Is Financial Technology Making the Rich Richer?
(Job Market Paper)

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Abstract

Innovations in financial technology affect both efficiency and equity in the stock-market. The impact is non-trivial because several key technological innovations have altered multiple dimensions of investors' opportunity sets at the same time. For example, better and faster computing has simultaneously made it (1) cheaper for retail investors to participate, and (2) to find funds that meet their needs, but also (3) cheaper for sophisticated investors to learn about asset returns. Some experts believe this may increase financial inclusion, others worry about a more unequal wealth distribution. To settle this debate, it is important to understand the consequences of each innovation. In this paper, I build a theoretical model of intermediated trading under imperfect information that allows me to study each innovation in isolation. In the model, they each have opposing implications for participation (i.e., risk-sharing) and efficiency (i.e., information). The final outcome depends on which one dominates, which can be deduced from the data. The key insight is that even if investors have access to the equity premium through cheap funds, improvements in financial technology disproportionately benefit informed, big data players. This reduces the participation rate of low-wealth investors, improves price informativeness, enlarges (and consolidates) the active investment management industry and amplifies capital wealth inequality. Calibrating the model to US macro data, I find that the empirically observed improvement in financial technologies can explain more than 80% of the increase in top 20% capital wealth share and 67% of the consolidation of the active investment management industry.

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