

## **Принятие инвестиционных решений физическими лицами на основе анализа фондового рынка**

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### **Аннотация**

В данной статье рассматриваются основные методы анализа ценных бумаг, доступные физическим лицам, и ситуация с их притоком на российский рынок в последнее время.

**Ключевые слова:** инвестирование, фондовый рынок, индивидуальное принятие решений, ценные бумаги, акции, облигации, анализ фондового рынка.

### **Individuals' investment decision-making based on the analysis of the stock market**

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### **Abstract**

This article reviews the main methods of securities analysis available to individuals and the situation with their recent influx in the Russian market.

**Keywords:** investing, stock market, individual's decision-making, securities, stocks, bonds, stock market analysis.

### **Introduction**

In recent years, individuals have increasingly begun to pay attention to the stock market as a possible option for investing their accumulated funds. In this regard, many do not miss the opportunity to make money on securities speculation.

Each investor uses his own strategy based on the results of the stock exchange analysis. Due

to the general financial illiteracy, many people invest their capital in securities without any analysis, hoping only for luck and relying on herd instinct.

This article will describe the main motivations of both of the above groups of people, as well as the types of analysis that they use in the decision-making process.

### **The essence of different types of analysis**

#### **Fundamental analysis**

Benjamin Graham and David Dodd, who published the book "Securities Analysis" in the United States in 1934, are considered the founders of the Western theory of fundamental analysis. For the first time in this book, the term "fundamental analysis" was defined as a technique for predicting future stock values. At the same time, "financial indicators, income and dividends of the firm, as well as the status of the surrounding economy," according to the authors, are the focus of fundamental analytical study.

Fundamental analysis is defined as the process of "studying the status of the economy, industry, and financial situation of a firm in order to estimate the market value of the company's shares" in later scientific papers.

As a consequence, fundamental analysis is an evaluation of a number of external and internal variables that have a major impact on a company's financial and economic operations, the results of which are reflected in the market value of its shares. There are several such elements. These include rival actions, the country's political environment, managerial performance, rigorous respect of the company's shareholders' rights, and the company's financial status.

When it comes to conducting fundamental analysis, Western scholars divide between two techniques. Traditional analysis takes a top-down method, beginning with an economic study, then going on to an industry analysis, and lastly to a fundamental evaluation of the company's situation. Another technique is for the investor to do a bottom-up study, beginning with the micro level and progressing to the industry analysis and finally to the economic condition. Both techniques are appropriate and do not exclude one another.

The study of the world economy is the first level of fundamental analysis, as said before. The goals of this stage are to determine world Central Bank policies and identify the prevailing directions of speculative and medium-term cash flows, both between different classes of global assets and between different countries, as well as to analyze global growth rates and global business cycle dynamics.

The interest rates of the world's foremost economies, the United States, the European Union, and England, play a special role in the examination of the global economy. As a result, an increase in interest rates in the United States has a detrimental impact on emerging country securities markets. Conservative investors will prefer Federal Reserve bonds to riskier but profitable developing market

bonds and equities. As a result of the increase in interest rates, developing markets will see a money outflow. When interest rates are reduced, however, developing countries become a more appealing option for medium- and long-term capital investments.

Because industrial expansion is impossible without raw materials, global industry growth rates have a direct influence on country commodities markets. In this line, the conditional classification of nations (in addition to developed and emerging) based on their amount of raw material reliance, the so-called raw material providers and raw material buyers, would be of interest. As a result, while high oil prices benefit nations that provide oil, they impede the development rates of economies that acquire raw resources, as they contribute to increased transportation costs, inflation, and other factors.

The macroeconomic condition on the market is one of the key variables affecting the dynamics of the firm's income. A fast-growing economy appeals to businesses because it provides possibilities to enhance profits. The health of a country's economy has a significant impact on its investment attractiveness on the global market. A variety of important indicators, such as GDP, inflation, interest rate, unemployment, and budget deficit, are used to define the condition of macroeconomics.

GDP, of course, is the most important statistic, since it reflects the total amount of products and services generated by the country's economy over the course of a year. The industrial production index is another prominent statistic.

Rapid GDP growth has a different influence on the stock market depending on where it occurs in the economic cycle. GDP growth is welcomed by the stock market at the start of the cycle, when the economy is emerging from recession. During the rest of the business cycle, GDP growth is associated with an increase in enterprise profits and also leads to an increase in the stock market, but only if this growth is not too significant (does not make large jumps relative to previous quarters' values), if there are no problems with raw material supply, a labor shortage, inflation, or interest rate changes.

Too much expansion is viewed with concern because, as history has shown, it frequently precedes a recession. In two methods, the GDP indicator may be used to assess the economy's investment attractiveness. The first method is to calculate the degree of appreciation of the economy by comparing the stock market's capitalization to the country's GDP. The second method is to compare the country's growth rates with those of other nations.

When the macroeconomic study is complete, it must be projected onto specific economic sectors. The present business cycle affects not all industries equally. For example, oil firms' stock prices are influenced by oil prices, whereas non-ferrous metallurgy businesses' stock prices are influenced by non-ferrous metal prices. Because enterprises are increasingly battling for resources

during the heyday of the economy, the shares of these companies are sensitive to the present business cycle. Companies in the retail sector that manufacture food, for example, are less subject to business cycle swings since their products are inelastic in demand.

Operational leverage is the second element that determines a company's susceptibility to the economic cycle. The ratio between fixed and variable expenses is known as operational leverage. Companies with a larger proportion of variable expenses are less affected by economic cycles since they may easily reduce output and therefore lower costs. Companies with a higher share of fixed costs will be unable to quickly reduce costs in response to a drop in sales and will be forced to incur losses; firms with a high share of variable costs, on the other hand, have greater financial leverage, as a small change in the operating environment has a significant impact on the company's profitability.

Another key part of the industry's fundamental research is determining its stage of development, or, in other words, the industry's life cycle. There are five stages to a typical market life cycle. The so-called startup stage is the first. A new industry is forming at this point, with strong revenue growth, a market that hasn't been saturated with a new product, and a firm that is losing money. The company's value is totally dependent on future growth. The second stage is rapid expansion, in which the market grows at a breakneck speed, the firm's revenue grows at a breakneck speed, and the company begins to generate a profit that is entirely reinvested.

Strong growth is the third stage - sales and profit are increasing, and the firm can already pay a certain amount in dividends. However, the firm already has rivals in the market, and it has some type of operating history that may be utilized to evaluate the company. Maturity is the fourth stage. Sales growth is decreasing in a mature business, but profits are still increasing faster than revenue as the company increases its efficiency. Firms pay the highest dividends at this time. A company's valuation will already be based on its present assets rather than projected expansion. The last stage is a decline, in which the company's revenue, earnings, and market share are all dropping, and companies are gradually exiting the market. The value is mostly done on the basis of current assets.

The equity or net assets of a firm is one of the most often used measures of stock valuation. The balance sheet contains the company's equity. The equity of a firm is its net assets, which are calculated by subtracting its liabilities from its assets. When a company's capitalization falls below the value of its equity, it is said to be undervalued.

However, we must consider the quality of the company's assets; if the funds have 100% liquidity, intangible assets and goodwill cannot provide us with complete assurance that when we sell, we will receive the amount of money shown on the balance sheet. At the same time, the company's profitability should be given special consideration. As a result, if a firm trades with a capitalization-to-equity ratio smaller than zero and is profitable, it is a strong candidate for portfolio investments.

	Netflix	Blizzard	Urban One
Current Ratio	1.23	4.83	2.8

Table 1. Source: macrotrends.net

Table 1 shows the current ratio of three media corporations. The current ratio is a liquidity ratio that assesses a company's capacity to pay short-term or one-year commitments. As you can see, Blizzard has the best liquidity, which is reflected in high demand and good forecasts of experts about the stock price.



Picture 1. Source: Yahoo Finance

Despite this, Netflix, having the worst liquidity indicators among competitors, has been showing stable growth over the past few years. (see pic 1). Such a contradiction at first glance proves that liquidity is not always an indicator of the success of a company and the growth of stock prices.

The liquidation value per share is another measure of a company's worth. This indicator shows how much money may be made if all assets are sold, all debt is paid off, and the remaining funds are distributed to shareholders. The liquidation value can be used as a level beyond which the stock cannot fall, since if that happened, the company would be a prime target for corporate raiders. Because the amount paid for the corporation is less than the liquidation value, the raiders would try to take control of the company, sell off assets, pay off debts, and profit.

Indicators derived from the balance sheet can be quite useful, but in bull markets, finding companies selling below their replacement or liquidation value may be impossible. As a result, analysts are compelled to pay attention to projected cash flows because they influence the stock's price.

P/E is another popular and contentious multiplier for evaluating equities. Because of its simplicity and ease of calculation, this indicator is often used. The multiplier is calculated by dividing the stock price by the earnings per share. This multiplier indicates how long an investment in the stock will pay off at its present profitability level. The multiplier may be computed in two ways: first, by dividing the share price by the current income per share, and second, by dividing the share price by the future year's income per share. Different approaches provide different outcomes.

As a result, the investor uses fundamental research to progressively appraise the global

economy's position. If he thinks it's a good idea, you may continue on to the next level. The country with the most favorable investment climate is chosen next, based on a review of macroeconomic data. The analyst moves on to the examination of sectors after determining the country in which it is most lucrative to make portfolio investments. And there is already a search for discounted shares in the most favorable industry, which will be the subject of the most profitable investment.

### Technical analysis

There are three postulates in the traditional theory of technical analysis, which were put forth by Charles Dow at the end of the nineteenth century. They are the observed subtleties on which technical analysis is founded, and the logic of its techniques. Various writers of publications, technical analysts, critics, and opponents of technical analysis construct these postulates in their own unique ways, yet they all explain their essence in the same way. Let us write down these postulates and compare them to the premises laid out by Charles Dow in his theory.

Everything is taken into consideration by the market. In reality, this assertion is the foundation of all technical analysis. Analysts of the technical school think that all factors that might impact the market value of an asset (and these factors can be of a wide variety of properties: economic, political, psychological, and so on) will undoubtedly be reflected in the product's price. To put it another way, all changes in supply and demand dynamics are reflected in price fluctuation. When demand outnumbers supply, prices rise. Prices fall when supply surpasses demand. This is, after all, the foundation of all economic forecasting.

However, in technical analysis, they tackle the problem from the opposite direction, arguing that if market prices increased for whatever reason, demand exceeds supply. As a result, macroeconomic data indicate that the market is favorable to "bulls." The market is beneficial for the "bears" if prices decrease. Many technical analysts would agree that the fundamental processes of supply and demand, as well as the economic structure of a given market, affect the dynamics of price rises or drops when discussing "macroeconomics." Price charts have little effect on the market when they are used alone. They only reflect the psychological upward or downward trend that is currently taking hold of the market.

Price movement is subject to trends. One of the most basic ideas in technical analysis is the concept of a trend or pattern. In reality, everything that occurs in the market is influenced by trends. The primary goal of monitoring the price dynamics on stock exchanges is to spot emerging trends early on and trade in that direction. The majority of technical analysis approaches are trend-following by nature, which means that their purpose is to assist the analyst in recognizing and tracking a trend throughout the duration of its existence.

This hypothesis was developed by Dow, who said that there are three sorts of market trends. The Dow's definition of a trend is as follows: in an upward trend, each consecutive peak and

subsequent drop is greater than the preceding one. To put it another way, a bullish trend should resemble a curve with steadily increasing peaks and troughs. As a result, each consecutive peak and drop in a downward trend will be less than the preceding one. Dow classified trends into three categories: main, secondary, and minor. He compared the market's behavior to the ebb and flow of the sea. Small trends are like ripples on the ocean's surface. You may calculate the tide strength by placing pegs to record the farthest point to which each succeeding tidal wave reaches at high tide, when the waves wash ashore. The tide is rising if each consecutive wave washes ashore further than the preceding one. If the waves start to retreat, the tide has begun to ebb.

The study of human psychology is intimately linked to technical analysis and market dynamics research. For example, throughout the last century, graphical pricing models have been created and categorised to represent significant aspects of the market's psychological condition. To begin with, they show which emotions - "bullish" or "bearish" - are now ruling the market. And, because these models are founded on human psychology, which does not change over time, there is every reason to believe they will continue to function in the future. In somewhat different words, the last premise - "history repeats itself" - might be rephrased as "the key to comprehending the future rests in the study of the past." Alternatively, it might be the total opposite: the future is simply a repeat of the past.

The conjuncture's repeatability is an objective feature. Events have a tendency to repeat themselves. Nonetheless, as Heraclitus put it, you can't enter the same river again, thus no event can be perfectly duplicated. Only the most important characteristics that reflect the patterns reappearance. The details are usually odd, as they are the result of random events.

An investor can recall how specific events in the past impacted the market condition. Because events are naturally repeatable, a market player may extrapolate previous experience into the future and so forecast future changes.

For example, it is well known that stock market values decreased during the presidential election owing to anticipated adverse changes in the environment. This helps market players to forecast price reductions ahead of time during future presidential elections. Due to feedback, such expectations might result in a genuine decline in prices: investors will begin to play down, or sell their assets (for example, stocks), resulting in an excess of supply over demand and a real drop in prices. Under some circumstances, this process feeds itself, resulting in a price fall, sometimes even without apparent justifiable causes.

### **Sudden growth of private investors' amount in Russia**

Several variables combined to cause an explosion in citizens' interest in investing at the same time.

- Deposit rates are decreasing. The Central Bank has lowered the key rate nine times since the beginning of 2019, resulting in a drop in deposit interest from 6-7 percent to 3-4 percent.
- Digitalization. Mobile apps have been launched by banks and brokers. You may now create and manage an account from your smartphone.
- Profitability. The Russian stock market was one of the most profitable among developing countries in 2019, with the ruble index of the Moscow Stock Exchange increasing by 29% and the dollar RTS increasing by 45 percent throughout the year.
- Incentives from the government Individual investment accounts (IIS) owners may receive a 13 percent tax reduction, but only up to 52,000 rubles per year.
- Russian equities and bonds are seeing increased interest from retail investors. This allows enterprises and government entities who issue them to raise funds at lower rates than banks. Given the current state of the global economy, this is important.

The influx of many small investors into the stock market, on the other hand, is unlikely to result in a significant rise in economic growth or investment. The stock market, on the other hand, has a possibility to become a more visible tool for citizens' long-term savings and meaningful financing.

The scientist sees the main risk in another — that the expectations of such investors to get a higher yield than the interest on bank deposits may not be justified. Alfa-Bank believes that it is worth waiting for several shocks at once within two or three years. "The retail investment market is associated with high risks that the population does not know how to assess," said the head of the bank, Vladimir Verkhoshinsky.

"Newcomers might get carried away with speculating, margin trading, and short selling," Alexander Shadrin says, "which, given their poor knowledge and strong emotionality, can lead to huge financial losses and push them away from further investments in the stock market."

Many experts have repeated in recent months that stock markets have grown increasingly disconnected from the actual economy and are now "overheated," that many assets are unnecessarily expensive, and that it is worthwhile to wait for a reversal of quotes — that is, a drop in prices.

The expansion of the Russian stock market poses "some concerns," according to Elvira Nabiullina, the chief of the Bank of Russia. The regulator has produced a draft law that would tighten the criteria for beginner investors in order to reduce them. Newcomers were supposed to be permitted to invest no more than 50,000 rubles per year in international equities and other hazardous assets in the first version of the agreement. After receiving negative feedback from market players, such a restriction was dropped.

Instead, the Central Bank suggests that people who want to invest in volatile assets be subjected to testing. The Central Bank even demonstrated variations of these tests in August 2020.



"This is analogous to a mini-exam, which comprises of three to five questions with one right answer," the Central Bank spokesman explained. Individual investors will be required to complete the exams beginning April 1, 2022, when the statute on investor classification takes effect.

### **The experience of other countries and what measures should be taken in Russia**

Of course, the test that all novice investors will have to take is not a new idea and is absolutely correct. Financial literacy of the population is directly related to the situation on the stock market at the present time. However, as practice shows, various kinds of mass tests and checks are subject to falsification and cheating in Russia. An example of this is the exams for obtaining a driver's license. One test will definitely not be enough to instill in Russian investors the desire to understand the analysis of securities and approach purchases more responsibly. One option is to adopt the experience of other countries where financial literacy is higher.

Australia. The Australian government has initiated a national financial literacy program. In the year 2004 The Financial Literacy Fund was established as part of it. "Understanding Money," a website developed by the Fund, is an educational resource. The Australian Securities and Investments Commission (Australian Securities and Investments Commission, ASIC) took over the foundation's duties in 2008. In addition, the Australian government has established a variety of initiatives aimed at improving financial literacy among different groups of people, particularly adolescents and people living in rural areas.

The United Kingdom. In the United Kingdom, an unique organization called Money Advice Service has been functioning since April 2011. The Consumer Financial Education Department, which was part of the UK Financial Regulation and Supervision Authority until 2010, arranged the event. This program provides individuals with free financial counseling to assist them in making sound financial decisions. The service is self-contained, and its activities are geared at both young people and adults. The major objective is to ensure that the general public understands financial operations both domestically and internationally. It's worth noting that this service was established directly by the UK government, and its operations are supported by FSA fees.

In addition to allocating money for improving financial literacy and conducting it, the government should conduct a huge advertising campaign. There are plenty of educational resources and books on financial literacy in Russia, but it is already a task to attract the attention of the masses to them. One of the ways is to introduce a special course into the curriculum of universities and schools. This will increase the attention and interest not only of pupils and students, but also of their parents, who are directly involved in the education of their children outside the school.

### **Conclusion**

Despite the apparent complexity in stock market analysis, these methods are accessible to most investors. Both fundamental and technical analyses can be applied to almost any stock or bond.

A combination of two types of analyses can give a stable profit for many years and help citizens save up for a comfortable old age or for a long-awaited purchase and not lose money due to inflation. In the age of digitalization, finding information has become easier than ever, as well as starting an investment account.

A large number of Russians are increasingly turning to the stock market as a way to invest and preserve and increase capital. However, soon we may see sad consequences as citizens do not think at all about conducting any analysis or perform this analysis in insufficient volume. The measures taken by the central bank seem completely insignificant if we take into account the number of nuances of the two types of analyses that were described in the article. In order for novice investors not to become impoverished, actions should be much more decisive and more expedient.

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