Oral and Written Testimony of Teresa Ghilarducci*

*Where Typical Americans Have Their Wealth*

**UNITED STATES SENATE COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS**

Hearing title: “Does Wall Street Always Win? GameStop, Robinhood, and Retail Investors”

March 9, 2021 10:00 am

*Oral Statement (624 words)*[1]

Thank you, Chairman Brown and Ranking Member Toomey.

I am a Professor of Economics at The New School in New York City, coming to that faculty in 2007 after teaching at the University of Notre Dame for 25 years. I received my PhD from UC Berkeley.

My office hours as a professor are typically quiet moments huddling over equations. But over the past few years, students have been bubbly, asking about their trades on the phone-friendly trading platform, Robinhood. The young are told to buy stocks and hold them – but they absorbed the first point and missed the second. Trading on Robinhood is a stochastic game with intermittent rewards and is dissociated from long term wealth accumulation.

I welcome today’s hearing seeking to protect retail stock buyers from casino-type trades. And I want to emphasize that Americans’ wealth does not come from retail stock trading.

Half of near-retirement households (with members aged 52 or over) in the bottom half of the wealth distribution have less than $296,000 of total *median* wealth, including the value of their pensions and Social Security benefits. The *median* wealth for the middle class -- those in the next 40% of the wealth distribution -- is $1.02 million. Households in the top 10% have a *median* net wealth of over $3.2 million(Table 1).

---

[1] Researchers at The New School, Michael Papadopoulos and Siavash Radpour, constructed the wealth data and Owen Davis helped with the Robinhood discussion.

And, as you might guess, home equity and retirement wealth[2] are the largest components of wealth -- they make up 88%[3] of the wealth held by near retiree households within the lower half of the wealth distribution; 78% for the middle class, and 43% for those in the top 10% (Table 2).

You might be surprised that Social Security is the most important source of household wealth for near retirees. Social Security represents 58% of net wealth for those near retirees in the bottom half of the wealth distribution; 27% for the middle class; and 7% for the top 10%.

*Racial Wealth Gap:* Whites on average have 183% of the net wealth (Table 3) that non-whites have, the gap is 83%. But the racial Social Security wealth gap is only 13%. This is also too high, but is by far the most equitably distributed. Whites have 8 times the wealth in business, and 4 times the wealth in directly-held stocks, 58% more housing wealth and 2.4 times the retirement plan wealth compared to non-whites

**Stock Trading Is Not Wealth Acquisition**

In contrast, directly-owned stocks (and bonds) make up a relatively small share of near retirees' wealth at 8%. For older households, 24% directly hold stocks, and nearly a third of this 24%, many are among the top 10%.

On average, older households have $82,950 in stocks, but the median value is zero, which means the ownership of stocks is concentrated among the very top. And the wealthy are not rich because they directly-own stocks. Though 70% of the top 10% directly own stocks, it is only 13% of their wealth. They own businesses (15% of their wealth), other real estate (15% of their wealth), and have 25% of their wealth in retirement accounts and pension plans.

[2] We add the shares in the net value of primary residence, present value of expected Social Security benefits, value of DC plans and IRAs, and present value of defined benefit benefits.

[3] Adding 19%+58%+11%=88%

As Nobelist Robert Shiller (2020) documents, stock fluctuations stoke excitement because they are thought to create wealth, but  in fact, they fuel bubbles.

People with stocks have done well recently, which heightens the fear of missing out for those who are not invested in stocks. The reality is they are being left out because they don't have access to retirement accounts. Most of us who have stocks own them through retirement accounts, which are invested in diversified portfolios managed by institutional investors. and professionals who can manage the risks that come with investments in private equity, etc.. Of course, we benefit from the stock market doing well, but more than half of workers do not have a retirement plan at work, which means many households do not have any investment in stocks (Radpour, Papadapoulos, and Ghilarducci 2021).

Any retail brokers' claims that trading democratizes access to wealth only takes advantage of people's fears. I fear opening up high-risk and expensive alternative investments will make the situation worse.[4] Robinhood founders frequently invoke their experience as part of the Occupy movement to explain why they want to democratize finance. But safe and professionally managed diversified investments, not trading apps, are the path to economic security. Successful investors know that "time in the market" and diversification, which are among the many benefits of **professionally-managed** retirement plans, are what works.  Unlike"timing the markets," which does not work, yet is whattrading apps encourage.

We need innovations in public policy to give more Americans access to what we know works - professionally-managed retirement coverage that allows everyone to benefit from the stock markets the same way you and I do in TSP, in a DB plan, or in TIAA.

*End of Oral Statement*

---

[4] Demand for lottery-like stocks increases during economic downturns and is more prevalent among vulnerable groups: poor young men, African Americans and Latinos. (Kumar 2009) Some types of retail trading resemble gambling disorders. (Grall-Bronnec et al 2017).  New technologies make stock trading more like gambling. Apps like Robinhood make gambling stocks more accessible. Two to three percent of gamblers become addicted. Trading can become an addiction, akin to gambling addiction.

## Wealth Holdings

The typical household whose members are nearing retirement earn about $65,000, their average wealth of over $1 million is barely relevant since the very wealthy pull up the average beyond reality. Because most Americans do not have significant wealth until their fifties, I focus today on those nearing retirement age, defined as households with one worker 52 or over.

The typical near-retirement household in the United Statesearns between $55,000 to $75,000 per year and has an average net wealth of $1,.67 million. I don't report the income distribution tables, but am reporting the wealth distribution. When dividing up the over near retiree population This sounds like a large number, but - as you know - averages hide important differences (as witnesses testified in your March 3 hearing) and means and medians don't give you a complete picture. So I am going to report wealth in terms of wealth distribution, looking at the differences between those in the bottom 50%, the next 40% and the top 10% of the wealth distribution. (These are categories recommended by French economist Thomas Piketty (2015).

For those in the bottom half of the wealth distribution, the median net wealth is $295,724; for those in the next 40%, it is $1,019,239; and for those in the top 10%, median net wealth is $3.19 million. You may be surprised that home equity in a primary residence is not the largest share of wealth across all income groups. It is only 12% of net wealth for those in the top 10% (they own other real estate) and about 20% for the bottom 90%.

Social Security is the predominant source of household wealth for near retirees. As a promised stream of income for the rest of your life, indexed to inflation, Social Security represents 24% of net wealth, which falls as income goes up. Social Security matters much more for lower wealth holders who are likely lower earners: 58% of total wealth is in Social Security for the bottom half of the wealth distribution, 27% for the middle and 7% for those at the top. Retirement savings in the form of defined contribution savings plans and individual retirement accounts are next, representing 17% of households net wealth, only 8% on the bottom, 21% for middle and 16% for those on the top. Traditional pensions, or benefits from a defined benefit plan, represent only at 8% because they have been replaced by 401(k)s, only 3% for the bottom and 9% for the top half.

**Table 1: Mean and Median Wealth by Wealth Percentile Group for Households with At Least One Worker Over 52**

| | Mean | | | | Median | | | |
|---|---|---|---|---|---|---|---|---|
| | **All** | **Bot. 50%** | **Next 40%** | **Top 10%** | **All** | **Bot. 50%** | **Next 40%** | **Top 10%** |
| **Primary Residence net of mortgage debt** | 178,758 | 63,472 | 234,469 | 533,339 | 105,000 | 38,000 | 180,000 | 400,000 |
| **Other Real Estate net of mortgage debt** | 95,838 | 7,254 | 58,810 | 677,822 | 0 | 0 | 0 | 160,000 |
| **Vehicles net of car loans** | 22,273 | 14,099 | 27,727 | 41,376 | 15,000 | 9,000 | 20,000 | 27,000 |
| | | | | | | | | |
| **Social Security** | 253,525 | 196,600 | 307,671 | 321,702 | 254,044 | 192,604 | 300,124 | 274,966 |
| **Retirement Savings and Benefits (DC, DB, IRA)** | 270,226 | 37,314 | 343,114 | 1,135,697 | 51,000 | 0 | 237,800 | 823,000 |
| | | | | | | | | |
| **Business (net)** | 82,950 | 2,618 | 32,280 | 689,153 | 0 | 0 | 0 | 0 |
| **Stocks** | 82,361 | 4,212 | 49,709 | 605,311 | 0 | 0 | 0 | 140,000 |
| **Bonds** | 12,786 | 191 | 2,651 | 116,630 | 0 | 0 | 0 | 0 |
| | | | | | | | | |
| **Checking/Savings Accounts** | 38,790 | 8,879 | 44,568 | 165,598 | 7,000 | 2,000 | 15,000 | 50,000 |
| **CDs, Savings Bonds, T-Bills, and Other Savings** | 35,855 | 4,426 | 28,243 | 224,020 | 0 | 0 | 0 | 5,000 |
| | | | | | | | | |
| **Total Wealth** | 1,073,362 | 339,065 | 1,129,242 | 4,510,648 | 600,824 | 303,844 | 1,025,924 | 3,189,109 |
| **Non Real Estate Debt** | 8,285 | 47 | 7,173 | 5,240 | 0 | 0 | 0 | 0 |
| **Net Wealth** | 1,065,077 | 339,018 | 1,122,069 | 4,505,408 | 594,049 | 295,724 | 1,019,239 | 3,188,181 |

**Source**: Michael Papadopolous et. al. calculation using the Health and Retirement Study 2016 wave.
**Notes:** Stock and bond categories represent direct ownership (i.e., outside of 401(k)-type plans). Wealth cutoffs for single households are $319,000 and $1,227,915. Wealth cutoffs for married households are $736,049 and $2,526,249. Amounts for defined benefit plans and Social Security benefits reflect the present value of expected benefits in retirement assuming retirement and claiming at Full Retirement Age. Values for real estate reflect net equity (value of home minus mortgage debt).

**Table 2: Share of Total Wealth and Share Having Any Wealth in Category by Wealth Percentile Group for Households with At Least One Worker Over 52**

| | Share Having Any | | | | Share of Net Wealth | | | |
|---|---|---|---|---|---|---|---|---|
| | **All** | **Bot. 50%** | **Next 40%** | **Top 10%** | **All** | **Bot. 50%** | **Next 40%** | **Top 10%** |
| **Primary Residence net of mortgage debt** | 78% | 64% | 91% | 98% | 17% | 19% | 21% | 12% |
| **Other Real Estate net of mortgage debt** | 28% | 16% | 34% | 61% | 9% | 2% | 5% | 15% |
| **Vehicles net of car loans** | 89% | 85% | 93% | 95% | 2% | 4% | 2% | 1% |
| | | | | | | | | |
| **Social Security** | 100% | 100% | 100% | 100% | 24% | 58% | 27% | 7% |
| **Retirement Savings and Benefits (DC, DB, IRA)** | 66% | 46% | 85% | 96% | 25% | 11% | 31% | 25% |
| | | | | | | | | |
| **Business (net)** | 11% | 5% | 13% | 31% | 8% | 1% | 3% | 15% |
| **Stocks** | 24% | 10% | 31% | 70% | 8% | 1% | 4% | 13% |
| **Bonds** | 5% | 1% | 6% | 22% | 1% | 0% | 0% | 3% |
| | | | | | | | | |
| **Checking/Savings Accounts** | 83% | 75% | 91% | 96% | 4% | 3% | 4% | 4% |
| **CDs, Savings Bonds, T-Bills, and Other Savings** | 27% | 16% | 34% | 55% | 3% | 1% | 3% | 5% |

**Source**: Michael Papadopolous et. al. calculation using the Health and Retirement Study 2016 wave.
**Notes:** Stock and bond categories represent direct ownership (i.e., outside of 401(k)-type plans and IRAs). Wealth cutoffs for single households are $319,000 and $1,227,915. Wealth cutoffs for married households are $736,049 and $2,526,249.

**Table 3: Descriptive Statistics for Wealth by Race of Household Head for Households with At Least One Worker Over 52**

| | Mean | | Median | | Share Having Any | | Share of Net Wealth | |
|---|---|---|---|---|---|---|---|---|
| | White | Nonwhite | White | Nonwhite | White | Nonwhite | White | Nonwhite |
| **Primary Residence net of mortgage debt** | 193,084 | 122,524 | 120,000 | 60,000 | 82% | 64% | 16% | 19% |
| **Other Real Estate net of mortgage debt** | 100,618 | 77,080 | 0 | 0 | 29% | 22% | 9% | 12% |
| **Vehicles net of car loans** | 23,821 | 16,199 | 15,000 | 10,000 | 92% | 78% | 2% | 3% |
| | | | | | | | | |
| **Social Security** | 259,594 | 229,702 | 261,724 | 215,644 | 100% | 100% | 22% | 36% |
| **Retirement Savings and Benefits (DC, DB, IRA)** | 304,893 | 129,102 | 82,918 | 0 | 71% | 46% | 26% | 20% |
| | | | | | | | | |
| **Business (net)** | 100,936 | 12,346 | 0 | 0 | 12% | 6% | 9% | 2% |
| **Stocks** | 97,348 | 23,533 | 0 | 0 | 27% | 13% | 8% | 4% |
| **Bonds** | 15,529 | 2,022 | 0 | 0 | 6% | 2% | 1% | 0% |
| | | | | | | | | |
| **Checking/Savings Accounts** | 43,763 | 19,265 | 9,000 | 1,500 | 87% | 67% | 4% | 3% |
| **CDs, Savings Bonds, T-Bills, and Other Savings** | 41,563 | 13,453 | 0 | 0 | 29% | 17% | 4% | 2% |
| | | | | | | | | |
| **Total Wealth** | 1,181,149 | 645,226 | 675,166 | 387,604 | | | | |
| **Non Real-Estate Debt** | 8,318 | 8,153 | 0 | 0 | | | | |
| **Net Wealth** | 1,172,831 | 637,073 | 667,924 | 376,204 | | | | |

**Source**: Michael Papadopolous et. al. calculation using the Health and Retirement Study 2016 wave.
**Notes:** Stock and bond categories represent direct ownership (i.e., outside of 401(k)-type plans). Amounts for defined benefit plans and Social Security benefits reflect the present value of expected benefits in retirement assuming retirement and claiming at Full Retirement Age. Values for real estate reflect net equity (value of home minus mortgage debt).

## Policy Implications

Overall, I think the focus on broader wealth accumulation and retirement assets is the right way to go. We need to add accrued Social Security benefits to retirement wealth which helps reduce the retirement wealth gap between low and high earners and keeps retirees out of poverty, American workers still face a wealth crisis. Policymakers need to strengthen and expand Social Security and mandate employer-sponsored retirement plans to ensure universal coverage and adequate retirement income. Policymakers need to pay attention to the risks of student debt and home mortgages. We need better regulation of fin tech to be sure, the future generation depends on our stewardship. The most important source of savings, though, is income, savings are a residual from people's earnings. They can't buy a house and contribute to a pension without decent earnings. This is not a rhetorical point, it is rooted in economic research on savings. We need to increase minimum wage and raise wages.

## Social Security Wealth

Social Security reduces - but does not eliminate - retirement wealth inequality. For typical workers age 51-56, accrued Social Security benefits exceed employer-sponsored retirement wealth. Median Social Security wealth amounts to $81,900 compared with $67,000 in employer-sponsored retirement plans.

At ages 51-56, the typical low-wage worker (in the lowest 20% of earnings) has no retirement wealth. The typical high-wage worker (in the highest 20% of earnings) has wealth equal to almost two and a half times their earnings.

Adding accrued Social Security benefits to retirement wealth decreases the retirement wealth gap between low and high earners from two and a half times earnings to just over half a year's earnings (see Ghilarducci, Radpour, and Webb 2020).

To calculate Social Security wealth for this testimony, I impute a career earnings trajectory for each worker using two factors: (1) current earnings in the survey year [2016] and (2) scale factors from a Social Security Administration Actuarial Note published by Clingman and Burkhalter (2016). This career earnings trajectory is then used to calculate AIME and PIA, giving us the Social Security Retired Worker benefit. We assume all workers claim the Retired Worker benefit. We assume a worker collects benefits for 13 years, and therefore multiple annual benefits by 13 -- the actuarial factor (Carlson 2020), giving us an estimate for Social Security wealth.

## Trading and Investment

It's well-known that individual investors underperform on average, and app-based day-trading may be making this performance gap between underperforming app trading and other portfolios worse. In general, retail investors' returns are lower on average than returns to low-cost index funds and certainly less rewarding in terms of risk - adjusted returns to a professionally-managed defined benefit portfolio. (Barber and Odean, 2013).

Retail investors tend to sell good stocks too soon and hold bad stocks too long-- the endowment effect -- and engage in myopic and salient trading patterns (a recent event is viewed as more likely to happen than it is) and they tend not to be diversified enough, professionals with a broad information base have more holdings.(Barber and Odean, 2013).

Recent evidence using Robinhood data finds that frequently bought stocks on the app seriously underperform due to what authors call "extreme herding" events (Barber et al, 2021). And a recent study using data on German households found that switching from desktop computers for investing to smartphone apps led investors to "increased purchasing of riskier and lottery-type assets and chasing past returns" (Kalda et al, 2021).
Fintech is not all bad -- Apps like Betterment, Wealthfront, and Acorns are geared more toward patient, long-term investing than impulsive day trading. Owen Davis, graduate student at the New School helped with this section.

## References:


Barber, B. M., & Odean, T. (2013). The behavior of individual investors. In Handbook of the Economics of Finance,Vol. 2, pp. 1533-1570.

Barber, B. M., Huang, X., Odean, T., & Schwarz, C. (2021). Attention Induced Trading and Returns: Evidence from Robinhood Users. Available at SSRN: https://ssrn.com/abstract=3715077 or http://dx.doi.org/10.2139/ssrn.3715077

Carlson, B. (2020)., *How To Value Social Security*. Clingman, M., Burkhalter, K. (2016). Scale factors for hypothetical earnings examples under the 2016 Trustees' Report assumptions. Social Security Actuarial Note 2016-3. https://www.ssa.gov/oact/NOTES/ran3/an2016-3.pdf

Ghilarducci, T., Radpour, S., and Webb, A. (2020). "Social Security Reduces Retirement Wealth Inequality" Schwartz Center for Economic Policy Analysis and Department of Economics, The New School for Social Research, Policy Note Series.

Grall-Bronnec, M., Sauvaget, A., Boutin, C., Bulteau, S., Jiménez-Murcia, S., Fernandez-Aranda, F., Challet-Bouju, G. and Caillon, J. (2017). Excessive trading, a gambling disorder in its own right? A case study on a French disordered gamblers cohort. Addictive behaviors, 64, 340–348. https://doi.org/10.1016/j.addbeh.2015.12.006

Kalda, A., Loos, B., Previtero, A., & Hackethal, A. (2021). Smart (Phone) Investing? A within Investor-time Analysis of New Technologies and Trading Behavior (No. w28363). National Bureau of Economic Research.

Kumar, A. (2009), Who Gambles in the Stock Market?. The Journal of Finance, 64: 1889-1933. https://doi.org/10.1111/j.1540-6261.2009.01483.x

Piketty, T. (2015). About *Capital in the Twenty-First Century*. *American Economic Review*, 105 (5): 48-53.

Radpour, S., Papadopoulos, M., and Ghilarducci, T. (2021) "Trends in EmployerSponsored Retirement Plan Access and Participation Rates: Reconciling Different Data Sources." Schwartz Center for Economic Policy Analysis and Department of Economics, The New School for Social Research, Research Note Series 2021-01.

Shiller, R. (2020) Narrative economics: how stories go viral and drive major economic events. Princeton University Press.

Not referenced but relevant:

Federal Reserve (2020). Changes in U.S. Family Finances from 2016 to 2019: Evidence from the Survey of Consumer Finances. Federal Reserve Bulletin, Vol. 106.

Ghilarducci, T. (2020) Most Americans Don't Have A Real Stake In The Stock Market, Forbes.