FINANCIAL MARKETS RESEARCH

INVESTMENT OUTLOOK JULY 2019

Abstract

The aim of this research is to explore in general investment opportunities and risks as well as estimate trends, expectations and rumors on the capital markets in 2019.

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CONTENT:

IMPORTANT INFORMATION ABOUT INVESTMENT RISKS

Investments and speculations on financial markets generally involve various and numerous risks and may even result in the complete loss of the invested capital. Investment theory assumes a rational investor does make a logical trade-off between the expected return and risk. But investors are inherently human, hence, emotions will inevitably come into play. The finance profession has a serious challenge how to reliably identify the individual risk profile of a retail investor, because individuals often and unconsciously may be emotional about their lifetime savings, yet their advisers often find it difficult to assess how these emotions will be expressed in future financial decisions. This Research does not take into account the investment objectives, financial situation or particular needs of any specific investor or traditional saver. One of the fundamental results of traditional investment theory is that, under the assumptions of W. Sharpe, all investors invest in a combination of the risk-free asset and the market portfolio. The general idea of CAPM[1] is to represent risk and calculate the amount of compensation the investor needs for taking on additional risk. The allocation of funds between the risk-free asset and the risky market portfolio is determined only by the risk aversion of the investor. But it is safe to say that in reality, investors face constraints and do not act according to the traditional model of rationality. A lot of researches show that in situations of uncertainty people often consult others to get more information and thereby a better understanding of the situation. For example, copying the behavior of others is one of the predominant mechanisms in decisions to purchase. All of us have likely made irrational decisions. "As we all know, smart people can make dumb decisions" – wrote Dr. E.T. Prince, CEO and Founder of the Perth Leadership Institute – "We've got to build that into investment programs…" The individual risk capacity depends on objective economic circumstances, such as the investor's investment horizon, liquidity needs, income, and wealth, as well as tax rates and a lot of other factors. Thus, before making an investment decision on the basis of this Research, the recipients should consider whether this Research or any information contained herein are appropriate or suitable with regard to their own investment needs, objectives and suitability. The European regulations[2] require investment firms to establish investor risk profiles before recommending any financial products or investments for those investors. This paper should not be construed as providing investment advice. Additionally, the prices used for our estimations are indicative and not appropriate for direct-trading purposes and so the prices may not be accurate. Moreover, past performance of securities and other financial instruments is not indicative of future performance. So any recommendation and prediction contained in this Report may not be suitable for all investors and the author will not accept any liability for loss or damage as a result of reliance on the information including data, quotes, charts and trading strategies contained within this paper

INTRODUCTION

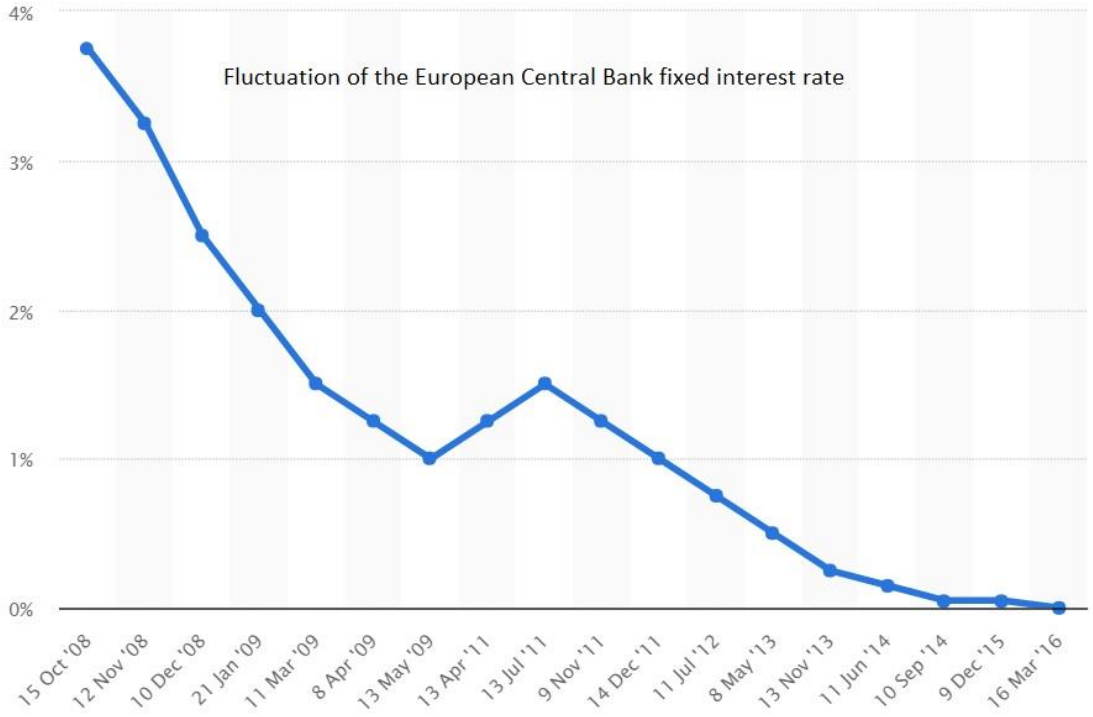
Investors worry about all sorts of economic and financial variables, but two of the most important variables are inflation and growth. The fundamental minimal objective is to deliver a return that will exceed the inflation rate over the investment period. In 2003 Robert Jaeger wrote: "The convertible hedger needs volatility. The momentum-oriented investor needs trends. The contrarian investor needs trendless, mean-reverting markets. The risk arbitrageur needs deal flow and decent deal spreads. The

[1] Capital asset pricing model: https://en.wikipedia.org/wiki/Capital_asset_pricing_model
[2] Article 25 of the MiFID II

distressed debt investor needs a decent supply of opportunities and a congenial credit environment…"[3] Since the different investing strategies have different sources of return… In most cases, the investor buys the assumption that the future flow of payments will be satisfactory bigger than today's amount of money.

THE MARKET SITUATION

For the beginning, I accept retail investing as a form of alternative for the mass saver, compared to the strong, traditionally expressed focus on the bank deposits. The deposits are consensually considered to be preferred in the portfolios of households… According to analysis on the financial households wealth in Central and East Europe, the growth of bank deposits has contributed in the biggest extend for the increase in household wealth in the years following the 2008 crisis. This statistic[4] shows the fluctuation of fixed rate interest rates set by the European Central Bank as of May 2019. The ECB set the interest rate at 0 percent on the 16th March 2016.



This situation is not a reality for the EU alone. The reason households prefer deposits as a form of saving is their traditional perception as a "risk-free" financial instrument which in a bank competition should maintain acceptable levels of profitability. This continuous trend, however, was seriously discredited by the deepening trend of zero and negative interest rates, followed by all the leading central banks in the reviewed period.

Logically, as a powerful factor, I assume that a great influence among the savers have the interests on deposits, which have suffered a serious collapse in the European and local aspect.

[3] Jaeger R.A., Ph.D., "All about hedge funds" – 2003, McGraw-Hill.
[4] Source: www.statista.com

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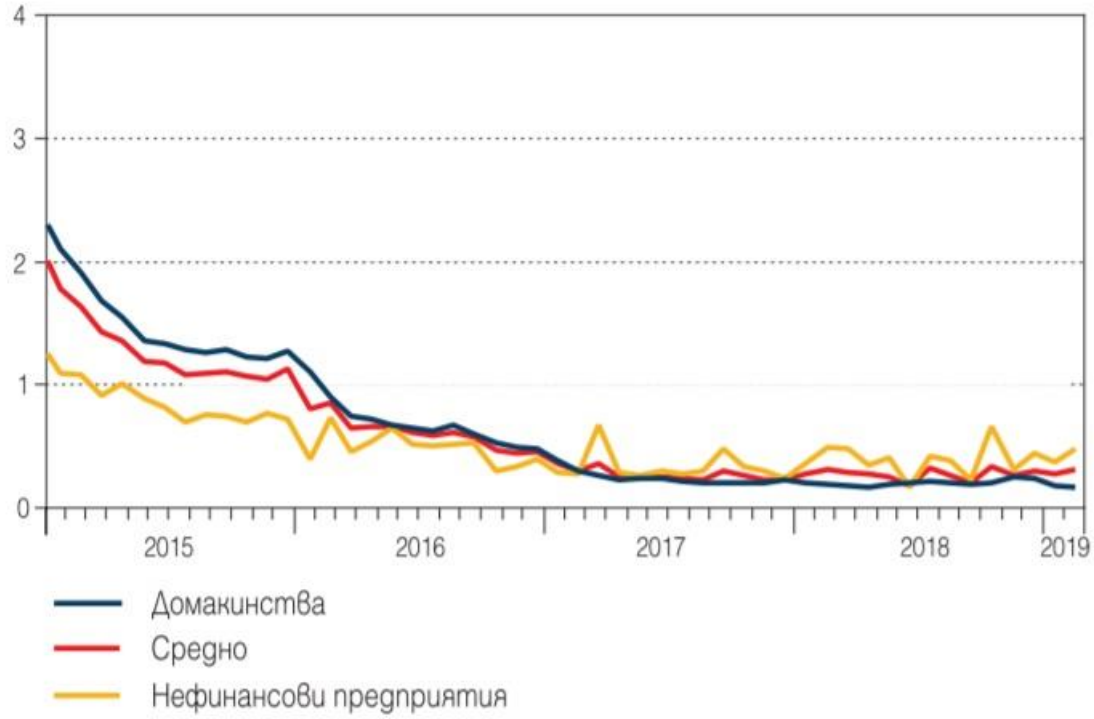


In contrast to developed and markets with high liquidity the slump in commodity prices and fears of a Chinese slowdown kept the pressure on the emerging economies. A number of these countries are seeing their currency fall to record levels, high inflation and unemployment. - wrote Spriha Srivastava, News Editor in CNBC[5].

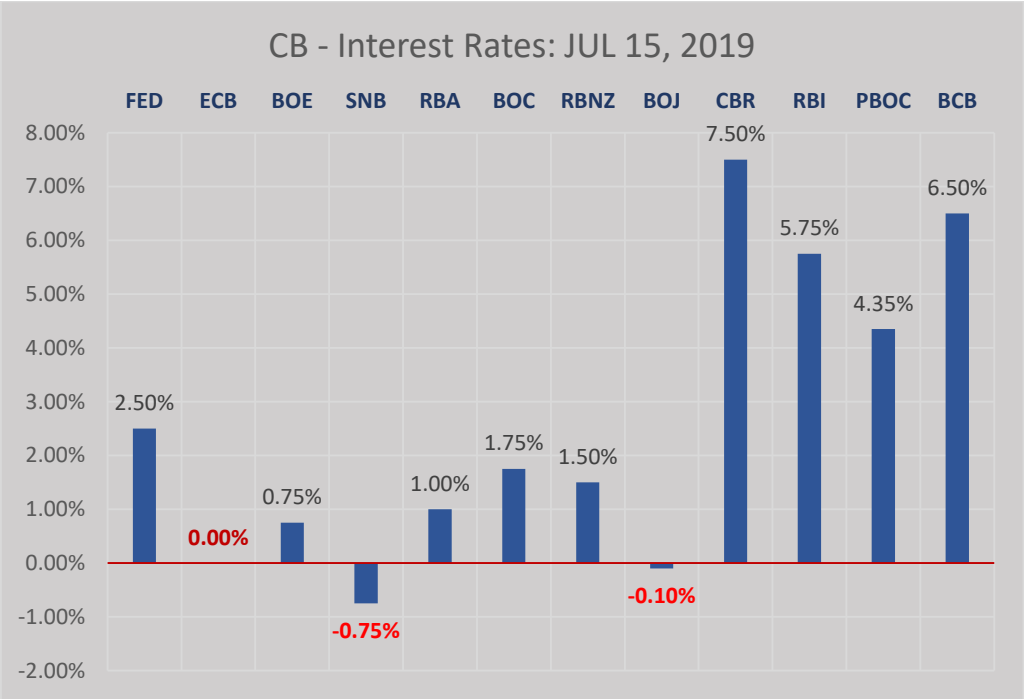
At the time being, the effect of the lagging performance of emerging market economies is worrying, which, not too long ago, had been the primary driver of world economic growth. Emerging market countries having especially large current account deficits relative to GDP are vulnerable to dollar exchange rate appreciation. The funding of large current account deficits requires large amounts of foreign-currency debt that is often denominated in USD. From another perspective, after the currency crises of the 1990s, EMEs have sought to self-insure against the risk of sudden outflows and large devaluations. At the same time, changes in FX reserves have often tended to correlate positively with the value of the countries' currencies, suggesting that they have been absorbing exchange rate pressures. Researches[6] of BIS, have showed that over the past two decades, EME monetary policy frameworks have increasingly focused on maintaining domestic price stability. EMEs capital inflows increased significantly after the mid-2000s and have slowed markedly since 2013.

According to BIS, so far, the combination of inflation targeting with FX intervention, complemented by macroprudential policies, has produced favorable macroeconomic outcomes. However, many emerging economies have seen rapid credit growth, reflecting at least in part the very accommodative

[5] https://www.cnbc.com/spriha-srivastava/

[6] BIS Annual Economic Report 2019: „Monetary policy frameworks in EMEs" - https://www.bis.org/publ/arpdf/ar2019e2.htm

financial conditions prevailing globally, and potentially raising risks for financial stability. Nevertheles a constant dilemma for investors, remains whether to maintain their exposure in emerging economies or take a step back.

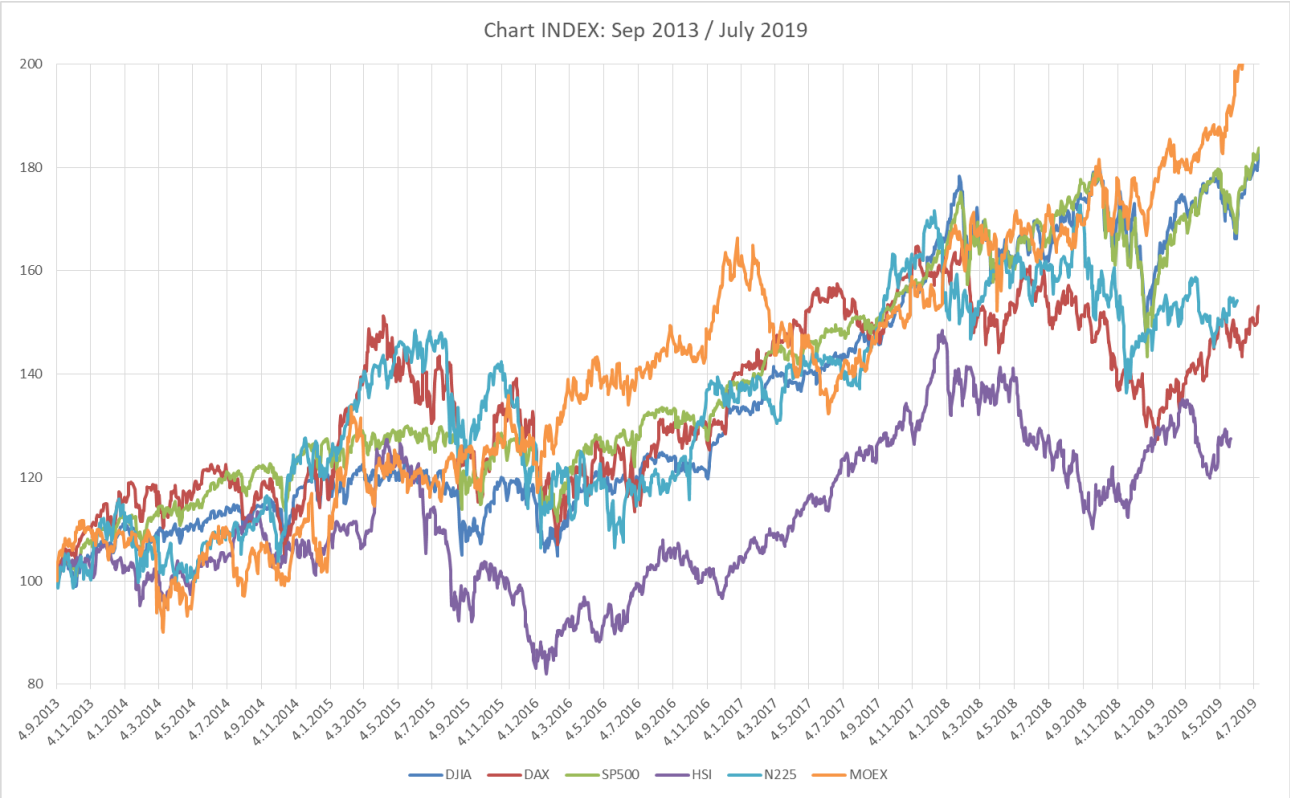


Up to now the Central Banks have not found more realistic tools. But the investment community hopes that any upcoming meeting can bring more clarity.

Central Bank	*Interest Rates*	*Next Meeting*	*Curr.*	*Last change*
Federal Reserve (FED)	2.50%	Jul 31, 2019	USD	Dec 19, 2018 (25bp)
European Central Bank (ECB)	**0.00%**	Jul 25, 2019	EUR	Mar 10, 2016 (-5bp)
Bank of England (BOE)	0.75%	Aug 01, 2019	GBP	Aug 02, 2018 (25bp)
Swiss National Bank (SNB)	-0.75%	Sep 19, 2019	CHF	Jan 15, 2015 (-50bp)
Reserve Bank of Australia (RBA)	1.00%	Aug 06, 2019	AUD	Jul 02, **2019** (-25bp)
Bank of Canada (BOC)	1.75%	Sep 04, 2019	CAD	Oct 24, 2018 (25bp)
Reserve Bank of New Zealand (RBNZ)	1.50%	Aug 07, 2019	NZD	May 08, **2019** (-25bp)
Bank of Japan (BOJ)	-0.10%	Jul 30, 2019	JPY	Jan 29, 2016 (-20bp)
Central Bank of the Russian Federation (CBR)	7.50%	Jul 26, 2019	RUB	Jun 14, **2019** (-25bp)
Reserve Bank of India (RBI)	5.75%	Aug 07, 2019	INR	Jun 06, **2019** (-25bp)
People's Bank of China (PBOC)	4.35%	?	CNY	Oct 23, 2015 (-25bp)
Central Bank of Brazil (BCB)	6.50%	Jul 31, 2019	BRL	Mar 21, 2018 (-25bp)

My interpretation of the observed data and correlations within the period is that investments in financial instruments (or mutual funds) and bank deposits are not seen by the households in CEE as two different, competing market saving alternatives, but rather as two faces of the same market. The households' investments and savings evidently represent the same thing, divided only by traditions and psychological motivation. The optimization of the utility and the choice later on should theoretically be looking at the risk tolerance and expected return.

The expectations are to keep the base interest rates of ECB without a change during the forecasted short and middle term period. According to this, it seems logical and rational that the interest towards the investment opportunities in developed economies increases.



Ever since the late 20th century, the formation of attitudes and beliefs of the investors are interpreted not only as a source of risk, but also as a factor for forming the volumes and market prices of the assets. The processes of the consumers' confidence and evaluations are under the strong influence of both the prolonged zero interest rates maintained by Central Banks and by the continued deflationary pressure. What happens from the point of view of the potential investor? The asset market offers possibilities which are too tempting in terms of earnings. Thus, the momentum strategy[7] seems to be most useful for trader's community now.

On the other hand, the accumulation of risk factors that cannot be managed passively is obvious. At first glance, things look more than good. The shares market reaches extreme heights. Such growth has happened only three times in history – in 1929, 2000 and 2007. For the more cautious, against the backdrop of the more and more visible bubble, restrictive risk management becomes mandatory.

According to CNBC[8], J.P. Morgan's top quant Marko Kolanovic predicts a "Great Liquidity Crisis" will hit financial markets, marked by flash crashes in stock prices and social unrest. "Central banks will be forced to make unprecedented moves, including direct purchases of equities or negative income taxes. Timing of when this next crisis will occur is uncertain but markets appear to be safe through the first half of 2019", Mr. Kolanovic said. In addition, an investigation by JPMorgan (from 2017) established that the investors have the same positions and this creates an unstable situation.

[7] Momentum investing: https://en.wikipedia.org/wiki/Momentum_investing
[8] CNBC: https://www.cnbc.com/2018/09/04/jpmorgan-says-next-crisis-will-feature-flash-crashes-and-social-unrest.html

We are also observing a very strong correlation between the aggressiveness of the Quantitative easing programs of the five leading central banks with the growth of the global capital markets. Altogether, the assets of the Central Banks are reaching 4.5 times higher levels, compared to the period before 2008. All this creates an imbalance and many opportunities for arbitrage.

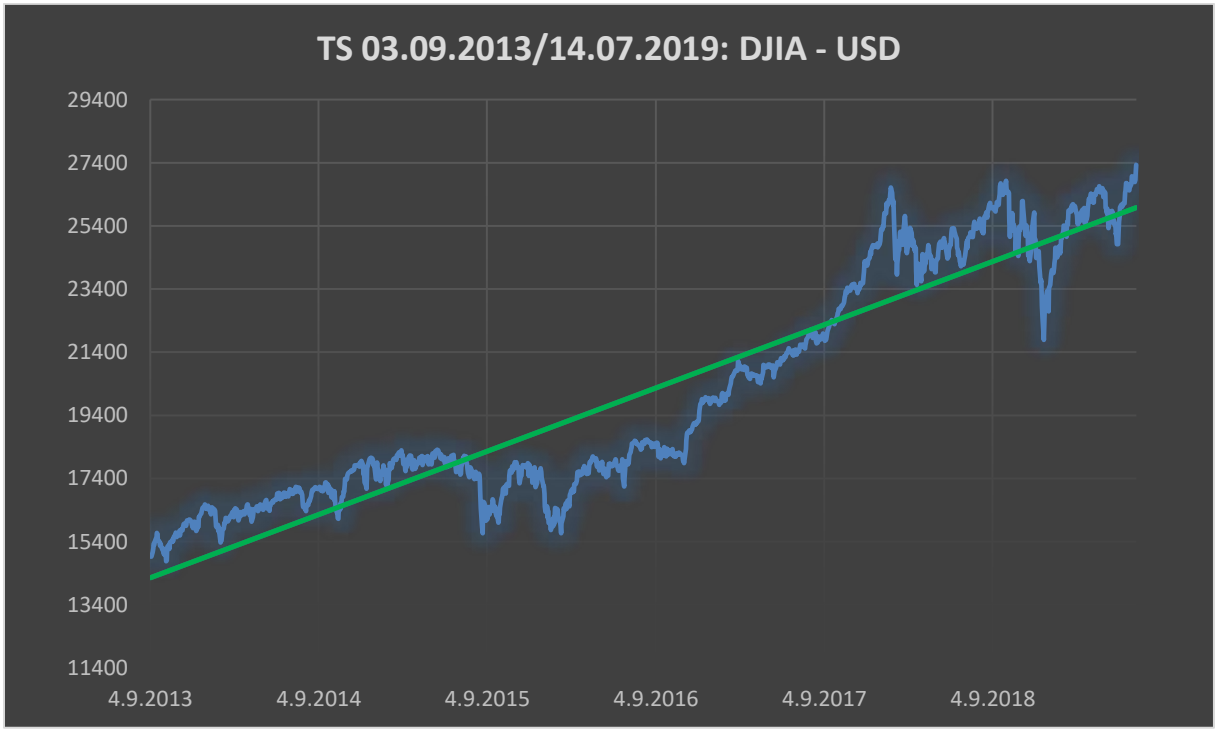
However, the momentum strategy in short time frame would be profitable. For the middle time frame, more conservative investments or market neutral approaches may be used for more safety.

STOCK MARKET INDICES[9]

In the two quarters of 2019 we have had a volatile, but sustainable upward trend of the basic stock exchanges.

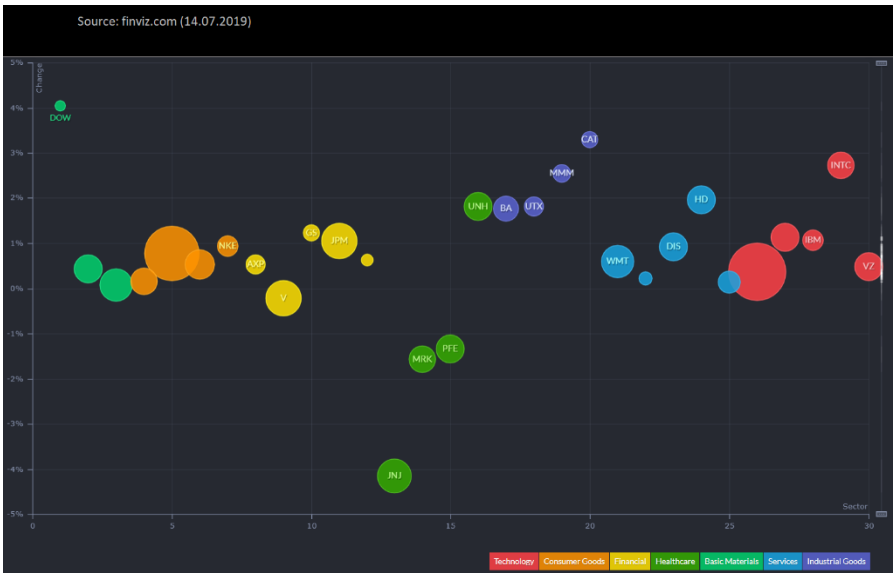
The current expectations and investor's sentiment in general remain bullish. The US economic news and President's behavior strengthen positive sentiment. The analytics consensus believes that investors have nothing to fear but the emerging market crisis and the trade war, neither of which fazes them much. At the same time, Ray Dalio[10] urged investors to change their way of thinking at the end of the longest bullish market in Wall Street history.

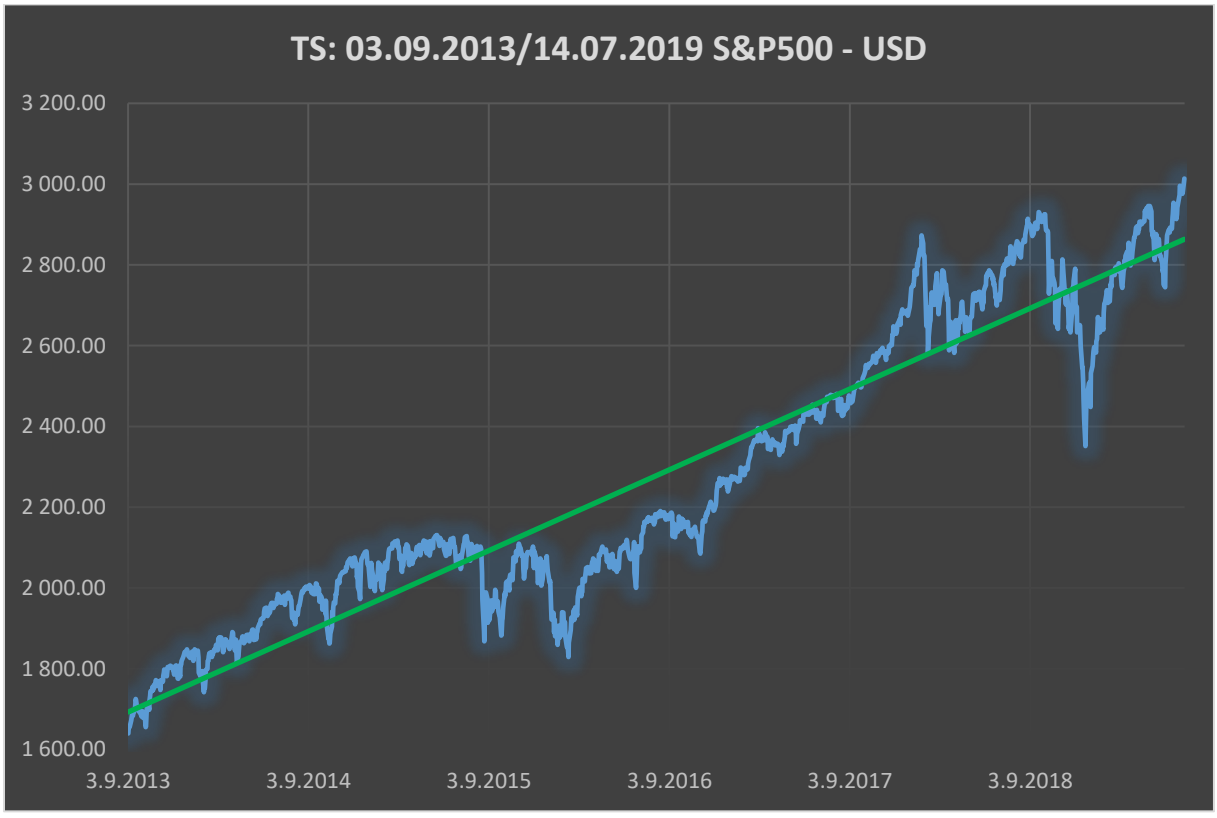
The first stock index is developed on the 3rd July 1884. This is the DJIA. The index is price weighted (such as Nikkei 225) and is widely accepted as representative for the US economy and US stock market. Although its price proportionality is much criticized it is moving fully synchronized with the US wide index S&P 500, which is a market cap/float weighted and is undoubtedly representative. The correlation coefficient[11] between DJIA and S&P500 is equal to 0.9649. In most cases, the US stocks show a significant correlation with these representative indices. However, there are stocks on the market for which the relation is not relevant.



[9] Stock market index: https://en.wikipedia.org/wiki/Stock_market_index
[10] Raymond Dalio: https://en.wikipedia.org/wiki/Ray_Dalio
[11] Correlation coefficient: https://en.wikipedia.org/wiki/Correlation_coefficient#Types

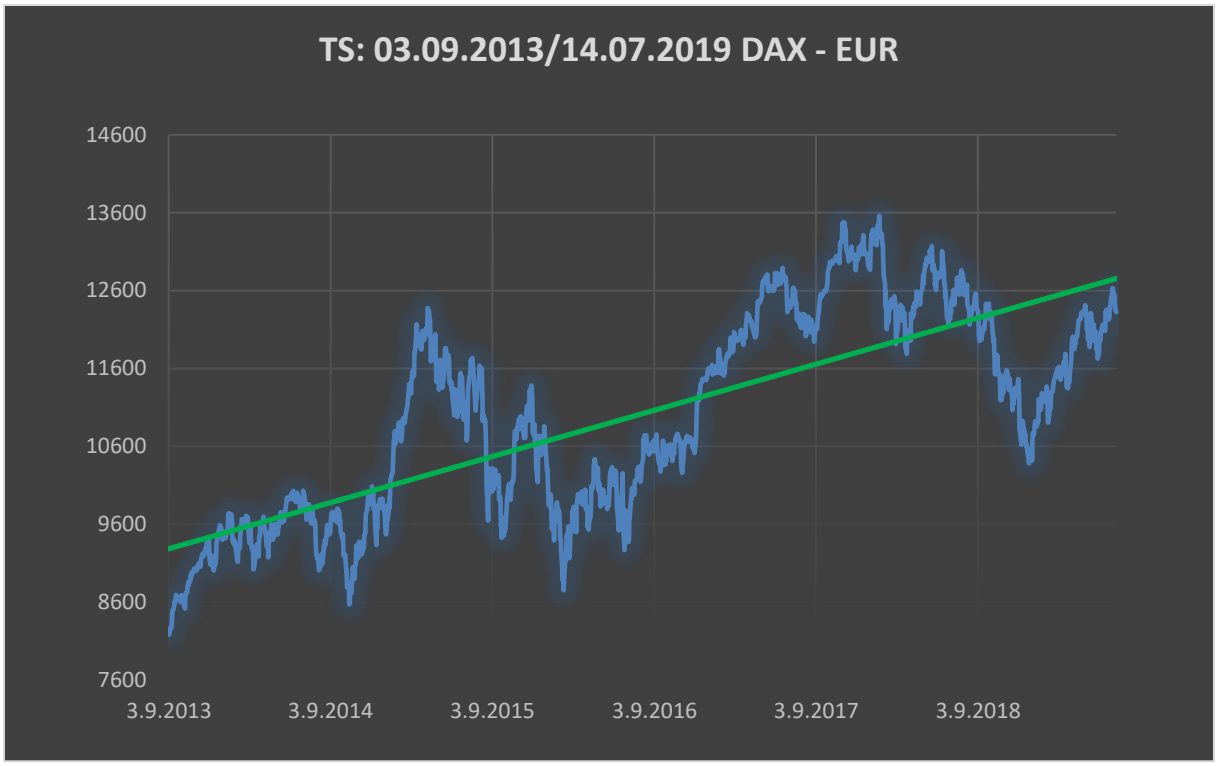
DJIA: market capitalization bubbles-map (July 14, 2019) – Source: finviz.com:



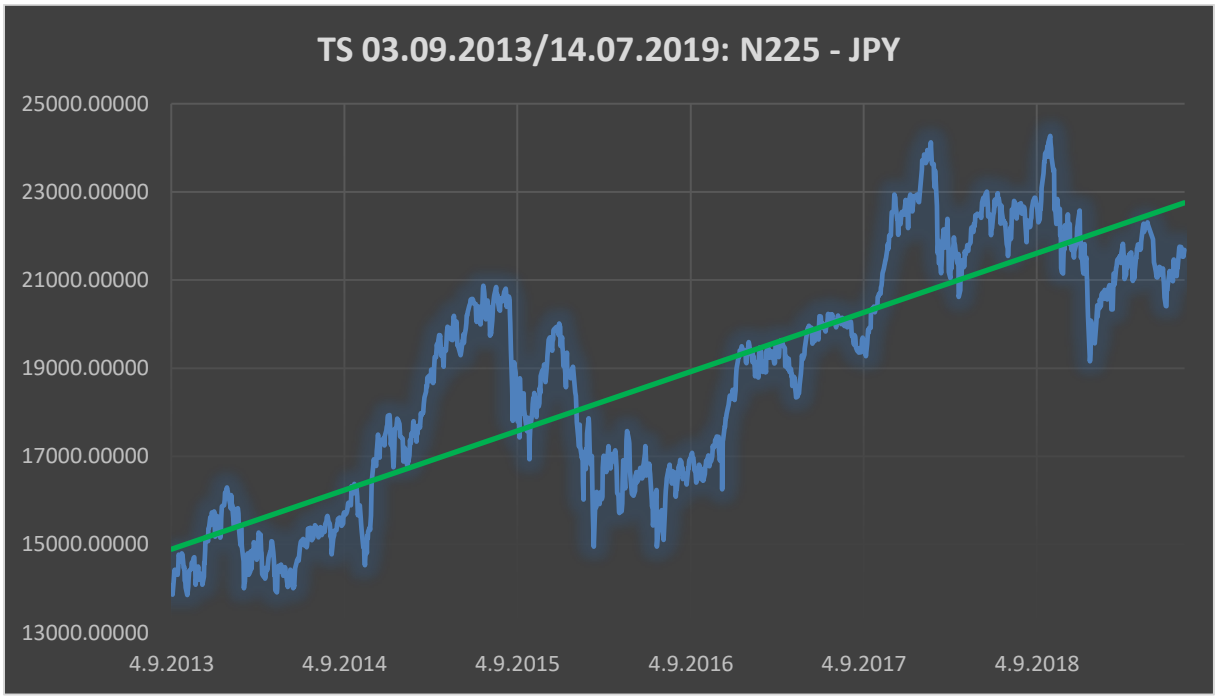


The German Stock Index is a total return index of 30 selected German blue chip stocks traded on the Frankfurt Stock Exchange. The equities use free float shares in the index calculation. The DAX has a base value of 1,000 as of December 31, 1987. As of June 18, 1999 only XETRA equity prices are used to calculate all DAX[12] indices.

[12] DAX: https://en.wikipedia.org/wiki/DAX

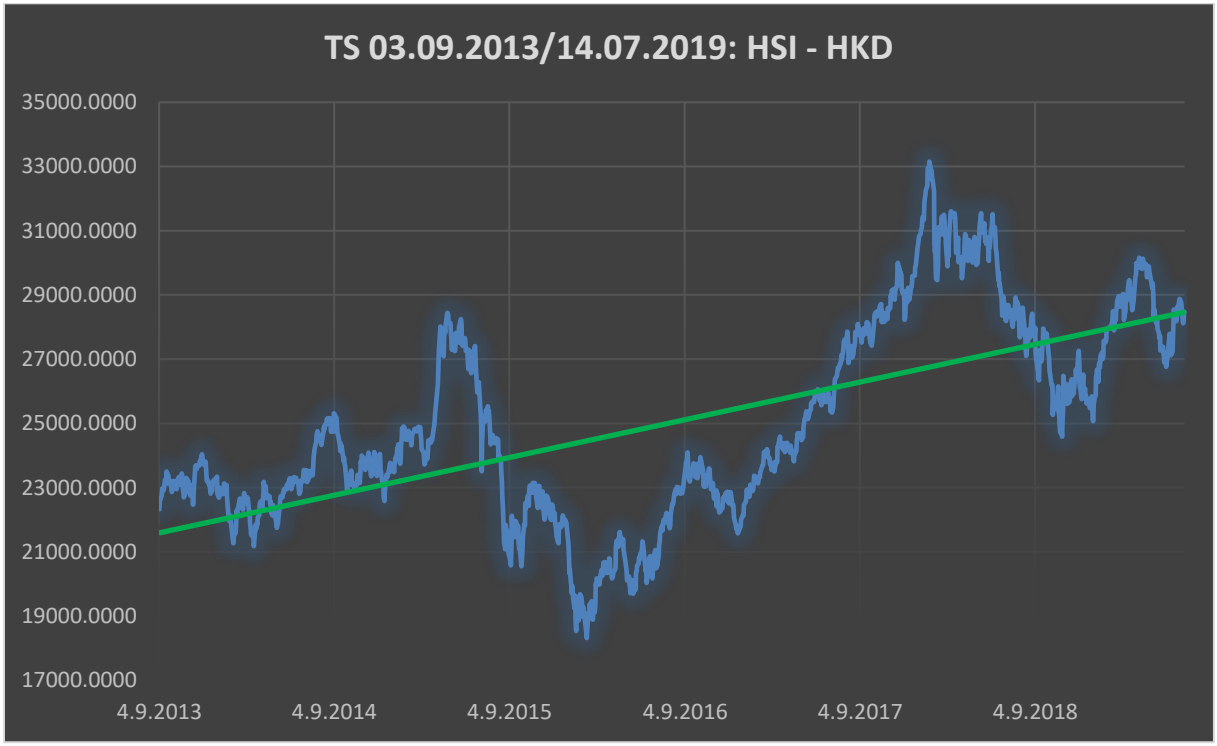


The Nikkei-225[13] Stock Average is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange. The Nikkei Stock Average was first published on May 16, 1949, where the average price was JPY 176.21



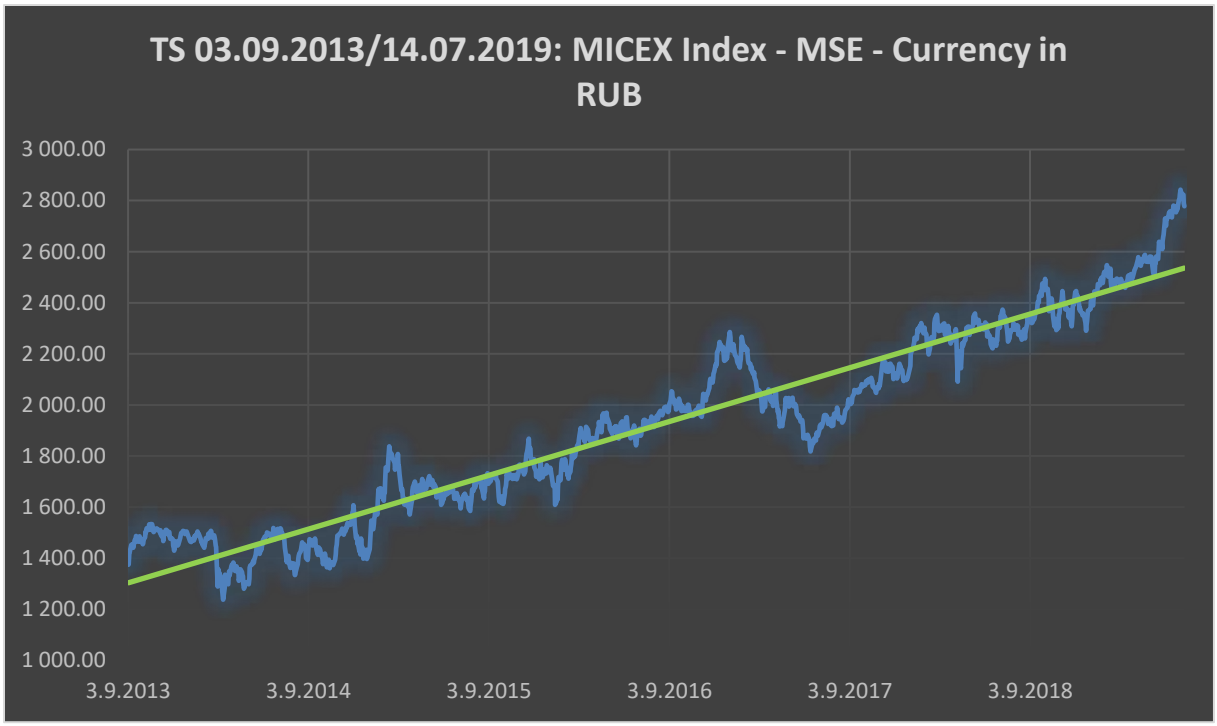
[13] Nikkei 225: https://en.wikipedia.org/wiki/Nikkei_225

The Hang Seng Index[14] is a free-float capitalization-weighted index of a selection of companies from the Stock Exchange of Hong Kong. Currency – HKD. The index was developed with a base level of 100 as of July 31, 1964.



The Moscow Exchange Indices are capitalization-weighted composite indices calculated based on prices of the most liquid Russian stocks of the largest and dynamically developing Russian issuers with economic activities related to the main sectors of the Russian economy presented on the Exchange. The MOEX Russia Index[15] (before December, 2017 – MICEX Index) was launched on September 22nd, 1997. The Index is calculated in real time and denominated in rubles.

[14] Hang Seng Index: https://en.wikipedia.org/wiki/Hang_Seng_Index
[15] MOEX Russia Index: https://en.wikipedia.org/wiki/MOEX_Russia_Index

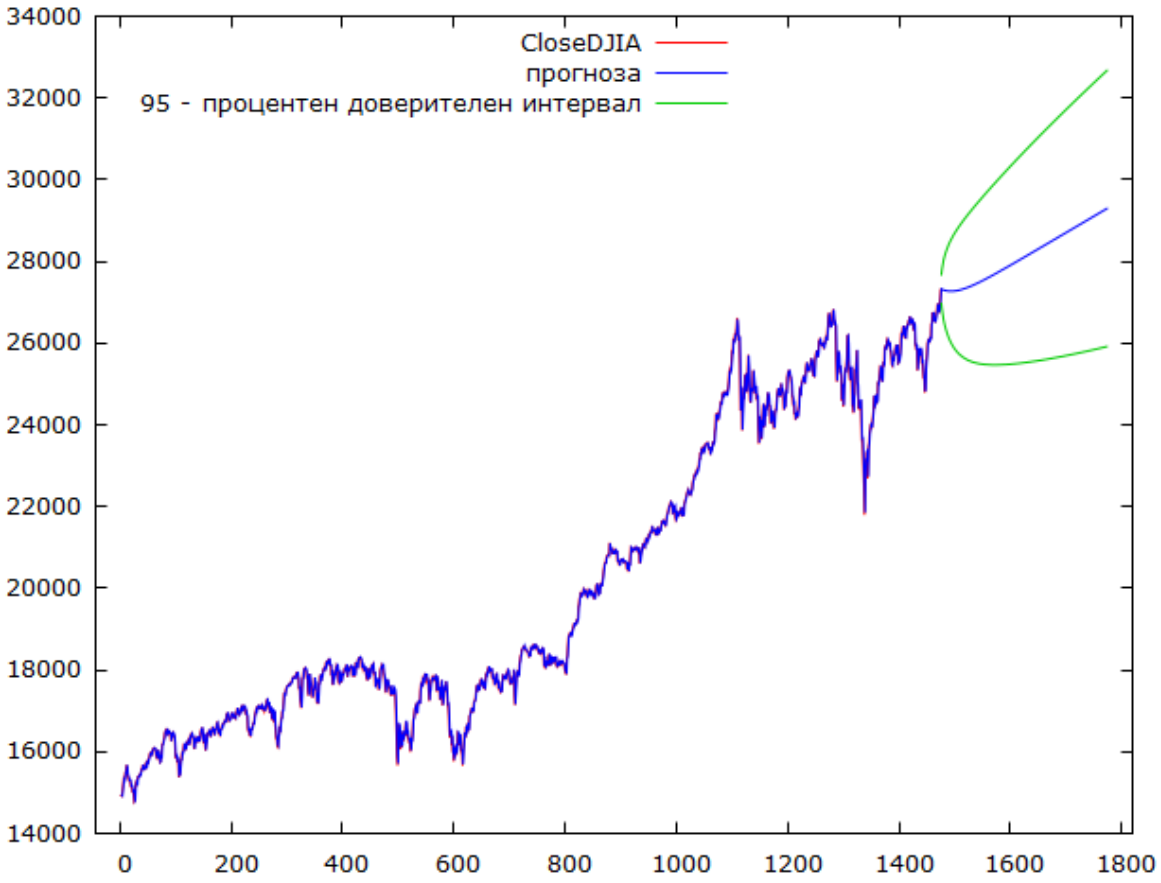


The estimations above are based on 6 years' Time Series.

Our approach, based only on quantitative data, generates a forecast, prepared by the ARIMA[16] model (on the basis of historical data from the last 5 years). The model predicts mostly optimistic opportunities for "buy and hold" strategies on the US Market as well as in Germany and Japan, but for short term trading manner. Obviously the Russian market seems more risky. We used Alpha = 0.05, which is a 95% confidence interval. It means that the ARIMA model estimates the upper and lower values around the forecast where there is only a 5% chance that the real value will not be in that range. Our model is fitted to estimate forecast for a future period of 300 trading days.

For the US Market:

[16] ARIMA: In general, a nonstationary time series will have no predictable patterns. The autoregressive integrated moving average (ARIMA) process generates nonstationary series that are integrated of order D, denoted I(D). A nonstationary I(D) process is one that can be made stationary by taking D differences. Such processes are often called difference-stationary or unit root processes.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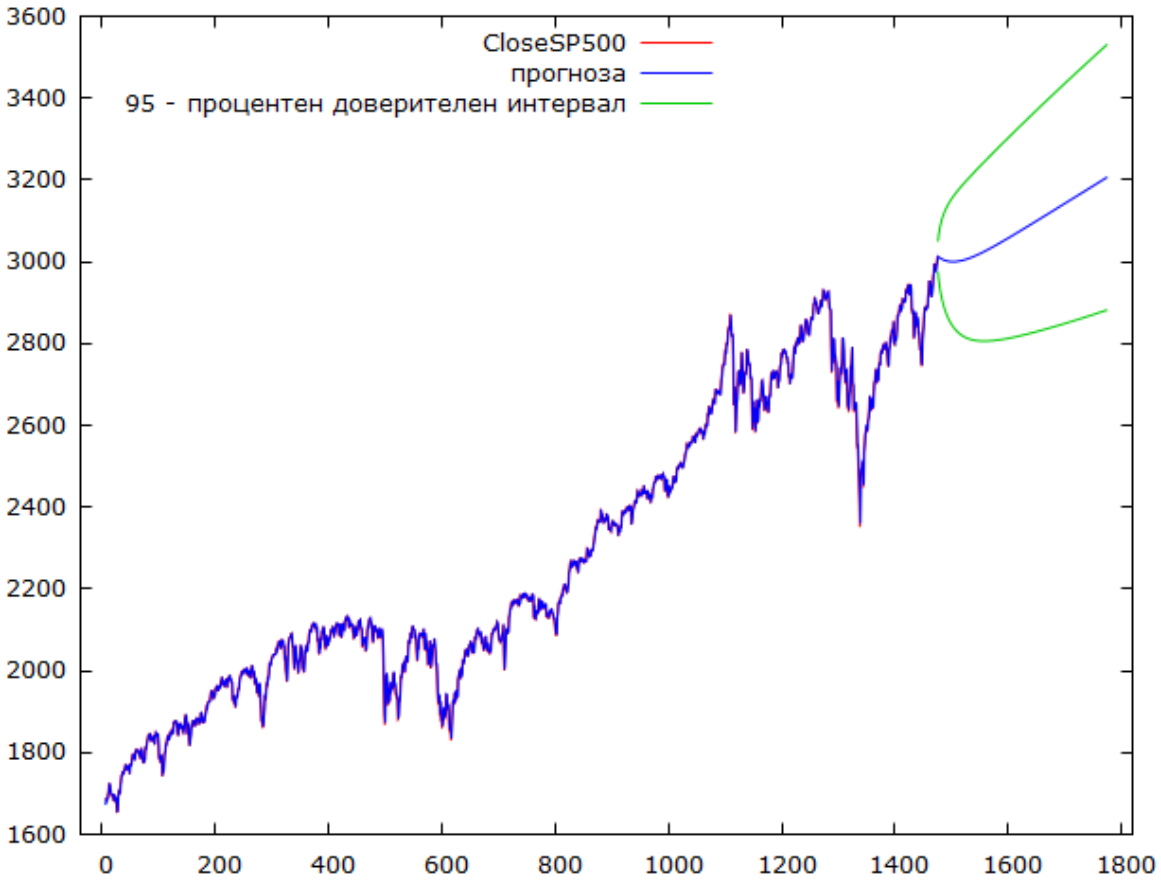
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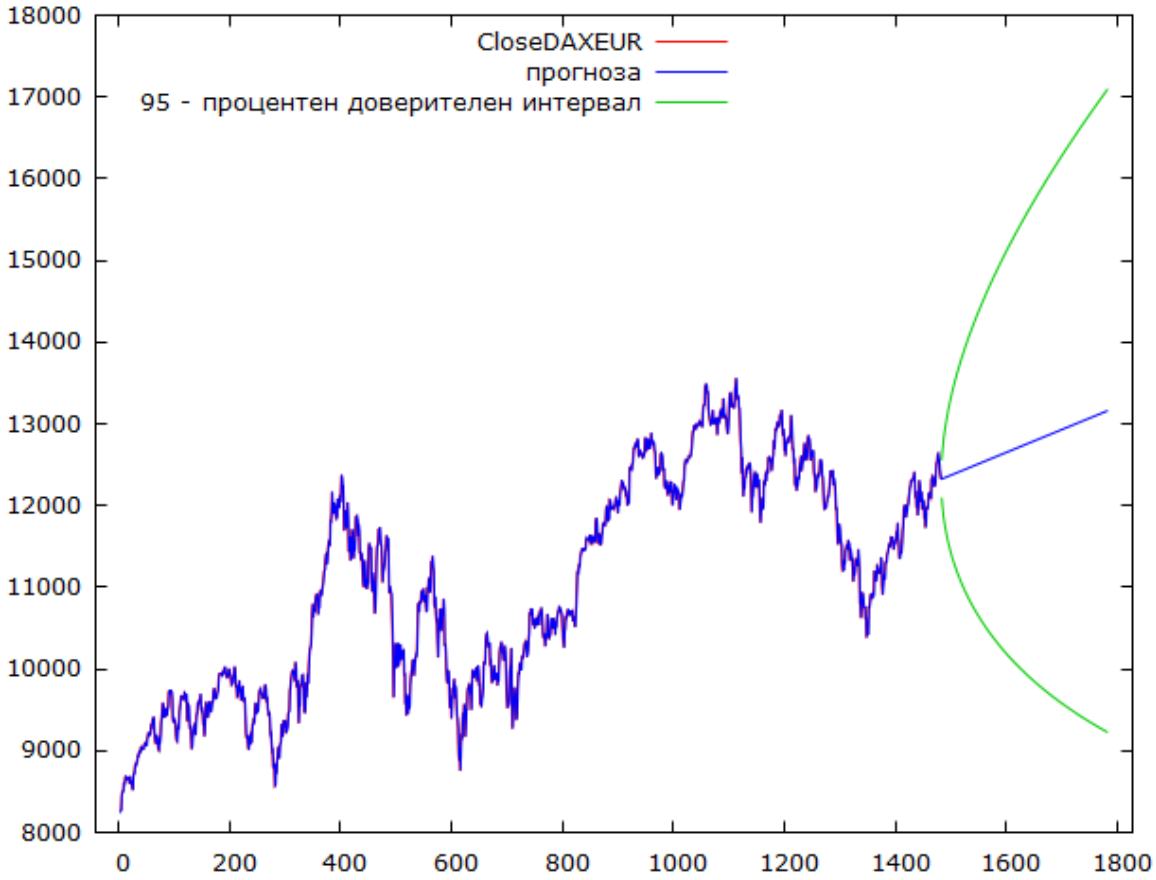
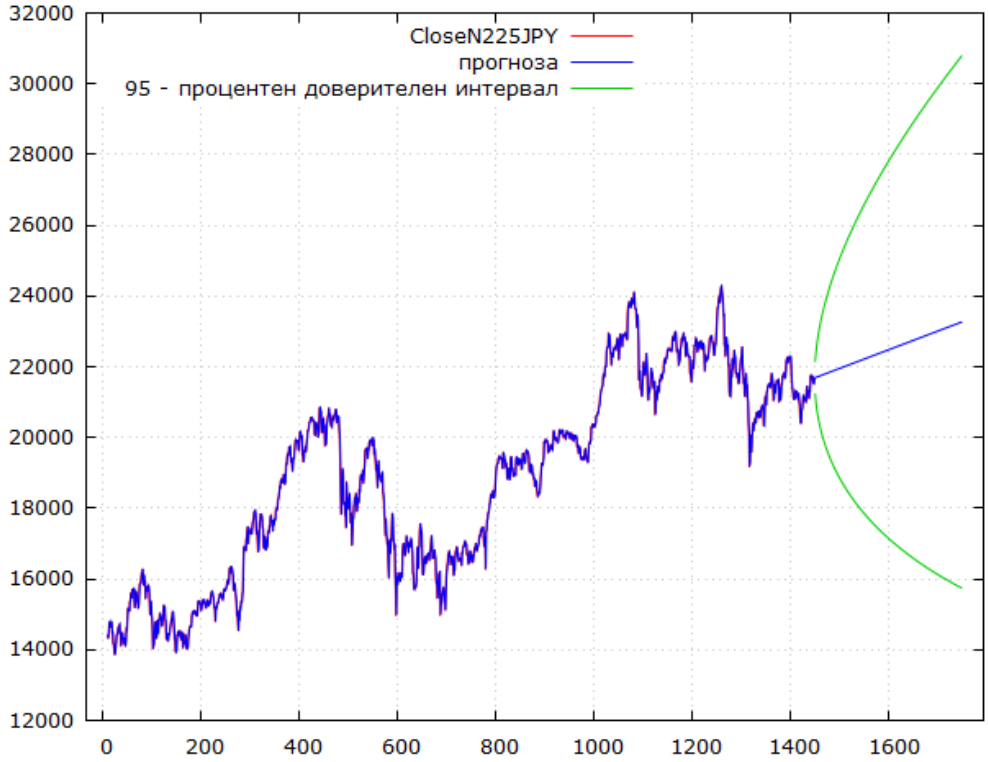
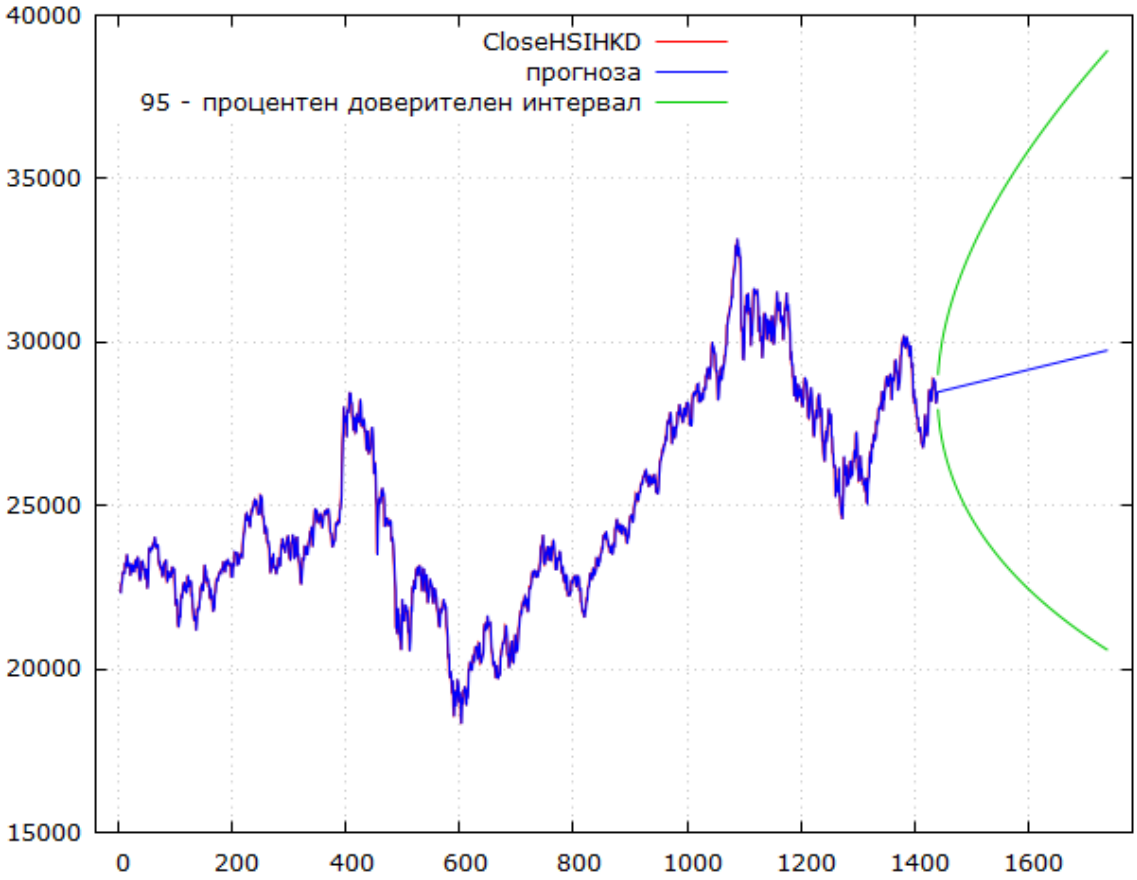
For the German market:



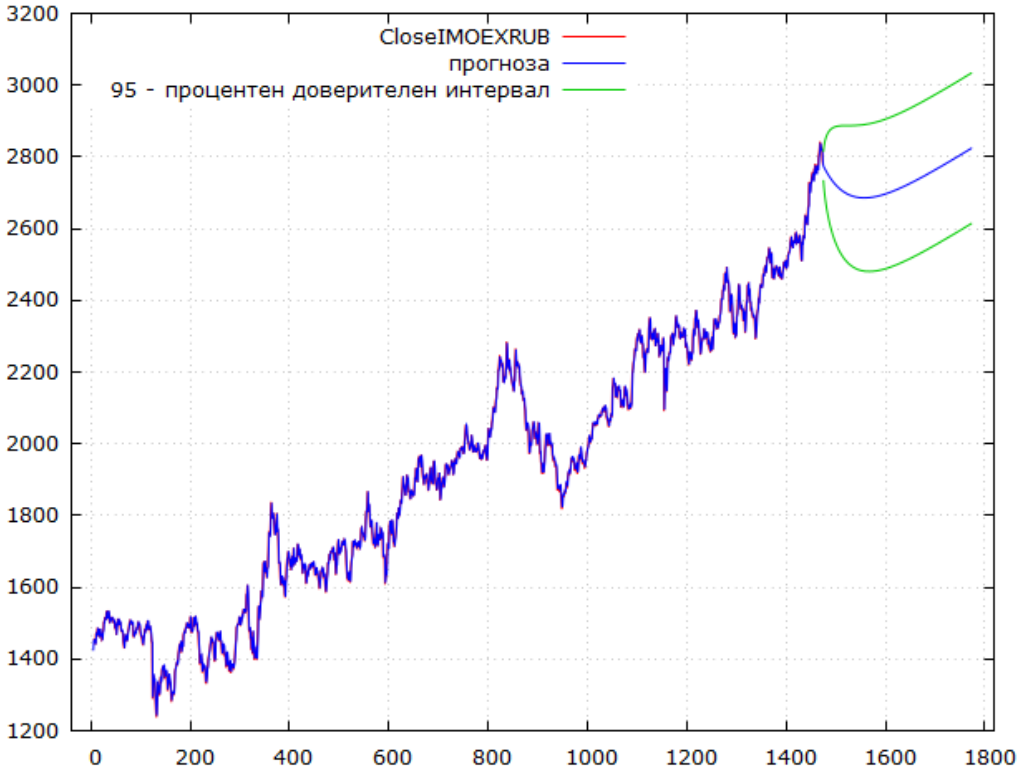
For Japan's equity market:



For the Stock Exchange of Hong Kong:



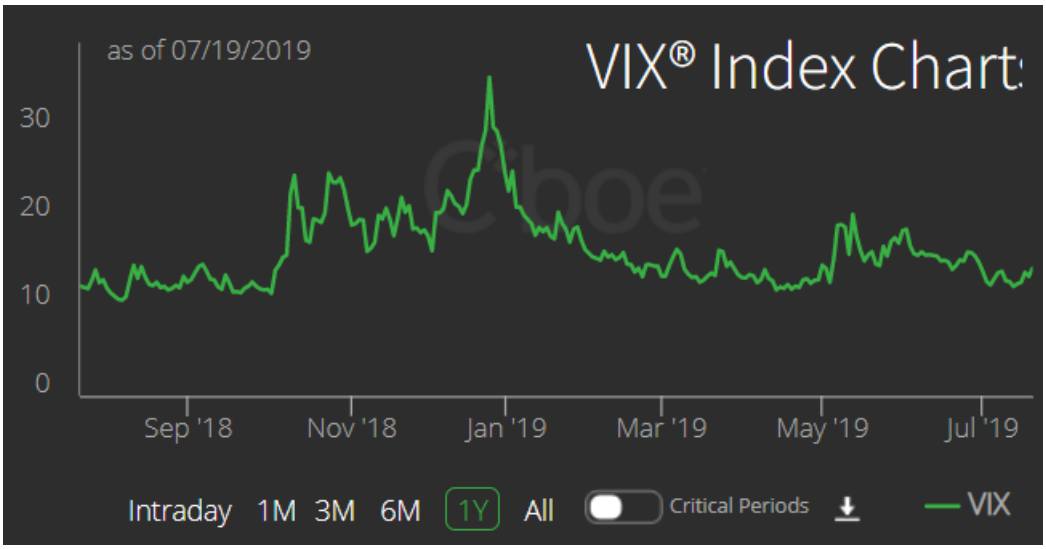
For Moscow Equity Market:



SOME RISK MEASURES

In a standard financial and academic methodology Risk measures are historical based estimators of investment risk. Very often a financial theory explains stock market prices as "random walk"[17]. Formally the random walk is a discrete-time process with increments between +1 and -1 with equal probability. Theoretically it means that price changes are random and thus cannot be predicted. This hypothesis is consistent with the classical efficient-market hypothesis, but is not well accepted by professionals on the Wall Street. Even so we can describe the return of a financial asset with two basic components: an average level, called "drift" and "volatility". The volatility refers to the amount of uncertainty. Thus the estimation of higher volatility assumes with a higher level of probability that the price of the asset can change dramatically over a short time period.

US market volatility can be seen and traded through the help of VIX-Volatility Index[18]. According to CBOE, the VIX Index is intended to provide an instantaneous measure of how much the market “thinks” the S&P 500 Index will fluctuate in the 30 days and can be used as a “barometer” for market uncertainty. The VIX Index is not directly tradable, but can replicating volatility exposure with a portfolio of SPX options. Chicago Board Options Exchange SPX Volatility Index reflects a market estimate of future volatility, based on the weighted average of the implied volatilities for a wide range of strikes. 1st & 2nd month expirations are used until 8 days from expiration, then the 2nd and 3rd are used.



Traditionally volatility gives a general sense of an asset's risk. In general, the standard deviation is used in making an investment decision to measure the amount of historical volatility associated with an investment relative to its annual rate of return. But for Arbitrageurs an asset with high volatility may actually be desirable.

Statistics: IND.- historical return and risk (Sept. 2013 / Jan. 2019 – daily):

JAN 2019 INDEX	*Median*[19]	*min.*	*max.*	*Standard Deviation*	*Coefficient of Skewness*
DJIA	0.00054883	-0.04605	0.039516	0.0082107	-0.539750
DAX	0.00059861	-0.06823	0.049717	0.0111300	-0.274740

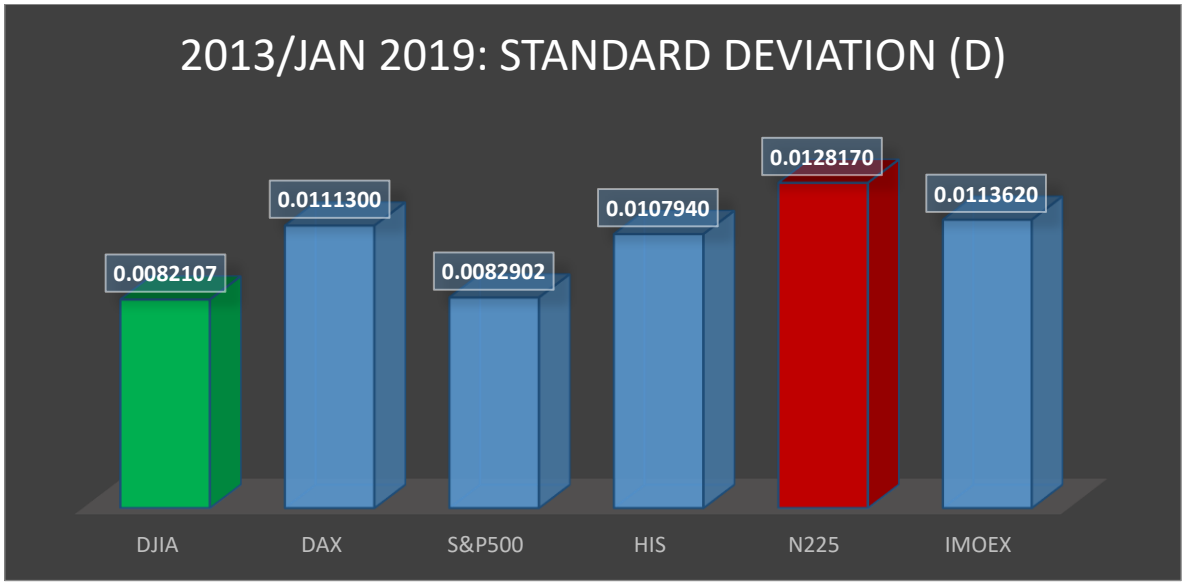
[17] Random walk: https://en.wikipedia.org/wiki/Random_walk
[18] VIX® Index: http://www.cboe.com/vix
[19] Median: https://en.wikipedia.org/wiki/Median

S&P500	0.00041867	-0.04098	0.049594	0.0082902	-0.379400
HIS	0.00053520	-0.05841	0.042113	0.0107940	-0.291810
N225	0.00059534	-0.07922	**0.077089**	**0.0128170**	-0.149430
IMOEX	0.00031925	**-0.10791**	0.052552	0.0113620	**-0.746580**

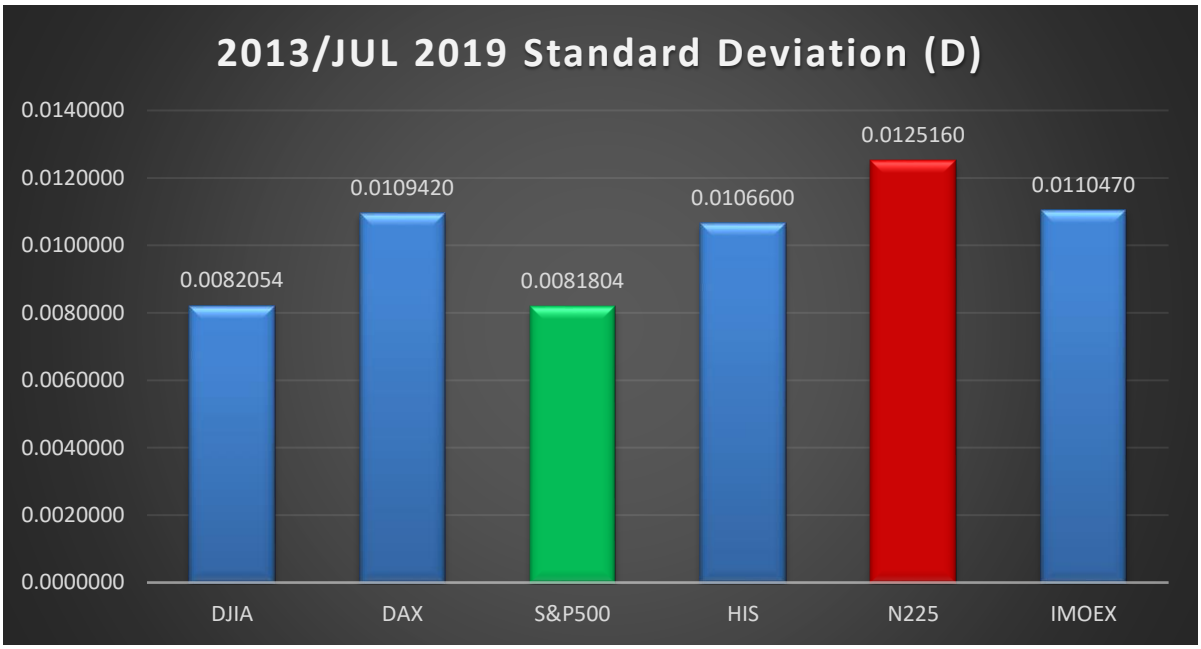
Statistics: IND.- historical return and risk (Sept. 2013 / Jul. 2019 – daily):

JUL 2019 INDEX	Median	**min.**	**max.**	**Standard Deviation**	**Coefficient of Skewness**
DJIA	0.00055658	-0.04605	0.049846	0.0082054	-0.389010
DAX	0.00069172	-0.06823	0.049717	0.0109420	-0.285670
S&P500	0.00052984	-0.04098	0.049594	0.0081804	-0.393860
HIS	0.00060564	-0.05841	0.042113	0.0106600	-0.285960
N225	0.00058963	-0.07922	**0.077089**	**0.0125160**	-0.150700
IMOEX	0.00039783	**-0.10791**	0.052552	0.0110470	**-0.746150**

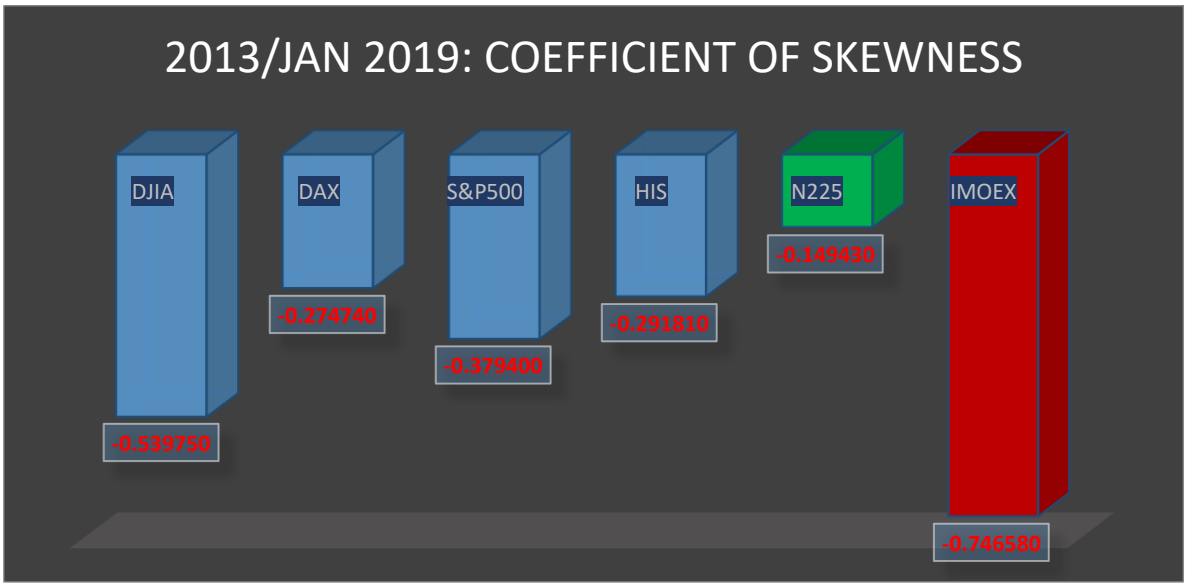
Standard Deviation[20] presents the historical volatility of an investment. As we underlined above, a volatile financial instrument has a high standard deviation, while the deviation of a stable investment is usually rather low. In the first half of 2019 NIKKEI 225 remains the highest daily standard deviation, which presents his return as more risky.



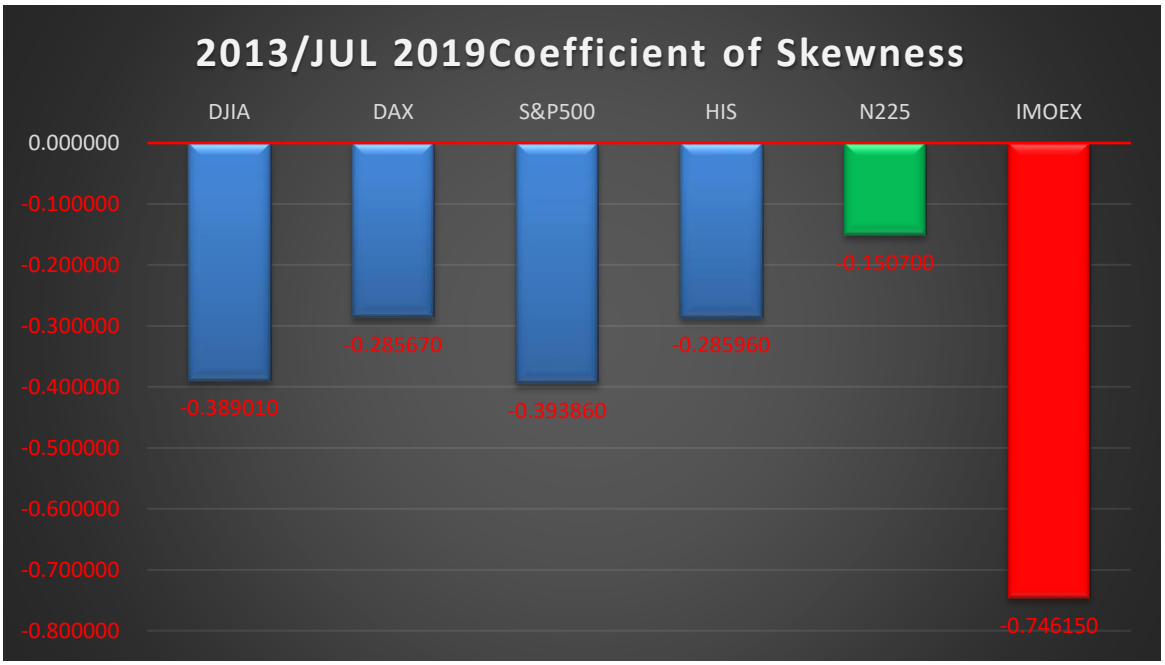
[20] Standard deviation: https://en.wikipedia.org/wiki/Standard_deviation



Coefficient of Skewness[21] is a measure of the asymmetry of the probability distribution of a real-valued random variable about its mean. It is accepted that when it is different from 0 and does not exceed 1 in absolute value, the distribution can be considered as moderately asymmetric.



[21] Skewness: https://en.wikipedia.org/wiki/Skewness



Our skewness results do not show any stressful deviations. In general, a positively skewed return distribution is desired by most hedge fund managers. It shows small frequency of very big profits. Our data shows negative Skewness. It involves a lot of small gains and a few large losses. It is typically welcome for some special strategies like merger arbitrage. This picture of the indices can assure us that the risk for a few large losses is most likely for investment exposure in the Russian market (represented by IMOEX). On the contrary, this possibility is the smallest for N225.

As additional standardized measure we use the Coefficient of variation[22] (CV), defined as the ratio of the standard deviation to the expected value of return. CV measures the amount of risk against a unit of the expected return.

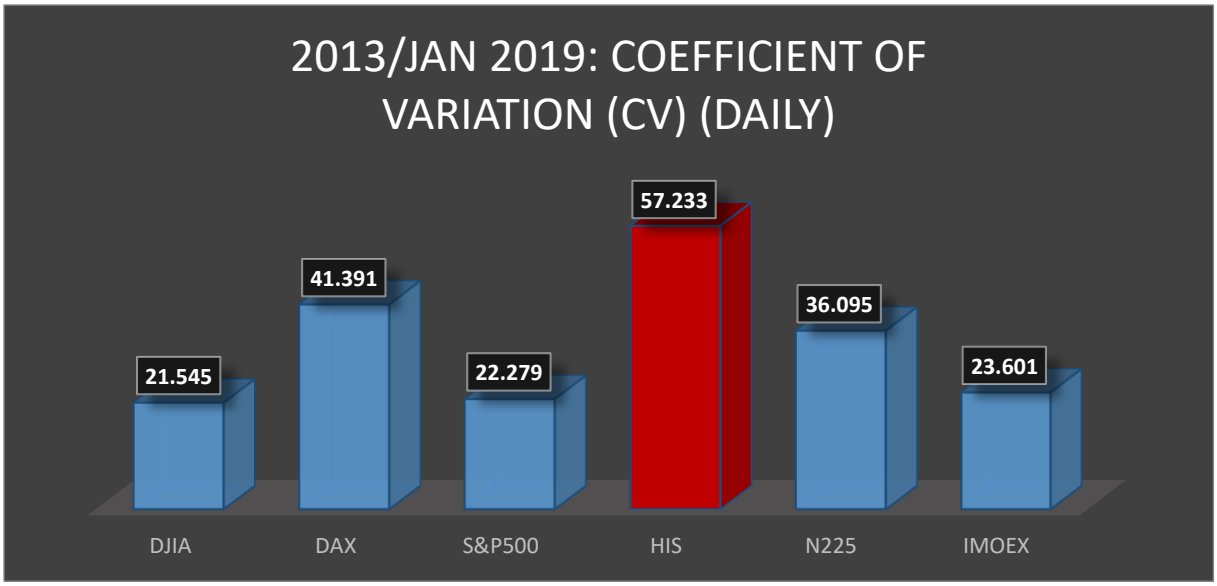
In the table below are presented calculations for 6 years performance on a daily basis:

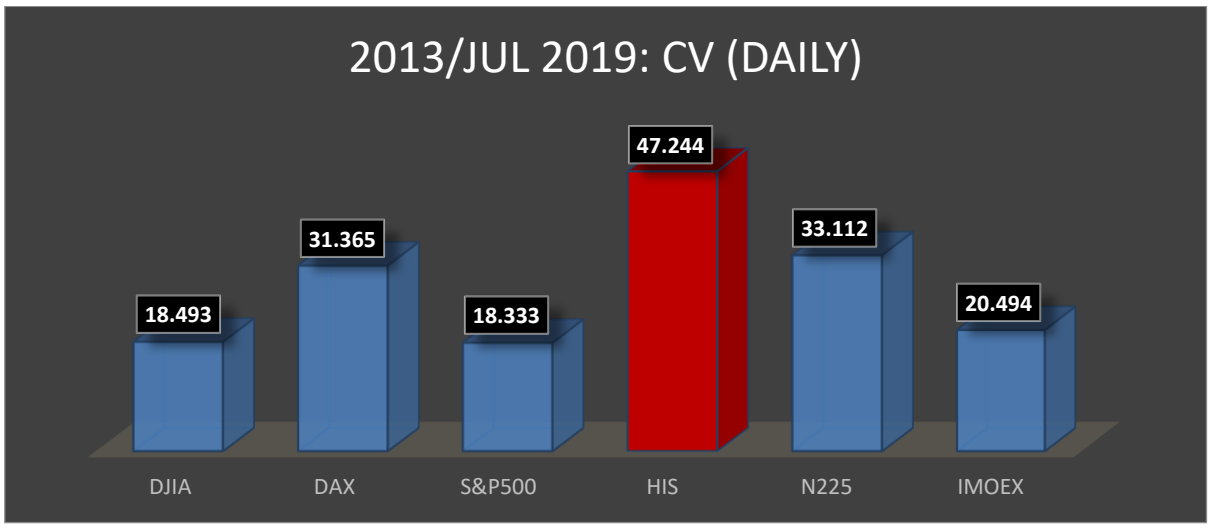
JAN 2019	st dev (d)	E Return (d)	CV (d)
DJIA	0.82%	0.0381%	21.545
DAX	1.11%	0.0269%	41.391
S&P500	0.83%	0.0372%	22.279
HIS	1.08%	0.0189%	**57.233**
N225	1.28%	0.0355%	36.095
IMOEX	1.14%	0.0481%	23.601

JUL 2019	st dev (d)	E Return (d)	CV (d)
DJIA	0.82%	0.0444%	18.493
DAX	1.09%	0.0349%	31.365
S&P500	0.82%	0.0446%	18.333
HIS	1.07%	0.0226%	**47.244**
N225	1.25%	0.0378%	33.112
IMOEX	1.10%	0.0539%	20.494

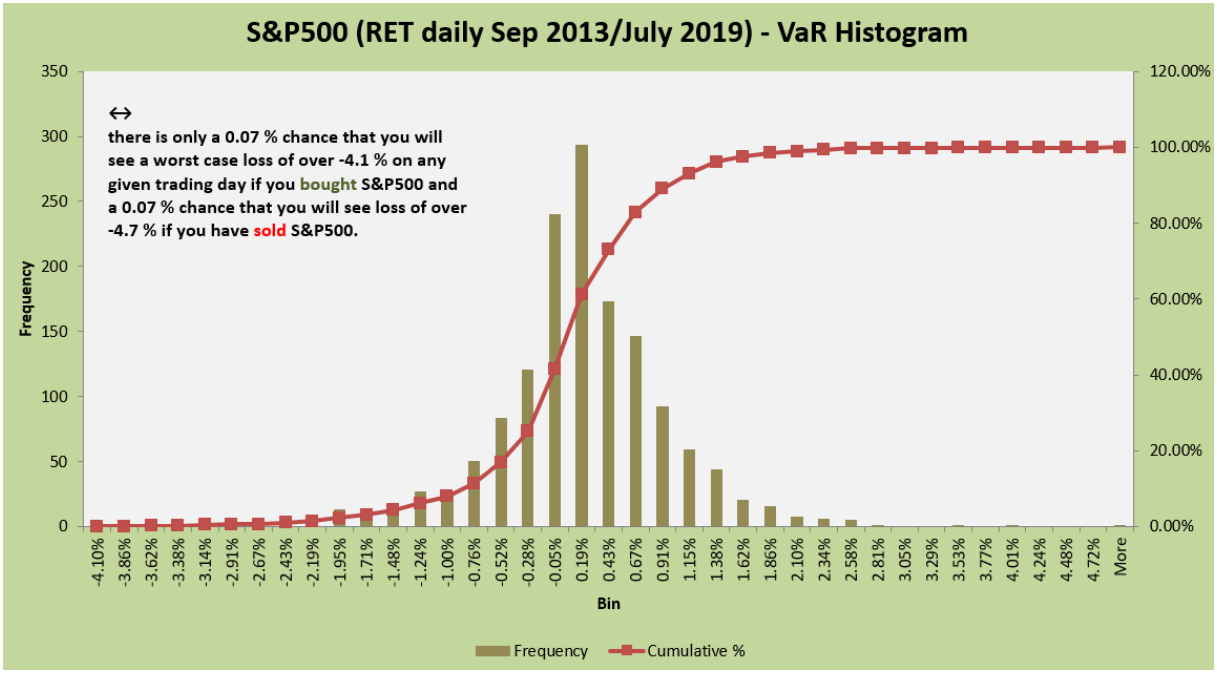
Obviously, this year investors have taken a high amount of risk against a unit of expected return on the stock market in Hong Kong, followed by Japan outstripping Germany by this indicator.

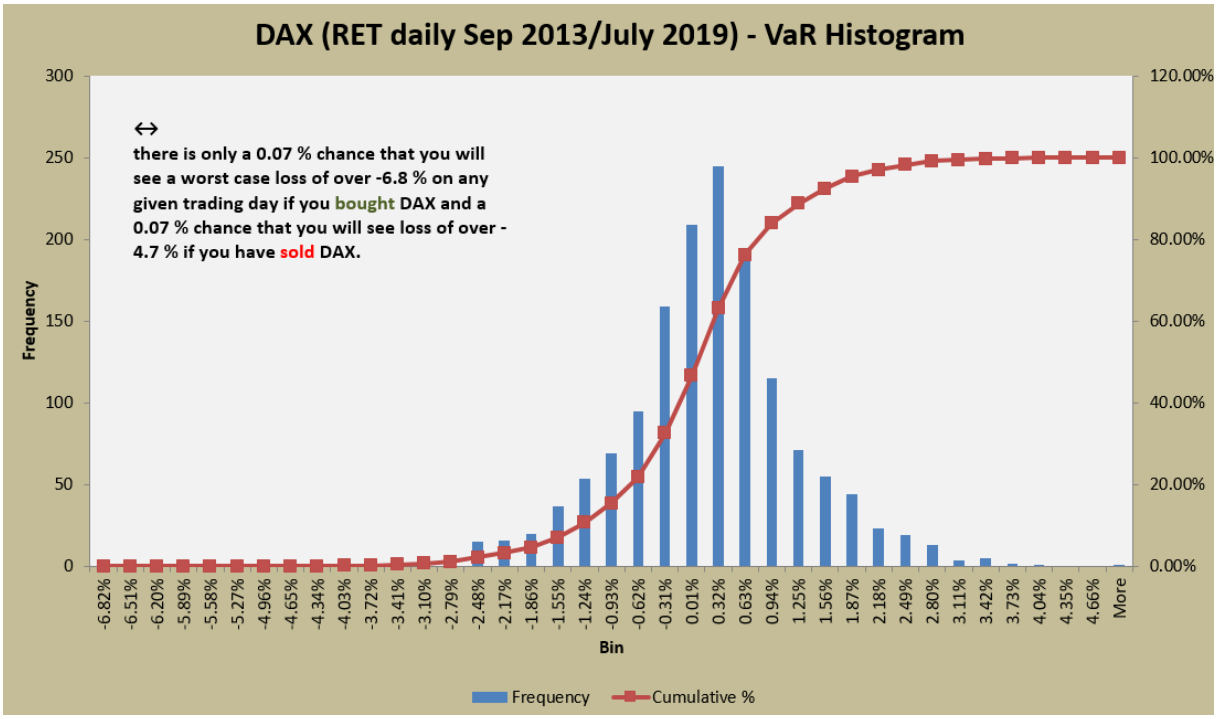
[22] Coefficient of variation: https://en.wikipedia.org/wiki/Coefficient_of_variation

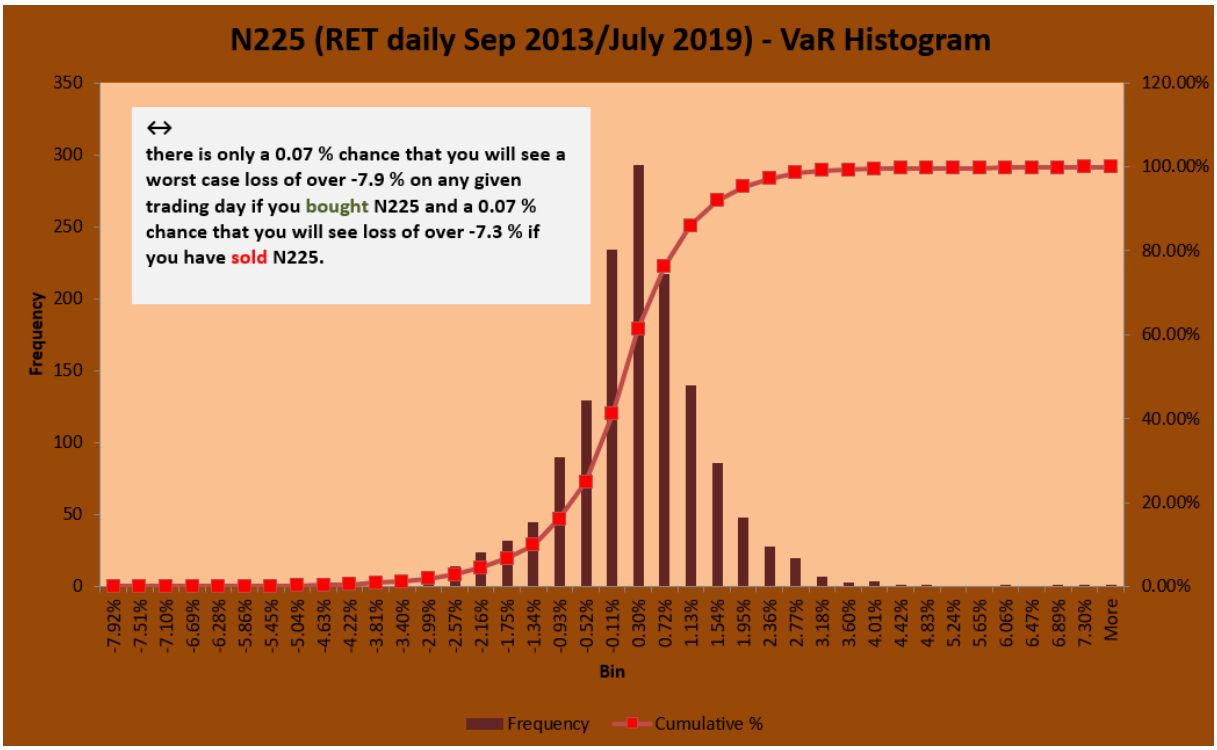


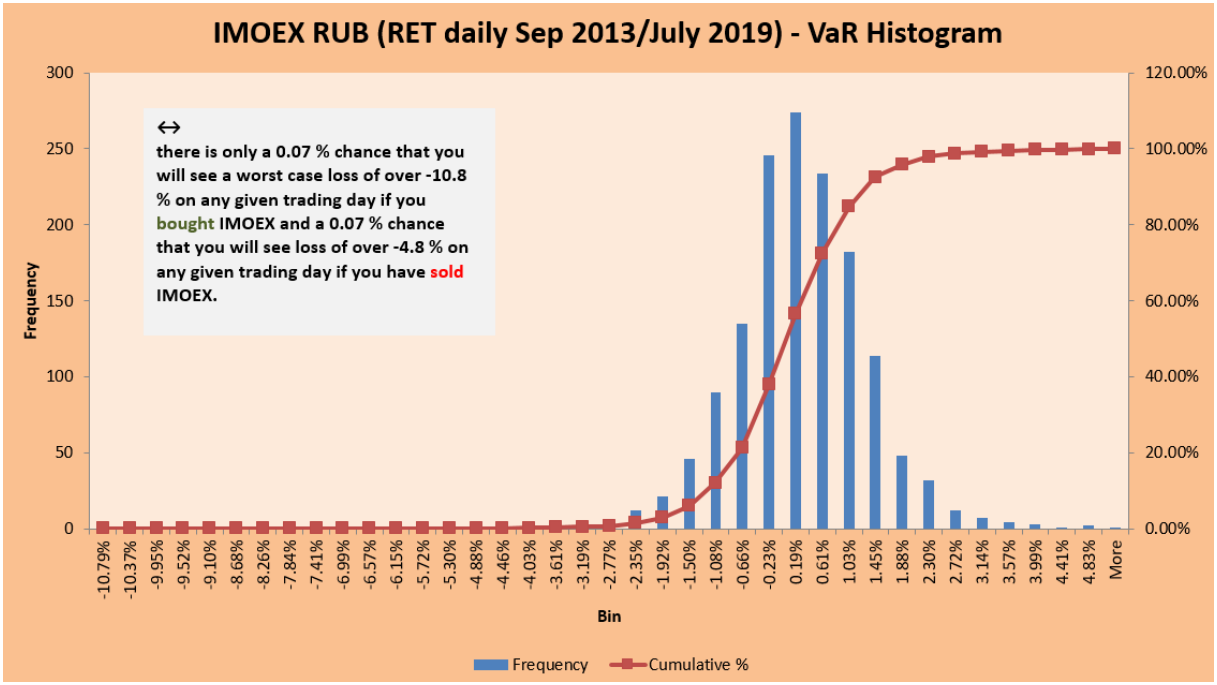


In addition we present a simple but useful measure of probability for loses based on investors values exposure on risk. The charts below could help retails to understand the risk better:


S&P500 (RET daily Sep 2013/July 2019) - VaR Histogram
↔
there is only a 0.07 % chance that you will see a worst case loss of over -4.1 % on any given trading day if you bought S&P500 and a 0.07 % chance that you will see loss of over -4.7 % if you have sold S&P500.
Frequency
Cumulative %
Bin
350
300
250
200
150
100
50
0
120.00%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
-4.10%
-3.86%
-3.62%
-3.38%
-3.14%
-2.91%
-2.67%
-2.43%
-2.19%
-1.95%
-1.71%
-1.48%
-1.24%
-1.00%
-0.76%
-0.52%
-0.28%
-0.05%
0.19%
0.43%
0.67%
0.91%
1.15%
1.38%
1.62%
1.86%
2.10%
2.34%
2.58%
2.81%
3.05%
3.29%
3.53%
3.77%
4.01%
4.24%
4.48%
4.72%
More


DAX (RET daily Sep 2013/July 2019) - VaR Histogram
↔
there is only a 0.07 % chance that you will see a worst case loss of over -6.8 % on any given trading day if you bought DAX and a 0.07 % chance that you will see loss of over -4.7 % if you have sold DAX.
Frequency
Cumulative %
Bin
300
250
200
150
100
50
0
120.00%
100.00%
80.00%
60.00%
40.00%
20.00%
0.00%
-6.82%
-6.51%
-6.20%
-5.89%
-5.58%
-5.27%
-4.96%
-4.65%
-4.34%
-4.03%
-3.72%
-3.41%
-3.10%
-2.79%
-2.48%
-2.17%
-1.86%
-1.55%
-1.24%
-0.93%
-0.62%
-0.31%
0.01%
0.32%
0.63%
0.94%
1.25%
1.56%
1.87%
2.18%
2.49%
2.80%
3.11%
3.42%
3.73%
4.04%
4.35%
4.66%
More

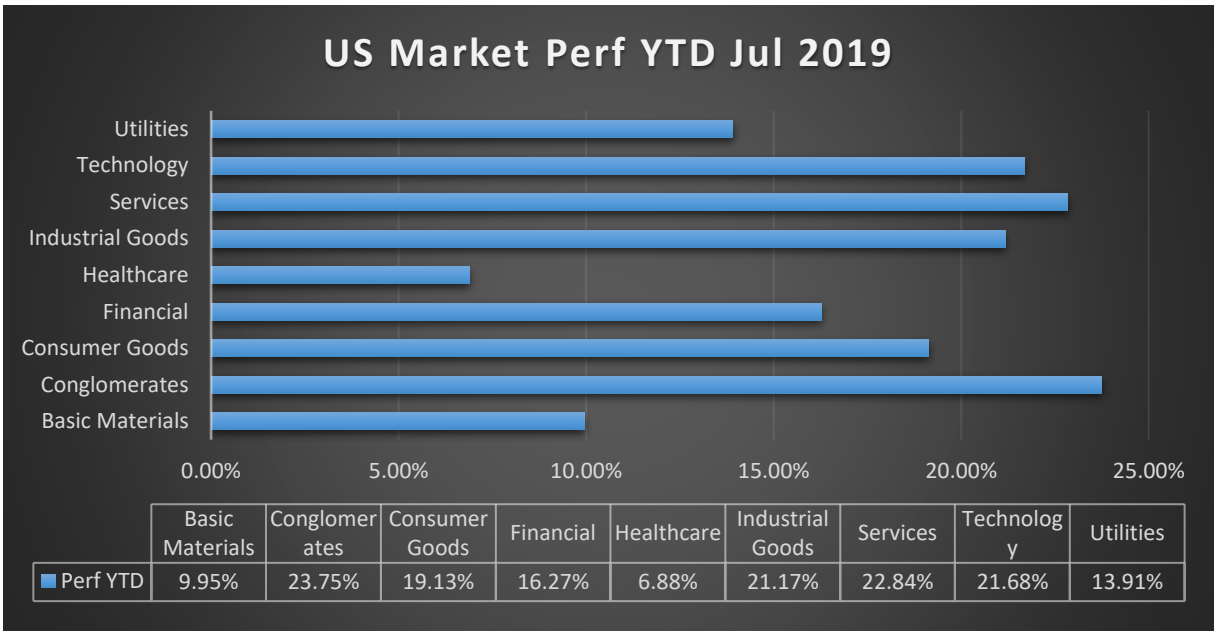




US CAPITAL MARKET

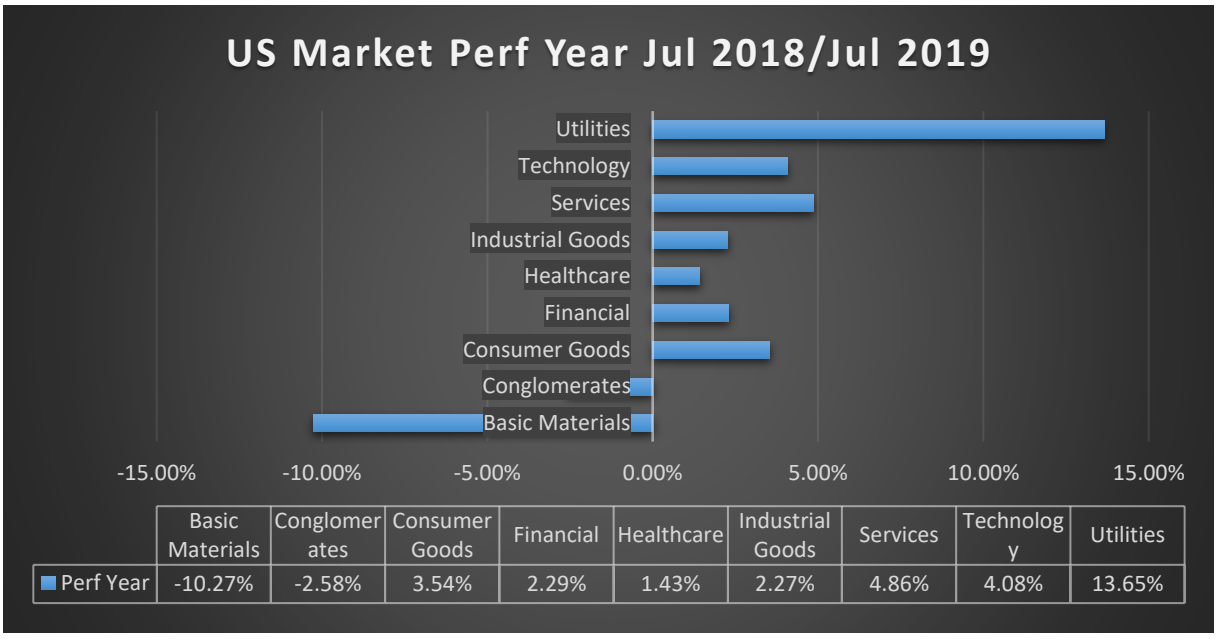
The perfect investment instrument is characterized by minimum risk, highest return and maximum liquidity. Unfortunately it is an unrealistic dream. Therefore we pay attention to the US capital market, because it remains the most liquid capital market in the world. Moreover, the US economy has been pulling away from the rest of the world.

Our overview of the US economic sectors shows the most positive performance YTD[23] (up to 19 July 2019) for Conglomerates and Services:



	Basic Materials	Conglomerates	Consumer Goods	Financial	Healthcare	Industrial Goods	Services	Technology	Utilities
Perf YTD	9.95%	23.75%	19.13%	16.27%	6.88%	21.17%	22.84%	21.68%	13.91%

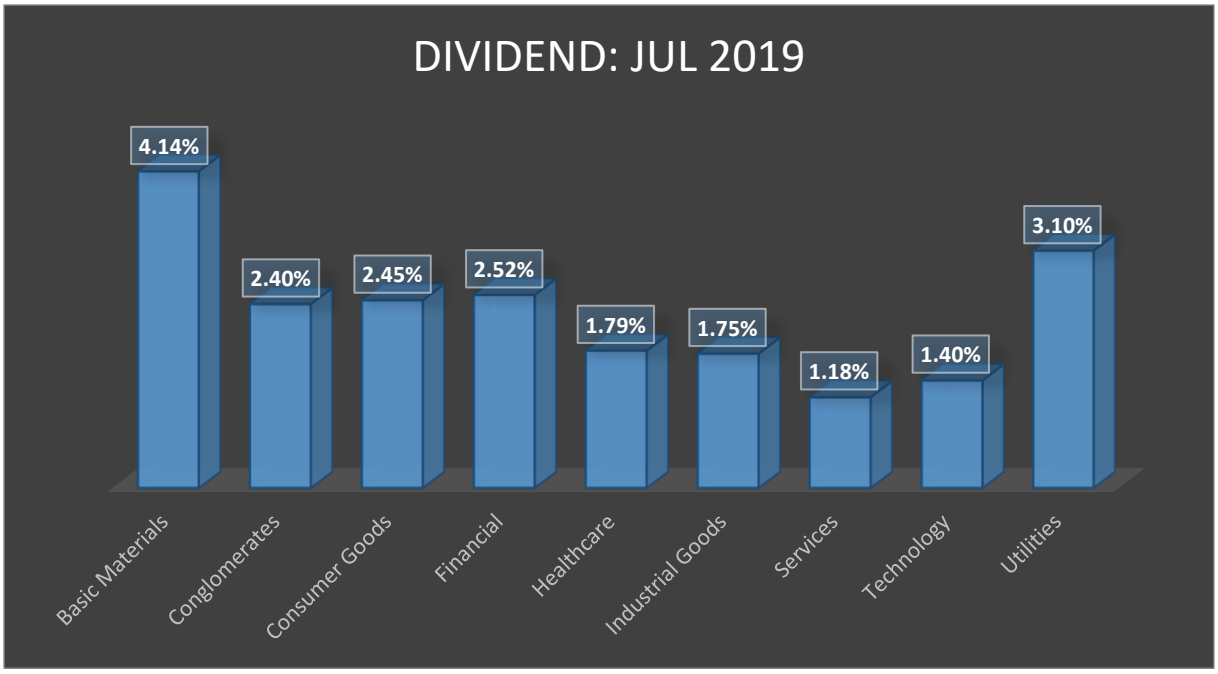
But 1 Year Performance, computed in July of 2019, shows different picture:



	Basic Materials	Conglomerates	Consumer Goods	Financial	Healthcare	Industrial Goods	Services	Technology	Utilities
Perf Year	-10.27%	-2.58%	3.54%	2.29%	1.43%	2.27%	4.86%	4.08%	13.65%

Basic Materials sector provides to shareholders highest average dividend yield (4.14%)

[23] Year-to-date (YTD) is a period, starting from the beginning of the current calendar year and continuing up to the present day.



We present below actual order of US stocks from sector Basic Materials with Dividend Yield >10%:

No.	Ticker	Company	Sector	Industry	Country	Price
1	AM	Antero Midstream Corporation	Basic Materials	Oil & Gas Pipelines	USA	10.98
2	ANDX	Andeavor Logistics LP	Basic Materials	Oil & Gas Equipment & Services	USA	35.13
3	ARLP	Alliance Resource Partners, L.P.	Basic Materials	Industrial Metals & Minerals	USA	16.96
4	BKEP	Blueknight Energy Partners, L.P.	Basic Materials	Oil & Gas Pipelines	USA	1.32
5	BKEPP	Blueknight Energy Partners, L.P.	Basic Materials	Independent Oil & Gas	USA	5.24
6	BPT	BP Prudhoe Bay Royalty Trust	Basic Materials	Oil & Gas Refining & Marketing	USA	13.01
7	CAPL	CrossAmerica Partners LP	Basic Materials	Oil & Gas Refining & Marketing	USA	16.97
8	CCR	CONSOL Coal Resources LP	Basic Materials	Industrial Metals & Minerals	USA	15.6
9	CELP	Cypress Energy Partners, L.P.	Basic Materials	Oil & Gas Equipment & Services	USA	7.3
10	CHKR	Chesapeake Granite Wash Trust	Basic Materials	Independent Oil & Gas	USA	1
11	CNXM	CNX Midstream Partners LP	Basic Materials	Oil & Gas Pipelines	USA	14.29
12	CRT	Cross Timbers Royalty Trust	Basic Materials	Oil & Gas Drilling & Exploration	USA	11.57
13	DCP	DCP Midstream, LP	Basic Materials	Oil & Gas Pipelines	USA	29.96
14	DKL	Delek Logistics Partners, LP	Basic Materials	Independent Oil & Gas	USA	31.89

15	ECT	ECA Marcellus Trust I	Basic Materials	Oil & Gas Drilling & Exploration	USA	1.71
16	ENLC	EnLink Midstream, LLC	Basic Materials	Oil & Gas Pipelines	USA	10.19
17	EQM	EQM Midstream Partners, LP	Basic Materials	Oil & Gas Pipelines	USA	40.94
18	ETRN	Equitrans Midstream Corporation	Basic Materials	Independent Oil & Gas	USA	17.53
19	FELP	Foresight Energy LP	Basic Materials	Nonmetallic Mineral Mining	USA	0.57
20	FGP	Ferrellgas Partners, L.P.	Basic Materials	Oil & Gas Refining & Marketing	USA	0.87
21	GPP	Green Plains Partners LP	Basic Materials	Oil & Gas Pipelines	USA	14.38
22	GSM	Ferroglobe PLC	Basic Materials	Industrial Metals & Minerals	USA	1.7
23	MMLP	Martin Midstream Partners L.P.	Basic Materials	Oil & Gas Pipelines	USA	6.85
24	MVO	MV Oil Trust	Basic Materials	Independent Oil & Gas	USA	7.75
25	NGL	NGL Energy Partners LP	Basic Materials	Oil & Gas Refining & Marketing	USA	15.04
26	PER	SandRidge Permian Trust	Basic Materials	Independent Oil & Gas	USA	1.75
27	PRT	PermRock Royalty Trust	Basic Materials	Oil & Gas Equipment & Services	USA	7.9
28	PVL	Permianville Royalty Trust	Basic Materials	Independent Oil & Gas	USA	2.66
29	ROYT	Pacific Coast Oil Trust	Basic Materials	Independent Oil & Gas	USA	2.15
30	SDR	SandRidge Mississippian Trust II	Basic Materials	Independent Oil & Gas	USA	0.63
31	SDT	SandRidge Mississippian Trust I	Basic Materials	Independent Oil & Gas	USA	0.61
32	SEMG	SemGroup Corporation	Basic Materials	Oil & Gas Pipelines	USA	11.79
33	SJT	San Juan Basin Royalty Trust	Basic Materials	Independent Oil & Gas	USA	3.41
34	SMLP	Summit Midstream Partners, LP	Basic Materials	Oil & Gas Pipelines	USA	7.36
35	SNMP	Sanchez Midstream Partners LP	Basic Materials	Oil & Gas Pipelines	USA	2.23
36	SRLP	Sprague Resources LP	Basic Materials	Oil & Gas Refining & Marketing	USA	17.91
37	USAC	USA Compression Partners, LP	Basic Materials	Oil & Gas Equipment & Services	USA	18.44
38	VOC	VOC Energy Trust	Basic Materials	Independent Oil & Gas	USA	5.62

An in-depth fundamental analysis can be made according to the current ratios shown in the table below:

No.	Name	P/E	Fwd P/E	PEG
1	Basic Materials	14.54	12.56	1.17
2	Conglomerates	200.47	108.5	19.07
3	Consumer Goods	18.56	16.04	2.1
4	Financial	0.22	14.02	0.02
5	Healthcare	27.65	16.45	2.61
6	Industrial Goods	20.28	15.99	1.97
7	Services	26.68	19.33	2.34
8	Technology	24.13	17.35	1.76
9	Utilities	24.72	21.16	3.95

COMMODITIES

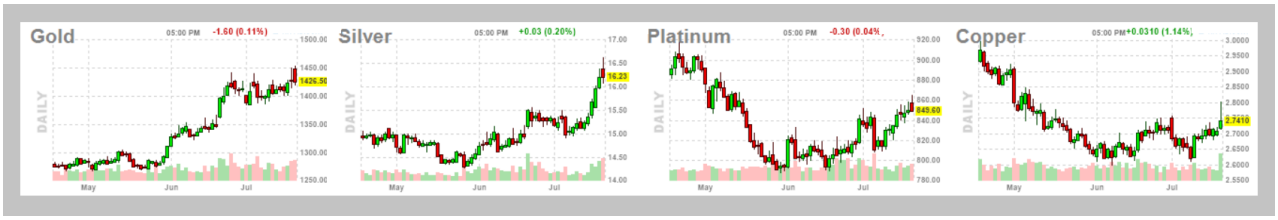
Some commodities are characterized with a stronger speculative element. It is strongest in the Crude Oil and Gold and very weak in the Orange juice, Coffee and Cacao. Of special importance is the role of the Gold as a "safe haven" (together with Silver, CHF and JPY). Gold has long been considered a reliable store of wealth, and that reputation is not likely to change soon.

Gold's price history has seen some significant ups and downs and catastrophic volatility and may be fueled by such issues as central bank interventions, inflation, geopolitical conflicts, monetary policy, capital markets, etc. One of the biggest drivers of Gold remains exchange currency rates, because Gold is denominated in USD.

A USD that costs more in terms of foreign currencies tends to lower the prices of USD-denominated commodities. Unfortunately, just when emerging-market exporters of commodities need more support from the USD-denominated commodity exports, the USD price of such exports tends to fall. The Gold will be relatively less expensive for foreign buyers, if USD is weak, and thus it may lift prices. Contrary, a stronger USD makes Gold relatively more expensive for foreign buyers and it possibly depressing prices.

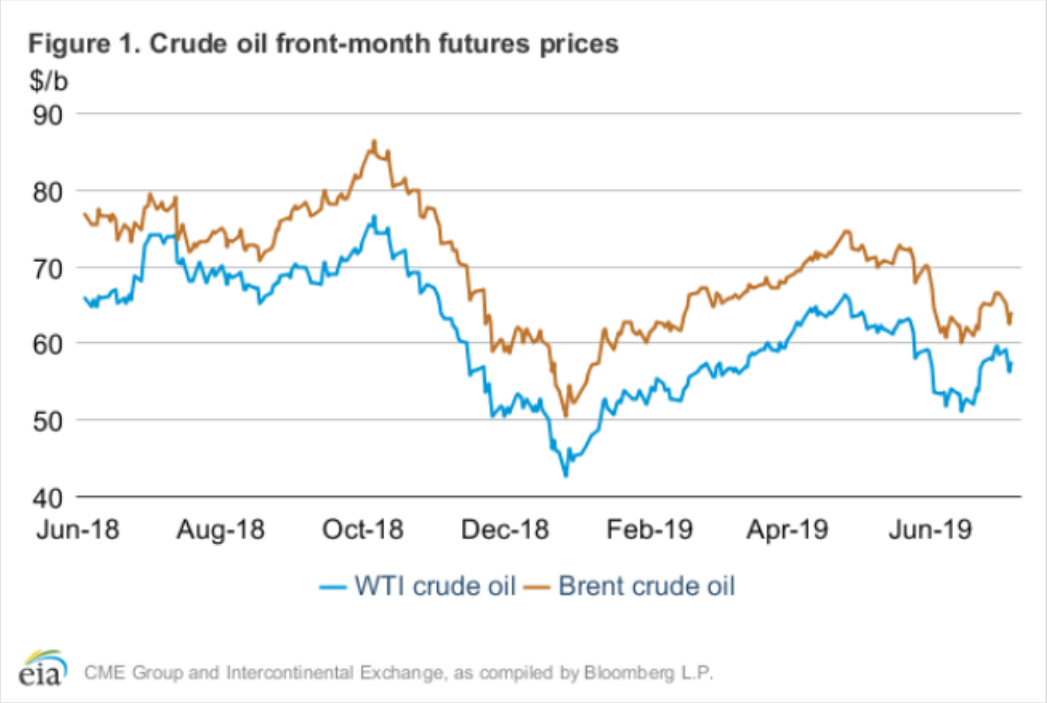
Behind the long period of low volatility, the main metals within 2018 were in a continuously downward trend.

But changes in volatility on global high liquid markets are quickly reflected this picture over last months of 2019.



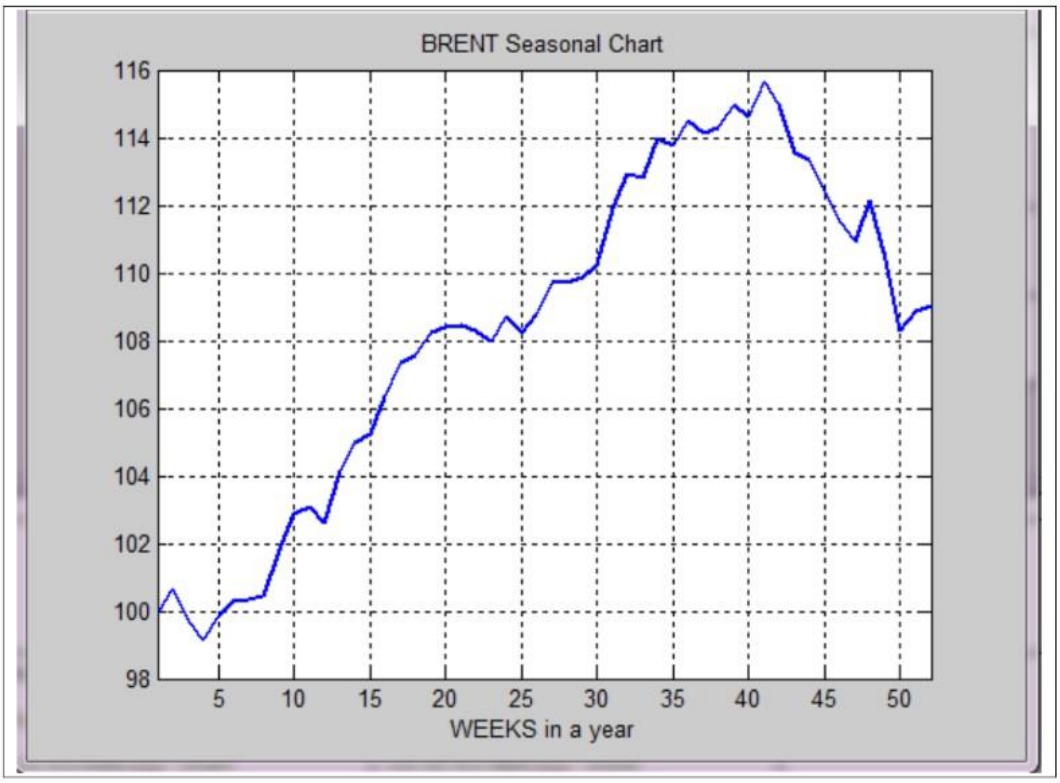
Energy markets, on the other hand, are very dependent on political events and risks. In general, natural resources can make a significant difference to a country's exports and economic growth. Thus energy resources such as oil and gas remain critical area of geopolitical concern. Crude Oil is the most important commodity. Supply and demand is an indicator of the performance of the global economy and oil price usually affects prices for all other commodities.

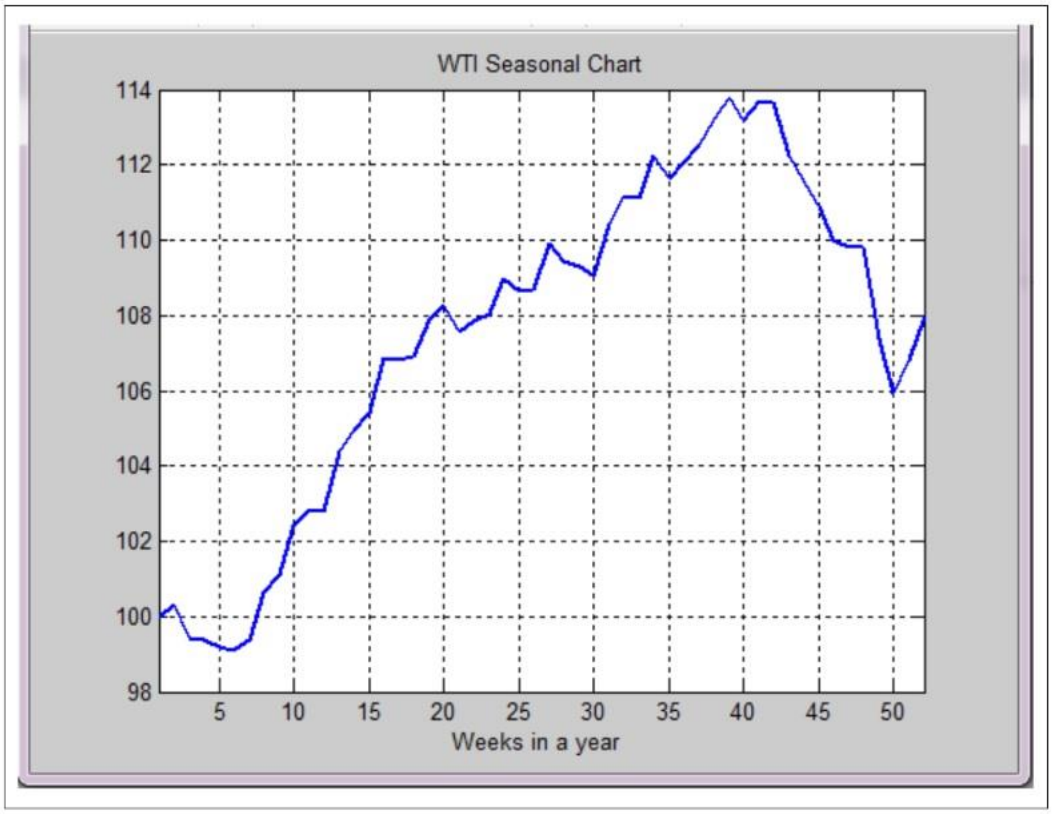
US Energy Information Administration (EIA) forecasts Brent spot prices will average $67/b in the second half of 2019 and remain at that level in 2020. EIA expects West Texas Intermediate (WTI) crude oil prices will average $62/b in the second half of 2019 and $63/b in 2020, at the 95% confidence level.



But oil demand is strongly seasonal.

Therefore the seasonal charts are critical to the success of trading decisions. We made the model, presented on the charts below on the basis of observations for 15 years period. The initial value for every year is 100. Thus we convert various prices into a return percentage, which is more useful than prices in comparing the return.





So the expectations for growth in seasonal demand and prices are most significant for the period between 30 and 40 weeks of the year. We have to get ready for a sharp decline afterwards.

DATA

- ✓ Time series – Close prices – Daily.
- ✓ Period: 6 years (September 04, 2013 – July 19, 2019)
- ✓ Minimum number of observations for 6Y time series: 1470.
- ✓ Period YTD: January 01, 2019 – July 19, 2019.
- ✓ Missing data: We reduced the effect of a very small number (< 0.3%) of detected missing values, using a nearest-neighbor interpolation method, which does not reduce the representativeness of the sample.
- ✓ The scientific computing packages used for data validation and calculations: MatLab, SPSS, Gretl and Excel.
- ✓ This research is fundamentally based on generally available public information and not on any confidential information which the author has obtained exclusively on the basis of his client relationship with a third person.
- ✓ The author deems all of the initial information included herein to be reliable, but does not make any warranties regarding accuracy and completeness of the historical prices received from sources below.

SOURCES of DATA

- ✓ www.ecb.europa.eu
- ✓ www.bnb.bg
- ✓ www.nasdaq.com/quotes/historical-quotes.aspx
- ✓ https://finance.yahoo.com
- ✓ www.moex.com
- ✓ www.eia.gov
- ✓ www.hkex.com.hk
- ✓ www.jpx.co.jp
- ✓ www.esma.europa.eu
- ✓ www.elit.finviz.com
- ✓ www.investing.com
- ✓ www.cboe.com
- ✓ https://ec.europa.eu/eurostat
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- Son H., “JP Morgan's top quant warns next crisis to have flash crashes and social unrest not seen in 50 years” – CNBC - 4 Sept 2018

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