The Distribution of Wealth in Israel

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Abstract

This is the first study which measures the wealth distribution in Israel. We are basing our estimation on data from the Israeli Central Bureau of Statistics (CBS) survey of assets for the year 2013. Wealth is defined as the market value of all assets owned by households net of their debts. Due to low coverage of financial assets in the survey, we impute the missing values of pension funds based on age, life expectancy and income levels. We use methods developed by Davies and Shorrocks [2009] to fix the underrepresentation of rich households. These include adding data from “rich lists” provided by business magazines, and adjusting the tail of the distribution to fit the Pareto distribution, a common attribute of wealth distributions. The adjustment was made by running a Monte Carlo simulation. The results show that wealth inequality in Israel is significantly higher than the income inequality (Gini coefficients of 0.66 and 0.38, respectively), reaffirming findings in comparable studies. When measuring wealth inequality according to the Gini index, Israel ranks 9th out of the 19 developed countries. The top percentile in Israel holds 22.5% of all wealth, ranking Israel 6th in that category.1

Main Results

- Wealth inequality in Israel is significantly greater than income inequality. While the top decile owns 27% of national income, it holds 51% of the wealth.
- A significant part of the wealth is concentrated in the top percentile. The richest 1% of the households own 22.5% of national wealth, equal to the share of the seven lowest deciles combined.
- With regard to wealth held by the top percentile, Israel ranks 6th out of the 19 developed countries. When measuring wealth inequality according to the Gini index, Israel ranks 9th.
- The total national wealth of the households in Israel stands at 5.24 trillion NIS. The average wealth of households in Israel is 2.1 million NIS and wealth of the median household in Israel is 1.2 million NIS.
- The average wealth of the household in the top decile stands at 10.8 million NIS, and the average wealth of the top percentile stands at 47.9 million NIS.
- The wealth of Israel’s 500 richest people equals 7.4% of the national wealth.
- 11% of Israeli households hold assets worth under 1,000 NIS. 5% of Israeli households have no assets or have negative wealth value, i.e., they have more debts than assets.
- 17% of the population (approximately 425,000 households) are living in asset poverty, defined as a household whose net wealth does not cover the cost of the household’s basic needs for a period of three months.

1 This is a shortened version of the full study, published in Hebrew. See reformsinstitute.org
Background

Social and economic inequality in Israel has been the focus of public debate for several years, due to an increasing awareness regarding the distribution of the fruits of Israeli economic growth. Due to the lack of comprehensive data on the distribution of wealth in Israel, thus far the discussion has focused on the distribution of income. Consequently, the factual picture on the economic wellbeing presented to decision makers and the general public is partial. When examining gaps in living standards between citizens and between various groups, we must remember that not only income but also ownership is a significant factor in determining a family’s quality of life. Capital, and especially liquid capital such as a checking account, bonds, and shares, may help the family to cope with a situation of unemployment, sickness and other difficult circumstances. Capital will be used for education, vocational training, starting a business or to finance retirement. In addition, if the household is in debt (i.e. negative wealth), an examination of the level of income alone clearly does not represent the true financial situation. Furthermore, assets (not income) are inherited from generation to generation and, therefore, are mostly responsible for long-term inequality in society, which can undermine the value of providing equal opportunity.

To conclude, the level of assets held by households serve as a better indicator for the degree of financial stability than the momentary income levels of family members. Estimating the distribution of wealth is therefore of great importance in order to correctly identify the depth of the socioeconomic gaps in Israel.

Defining Wealth

Wealth is the current market value of all the assets owned by households net of all their debts. Assets include financial assets, pension wealth, main residence and other real estate wealth. Debts include all kinds of outstanding debts.

On the uniqueness of the study - what made possible the measurement of the distribution of wealth?

Due to the lack of comprehensive data on the distribution of wealth in Israel, the public discourse on inequality in Israel has focused thus far only on the distribution of income. Our study is the first which is based on the “2013 Assets Survey” conducted by the Israel Central Bureau of Statistics (CBS) in 2013. It surveys a representative sample of households regarding the value of assets, debts and wealth in their hands. This is the first survey of its kind carried out in Israel since 1964.(!)

Moreover, our study is essentially different from the Credit Suisse’s annual Global Wealth Report, which estimates the wealth distribution of over 200 countries, including Israel. In the absence of data on household wealth in Israel, Credit Suisse
rely solely on Israeli income figures and impute an estimation of wealth in Israel based on data on wealth from other countries which conducted wealth surveys.

**Methodology**

**Real Assets**

In the survey every household is requested to state the number of apartments owned, the apartment characteristics and to their estimated value. Due to a response rate of 54% the to the subjective evaluation, and studies indicating that respondents tend to overestimate the value of their assets, we estimated the value of each apartment based on the apartment characteristics and its location, using a hedonic regression model. The coefficients were inferred from transactions data collected by the CBS.

**Financial Assets**

With regard to financial assets, we find that the response rate is rather low, as is the total value of assets covered by the survey. This is not a uniquely Israeli problem, as there is general under-reporting of financial assets in surveys (Shorrocks and Davies et al. 2014). This is partly due to the complex structure of the assets, lack of knowledge of the public and unwillingness to disclose private properties. To impute missing values, we divide financial assets into two groups: Pension funds, which according to Israel’s national accounts comprise about half of total financial assets held by households, and other financial assets.

**Pension Funds**

The value of household members’ pension funds is not reported in the survey, due to extremely low response rates by those surveyed. In order to estimate the amount saved in pension funds by each worker, we follow Spivak’s (2012) Pension Simulator and impute the funds’ values based on age and current income level. Since according to current surveys 86% of salaried workers and 58% of self-employed have pension savings, we follow Saez and Zucman (2014) in assuming that pension coverage is correlated with income, and we impute the Simulator’s value for top 86% earners among salaried workers employees and to top 58% earners of the self-employed.

Retired individuals in the survey are asked to report the annual income from pensions. In order to estimate the value of each pensioner’s fund, we calculated the present value of the future stream of pension income according to the average life expectancy for each age group.

**Other Financial Assets**

The value of the remaining financial assets (stocks, bonds, deposits, other funds, cash) by households in 2013 amounted to 1.3 trillion NIS, but the value of these assets reported in the survey amounts to only 13% of that sum. Since direct data is lacking, the pattern of financial assets distribution was constructed from information on income distribution in Israel, based on a method developed by Davies and
Shorrocks [2009]. Using micro-data collected by the HFCS (2013) covering surveys in 15 European countries which have data on both financial assets and income distributions, we compute the average financial assets to income ratio at various Lorenz points.

**Adjusting the tail of the wealth distribution**

One of the main deficiencies when estimating the distribution of wealth through surveys is that the tail of the distribution is vastly underrepresented. To tackle this problem we follow closely the methods developed by Davies and Shorrocks [2009, 2014]. At the first stage, we add to the survey data from “Israel’s richest 500 people” compiled by The Marker newspaper. The total wealth of these 500 individuals is around 400 billion NIS, equal to 7% of national wealth. Adding rich lists is not sufficient in itself to correct the lack of representation of the rich in the sample. Many studies have found that the right tail distributions of wealth match the Pareto distribution. Thus at the second stage, we graft a Pareto distribution onto the upper tail which matched the distribution derived from the list of 500 richest. The adjustment was done by running a Monte Carlo simulation.

**Findings**

The main finding of this study is that wealth inequality in Israel is significantly greater than income inequality. In the figures below, we see that while the top income quintile holds 44% of all income, the top wealth quintile holds 66% of the total wealth. Out of this share, the top income decile holds 27% of all income, while the top wealth decile holds 51% of the wealth. A significant portion of the wealth is concentrated in the top percentile, which holds 22.5% of the total wealth in Israel.

<table>
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<tr>
<th>The distribution of wealth and income by quintiles</th>
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<tr>
<td><strong>Income</strong></td>
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<tr>
<td><strong>Wealth</strong></td>
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Measuring levels of inequality according to the Gini index, we receive a Wealth Gini of 0.66, significantly higher than the Income Gini of 0.36 (see Lorenz curves below).
Wealth inequality in international comparison

We compare our results of the distribution of wealth in Israel to data from 18 developed countries. The figures for the United States, Britain, France and Sweden are from Piketty’s “Capital in the 21st Century”, and for the remaining countries from the European Central Bank surveys (HFCS). The following figure shows the percentile rate and the top decile in each country.
We see that Israel is ranked 6th out of 19 countries at a rate of wealth held by the top percentile. The concentration of wealth in Israel, by this measure, is very high. In contrast, for the rest of the inequality indices, which do not focus on the top edge, Israel is somewhere in the middle. The rate of wealth held by the top decile in Israel, 51%, placing it in 10th place out of 19 countries. When comparing the Gini index, Israel ranks 9th.

In conclusion, our study finds the in relation to the developed world, the largest gaps in Israel are between the top 1% and the remaining 99%, while the gaps between other sections of the population, though high, are not exceptional relative to the world.

The above comparison is somewhat problematic, due to the large variation in estimation methodologies between each country. As noted, Piketty estimated the distribution of wealth through administrative tax data and by applying the income
capitalization method. The source of data in for the HFCS countries is assets’ surveys, as in our study, but note that asset classes are not consistent among countries, and that different countries have applied varied methods to correct the under-representation of the wealthy households in the sample.

**Asset Poverty**

Following Haveman and Wolff (2005), we define the asset poverty line as a level of wealth and assets enabling households to afford a basic consumption bundle (according to the definition of the National Insurance Institute of Israel) for a period of three months. For the average household, the assets poverty line stands at 25,061 NIS. According to our data, 413 thousand households (17% of households) are below the asset poverty line in Israel. In addition, we find that the 115 thousand households (around 5%) have negative wealth level (i.e., their debt is equal or exceeds the value of their assets).

<table>
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<tr>
<th>Measures of Assets Poverty, by share of households</th>
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<tbody>
<tr>
<td>In asset poverty</td>
<td>17.3%</td>
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<tr>
<td>Assets up to 5,000 NIS</td>
<td>13.8%</td>
</tr>
<tr>
<td>Have no assets</td>
<td>4.7%</td>
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