Today, the scientific community is widely discussing the problems associated with the transition to a knowledge-based economy, science-intensive production, the development of human capital. In modern conditions, education is becoming the most important driver of economic growth and development, which is especially important for our country, since the model of economic growth provided by the export of hydrocarbons demonstrates its limitations. Education not only makes work more efficient, it acts as a source of endogenous technological progress, as a better educated workforce is better able to create, implement and adapt new technologies, thereby ensuring growth.

Within the framework of this work, we focused on two levels of education: secondary general and bachelor's degree. The focus of this work is the choice of the level of education by individuals, based on their individual characteristics and the prevailing macroeconomic environment. Individual characteristics include the heterogeneity of individuals in relation to risk and learning ability, as measured by USE scores. To the conjuncture - the prevailing rates of interest, wages, taxes, subsidies, education costs, etc. in the economy.

Using the overlapping generations model (consisting of 60 generations) allowed us to model nonlinear income profiles of individuals taking into account their abilities, length of service, education level and random factors, as well as find optimal consumption and savings trajectories throughout life for individuals with different risk preferences and abilities to training.

Numerical solution of the model and simulation analysis led to the following results. Fig. 1 reflects the choice of individuals depending on the USE scores and their risk preferences in a stationary state, obtained as a result of model calibration on Russian data. Light green dots indicate that an individual with these characteristics will prefer to enter a university after school, and dark green dots indicate that an individual decides to go to work and not get a higher education. Thus, individuals' relatively high risk aversion can hinder their pursuit of higher education, even if it brings a significant premium, which, however, is not deterministic. Therefore, policies aimed at reducing volatility in the labor market, increasing the certainty and predictability of wages will lead to the fact that individuals less tolerant of risk will prefer to receive higher education, which will result in an increase in the general level of education in the economy, an acceleration of technological progress, and an increase in output and reducing inequality.

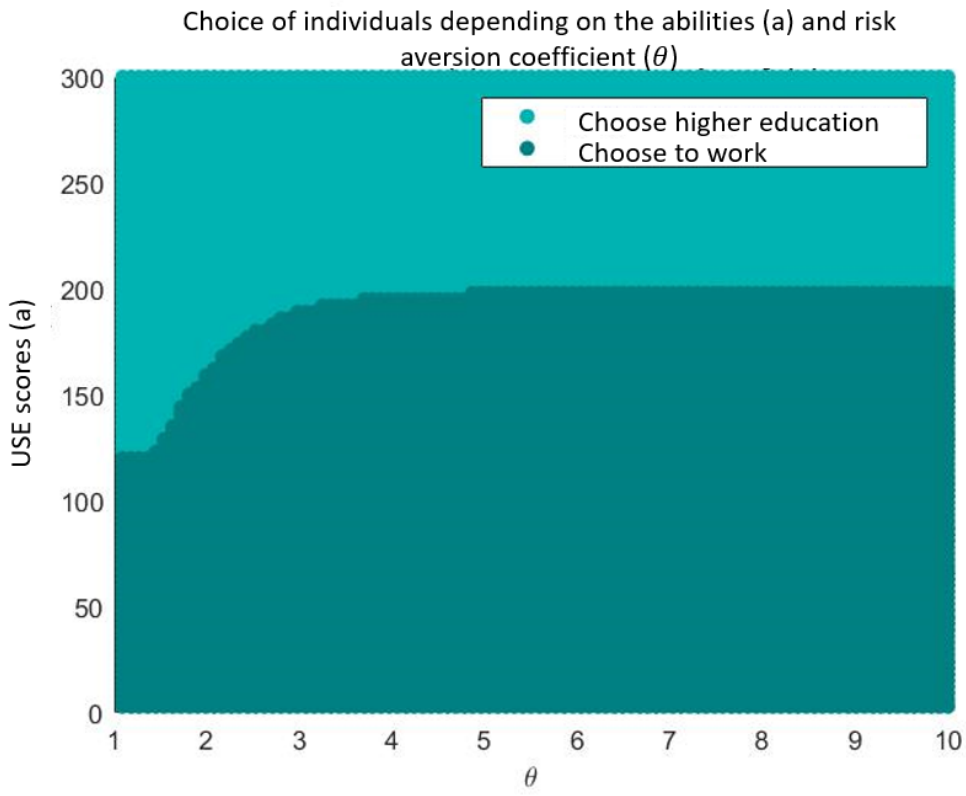

Fig. 1. The choice of the level of education by individuals depending on their abilities and attitude to risk.

Modeling the economic policy of the state in the field of higher education was carried out in the following directions:

1) 1) Modeling various measures to support students in universities - subsidizing the interest rate during the period of study and subsidizing education costs. In terms of impact on output and cost-benefit ratios, subsidizing education spending is a more preferable measure.
2) 2) Simulation of various options for the distribution of subsidies. For example, the provision of a subsidy in the amount of 50% of education expenses to everyone who scored 185 USE points instead of 100% of expenses to everyone who scored 218 leads to a 5.5 percentage point increase. the proportion of people with higher education (45.5%), an 8.9% lower Gini coefficient and a 2.82% higher output. Thus, a different distribution of the same amount of subsidies may lead us to a more desirable result.
3) Simulation of various options for financing educational subsidies by increasing the rate of income tax, consumption tax or income tax. An almost twofold increase in the number of subsidies issued (by 105%), financed by an increase in the income tax rate by 1 percentage point, or the consumption tax by 1.4 percentage points, or the income tax rate by 8 percentage points. leads to an increase in output by 9.5% -10.5%, depending on the method of financing taxes. It should be noted that a change in the rate

of different taxes leads to different changes in the inequality indicator, interest rates and wages, and the proportion of people receiving higher education. Each of the scenarios has its own advantages and disadvantages and can be implemented depending on the goals pursued by the state.