

# A Contemporary Analysis of Wealth Inequality – A Financial Market Perspective

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## 1 Framework of Analysis

The issue of rising inequality has become a more important topic within the current field of economics. The dissipating middle class in the United States and even in Europe has highlighted the significance of phenomena such as the distribution of, not just income, but also of wealth. The mere absence of a zero bound on an individual or family's net wealth presents a unique hurdle not so visible when analyzing the distribution of income. Additionally, the concentrations of wealth surpass that of the concentration of income in many developed nations.

Working with Professor Willi Semmler at the New School, we have initiated a broad project examining the financial markets as a driving factor for the wealth distribution. This research (Chappe and Semmler 2016); (Semmler and Parker 2017), highlights a series of increasingly important areas of examination. For example, the returns allotted towards the higher ends of the wealth and income distribution are often found to be greater than those of less fortunate means. As such there are a number of additional confounding issues related towards creating a simple model of rising inequality.

It is arguable that those of greater financial means have greater knowledge and information regarding investments. Additionally, there is the positive probability of higher savings rates and faster asset accumulation. The wealthier class may also have better access to credit with more advantageous interest rates and may also find more favorable tax treatments.

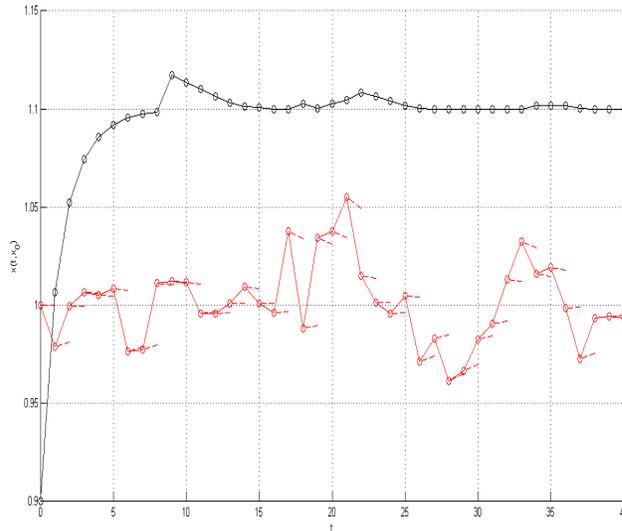
The initial model takes many of these variables into account using data from the Federal Reserve Board's Survey of Consumer Finances (SCF) in simulating the accumulations of wealth towards these two heterogeneous households.<sup>1</sup> The first household is able to borrow for investment purposes and as shown in our simulations, figure 1, such families demonstrate a greater return to net wealth.

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<sup>1</sup>Survey data and related variable descriptions may be found at the following URL: <http://www.federalreserve.gov/econresdata/scf/scfindex.htm>

Figure 1: Borrowing by investors: Path of net worth, dark line, and stochastic process, red line



As one can see in figure 1, based upon some fundamental assumptions regarding key aspects of wealthier families, the path of net wealth may possess the positive probability of an upward trend. Unfortunately, when we model low net wealth households this line often deteriorates downward during simulations. This trend we feel is likely due to such families borrowing for consumption of educations, cars to drive to work, clothes and items that high net worth households would be able to purchase without the same negative impact from credit markets. Moreover, wealthier families mostly borrow for investments.

The issue of differing distributional trends in net wealth and income is of substantial importance in the contemporary political environment of both the U.S. and Europe as highlighted by well known economists such as (Piketty and Saez 2014). Therefore, the topic continues to be a fundamental component of forward looking research.

Current new research, utilizing quantitative methods of non-parametric kernel density estimation is yielding interesting methods of studying the issue and isolating statistical sub-populations within the entire spectrum of the distribution. These methods are allowing for a unique look into the features present and analyzable within both the U.S. SCF survey data as well as additional European data sets such as the DIW Socio-Economic Panel Data (SOEP).<sup>2</sup>

Due to the importance of these growing problems that have been of growing

<sup>2</sup>Survey data and descriptive details of the variables may be found at the following URL: [http://www.diw.de/en/diw\\_02.c.221180.en/research\\_data\\_center\\_soep.html](http://www.diw.de/en/diw_02.c.221180.en/research_data_center_soep.html)

concern to critical observers of the American economy since long, such as Henry George, it is my hope to continue to find new insight from new empirical methods using U.S. SCF data. Additional areas of interest open up the discussion to more demographic aspects of this analysis, such as age, education and race, as classifying variables of interest. Through this process key issues may be able to be highlighted and studied that can yield benefits for the long-run sustainability of society and the benefit of progress in economics.

## References

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