What happens to consumption when income changes? This is one of the most important questions in economics, one that got the attention of some of the greatest economists of all time, including John Maynard Keynes and Milton Friedman. Nowadays, this issue is facing a renewed interest as income inequality has been rising globally in the last four decades. However, inequality is not only about simple differences in levels of earnings but also about how volatile and uncertain incomes are. Because of risk aversion, we want to avoid large fluctuations in consumption, shielding it from changes of income. This is why we save and borrow and this is what makes the distribution of wealth an important aspect of social welfare analysis.

In this project, I want to investigate inequality in how well people can shield their consumption from changes in income and whether this has been affected by financial innovation. Nowadays, everyone can download apps on their phone which will give them access to real-time information on financial markets, offer financial advice and even permit trading in bonds and stocks. Therefore, financial innovation can act as an equalizer for consumption insurance. On the other hand, innovation in finance has also brought about more sophisticated financial instruments. Hence, it might be that financial innovation increases inequality in consumption insurance as better educated individuals are usually more financially savvy.

Because of the latter point, the proper treatment of this question requires accounting for many other benefits education brings in consumption insurance. For example, better educated people might enjoy more stable employment prospects. Secondly, we tend to marry people who are similar to us, a phenomenon called positive assortative mating. The better educated have, on average, better educated spouses and that also matters for their income risk. Furthermore, one can argue the more educated are more able to forecast the changes in their earnings. All three factors effectively reduce their income risk and make protecting consumption from fluctuations in income easier.

To analyse all aspects of how financial innovation impacts on consumption insurance and control for other factors I will use the data from Survey on Household Income and Wealth. This is a survey that started in 1960s in Italy and continues to this day. This data set contains information on socioeoconomic characteristics of respondents, their consumption, income, wealth and also on their expectations about the future. I will use the results of data analysis to calibrate the parameters of a mathematical model of the economy. Then, I will use the model for simulations which will shed light on the contribution of financial innovation to consumption insurance and other dimensions of inequality.

To tackle inequality, we need to understand its multidimensional nature better. The proposed research aims to further our understanding of the role of education and financial innovation in the evolution of inequality, telling us if we should incorporate those factors in how we design economic policies. The relevance of this project does not end here. When governments try to impact on the economy, many policies at their disposal boil down to affecting the incomes of people. Whether a policy actually affects the economy and when it does, to what degree, depends on the response of individual consumption to the policy-induced change in income.