

Report on “Top Wealth in America: A Reexamination” by Saez and Zucman (2022)

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We are grateful to Saez and Zucman for their constructive and thoughtful comments in Saez and Zucman (2022) (henceforth, SZ22). Our bottom line is that SZ22 highlight some good areas for further refinement of wealth share estimation methods, though we have considered and attempted to address each of their concerns in our main paper, appendices, or in replies to previous comments. Moreover, we believe SZ22 could do more to engage and fairly characterize prior work’s treatment of these issues, as well as establish the extent to which these issues materially affect the fundamental story of wealth inequality and its evolution.

SZ22 provide a list of billionaire equity wealth from the SEC, highlight a table on hedge fund holdings, and make a few other observations related to top wealth in the United States. The paper makes three main points:

1. Based on the list of billionaire equity wealth, the capitalization approach in Smith, Zidar and Zwick (2022) (henceforth, SZZ) undercounts C-corporation wealth of billionaires.
2. SZZ overestimate fixed income interest rates based on SEC fund-level data on US domestic hedge fund holdings.
3. SZZ underestimate pass-through business wealth because they ignore tiered ownership and over adjust for the human-capital-component of firms with less than \$50 million in profit.

SZZ provide several pieces of evidence to respond to these critiques, which SZ22 either do not engage with or mention. For example, SZZ provide an extensive risk exposure (“minimum distance”) fixed income analysis and estimation that addresses the extrapolation critique, discuss the implications for aggregates for fixed income based on the same hedge fund data table, and make several other points which are detailed below. As another example, SZZ discuss reasons why interest rate measures from other datasets (such as the matched estate-income tax series) are biased down. We highlight a few additional examples in the discussion below, which comments on each of SZ22’s main critiques in more detail.

For a more extensive discussion and point-by-point response to earlier comments, please see our appendix and replies to comments from SZ.¹

1 Billionaires’ Equity Wealth

- SZ22 would should broaden its scope on the first point regarding billionaire equity wealth since it highlights a general limitation of the capitalization approach, which scales up income flows to estimate assets. Specifically, it’s important to acknowledge that Saez and Zucman (2016) and Piketty, Saez and Zucman (2018) also have the same limitations because like SZZ, they use a capitalization approach.
 - For example, if Buffet has 0 dividends and 0 capital gains, all three papers will assign him zero capitalized wealth.
 - SZZ’s approach puts more weight on dividends than SZ16 and PSZ18 (because that better matches the SCF) but that is not the core issue here—it’s simply that a capitalization approach will be quite off for those who don’t get income flows.
 - Updating SZ22’s Table 1 shows that this exercise when applied to SZ16 and PSZ18 are also an order of magnitude off. See Figure 1.
 - It is quite useful to assess model fit generally and we do think that the list of equity holders and comparison to some capitalized estimates is a useful and constructive exercise, especially when put in the proper context in the literature.
- However, this limitation about equity wealth is well known and is acknowledged in the introduction of the SZZ paper and is addressed prominently and quantitatively in the “Forbes Robustness” exercises in Table 3. SZZ already had Forbes lists and document the aggregate importance—i.e., how much this issue matters in aggregate for the top 0.001%.

¹The replies are available here http://www.ericzwick.com/wealth/reply_to_sz2021.pdf and here http://www.ericzwick.com/wealth/reply_to_sz2020.pdf.

- As SZZ show in Table 3, replacing their top 400 capitalization-based estimates with Forbes estimates increases the top 0.001 shares by 0.9 pp. Thus, it is well established in prior work how much this issue matters quantitatively since replacing the top 400 observations with Forbes more than accounts for the issue that SZ22 highlights (since C-corporation billionaire wealth is a subset of the wealth in Forbes. SZZ show that most Forbes individuals own private businesses and these firms account for about half of Forbes wealth.)
- SZ22’s list of top equity holders provides an incomplete examination of top wealth.
 - Because estimates for equity wealth always match the U.S. Financial Accounts totals, by how much does one need to update the top estimates of SZ16, PSZ18, and SZZ as a result of this evidence? How much is already counted in existing estimates or allocated to folks in the top 0.1% and top 1%? Do these estimates affect our understanding of the portfolios of the ultra rich?
 - It is unclear how these enumerated estimates relate to private business owners, many of whom prevail at the top of rich lists, including Forbes where they represent the majority of individuals.
 - It is also unclear how to deal with concerns about wealthy families and children that SZZ raise in their discussion of Forbes limitations. The resulting ranking of the richest Americans is thus incomplete. For example, if the wealth of Forbes 400 members is spread among their adult children, then allocating all of their wealth to the top 400 units will overstate concentration.
- Overall, it is possible these person-level estimates from the SEC are more accurate for C-corporation wealth than earlier estimates of the stock wealth of billionaires based on income flows. However, quantitatively, this effect is at most less than a percentage point of top wealth when doing the more aggressive Forbes robustness approach, which is already established in earlier work.

2 Interest-Bearing Assets in Private Funds

1. As SZZ explain in a prior discussion of this critique (see their appendix and reply to SZ21), the universe of hedge funds is not very representative of the fixed income holdings of rich individuals.²
 - “The funds represented in Table B.101.f (i.e., Table 4 of SZ22) include many funds owned by non-US-individuals, such as pension plans, non-profits, sovereign wealth funds, and insurance companies.”
 - “For example, in 2016, Form PF tabulations from the SEC suggest just 11% of fund NAV accrue to US individuals.³ Thus, it is unclear whether tabulations based on these data are useful for informing the particular slice of fixed-income holdings that generate partnership income for individuals.” In other words, narrowing the focus to domestic hedge funds does not solve the representativeness issue, as these non-individual owners are active participants in domestic hedge funds as well.
 - The sums at the bottom of Table 4 compare holdings of a broad group (including holdings of pension plans, sovereign wealth funds, insurance companies, etc) to individual level holdings, so these sums are not very informative.
2. SZ22 do not address evidence on implications for aggregate accounting highlighted by SZZ. If SZ22 are correct, then the inconsistencies with other aggregates should be addressed and reconciled.
 - Specifically, SZZ note that one way to approach this question is by looking at what these rates imply for aggregate quantities.
 - “The top 0.1% boutique rates in Figure 3A of 6–7% in 2016 correspond to \$16B in taxable interest flows from boutique sources, which implies aggregate aggregate boutique assets for this group of \$230–270B, equal to approximately 2% of top-0.1% wealth.

²See http://www.ericzwick.com/wealth/reply_to_sz2021.pdf and http://www.ericzwick.com/wealth/reply_to_sz2020.pdf for our earlier replies to comments from SZ.

³Source: <https://www.sec.gov/divisions/investment/private-funds-statistics/private-funds-statistics-2016-q4.pdf>

- This category of assets is not separately identified in the SCF; according to experts at the Federal Reserve Board, it is most likely to appear in the category of “Other Managed Assets.” For the top 0.1% in the SCF in 2016, this category amounts to \$620B, which includes both fixed income and non-fixed income holdings.
- Alternately, one can look at aggregate holdings of debt securities by the hedge fund sector in USFA Table B.101.f, which includes holdings by both individuals and non-individual investors such as pensions and endowments. In 2016, these holdings equal \$670B in 2016.
- Thus, our approach appears to generate reasonable aggregates compared to external sources.”
- In short, around \$250B of boutique fixed income assets seems reasonable relative to the \$620B of debt+equity holdings in other managed assets, and \$670B of fixed income assets held by individuals, pensions, endowments.
 - In contrast, if a lower interest rate were used (e.g., half as large), then the aggregate of say \$500B of fixed income assets would seem too big relative to the \$620B since it includes large equity holdings and relative to the \$670B since it includes large pensions and endowments.
 - For example, capitalizing these boutique interest flows using the equal-returns rate delivers aggregates of \$1.5–2T, which appears much too large relative to these external sources. This total even exceeds aggregate non-bond liabilities of the non-financial corporate sector (\$1.1T in 2016), which provides a benchmark for the amount of non-traditional fixed income assets that may be held in boutique partnerships.
- The same point applies for top portfolios. It is a puzzle how there can be lots of additional C-corporation equity wealth at the top and low top interest rates at the same time because it implies non-C-corp-equity holding billionaires have enormous fixed income portfolios. It is difficult to rationalize the top group having such large fixed income portfolio shares in aggregate, especially if the business owners hold little of it.

For the top 0.01% and 0.001% excluding Forbes, what is the fixed income share in recent years in SZ22’s preferred approach? Presumably, it is similar to prior work using similar top rates (e.g., SZ16 and PSZ18) that finds that roughly half of top wealth is in fixed income. Such fixed income shares seem at odds with standard portfolios of those in Forbes, standard practice in wealth management and family offices, and a lot of other qualitative and quantitative evidence presented in SZZ.

- This paper asserts that SZZ make a 95% extrapolation based on a small 1 to 2 billion dollar flow of interest income. However, this characterization is misleading for a few reasons. First, the funds that SZZ use to measure pass-through interest rates distribute \$6B in interest. Some of that income is only received indirectly by individuals, but SZZ capitalize that income as well. The interest rate measured for these partnerships applies to all of this income and not just the income received directly. Second, SZZ also directly measure and capitalize flows from other categories of fixed income. Most important are bank deposits, which receive a much lower interest rate than boutique assets. Third, SZZ also provide evidence based on 100% of interest income flows in their minimum distance estimates, which goes unmentioned in SZ22 despite delivering similar results.

It is also worth keeping in mind that SZ22’s preferred approach based on matched estate-income tax data relies on an extrapolation with an order of magnitude less interest income in the observed data set. The approach in SZZ is therefore a useful step forward, though one which undoubtedly can be improved in the future.

It is important to acknowledge and address the full set of evidence on fixed income presented in SZZ that make this argument about hedge fund holdings much less compelling.

3 Value of Large Pass-through Businesses

1. SZ22 do not support this assertion with new estimates, so it is not clear that this bias is actually large (if it exists).
2. Many owners of tiered partnerships are not individuals. Many are pensions, endowments, wealth funds, etc, the assets of which should not be assigned to individuals.

3. Another important issue with tiered partnerships, especially those with C-corporation owners, is double counting. It is not clear how SZ22 propose accounting for this issue; this wealth would show up in C-corporation equity, not the partnership sector.
4. SZZ’s pass-through estimates are only those that generate operating business income. If the partnership generates financial flows, those flows will be capitalized in other categories. They are not set to zero. The same applies to financial income (dividends, interest, rents, etc) that flows through trusts.
5. In terms of the quantitative importance, SZZ’s bottom up estimates—which rely only on the valuation of firm-level sales, assets, and operating income—exceed the U.S. Financial Accounts aggregate used in the baseline series in SZZ and in SZ. Prima facie, this fact leans against an argument that SZZ’s estimates are downward biased.
6. SZ22 conjecture that, with the TCJA’s increased incentive for entrepreneurs to choose the C-corporation form, the bias in measuring private business wealth will be large going forward. The same argument implies estimates of wealth concentration in the pre-TRA86 period will be biased downward and the trend in wealth concentration since the 1960s will be less steep. This concern would be interesting to explore in future work.
7. Finally, SZ22 asserts there is no justification for using a different estimate for firms above \$50M. However, prior work in Smith, Yagan, Zidar and Zwick (2019) and Smith, Yagan, Zidar and Zwick (2022) provides empirical support for different treatment of large firms (e.g., SYZZ19 appendix Table J.9 and SYZZ22, Figure 2a, which show different patterns by firm size including thresholds around this level).

References

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Figure 1: Limitations of the Capitalization Approach in the Wealth Literature: Estimating Billionaire Equity Wealth

Shareholder	Corporation	Equity stake				Dividends	Realized Gains
		True Value	Smith Zidar Zwick (22)	Saez Zucman (2016)	Piketty Saez Zucman (2018)		
Buffet	Berkshire Hathaway	72.1	0.0	0.0	0.0	0	0
Bezos	Amazon	60.7	5.3	26.3	26.3	0	1.4
Zuckerberg	Facebook	53.4	1.2	5.6	5.6	0	0.3
Ellison	Oracle	44.8	23.4	11.8	11.8	0.7	0
Page	Alphabet	31.8	7.2	35.6	35.6	0	1.9
TOP 5		262.8	37.1	79.3	79.3	0.7	3.6

Notes: This figure updates Table 1 of Saez and Zucman (2022) by adding two columns for the capitalization approach in SZ16 and PSZ18. It shows that all three papers are an order of magnitude off for these individuals.