US stock market: growth potential or risk of falling?

by Aleksei Kirilov & Valeriy Kirilov

In December 2019, the US stock market raised to absolute highs, after the close of trading on December 27, the S&P500 index amounted to 3,240.02. With minor corrections, this growth has been going on for almost 12 months since the end of December 2018. Today, there is no consensus among investors about the potential for further growth of the US stock market and its individual segments. Indeed, several of the most significant factors can become drivers of both growth and decline: the conclusion of an agreement on trade with China, the state of the economies of Europe and China, the impeachment procedure initiated, and the Fed’s policy.

As was shown in¹, American companies and banks are characterized by an extremely high stratification in terms of capitalization. This is further strengthened by the growth of the stock market. Let’s try to evaluate the market growth potential based on the expected return on equity investments.

One of the most widely used parameters in stock analysis is the P/E ratio (price/earnings). Robert Shiller in² showed that this parameter can be effectively used to analyze the entire market as a whole, for example, to analyze the S&P500 broad market index. For this, the Shiller PE ratio or also named Cyclically Adjusted Price Earnings (CAPE) was proposed. At different stages of the business cycle, the net profit of companies can vary widely. In order to reduce the effect of these fluctuations, the Shiller PE ratio is calculated using the 10-year average of EPS adjusted for inflation using the Consumer Price Index (CPI). According to https://www.multpl.com/shiller-pe on November 22, 2019, the Shiller PE ratio was 30.43. Obviously, the Shiller PE ratio is a very inertial parameter. In this form, it is difficult to use to assess the current state of the market.

For our analysis, we used the P/E value, which uses the EPS values for the last year when calculating earnings. In addition, we calculated P/E for the market as a whole based on P/E data for more than 2,500 US companies. We believe that this approach allows us to more accurately assess the current state of the stock market. The source data was obtained from the service https://finviz.com. To reduce the impact of fluctuations in company profits, dates outside of reporting periods were selected if possible. Table 1 shows a fragment of data on 2662 companies after the close of trading on December 27, 2019.

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Based on these market data, two variants of P/E averages were calculated. Simple average and weighted average taking into account the capitalization of companies. Simple average PE for 2662 companies was 58.04. The weighted average PE value was 43.91. For further calculations, the weighted average value P/E was used.

As known, the reciprocal of \( (P/E)^{-1} = E/P \) is the return on the asset for the corresponding period. And \( E/P \) minus the risk-free rate is a risk premium. That is, investors expect to get a profit not lower than this value. The risk-free rate was FOMC’s target federal funds rate. The FOMC’s target federal funds rate, established on October 31, 2019, is equal to 1.75%. In our case \( (P/E)^{-1} \) minus FOMC’s target federal funds rate is equal to 0.53%. Thus, the expected return on investment in the stock market is on average 0.53%. This apparently indicates that the current market growth potential is close to exhaustion.

Note that the Fed has reduced the rate three times since August. Before the start of the reduction cycle, the rate was 2.50%. Thus, if the rate was not reduced, the attractiveness of investment in stocks would be close to zero.

Similar calculations were made for market data for June 14, September 27, October 24 and November 22, 2019. The results are shown in Table 2.

<table>
<thead>
<tr>
<th>#</th>
<th>Ticker</th>
<th>Company</th>
<th>Sector</th>
<th>Market Cap, mln USD</th>
<th>P/E</th>
<th>Price</th>
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<td>6.50</td>
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<td>3</td>
<td>SPEX</td>
<td>Spherix Incorporated</td>
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<td>2.81</td>
<td>1.35</td>
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<td>4</td>
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<td>Basic Materials</td>
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<td>0.73</td>
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<td>Consumer Goods</td>
<td>1,290,331.55</td>
<td>24.45</td>
<td>289.80</td>
</tr>
</tbody>
</table>

Source: https://finviz.com

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Prior to the latest Fed rate cut on October 31, the expected return on equity investments could be less than zero. Thus, the Fed's reduction of the rate was an absolutely necessary step. Otherwise, the market expected a correction comparable in scale to December 2018 or perhaps even stronger. Given the amount of funds invested by US households in the stock market, the Fed will find it difficult to allow such a scenario.

It is interesting to analyze the value of (P/E)-1 minus the FOMC's target rate for various market sectors. The calculation results for November 22, 2019 are shown in Table 3.

As can be seen from the data presented, investments in three sectors are currently the least attractive: Conglomerates, Industrial Goods and Technology. And the investments in the sectors Basic Materials, Financial, Consumer Goods are most attractive. One can interpret these results differently. In the case of a serious correction, the shares of the most overvalued sectors will fall most of all. That is, these shares will be promising for a short sale or for the purchase of put options. Shares of Basic Materials, Financial, Consumer Goods sectors may decline to a lesser extent. In these sectors, investors will be able to pick up defensive stocks.
Figure 1 shows the change in the S&P500 index from June 1, 2019, the change in the FOMC’s target rate, and also the change in the value \((P/E)^{-1}\) minus FOMC’s target rate.

In addition to lowering rates on stock market growth, an increase in liquidity also affected. Since the end of August 2019, the Fed has again begun to increase liquidity to normalize rates on the interbank market. From August 28 to December 26, 2019, the Fed’s balance sheet increased by more than $405 billion, see [https://www.federalreserve.gov/releases/h41/](https://www.federalreserve.gov/releases/h41/).

In our opinion, the market growth over the past four months is largely due to the Fed rate cut. This made it possible to derive the expected return on investment in stocks from the negative zone. However, the Fed has little potential for further rate cuts. In addition, the dynamics of the global economy and a comprehensive trade agreement with China remain open to question, which also limits the Fed’s ability to cut rates. The market’s growth potential may be affected by the January reporting of companies for the fourth quarter and the year as a whole.

According to our estimates, if the reporting of companies for the fourth quarter is worse than the average annual values and the Fed rate is not reduced, then by March - April 2020 the potential for further stock market growth may be exhausted. Since even despite a further increase in the Fed’s balance sheet, the return on investment in stocks may become negative. In the face of negative investment returns, further growth in stock quotes could lead to an inflating bubble and creating a dangerous situation like the Dot-com bubble in 2000 or the subprime mortgage crisis in 2007.
Conflate is a Russian management consulting company specialized in strategy, risk management, asset management and venture investment. As the partner of Conflate, Aleksei is responsible for asset management and venture investment. He specializes in the US stock and debt markets. Aleksei has more than 15 years of experience in financial services including development of financial strategy and financial KPI, liquidity management; controlling system, allocation of expense on business unit, financial modeling and debt finance. He has cross industries experience: banks, oil & gas manufacturing, real estate.

Aleksei has an MBA from Duke University (Fuqua School of Business), a financial degree from Russian Plekhanov Economic Academy and an engineering degree from Moscow Engineering Physics Institute.

Valeriy has 15+ years’ experience in risk management and management consulting (BDO, Technoserv, then at Conflate). Besides he previously worked in the nuclear power industry (safety of Nuclear Power Plants).

Valeriy has an MBA from London Metropolitan University as well as a financial degree from Moscow International Higher Business School MIRBIS and an engineering degree from Moscow Engineering Physics Institute. He holds the PRM and FRM certifications and the certificate of Federal Commission for Securities Market of series 1.0. Valeriy was a member of the Supervisory board of the Russian Risk Management Society in 2009 – 2010.