

US Stock Market at the Background of the Covid-19 Pandemic: Implication for Valuation

Dimiter Nenkov

Department of Finance, University of National and World Economy, Sofia

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Abstract

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The main objective of this study is to discuss the forces driving today's US stock market levels, in an attempt of assessing their reasonability. This is not the first research of this kind of the author, but the approach now is a little bit different. Some important issues are raised regarding the different types of players on the stock market and their potential influence on its dynamics. The S&P 500 PE ratios are analyzed in historic plan and subsequently used for deriving the implied capitalization rate and cost of equity for different sub-periods. The results indicate for atypically high current PE ratios, and unreasonably low cost of equity. One of the conclusions is that to a great extent this is caused by the policy of low interest rates and quantitative easing, and is an important factor driving high price levels in the short run. It is not logical to accept this as a normal cost of equity level, meaning that it could not be sustainable in the long run. The implication for valuation of stocks is that fundamental analysts and investors would better avoid the temptation of using the current cost of equity as it is not representative for the purpose of fundamental models.

*Address Correspondence:
E-mail: dnenkov@unwe.eu

INTRODUCTION

The US stock market indexes ended the turbulent 2020 at new record-high levels, regardless of the suffering economy all over the globe, due to the Covid-19 pandemic. This does not seem quite logical, since the stock market is believed to be the showcase of the economy as a whole, the indicator about the state of the aggregate business. This fact, combined with some dramatic moves in 2020, are two important reasons why processes on the stock markets currently attract additional attention. In such periods the discussions about the validity and reasonableness of current market levels become even more intense.

One reason for the never ending debate whether the stock market is undervalued, overvalued or fairly valued, may be explained by the simple fact that many of the market players do not care at all about the true value of stocks under their consideration. According to many of the strategies, theories and approaches for selection of stocks in the capital markets, determining the value of these stocks is not necessary and is not done. Today's market is driven, among other factors, also by forces that have little in common with the dynamics of the intrinsic value of stocks.

The concerns whether the market is overvalued, undervalued or fairly valued are predominantly from the point of view of *long-term investors*, which are usually interested to know the fundamental value of stocks. The deviation of stock prices from their intrinsic value is normally not an issue for most *traders and speculators* in the market.

In order to make a good judgement about stock-market levels at any point in time, it is not enough to simply apply a couple of valuation methods. There are a number of other important issues that need to be considered for explaining the driving forces of the market. This study starts with raising certain fundamental issues, which are closely related to the above debate. Among them are:

- What is buying shares in the stock market – investment or speculation, investment or gambling?
- Which approach leads to better financial outcome – investing or trading with shares of stock?
- What determines financial success in the stock market – good investment skills or luck?
- Are we pricing or valuing stocks in the market?
- What are today's players, putting money in the market during the Covid-19 pandemic – investors or speculators (traders)?
- What predominantly drives today's stock market in the conditions of the Covid-19 pandemic – investing or trading (speculating)?
- What are the implications of the above issues on the valuation of stocks in the markets?

Some of these questions are quite difficult and it is not possible to give the answers in one short study. The current research paper is expected to eventually provide some partial answers, and most of the discussion is foreseen to continue further in other studies.

Some fundamental issues concerning investors in the stock market

In the current study the issues are discussed mainly from the point of view of the investor, rather than the speculator. According to Benjamin Graham and David Dodd, one of the first things that need clarification in connection with capital markets, is the meaning of *investor* or *investing*. They choose to use the term “investor” as the opposite to “speculator” (Graham, Dodd, 2009). In the first edition of their book “Security Analysis” of 1934, they try to give a precise definition of the difference between the two categories. It is as follows: “An investment operation is one which, upon thorough analysis promises safety of principal and an adequate return. Operations not meeting these requirements are speculative” (Graham, 2006).

In other words, an investor determines the value of a share of stock based on the value of its businesses. At the same time, the speculator bets that the share price will rise because someone else is willing to pay even more for it. As Graham notes “investors judge the market price by established standards of value, while speculators base their standards of value upon the market price” (Graham, B., 2006). This explains the statement regarding capital market players: “Value is a better measure for investors, but price matters more to traders” (Little, K., 2020). In this sense, for the speculator, the constant flow of quotations on the stock exchange is like oxygen. If you cut it off, he dies. At the same time, for investors, these stock quotes mean almost nothing (Graham, B., 2006). Moreover, Warren Buffett likes to say that when he has to determine the actual value of a stock, he tries to exclude himself from any information about its market price, so that it doesn't affect the valuation process (Brush, 2010).

It is a fact, however, that the term “investor” has been used too loosely in and out of Wall Street, including anyone who is in the stock market. In other words, “anybody who buys and sells securities has become an investor, no matter what he buys, for what purpose, at what price, in cash or on margin” (Graham, 2006).

There are factors which contribute for more active speculation and trading in the stock market

nowadays. During the Covid-19 pandemic among the many restrictions there were those who affected a number of gambling activities as well. Such are, for example, the temporarily closures of horse races and casinos. According to some observers, part of the regular participants in these activities redirected their attention to the stock market, where they could gamble practically without such restrictions. On the other hand, an increasing number of players put money in the stock market quickly and very conveniently, facilitated by different electronic platforms designed for this purpose. In the third place, the dynamic situation and the dramatic moves in the markets during the pandemic 2020 additionally attracted the attention of new potential players, predominantly inexperienced speculators and traders.

The question which strategies are more successful in the stock market – the investment type of strategies, involving thorough analysis and valuation, or the trading-based strategies, involving continuous buying and selling of stocks, will continue to be of high interest in the future. The reason is that numerous studies have been made in historical terms on the successes and failures of the different approaches, but most of them have arrived at ambiguous conclusions (Malkiel, B., 2015). This kind of studies continue nowadays, and obviously they will continue in the future.

Since the emergence of capital markets, one of the most recurring topics of debate has been the financial success of one or another player. When commenting on the impressive achievements of investors such as Warren Buffett and other well-known fund managers, some people say that they are mostly (or even entirely) due to luck, while others say that they are the results of the exceptional skills of these individuals.

One interesting study, made by Michael Mauboussin (Mauboussin, M., 2012), attempts to explain the role of skills and luck in the final outcomes for different activities, predominantly sports. The findings of the study place investing immediately next to gambling activities, such as roulettes and slot machines (Mauboussin, M., 2012). In other words, provided that the conclusions of Mauboussin's study are right, the financial success from investing in the stock markets should be explained almost entirely with good luck. This looks very discouraging for investors, who try to beat the market, relying upon their own skills, or the skills of their consulting analysts. It may be quite demotivating for people investing much efforts while striving for excellence in valuation. Still, the question remains whether there are strategies that can consistently beat the market, not by chance (luck), but as a result of players' skills.

Another reason for the debate whether the stock market is undervalued, overvalued or fairly valued, is that the true value of each stock is hidden, invisible, intangible. The market determines the price of an asset, which is supposed to be representative of its value, but price and value are different most of the time. According to one widely accepted definition, the *value* of a company (and its stocks) in general, is the *price* recognized in an arm's-length transaction by a free market, in the conditions of equilibrium between supply and demand, when buyer and seller have the necessary information for this company, when buyer and seller act rationally, when buyer and seller act without coercion.

In other words, it is the job of the market to determine the value of stocks. However, the definition clearly implies that the price awarded by the market to a common stock is supposed to represent its true value only if a number of conditions are met. These include:

- a free market;
- equilibrium between supply and demand;
- buyer and seller have the necessary information;
- buyer and seller act rationally;
- buyer and seller act without coercion;
- ... (the list of conditions could eventually be continued).

If one or more of the above conditions are not met, this is a prerequisite for the market price of a stock to deviate from its actual value. Most people, involved in the activities and processes of the stock market, would agree that in reality these conditions are almost never met at 100%, even in the most efficient capital markets. The less these conditions are met, the higher would be the difference between price and value (the value gap). This explains why the market itself also periodically fails in determining the true value of stocks. This is why significant efforts and costs are made by many analysts and investors for parallel, independent valuation of stocks.

Performance of some major US indexes during the last two decades

Something which makes impression to people following the commentaries and analyses about the stock market, as presented by different media, is that almost all talks are focused on short-term events and perspectives. Respectively, the short-term factors are mainly commented on in an attempt to predict the immediate future moves of stocks. For example, since the beginning of the Covid-19 pandemic, the focus has been mainly on factors such as the outlooks for rapid vaccine development and approval, the dynamics of new Covid-19 infections, another rescue package by the government, another step in the Fed's quantitative easing policy, and others of this kind.

The fundamental, long-term factors are kind of left in the background, and are rarely addressed indeed. If the assumption is that the fundamentals determining the value of stocks have been entirely and correctly incorporated by the market prior to the Covid-19 pandemic, then such attitude is understandable. But in reality, it is exactly this assumption that can be questioned. Many market players and observers do not agree that today's market prices of stocks are adequate in terms of fundamentals. That is why US stock-market indexes should be frequently considered and analyzed more broadly, over a longer period.

Figure 1 illustrates the dynamics of the S&P 500 during the first two decades of the 21st century. The turbulent first decade started with the bear market of 2000-2003, triggered by the burst of the internet bubble. The index fell by more than 40% until the first quarter of 2003. Then a new rise started for about 4 to 5 years - until October 2007, followed by a new crash during the Global Financial Crisis. The second decade was characterized by a continuous uptrend, which will be commented below.

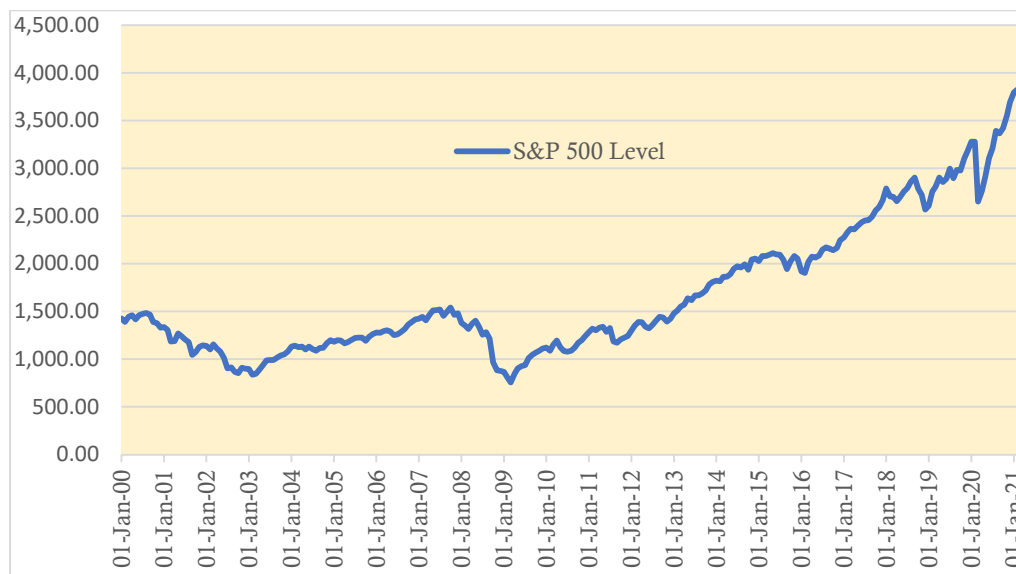


Figure 1. Dynamics of the S&P 500 in the period 2000-2021

Source: <https://www.multpl.com/s-p-500-historical-prices>

Table 1 shows the levels of two major US stock indexes – DJIA and S&P 500, on certain significant dates of their history. These are the date of their record-high level preceding the Global Financial Crisis, the date of their bottom level during the same crisis and then the date of their record-high level preceding the Covid-19 pandemic crash of 2020. Both DJIA and S&P 500 reached their pre-crisis record highs on 8 October 2007 – 14 093.08 points for DJIA and 1561.80 points for S&P 500. There followed a prolonged downward trend of about a year and a half, accelerated by the burst of the Global Financial Crisis, and the two indexes reached the bottom on 9 March, 2009 – at 6 626.94 points for DJIA, and at 683.38 points for S&P 500. Table 1 also indicates the loss of market capitalization in percent. By reaching the bottom, DJIA lost 52.98%, and S&P 500 lost 56.24% of their top market-capitalization values from October 2007. Despite the protracted recession, the US stock market went up again, and it took him about 5 and a half years to beat the pre-crisis peaks. This happened on 4 March, 2013 with the DJIA, when it closed at 14 127.82. The S&P 500 did the same on 26 March, 2013, by closing at 1 563.77% (Nenkov, D., 2017).

Table 1. Key values of DJIA and S&P 500 – 2007, 2009 and 2020

Index	Date	Peak Value before the Crisis	Bottom (Trough) Value	Value as of 12 Feb, 2020
DJIA	8.10.2007	14,093.08		
	9.03.2009		6,626.94	
	12.02.2020			29,551.42
% of peak value		100.00%	47.02%	209.69%
Difference (%)			-52.98%	109.69%
Index	Date	Peak Value before the Crisis	Bottom (Trough) Value	Value as of 19 Feb, 2020

	8.10.2007	1,561.80		
S&P 500	9.03.2009		683.38	
	19.02.2020			3,386.15
% of peak value		100.00%	43.76%	216.81%
Difference (%)			-56.24%	116.81%

Source: <http://finance.yahoo.com/q?s=%5EDJI> (Accessed 4 March, 2021)

<http://finance.yahoo.com/echarts?s=%5Egspc+interactive> (Accessed 4 March, 2021)

Calculations of the author

The US stock-market surge continued, with short interruptions, until February 2020. This is perceived by some analysts as the longest bull market in history (9 March 2009 – 12 February 2020). It surpassed the previous record-long bull market that ran from October 1990 to March 2000 (other analysts disagree, however) (Wigglesworth, R., 2020). On 12 Feb, 2020 the DJIA hit 29,551.42 points, which is an increase of 109.69% compared to the pre-crisis record-high level from 2007. The S&P 500 respectively hit 3,386.15 points – an increase of 116.81% compared to its October 2007 highest level.

Table 2. Key values of DJIA for the period 12 Feb, 2020 – 1 March, 2021

Index	Date	Peak Value before the Covid-19 Pandemic	Bottom (Trough) Value	Value as of 1 March, 2021
	12.02.2020	29,551.42		
DJIA	23.03.2020		18,591.93	
	1.03.2021			31,501.59
% of peak value		100.00%	62.91%	106.60%
Difference (%)			-37.09%	6.60%
% of bottom value			100.00%	169.44%
Difference (%)				69.44%

Source: <http://finance.yahoo.com/q?s=%5EDJI> (Accessed 4 March, 2021)

<http://finance.yahoo.com/echarts?s=%5Egspc+interactive> (Accessed 4 March, 2021)

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Table 2 covers the dynamics of DJIA during the turbulent year 2020. There was a sharp decline in the index of 37.09% just within 40 days – until 23 March. This included the largest single-day drop by points in the history of the DJIA of -2,997.1 (on March 16, 2020). By 1 March, 2021, despite the ongoing pandemic, DJIA surged again to 106.60% of the record high level from 12 Feb, 2020, or surpassed it by 6.60%. This corresponded to an increase of 69.44%, compared to the bottom value of 23 March, 2020.

Table 3. Key values of S&P 500 for the period 19 Feb, 2020 – 1 March, 2021

Index	Date	Peak Value before the Covid-19 Pandemic	Bottom (Trough) Value	Value as of 1 March, 2021
	19.02.2020	3,386.15		
S&P 500	23.03.2020		2,237.40	
	1.03.2021			3,901.84
% of peak value		100.00%	66.08%	115.23%
Difference (%)			-33.92%	15.23%
% of bottom value			100.00%	174.39%
Difference (%)				74.39%

Source: <http://finance.yahoo.com/q?s=%5EDJI> (Accessed 4 March, 2021)

<http://finance.yahoo.com/echarts?s=%5Egspc+interactive> (Accessed 4 March, 2021)

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The most dramatic moves of the S&P 500 index during 2020 can be seen in Table 3. There was a sharp decline by 33.92% between 19 Feb and 23 March, 2020. It was followed by a rise and by 1 March, 2021 the S&P 500 surpassed the Feb 19, 2020 record by 15.23%. This was the equivalent of a rise of 74.39% compared to the bottom of 23 March, 2020.

As it is evident from the above numbers, there has been surge of the broad benchmark index S&P 500 by 15.23% (for the period 19 Feb, 2020 – 1 March, 2021), while the economy has been down by 3.5% (as measured by the Gross Domestic Product – GDP) in 2020 (Popov, B. 2021). This discrepancy is usually explained by optimistic expectations about the future development of the Covid-19 pandemic, and about the economy in 2021 and following years. It is true that the stock market sells expectations, but it is still hard for most serious analysts and investors to accept such discrepancy as being normal. To find a truly satisfactory explanation of this situation, it is necessary to dig deeper into the fundamental issues, related to the driving forces of the stock market.

Dynamics of the Price-Earnings Ratios on the US Stock Market

One of the first market performance indicators of stocks, which is addressed for the purpose of discussing the validity of stock-market levels, is the price-earnings ratio (PE). Figure 2 illustrates the dynamics of the PE ratio of the S&P 500 during the long-term period between Jan 1, 1871 - March 4, 2021 (by years). The numbers are at the beginning of each year. The ratios used are trailing PEs, based on companies’ trailing 12-month earnings per share (EPS). The arithmetic average for the entire period is 15.95 and the median is 14.89.

The graph shows that from the beginning of the period until the end of the 1980-ies the ratio fluctuates mainly around 15 times earnings, within the range between 5 and 25. The average PE for this sub-period is 13.73 and the median is 13.43. Since the 1990-ies however, the lower border of the interval has risen to about 15, and the PE has been mainly within the range between 15 and 30 times earnings. Respectively, the arithmetic average PE for this more recent sub-period is quite higher – 24.96, and the median is 21.82. The volatility of the PE is also much higher during this sub-period.

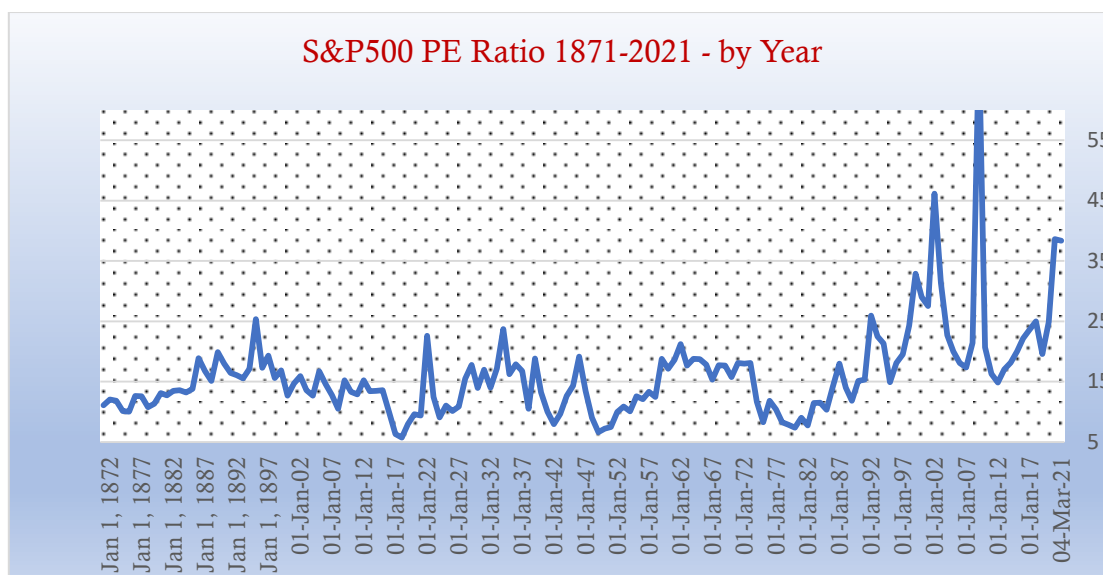


Figure 2. Dynamics of the S&P 500 PE ratio for the period 1871-2021
 Source: <https://www.multpl.com/s-p-500-pe-ratio/table/by-year>

The calculated above average PE ratios by sub-periods are compared in Table 4. The average PE level for the period 1991-2021 is significantly higher than that for the preceding longer period (1871-1990). The arithmetic average for the last three decades is by 81.79% higher, and the median is by 62.47% higher. These are the three decades during which there has been a lot of talk on the stock market about the so called “new era”, “new economy”, “new normality”, etc., with their major features being low cost of capital and high PE ratios.

Table 4. Historic PE ratios of the S&P 500 – comparing by sub-periods

Indicator	Period		Difference	
	1871-1990	1991-2021	In absolute terms (k.3-k.2)	Difference in % (k.4/k.2)
k.1	k.2	k.3	k.4	k.5
Arithmetic average PE	13.73	24.96	11.23	81.79%
Median PE	13.43	21.82	8.39	62.47%

Source: <https://www.multpl.com/s-p-500-pe-ratio/table/by-year>
 Calculations of the author

Figure 3 illustrates the dynamics of the PE ratio of the S&P 500 only for the last two decades, covering the period Jan 1, 1999 – March 4, 2021. The graph is built on monthly PE ratios. The arithmetic mean is 26.23, and the median is 22.33. There are some extremely high values, which are not due to extremely high prices, but to extremely low EPS during years of heavy recession. Such is, for example, the record-high PE of 123.73 times earnings from 1 May, 2009. These are very good illustrations of the counter movement rule for PE ratios, as identified and analyzed by Nicholas Molodovski (Molodovski, 1953). Figure 3 confirms the uptrend for the PE, identified in Figure 2. During the years after the Global Financial Crisis the PE ratios has been gradually rising from about 15 to about 25. In 2020 the PE ratio rose even further and was above 30 each month, ending at 38.37 on March 4, 2021.

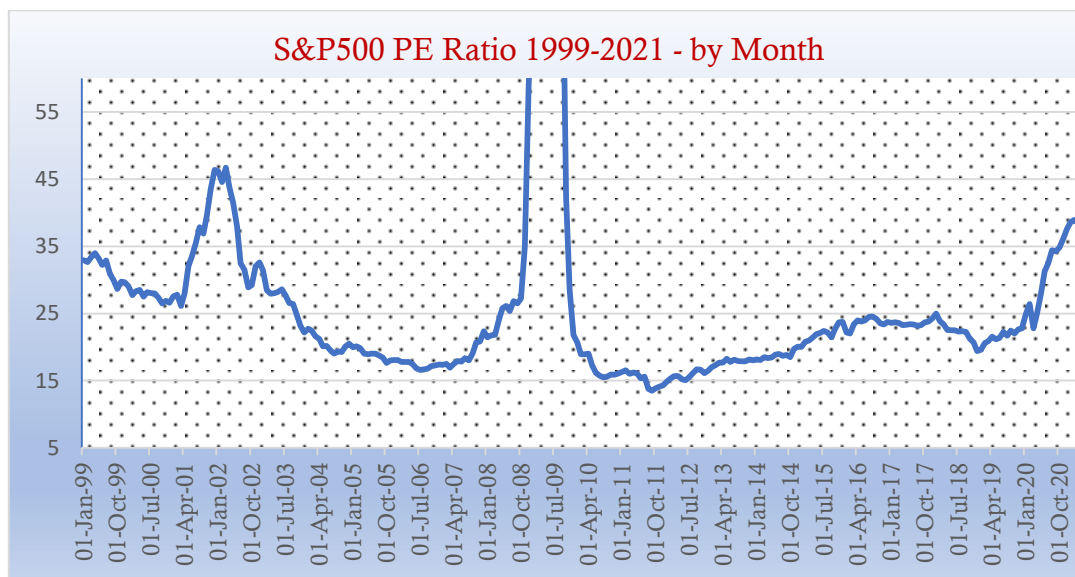


Figure 3. Dynamics of the S&P 500 PE ratio between 1999 and 2021
 Source: <https://www.multpl.com/s-p-500-pe-ratio/table/by-month>

Table 5 shows another comparison of S&P 500 PE ratios – the current PE with the average PE for the entire period 1871-2021. The current PE is represented by an average of the last 6 months (as of the time of this research) – from Oct 2020 until March 2021. They are still calculated on the basis of preliminary EPS estimates. The average PE ratio for the longest period 1871–2021 is as follows: arithmetic mean of 15.95 and median of 14.89. As noticed in the graphs above, the current PE level (for the last 6 months) is more than twice higher than the historic average: the arithmetic average PE is by 134.61% higher, and the median is by 155.20% higher. This is an even more pronounced excess over the average historical values than the one shown in the previous Table 4.

Table 5. Comparing S&P 500 current PE with historic average PE

Indicator	Period		Difference	
	1871-2021	Last 6 months /Oct 20 - March 21/	In absolute terms (k.3-k.2)	Difference in % (k.4/k2)
k.1	k.2	k.3	k.4	k.5
Arithmetic average PE	15.95	37.42	21.47	134.61%
Median PE	14.89	38.00	23.11	155.20%

Source: <https://www.multpl.com/s-p-500-pe-ratio/table/by-month>
<https://www.multpl.com/s-p-500-pe-ratio/table/by-year>
 Calculations of the author

One possible explanation of this excessively high current PE level of S&P 500 can be the counter movement principle of PE of Molodovski, which was mentioned above. The temporary lower EPS of the index, due to the Covid-19 pandemic limitations, lockdowns, etc., lead to a lower denominator, and

respectively, to a higher PE. In order to determine to what extent the lower current earnings explain the higher ratios, a look at the EPS dynamics for the last year or so would help.

However, the situation now is quite different, since the current market prices have been going up for several months. In the previous periods of depression or crisis, when the PEs used to reach their highest levels, the prices had gone sharply down, following a crash, as is the case with the above-mentioned S&P 500 PE of 123.73 on 1 May, 2009. The stock market at that time was still close to the bottom.

Implication for the Valuation of Stocks

The analysis in the previous section outlined some clear differences between PE levels over time. There is understanding among a part of the investors that historic average PEs from older times are not representative about what today's PEs should be. Such understanding is mainly shared by supporters of the "new normality" perception. With regard to this, an important question arises: What is the normal PE level to be used as the benchmark for future times?

- Is it the historical average PE for the whole long period (1871-2021)?
- Is it the average PE for the latest two or three decades?
- Is it the current PE level (as of the end of 2020 and beginning of 2021)?

One very logical approach to answering this question is by looking at fundamentals. More specifically, it is important to explore how the above actual PE levels comply with fundamentals. The latter are also called the value drivers for companies and stocks (Copeland, et. all., 2000). These are:

- the earnings potential (cash flow potential);
- the expected growth of earnings (cash flows);
- the level of risk.

For the purpose of the analysis of stocks, these three fundamentals are normally represented by the following three indicators (Damodaran, 2012):

- ROE (return on equity);
- g (EPS growth);
- R_E (cost of equity).

In previous studies of the author, the fundamental PE ratios used to be calculated on the basis of the above fundamentals and later compared to the actual PE ratios (Nenkov, Bathala, 2008). This time the reverse approach is applied. The actual PEs are used in order to determine the implied cost of equity. The analysis is demonstrated in Table 6. A similar analysis was performed by Massasuke Ide for the US and Japanese stock markets in the 1990-s, covering the years preceding the burst of the largest bubble in the Japanese stock market at the end of 1989 (Massasuke Ide, 1996). Table 6 shows the arithmetic mean and median PE of the S&P 500 by sub-periods, as analyzed above in Tables 4 and 5. The other input variables include the S&P 500 payout ratios - $(1-b)$, and the S&P 500 return on equity - ROE.

Table 6. Deriving Implied Cost of Equity from S&P 500 PE Ratios, ROE, and g

Indicator	Period		
	1872-2021	1991-2021	Oct 2020 - March 2021
S&P 500 PE Ratio - arithmetic mean	15.95	24.96	37.42
S&P 500 PE Ratio – median	14.89	21.82	38.00
Payout ratio /modified/ – $(1-b)$	0.61	0.86	0.93
Return on equity – ROE	14.00%	15.81%	13.98%
Internal growth rate – g	5.46%	2.21%	0.98%
Implied capitalization rate - $(R_E - g)$:			
Based on arithmetic mean PE	4.03%	3.52%	2.51%
Based on median PE	4.32%	4.03%	2.47%
Implied cost of equity - R_E :			
Based on arithmetic mean PE	9.49%	5.74%	3.49%
Based on median PE	9.78%	6.24%	3.45%

Source: <https://www.multpl.com/s-p-500-pe-ratio/table/by-month>
<https://www.multpl.com/s-p-500-pe-ratio/table/by-year>
<https://www.multpl.com/s-p-500-earnings>
<http://pages.stern.nyu.edu/~adamodar/>
 Calculations of the author

One of the aspects in which the fundamental PE model can be useful, is the opportunity to derive the implied capitalization rate - $(R_E - g)$, and the implied cost of equity (expected rate of return on common stocks) - R_E . For this purpose, the actual market PE ratios are needed. The reversed models are:

$$(R_E - g) = \frac{(1 + g) \times (1 - b)}{PE}$$

and

$$R_E = \frac{(1 + g) \times (1 - b)}{PE} + g$$

Where:

$(R_E - g)$ = implied capitalization rate,

R_E = implied cost of equity,

g = internal growth rate,

$(1 - b)$ = payout ratio,

PE = actual market PE ratio.

(All variables are for the S&P 500).

The actual average and median PE were introduced and discussed in the previous section. They are for the periods: 1871-2021, 1991-2021, and Oct 2020-March 2021. The average payout ratios for these periods are respectively: 0.61, 0.86, 0.93. A kind of modified payout ratios are used for the last two periods, which include not only dividend payments, but also cash flows in the form of stock buybacks. It is more representative, since the policy of share repurchases have been very intensively applied by the S&P 500 companies during the last two or three decades. This explains the extremely high payout ratio for these two periods. The return on equity has been with more stable levels throughout the period, respectively: 14.00%, 15.81%, 13.98%.

The internal growth rates (g) have been obtained for each of the periods on the basis of the retention ratios ($1 - \text{payout ratios}$) and the return on equity, as follows: $g = 5.46\%$ (1871-1990), $g = 2.21\%$ (1991-2021), $g = 0.98\%$ (Oct 20-March 21). The capitalization rate is derived in two variants – on the basis of mean PE and median PE. The median-based values are: 4.32%, 4.03%, and 2.47%. The derived implied cost equity (again median-based) is respectively: 9.78%, 6.24%, and 3.45%.

The results indicate that the estimated capitalization rate declines significantly with the rise of the actual PE ratios. The implied cost of equity also goes down as a result of rising market PE ratios. The implied cost of equity for the longest period (1871-2021) of 9.78% corresponds to the historic cost of equity, calculated as a geometric average for the same period. The implied cost of equity for the latest three decades is quite lower – 6.24%. The current implied cost of equity (last 6 months) of only 3.45% doesn't seem quite normal. There is, however, one more factor with direct impact on the implied cost of equity – this is the growth rate. This may give reason for some to disagree with the received cost of equity if they doubt the correctness of the calculated growth rate.

The big debate, after all, comes down to whether the cost of equity over the last decade can be considered normal or not. Among the five important indicators of a bubble in the stock market Henry Blodgett includes the huge leverage in the system, the waves of capital that flood the market (Blodgett, 2011). This is actually the current situation in the stock market. There has been a policy of maintaining extremely low interest rates (close to zero) everywhere since the Global Financial Crisis until nowadays. In the period of the Covid-19 pandemic this policy has been further enhanced through a number of rescue fiscal packages to help the economy, as well as “quantitative easing” and other similar incentives by the Fed and other central banks. The economy certainly needs such incentives. But most of this additional capital is designed to reach the real economy via the capital and money markets. The issue, however, is that channeling funds to the real economy in a way that has a real effect is not simple. The path of investing in real assets is much longer and uneven than directing funds to financial markets.

With regard to this, it is worth making a research about what proportion of all these “rescue” funds do indeed reach the real economy, and what proportion is only poured in the financial markets, just to be directed into stocks, bitcoin, other crypto currencies, etc. It may turn out that most of this additional and low-cost capital do not reach at all the real economy. Why put efforts in investing in real assets in a struggling economy, while buying stocks or other financial assets in a rising market, would bring at least satisfactory return with no efforts.

All the above incentives are at the expense of huge consumer and government debt and increased inflation potential. According to all fiscal and monetary theories the above policies should lead to higher inflation sooner or later. Since this policy was started more than a decade ago, the question is why inflation rates have been so low throughout all this period. One possible explanation, which is worth to be

considered, is that much, if not most, of this inflation potential is absorbed by financial markets. A lot of these extra funds are simply dumped on the capital markets and remain there. In this way most of the inflation potential is absorbed by financial markets. This is one possible explanation why pumping money by Fed and the government still have not lead to higher inflation. The inflation is only in the stock markets and other financial markets. Shortly said, highly increased public expenditures and loose monetary policy fuel a bubble in the stock market.

This outcome is good for politicians as well, given that “they are focused on stock markets as indicators of how they are performing”. When the market is up, they point to this as their next success. This creates excessive pressure to fiscal- and monetary-policymakers to support markets” (Elliott, D., 2020).

According to Michael Harnett, chief investment strategist at the Bank of America's research unit, "stock prices are rising not because of optimism about the economy, but in fact because the future looks relatively bleak." (Sokolova, C., 2020). This leads to the biggest paradox in the current stock market. It turns out that the worse the economy, the better for stock market growth.

CONCLUSION

Investors are divided over whether today's US stock market is overvalued, undervalued or fairly valued, as it has always been the case during prolonged periods of upward market, as well as in periods of market turmoil. Investors have actually been divided for at least the last 5 or 6 years, but they are even more uncertain now, after a year of Covid-19 pandemic crisis. The US stock market has been driven by the activity of both long-term investors on the one hand and speculators and traders on the other. The latter group is not very interested in the true value of the market.

Driven by these forces, the recent US stock market dynamics have demonstrated further continuation of the trend from the last decade towards higher and higher PE ratios. By linking these levels of PEs to fundamentals, it becomes evident that they are mainly due to the low cost of equity during this period. For some market players this is “the new normality”. For others this simply does not make sense in the long run. Normalcy implies long-term sustainability of the system, lack of serious external intervention on the capital market. The extremely low implied cost of equity nowadays calls into question the extent to which this fundamental variable is indeed fundamental. The grounds of doubt are serious, given the artificially maintained low interest rates and the outpouring of huge amount of capital on the stock market.

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