ANALYSIS OF PAST AND CURRENT STATE OF STOCK EXCHANGE AND DETERMINING MARKET PRICE OF STOCKS IN UZBEKISTAN

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Abstract

Although stock exchanges are developed and performing well in developed countries, in less well-off states there are still some issues regarding the determining market price of stock. In Uzbekistan in the first decade of 2000s Stock Market did not perform well and investors did not consider stocks of JSCs in Uzbekistan to be reliable and profitable. Therefore the share of investment through stock market was very low that period. However in the second decade of 2000s, the activity of Stock exchange and JSC also slightly improved after some measurements and there were positive trends in Tashkent Stock Exchange in Uzbekistan. But still there are some issues in connection with fair market value determination of stocks. This paper studies the state of stock exchange in Uzbekistan and assesses the impact of macroeconomic indicators to the activity of stock exchange and develops some conclusions and proposals.

Keywords: Stock, stock price, market price, stock exchange, Tobin's Q-ratio, Uzbekistan

INTRODUCTION

Financial assets such as stocks and bonds have become one of the best means of making and/or attracting investment. Most investors make high amount of profit investing in stocks and bonds. However, there are some issues regarding the determination of market value of the stocks, sometimes they can be overvalued, sometimes undervalued. In Uzbekistan, in the early years of independence, there were not many options for those who wanted to invest their free capital. Financial market, especially secondary financial market need reforms in Uzbekistan.

People may not get sufficient information about stock prices, therefore they avoid themselves investing in these type of assets. Although stocks are considered to be riskier that other types of financial instruments, expected return from this type of the asset is also higher. In developed countries there are several methods and approaches to determine the market value of stocks. In Uzbekistan, there is a lack of a stable secondary stock market, primarily due to the high volume of non-liquid and low liquidity shares, the assessment of market value of stocks in some cases is implemented on a superficial and low professional level. The weakness of the pricing methodology indicates that the mechanism is not perfect. Due to the fact that the stable long-term secondary market has not developed, the theory of price formation and technical analysis methods are not working, but methods of valuation of stock value are used for fundamental analysis. Because of the absence of the exact methodology or approach to find the market value of stocks, the trust for the shares of joint stock companies in Uzbekistan is very low. Existing methodology does not meet the requirements of modern macroeconomic policies. This is considered to be one of the obstacles to attract foreign investment in the country. The market value of a share is the price at which a stock is sold and bought at the moment on the market. If this price is multiplied by the number of placed shares, then we get the market value of the company's own funds or the capitalization indicator.

Approaches to determine market value of stocks

A stock is a special type of securities that give the owner the right to receive a share of the issuer's profit and participate in the management of the joint-stock company.

Income from stocks can be obtained in two ways. The first method is in the form of dividends, percentage deductions of the income of the enterprise. The second way is to purchase and sell shares on the stock exchange.

An important characteristic of a stock is its market price — the value of a stock on the market at a specific point in time. If the market price is multiplied by the number of shares placed, then the result will be the company's capitalization (the market value of the equity of the issuing company). This price can be foreseen and make the corresponding operations of purchase and sale in order to make a profit.

In world practice, there are three approaches to assessing the market value of shares. The choice of a specific approach due to the availability of the required information.

Fundamentalist approach

The approach is based on the assumption of discounted future income. With a stable market, the following formula may be applicable for calculating the market price of shares:

$$Pa = \sum_{k=1}^{\infty} \frac{Ea}{(1+R)^k}$$

Where

Ea – potential income

k – number of years

R – required rate of return

In the case of a constant dividend size, the market price is defined as:

$$Pa = \frac{D}{R}$$

D – annual dividend amount

When dividends steadily increase, you should use the formula:

$$Pa = \frac{D_1(1+L)}{R-L}$$

D_1 – the last dividend amount

L – percent growth of dividends

Technocratic approach

Use of technical analysis for market price pricing the technocratic approach is based on the application and analysis of statistical data of stocks, with the help of which various trends are built in different time intervals. As a rule, such an option is used in Uzbekistan practice. Its disadvantage is the insufficiency of information required for the assessment (inefficient use of market mechanisms, insufficient liquidity of issuers).

Approach "at random"

This approach is characterized only by analysis of current indicators and denies dependence on past prices. This approach often cannot give an objective assessment.

Thus, the market price of shares is an objective indicator, due to both the prospects of the market and the expectations of its owners.

As we know, the market price of shares is constantly changing. Moreover, the nature of these changes can be represented on the graph in the form of certain waves. Specialists identified several factors that have an important impact on the market price:

➢ competitive position in the financial market of the company whose shares are held by the investors;

- ➢ supply and demand for this type of securities;
- ➢ increasing the economic stability of the country where the issuing company is located;
- ➢ global course of economic policy;
- ➢ political tensions between states;
- ➢ the relationship of large financial corporations among themselves.

METHODOLOGY

In Uzbekistan the amount of investment that was attracted through stock market was very low. Compared to total investment in Uzbekistan i.e. investment through stock market to total investment was about 1 percent from 2000 to 2003. From 2004 to 2008, it increased slightly and accounted for 5.7 percent in 2008. However it decreased in 2011 and made up 4.5 percent of total investment in Uzbekistan. Investment through stock market did not make up even 6 percent of total investment in 2000 to 2010. It indicates that there is an actual issue that should be taken into consideration immediately. Share of investment through securities in GDP was 0.4 percent in 2005 and 2006. The highest indicator was 1.3 percent in 2008. But in 2010, it decreased and accounted for 1.1 percent of GDP. Obviously, these indicators show that attractiveness of stock market of Uzbekistan was not very high for investors.

Below, we assess the impact of macroeconomic indicators to the stock market in Uzbekistan using the data from Statistics Commitee of Uzbekistan.

Table 1 Macroeconomic (monetar and fiscal) policy, dynamics of Stock Market indicators

Years	Investment growth X1	Monetarization coefficient X2	Refinancing rate X3	Mandatory reserve rate X4	Tax on profit X5	GDP X6	Trade volume in Stock market Y
2000	1,0	10,2	32,3	20	31	3,8	138,2
2001	3,7	10,2	26,8	20	26	4,2	152,9
2002	3,8	9,4	34,5	20	24	4,0	159,8
2003	4,5	9,3	27,1	20	20	4,4	180,5
2004	5,2	10,3	18,8	20	18	7,4	154,1
2005	7,0	14,2	16,0	15	15	7,0	123,8
2006	9,1	14,9	14,0	15	12	7,5	232,1
2007	22,9	17,3	14,0	13	10	9,0	117,8
2008	28,3	18,8	14,0	15	10	9,0	181,2
2009	47,7	20,0	14,0	14,0	10,0	8,1	106,0
2010	22,8	21,5	12,0	9,0	9,0	8,5	197,5

Source: Author's compilation.

Table 2 Regression Analysis

	Coefficients	Standard error	t-statistic
R-squared	0.7259		
Adjusted R-squared	0.3148		
Standard error	401.6727		
Observations	11		
Y-cross point	-401.7938	401.6727	-1.00
X 1 variable	-6.923485	2.399134	-2.89
X 2 variable	0.375751	16.46815	2.28
X 3 variable	1.297859	4.39806	0.30
X 4 variable	29.27025	14.18539	2.06
X 5 variable	-11.70916	5.006449	-2.34
X 6 variable	-28.03277	18.57205	-1.51

According to results R-squared is 0.726. It shows close connection among these economic indicators. The result shows that increases in Tax, GDP and investments have a negative impact to trade volume in stock market. Among these indicators, 1 unit increase in mandatory reserve rate leads 29.270 unit increase in Trade volume in Stock market.Monetarization coefficient does not have any influence on Trade volume in Stock market

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Analysis of stock market in Uzbekistan

Although there were low indicators in Stock market in Uzbekistan till the second decade of 2000s, in the second decade there were many upwards in it.
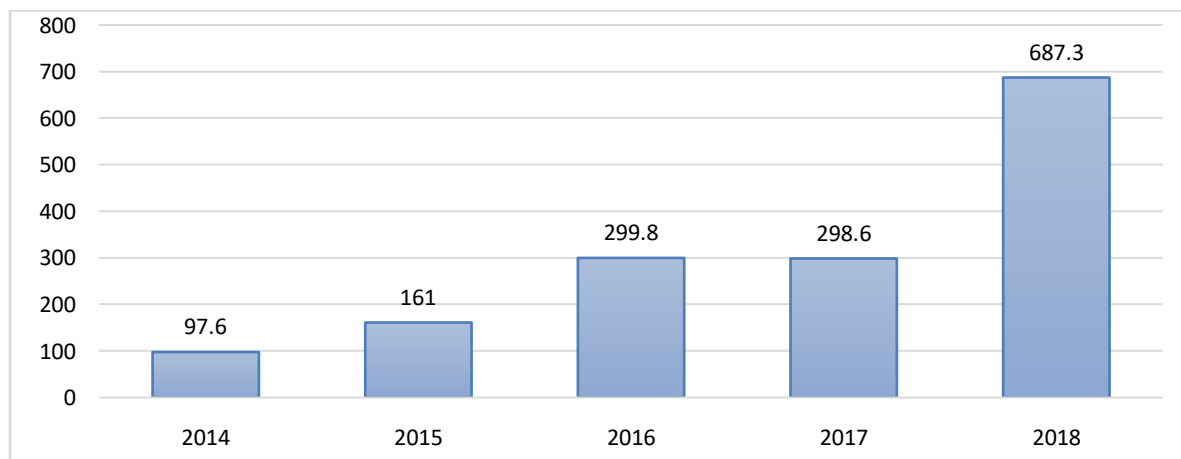

Figure 1. The dynamics of trades in Tashkent Stock Exchange (in billion UZS)

Source: Tashkent Stock Exchange

Figure 2 shows that the size of trades in Tashkent Stock Exchange increased considerably. Especially in 2018 it was more than twice of 2017. It was because of the first IPO by Kvarts JSC in Uzbekistan.

Kvarts JSC was commissioned in 1975 and is currently the largest producer of glass containers, flat glass and glass for the automotive industry, refractory materials and products in the Central Asian region. The financial position of JSC Kvarts is stable and the dynamics of growth in revenues and profits are high. For the period from 2014 to 2016, net sales increased by 1.5 times, net profit - by 2.2 times. The amount of dividends paid per ordinary share with a nominal value of 1,715 UZS in 2014 amounted to 543 UZS, in 2015 - 597 UZS, and in 2016 - 1,172 UZS. Over the past three years, 46-50% of the Company's net profit went to dividends. Now we'll take a closer look at the stages of the IPO and consider how they were carried out at Kvarts JSC.

The procedure for organizing exchange trading in securities in an IPO in the trading system of the RSE "Toshkent" and the Unified Production and Technical Complex (EPTK) is governed by the Securities Trading Rules on the RSE "Toshkent", which provide for four types of auctions. For the implementation of the first public offer was selected traditional auction. This means that the price range (minimum and maximum) is selected, within which subscribers (investors) indicate the quantity and prices of shares from the IPO package of 10% of the authorized capital of Kvarts JSC.
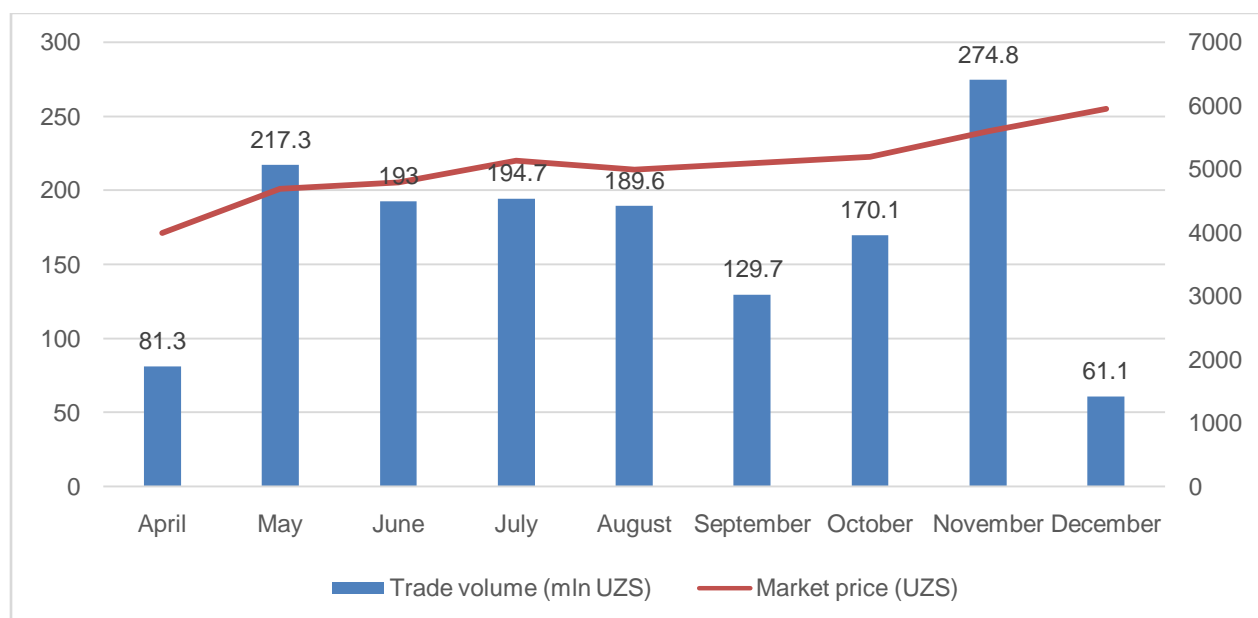

Figure 2. Volatility of the number of agreements and stock price of JSC "Kvarts"

Source: Tashkent Stock Exchange

Figure 2 shows that although the monthly trade volume volatiles much, market price of the stock of this JSC keeps raising. After the first successful IPO in Uzbekistan, the activity of Stock Exchange slightly improved. People also started showing their interests towards securities, especially stocks. But does it mean that market value of stocks are fair?

We will try to determine if the JSC's stocks are overvalued or undervalued using Tobin's Q ratio. At the most basic level, the Tobin Q-ratio expresses the relationship between market valuation and intrinsic value. In other words, it is a means of assessing whether a given business or market is overvalued or undervalued.

$$Q\ ratio = \frac{\textbf{Equity Market Value} + \textbf{Liabilities Market Value}}{\textbf{Equity Book Value} + \textbf{Liabilities Book Value}}$$

It is often assumed that the market value and the book value of a company's liabilities are equivalent. This reduces this version of Tobin's Q-ratio to the following:

$$Tobin's\ Q - ratio = \frac{\textbf{Equity Market Value}}{\textbf{Equity Book Value}}$$

However there are some challenges to determine Q-ratio in Uzbekistan, because although we can get the Book value of Equity and Liabilities determining their market value is slightly difficult and requires much data to determine. Roughly taking this data may mislead investors and cause the result to be wrong. However calculating market value of equity and liabilities becomes easier, from our point of view using Tobin's Q-ratio will be a good method to find out fair value of stocks of JSC.

CONCLUSION

Based on the findings, following conclusions and proposals have been developed:

➢ After independence it took considerably long time to develop the activity of stock exchange in Uzbekistan. We even consider that it is still improving at lower speed than expected. Stock Exchange started performing better since 2014.

➢ The first IPO took place in 2018, and from our point of view this IPO had a positive contribution in the present progress of Uzbekistan;

➢ An increase in mandatory reserve rate leads higher increase in trade volume in stock market.

➢ Tobin's Q-ratio cannot be used to determine if stocks are undervalued or overvalued. Because there are some challenges to determine market value of equity and liabilities.

➢ The trade mechanism of stock exchange is not well developed. There is no information of β ratio of stocks in stock exchange, so investors may not determine their risk

premium. From our point of view, if JSC give information about their securities β it will increase the trade volume in stock exchange.

- ➢ Theoretically there are many approaches to determine the market value of stocks, but because of lack of information about dividend policy of JSC, these approaches cannot be used to determine market value of stocks

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