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# USUS FRUCTUS: TAKING ACCOUNT OF PROPERTY USE RIGHTS IN HOUSEHOLD WEALTH MEASUREMENT

by Giovanni D'Alessio\*, Andrea Neri<sup>†</sup> and Irene Toma\*

## Abstract

The paper discusses the inclusion of usufruct rights in household wealth estimates, emphasizing the theoretical rationale for adjusting traditional estimates that do not include this component. It then applies this concept to the Italian context by using SHIW data. Despite usufruct being relatively rare (around 3 per cent of residential homes), adjusting for it impacts wealth distribution, with some increases characterizing younger households. Overall, adjusted estimates show a significant decrease in the concentration indices compared with unadjusted ones. These findings suggest the importance of considering this component in standard household wealth estimates, particularly in countries where use rights are more common.

**JEL Classification:** D23, D31, P14.

**Keywords:** property rights, use rights, usufruct, wealth distribution.

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## 1. Introduction<sup>1</sup>

Household sample surveys are invaluable tools for understanding economic dynamics, social structures, and the distribution of resources within societies. Among the various indicators collected in these surveys, wealth stands out as a fundamental indicator of economic well-being and household stability.

The inclusion of wealth data in household surveys is crucial for several reasons. Firstly, wealth provides insights into the economic status and living standards of households, providing a more comprehensive view beyond income alone. While income reflects the flow of resources over time, wealth captures accumulated assets and savings, providing a measure of long-term financial security and capacity for investment. Additionally, wealth data allow policy makers, researchers, and analysts to assess disparities in asset ownership, intergenerational wealth transfer, and access to economic opportunities, thereby informing targeted interventions and policy initiatives aimed at reducing inequality and promoting economic inclusion.

Net wealth encompasses tangible assets such as land, real estate, valuables, and financial instruments like savings accounts and stocks, while debts constitute the negative component. Traditionally, the real items considered in household surveys are those for which households hold full property rights. However, this approach may not capture the full spectrum of resource ownership held by households.

Solely focusing on assets with full property rights may overlook significant aspects of wealth accumulation and resource utilization. In many contexts, individuals or households may possess partial rights or entitlements to certain assets, such as in the case of usufruct contracts, where individuals hold the right to use and enjoy property owned by others. Neglecting the patrimonial value of such assets can lead to a distorted understanding of wealth distribution and economic well-being, particularly in communities where informal arrangements or non-traditional property rights prevail.

This paper aims to address the gap in wealth assessment methodologies by advocating for the inclusion of assets with partial rights in household surveys. Specifically, we will explore the importance of taking account of use rights, such as those conferred by usufruct contracts, when estimating household wealth. By incorporating these nuanced dimensions of asset ownership, we seek to provide a more comprehensive and equitable framework for assessing wealth that better reflects the socio-economic realities of diverse communities. An application to the Italian case offers the opportunity to assess a significant impact on wealth distribution, even in a country where this kind of phenomenon is relatively uncommon.

## 2. Some general reflections on use rights

Household wealth is traditionally divided into two components, real and financial. Financial wealth represents the net value between the claims (e.g., the bank deposits) and the obligations (e.g., the debts) that the household has towards other households or economic entities. By definition, for every claim and obligation held, there exists a corresponding obligation and claim of the same amount held by someone else.

The notion of real wealth, instead, is inherently linked to the rights over resources with an economic value. Being an owner of real assets (e.g., apartments, land, livestock) usually means being

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<sup>1</sup> We would like to thank Luigi Cannari for the suggestions provided on an earlier version of the paper. The opinions expressed in this paper are of the authors alone and do not necessarily represent the views of our institutions.

the holder of the full set of rights that can be defined over the good, as the right to use, to sell, to bequeath, to use as collateral, to make other use,<sup>2</sup> free of any encumbrances or deficiencies.<sup>3</sup>

However, there are cases in which different people (or economic entities) hold different rights on the same asset. From the economic point of view, all these cases can be included in the notion of wealth as well.

The most frequent case is the separation of the use rights from the bare ownership, as happens in the contract of usufruct. According to an old maxim of Roman law, "Usufruct is the right to use and enjoy the property of others while preserving the substance of the property". In practice, the usufructuary buys (or acquires in some way) from the bare owner the right to use the property for some time (usually as long as he or she lives). From an economic point of view, the full value of the property is shared between the two contractors.

The main aspects of usufruct, i.e. the temporary right to use an asset owned by someone else, are common across the legislations of many countries like France, Germany, the Netherlands, the United States, Canada, Brazil, South Africa, India, Mexico, and the Philippines.<sup>4</sup>

In Italy, the usufructuary can use the good, without altering its substance, and derive profit from that possession. If not explicitly stated differently in the contract, the usufructuary can also transfer the right to others (i.e. rent or make available to others the property, as long as he or she holds the right). The bare owner will hold again the full ownership only at the end of the defined period of time (or at the death of the usufructuary).<sup>5</sup>

In the Italian housing market, real estate agencies currently offer for sale the bare ownership of some houses, along with the usual sales of full-property houses. Most of the time, these houses are owned by elderly people who want to continue to live in their homes for all their life and try to monetize the value of the property when they are no longer alive. On the other hand, the buyer of bare ownership is often someone who wants to make a medium- or long-term investment (depending on the age of the seller), with some elements of riskiness due to the randomness of the event that will transfer to him the use rights of the house. The asking price for these homes is usually significantly lower than those for which full ownership is sold, and the difference is inversely linked to the age of the owner.

When the period of time of the contract refers to the life of the usufructuary, the valuation of the two parts is usually obtained through an actuarial formula that combines the full value of the property, an interest rate, and the life expectancy of the usufructuary. However, for fiscal purposes, in Italy an official table is currently published providing the shares of bare ownership and usufruct, according to the current legal interest rate and mortality tables. For example, in table A1 that refers to 2023, we derive that a 73–75-year-old owner could sell the bare ownership of a house for about 65 percent of its full value. The value that remains in the hands of the usufructuary (35 percent of its full

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<sup>2</sup> According to European SNA 2008, "The legal owner of entities such as goods and services, natural resources, financial assets and liabilities is the institutional unit entitled in law and sustainable under the law to claim the benefits associated with the entities" (EC and others, 2009, 3.21). The conceptualization of ownership as a bundle of rights is described in United Nations (2019).

<sup>3</sup> In practice, any legal system contains some limitations on the use of the assets held, for example, those concerning the possibility of building a house on owned land.

<sup>4</sup> Sometimes, and especially in low- and middle-income countries, the rights associated with ownership are not limited by private contracts but by law and social context. For example, in China, the property of urban land belongs to the state in a way similar to that described above for England, while that of rural land to collective entities (i.e. group of farmers). On the impact of incomplete property rights on informal housing prices, see also Cheng (2023).

<sup>5</sup> Romans use to mention "Usus, fructus, abusus" to describe the rights associated with ownership: the right to use the property (usus), the right to enjoy its fruits or benefits (fructus), and the right to abuse or dispose of it (abusus).



value) corresponds to the right to use that property until death.<sup>6</sup> This table changes periodically, according to some significant revisions of the two ingredients of the formula. For our analysis, for the sake of simplicity, we will resort to the values contained in these tables over time, which approximate the actuarial formula.

Taking account of use rights that derive from a contract of usufruct in the survey measurement of household wealth implies two different tasks: (1) If the interviewed household has the use rights (bought or received for free, it does not matter), the capital value of such rights should be considered together with other real assets. (2) If the household interviewed instead is granting the use rights to someone else, the value of such a right must be subtracted from the full value of the property, i.e., the valuation of the property must take into account the missing use rights.<sup>7</sup>

It is worth noting that in Italy usufruct is not the only form of right on someone's else property, although it is probably the most frequent. Similar to usufruct is the "right to inhabit", which typically arises by law when one spouse passes away and leaves behind a house of residence that was jointly owned or owned solely by the deceased spouse. In such a case the surviving spouse keeps the right to live in the house of residence lifetime, even if other heirs acquire a share of ownership. So as the usufructuary, the survivor spouse is responsible for the maintenance of the property and must pay associated expenses like taxes and utilities, while cannot make significant alterations to the property without permission. Contrary to usufruct, however, the right to inhabit is personal, and cannot be transferred or assigned to another individual.<sup>8 9</sup>

It is important to underline that the condition of a usufructuary is substantially different from that of a household that lives in a property offered by another household for free. Granting a property free of charge to someone else implies a current transfer that, by its own nature, can be stopped at any time, and thus has no certain value for the future. The absence of any right suggests excluding them from the notion of wealth.

### 3. The data

In this paper, we will use the data from the Bank of Italy's Survey of Household Income and Wealth (SHIW), conducted in Italy since the 1960s to gather information on household income, consumption, wealth, and various aspects of household economic behavior. It has been conducted yearly on a national two-stage sample of 4,000 households up to 1984; since 1986 it has been carried out every two years (with some exceptions) using a sample of 8,000 households (Bank of Italy, 2022; Baffigi et al., 2016).

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<sup>6</sup> A similar example of "split property" is provided by the "rule of 99 years" in England and Wales where purchasing a leasehold property means buying the right to live in and use the property for the duration of the lease only (typically 99 years). As the lease term decreases, also the value of the property tends to decrease.

<sup>7</sup> In cases in which the use rights of a property are obtained at the cost of a payment lower than that present value on the market (i.e. a subsidized rent), the present value of this difference could be considered as part of the household wealth as well. In practice, this can be the case only when the actual rent paid is largely lower than the market value and when the contract extends for a considerable period of time.

<sup>8</sup> Notwithstanding this difference, when in legal context it is needed to assign a value to this inherited right to inhabit, jurisprudence tends to use the same tables used for evaluating the usufruct.

<sup>9</sup> Further rights on someone's else property exist in the Italian legislation but are less frequent and conceptually less relevant for their impact in terms of household wealth. In the case of "enfiteusi", for example, the lessee (called the "enfiteuta") holds the right to use and enjoy the property (traditionally a plot of land) for an extended period, typically long-term, in exchange for certain obligations, usually payment of an annual fee or rent, or improvements of the property. This form is nowadays very rare and - due to the contextual obligations - does not significantly impact the wealth of the two subjects.

In the questionnaire, the information about the tenure of the house of residence, inclusive of the usufruct, has been collected regularly since 1989. The questionnaire also includes a different item devoted to the “free of charge” use of the house, that does not involve any right on the property and is thus excluded from our analysis. The right to inhabit is instead missing among the provided modalities; it is plausible that the respondents in that condition chose the option “free of charge” or the residual option “other”. This implies a presumable underestimation of the situations of use rights that include both cases.

The share of households living in usufruct does not show a strong trend over time; it is on average around 3.5 percent between 1989 and 1998, 2.7 percent between 2000 and 2008, and 3 percent between 2010 and 2020. The shares show limited variations across geographical areas, while a significant concentration of the phenomenon emerges in households whose head is older than 65 years, with an overall average of 5.6 percent (Table A2, top panel). In just under half of the cases, the bare owners of houses granted in usufruct are the children of the occupants; in one-third of the cases, the bare owners are the parents, while in most of the remaining cases they are other relatives. The share of bare owners outside the family circle is limited, around 8 percent (Table A3, top panel). Overall, this result demonstrates that the usufruct contract is predominantly used for managing family properties for tax and intergenerational transfer purposes. Conversely, its usage among unrelated parties to monetize real estate beyond one's own lifetime is relatively modest.

In contrast to usufruct, homes occupied rent-free are primarily inhabited by young families, and little more frequently located in the Center and the South and Islands than in the North (Table A2, bottom panel). In half of the cases, the owners of these houses are the parents, while the opposite relationship is observed more rarely (around 13 percent). On the whole, the family circle absorbs on average 85 percent of the cases of houses occupied for free (Table A3, bottom panel).

According to what was stated in the previous section, we will add to the wealth of the households the value of the use rights for those who live in usufruct only, while overlooking the houses occupied for free that do not provide the occupants any right. The value of the usufruct right depends on the age of the reference person and is estimated based on the shares provided in official tables used for the computation of taxes (see Table A1 for 2023).

On the other hand, while there is a large amount of data for every property held by households, the information on the specific destination of usufruct (i.e. granted to others in usufruct) is not always available in SHIW. In many surveys (1989, 1993, 1995, 1998, 2000, 2002) in the question about the use of the houses held, the item related to the “usufruct” is absent, and the cases are included in the “other” residual basket; in the 2020 questionnaire the term “usufruct” is explicitly recalled but only together to the “free of charge, from relatives and friends” that, as reminded earlier, does not imply rights and is thus a different condition. Thus, information on the properties granted in usufruct to someone else, useful for our analysis, is collected only in 1991 and from 2004 to 2016. The results reported in the next section will thus refer to these years only.

The share of such properties is small and quite irregular over time; on average it is equal to 0.9 percent of the residence houses for the four surveys up to 2008 and 0.8 percent for the four surveys from 2010 to 2016. The lower share found on this side, compared to that shown above for the usufructuary, could depend also on the fact that the usufruct is not necessarily a contract involving households on both sides; other entities (firms, banks, public institutions) could grant usufruct contracts. However, we have seen that many times it is a family matter. There is a likely effect of under-reporting behavior that affects the houses that are not used for residence (Cannari and D’Alessio, 1990 and 1993; Baffigi et al., 2016).

The value of the use rights on houses granted in usufruct must be subtracted from the wealth of the bare-owner households. However, in SHIW the information on the age of the usufructuary is

not available<sup>10</sup>; it is thus unknown which share of the full value of the property to apply. In order to obtain a tentative estimate of the value of the use rights to be subtracted from the full value of these properties, and then from the wealth of these households, we will resort to some imputations based on different hypotheses, to test the robustness of our results.

#### 4. Taking account of use rights in Italy

As recalled earlier, standard household wealth estimates do not include use rights. According to our approach, this implies an underestimate of the wealth for those households who live in usufruct and an overestimate for the households who grant usufruct rights to others. Some evidence on the need to assign a wealth value to the use rights based on SHIW data is provided in Appendix B.

Using data from SHIW we can estimate both cases in several waves (1991, and from 2004 to 2016). However, as explained before, information on the age of the usufructuary is available only when the interviewed household is the usufructuary and not when he is the bare owner. For such cases we have assumed (H1) that the usufructuary is 25 years older than the corresponding bare owner, being this the approximate age gap between fathers and sons. This situation approximately corresponds to that of a parent who transfers bare ownership to their child, retaining usufruct. A similar age gap could also be the case of an elderly person who, perhaps in the absence of heirs, sells bare ownership of the house of residence to ensure a more comfortable old age while retaining the right to live there for free.

As we have seen in the previous section, partial support for this hypothesis is offered by the interviewed usufructuaries that, when asked about the bare owners of the homes they occupy, most of the times indicate their children, with a share little below 50 percent (Table A3, top panel). However, in one-third of the cases the relationship is reversed, being the parents the bare owners and the children the usufructuaries and in a further 20 percent the age gap between bare owners and usufructuaries is totally unknown. This uncertainty suggests testing the robustness of the results by evaluating also two alternative assumptions: H2) the usufructuary is as old as the bare owner; H3) the usufructuary is 6 years older than the bare owners, being approximately 6 years the average gap between the sample age average estimates of usufructuaries and bare owners.

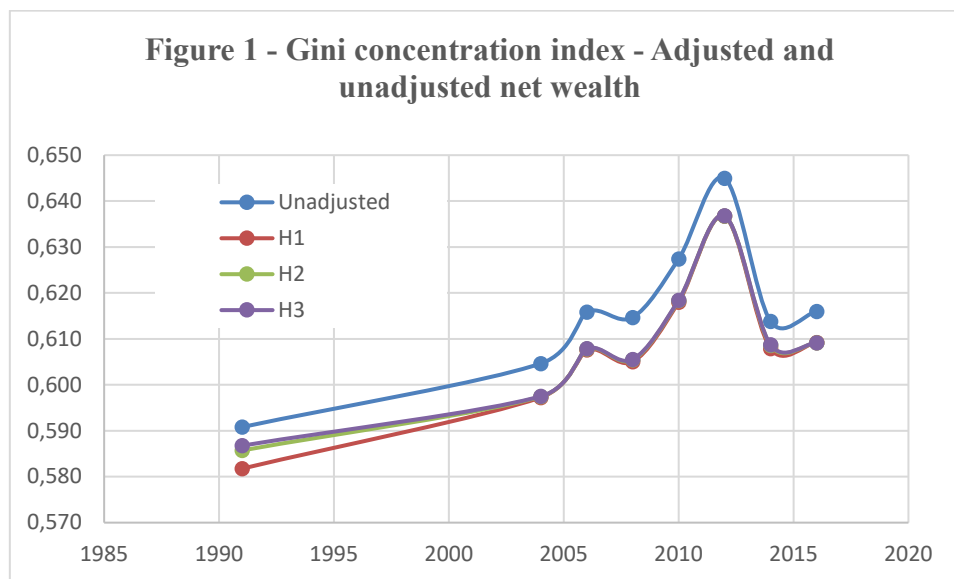
The results of the 3 hypotheses are shown in Table A4. The estimates of the net wealth adjusted for the use rights are almost always higher than the unadjusted ones; the increase of the net wealth values is, on average across the considered SHIW waves, between 0.9 (H1), 0.7 (H2) and 0.6 per cent (H3). The increase tends to characterize more frequently the households whose reference persons are less than 40 years old (from 1,9 to 1,6 percent on average across years, depending on the hypothesis done) and those residing in the South and in the Islands (from 1.3 to 1.2 percent). The higher impact on average wealth observed for the households with a younger reference person compared to the others is due to their higher life expectancy, which implies a higher value attributable to the observed use rights. This effect more than counterbalances the higher share of usufructuaries among the elderly.

In terms of concentration, the changes induced by the adjustments show a reduction of the Gini index of almost 1 percentage point (on average across the years approximately 0,008), regardless of the assumption made (Figure 1). This change seems attributable to a double effect. On the one side, the share of adjusted net wealth held by the richest 20 percent stably decreases compared to the unadjusted estimates (-0.43 and -0.13 percent on average for the top and the following tenth of household); on the other, the share of the third and fourth tenths of households (i.e. those from the 20<sup>th</sup> to the 40<sup>th</sup> percentile of the wealth distribution) increases in both cases of a quarter of a percentage point (Table A5). In sum, the phenomenon seems to favor more markedly usufructuary households

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<sup>10</sup> In future waves this information should be collected to allow a more precise estimate of this amount.

who belong predominantly to lower-middle wealth classes at the expense of the richest 20 percent, who grants the usufruct.



## 5. Free residential houses in HFCS data

The Household Finance and Consumption Survey (HFCS) is a comprehensive and harmonized survey conducted at the national level within the Eurozone. It aims to collect detailed data on household finances and consumption. The SHIW survey is the Italian part of the HFCS.

According to this source, the share of main residences used for free is a significant issue in several countries, including Austria, Croatia, Cyprus, Estonia, Greece, Poland, Portugal, Slovenia, and Spain, where the share of households is around 10 percent, close to or higher than in Italy (Table A6).

By examining the age of the reference person, we can gain evidence of the relative importance of this tenure mainly for the young and the old. In many countries (Austria, Cyprus, Czechia, Estonia, Germany, Hungary, Latvia, Poland, and the Slovak Republic), the age profile shows a U shape, and the shares of households whose reference person is below 30 years or above 65 years are the highest. In many other countries (Italy, Croatia, France, Greece, Lithuania, Portugal, Slovenia, and Spain) the share is generally decreasing with age.

Unfortunately, the harmonized survey's questionnaire collects information on the tenure status for the main residence, but it does not allow us to distinguish the forms that provide the occupants with a right to use the property (e.g., usufruct), that we have considered for the household wealth measurement, from other forms of free use (e.g. temporary use permit), that we have considered current transfers, and thus outside the wealth definition.

Still, in all countries, the share of free users is mainly concentrated in the bottom class of the wealth distribution (Table A7). It is thus presumable that even considering a small share of the households living for free in the main residence as holders of a right of use would significantly lower wealth inequality for these countries.

It is only a hypothesis. The lack of data prevents us from being more precise. The relevance of this aspect would suggest delving deeper into the issue, including questions in the questionnaires that can clarify whether the free use of these houses can be defined as a right held by occupants and

helps to define their value by clarifying whether the occupation is subject to uncertainty and whether it is short or long term.

## **6. Conclusions**

The paper addresses the theme of the inclusion of use rights held in the form of usufruct in household wealth sample estimates. After recalling the theoretical appropriateness of correcting traditional estimates for this component, the paper presents an application to the Italian case. Using SHIW data shows that, although the phenomenon of usufruct is relatively uncommon (around 3 percent of households), the distribution of wealth is significantly affected by such an adjustment. Younger households appear to be relatively slightly wealthier than in unadjusted estimates. Overall, adjusted estimates exhibit levels of the Gini concentration index that are lower than unadjusted ones by approximately 1 percentage point.

The estimates do not take account of a different form of use right, namely the right to inhabit, which typically arises when one spouse passes away and leaves behind a residential home that was jointly owned or owned solely by the deceased spouse. On the one hand, SHIW data do not provide information about this condition; on the other, the right to inhabit is personal and cannot be transferred or assigned to another individual; in the absence of a market, the monetary evaluation of this right can be more complex. In any case, this additional element should also be considered in the measurement of household wealth.

We also conducted a brief analysis of residential homes occupied free of charge by households in European countries whose data are included in the HFCS. In several countries, residential homes occupied for free are relatively widespread, with shares similar to that found in Italy. However, the lack of data does not allow us to identify those cases in which the occupation takes place on the basis of a right of use which justifies its inclusion in households' wealth. An initial tentative evaluation shows that the effects of such an adjustment could lead to a significant reduction in wealth inequality.

These results also suggest that the replication of the analysis in countries where the phenomenon of use rights separated from bare ownership is more widespread than in Italy could produce a much greater impact on wealth estimates.

## Appendix A: statistical tables

**Table A1 - Fiscal value of the usufruct and of the bare property,  
depending on the age of the usufructuary, Italy, 2023**  
*(percentages)*

Age of the usufructuary	Share of the value of the usufruct	Share of the value of the bare property
From 0 to 20 years	95	5
From 21 to 30 years	90	10
From 31 to 40 years	85	15
From 41 to 45 years	80	20
From 46 to 50 years	75	25
From 51 to 53 years	70	30
From 54 to 56 years	65	35
From 57 to 60 years	60	40
From 61 to 63 years	55	45
From 64 to 66 years	50	50
From 67 to 69 years	45	55
From 70 to 72 years	40	60
From 73 to 75 years	35	65
From 76 to 78 years	30	70
From 79 to 82 years	25	75
From 83 to 86 years	20	80
From 87 to 92 years	15	85
From 93 to 99 years	10	90
More than 99 years	-	-

Source: decree of the Italian Ministry of Economy and Finance of 13 December 2022, published in the Official Gazette no. 292 of 15 December 2022.

**Table A2 – Share of households living in usufruct or free of charge in Italy, 1989-2020**  
(percentages)

Period	Age of the reference person (*)				Geographical area			Total
	Up to 40 years	41-50 years	51-65 years	More than 65 years	North	Center	South and Islands	
1989 -1998 2000-2008 2010-2020 Total  1989 -1998 2000-2008 2010-2020 Total	Usufruct							
	2.8	1.4	2.0	7.5	3.6	4.1	3.0	3.5
	2.1	2.2	1.5	4.6	3.2	1.9	2.6	2.7
	3.1	2.1	1.4	4.7	3.2	2.0	3.2	3.0
	2.7	1.9	1.6	5.6	3.3	2.7	2.9	3.1
	Free of charge							
	11.9	4.9	2.8	6.8	6.2	7.7	7.7	7.0
	11.6	8.8	3.9	5.1	6.1	8.4	8.4	7.3
	12.1	10.3	5.4	4.4	5.6	8.1	9.7	7.5
	11.8	8.0	4.0	5.5	6.0	8.1	8.6	7.2

Source: Our elaboration on SHIW data.

(\*) The reference person is defined as the member with the highest income.

**Table A3 – Ownership of houses occupied in usufruct or free of charge in Italy, 2002-2016**  
(percentages)

Period	Parents	Sons or Daughters	Other relatives	Other households	Other	Total
Usufruct						
<b>2002-2008</b>	31.5	46.2	14.4	3.0	5.0	100.0
<b>2010-2016</b>	33.3	45.9	12.4	2.4	6.1	100.0
<b>Total</b>	32.4	46.0	13.4	2.7	5.5	100.0
Free of charge						
<b>2002-2008</b>	51.4	13.1	17.2	10.1	2.3	100.0
<b>2010-2016</b>	48.2	12.7	16.3	13.9	2.7	100.0
<b>Total</b>	49.8	12.9	16.8	12.0	2.5	100.0

Source: Our elaboration on SHIW data. Data for 2020 and before than 2000 are missing.

**Table A4 – Net wealth estimates adjusted for the use rights, Italy, 1991-2016**  
(euros, percentages)

Year		Unadjusted Net wealth	Use rights held	Use right granted			Adjusted net wealth			Adjusted /Unadjusted net wealth (percentages)		
				(H1)	(H2)	(H3)	H1	H2	H3	H1	H2	H3
1991	Age (years)											
	Up to 40	80961	2565	2071	2777	2880	81455	80749	80646	0.6	-0.3	-0.4
	41-50	112265	653	1287	2276	2536	111631	110642	110382	-0.6	-1.4	-1.7
	51-65	114989	1074	556	1295	1536	115507	114768	114527	0.5	-0.2	-0.4
	> 65	70387	1536	254	655	882	71669	71268	71041	1.8	1.3	0.9
	Area											
	North	102378	1598	1763	2742	3013	102213	101234	100963	-0.2	-1.1	-1.4
	Center	103079	2151	1020	1947	2241	104210	103283	102989	1.1	0.2	-0.1
	South and Islands	73236	1174	207	348	377	74203	74062	74032	1.3	1.1	1.1
	Total	93136	1573	1112	1811	2009	93597	92898	92700	0.5	-0.3	-0.5
2004	Age (years)											
	Up to 40	151672	2888	900	1253	1329	153660	153307	153232	1.3	1.1	1.0
	41-50	217571	3430	401	678	731	220600	220323	220270	1.4	1.3	1.2
	51-65	262622	1167	232	498	583	263557	263291	263206	0.4	0.3	0.2
	> 65	179223	1650	66	159	210	180807	180714	180663	0.9	0.8	0.8
	Area											
	North	224372	2923	673	1045	1144	226622	226250	226151	1.0	0.8	0.8
	Center	237504	1714	130	241	268	239088	238977	238950	0.7	0.6	0.6
	South and Islands	137741	1495	161	290	334	139075	138946	138902	1.0	0.9	0.8
	Total	199296	2221	399	641	707	201118	200876	200809	0.9	0.8	0.8
2006	Age (years)											
	Up to 40	172303	4916	300	455	479	176919	176764	176740	2.7	2.6	2.6
	41-50	256683	3106	456	776	833	259333	259013	258957	1.0	0.9	0.9
	51-65	287880	1032	132	336	407	288780	288576	288505	0.3	0.2	0.2
	> 65	233701	2152	23	70	93	235830	235783	235760	0.9	0.9	0.9
	Area											
	North	256976	3231	390	700	776	259817	259507	259431	1.1	1.0	1.0
	Center	315868	2466	82	151	169	318252	318183	318165	0.8	0.7	0.7
	South and Islands	150865	2380	14	27	32	153231	153218	153213	1.6	1.6	1.6
	Total	234970	2809	210	377	419	237569	237402	237360	1.1	1.0	1.0
2008	Age (years)											
	Up to 40	167703	4479	565	814	870	171617	171368	171311	2.3	2.2	2.2
	41-50	234541	6269	407	754	850	240403	240056	239960	2.5	2.4	2.3
	51-65	332080	1342	226	615	737	333196	332807	332684	0.3	0.2	0.2
	> 65	244338	1994	10	35	48	246322	246297	246283	0.8	0.8	0.8
	Area											
	North	269625	3591	501	911	1025	272715	272305	272190	1.1	1.0	1.0
	Center	288448	3677	152	273	312	291973	291852	291813	1.2	1.2	1.2
	South and Islands	173508	2780	39	79	93	176249	176209	176195	1.6	1.6	1.5
	Total	243671	3357	285	520	588	246743	246508	246440	1.3	1.2	1.1
2010	Age (years)											
	Up to 40	154895	6583	613	905	990	160865	160573	160488	3.9	3.7	3.6
	41-50	248150	5717	875	1524	1689	252992	252343	252179	2.0	1.7	1.6
	51-65	359559	1312	210	489	581	360661	360382	360290	0.3	0.2	0.2
	> 65	267976	1653	83	199	276	269546	269430	269353	0.6	0.5	0.5
	Area											
	North	284916	6186	421	758	873	290681	290344	290229	2.0	1.9	1.9
	Center	329996	1138	666	1156	1310	330468	329978	329823	0.1	0.0	-0.1
	South and Islands	174466	1293	241	406	454	175518	175353	175304	0.6	0.5	0.5
	Total	258548	3635	412	724	825	261771	261459	261357	1.2	1.1	1.1
2012	Age (years)											
	Up to 40	136367	3866	1525	2305	2448	138708	137928	137785	1.7	1.1	1.0
	41-50	232228	3549	2246	3934	4328	233531	231843	231449	0.6	-0.2	-0.3
	51-65	321248	1939	528	1194	1410	322659	321993	321777	0.4	0.2	0.2
	> 65	257177	2037	166	358	461	259048	258856	258754	0.7	0.7	0.6
	Area											
	North	257913	3359	1048	1921	2158	260224	259351	259114	0.9	0.6	0.5
	Center	287372	1130	2246	3742	4122	286256	284760	284380	-0.4	-0.9	-1.0
	South and Islands	190191	2725	193	350	395	192723	192566	192521	1.3	1.2	1.2
	Total	241640	2734	999	1758	1960	243375	242616	242414	0.7	0.4	0.3
2014	Age (years)											
	Up to 40	133282	2226	1043	1529	1621	134465	133979	133887	0.9	0.5	0.5
	41-50	201899	2024	324	574	639	203599	203349	203284	0.8	0.7	0.7
	51-65	279882	1167	331	750	887	280718	280299	280162	0.3	0.1	0.1
	> 65	227257	1926	23	49	62	229160	229134	229120	0.8	0.8	0.8



Year	Area	Unadjusted Net wealth	Use rights held	Use right granted			Adjusted net wealth			Adjusted /Unadjusted net wealth (percentages)		
				(H1)	(H2)	(H3)	H1	H2	H3	H1	H2	H3
2016	Area											
	North	250978	2086	346	648	734	252718	252416	252330	0.7	0.6	0.5
	Center	243844	1098	979	1578	1731	243963	243364	243211	0.0	-0.2	-0.3
	South and Islands											
	Total	152412	1828	18	30	32	154222	154210	154208	1.2	1.2	1.2
		217574	1803	367	635	707	219010	218742	218670	0.7	0.5	0.5
	Age (years)											
	Up to 40	108612	2384	39	56	56	110957	110940	110940	2.2	2.1	2.1
	41-50	186292	1198	0	0	0	187490	187490	187490	0.6	0.6	0.6
	51-65	256688	1220	374	816	965	257092	257092	256943	0.3	0.2	0.1
	> 65	231667	1972	23	65	87	233616	233574	233552	0.8	0.8	0.8
	Area											
	North	239417	1443	234	509	604	240626	240351	240257	0.5	0.4	0.4
	Center	231262	1486	19	40	47	232729	232708	232701	0.6	0.6	0.6
	South and Islands											
	Total	141700	2154	6	17	21	143848	143837	143833	1.5	1.5	1.5
		206422	1680	117	255	303	207985	207847	207799	0.8	0.7	0.7

Source: Our elaboration on SHIW data.

(\*) The reference person is defined as the member with the highest income.

**Table A5 – Differences between adjusted and unadjusted\* net wealth shares held by tenth of households, Italy, 1991-2016**  
(percentages)

Tenth of households	1991	2004	2006	2008	2010	2012	2014	2016	Average
1	0.02	0.01	0.06	-0.04	0.02	-0.03	-0.04	0.05	0.01
2	-0.27	0.05	-0.03	0.08	-0.01	0.06	0.01	-0.03	-0.02
3	0.27	0.21	0.24	0.31	0.22	0.23	0.21	0.26	0.24
4	0.29	0.16	0.26	0.28	0.32	0.29	0.25	0.21	0.26
5	0.15	0.09	0.11	0.12	0.19	0.11	0.08	0.06	0.11
6	0.08	0.06	0.04	0.04	0.04	0.05	-0.01	0.01	0.04
7	0.01	0.02	0.00	-0.04	-0.01	-0.01	-0.06	-0.03	-0.02
8	-0.04	-0.03	-0.06	-0.09	-0.04	-0.06	-0.09	-0.06	-0.06
9	-0.13	-0.15	-0.14	-0.14	-0.13	-0.16	-0.10	-0.11	-0.13
10	-0.38	-0.42	-0.47	-0.52	-0.59	-0.47	-0.24	-0.37	-0.43

Source: Our elaboration on SHIW data.

\* Adjusted estimates = average of H1, H2, H3.

**Table A6 – Share of households living in usufruct or free of charge in European countries**  
(percentages)

Country	2014	2017	2021	Age class * (average across years)			
				Up to 40 years	41-50 years	51-65 years	More than 65 years
<b>Austria</b>	7.0	7.2	7.4	6.8	2.0	2.7	15.3
<b>Belgium</b>	3.1	2.3	2.3	1.2	2.8	1.0	5.0
<b>Cyprus</b>	17.7	19.0	18.8	18.6	6.3	12.3	39.2
<b>Czechia</b>	-	-	5.3	7.9	3.1	1.5	8.7
<b>Germany</b>	4.5	4.0	3.9	4.0	2.5	2.0	7.6
<b>Estonia</b>	12.7	13.0	11.1	14.8	7.6	9.4	15.4
<b>Spain</b>	7.9	7.7	7.1	11.9	7.2	5.3	7.1
<b>Finland</b>	1.1	1.3	1.0	1.3	0.4	0.8	1.8
<b>France</b>	2.8	2.8	3.2	4.0	3.2	2.3	2.4
<b>Greece</b>	6.5	7.7	7.0	12.6	7.0	4.4	5.8
<b>Croatia</b>	-	9.2	12.9	21.4	14.3	7.2	5.7
<b>Hungary</b>	6.5	5.1	4.8	8.3	3.6	3.4	6.6
<b>Ireland</b>	1.2	1.8	1.9	1.6	-	-	-
<b>Italy</b>	11.1	11.1	8.1	16.5	11.6	6.7	9.1
<b>Lithuania</b>	-	4.2	3.0	5.0	3.9	3.3	2.5
<b>Luxembourg</b>	5.2	2.8	2.9	5.7	1.7	2.9	3.3
<b>Latvia</b>	7.6	8.8	5.4	10.2	3.3	4.0	10.9
<b>Malta</b>	2.5	2.3	5.5	3.6	-	-	-
<b>Netherlands</b>	0.8	0.7	0.4	1.0	1.0	0.1	0.5
<b>Poland</b>	13.2	12.4	-	14.7	10.4	10.5	15.7
<b>Portugal</b>	7.3	7.7	7.7	10.5	8.1	5.9	6.8
<b>Slovenia</b>	14.2	13.8	13.3	30.3	12.5	7.0	11.2
<b>Slovak Republic</b>	4.4	5.9	4.3	6.7	3.1	2.4	8.2
<b>Total</b>	6.3	6.2	5.0	7.1	5.6	3.9	6.9

Source: Our elaboration on HFCS data.

\* Age of the reference person, defined according to the UN/Canberra definition.

**Table A7 – Share of households living in usufruct or free of charge in European countries by wealth quintiles (average values in the period 2014-2021)**  
(percentages)

Country	Household net wealth quintiles				
	First	Second	Third	Fourth	Fifth
<b>Austria</b>	9.8	15.7	7.6	1.9	1.0
<b>Belgium</b>	4.8	4.1	1.3	1.3	1.2
<b>Cyprus</b>	63.9	15.1	5.3	4.3	3.6
<b>Czechia</b>	19.5	5.0	0.6	0.9	0.2
<b>Germany</b>	5.2	6.8	6.5	1.2	1.0
<b>Estonia</b>	41.6	10.1	4.5	2.6	2.4
<b>Spain</b>	25.2	6.8	2.3	1.7	1.8
<b>Finland</b>	2.1	2.5	0.5	0.4	0.2
<b>France</b>	4.9	5.7	1.8	1.5	0.8
<b>Greece</b>	23.8	6.8	2.0	1.5	1.1
<b>Croatia</b>	46.4	6.2	0.9	0.7	0.8
<b>Hungary</b>	19.7	3.3	2.0	1.2	0.9
<b>Ireland</b>	3.4	3.9	0.4	0.3	0.2
<b>Italy</b>	29.3	15.5	2.7	1.5	1.5
<b>Lithuania</b>	15.6	0.9	0.7	0.2	0.4
<b>Luxembourg</b>	8.5	5.8	1.7	0.6	1.0
<b>Latvia</b>	24.1	7.2	2.9	1.0	0.6
<b>Malta</b>	15.3	1.7	0.8	0.1	0.1
<b>Netherlands</b>	1.4	1.1	0.2	0.1	0.2
<b>Poland</b>	53.2	5.1	3.1	1.7	0.9
<b>Portugal</b>	22.6	9.2	2.5	2.0	1.6
<b>Slovenia</b>	50.1	10.9	3.0	2.9	1.8
<b>Slovak Republic</b>	21.0	1.2	1.1	0.5	0.4
<b>Total</b>	16.0	7.5	3.3	1.4	1.1

Source: Our elaboration on HFCS data.

## Appendix B: SHIW empirical evidence on the value of use rights

In sections 3 and 4, we have examined the theoretical reasons why use rights associated with usufruct should be quantified and included in the net wealth of the households benefiting from them (and subtracted from that of the bare owners). We have also recalled that in Italy, as in many other countries, the use rights of houses are valued on the market, although this market is sometimes of a limited extent, and we have shown some possible estimation strategies using survey data.

In this Appendix, we will attempt to provide some empirical evidence of the appropriateness of this line of reasoning based on the data collected in the SHIW. We have considered a model in which the subjective judgment on the household's economic well-being is explained by the economic resources in terms of household income and wealth, controlling for a set of socio-demographic conditions (year, number of components, geographical area, municipality size, gender, age, education, and civil status of the adult with the higher income).

In the first experiment, wealth is measured without considering the value of use rights. To assess whether usufruct affects the perceived economic well-being, two dummy variables were introduced in the model, indicating whether the household is a usufructuary or a bare owner. According to the thesis advocated in this study, the coefficient of these dummies should be significantly different from zero, with a positive sign in the first case, and a negative in the second.

The analysis is conducted using an ordinal probit model, as the dependent variable has an ordinal nature. To avoid the potentially adverse effects of outliers often present in income and wealth distributions, both variables were subjected to the inverse hyperbolic sine (IHS) transformation, which is similar to the logarithmic transformation but allows for the treatment of negative values as well (Friedline et al., 2015).<sup>11</sup>

The results show that, conditionally to all the socio-demographic conditions considered in the model and to household income and wealth (that have both – obviously – a positive effect on subjective economic well-being), the dummy variable indicating the usufructuary condition has a positive and significant coefficient, suggesting a residual content in terms of the well-being of this condition, not captured by the two variables reporting the economic resources (Table B1; Model 1).<sup>12</sup> The coefficient of the dummy indicating the bare ownership, instead, is slightly negative but insignificant. This result could depend on the low frequency of bare owners caught by the SHIW, also due to the limited attention paid to this phenomenon in the questionnaire.<sup>13</sup>

In the second experiment, we used the same model with the only difference that household wealth is adjusted for the value of the use rights, i.e., obtained adding and subtracting respectively the estimated value of the usufruct. In such a model the coefficients of both the dummy variables become not significantly different from zero (Table B1; Model 2), suggesting that the adjustments done have caught the essence of well-being incorporated in those ownership conditions.

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<sup>11</sup> In a limited number of households, net wealth is negative, with debts being greater than assets. In some cases, income can also be negative, mainly due to the presence of business costs greater than the corresponding revenues.

<sup>12</sup> It is worth noting that, analogously to the properties held, the houses occupied in usufruct contribute to the household income with imputed rents provided by the respondents themselves. Thus, the dummy in the model captures a benefit that goes beyond the value of the current occupation of the house free of charge.

<sup>13</sup> The filter question defining the list of properties included in the roster refers to those “held”, without any specific reference to bare ownership. This ambiguity could have emphasized the general tendency of households to under-report the properties owned.

**Table B1 – Perceived economic well-being explained by income, wealth, and usufruct conditions, 1991 and 2004-2016**

	<b>Model 1</b>		<b>Model 2</b>	
<b>Variable</b>	<b>Parameter</b>	<b>p-value</b>	<b>Parameter</b>	<b>p-value</b>
<b>Income</b>	0.6138	<.0001	0.6150	<.0001
<b>Wealth</b>	0.0564	<.0001	-	-
<b>Adjusted wealth *</b>	-	-	0.0563	<.0001
<b>Usufructuary</b>	0.1549	<.0001	-0.0279	0.2978
<b>Bare owner</b>	-0.0043	0.9421	0.0624	0.2860

Model = Cumulative probit regression.

Dependent variable = Subjective economic well-being: “Is your household’s income sufficient to see you through to the end of the month? 1 with great difficulty – 2 with difficulty - 3 with some difficulty – 4 - fairly easily – 5 easily – 6 very easily.

Sample size = 55,435 observations in 1991 and from 2004 to 2016.

Further variables included in the model: Year, Number of components (linear and squared), Geographical Area, Municipality size (inhabitants), Gender, Age, Education, and Civil status of the adult with the higher income.

\* Adjusted estimates based on H1 assumption (i.e. usufructuary age = respondent age + 25; see the text).

Source: Our elaboration on SHIW data.

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