CHINA'S STOCK MARKET TRENDS AND THEIR DETERMINANTS ANALYSIS USING MARKET INDICES

Mantas Valukonis

Vilnius University, Lithuania

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Abstract

Purpose. *To analyze which macroeconomic factors influence China's stock market and what are the trends of the China's stock market indices.*

Methodology. *Market indices are used in China's stock market trends analysis. Indices are analyzed in 2008–2012 period. Market return is expressed as the change of index. Market risk is analyzed using standard deviation value. Correlation is used in order to identify the relationship between indices of the different regions.*

Results. *Before the start of global financial crisis trends of China market indices and other markets indices were almost the same. But after the recovery of the indices in 2009, China's stock market trends started to differ from global market trends. Correlation analysis of China's and U.S. indices showed that the correlation between China's and U.S. indices is very weak, indicating that the Chinese market and the U.S. market dynamics are not related to each other.*

The relationship between China's stock market, inflation and GDP was observed. Despite the high growth of China's GDP China's stock market did not reach good results over the last few years. The index had a negative return.

Practical implications. *From the analysed data investors can see the trends of China stock market. Investors can decide whether China stock market is more attractive than other regions for them or not.*

Value/originality. *Due to the low China's stock market integrity we can assume that China's stock market may be little affected by the processes of globalization and can develop isolated from the global markets. In order to find out whereas China's stock market is isolated from other world's markets we analyze the tendencies of market return and risk and the relations between China's stock market and other markets.*

The type of the article*: Research paper.*

Keywords: *market indices, market return, standard deviation, correlation.*

JEL Classification. *G14, G15.*

1. Introduction

When Euro zone and USA encountered problems, investors started to look for new markets, where would be more possibilities to earn money. During last decade China has been demonstrating quite significant growth of economics. This attracted quite a lot of investors. Despite of quick economics growth, China's stock market does not show good results. In addition to this, China's stock market has specific characteristics, which must be analysed and assessed by investors before investing. China's stock market was isolated for some time because of the distinctive features of the market and these features had reduced China's market integration into the global markets. Due to the low China's stock market integrity we can assume that the China's stock market may be little affected by the processes of globalization and can develop isolated from the global markets.

This problem was chosen because I wanted to analyze how China's stock market looks in comparison to other stock markets. China's stock market integration and dependence of USA macroeconomic variables was examined by Goh (2011), Laurence (1997), Li (2011), Bekaert and

Harvey (1997). J. Goh states that importance of U.S macroeconomic variables have grown after China joined WTO, this view is supported by Laurence (1997) who says that the U.S. stock market exhibits a strong causal relation to all four Chinese markets. However Li (2011) states different opinion, he measured that the market interdependence between China and the US remains weak and has no tendency to increase. Authors do not have consensus on the China's stock market integrity so I have decided to analyze what is the situation.

After the evaluation of China's stock market trends and factors which are affecting China's stock market, conclusions about China's stock market integration could be made. Also we can decide what factors, internal or external, have bigger effect to China's indices. After the start of global financial crisis most of the world's stock market indices fall down. Financial crisis was systemic and spread in to all stock markets in the world. Influenced by the external factors China's stock market also experienced major fall down. Despite the fact that many of the world's markets have returned to pre-crisis levels, China's stock market recovery is not such quick.

Purpose: To analyze which macroeconomic factors influence China's stock market and what are the trends of the China's stock market indices

2. Distinguish features of China's stock market and market integrity

While discussing about China's stock market, it is important to notice that this market and its development differed from the other markets. That is why China's stock market has unique features. Wong (2006) distinguished three unique features of China's stock market that made its rapid development unique and interesting. First, the government used it largely as a fundraising vehicle for funding state-owned enterprises. As a result, most listed enterprises were state controlled, with only one-third of the enterprises' equity capital sold to private shareholders during initial public offerings (IPOs). Second, China's stock market developed under a repressed financial regime. Financial repression was created through a combination of capital controls on international capital flows and administrative measures imposed by the central government to dampen potential competition among different financial assets. Third, China's stock market was developed under a weak legal framework that offered shareholders little protection. Malkiel (2007) says that one of the most distinctive feature of China's stock market it is an alphabet soup of different kinds of Chinese shares. Here we will concentrate on three of the most important categories. So-called "A" shares are available for purchase by Chinese nationals, but only to a very limited extent by foreign nationals who have acquired a QFII (Qualified Foreign Institutional Investor) quota. Thus, the A-share market has been essentially closed off to foreign investors and prices are largely determined by the actions of individual Chinese investors. A shares are traded on the Shanghai and Shenzhen stock exchanges. B-shares – which are denominated in USD or HKD – were originally designed for foreign investors only, but since March 2001 domestic retail investors are also allowed to trade them. So-called "H" shares are the stocks of Chinese companies that list on the Hong Kong Stock Exchange and agree to present their accounting statements in accordance with international accounting standards. These shares are available to the international investing community. While the Chinese have loosened restrictions to some extent, there is only limited opportunity for Chinese nationals to invest in foreign markets and for international investors to transact in the A-share markets. Such segmentation of the stock market makes the Chinese market exclusive. Luo, Gan, Hu, Tzu-Hui Kao (2009) analyzed China's stock market and confirmed the presence of anomalies in China's stock market. This author, as well as previously studied authors, also stressed the unique structure of the Chinese stock market. The Chinese stock market has experienced a rapid growth and has played important roles in the growth and development of the Chinese economy since the launching of the Shanghai and Shenzhen Exchange in early 1990. In the early 1990s, companies listed on the stock market were mainly large state-owned enterprises (SOEs), but more than fifty percent of their shares were not tradable and had to be held by the state due to the government policy on ownership restrictions. In the late 1990s, more and more private companies were listed in the stock markets. However, the Chinese stock market is still underdeveloped and immature. It is

characterized by high percentage of government ownership with non-tradable stocks and restriction on foreign investors. The stocks are traded in A-shares and B-shares in the market. The A-shares market is for Chinese domestic investors trading in Chinese Renminbi (RMB), and the B-shares are for foreign investors trading in foreign currencies. Since 2002, China allowed foreign institutional investors to acquire bonds or stocks listed in the Chinese domestic share market, however number of institutional investors in China's stock market is quite low. According to Hansakul (2009) judging from figures regarding total capital raised, A shares are by far the most important segment in China's stock market (see Figure 1) and, since the early 2000s, the amount raised via B-shares has been virtually zero.

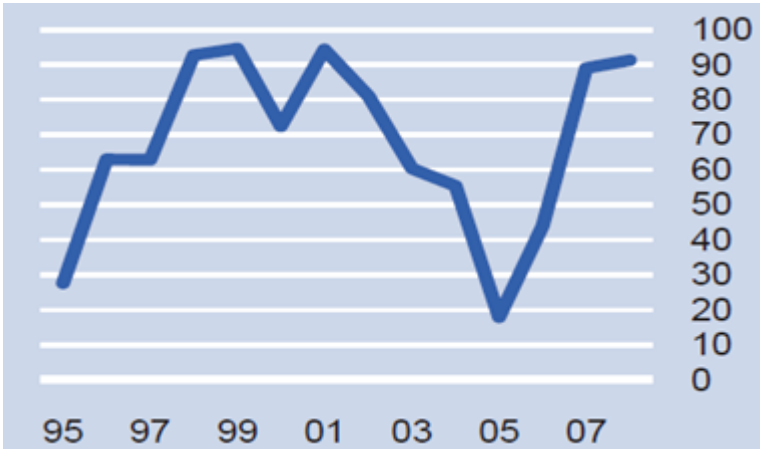

Figure 1. Importance of A shares in raising capital (% of total)

Source: Hansakul (2009). China's financial markets – a future global force? Deutsche bank research

The drop in the share of capital raised via A-shares in the period 2003–2006 can be attributed to the strong growth in capital raised via H-shares issuance. The little attention paid to the B-shares market over the past decade can be explained by their huge discount compared to A-shares. Also, it seems that the B-shares market has lost its function, since it was originally designed to attract limited foreign investment, which can now also be achieved via QFIIs. Liquidity has been scarce over the past few years, and a possible merger of A and B-shares also adds to subdued performance of the latter. However, still existing restrictions on full convertibility of the RMB pose an obstacle to such a merger.

Poon, Firth, Fung (1998) analyzed asset pricing in segmented markets. Using China-domiciled companies, authors examined the effect of market segmentation on asset pricing. They examined returns on A shares of China-domiciled companies that have offered B shares to foreign investors. Thus, their study provides a unique insight into segmented markets in China as A and B shares are traded in two distinct and segmented markets, one for domestic investors and one for foreign investors. They found that the abnormal returns of the A-share companies that also offer B shares are significantly negative, a result consistent with the hypothesis that the demand curve for equity shares is downward sloping. In order to find out is it possible to gain profit in China's stock market Li (2010) analyzed momentum and seasonality in Chinese stock markets. In his paper author followed Jegadeesh and Titman's (1993) approach and explored the 25 momentum/contrarian trading strategies using monthly stock returns in China for the period from 1994 to 2007. B. Li did not find the momentum profitability in any of 25 strategies. By contrast, he found some reversal effects where the past winners become losers and past losers become winners afterward. The contrarian profit is statistically significant for the strategies using short formation and holding periods, especially for the formation period of 1 to 3 months and the holding periods of 1 to 3 months. The contrarian strategies can generate about 12% per annum on average. However, there is no evidence of the strategies using longer formation and holding periods. Despite China's economy growth, according to Inman and Deng (2013) Shanghai market's index remains one of the worst-

performing global benchmarks in a 2012 when the Standard & Poor's 500-stock index rose 13% and U.K. stocks climbed 5.8%. It underperformed Hong Kong's China-focused Hang Seng Index, which gained 23% in 2012. Other China's stock market problem according to Hansakul (2009) is large share of retail investors. Retail investors are often linked in higher volatility, as herd behavior prevails and people tend to act more sentiment-driven. However, there are also views that the share of "real" investors in China is lower than suggested by the numbers for individuals stock trading accounts. Additionally, in the case of China, relatively low experience among traders and institutional investors might also have added to the build-up of the stock market bubble and heightened volatility. Individual investors tend to focus on short-term gains, and for much of the year had largely given up on stocks, following losses in the two previous years. As of October, only 56% of China's 55.9 million trading accounts were active, compared with 80% a year earlier. China's stock market is still largely characterized by short-term investment and a shortage of long term investors. Compared with investors in more mature markets, the average turnover ratio in China's stock market is high. Furthermore, the turnover ratios for individual investors are more than two times those of institutional investors, while the turnover ratios for small individual investors are even higher. In contrast to institutional investors, individual investors hold shares only for a short time and trade relatively frequently. According to empirical studies, individual investors are more sensitive to price and trading volume volatility.

From all mentioned above China's stock market characteristics, it is obvious that China's stock market development was affected by authority's constrictions. Because of stock segmentation China's stock market is hardly accesible for foreign investors and this reduces China's stock market integration; it is becoming more local market than global market. Situation has changed a bit, when China joined WTO. Goh (2011) has found that although before year 2001, the economic variables of the United States were not useful in predicting the Chinese stock market, they provide significant predictability after 2001. Importance of US variables has grown because China joined WTO in 2001. However there is no significant change in the predicting power of the Chinese economic data on the Chinese stock market before and after China joined WTO.

According to Gao (2002), comparing China stock market with the others it is noticeable that, there are very few stocks that would fit the definition of "blue-chip" trading on China's mainland exchanges. Whereas most developed markets are dominated by a limited number of large-cap stocks, China's market is cramped by a multitude of small-cap stocks. This feature allows for increased speculation and higher turnover for both investors and indexes, among other problems. Also government keeps a tight control on the issuance of IPOs, and, as a result of widespread government holdings, many listed companies in China have very low free-float ratios. Meanwhile, due at least in part to the unusual market structure, market manipulation and speculation are common. The solution is simply a matter of strengthening controls in certain areas while relaxing them in others in order to foster an environment in which China's stock market can continue to thrive. Restrictions make China's market integration more difficult and less attractive to foreign investors.

Laurence (1997) estimated significant serial correlation in the daily return series in all four Chinese (Shanghai A, Shanghai B, Shenzhen A, Shenzhen B) markets. According to the author foreign markets exert a significant influence on the markets open only to Chinese nationals. The U.S. stock market exhibits a strong causal relation to all four Chinese markets. These results suggests that the four Chinese markets are gradually being integrated into the global economy. Li (2011) measured that the market interdependence between China and the US remains weak and has no tendency to increase. According to the Bekaert and Harvey (1997), the extent of the linkages between China and the regional and global markets is raised by the liberalisation policies such as opening the A-shares to foreign investors and permitting the domestic institutions to invest on the overseas markets.

According to Degan (2009) investing in Chinese stocks is finding the right way of profiting from China's expected exceptional and unique future growth in the twenty-first century, and at the

same time avoiding the risks represented by corruption, murky corporate financial statements, shady corporate governance, and complicated opaque government bureaucracy. With such risks it is not surprising that the Chinese stock markets are extremely volatile. For this reason many believe that investing in China is like buying a lottery ticket. You may win a lot of money but the chances are against you. So as the resort author sugest to diversify investments broadly by investing in funds rather than in individual stocks. Best way to do it is by using index investment funds or ETFs.

3. Research methods

Market indices are used in China's stock market trends analysis. We have chosen three China's stock market general indices: Shanghai Shenzhen CSI 300 Index, Shanghai Stock Exchange Composite Index and Shenzhen Stock Exchange Composite Index. To determine the influence of the different classes of shares we also included into analysis separate A and B share market indices: Shanghai Stock Exchange A Share Index, Shanghai Stock Exchange B Share Index, Shenzhen Stock Exchange A Share Index, Shenzhen Stock Exchange B Share Index. Indices are analyzed in 2008–2012 period. This period let us to find out how China's stock market indices performed during and after financial crisis. We assume that one year has 250 trading days. Market return is expressed as the change of index value. For percentage market return calculation we are using the following formula:

$$\mathrm{Re}\,turn = \left(\frac{IV_{rt}}{IV_{rb}} - 1\right) * 100 \qquad (1)$$

IV_{rt} – index value at t period;
IV_{rb} – index value at basic period.

Stock market indices are used to investigate the factors that affect the financial instruments market prices. Indices show total market situation of particular country, so in our analysis we compare China's indices performance to other countries indices performance and try to find out what are the similarities of the market trends and their determinants. China's stock market indices are comparing with:

1) Japan - Nikkei 225 index;
2) Asia - MSCI Asia APEX 50 index;
3) Russia – RTS standard index;
4) USA – Dow Jones index and S&P 500 index.
5) Europe – Euro Stoxx index;
6) Africa/Middle East – Bloomberg GCC 200 index.

Market risk is analyzed using index return standard deviation value. China's stock market return and risk results are compared with results of other regions indices. By comparing these results we are trying to find out in which place China market is in comparison to other markets.

In order to find out which macroeconomic factors have influence to China's stock market we are using correlation analysis. We calculate correlation between China macroeconomic features and China indices to find out which domestic factors have influence to China's market. For external economical factors we calculate correlation between USA macroeconomic features and China indices. USA factors were chosen because US economy has biggest influence to all major stock markets. Also we analyze the relationship between indices of the different regions, for this analysis we also use correlation.

While analysing scientific literature, it is noticed, that after China joined WTO, the China's stock market integration has increased and the stock market tendencies can be predicted using USA macroeconomic data. In order to establish if the relation between USA macroeconomic factors and China's stock market's indices currently exists, the correlation analysis is performed. In addition, China's indices and China's macroeconomic factors correlation is estimated.

4. Results

Correlation analysis showed that China's macroeconomic factors have stronger correlation with China's stock indices than USA macroeconomic factors. You can see the results of correlation analysis in 1 and 2 tables. Colored results mean that these results are statistically significant, as p<0,05. Statistically insignificant results were dismissed and weren't further examined. The first table shows that U.S. macroeconomic factors and China's stock market indices have weak (yellow color) or very weak (blue color) correlation. Only Shenzhen B share index and U.S. debt/GDP ratio has semi strong correlation (green color). This could be explained by the fact that only foreign investors have access to Class B shares market, so they may use information about U.S. macroeconomic factors to make investment decisions. One of the main macroeconomic factors is GDP, however as shown in first table China's stock market indices and U.S. GDP have weak correlation so this could be interpreted that China's stock market has no relation to U.S. economical factors.

	SHSZ300 Index		SHASHR Index		SHBSHR Index		SZASHR Index		SZBSHR Index		SHCOMP Index		SZCOMP Index	
	Correlation	p value	Correlation	p value	Correlation	p value	Correlation	p value	Correlation	p value	Correlation	p value	Correlation	p value
USA GDP	-,338*	.025	-.264	.084	-.248	.104	-,349*	.020	-.181	.241	-.264	.083	-,346*	.021
USA CPI	-.072	.493	-.004	.971	-.043	.681	-.158	.131	-.115	.273	-.004	.969	-.157	.134
USA unemployment	.140	.181	-.044	.673	,346**	.001	,439**	.000	,432**	.000	-.042	.688	,438**	.000
USA debt/GDP	.015	.883	-.140	.182	,420**	.000	,319**	.002	,594**	.000	-.137	.191	,322**	.002
USA interest rate	-.113	.279	.091	.385	-,391**	.000	-,423**	.000	-,493**	.000	.089	.399	-,422**	.000
USA debt interest	-.024	.822	.152	.147	-,308**	.003	-,265*	.010	-,412**	.000	.149	.153	-,266*	.010

Figure 2. U.S macroeconomic factors and China's stock market indices correlation

Source: made by author using bloomberg.com data

China's stock market and China's macroeconomic factors correlation analysis showed that between China's stock market indices and China CPI, also between China indices and China debt interest exist semi strong correlation. It is important to say that correlation between Chinese stock indices and China's GDP is statistically insignificant. The remaining macro-economic indicators (unemployment and Debt / GDP), and the Chinese market indices have opposite and very weak correlation. Correlation between these factors and Shanghai B stock index, Shenzhen A stock index, Shenzhen composite index has not been confirmed statistically, as correlation p> 0.05.

	SHSZ300 Index		SHASHR Index		SHBSHR Index		SZASHR Index		SZBSHR Index		SHCOMP Index		SZCOMP Index	
	Correlation	p value	Correlation	p value	Correlation	p value	Correlation	p value	Correlation	p value	Correlation	p value	Correlation	p value
China GDP	.214	.164	.295	.051	.096	.537	.124	.421	.141	.360	.294	.053	.127	.411
China CPI	,547**	.000	,536**	.000	,609**	.000	,530**	.000	,510**	.000	,537**	.000	,531**	.000
China unemployment	-,270**	.009	-,296**	.004	-,316**	.002	-.182	.081	-,249*	.016	-,296**	.004	-.183	.079
China debt/GDP	-,204*	.050	-,260*	.012	.130	.213	-.029	.782	,248*	.016	-,259*	.012	-.026	.808
China debt interest	,640**	.000	,614**	.000	,628**	.000	,569**	.000	,472**	.000	,615**	.000	,569**	.000

Figure 3. China's macroeconomic factors and China's stock market indices correlation

Source: made by author using bloomberg.com data

According to the results of the correlation, it can be stated that China's macroeconomic factors and China's stock market indices correlation is stronger than USA macroeconomic factors and China's indices. The results are presented in Table 1.

Table 1. U.S. macroeconomic factors and China's stock market indices correlation analysis results

Macroeconomic factor	Correlation
USA GDP	very weak opposite SHSZ300 Index, SZASHR Index and SZCOMP Index
USA CPI	not confirmed statistically
USA unemployment	weak positive SHBSHR Index, SZASHR Index, SZBSHR Index, SZCOMP Index
USA debt/GDP	weak positive SHBSHR Index, SZASHR Index, SZCOMP Index and semistrong SZBSHR Index,
USA interest rate	weak opposite SHBSHR Index, SZASHR Index, SZCOMP Index and semistrong SZBSHR Index,
USA debt interest	weak opposite SHBSHR Index, SZASHR Index, SZCOMP Index and semistrong SZBSHR Index,
China GDP	not confirmed statistically
China CPI	**semi strong positive all indices**
China unemployment	very weak opposite all indices except SZASHR Index and SZCOMP Index
China debt/GDP	very weak opposite SHSZ300 Index, SHASHR Index, SZBSHR Index and SHCOMP Index
China debt interest	**semi strong positive all indices**

Source: made by author using bloomberg.com data

Can't be approved that China's stock market results depend of USA macroeconomic factors.

With reference China's and other global stock market tendencies, it is noticed that, before the start of the global financial crisis and during the crisis trends of China's stock market indices and other regions indices were the same, but there was a difference in growth and fall volumes. (see Figure 4 light green line). From the beginning of 2009 to the end of 2010 all indices grew up, but after that China's stock market tendencies started to differ from U.S, Africa/Middle East, Japan and Asia stock markets trends. Europe's and Russia's stock market tendencies were similar to China's market trends during 2011–2012 period. Such China's market changes were influenced by the local market problems (China's economic problems, real estate market problems) rather than global market trends.

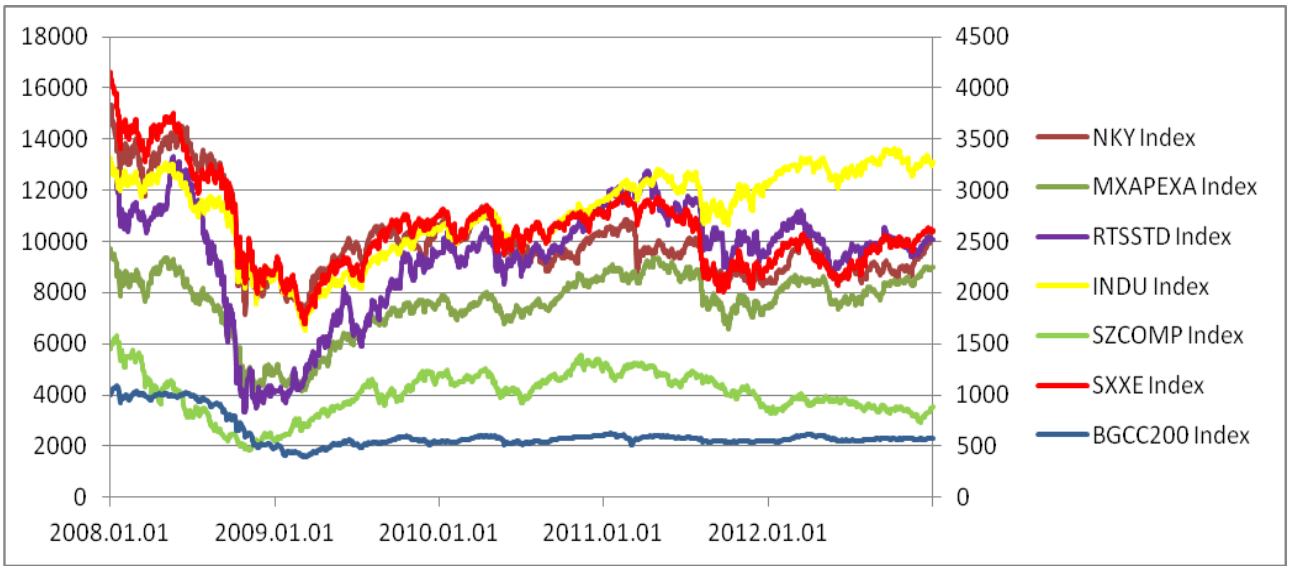

Figure 4. Trends of China's stock market and other other markets in 2008–2012

Source: made by author using bloomberg.com data

In major stock markets return analysis we find out that in 2008 China's market receive huge fall down. Only Russia had a bigger loss in 2008. In 2009 China's stock market recovered and had

the biggest grow of all regions. The recovery was bigger than loss which was suffered during 2008, but these tendencies didn't last long. In 2010 we can see different trends among different regions. Evan different China's market indices had very different results. Shanghai index–14,31 %, in comparison Shenzhen index +7,45%. In 2011 because of the local China's economic problems China had a bigger loss than other regions. In 2012 all indices grew up, however China's market growth was the smallest of all regions and China's market was unable to offset that loss of 2011.

Table 2. China's and other markets return in 2008–2012

Market	Index	2008	2009	2010	2011	2012
China	SHCOMP Index	-65.39%	79.98%	-14.31%	-21.68%	3.17%
China	SZCOMP Index	-61.76%	117.12%	7.45%	-32.86%	1.68%
Japan	NKY Index	-42.12%	19.04%	-3.01%	-17.34%	22.94%
Asia	MXAPEXA Index	-49.69%	57.13%	12.54%	-14.80%	21.83%
Europe	SXXE Index	-46.32%	23.37%	-0.11%	-17.73%	15.53%
Africa/Middle East	BGCC200 Index	-51.56%	9.90%	12.96%	-9.48%	3.92%
Russia	RTSSTD Index	-67.10%	129.21%	19.07%	-15.81%	5.32%
USA	INDU Index	-33.84%	18.82%	11.02%	5.53%	7.26%
USA	SPX Index	-38.49%	23.45%	12.78%	0.00%	13.41%

Source: made by author using bloomberg.com data

Analysing the risk level of the main global stock markets' and comparing it with China's stock market indices' risk, it was estimated that, the most risky region in 2008 was Russia. China's market standard deviation was similar to Japan and Asia regions standard deviation. In 2009 China still remained one of the riskiest regions and had smaller standard deviation only in comparison with Russia. In 2010 China's risk was similar to the Russia, however Russia had bigger profit than China, so China indices took similar risk but received smaller profit. In 2011 China's indices standard deviation was one of the smallest, but having in mind that in 2011 China had the worst return results in comparison to other regions, this can be seen as negative feature. In 2012 China's standard deviation was one of the biggest, this region had a biggest risk but China's return was the smallest of all regions.

Table 3. China's and other markets standard deviation in 2008–2012

Market	Index	2008	2009	2010	2011	2012
China	SHCOMP Index	37.55%	24.93%	18.51%	15.13%	14.30%
China	SZCOMP Index	39.62%	27.66%	21.87%	18.84%	19.45%
Japan	NKY Index	38.19%	22.93%	17.27%	19.40%	13.50%
Asia	MXAPEXA Index	38.13%	23.85%	15.20%	21.07%	13.92%
Europe	SXXE Index	31.40%	21.87%	18.42%	22.74%	16.22%
Africa/Middle East	BGCC200 Index	22.25%	15.88%	9.41%	10.21%	6.34%
Russia	RTSSTD Index	55.00%	39.42%	20.26%	23.24%	16.36%
USA	INDU Index	31.73%	20.29%	13.53%	17.60%	9.82%
USA	SPX Index	34.33%	22.85%	15.11%	19.48%	10.64%

Source: made by author using bloomberg.com data

So from the results we can see that China is one of the riskiest markets, however high risk level not always can bring higher return. As it could be seen from Table 3 in 2012 China's return was the smallest among all regions. In 2008, when the financial crisis started, China's stock market has decreased about 65 proc., despite the fact that China's economic growth was high. In 2009 China's stock market has recovered, but later the economic growth was slowing down and appeared the first signs of the problems in real estate market. In 2012 other markets grew up in higher volumes than China's market, this was influenced by the fact that China's stock market had internal

problems and cannot take the advantage from global stock markets' growth. In 2012 other markets grew up in higher volumes than China's market, this was influenced by the fact that China's stock market had internal problems and cannot take the advantage from global stock market's growth.

The week relation of China's stock market and other global stock markets is proved by correlation analysis of the stock market indices.

Table 4. China's and other markets standard deviation in 2008–2012

Market	Index	SZCOMP Index	NKY Index	MXAPEXA Index	SXXE Index	BGCC200 Index	RTSSTD Index	INDU Index
China	SZCOMP Index	1	0.245	0.405	0.134	0.137	0.176	0.047
Japan	NKY Index	0.245	1	0.700	0.347	0.317	0.401	0.129
Asia	MXAPEXA Index	0.405	0.700	1	0.448	0.364	0.494	0.266
Europe	SXXE Index	0.134	0.347	0.448	1	0.277	0.562	0.639
Africa/ Middle East	BGCC200 Index	0.137	0.317	0.364	0.277	1	0.248	0.160
Russia	RTSSTD Index	0.176	0.401	0.494	0.562	0.248	1	0.347
USA	INDU Index	0.047	0.129	0.266	0.639	0.160	0.347	1

Source: made by author using bloomberg.com data

Correlation between Shanghai and Dow Jones is very weak, indicating that China's stock market's and the U.S. market's dynamics are not related to each other. China's stock index has weak or very weak correlation with all regions, so China's stock market is a good choice if investor wants to diversify his investments. Portfolio would not be diversified if we invest in Japan and Asia indices, because these indices have high correlation 0,7.

With reference to results, it can be stated that investing in China's stock market it is necessary to keep an eye on the analysis of China's macroeconomic factors. According to the results of the correlation analysis, China's indices and USA macroeconomic factors have week or very week relation. The relation of China's stock market and other global stock markets is week or very week. Correlation between USA stock market index and China's index is only 0,04 meaning no relation. In comparison, correlation between USA stock market index and European stock market index is 0,63 meaning medium strength relation. Analysing risk and return results it is obvious that China's results are one of the worst. This makes China not so attractive region for investors. Because of weak relation with other stock markets China can be an attractive region for investors who want to diversify the portfolio. Before the investing in China, it is important to assess slowing China's economic growth and real estate problems, because internal factors affect China's stock market trends significantly. Because of this reason, since 2011 China's stock market indices are not able to generate higher return and trends of the indices changes have been differing from the other stock markets' trends. Also it was founded that it is very important which China's stock market index will be chosen because as it was mentioned early different China's indices gave radically different return in 2010.

5. Discussion

USA macroeconomic factors have a small influence to the China's stock market. The highest impact to the China stock market have China's CPI and China's bond yield. Correlation analysis of China's and U.S. indices showed that the correlation between China's and U.S. indices is very weak, indicating that the Chinese market and the U.S. market dynamics are not related to each other.

After the recovery of the indices in 2009, China's stock market trends started to differ from global market trends. This approves that China's stock market is influenced by global economy features, but when China's economy started to struggle, the local China's economic problems became more important than global market trends.

Both the risk and profitability results of the China's stock market were among the worst compared to other regional markets during last two years, so other regions is a better choice than China.

Because of weak relation with other stock markets China can be an attractive region for investors who want to diversify the portfolio. Before the investing in China, it is important to assess slowing China's economic growth and real estate problems, because internal factors affect China's stock market trends significantly

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