probability of evolving a stock market crisis [Sabri, 1995 a]. However, there are some agreements on the conditions that cause the stock market inefficiency, which may be summarized as follows:

The noise trading and overreaction: The noise trading and stock trader overreaction are considered as the number one cause for stock market crises and for the high stock price swings. Several studies investigated the influence of noise trading and the adverse information effect on stock trading during and after the 1987 crash. A study reported that the overreaction was an important part of the 1987 crash, and the corporate insiders did not systematically foresee the crash [Seyhun, 1990]. Another one stated that a portion of the losses on S & P stocks in October,

1987 was related to the magnitude of the trading volume and not to real economic factors [Blume, Mackinlay and Terker, 1989].

Similar conclusions were reported by studies that were conducted before the two major crashes occurred in 1987 and 1989. For example: a study reported that the "noise trading make it very difficult to test either practical or academic theories about the way that financial or economic market work [Black, 1986]. Another study found out that the stock prices are far more volatile than can be justified on the basis of real economic events [Shiller, 1981]. The overreaction and noise trading also create much risk that may reduce the capital stock and consumption of the economy [De Long et.al. 1989]. The noise trading and overreaction of stock traders are a serious cause because it moves from one stock market to another instantly, may not be predicted, and it is difficult to deal with.

The increasing linkages among the international stock markets: There are increasing linkages among international stock markets, expressed by the increasing share of the listed foreign firms in the international stock markets. For example, the listed foreign firms form more than one half of the total listed firms in some stock exchanges such as Zurich and Amsterdam. In addition, there are increasing shares of the non- residents' transactions in the international stock markets. The increasing linkages among the international stock markets create high correlation and interrelations among price indices as indicated in practice as well as reported by various studies.

The interrelations between trading and prices among stock markets extended to hourly price changes and even to the open to close returns of stock prices, such as the US. and the Japanese market [Becker, Finnerty And Gupta, 1990]. Accordingly, any adverse information or overreaction occurring in one stock market will spread out to other markets instantly, and may lead to the stock market crisis. The stock market experts perceived the falling of the international stock price indices in some stock exchanges as the most risky factor to the other stock exchanges [Sabri, 1995 b].

The effect of option markets: several reports accused the option market to be the reason for the high stock price movements in the major stock international markets. For example: an inquiry committee discussed to what extent do buy and sell transactions in Dutch option market determine price development on Amsterdam Stock. The report stated that there was evidence that some of the options' series did have the effect of increasing volatility, but it is very difficult to conclude that the prices' peaks are determined purely by option volumes [Stock Exchange Association & EOE, 1990]. Another study reported that as a result of examining the option transactions' prices prior to 1987 crash, the crash was expected, but it had no strong crash fears during the two months preceding the crash [Bates, 1991].

The institutional features of the stock market: Financial experts started to examine whether some of the present institutional features and the structure of the stock market is associated with emerging stock market crisis at certain events. Some believe that the 1987 crash might not have been as large as it was if more orderly trade mechanisms had been maintained [Harris, 1989]. Recently, official reports and research investigate the issue in this regard. This includes computerizing of the stock trading transactions and using computer terminals in transmitting trading orders rather than personal handling, the present trading and auction methods, the period and methods of cash settlement, list requirements and trading outside stock exchanges, and other related exchange regulations. A study concerning the stock market structure about the 1987 crash, indicated that circuit breakers may have moderated the speed of the crash in some markets, but there is no evidence of a relation between the existence of computer trading and the performance of markets during the crash [Bertero and Mayer, 1990].

Another study examined the price formation under two trading mechanisms and indicated that a periodic auction trading offers greater price efficiency where a continuous auction trading fails, and suggested switching to the periodic method in times of market stress [Madhavan 1992]. However, more studies should be directed to examine the differences in the stock exchanges regulations and their market structure, in order to indicate whether there are special merits that may have negative or positive effect on stock market stability.

Possible Solutions:

To consider the above causes, various reforms of the stock market regulations and solutions expressed by new financial instruments are to be introduced and tested in order to curb the possible causes of stock market instability. This paper will address the issue by presenting suggestions related to new reforms of the stock market exchange operations as well as by introducing **the repurchasing of its own shares** as a possible financial instrument to stabilize the stock market.

Reforms of the stock market exchange regulations: In light of the stock market experiences in the last period and considering the findings of the related research and the official reports, several reforms have to be introduced concerning the stock market exchanges, which may be summarized as follows:

Reform concerning the bearer share certificate and stock trading outside the stock exchanges: most of the European corporation laws permit exclusion of the name of the person who holds the stock from the share certificate which is an evidence of ownership. The bearer share certificate means no control over the share trading of the listed securities outside the stock exchanges as long as it requires only handling certificates without changing the companies' books. In addition many stock exchanges permit the trading of the listed firms to be conducted in and outside exchanges. Observers recognize that the volume of the outside trading for the listed shares may be estimated to be as many times of the inside exchange trading.

This means that many various share prices may exist beside the exchange stock prices, and may increase the overreaction of stock traders and noise trading in certain events. The bearer share certificate and stock trading outside the stock exchanges may make the job of controlling stock markets unmanageable, in case of crises as long as there will be no control over trading outside the stock exchange. The bearer share certificate may be associated to the fact that the effects of the two stock market crashes were higher in some European stock markets than in the USA that uses the named share certificate. Therefore, the effect of stock trading outside stock exchanges should be examined thoroughly in case of a market crisis, and to confine the stock trading for the listed firms to trading inside exchanges. Accordingly, there is a need to change a-

the related corporation laws to replace the bearer share certificate by the named certificate. B- the related stock listing regulations of exchanges

Control of high price fluctuations by the board of stock exchanges: Many of the international stock markets started to introduce and apply regulations related to freeze or stop stock trading when high- low price movements reach a stated level in one trading day. Through interference of the stock exchange governor to regulate the manner, and monitor the price situation. It is applied in various stock exchanges such as Frankfurt, and Amsterdam. However, this paper is suggesting that all international stock exchange regulations should consider a model for controlling stock prices, and they may use different rates and mechanisms.

Reforms concerning the price quotations and stock dealing systems: There are numerous methods which are followed in the various stock exchanges, such as: methods of determining the stock price quotations on trading day for the listed stock securities, methods of trading and stock auctions, qualifications and tasks of exchange members including specialists, brokers, and dealers, as well as the methods of stock trading orders. It is obvious that some methods may function positively during stock market crises than liberal methods of trading operations.

However, there is a need for intensive study to test the influence of the used methods in stock trading stability, in order to exclude the methods that might have negative effect in stock price stability. Such as to separate the function of stating stock prices from executing orders, to prevent brokers and dealers who bring stock orders and conclude deals from trading for their own account, and to use the single standard price method instead of continuous price auction in crisis times.

Reforms concerning cash settlement systems: The stock exchanges use different cash settlement methods and periods to complete the stock trading operations. The cash settlement period extends from one working day in some stock exchanges to several weeks in others. In addition some stock exchanges give an additional accounting period, and permit using the margin financing techniques instead of paying 100% of the price. However, with increasing linkages among stock markets the period and the method of cash settlement for stock trading operations in some of the stock exchanges need to be considered in light of its effect on stock trading in market

stress. And it is recommended to use a more conservative way of cash settlements of stock trading.

Repurchase the own shares and holding them for future reselling: Which is known legally as treasury stocks, generally, corporations may repurchase their own shares mainly for one of the following reasons: First, for pension and compensation plans for employees. Second, to invest some of the surplus cash that may be available at a time. Third, in case of recalling the redeemable equity shares. Fourth, as a substitute for dividends to have a positive effect on the stock market prices of the company. However, this paper is suggesting to use the repurchasing own shares as a new financial instrument to be called the **holding own shares' models** to sustain the stock market price in case of market crisis produced by adverse information. The related studies indicated that a stock repurchases announcement generates a higher stock price response than a dividend announcement [Ofeer and Thakor, 1987]. Accordingly, the repurchasing of own shares by the corporations creates a positive effect on stock prices, and the question here is related to the possibility of using the same concept of repurchasing in stock market crises. Therefore the study suggests using the concept of repurchasing of own shares, for a distinctive purpose, and thus with unique legal, financial, tax and accounting aspects. The exclusive purpose of repurchasing own shares is that the firm interferes in the stock market to buy its' own shares if the share prices fall to a certain level, and to be held in a liability account called **holding own share fund**, and not as an asset. In order to be ready for reselling (reissuing) at a convenient time or when the share prices rise to a certain level.

Summary and Conclusion

This study aims to search the issue of the high volatility stock prices as a result of inefficient stock market produced by adverse information and the overreaction of stock traders. In order to explore the causes of the instability of stock markets as well as to suggest reforms and solutions. The stock market inefficiency may be associated with four major causes including, the noise trading and overreaction of stock traders, the increasing linkages among the international stock markets that creates high correlation among price indices, thus overreaction occurred in one stock market will spread out to other markets, the effect of option market and some of the institutional features of the stock market structure.

To curb the above possible causes of stock market crises, the paper intimated reforms related to stock exchange regulations and to the bearer share certificate. In addition the paper introduced the holding own shares model as a new financial instrument to sustain the stock market price in case of market crisis. The **holding own share's model** uses the concept of repurchasing own shares by the firm for a distinctive purpose, which is related to repurchasing own shares if the share prices fall to a certain level, and to be held in a liability account to be called **holding own share fund**, to be ready for reselling.

Although, the suggested model is a practical concept it needs to be tested in both efficient and crisis stock market situations, in order to evolve further and to consider other possible alternatives of accounting aspects of the suggested model. Therefore, this paper is aimed to draw attention to the concept and invites further deliberations in this new emerging issue of accounting, as well as to consider possible applications on selected groups of active securities.

NOTES

1. The average indices of the Stock exchanges of Amsterdam, Brussels, Frankfurt, London, Madrid, Milan, Paris, N Y, Sydney, Singapore, Tokyo, and Zurich;

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