Top Wealth Inequality in Israel, 2003–2020: A Technical Note[1]

This note uses TheMarker (TheMarker Magazine, 2020) and Forbes (Forbes Magazine, 2020) rich lists to estimate the wealth share of the top 0.01% in Israel between 2003 and 2020. It presents technical details to support an article published in TheMarker Magainze, January 2021: https://www.themarker.com/magazine/.premium-1.9428552 (in Hebrew).

The note describes the evolution of top wealth inequality in Israel, previously unaddressed to the best of our knowledge (apart from for 2012 (Milgrom and Bar Levav, 2019)). The top 0.01% wealth share increased from about 3% in 2003 to 7.5% in early 2020. The top share increased by 5 percentage points since 2009. A sharper increase is identified if Israeli individuals that are included in TheMarker's rich list but do not regularly reside in Israel are accounted for.

1 Data and Method

Our main source of data is the TheMarker Magazine list of the richest 500 people in Israel (TheMarker Magazine, 2020). This list was published annually since 2003. In the few entries where the lists include only wealth held in Israel and when applicable, the entries were changed according to the Forbes Magazine rich list (Forbes Magazine, 2020). As the adult population in Israel is of about 5 million people, TheMarker's list can be used to estimate the top 0.01% wealth share. While this accounts only for a small fraction of the population, this indicator of wealth inequality has been shown to be very correlative with other measures in various countries, such as the top 1% wealth share or the Gini coefficient (Saez and Zucman, 2016; Garbinti, Goupille-Lebret and Piketty, 2020).

To estimate the top shares, the total wealth of the richest 0.01% needs to be divided by the total personal wealth among Israeli households, defined as the total net wealth of households by the Bank of Israel: Financial wealth + Non-financial wealth − Household debt (Bank of Israel, 2020).

To calculate the top 0.01% wealth share when slightly more or less than 0.01% of the adult

[1]Yonatan Berman, London Mathematical Laboratory, Stone Center on Socio-Economic Inequality, City University of New York, y.berman@lml.org.uk.
I thank Noa Cohen for research assistance.
The results and publicly shareable data are available at http://bit.ly/IsraelTopShareData.
Last updated: January 22, 2021.

population is given in the list, we use a simple interpolation method (see Appendix).

2 Results

The results are presented in Fig. 1. They also show Israel in comparison to France and the United States.

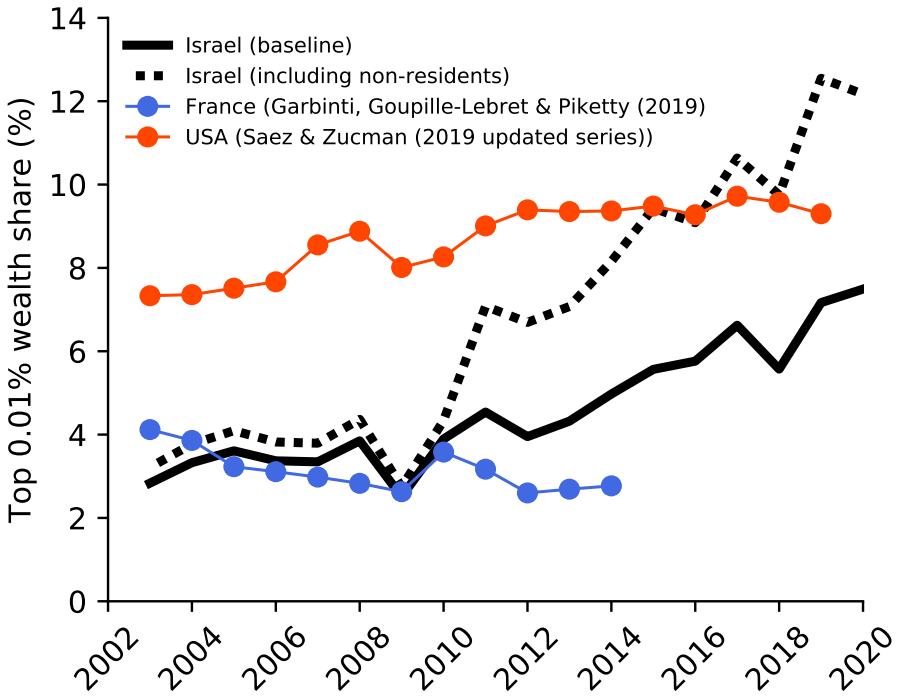

Figure 1: The top 0.01% wealth share in Israel (black), based on TheMarker Magazine's list of the richest 500 people in Israel and Forbes rich list. The dotted black line reflects the top share when also taking into account Israelis that are included in TheMarker Magazine's list but do not reside in Israel. The figure also shows the top 0.01% wealth share in France (Garbinti, Goupille-Lebret and Piketty, 2020) and the United States (Saez and Zucman, 2016, 2019 updated series).

The top 0.01% wealth share in Israel was generally stable during the first decade of the 21st century, mostly ranging between 3% and 3.5%. The wealth share sharply fell following the global financial crises of 2008, and in 2009 it was about 2.5%. This decrease was also mechanically caused by the appreciation of the Israeli Shekel against other currencies, in particular the US dollar. Most Israelis have their wealth in local assets, whereas the richest 0.01% are more exposed to changes in market exchange rates due to the composition of their portfolios. Since 2009 the top 0.01% wealth share gradually increased to 7.5% in early 2020,

at an average rate of 0.45 percentage points a year.

The dotted line in Fig. 1 shows the top 0.01% wealth share if we take into account Israelis that are included in TheMarker Magazine's list but do not reside in Israel (based on public records). Some of these individuals are either Israelis who left Israel years ago, but most of them are immigrants who obtained an Israeli citizenship during the last decade. Key examples are Roman Abramovich and Patrick Drahi, who did not appear in TheMarker Magazine's list before 2015. If such individuals are included, the rise in inequality between 2009 and 2020 is even more pronounced. The impact of immigrants' wealth on the top share is crucial for the interpretation of the results – among the newly-listed rich immigrants, many do not reside in Israel and do not have businesses or investments in Israel. Some immigrated to Israel upon retirement, and some may have immigrated formally for the benefits of having an Israeli citizenship.[2]

Figure 1 also demonstrates that the top 0.01% wealth share was quite similar to its level in France (Garbinti, Goupille-Lebret and Piketty, 2020) before starting to rise. It remains lower than its level in the United States (Saez and Zucman, 2016).

We note that the findings on the evolution of wealth inequality stand in contrast to recent findings on income inequality in Israel (Dahan, 2017). While wealth inequality is increasing and is currently moderate in international comparisons, income inequality has been slowly decreasing over the past 15 years, but is still high in comparison to other developed economies.

[2]According to Israel's immigration policy every Jew can immigrate and become a citizen, whereas for non-Jews immigration is essentially impossible. Also, to encourage Jewish immigration to Israel, immigrants (and returning residents, who left Israel but returned after some years) receive various benefits, including tax breaks. This, along with the political environment in Russia and Ukraine, has led many Jews worldwide, especially in France, Russia, Ukraine, and the United States, to obtain an Israeli citizenship in recent years.

References

Alvaredo, Facundo, Anthony B. Atkinson, Lucas Chancel, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. 2016. "Distributional National Accounts (DINA) Guidelines: Concepts and Methods used in WID.world."

Bank of Israel. 2020. "Data & Statistics." https://www.boi.org.il/en/DataAndStatistics/Pages/Se Accessed: 07/18/2020.

Dahan, Momi. 2017. "Income Inequality in Israel: A Distinctive Evolution." CESifo Working Paper.

Forbes Magazine. 2020. "The World's Billionaires." https://www.forbes.com/lists.

Garbinti, Bertrand, Jonathan Goupille-Lebret, and Thomas Piketty. 2020. "Accounting for Wealth-Inequality Dynamics: Methods, Estimates, and Simulations for France." Journal of the European Economic Association.

Milgrom, Maor, and Gilad Bar Levav. 2019. "Wealth Inequality in Israel." The Economic Quarterly, 63: 11–51.

Saez, Emmanuel, and Gabriel Zucman. 2016. "Wealth Inequality in the United States since 1913: Evidence from Capitalized Income Tax Data." Quarterly Journal of Economics, 131(2): 519–578.

TheMarker Magazine. 2020. "The 500 Richest People in Israel." https://www.themarker.com/misc/tags/TAG-fortune-500-1.2339093.

A Interpolation Method for Estimating the Top 0.01% Share

To estimate the top 0.01% wealth share using TheMarker Magazine's list of the richest 500 people in Israel we follow a simple procedure that involves interpolation or extrapolation. First, we use the following notation:

- N: the number of adults in the population at year t
- W: the total net personal wealth of Israeli households
- w_i: the net wealth of rich individuals $i = 1, \ldots, n_t$, where n_t is the total number of individuals covered by the rich list at year t. We assume the rich list is sorted so that $w_i \geq w_j$, for all $i < j$. We also assume the equal-split assumption: entries in the list that are composed of more than one individual are assumed to split their wealth evenly (see Alvaredo et al. (2016) for more details on the equal-split assumption)
- q: the top quantile considered, *e.g.*, $q = 0.0001$ for the top 0.01%
- sh_w^q: the wealth share of the top quantile q

Each individual amounts to a fraction of $1/N$ of the adult population, so the top k individuals consist of the top $q_k = k/N$ qunatile. Thus, $sh_w^{q_k}$ can be written as

$$sh_w^{q_k} = \frac{\sum_{i=1}^{k} w_i}{W}, \tag{A.1}$$

and to obtain $sh_w^{0.0001}$, we interpolate or extrapolate $sh_w^{q_k}$ for $q_k = 0.0001$. This is demonstrated for 2008 and 2015 in Fig. 2. We tested the robustness of these results to various interpolation and extrapolation techniques (spline, nearest-neighbor, linear, piecewise cubic) and all gave practically identical results in all years.

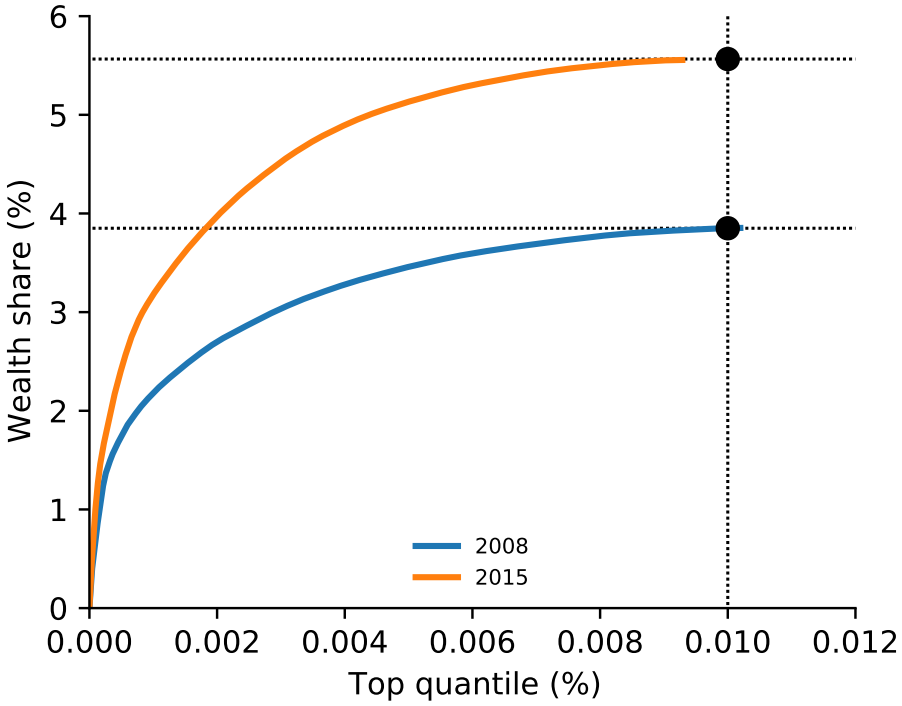

Figure 2: Estimation of the top 0.01% wealth share in Israel. Using TheMarker Magazine's list of the richest 500 people in Israel, we obtain a series of top wealth shares for the top q quantiles going from 0 to about 0.01%. If more than the top 0.01% is covered by the list, a linear interpolation is used to recover the value for the top 0.01%. If less than the top 0.01% is covered we use linear extrapolation. The results are robust to different interpolation and extrapolation techniques due to the high resolution of the data and the proximity of the total fraction of population covered to 0.01%. This is demonstrated for 2008, where an interpolation was used, and for 2015, where an extrapolation was used.