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Household Wealth and Finances. Results for Households in Lithuania for 2017

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ABSTRACT

This paper reports new data on the household balance sheet and the consumption situation in Lithuania. It uses a unique Household Finance and Consumption Survey (HFCS) dataset, which collects detailed information about different asset classes and outlines the composition of the household balance sheet in Lithuania. At 93.2%, the homeownership rate in Lithuania is the highest in Europe. Real assets correspond to the highest share of households' wealth and generate a median net wealth of 46 000 €. Lithuanian households participate poorly in financial assets, with only deposits and individual insurance/pensions generating more significant aggregate values. Household participation in debt markets is also limited in Lithuania, with only 11.7% of households having some mortgage-based liabilities. Lithuanian households spend a significant share of their income on food and utilities. This share is among the highest in Europe. A large number of Lithuanian households can be characterized as "hand-to-mouth" households, as they own a significant amount of wealth in illiquid real estate and very little wealth in liquid financial assets.

Keywords: household balance sheet, net wealth, household survey, HFCS.

JEL codes: D1, D3.

1 Introduction

The Household Finance and Consumption Network (HFCN) was established with the goal of gaining deep insight into the relationship between the monetary transmission mechanism and financial stability, insight which cannot be gleaned from aggregate information on the assets and liabilities of households. For example, changes in interest rates affect the consumption of net savers differently than they affect the consumption of net borrowers. When interest rates fall, savers are likely to reduce their consumption while borrowers are likely to increase theirs. Therefore, in order to identify the response of aggregate consumption to interest rate shocks (HFCN (2009)), it is necessary to capture the share of indebted households, the level of debt relative to their savings or income, and the type of debt held. This information can only be obtained using micro-level data on household finances. Moreover, the consequences of the sharp increases in household borrowing in many Euro area countries before the Great Recession might have been easier to foresee if micro-level data on household balance sheets had been available (HFCN (2013)).

This project was initiated in December 2006 by the European Central Bank (ECB) and other national central banks in the Eurosystem. The HFCN aimed to introduce a harmonized framework to collect data on household income, wealth, debt and consumption across different European countries. The Household Finance and Consumption Survey (HFCS) collects detailed, micro-level data which provides insight on a wide range of policy-relevant issues (HFCN (2009)): household indebtedness, wealth inequality, consumption smoothing, portfolio selection, and more. To achieve the same goals, Lithuania joined the HFCN and collected its first survey results for 2017.

While earlier efforts have been made to survey wealth in some Euro area countries (i.e. Italy, Spain), the HFCS represents the first attempt to gather detailed wealth data on a consistent basis across Europe. Lithuania is not an exception in this regard, as the wealth of households has never before been measured in this country. HFCS is a unique data source as it permits a micro-level description of households' balance sheets. Additionally, HFCS results in Lithuania were improved by using administrative information from the Centre of Registers and Social Security Office. Information about loans and liabilities was further improved by using data from the Bank of Lithuania's internal Loans and Risk database. Furthermore, the use of elaborate sampling procedures ensures that the conclusions drawn are representative of the entire population. To enrich the dataset, HFCS collects additional characteristic controls, such as income, employment, consumption, age, gender, education and more. The HFCS fieldwork in Lithuania was conducted between December 2017 and May 2018, and contained information about 2017, as the year of reference, by summarizing results on 1664 households.

The structure of this paper is as follows: Section 2 explains and analyzes the net wealth of households; Section 3 covers results about household assets and different components of it (real and financial assets); Section 4 goes further by analyzing the liabilities side of the balance sheet, Section 5 concentrates on credit constraints and households' financial vulnerability; Section 6 discusses households' income and consumption; and Section 7 concludes.

2 Wealth

This section begins with the definition of net wealth and provides an explanation of its different components. The definition of household wealth in HFCS is not theory-based but rather relies on information households can reasonably be expected to provide voluntarily in a questionnaire (Fessler et al. (2012)). The main aggregates of households' wealth are captured over real assets, financial assets and debt. All these major parts of household net wealth are analyzed in greater detail in later sections of the paper. Gross wealth is the sum of real and financial assets (see Figure 2.1), while net wealth is calculated as gross wealth minus debt. Figure 2.1 also provides a graphical representation of net wealth; Appendix A.1 provides basic definitions for all of these components.

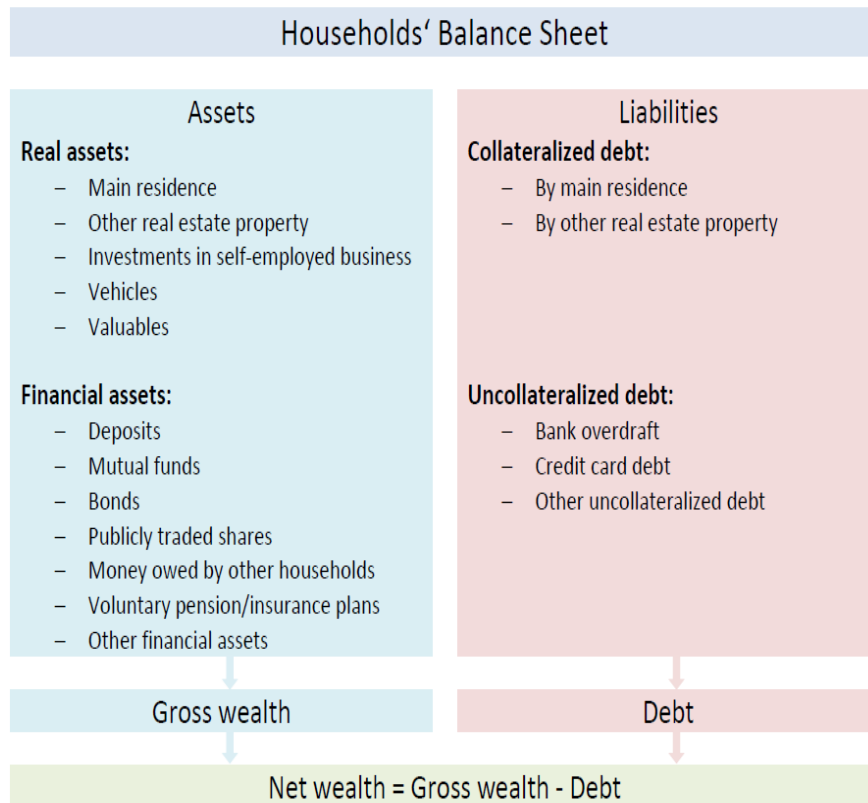


Figure 2.1: Balance Sheet of a Household

As shown in Figure 2.1, household net wealth is calculated by deducting the value of the total debt from the sum of the total real and financial assets. Specifically, real assets are taken as a combination of housing, other real estate properties, self-employed businesses, vehicles and valuables. Financial assets include household deposits, mutual funds, bonds, public shares, voluntary pensions/whole life insurance plans, money owed by other households and other financial assets. On the other side of the balance sheet, total liabilities are accumulated through mortgage and non-mortgage debts (credit lines, credit cards and more). One benefit not captured in HFCS is the amount of pension benefits a household expects to receive in retirement. Technically, every working person accumulates this benefit over the years, but it is hard to estimate the expected amount of

pension and include it in today's net wealth.

As mentioned above, household net wealth represents gross wealth minus debt. Net wealth is thus the best measure of a household's current wealth situation. However, solely analyzing net wealth could potentially mask important composition aspects that a detailed household balance sheet would show. For example, imagine two households with similar amounts of net wealth, but very different balance sheet compositions. The first household might have accumulated most of its net wealth through savings and other financial assets while the second household's wealth is concentrated in housing, which could result in liquidity problems during an economic crisis. In an alternative scenario, one household might have almost no savings while another just purchased a house. Both households have low wealth, but one has no debt whatsoever while the other has a high mortgage. Similar levels of net wealth could thus be misleading, making a more detailed balance sheet composition analysis crucial to reaching well-reasoned conclusions.

We start our analysis by looking at median and mean values of household net wealth over several household characteristics. We use these characteristics to look across subgroups, considering possible heterogeneity in net wealth. Subgroup-based results are presented in Table 2.1, which shows median household net wealth in Lithuania as 45 900 €, while an average (mean) household owns 84 300 €. As we can see, the gap between the poorest and the richest households is quite large. The median value of wealth goes up from 11 200 € in the bottom 20% of the wealth distribution, to 295 100 € among the wealthiest 10% of Lithuanian households. A distributional analysis reveals further insights. Both values of net wealth, median and mean, tend to increase as one moves across the household income distribution. This is in line with theory, as more income increases the likelihood of more wealth. By looking at the household size, we can see that the lowest net wealth (in both measures, median and mean) is accumulated by households with one person, older than 16 years of age. In contrast, the highest net wealth values are accumulated by households of 4 people. Housing ownership also separates households in terms of their net wealth. Table 2.1 shows that net wealth is higher among households that own housing property instead of renting it. Another interesting way to analyze net wealth distribution is by age of reference person of a household. The highest median value of net wealth is owned by 35-44 and 45-54 age cohorts, while the youngest cohort, 18-34 years old, owns significantly less net wealth. The fact that the youngest age cohort had fewer years in which to accumulate wealth can partly account for this situation. For its part, the oldest age cohort (75+ years old) owns the lowest median and mean values among all age cohorts. This can be explained by the fact that most current pensioners accumulated their wealth during the Soviet era, and this wealth appeared in real asset gains and financial asset losses during the transition period. Thus, today's pensioners consume mostly from their pension and have limited opportunities to accumulate additional wealth.

In addition to the domestic results, it is interesting to compare the net wealth values in Lithuania with Euro area averages and with other neighboring/Baltic countries (i.e. Latvia, Estonia and Poland) (see Appendix A.2). Median and mean net wealth values in Lithuania are more than twice lower than the same measures for the Euro area. In comparison with neighboring countries, Lithuanian households have a higher median net wealth value than households in Latvia, a similar one to households in Estonia and a lower one than households in Poland. In terms of mean values,

Table 2.1: Net Household Wealth in Lithuania, EUR thousands

		Median	Mean
Total population	All	45.9	84.3
Income	Bottom 20%	36.0	62.8
	20-40%	33.6	57.9
	40-60%	45.1	83.1
	60-80%	57.7	95.0
	80-90%	63.7	102.1
	90-100%	73.3	145.3
Net wealth	Bottom 20%	11.2	8.5
	20-40%	28.9	28.9
	40-60%	46.1	46.5
	60-80%	73.4	75.1
	80-90%	120.3	122.1
	90-100%	295.1	404.4
Household size	1	39.4	69.9
	2	50.4	83.8
	3	52.7	95.7
	4	67.0	118.1
	5	54.0	105.9
Home ownership	Owner (outright)	49.7	88.3
	Owner (with mortgage)	41.4	94.8
	Renter	0.8	18.8
Age of the reference person	16-34	37.4	65.3
	35-44	53.7	92.6
	45-54	54.5	104.4
	55-64	49.2	94.0
	65-74	49.7	87.9
	75+	34.8	49.3

Notes: The table reports median and mean values for households' net wealth in 2017. The first column reports median for 2017 of various household groups in the population, while column two reports means. Net wealth is defined as the difference between total gross assets and total liabilities. All statistics are calculated only for households with non-missing net wealth values and are broken down by different household groups, using the following criteria: (1) all households, (2) percentile of household income, (3) percentile of household net wealth, (4) number of household members, (5) housing status of household, (6) age of reference person. Observations = 1664 households.

the situation is quite similar - the net wealth in Lithuania is on average higher than the net wealth in Latvia but lower in comparison to Estonia and Poland. Furthermore, net wealth is better distributed among income cohorts in Lithuania than in the other countries. Households with the lowest income have accumulated more net wealth than similar income cohorts in the closest neighboring countries or the Euro area. In contrast, net wealth among households from the highest income cohort is similar only to Latvia and lower by values than in Estonia, Poland or the Euro area. This signals the more equal net wealth distribution by income cohorts in Lithuania. The remaining cross-country comparisons by different characteristics indicate the same dynamics and do not differentiate Lithuanian households from other countries.

3 Assets

The following section will look only at the assets side. It starts with some broader remarks on all assets and then splits into separate subsections about real and financial assets, to explain them in greater detail.

3.1 Assets and asset components

Assets are the main source of wealth generation for households. They can be split into two categories: real assets and financial assets. In Lithuania, 95.3% of total household assets are real assets; see Figure 3.1. By contrast, financial assets only account for 4.7% of total household wealth.

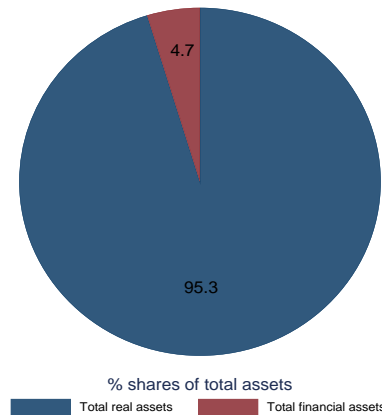


Figure 3.1: Composition of Assets

We can decompose further both real and financial assets. Figure 3.2 presents the composition of each of these types of assets. Panel a) from Figure 3.2 shows that 67.5% of real assets wealth is accumulated through housing as the main residence (HMR). 18.2% is related to other real estate, 10.5% of wealth corresponds to self-employed business and 3.7% is accumulated in terms of vehicles. Panel b) from Figure 3.2 gives an idea of the composition of financial wealth, which looks more diverse than real assets. Figure 3.2b shows that 56.8% of financial wealth corresponds to deposits and another 21.4% is accumulated through voluntary pensions and life insurance plans. Furthermore,

more advanced financial assets such as bonds, mutual funds and public shares are overall responsible for less than 6% of total financial wealth owned by households.

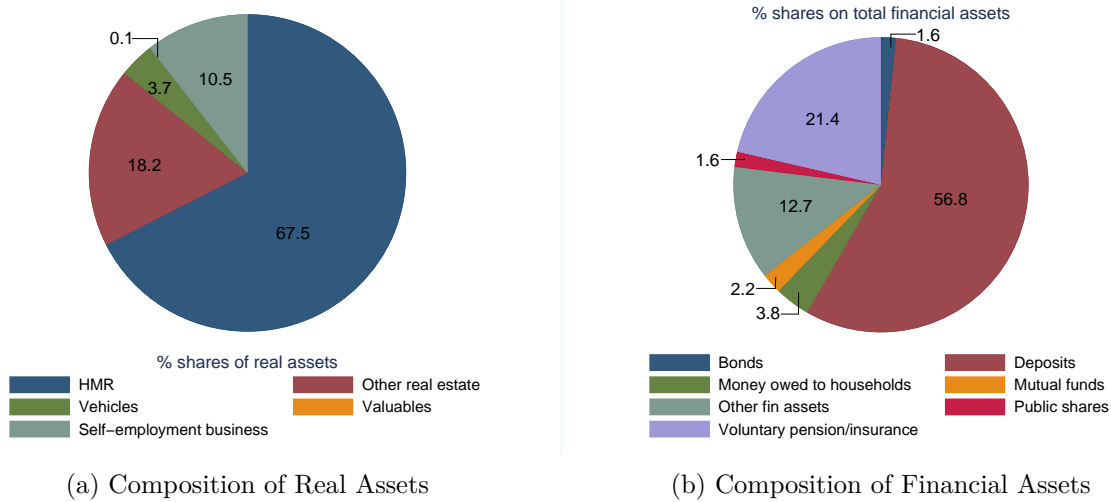


Figure 3.2: Composition of Household Assets in Lithuania (Total)

Household participation in each of the assets' components varies considerably. Table 3.1 shows that more than 90% of households own real assets and, in particular, housing as the main residence. In addition to real estate wealth, 61.6% of households also own vehicles. From the participation perspective, more than 90% of households also own financial assets and mostly do this via deposits. Other types of financial assets are not popular, and only 9% of households participate in voluntary pensions or life insurance plans. Participation rates are even lower for other types of financial assets. In terms of real values, most of the wealth is generated by housing as the main residence. Table 3.1 shows that a median household in Lithuania owns total assets of 49 500 €. As mentioned before, household wealth is highly driven by the real estate (HMR or other real estate) wealth which on average, but in median is 46 900 €. Conversely, the median value for total financial assets reaches only 1 000 €. Median deposits stay at the level of 600 €, while conditional median value for voluntary pensions and life insurance plans remains at 6 400 €.

Comparison with the Euro area and other neighboring countries (see Appendix A.3) reveals a number of interesting insights. Participation rates in total real assets in all neighboring countries and in the Euro area overall are high, and similar to those in Lithuania. However, participation in housing as the main residence is lower in European countries than in Lithuania. The vehicle ownership rate in Lithuania is below the median rate of vehicle ownership in the Euro area. However, this rate is close to the rate in Poland and above the rates in the other two Baltic states. By contrast, participation in financial assets is poor in Lithuania and, in general, is below participation rates in other countries (Latvia, Estonia, Poland) or the Euro area.

From the real values perspective (see Appendix A.4), the median total real assets value in Lithuania is several times below the Euro area average, slightly below values in Estonia and Poland, and above values in Latvia. Similar dynamics appear when looking at median housing values. It is worth mentioning here that the median value of vehicles is similar across all four countries - 3 Baltic states and Poland - but it is twice below the median of the Euro area. The dynamics of

Table 3.1: Assets and Asset Components in Lithuania

Asset type	Participation rate, %	Median, EUR thousands
Total assets		49.5 (2.1)
Real assets		
Total real assets	96.7 (0.7)	48.4 (2.3)
Household main residence	93.2 (0.8)	40.0 (2.4)
Other real estate property	21.9 (2.3)	20.7 (3.5)
Vehicles	61.6 (1.4)	2.7 (0.4)
Self-employment business wealth	3.9 (0.7)	17.0 (35.8)
Real estate wealth	94.1 (0.9)	46.9 (2.9)
Financial assets		
Total financial assets	90.7 (1.2)	1.0 (0.1)
Deposits	90.4 (1.3)	0.6 (0.1)
Mutual funds	2.0 (0.4)	3.2 (1.2)
Bonds	0.7 (0.3)	N
Shares(publicly traded)	1.0 (0.3)	5.6 (3.9)
Money owed to households	5.9 (1.0)	1.2 (0.6)
Voluntary pensions/whole life insurance	9.0 (2.0)	6.4 (2.6)
Other financial assets	1.6 (0.4)	11.6 (4.8)

Notes: Table reports participation rates and median values for various components of households' assets. The first column shows participation rates, i.e. the percentages of households (i) holding real assets, (ii) holding financial assets, and (iii) holding each asset component. Total real assets has the following components: (1) household main residence, (2) other real estate property, (3) vehicles, (4) self-employment business wealth and (5) real estate wealth. Financial assets include: (1) deposits, (2) mutual funds, (3) bonds, (4) shares (publicly traded), (5) money owed to the household, (6) total value of voluntary pensions and whole life insurance, and (7) other financial assets (private non-self-employed businesses, assets in managed accounts and other types of financial assets). Column two shows conditional medians, i.e. the median asset value for households holding that asset in 2017. The standard errors were calculated with the Rao-Wu rescaled bootstrap method using replicate weights provided by the countries (1,000 replicates). N = too few values of the variable were observed. Observations = 1664 households.

real values of financial assets are similar, as they are very low in Lithuania compared to the Euro area. The only interesting point to highlight is the median value of voluntary pensions and whole life insurance plans, as it is higher in Lithuania than in Latvia, Estonia or Poland.

The results in this subsection shed preliminary light on household balance sheets in Lithuania and how they compare to other countries. Some interesting findings were related to high participation in housing as the main residence and higher median values in voluntary pensions and whole life insurance plans, in comparison to neighboring countries. The following subsections will look separately at real and financial assets and try to find additional results based on household characteristics.

3.2 Real Assets

The advantage of using micro-level data is that it allows one to use distributional cuts to identify differences between separate demographic, education, gender or economic groups. Table 3.2 summarizes results on participation rates and median values of real estate wealth based on income and net wealth quintiles, household size, housing status and age of reference person. Participation in real estate assets are extremely high among all characteristics and distributional cuts. Even the poorest 20% of households, in terms of their net wealth, own real estate assets.

From the real values perspective, the highest median wealth is generated by owners with mortgage (see Table 3.2). Their median real estate wealth is almost 30 000 € higher than that of owners without mortgages. As expected, the lowest real estate wealth is accumulated by renters. From the perspective of household size, single-person households are the poorest, with a median value of real estate assets of 40 000 €. The highest median value of real estate assets of 70 000 € appears in households with 4 people. Another interesting point is revealed by the age of the reference person. Most households with working-age reference persons have similar real estate values at around 50 000 €. However, this value decreases among pensioners. Taken together, these findings signal a mixed housing market in Lithuania. On the one hand, there are many households that own old Soviet-era houses without any mortgage, but their wealth value from the real estate is relatively low. On the other hand, there are younger households that own new houses with a mortgage, and their median net wealth value still remains higher than that of most other households.

The importance of real assets in Lithuania was highlighted in the previous subsection, as it accounts for more than 95% of total assets. At 93.2%, Lithuania's homeownership rate makes this statement even stronger and more relevant when we turn to monetary policy. A large body of economic literature stresses the impact of housing prices on households' consumption via the marginal propensity to consume (Caceres et al. (2019)). For their part, Kaplan, Mitman and Violante (Kaplan et al. (2014), Kaplan et al. (2016), Kaplan et al. (2017)) highlight heterogeneity among households and their varying reactions to monetary shocks or economic fluctuations. The authors noted a special type of household which they refer to as "hand-to-mouth", that is, a household that is wealthy, usually due to real assets ownership, but has a low level of income and is thus highly vulnerable to economic shocks. The recent financial crisis saw a surge in this type of household, when the drop in house prices led to a huge drop in consumption in Lithuania due to wealth losses for many households. The tight link between housing, household wealth and consumption is

Table 3.2: Medians and Participation Rates for Real Estate Assets in Lithuania, EUR thousands

		Participation, %	Median, EUR thousands
Total population	All	93.2	46.9
Income	Bottom 20%	93.6	36.4
	20-40%	91.2	35.0
	40-60%	92.2	46.0
	60-80%	93.6	57.0
	80-90%	94.7	64.0
	90-100%	96.0	72.8
Net wealth	Bottom 20%	70.3	15.0
	20-40%	99.2	27.1
	40-60%	98.9	42.6
	60-80%	99.5	70.0
	80-90%	99.3	112.7
	90-100%	97.8	266.6
Household size	1	91.5	40.0
	2	92.9	50.0
	3	97.2	52.4
	4	95.5	70.0
	5	90.9	54.0
Ownership	Owner (outright)	-	45.0
	Owner (with mortgage)	-	72.8
	Renter	-	24.8
Age of the reference person	16-34	87.1	50.0
	35-44	92.9	55.2
	45-54	95.5	52.4
	55-64	92.5	49.7
	65-74	94.4	41.2
	75+	96.2	34.2

Notes: The table reports medians for households' real estate assets and their participation rates in 2017. The first column reports participation rates for the year 2017 of various household groups in the population, while column two reports medians. All statistics are calculated only for households with non-missing real estate values and are broken down by different household groups, using the following criteria: (1) all households, (2) percentile of the household income, (3) percentile of household net wealth, (4) number of household members, (5) housing status of the household, (6) age of reference person. Observations = 1664 households.

an important and unresolved topic in economics.

To address this topic, we look at the distribution of housing as the main residence values by wealth deciles (Figure 3.3). An average value of the HMR in Lithuania is 61 700 €. In addition to the population mean, we also plot a curve joining conditional median HMR values at each net wealth decile. Median housing values increase from 15 000 € to 119 000 € when we move across the net wealth distribution. An average household in terms of value of its HMR is at the 7th decile of net wealth distribution, as both lines intersect there. We can see that housing values increase slowly and steadily among the lower 70% of households, while significant differences in HMR values appear among households in the top deciles. It is worth highlighting that a large fraction of households in Lithuania own their home without any mortgage, as they acquired it during the period of Soviet-era transition. Such properties tend to be valued lower compared to newly built ones. Newly built properties tend to be bought with a mortgage.

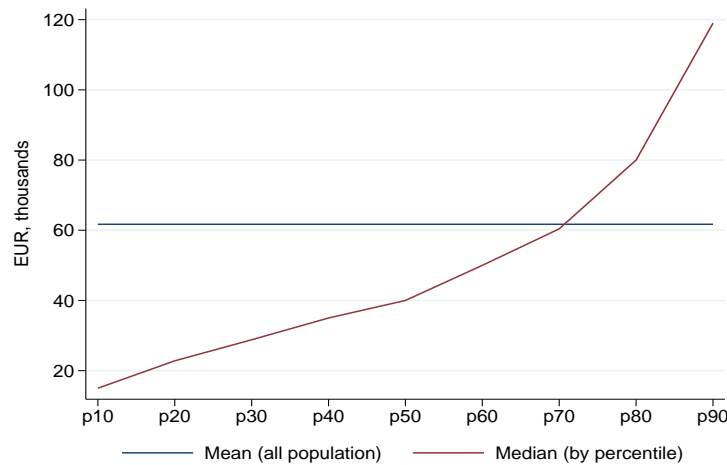


Figure 3.3: Median and Mean Values of Housing Main Residence, by Net Wealth Deciles

Income is another crucial component for obtaining a full picture of the share of "hand-to-mouth" households in Lithuania. Figure 3.4 shows that housing values by net wealth increase exponentially and are highly spread between different quintiles. By contrast, median housing values increase slowly and are better distributed among quintiles. This finding supports Kaplan, Mitman and Violante's research about the fraction of households - in their phrase, "hand-to-mouth" households - which are quite wealthy in terms of real assets but have very low financial flows in terms of income (Kaplan et al. (2017, 2016, 2014)). The fraction of "hand-to-mouth" households in Lithuania appears to be rather high. Strikingly, the value of real estate holdings is relatively high even for the lowest income households. This fact raises questions about financial vulnerability, which will be discussed in a later section of the paper.

3.3 Financial Assets

In theory, total wealth is constructed from real and financial assets (see Figure 2.1). However, the results shown in Figure 3.1 indicate that financial assets account for only 4.7% of total household

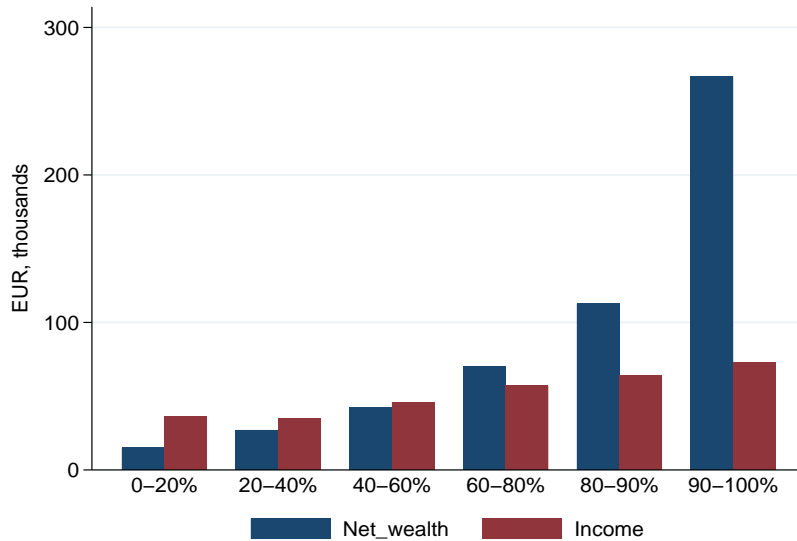


Figure 3.4: Real Estate Assets, Conditional Medians by Household Net Wealth and Income

assets in Lithuania. This share of financial assets in the household portfolio is one of the lowest in Europe (HFCN (2020), HFCN (2016)) and is related to the high homeownership rate in Lithuania. Nevertheless, it is still important to discuss household financial portfolio composition and median values to obtain a complete picture of households' wealth.

The most common types of financial assets are bank deposits kept on sight and savings accounts that are used for payment or transaction purposes or as a form of savings. More than 90% of households in Lithuania use bank deposits as a means of accumulating their wealth (see Figure 3.1). Other types of financial assets - mutual funds, bonds, public shares, voluntary pension/insurance plans and more - are the results of savings and investment decisions and, therefore, reflect mostly households' risk preferences or financial literacy (Jappelli and Padula (2015), Van Rooij et al. (2011)). Only a small fraction of households participates in any of these financial assets (see Figure 3.1). Such under-representation of financial wealth is very striking in comparison with many European countries and the Euro area averages (HFCN (2020), HFCN (2016)) and indicates problems with access to financial markets, lack of household trust in financial products, and lack of financial literacy. These issues, however, are beyond the scope of this paper.

The distribution of financial wealth by deciles of net wealth indicates significant household heterogeneity. Figure 3.5 shows the mean value of financial assets at 4 600€. For comparison purposes, the median values of financial assets are presented in deciles. The results indicate a slow increase in median among the first seven deciles while values increase exponentially for the 8th and 9th deciles. Such exponential dynamics are in line with recent findings in most European countries (HFCN (2020), HFCN (2016)) and underscore the fact that only the top 20% or 30% of households accumulate a significant amount of financial assets.

Table 3.3 presents further distributional results for household financial assets. It shows that the value of median financial wealth does not vary significantly with age. Median financial assets remain

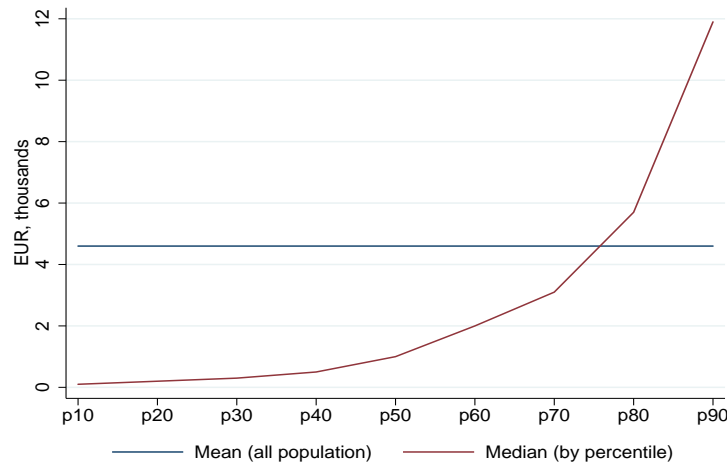


Figure 3.5: Median and Mean Values of Financial Assets, by Household Net Wealth Deciles

between 600€ and 1 200€ for the first nine income deciles. Only the top10% (by their income) of households accumulate significantly more financial wealth - 3 400€ at median. Similar dynamics appear across the household net wealth distribution. No significant heterogeneity in financial assets appears after looking at distributions by household size or housing ownership. Financial assets are quite equally distributed among households with different characteristics. However, the overall values of these assets are extremely low. Only the wealthiest top 10% of households hold a noticeable fraction of their wealth in financial assets.

In concluding this subsection, it is important to highlight that the only type of financial asset not covered by HFCS is the amount of cash held at home. This type of financial asset should basically be covered by values in *other financial assets*, but households' answers and response rates make it apparent that it is underestimated. As Lithuania faces a high rate of shadow economy (Enste (2018)), it is likely that the amount of cash held at home is higher in Lithuania than in most other European countries. However, there is no way to measure this accurately; one must assume that households are honest and include cash held at home as part of their answer about *other financial assets*. Consequently, the remainder of the conclusions are based on all other financial assets covered by the survey. We see that the majority of households participate only in the bank deposit market and only up to 10% of households hold other types of financial assets (mutual funds, bonds, public shares, private pensions, insurance and other). The results also show that most households do not accumulate enough wealth in financial assets and only the top 20% or 30% of them own a significant amount of financial assets. This lack of liquid assets makes the majority of households vulnerable to economic shocks (Bayer et al. (2019), Ampudia et al. (2016)).

4 Debt

To complete the picture of households' balance sheets, the HFCS also collects detailed information on liabilities. Different types of liabilities are recorded, i.e. mortgage-based (collateralized by HMR

Table 3.3: Medians of Financial Assets in Lithuania, EUR thousands

		Median, EUR thousands
Total population	All	1.0
Income	Bottom 20%	0.9
	20-40%	0.7
	40-60%	0.6
	60-80%	1.0
	80-90%	1.2
	90-100%	3.4
Net wealth	Bottom 20%	0.5
	20-40%	0.7
	40-60%	0.7
	60-80%	1.1
	80-90%	1.9
	90-100%	2.5
Household size	1	0.7
	2	1.1
	3	0.7
	4	1.0
	5	1.7
Ownership	Owner (outright)	1.0
	Owner (with mortgage)	1.8
	Renter	0.3
Age of the reference person	16-34	0.8
	35-44	1.2
	45-54	0.6
	55-64	1.0
	65-74	1.0
	75+	0.6

Notes: The table reports medians for households' financial assets in 2017. The only column reports median values for 2017 of various household groups in the population. All statistics are calculated only for households with non-missing financial asset values and are broken down by different household groups, using the following criteria: (1) all households, (2) percentile of household income, percentile of household net wealth, (4) number of household members, housing status of household, (6) age of reference person. Observations = 1510 households.

or other real estate) and non-mortgage debt (credit lines, overdraft, credit card debt and other non-mortgage debt). The next part of this section discusses households' participation in the debt market, as well as the values of debt held by different cohorts broken down by characteristics.

To begin with, we look at the portfolio composition of household debt (see Table 4.1). This indicates clearly that the majority of household debt is accumulated through mortgage-based liabilities, as they correspond to 88.2% of total household debt. More than 80% of household liabilities is accounted for by mortgages for housing as the main residence. The remaining 11.8% are non-collateralized liabilities. A closer look at non-mortgage debts shows that credit lines or credit cards are unpopular in Lithuania, as they jointly correspond to 3.6% of total household debt. We find that 8.2% of liabilities are non-collateralized and mostly driven by leasing and consumer credits. The last point calls for policy makers' attention, as an increase in the availability of consumer credits and a corresponding share of it to the total debt could increase households' vulnerability to economic shocks.

Table 4.1: Composition of Household Debt Portfolio in Lithuania, percentages of total value

	% value of total liabilities
Total liabilities	100.0
Total mortgage debt	88.2
HMR mortgages	80.5
Mortgages on other properties	7.7
Total non-mortgage debt	11.8
Credit line/overdraft	2.9
Credit card debt	0.7
Other non-mortgage loans	8.2

Notes: The table reports statistics for households' debt holdings as shares of total debt, and distinguishes between different mortgage and non-mortgage components. The only column shows shares of total debt accumulated by (i) mortgage debts, and (ii) non-mortgage debts. Total mortgage debt has the following components: (1) household main residence mortgage debt and (2) mortgages on other properties. Total non-mortgage debt includes: (1) credit line/overdraft, (2) credit card debt, and (3) other non-mortgage loans.

In addition to the debt portfolio composition, we also look at the distribution by deciles of households' net wealth. Figure 4.1 shows that the mean debt value among households in Lithuania is 19 800 €. In comparison, the median debt values among the first 7 deciles (by their net wealth) increase slowly and remain below the mean line. For the wealthiest deciles, total liabilities increase exponentially and differ markedly from the rest. Figure 4.1 also brings similar functional debt dynamics as was seen for real and financial assets. Therefore, the majority of total debt is accumulated by the wealthiest 20% or 30% of households.

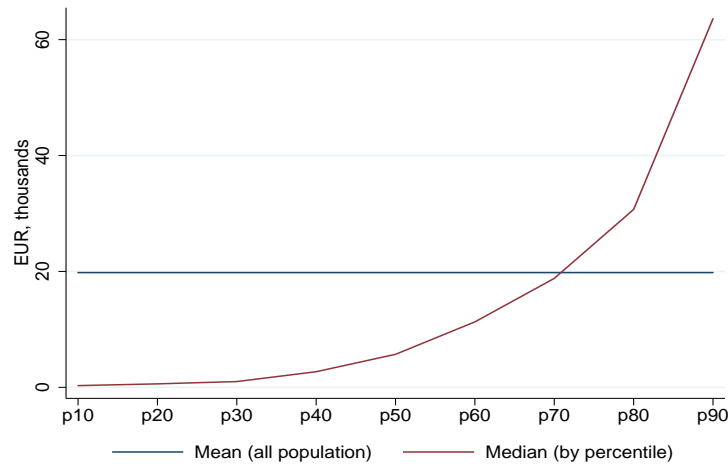


Figure 4.1: Median and Mean Values of Household Debt, by Household Net Wealth Deciles

Table 4.2: Debts and Debt Components in Lithuania

Debt type	Participation rate, %	Median, EUR thousands
Total debt	26.1 (1.6)	5.7 (0.8)
Mortgage debt		
Total mortgage debt	11.7 (1.1)	23.4 (4.1)
Household main residence mortgage	10.4 (1.2)	26.7 (5.1)
Other property	2.0 (0.3)	9.7 (2.2)
Non-mortgage debt		
Total non-mortgage debt	18.5 (1.6)	1.0 (0.1)

Notes: The table reports statistics for households' debt holdings and their participation rates, and distinguishes between different mortgage and non-mortgage debt components. The first column shows participation rates, i.e. the percentages of households (i) having debt, (ii) having mortgage debt, (iii) having non-mortgage debt, and (iv) holding each debt component. The total mortgage debt has the following components: (1) household main residence mortgage and (2) other property. Non-mortgage debt is only summarized in total. Column two shows conditional medians, i.e. the median debt value for households holding that debt in 2017. The standard errors were calculated with the Rao-Wu rescaled bootstrap method using replicate weights provided by the countries (1,000 replicates). Observations = 1664 households.

To complement the ideas that have thus far been presented in the paper, Table 4.2 looks at the percentages of households participating in each type of liability. We see that slightly more than a quarter (26.1%) of all households in Lithuania participate in the debt market. This number is lower than debt participation rates in the other Baltic states, Poland and the Euro area (see Appendix

A.5). There, the participation in debt market rates are close to or even above 40%. Table 4.2 also shows that 11.7% of households hold mortgage-based debts, 10.4% of which correspond to HMR mortgages. These values are lower than the Euro area average or participation rates in Estonia and Poland, and only Latvia has similar rates of participation in the HMR mortgage market. Participation rates in non-mortgage debt also remain lower in Lithuania than in neighboring countries or compared to the Euro area average.

In line with the distributional decomposition of participation rates, Table 4.2 also summarizes the median values of different debt components. The results show that the median value of total household debt in Lithuania is 5 700€. In comparison, the Euro area average is much higher - 29 500€, while Latvia, Estonia and Poland have averages similar to that of Lithuania but have slightly lower median values of the total debt (Appendix A.5). In terms of the median HMR mortgage and total non-mortgage debt values, the dynamics remain the same - median household debt values in Lithuania closely reflect the same measures in Latvia, Estonia and Poland, but remain far below the Euro area average.

Table 4.3: Participation Rates and Medians for Total Liabilities in Lithuania, EUR thousands

		Participation rate, %	Median, EUR thousands
Total population	All	26.1	5.7
Income	Bottom 20%	11.6	N
	20-40%	12.6	N
	40-60%	23.2	2.1
	60-80%	37.6	5.0
	80-90%	41.5	11.3
	90-100%	50.9	13.4
Age of the reference person	16-34	49.4	11.6
	35-44	40.6	13.5
	45-54	30.6	2.7
	55-64	17.7	0.8
	65-74	10.6	N
	75+	2.4	N

Notes: The table reports medians for households' liabilities and their participation rates in 2017. The first column reports participation rates for 2017 of various household groups in the population, while column two reports medians. All statistics are calculated only for households with non-missing liabilities values and are broken down by different household groups, using the following criteria: (1) all households, (2) percentile of household income, (3) age of reference person. N=too few values of the variable were observed. Observations = 1664 households.

The distributional decomposition of median debt values is important for empirical results about households' heterogeneity in the debt market. Table 4.3 shows that participation in the debt market increases as income grows. Only 11.6% of households from the lowest income quintile own debt, while this ratio goes up to 50.9% for the households in the top income decile. Additionally, participation in debt in Lithuania decreases with age. Similar dynamics are identified by looking

at the median values of total debt kept by households. Firstly, the median value of debt increases by household income. Secondly, the median amount of debt is the highest among the two youngest cohorts in Lithuania and decreases significantly the closer the household is to the age of pension.

To get a full picture of households' participation in the debt market, it is crucial to evaluate their credit constraints. These results are summarized in Table 4.4, as it also compares Lithuania with its neighboring countries and the Euro area. We see that 17.8% of households in Lithuania applied for credit within the past 3 years. By way of comparison, these percentages are below the Euro area and the other two Baltic states, but higher than in Poland. In terms of rejected or reduced applications, Lithuania appears to be highly above the Euro area average and higher than Latvia, Estonia or Poland. Lithuania, then, has the highest percentage of credit-constrained households in comparison with other countries in the Table 4.4. Only the number of households not applying for credit due to perceived credit constraint is similar among the studied countries.

Table 4.4: Credit constraints

	Lithuania	Euro area	Latvia	Estonia	Poland
Applied for credit within past 3 years	17.8	22.0	21.0	25.6	11.1
Refused or only reduced credit (among those applying in past 3 years)	33.6	9.2	24.5	11.7	13.4
Not applying for credit due to perceived credit constraint	5.9	4.7	5.9	5.6	4.3
Credit-constrained household	10.1	6.1	8.8	7.7	5.0

Notes: The table reports households' credit constraints. The first row shows the percentage of households that had applied for credit between 2014 and 2017. The second row shows those that had applied for credit in the previous three years but were denied it or were offered a smaller amount than they had applied for, while the third row shows those who did not apply for credit owing to a perceived credit constraint. The last row shows the percentage of credit-constrained households in 2017. A credit-constrained household is defined as a household to which one or more of the following situations apply: (i) applied for credit within the last three years but was turned down, and did not report a successful reapplication, (ii) applied for credit but was not granted the full amount applied for, or (iii) did not apply for credit owing to a perceived credit constraint. Households with missing information on applying for credit or on not applying for credit due to a perceived credit constraint are not included. The information on credit constraints is not necessarily fully imputed for all countries; missing values may cause slight numerical inconsistencies between the individual components and the composite credit-constrained household indicator. Data is included for the following countries in this table: Lithuania, Latvia, Estonia, Poland and for Euro area average. Source: HFCS.

To conclude, it is important to stress that households in Lithuania tend to participate less in the debt market than households in Latvia, Estonia, Poland or most other European countries. Mortgage-based HMR loans are relatively unpopular in Lithuania, as only 10.4% of households hold them. This result is strikingly below the European average. The highest median debt is recorded for the two youngest age cohorts and decreases as household gets older. Finally, the results suggest that more households in Lithuania are credit-constrained and face rejections or reduced credit applications more often than households in most of Europe.

5 Financial Stability

The recent financial crisis has shed the light on financial stability issues that can appear due to structural changes in households' balance sheets (Mian and Sufi (2018), Mian et al. (2013)). Until now, there were no proper statistics in Lithuania to estimate households' balance sheets, to check households' financial vulnerability and to draw quantitatively reasoned conclusions about the subject. HFCS enables us to take a close look at financial stability on the demand side and to prevent situations similar to that of the Great Financial Crisis of 2008.

To begin with, Table 5.1 summarizes the main financial stability ratios calculated for all Lithuanian households. The results highlight that the median debt-to-income ratio is 43.9, while the mortgage debt service-to-income ratio remains at 8.8. The former shows what part of yearly gross income corresponds to total debt while latter reflects the ratio between monthly income and mortgage debt service payments. Additionally, Table 5.1 looks at the median debt-to-asset ratio in Lithuania, which is 11.3 and does not signal any financial stability problems from the household side.

Table 5.1 also provides distributional cuts for each financial burden indicator to enrich the picture of households' financial situation. The median debt-to-income ratio seems to vary between 30 and 55 among the top 60% of households in terms of their income. It remains similar or even lower between the top 60% of households by their net wealth, but sends a warning message concerning the least wealthy cohorts, as they face ratios of 73.6 and 91.4. From the distributional point of view, results about the service-to-income ratio seem to remain consistent and vary between 4.0 and 15.0 in all the studied cases. The results from the debt-to-asset ratio are also in line with theory and do not violate financial stability criteria. Debt-to-asset ratio goes down as households become wealthier or older, and remains quite stable between differently sized households. In comparison to the same financial burden indicators in the Euro area, Lithuania is in a good position, as most of the values by distributional cuts are lower than the averages in Europe (HFCN (2020)). These results are in line with previous findings of low debt values and Lithuania's relatively poor participation in debt markets. It is possible that this situation is driven by Lithuanian households' credit constraints or a lack of trust in debt markets, but such an analysis is beyond the scope of this paper.

Another way to look at the financial stability situation is by comparing negative net wealth values, which we do in Table 5.2. As we ideally consider that all liabilities should be collateralized with assets, Table 5.2 shows that some households still face a situation of negative net wealth. From the country perspective, the highest share of such households appears among renters. Additionally, the results suggest that young households in Lithuania face this situation more often than older ones. Cross-country comparison shows that Lithuania has one of the lowest negative net wealth values among European countries. On the one hand, financial stability measures do not indicate any financial risk coming from households' side, on the other, however, such results are highly influenced by low participation in debt markets. Therefore, these findings could be interpreted as missed opportunities to generate household wealth by making use of financial markets. It is hard to find the perfect equilibrium in this situation, but it is clear that the findings support multiple interpretations.

Table 5.1: Debt Burden and Financial Fragility in Lithuania, ratios

		Median, debt-income ratio	Median, mortgage debt service income ratio	Median, debt-asset ratio
Total population	All	43.9	8.8	11.3
Income	Bottom 20%	N	N	N
	20-40%	N	N	N
	40-60%	30.1	13.7	5.2
	60-80%	36.7	10.5	10.0
	80-90%	54.1	6.9	13.7
	90-100%	38.7	4.0	16.3
Net wealth	Bottom 20%	73.6	9.2	63.9
	20-40%	91.4	10.1	18.1
	40-60%	20.2	N	4.1
	60-80%	32.2	7.0	4.6
	80-90%	30.6	N	1.5
	90-100%	52.0	13.3	3.4
Household size	1	42.0	15.5	12.1
	2	38.7	7.8	7.1
	3	74.7	8.1	13.0
	4	51.5	7.1	13.9
	5	141.2	N	N
Ownership	Owners (outright)	15.8	6.9	1.9
	Owners (with mortgage)	172.4	9.2	37.1
	Renter	19.2	N	N
Age of the reference person	16-34	93.2	7.7	30.6
	35-44	71.1	8.7	13.6
	45-54	26.3	7.6	5.8
	55-64	17.0	10.4	2.9
	65-74	N	N	N
	75+	N	N	N

Notes: The table reports different measures of financial burden in 2017. The first column reports medians of the debt-income ratio, which is calculated as the percentage ratio between total liabilities and household annual gross income for indebted households. The second column shows the mortgage debt service-income ratio, defined as the percentage ratio between total monthly mortgage debt payments and household gross monthly income. The fourth column reports medians of the debt-asset ratio, which is calculated as the percentage ratio between total liabilities and total gross assets for indebted households. All indicators are calculated for households broken down using the following criteria: (1) all households, (2) percentile of household income, (3) percentile of household net wealth, (4) number of household members, (5) housing status of the household and (6) age of reference person. N=too few values of the variable were observed.

Table 5.2: Percentages of Households With Negative Net Wealth

		Lithuania	Euro area	Latvia	Estonia	Poland
Total population	All	1.7	4.7	5.4	4.5	2.6
Income	Bottom 20%	1.1	6.8	2.9	5.7	4.1
	20-40%	2.2	5.1	8.2	3.9	3.5
	40-60%	2.2	5.3	7.1	7.1	2.1
	60-80%	1.5	3.9	5.6	4.2	2.4
	80-90%	2.5	3.2	2.4	2.5	1.7
	90-100%	0.6	1.5	3.9	0.3	0.1
Household size	1	2.7	5.4	2.4	6.3	3.3
	2	0.4	3.2	6.1	3.7	3.6
	3	1.1	5.7	11.4	2.2	2.2
	4	3.0	4.7	5.1	4.1	1.4
	5	1.3	6.4	4.3	2.9	1.5
Ownership	Owner (outright)	0.2	0.1	0.3	0.2	0.0
	Owner (with mortgage)	4.7	4.6	3.9	2.2	1.7
	Renter	15.8	9.3	17.5	16.1	11.5
Age of the reference person	16-34	4.7	10.6	12.3	11.9	3.8
	35-44	1.7	6.5	8.1	5.6	2.2
	45-54	0.7	5.0	3.6	2.5	2.4
	55-64	2.2	3.7	5.3	2.6	2.6
	65-74	1.1	2.3	3.8	2.9	2.8
	75+	0.1	0.5	0.0	0.0	1.8

Notes: Table reports percentages of households with negative net wealth in 2017. All households are broken down using the following criteria: (1) all households, (2) percentile of household income within the country, (3) number of household members, (4) housing status and (5) age of reference person. Data includes the following countries: Lithuania, Latvia, Estonia, Poland and the Euro area average. Observations = 1664 households.

In a nutshell, households in Lithuania appear to be more credit-constrained than households in most other countries in Europe. At the same time, they show lower values for financial stability indicators and ring no warning bells about the economy from the demand side. However, policy markers would do well to track the lowest-income households. This cohort is a special case because they own enough real assets to use them as a collateral, but their financial flow is very limited due to low income.

6 Income and Consumption

Income and consumption are the final pieces needed for the complete picture of household finances in Lithuania. There are other detailed surveys, such as EU-SILC, concentrating, particularly, on income and consumption behavior. HFCS, however, not only collects this information, but also matches it with balance sheets on the household level. Household annual gross income information

collected through HFCS is reported in Table 6.1.

Table 6.1: Annual Gross Income per Household in Lithuania, EUR thousands

		Median, EUR thousands	Mean, EUR thousands
Total population	All	7.1	10.8
Income	Bottom 20%	0.0	0.6
	20-40%	4.0	4.1
	40-60%	7.1	7.2
	60-80%	12.2	12.4
	80-90%	19.8	20.0
	90-100%	33.8	40.3
Net wealth	Bottom 20%	6.0	8.2
	20-40%	4.6	8.0
	40-60%	7.1	9.6
	60-80%	9.0	12.7
	80-90%	10.6	13.4
	90-100%	11.2	17.6
Household size	1	4.1	5.4
	2	8.0	11.4
	3	12.2	15.8
	4	16.2	21.0
	5	13.3	16.7
Ownership	Owners (outright)	6.6	9.7
	Owners (with mortgage)	16.2	20.6
	Renter	6.2	9.0
Age of the reference person	16-34	10.4	13.1
	35-44	10.5	14.6
	45-54	9.1	13.1
	55-64	6.5	9.9
	65-74	4.7	7.0
	75+	3.6	4.9

Notes: The table reports median and mean values for households' annual gross income in 2017. The first column reports median for 2017 of various household groups in the population, while column two reports means. All statistics are calculated only for households with non-missing gross income values and are broken down by different household groups, using the following criteria: (1) all households, (2) percentile of the household income, (3) percentile of the household net wealth, (4) number of household members, (5) housing status of the household, (6) age of reference person.

The median household annual gross income is 7 100€, and the mean is 10 800€ in Lithuania. A comparison with income values identified by the EU-SILC survey (Allen et al. (2018)) shows a slightly left-shifted distribution and income underestimation in the HFCS results. However,

this finding should have a small effect on the final conclusions because HFCN concentrates on distributional dynamics rather than the exact values of income.

From the distributional perspective, income smoothly increases over quintiles and indicates similar dynamics between medians and means (see Table 6.1). Similar findings are identified for the net wealth and household size quintiles. Income increases for households with more net wealth and with more people living per household. More interesting results are seen between different households in terms of their housing status. Similar income values are identified for renters and owners without mortgages, while owners with mortgages receive at least double the amount of income. Empirical findings from other European countries show that income tends to increase with age due to knowledge and experience collected over the years (HFCN (2020)). It usually reaches a peak of the distribution before the pension age and decreases afterwards, as persons get older and are paid mostly from pensions/social benefits. A slightly different situation is seen in Lithuania. The two youngest cohorts contain the highest median and mean values of income and income decreases afterwards but still long before the pension age. Therefore, instead of a reversed U-shaped distribution, Lithuania faces decreasing income values across the age distribution.

Household income is closely related to consumption. Therefore, expenditure on consumer goods and service, food expenditure and expenditure on utilities are analyzed in Table 6.2. Annual median expenditures on food is 3 600 € in Lithuania, while an additional 1 200 € annually or 100 € per month is spent on utilities. Food expenditures in Lithuania are below the Euro area average, similar to Estonia, but higher than for the households in Latvia and Poland. Figure 6.1 also shows what share of annual household income in Lithuania is spent on food, services and utilities. 17% of annual household income is spent on utilities, another 51% corresponds to food expenditures, while overall expenditures on consumption goods and services comprises 75% of income.

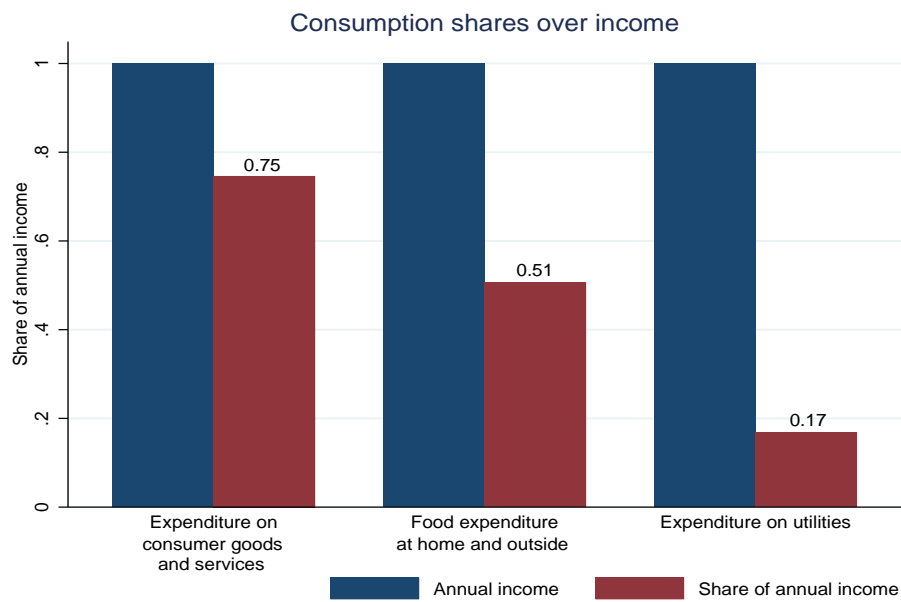


Figure 6.1: Consumption Shares Over Income

Table 6.2: Household Consumption and Abilities to Save

		Lithuania	Euro area	Latvia	Estonia	Poland
Consumption, thousands of EUR						
Food expenditure (all)	annual	3.6	5.2	3.0	3.7	3.0
Food expenditure (at home)	annual	2.4	4.4	2.4	3.6	2.8
Expenditure on utilities	annual	1.2	2.5	1.4	1.6	1.9
Ability to save, % of households						
Regular expenses less than income	All	33.3	41.3	19.3	30.8	26.2
Income	Bottom 20%	23.4	25.3	5.9	18.3	14.3
	20-40%	23.5	34.3	13.3	21.1	23.7
	40-60%	26.2	42.5	21.6	30.9	24.6
	60-80%	44.7	47.1	23.6	38.4	30.3
	80-90%	50.0	50.5	26.7	43.0	31.4
	90-100%	49.7	61.5	37.6	47.3	44.9
Net wealth	Bottom 20%	23.3	27.1	9.5	16.4	18.9
	20-40%	25.9	38.3	15.2	30.5	22.5
	40-60%	29.7	40.3	15.9	33.3	28.0
	60-80%	38.1	47.6	27.5	36.2	27.8
	80-90%	48.8	52.9	25.3	37.8	29.7
	90-100%	52.1	54.7	31.9	37.0	38.2
Household size	1	25.8	41.3	16.7	27.7	25.2
	2	35.7	44.7	19.0	34.6	27.8
	3	35.7	39.4	22.0	33.1	27.4
	4	53.4	38.4	28.4	30.7	27.5
	5	34.2	34.3	10.9	27.3	21.9
Ownership	Owner (outright)	31.5	43.5	19.6	31.6	26.6
	Owner (with mortgage)	53.2	44.9	24.6	34.9	29.0
	Renter	25.3	37.8	16.5	25.7	23.4
Age of the reference person	16-34	41.4	42.0	32.0	37.5	30.8
	35-44	43.7	38.4	19.3	29.1	30.7
	45-54	34.6	41.9	18.2	29.6	23.5
	55-64	34.0	42.9	20.8	30.5	24.3
	65-74	20.0	42.9	16.7	24.2	24.3
	75+	20.7	39.8	10.4	31.9	23.3
Ability to get financial aid from friends or relatives, % of households		30.2	56.3	26.6	29.6	58.9

Notes: Table reports household consumption and ability to save in 2017. There are three different indicators of household consumption, all referring to annual amounts: (1) total household expenditure on food, (2) household expenditure on food at home, and (3) total household expenditure on utilities. All indicators are reported in the first three lines. The second part of the table shows percentages of households that identified themselves as having regular expenses lower than their income. All households are broken down using the following criteria: (1) all households, (2) percentile of household income within the country, (3) percentile of household net wealth within the country, (4) number of household members, (5) housing status and (6) age of reference person. The last row shows percentage of households identifying themselves as able to obtain financial aid from their friends or relatives. Source: HFCS.

Table 6.2 also shows results about households' ability to save. One-third of households in Lithuania claimed that they regularly spend less than they earn during the month. This result is higher than in Latvia, Estonia or Poland. As expected, this share of households increases as income or net wealth increases. A more interesting finding is that almost two times as many households that are owners with mortgages claimed they are able to save in comparison to renters or owners without mortgages. This share is higher than the average of the Euro area. From the age perspective, retired households are least able to save. Finally, households were asked about their ability to obtain financial aid from friends or relatives. Table 6.2 shows that among all three Baltic states, around 30% of households identified such a possibility, while the numbers in Poland or the average of the Euro area are just slightly below 60%.

7 Conclusion

This paper presents new data obtained from the Household Finance and Consumption Survey in Lithuania. It offers a snapshot of households' balance sheets and provides insights into a number of areas relevant for policymakers. The focus of the HFCS is household wealth, as it collects detailed information about household assets, liabilities, income and consumption. This data is unique in Lithuania with respect to scope and quality. A carefully built sampling procedure ensures that the results are representative across the population, and administrative data is used to improve the quality of results. While under-reporting is likely to be an issue, this issue factor probably remains homogeneous across all socio-economic or demographic groups and should not affect the distributional results.

This first overview of balance sheets across Lithuania households offers 7 key insights: 1) Lithuania appears to be ahead of other European countries in terms of housing ownership, with its 93.2% homeownership rate; 2) the household portfolio in Lithuania is concentrated in real estate, as around 95% of total assets are accumulated through real assets; 3) low participation in financial assets raises questions of household financial literacy and trust in financial markets; 4) only 11.7% of households have mortgage-related debt, which is one of the lowest percentages among European countries; 5) households' financial stability remains stable as Lithuania has one of the lowest percentages of households with a negative net wealth in Europe; 6) household credit constraints highlighted issues on credit availability in Lithuania; and 7) a huge share of "hand-to-mouth" households that own a significant amount of illiquid assets but keep very little in terms of liquid assets was identified. Such households become important during economic downturns, as they become fragile due to liquidity problem and lack of financial flows.

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A Statistical Tables

Table A.1: Definitions of Individual Components

Definitions of Individual Components
<i>Real Assets</i>
Household main residence: a piece of residential property the household owns and lives in for most of the year.
Other real estate property: any type of real estate the household owns but does not use as a main residence, such as single-family houses and apartments, vacation homes or apartments, multi-family homes, apartment buildings, garages, offices, hotels, other commercial buildings (provided they are owned by the household and not part of a business owned by the household), factories, warehouses, farms, land and lots. This explicitly includes properties that are located abroad.
Investments in self-employed businesses: business that is owned by the household and in which at least one household member has an active function.
Vehicles: cars and other motor vehicles, e.g. motorbikes, trucks, vans, planes, boats or yachts, motorhomes.
Valuables: gold, gold coins, antiques, works of art, jewelry, collections, other valuable items.
<i>Financial Assets</i>
Sight accounts (current accounts): the credit balances on all household members' bank accounts that are at the immediate disposal of the account holders (by way of cash withdrawal, transfer order or check).
Savings accounts: the credit balances on all household members' savings accounts (including saving contracts with building and loan associations).
Savings contracts with building and loan associations: the credit balances on all household members' contracts with building and loan associations.
Life insurance: assets invested in life insurance contracts, such as traditional or unit-linked life insurance plans.
Mutual funds: assets of a household invested in (mutual) funds. Common types of funds include equity funds, fixed-income funds, money market funds, funds-of-funds, hedge funds, exchange-traded funds, etc.
Bonds: households' holdings of bonds, e.g. government bonds, federal savings bonds, municipal bonds, other securities issued by the Austrian federal, regional and municipal governments, corporate bonds, bank bonds.
Shares: households' holdings of securities traded on a stock exchange which identify the shareholder (the owner of the security) as owner of a share in the stock of a joint stock company. They usually guarantee a stake in part of the company's profits.
Debt owed to the household: all financial assets owed to a member of the household.
Other financial assets: any other financial assets, including silent partnerships (i.e. ownership in part of a business in which no household member has a management function), fiduciary accounts, etc.
<i>Debt</i>
Collateralized by the household main residence: any outstanding mortgages or loans of the household that use the household main residence as collateral.
Collateralized by properties other than the household main residence: any mortgages or loans on the part of the household that use other properties owned by the household as collateral.
Bank overdrafts: any debt on any of the household's sight accounts (current accounts; see above).
Outstanding balance on credit cards: any debt on the household's credit card(s) that remains after the most recent monthly bill has been paid.
Other uncollateralized loans: any uncollateralized debt. This includes unpaid bills that are more than 30 days overdue, loans from relatives, friends, or employers, as well as any other private loans.

Table A.2: Net Wealth in the Euro Area and Other Countries, EUR thousands

		Euro area		Latvia		Estonia		Poland	
		Median	Mean	Median	Mean	Median	Mean	Median	Mean
Total population	All	99.4	229.2	20.5	43.0	47.7	111.9	60.5	95.5
Income	Bottom 20%	18.7	73.6	5.7	11.4	17.7	39.0	29.8	42.4
	20-40%	49.5	114.4	14.5	28.5	30.2	59.2	43.7	60.1
	40-60%	100.7	176.7	19.2	27.5	39.2	73.7	60.9	85.7
	60-80%	150.1	238.8	27.1	47.1	60.5	130.8	76.4	102.6
	80-90%	228.6	349.0	37.3	58.0	78.1	136.7	101.5	138.5
	90-100%	411.2	736.1	76.9	144.1	150.9	377.7	127.8	236.3
Net wealth	Bottom 20%	1.0	-4.5	0.1	-0.6	0.4	0.5	1.8	3.8
	20-40%	24.0	26.7	7.6	7.5	17.5	18.0	32.6	32.3
	40-60%	99.4	101.3	20.5	20.9	47.7	47.7	60.5	61.1
	60-80%	218.9	224.9	40.1	40.3	85.4	87.9	102.4	103.4
	80-90%	399.8	406.0	66.7	69.4	157.8	161.0	157.6	159.5
	90-100%	782.2	1189.7	154.7	228.9	362.7	651.0	265.8	395.2
Household size	1	43.1	144.8	13.8	25.6	22.2	44.3	34.2	54.5
	2	143.7	283.4	20.9	39.9	62.3	147.7	55.1	78.2
	3	116.8	236.0	27.7	50.6	66.3	142.4	68.3	102.2
	4	143.1	276.3	43.5	75.7	72.9	166.7	84.4	110.4
	5	112.8	318.3	33.7	66.9	90.0	204.2	109.0	171.5
Ownership	Owner (outright)	226.7	377.7	29.3	52.5	65.0	128.7	77.5	117.2
	Owner (with mortgage)	156.9	285.2	42.2	68.0	67.9	147.5	77.9	108.2
	Renter	9.0	51.1	0.2	11.3	1.9	46.8	2.3	18.3
Age of reference person	16-34	14.2	66.5	14.6	27.7	19.5	95.3	35.3	62.4
	35-44	70.2	158.5	23.3	58.0	60.4	117.5	71.5	106.4
	45-54	129.2	271.7	25.7	44.0	65.9	173.2	82.1	119.9
	55-64	166.4	306.7	25.6	57.5	59.1	118.1	69.0	119.4
	65-74	166.5	297.0	19.2	42.6	44.4	88.3	57.8	74.7
	75+	114.2	242.0	13.5	20.9	40.3	66.9	41.3	58.7

Notes: The table reports median and mean values for households' net wealth in 2017. The first column for each country reports median for 2017 of various household groups in the population, while column two for each country reports means. Net wealth is defined as the difference between total gross assets and total liabilities. All statistics are calculated only for households with non-missing net wealth values and are broken down by different household groups, using the following criteria: (1) all households, (2) percentile of household income within the country, (3) percentile of the household net wealth within the country, (4) number of household members, (5) housing status of household, (6) age of reference person. Data includes the following countries: Latvia, Estonia, Poland and the Euro area average.

Table A.3: Participation Rates in Assets and Asset Components in the Euro Area and Other Countries

Asset type	Euro area	Latvia	Estonia	Poland
Real assets				
Total real assets	91.2 (0.2)	84.3 (1.5)	87.4 (0.9)	91.2 (0.5)
Household main residence	60.3 (0.2)	72.7 (1.8)	75.3 (1.1)	79.3 (0.6)
Other real estate property	24.8 (0.3)	36.6 (1.7)	32.6 (1.1)	24.0 (0.7)
Vehicles	76.3 (0.3)	49.5 (1.7)	47.0 (1.1)	65.8 (0.7)
Self-employment business wealth	10.7 (0.2)	6.5 (1.0)	11.8 (0.7)	20.4 (0.6)
Real estate wealth	64.7 (0.3)	78.3 (1.7)	79.9 (1.0)	82.3 (0.6)
Financial assets				
Total financial assets	97.7 (0.1)	89.1 (1.4)	99.6 (0.1)	89.1 (0.5)
Deposits	97.6 (0.1)	87.7 (1.5)	99.6 (0.1)	84.9 (0.6)
Mutual funds	10.2 (0.2)	0.5 (0.2)	3.4 (0.4)	3.8 (0.3)
Bonds	3.2 (0.1)	0.1 (0.1)	0.4 (0.1)	0.8 (0.1)
Shares(publicly traded)	8.6 (0.2)	0.4 (0.2)	4.4 (0.4)	2.3 (0.3)
Money owed by households	7.5 (0.2)	4.6 (0.8)	10.3 (0.7)	3.9 (0.3)
Voluntary pensions/whole life insurance	28.4 (0.3)	21.8 (1.4)	18.5 (0.8)	38.6 (0.9)
Other financial assets	7.7 (0.2)	0.4 (0.2)	3.3 (0.4)	2.1 (0.2)

Notes: The table reports participation rates for households' asset holdings and distinguishes between different real and financial asset components. Participation rates are identified as the percentages of households (i) having real assets, (ii) having financial assets, and (iii) holding each asset component. Total real assets has the following components: (1) household main residence, (2) other real estate property, (3) vehicles, (4) self-employment business wealth and (5) real estate wealth. Financial assets include: (1) deposits, (2) mutual funds, (3) bonds, (4) shares (publicly traded), (5) money owed to the household, (6) total value of voluntary pensions and whole life insurance, and (7) other financial assets (private non-self-employed businesses, assets in managed accounts and other types of financial asset). The standard errors were calculated with the Rao-Wu rescaled bootstrap method using replicate weights provided by the countries (1,000 replicates). Data includes the following countries: Latvia, Estonia, Poland and the Euro area average.

Table A.4: Conditional Medians in Assets and Asset Components in the Euro Area and Other Countries

Asset type	Euro area	Latvia	Estonia	Poland
Total assets	131.3 (1.7)	23.6 (2.1)	57.3 (2.1)	65.8 (1.3)
Real assets				
Total real assets	131.0 (1.6)	29.9 (2.1)	60.0 (1.2)	67.3 (1.5)
Household main residence	165.7 (3.0)	25.5 (1.9)	55.5 (2.1)	61.0 (2.2)
Other real estate property	95.9 (3.5)	15.0 (1.7)	30.0 (3.0)	27.6 (1.6)
Vehicles	6.0 (0.1)	3.0 (0.2)	3.5 (0.3)	3.2 (0.2)
Self-employment business wealth	30.0 (1.0)	2.0 (0.8)	12.3 (3.4)	33.3 (2.6)
Real estate wealth	185.5 (2.8)	30.0 (1.6)	60.0 (1.6)	68.2 (1.2)
Financial assets				
Total financial assets	10.3 (0.3)	0.4 (0.1)	2.8 (0.2)	3.7 (0.2)
Deposits	6.1 (0.1)	0.2 (0.1)	1.9 (0.2)	2.8 (0.2)
Mutual funds	15.0 (0.5)	N	2.6 (0.6)	2.3 (0.3)
Bonds	20.0 (1.1)	N	N	2.3 (0.8)
Shares(publicly traded)	8.0 (0.5)	N	3.7 (0.6)	1.9 (0.5)
Money owed by households	3.0 (0.2)	0.4 (0.3)	0.7 (0.2)	1.1 (0.3)
Voluntary pensions/whole life insurance	14.0 (0.5)	0.9 (0.1)	3.1 (0.2)	1.4 (0.1)
Other financial assets	2.5 (0.2)	N	1.1 (0.5)	2.7 (0.9)

Notes: The table reports medians for households' asset holdings and distinguishes between different real and financial asset components. Conditional medians are identified as the the median asset value for households holding that asset in 2017. Total real assets has the following components: (1) household main residence, (2) other real estate property, (3) vehicles, (4) self-employment business wealth and (5) real estate wealth. Financial assets include: (1) deposits, (2) mutual funds, (3) bonds, (4) shares (publicly traded), (5) money owed to the household, (6) total value of voluntary pensions and whole life insurance, and (7) other financial assets (private non-self-employed businesses, assets in managed accounts and other types of financial asset). The standard errors were calculated with the Rao-Wu rescaled bootstrap method using replicate weights provided by the countries (1,000 replicates). Data includes the following countries: Latvia, Estonia, Poland and the Euro area average. N = too few values of the variable were observed.

Table A.5: Debt and Debt Components in the Euro Area and Other Countries

Debt type	Euro area		Latvia		Estonia		Poland	
	Share	Median	Share	Median	Share	Median	Share	Median
Total debt	41.9 (0.3)	29.5 (0.9)	39.6 (1.5)	3.0 (0.8)	48.0 (1.1)	4.9 (0.6)	40.5 (0.8)	2.3 (0.2)
Mortgage debt								
Total	23.5 (0.3)	80.0 (0.9)	13.8 (1.4)	22.1 (2.3)	20.9 (0.9)	29.9 (2.0)	15.0 (0.6)	25.3 (1.3)
Household main residence mortgage	20.5 (0.2)	80.0 (1.2)	11.5 (1.2)	23.7 (2.8)	18.1 (0.8)	28.2 (2.0)	13.2 (0.6)	24.8 (1.4)
Other property	4.7 (0.2)	69.8 (3.8)	3.0 (0.6)	21.5 (4.7)	3.7 (0.4)	29.2 (3.1)	2.2 (0.2)	22.6 (2.5)
Non-mortgage debt								
Total non-mortgage debt	27.2 (0.3)	5.0 (0.1)	32.9 (1.5)	1.3 (0.2)	40.3 (1.1)	1.3 (0.1)	32.1 (0.8)	0.6 (0.1)

Notes: The table reports statistics for households' debt holdings and their participation rates, and distinguishes between different mortgage and non-mortgage debt components. The first column for each country shows participation rates, i.e. the percentages of households (i) having debt, (ii) having mortgage debt, (iii) having non-mortgage debt, and (iv) holding each debt component. Total mortgage debt has the following components: (1) household main residence mortgage and (2) other property. Non-mortgage debt is only summarized in total. Column two for each country shows conditional medians, i.e. the median debt value for households holding that debt in 2017. The standard errors were calculated with the Rao-Wu rescaled bootstrap method using replicate weights provided by the countries (1,000 replicates). Data includes the following countries: Latvia, Estonia, Poland and the Euro area average.