

## عنوان مقاله:

Presentation of a Mathematical Model for Optimal Portfolio in the Form of a Dynamic Stochastic General Equilibrium Model for Economy of Iran

## محل انتشار:

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## خلاصه مقاله:

One of the most important aspects of investment is determining the “optimal investment portfolio”. To date, scientific research has been conducted to determine the optimal portfolio with “artificial intelligence” and “Fuzzy logic”. However, we determine the optimal portfolio based on Dynamic Stochastic General Equilibrium (DSGE) model. On the other hand, several factors affect returns, which is one of the most important issues in investment decision-makings, and various models have been developed to analyze the return of “capital” and “other assets”. In this regard, some of the most important models include linear and non-linear models, artificial neural network models, Fama–French model, Generalized AutoRegressive Conditional Heteroskedasticity (GARCH) model, and optimal stable model. All of these models are indicative of the use of quantitative methods and models in the investment industry. One of the causes of using these models is developing the financial economy. In fact, the development of financial economy has more increased with the concept of “portfolio optimization”. In fact, the portfolio optimization and diversification concept is the basis of developing and expanding classical finance and financial decision-making. Financial markets, especially the capital market, can have a great deal of relevance to other sectors of the economy. In the present study, we design and calibrate a new Keynesian DSGE model in relation to the optimal investment portfolio and effectiveness of shocks (e.g., productivity and foreign exchange earnings fluctuation) on macroeconomics variables.

## کلمات کلیدی:

Optimal portfolio, investment, Dynamic Stochastic General Equilibrium, Random Shocks, Instantaneous Reactions

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