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# Investment Capacity of the Country's Economy
## (The Case of Georgia)
## (in the order of the question)

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*The article discusses the factors of the functioning of the economy - land, capital, labor. Particular attention is paid to the issues of investment in these factors and their capacity. The idea of measuring the investment intensity of the country's economy is proposed – in qualitative and quantitative terms. In the first case, we are talking about the content of investments in industry, agriculture, construction, financial services, non-manufacturing, etc., in the second case, about the volume of these investments. The hypothesis is put forward that excessive investment in the country's economy can cause the economy to overheat, as well as contribute to the emergence of corruption in society and the economy, which slows down its economic growth. The so-called "production possibilities curve" can conditionally act as a limiter of excessive investments in the economy. The upper point located outside the curve of production capabilities (inaccessibility) can be conditionally considered a point indicating the inexpediency of excessive investment.*

***Keywords:*** *Investment; factors of the functioning of the economy; investment capacity; curve of production capabilities; overheating of the economy; corruption; investment policy.*
***JEL Codes:*** *E22, E62, F21, H54, O16*

## Qualitative Determinants of Investments

Investment (German Investition, from Latin investio - I dress), a long-term investment of capital in industry, agriculture, transport, services and other sectors of the economy both within the country and abroad in order to make a profit.

In the economic literature, financial and real investments differ. Financial investment - investments in stocks, bonds and other securities issued by corporations or the state.[1] Real investment – investment of capital in the creation of new capital goods, involves the formation of new capital (capital formation) or net capital additions to existing capital goods. Investments include investments in fixed production capital (buildings, structures, equipment) housing, construction, inventory (raw materials, materials, finished products and production in progress). Gross investments, net of depreciation amounts of fixed capital, represent net investments. From the point of view of the sectoral approach to investments in the economy, state financial participation is necessary (for example, a partner fund in Georgia), the financial policy of the state should be manifested in this.

Hence, investment is the process of adding to stocks of real productive assets. This may mean acquiring fixed assets, such as building, plant, or equipment, or adding to stocks and work in progress. This is the Keynesian definition of investment: it is a flow concept. Investment goods are goods designed to be used for investment rather than consumption (John Black, 1997).

## Once again about the factor analysis of the functioning of the economy

It is well known that factor analysis is a multidimensional method for studying the relationships between the values of variables. At the same time, these relationships can manifest themselves at different levels of the economy both in vertical (enterprise, sub-sectors, industries) and spatial aspects (regional economies). In our article, we focus on the macro-approach ("large line of development"), that is, on the factors that determine the functioning of the economy as a whole within one country. And in this context, the investment process plays a special role in the factors of the functioning and growth of the economy.

In the beginning (according to the classical approach, the factors of production meant land, capital, labor force, but as economic theory and practice developed, the factors of entrepreneurship (Joseph Schumpeter, who called entrepreneurship a special economic factor in addition to the three well-known ones – land, capital, labor) and the state were involved. Regarding the latter factor,

1 In the article "state" and "government" we use as synonyms.

the position of a scientist-economist, academician of the Academy of Sciences of Georgia, Vladimir Papava, is quite interesting, when the functioning of the state is possible at the expense of private borrowing, and not on the basis of receiving taxes (Папава Вл., 1993).

In the economic literature, when there is a talk about factors of production, we are talking about their efficiency (return), to a lesser extent about their capacity. So, for example, when it comes to land (land resources), they use indicators of the area of land resources, how effectively this resource is used, what is the yield per hectare (in the case of agriculture), etc. In the case of capital, it is capital return. In the case of labor there is used productivity for each unit of output. It is relatively difficult to measure entrepreneurship, entrepreneurial ability (although indirectly it can be determined indirectly, for example, by the profit indicator). And as for the state, here you can use indicators of fulfilling your obligations to the population of the country: financial, social, etc. As for the capacity of these factors, quantification is much more complicated here and depends on the needs of the development of the economy and society, and these needs vary over time.

The issue of sources of investment (opportunities) is also relevant: the main sources of investment are profit and savings (as part of disposable income). The latter factor is thoroughly disclosed in the main work of J.M.Keynes (Keynes,1936), while Keynes considers savings as the basis of demand, recovery of the economy from the crisis and further growth.

## On the role of investments and investment capacity in the economy

Investment refers to those economic (financial) resources that are directed to increase the real capital of the company, i.e. to expand or modernize the production apparatus. This may be due to the purchase of new cars, buildings, vehicles, as well as the construction of roads, bridges and other engineering structures. It is necessary to include here the costs of education and scientific research. These costs represent a cumulative investment in human capital and also increase the productive potential of the economy.

An investment is essentially an asset that is created with the intention of allowing money to grow. One, if you invest in a saleable asset, you may earn income by way of profit. Second, if investments are made in a return generating plan, then you will earn an income via accumulation of gain. There are a few types of investments: Growth, Shares, Property, Defensive investments, Cash, Fixed interest.

Excessive investment slows down the growth of the economy corruption, which can cause such phenomena as the shadow economy, underutilization of production capacity, overheating of the economy, loss of public confidence, social disasters, etc.

Usually, statistical economists, when quantifying investment opportunities, use the ratio of investment volume to gross domestic product I/GDP (t), and everything is logical here, since GDP is a comprehensive indicator of economic performance (despite some of its weaknesses, for example, not taking into account the quality of life, the shadow and informal economy). It seems to us that here it is necessary to supplement the above-mentioned indicator from the structural approach. In general, the use of the method of structural levels (as an epistemological tool of cognition) in the analysis of economics enriches the tools of economic science.

We offer a formula for calculating the investment intensity of a country by vector calculation of the investment intensity of the country's economy (both developed and medium-developed, developing and transitional):

I (investment intensity)( t) = X ( I/Land(t) + I/Capital(t) + I/Labor)(t), where I is the volume of internal and external investments, X is a certain country; L is the territory of land resources; C is capital; L is labor; (t) is a period of time.

It should be taken into account that in the current century (2001-2020), foreign direct investment accounted for only 1/3 (33.1%) of the total cost of investment in the national economy of Georgia, and the share of "local variety" investment - more than 2/3 (66.9%). The total value of the enlarged components of the national wealth of Georgia (land, taking into account hydromineral resources and forests, national property and human capital – excluding financial capital) in the middle of the second decade of the twenty–first century amounted to approximately 410 billion US dollars, including land - 90 billion US dollars; elements of national property – $200 billion, and human capital – $120 billion. With this in mind, the investment capacity of the land was 4.0%, the national property - 10.0%, and the labor force (human capital) - 18.8%. In general, the investment capacity of the country was:

I (investment capacity) (2001-2020) = 0.22*4.0% + 0.488*10.0% + 0.292*18.8% = 11.3%

Statistical economists usually calculate such an important indicator as the I/GDP ratio, but it shows the scale of investments in the economy as a whole (which is very important from the point of view of macroeconomics) and not factorially. Over the first two decades of the twentieth century (2001-2020), the investment capacity of Georgia's GDP averaged 8.9%. At the same time, it had its maximum value in 2007 (17.3%); in 2001, its level did not exceed 3.4%, and in 2020, due to the pandemic and the decline in business activity on a global scale, it accounted for only 3.9% - almost 2 times less than in the previous year (2019 3.9%).[2]

The question naturally arises: what should be the optimal investment capacity of the countries? The answer to this question is quite difficult, and that's why: firstly, the uniformity and diversity of economic processes; secondly, the content and direction of the financial and economic policy of the state; thirdly, the market environment in the world economy.

Here we are conditionally considering the problem with the phenomenon of production capabilities (and the corresponding curve) and that's why: the upper point is beyond the reach of the economy. It can be achieved in conditions of investment growth (both internal and external), but this can lead to both overheating of the economy and corruption phenomena). And here the question arises: to what extent is the capacity of the economy (its functioning factors) adequate to this process?

The indicator of investment intensity can be used in the analysis of issues of economic growth of a country, although it does not have absolute significance, since other important factors have a significant impact on economic growth, ranging from the level of political stability in the country to market conditions (both internal and external). Indicative in this respect is the volatility of the correlation between the investment intensity calculated in relation to foreign direct investment to GDP and the growth rate of GDP itself. So, for the period from 2001 to 2020, it (the difference between these indicators) ranged from -3.0% in 2003 to 10.1% in 2020.

On the basis of which investment decisions are made. Based on intuition? The psychological factor in the economy? Irrational behavior? (Акерлофф Дж., Шиллер Р., 2010) I think that partially, yes. After all, investing is the action of a subjective factor in the economy (government, companies, households through savings).

It should be noted that both in the Soviet economic literature and in practice, indicators were used – capital intensity, capital return, capital intensity and capital return (Экономическая энциклопедия. Политическая экономия., 1975). But two circumstances should be noted: a) the Soviet model of the economy implied a single country, the so-called unified national economic complex (UNEC), when the formation of fixed assets (capital) on the basis of centralized planning; b) the ownership of the funds was state (nationwide) I do not touch

2 Calculations were carried out by Iosif Archvadze, Professor of Kutaisi University.

here on the question of the forms of manifestation of this property, because this is a big topic and goes beyond the scope of this article, especially since very often both economists and lawyers confuse the economic and legal aspects of property. Meanwhile, the truth, as always, is in the middle: legal - what belongs to whom, economic - what is the material result.

## About the overheating of the economy

When the economy overheats some producers are not able to supply all the goods that consumers demand. This can lead to prices rising faster than they otherwise would. Overheating can also make household and firms over-optimistic about their future income prospects, and lead them to take on too much debt. Overheating of the economy is a real threat to countries with unstable economies, developing (transition) economies, as well as highly specialized regions, when GDP growth is 8-12 percent for 2-3 consecutive years. The danger is that if the growth rates are very high, for one reason or another that is not related to production, a situation may turn out when macroeconomic indicators deteriorate (for example, inflation). A difficult situation may arise for Georgia, when high economic growth is necessary to overcome the lag of previous years, on the other hand, growth may contribute to overheating of the economy.

Overheating of the economy is a situation in which the pace of economic growth becomes explosive uncontrollable and, having absorbed all the resources of the private and public sector, they come close to the line beyond which further sustainable growth exhausts itself and a recession begins. The overheating of the economy is preceded by excessive financing of growth, over-crediting, excessive investment of public funds in the economy, the state budget deficit is taking on threatening proportions, inflation, the value of the foreign trade balance is increasingly going into negative territory or sharply decreasing. Economic agents anticipating the approach of a recession prefer to invest in the real sector of the economy - for example, real estate, rather than financial instruments (bonds, stocks, etc.). Among the symptoms of overheating of the economy, many economists, financiers emphasize overinvestment in economic funds (goods and equipment, services, capital caused by the low price of borrowed money (Central Bank interest rates), or high consumer demand, or international market conditions (price conditions), or speculative boom caused by new investment opportunities in the economy as a whole or in individual industries. Overheating of the economy can be accompanied by both inflation and deflation (due to an increase in the supply of material goods and services). Usually it (overheating) is accompanied by high (well above average) economic growth rates, growth of commodity and stock markets, moderate or low price of credit money. In other words, the overheating of the economy is caused by the excessive influence of the state through the Central Bank on the credit market. Under these conditions, the planning of monetary policy by the state in market conditions cannot reflect the needs and trends of economic development, which leads to overinvestment of capital by entrepreneurs who focus on the bank interest rate and overconsumption by individuals who also focus on interest rates. And, finally, overheating of the economy is fraught with economic recession, unemployment, and a drop in the standard of living of the population. And the latter reduces the saved part of household income, which in itself is a source of investment in the economy.

Overheating of the economy can also contribute to an excessive amount of investment with all the negative consequences that follow from this, as mentioned above. Naturally, it contributes to the overheating of the economy with all the negative consequences that follow from this. Therefore, the investment policy of the state should be aimed at balancing the growth of the economy and the volume of investments.

## On corruption in economy

Corruption "The use of bribery to influence politicians, civil servants, and other officials" (John Black, 1977). Economics of corruption deals with misuse of public for private benefit and its economic impact on society. Economies that are afflicted by a high level of corruption are not capable of prospering as fully as those with a low of corruption. Also, economies that are corrupted are not able to function properly since the natural laws of the economy can not function freely. As a consequence, corruption for instance, leads to inefficient allocation of resources, poor education, and healthcare or the presence of shadow economy that includes illegal activities as well as unreported income from production legal goods and services for which taxes should be paid, but are not (How Corruption Affects Emerging Economies, 2019, 7,8).

Investors often seek a fair competitive, business environment, thus they will mostly avoid investing in countries where there is a high level of corruption. Studies show a positive relationship between the level of corruption in a country and measurements of the competitiveness of its environment (The Institutional Economics of Corruption and Reform. Theory, evidence and policy. 2009).

Corruption breeds inefficiencies that may affect the static level of output. In order for corruption to affect economic growth, capital accumulation, or total factor productivity. As 1995 study by Paulo Mauro (Mauro, 1995, 10) shows that capital accumulation, in the form of investment, is negatively correlated with corruption, particularly foreign direct investment (Wei, Shang-Jim, 2000).

Corruption is a global phenomenon that causes poverty, obstructs development and drives away investment. It also debilitates the judicial and political systems that should be working for the public good. Not surprisingly, as the rule of law is weakened and the voice of the people remains unheard, citizens trust in government officials and national institutions dwindles.

The problem of corruption in society is multi-layered, multi-level (sectoral and territorial levels). In our article we give an analysis of corruption that has arisen in the economy (including non-payment of taxes) (Shevardnadze K., Chechelashvili R., Chocheli V., Khaduri N., 2000), in particular, corruption resulting from the influx of a large volume (capacity) of investments. But there are other levels of corruption – in various organizations (for example, in the banking sector), etc.

According to the level of corruption (its perception), Georgia ranks 45th among 145 countries. The word perception refers to the subjective opinion of the interviewed subjects (this is very conditional). At the same time, of course, the articles of the Criminal Code of Georgia clearly define the level of punishment for specific facts of this phenomenon, and of course everything is decided by the court.

## About the investment policy of the state

It is well known that the economic policy of the government means the actions of the government to implement the requirements of objective economic laws. At the same time, there may be some difference between the essence and the form of manifestation of these laws. Economic policy is also a question of priorities and choices, bearing in mind that economic problems require solutions that contradict each other (for example, investments from the investor's point of view, this is one thing, and from the government's point of view, this is another. And in this context, investment policy as an organic part of investment policy acquires a special role.

Investment policy, according to American Professor William Sharp (Nobel Laureate 1990), is an integral part of the investment process, including the definition of an investor's goals, his preferences between expected return and risk (Уильям Ф. Шарп, Гордон Дж. Александер, Джеффри В. Бейли, 2016). Elements of investment policy: the types of assets in which the investor invests; the degree of activity of investment portfolio management; the choice as the purpose of investment - income generation or asset value growth (Ibid).

The investment policy of the state (macro level) is a set of interrelated goals and measures to ensure the necessary level and structure of investments in the country's economy and its individual spheres and industries, increasing the investment activity of all the main agents of the economy: the population, entrepreneurs, etc. In other words, investments from the point of view of the country as a whole are investments in the creation of new or replacement of worn–out industrial, human or natural capital. The investment policy of the state should be aimed at attracting investments in innovative industries in the economy and beyond (science, biotechnology, architecture, computers, automotive, interaction with the outside world, ecology, medicine, robotics).

The investment policy of the enterprise (micro-level) is a part of the economic and financial strategy of the enterprise. It consists in choosing and implementing the most effective forms of its real and financial investments in order to ensure high rates of its development and a constant increase in its market value. Investments should contribute to the production of competitive products in order to gain their own niche both in the foreign market and in the domestic market, and for this it is necessary to meet at least three conditions: a) the volume of products; b) the quality of products; c) the price per unit of production. Product volume growth can be achieved with the inclusion of additional investments in (fixed capital, investments, human capital); improvement of product quality depends on competition in the market (rejection of protectionist policies); pricing, in turn, depends on the first two factors – the larger the volume of output, the lower the cost of each subsequent output (scale effect) and, accordingly, the price, which determines profit (at the micro level). As for the macro aspect, it ultimately affects the efficiency of the country's economy as a whole.

As known, the fundamental uncertainty of the market (which causes market failures) determines the need to strengthen the regulatory function of the government using various tools (primarily tax policy). Regarding the economic policy that should be carried out for the purpose of optimal investment policy, we can talk about a certain **divestition - the opposite of investment.** Divestition (Eng. divestment, divestiture) withdrawal of capital investments, sale of part of assets or the entire company. With divestition, proceeds from the sale of assets usually exceed future cash flows from their further operation (a well-known example is the Finnish Nokia group, which sold off non-telecommunications divisions in the early 90s. This is usually used at the level of firms, companies, that is, at the level of microeconomics, but I think that this tool can be used at the level of macroeconomics, that is, within the whole country. How? With the same tax policy pursued by the state: providing the most favored-nation treatment to those investors who will invest in those industries in the development of which the state is interested. You can object to me: just a paragraph above, I called for the rejection of protectionist measures in order to improve product quality, but in this case we have a special circumstance - when the state is interested in attracting optimal investments, not maximum, and therefore an exception can be made here (recall the famous aphorism "there are no rules without exception" – every rule has its exception - a saying from the words of the Roman stoic philosopher Seneca).

## Instead of conclusion

The idea of writing this short article appeared relatively recently due to the importance of increasing the maximum amount of investment, both on the part of the state and on the part of economic scientists (representatives of the mass media did not stand aside either). Meanwhile, we see the main problem in attracting not maximum, but optimal investments in relevant sectors of the economy for Georgia, taking into account an innovative approach. That is why the article suggests the **investment capacit**y indicator, which, in our opinion, can be taken into account by the state when developing and conducting the country's investment policy.

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# ქვეყნის ეკონომიკის საინვესტიციო შესაძლებლობები
## (საქართველოს მაგალითზე)

**თეიმურაზ ბერიძე**
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*სტატიაში განხილულია ეკონომიკის ფუნქციონირების ფაქტორები - მიწა, კაპიტალი, შრომა. სტატია შედგება ქვეთავებისგან, რომელშიაც განხილულია ინვესტიციების ხარისხობრივი განმსაზღვრელები; მოცემულია ეკონომიკის ფუნქციონირების ფაქტორული ანალიზი; განსაზღვრულია ინვესტიციების შესაძლებლობების როლი ეკონომიკაში; ეკონომიკის გადახურების, ეკონომიკაში კორუფციისა და სახელმწიფოს საინვესტიციო პოლიტიკის სხვადასხვა საკითხი.*

*განსაკუთრებული ყურადღება ეთმობა ამ ფაქტორებში ინვესტიციის საკითხებს და მათ შესაძლებლობებს. შემოთავაზებულია ქვეყნის ეკონომიკაში ინვესტიციების ინტენსიურობის გაზომვის იდეა - ხარისხობრივად და რაოდენობრივად. პირველ შემთხვევაში განხილულია ინვესტიციების შინაარსი მრეწველობაში, სოფლის მეურნეობაში, მშენებლობაში, საფინანსო მომსახურებაში, არასაწარმოო სფეროში და ა.შ., მეორე შემთხვევაში კი ამ ინვესტიციების მოცულობა. წამოყენებულია ჰიპოთეზა, რომ ქვეყნის ეკონომიკაში გადაჭარბებულმა ინვესტიციებმა შეიძლება გამოიწვიოს ეკონომიკის გადახურება, ასევე შეიძლება ხელი შეუწყოს საზოგადოებასა და ეკონომიკაში კორუფციის გაჩენას, რაც შეანელებს მის ეკონომიკურ ზრდას. ე.წ. „წარმოების შესაძლებლობების მრუდმა" შეიძლება პირობითად იმოქმედოს ეკონომიკაში გადაჭარბებული ინვესტიციების შემზღუდველად. ზედა წერტილი, რომელიც მდებარეობს საწარმოო შესაძლებლობების მრუდის გარეთ (მიუწვდომლობა), პირობითად შეიძლება ჩაითვალოს გადაჭარბებული ინვესტიციის მიზანშეწონილობის მანიშნებელ წერტილად.*

***საკვანძო სიტყვები:*** *ინვესტიცია, ეკონომიკის ფუნქციონირების ფაქტორები, საინვესტიციო შესაძლებლობები, საწარმოო შესაძლებლობების მრუდი, ეკონომიკის გადახურება, კორუფცია, საინვესტიციო პოლიტიკა.*