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Financialization of Real Estate Assets: A Comprehensive Approach to Investment Portfolios through a Gender-Based Study

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Abstract: Financialization is a process within the global economy wherein financial markets have been gaining ground in recent years. And yet, whether it has a beneficial or detrimental impact is almost totally unstudied, notably in terms of market effects on the real estate sector. To probe more deeply into such a research issue, this study addresses how real estate's financialization impacts asset distribution by analyzing investment attitudes based on verifiable data from the Spanish wealth tax return. Despite scarce previous literature in the field, the study focused on the gender aspect to highlight the importance of investment decisions concerning risk aversion and related issues through the empirical analysis of the investment portfolios of those taxpayers subject to wealth tax statements. The findings identified show that financialization can lead to the conversion of property assets into stock-related movable assets, and from more to less imbalance, respectively, in terms of the gender gap. The results obtained show a significant gendered difference concerning investment stocks, being thus out of alignment with the gender equity traditionally promoted by the Spanish government. This suggests that although most investment portfolios of real estate properties are based strictly on criteria of profitability, female investors need to be empowered because they could provide a better approach to an economic issue wherein aversion to risk can become a proper criterion of private investors, even when there are sudden macroeconomic changes.

Keywords: financialization; real estate; wealth tax; assets; gender gap; investment portfolios



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1. Introduction

In recent years, social and political pressures have grown to study the practical relevance of gender in many aspects of financial decisions, particularly in aspects relating to financialization. The weight of insurance finance and real estate in the global economy has continuously increased over the last half-century. In the case of the United States, for instance, this has been recognized as a key factor in its domestic economy (from around 12% to over 20%), to which the indebtedness of families and states have been linked since the Great Recession [1]. This socioeconomic process has led to many people being considered capitalists according to their financial investments [2], and whose financialization apparently seems to not discriminate but favors all segments of the population regardless of gender, race, or even membership in certain groups. That being so, and notwithstanding the fact that trading volume due to the financialization process has been steadily increasing, some adverse effects in the form of contraction of the labor and housing market were noted over the past years, thus generating economic uncertainty [2].

The financialization of housing has also turned a fundamental asset structuring society into a type of liquid financial asset. It has also been highlighted how this process hurts the housing market, promoting inequality in wealth, financial economic instability, and

gentrification [3]. This has led to the expulsion of lower-income citizens to peripheral areas due to increased living costs in gentrified areas. At the same time, jobs in the administrative and financial areas present higher salaries that are not equally distributed due to racial and gender-based causes of discrimination [4]. Nowadays, it is reasonable to assume that an increase in the financial weight of the economy leads to greater inequality. Although [5] shows a reverse evolution of the financialization process following the 2008 crisis, the transnational financial market models were subsequently stabilized again until the next worldwide economic shock due to the Coronavirus Disease 2019 (hereafter, COVID-19). For instance, the case of the United Kingdom (UK) shows a similar trend, since crisis processes generate investment opportunities for investors, earning them, thus, high incomes as the economy returns to growth [6]. Financialization turns real estate into liquid assets, thereby increasing its leverage and adding volatility to the real estate market [7]. In that sense, there is scientific concern about the impact of financialization on rising asset values, advancing returns, and the facilitation of business models that may not be sustainable through accounting tools [8].

The combination of inadequate spatial planning and poor housing policy is another factor underpinning gentrification. The decisions of institutional actors concerning housing policy play a key role in urban development. According to some earlier works, such as those concerning the cities of Toronto [9], Ottawa [3], and Atlanta [10], market liberalization and the entry of 'financialized landlords' causes gentrification trends through combinations of urban improvement and maximization of rents from tenants towards real estate owners. These processes lead to the decline in long-term residence in favor of investment models of greater profitability linked to short-term stays such as tourism. It has also continued to increase over decades since the 2018 housing crisis [11] and, therefore, directly affects public strategies concerning policymaking in the real estate market. In that sense, these investment opportunities have been analyzed by [10] in terms of the population change they entail, which increases the number of evictions, and market prices, in addition to replacing lower-income residents with new higher-income residents in a process of gentrification. However, financialization has not only been observed in models of gentrification of central urban areas, but shows other models, such as the one followed in Atlanta for the development of peripheral neighborhoods under the ownership of a 'Real Estate Investment Trust' (REIT) for housing based on the 'Single-Family Rental' (SFR) [12]. The growth of REITs has caused real estate to become another type of liquid asset that can be invested in similarly to other financial assets [6]. Moreover, the so-called 'Financialization of Real Estate' (FoRE) through the REITs has been duly discussed in earlier works by examining its financial features according to different geographical conditions, in addition to analyzing how the concentration of investments in sensitive city environments may generate an increase in the value of available land, mainly in metropolitan areas. This is the case, for example, with the financialization of real estate in Japan [13]. Furthermore, Ref. [14] argues that the financialization of real estate is shown to be a mechanism for extracting value from urban environments and transferring it to global financial markets. Although support for the development of REITs has aimed to improve the real estate stock, results have not always been properly aligned. For instance, Ref. [15] shows how the objective of increasing the supply of professional rental housing on the Costa del Sol in Spain has not been met and has been replaced by promotion for sales. In this sense, the case of the city of Dublin from [14] appears as a reference example in the existing literature on the research matter, since Irish REITs were able to take advantage of the international financial crisis to acquire real estate assets during a discount and subsequently invest in refurbishment, thus generating higher rents and returns on capital. Nevertheless, various socioeconomic factors can explain why there is increased interest from market players in them becoming a global financial challenge beyond the local and national levels. The experience of the greater Paris region is a good illustration of this since the real estate sector's shake-up from the REITs' introduction has reconfigured the French urban property sector [16]. Indeed, dynamic changes in this direction seem to be multiplying the takeover of social policy by financialization [17].

Another implication of the financialization approach applied to real estate is that, unlike the aforementioned socioeconomic aspects, policymaking mostly results from a lack of appropriate measures on financial grounds relating to investment behavior. Ref. [18] shows how current financial markets have developed through a combination of public and private forces. It highlights the role of the state in the financialization process, which ranges from the construction process to the connection of international capital markets with the domestic real estate sector. At the same time, Ref. [19] argues that so-called neoliberal policies cause job instability, with the understanding that they present an investment and regulatory model with workers as a replaceable commodity, where, in addition, women and minorities are subject to greater pressure on wages. Faced with this trend of financialization that entails an increase in incomes towards the profitability of capital, social responses are proposed that mobilize the population to fight against financialized gentrification [20]. Elsewhere, and on another level, the impact of capital inflows in the real estate sector can lead to price escalation that puts non-farm industries at risk. This has been observed in some research analyzing some Asian areas, such as Japan and Hong Kong [21]. The financialization process puts pressure on national institutions to make it easier for new assets to become part of the financial markets, thus evolving from direct ownership of real estate to ownership [22]. In the face of this financialization, the adoption of fiscal policies to promote financialization has been regarded as a cause of the redistribution of income into real estate, in particular those tax policies subject to generalized accounting and calculation criteria. Finance has traditionally looked for a return on its investment, going mainly into those sectors with an advantage in the relationship between profitability, risk, and liquidity. In this sense, the policy has been presented in some cases as one of the greatest facilitators of, and in some cases as limiting, financial opportunities. An example of this is the project granted by the city of Chicago until 2007 [23] that attracted large capital flows towards investment in the local real estate sector. Policymakers have traditionally worked in different lines to favor the financialization and development of REITs, whose application includes direct regulations of the participation of REITs in real estate development and the consideration of partners for urbanism [16]. Furthermore, it should be noted that the effect of financialization on the role of women has not only been of concern from the point of view of fiscal and income policies, but has also been studied from the point of view of monetary policy [24]; thus, the impact of credit and financing changes on the services offered to specific groups in society has been analyzed.

The empowerment of women as a central role in investors' financial decision-making process has not traditionally been subjected to a complete impact assessment in the real estate sector, particularly regarding those issues concerning risk in financial instruments. Nevertheless, some earlier studies have focused on the role of microcredit as a facilitator for the access of women into the financial world at the international level [25]. That forms the underpinning of the financialization promoted from international markets, thus leading to, against all odds, high levels of profitability with low levels of financing constraints. In this issue, particularly impressive are two features. On the one hand, women's access to these microcredits presents different success stories for people in very disparate conditions [26]. This has resulted in a limited but sufficient funding tool for basic needs and in some way promotes financial education. On the other hand, the introduction of microfinance in low-purchasing-power countries might give rise to difficulties in promoting female empowerment. This is particularly the case for some women living in Pakistan's two most famous cities, either Lahore or Karachi, whose few possessions, usually linked to social status (gold, and precious stones), are jeopardized to pay the debts contracted [27]. The entry of women into financial markets has also been studied concerning the sending of remittances by migrants to their families living in countries with lower per capita incomes. This impacts the price level in the domestic market, thus favoring microcredits for financing investments [28]. Nonetheless, that denotes the lack of female power within the political agendas oriented towards wealth generation [29]. Hence, the search for investment profitability also leads to new forms of investment in real estate assets through

a process of real estate financialization. These assets are not only characterized by low risk but also by low liquidity. The research question raised here is whether female and male investors have similar behaviors regarding the distribution of investments, in addition to identifying aspects of investment decision-making in the burden of real estate and equities in investment portfolios. From here also arises the question of whether specific policies promoting particular investment conditions for real estate have a favorable effect on gender equality, or rather on economic growth beyond immediate political expediency in social terms.

2. A Framework for Considering the Housing Companies and Real Estate Owners

2.1. Gender-Related Factors Concerning Investments in the Real Estate Market

Risk aversion comprises three considerations. Firstly, it is closely linked to investor behavior and even heightened by gender aspects. The concern for the accumulation of wealth is not only aimed at preparing better conditions for retirement [30], but also at the ability to pass on a legacy to heirs. In this sense, the existence of differences regarding risk-taking may be found in the differences relating to investment decisions between men and women [31], and, therefore, in the spread of profitability and increase in wealth on both sides. Secondly, although risk-averse differences within the family had previously been discussed by some authors, such as [32,33], the issue has been little studied in the context of real estate investments concerning either the residential market or commercial property market, so the scale of its impact on the various national economies is not yet known with any certainty. Thirdly, and finally, the role of women in terms of investor profiles tends to lead to lower-risk investments, particularly in the case of short-term decisions made as part of a personal management strategy resulting from retirement savings, as shown from [34,35].

Differences in risk aversion between men and women have long been a concern in the scientific community. Elements such as education, income, employment, or discrimination have traditionally been considered grounds for differences in investment decisions between men and women [36]. At the same time, there is debate as to whether the differences are also due to biological reasons [37]. What appears to be a broad consensus is found regarding differences in risk-taking in decision-making between single and married persons [34]. In the 1990s, gender differences in investment between men and women had been stated by highlighting the importance of discrimination and choice in investment decision-making [36]. The matter was analyzed by [30] to show significant differences in the capacity to take losses between men and women, as women were less inclined to make investments in which there is a high probability of loss of the principal. Their analysis was supplemented by considerations of differences in age, income, or investment in different retirement plans. These results are analogous to those obtained by later authors, such as [38], where a higher level of optimism of men than women was evidenced in the performance of financial markets, which translates into higher-risk investments. It should also be noted that there are differences related to investment according to the source of income between men and women. Thus, females' incomes are lower, but arrive more frequently, while those of males may present high volumes but greater irregularity [39,40].

A further risk factor affecting investment behavior is related to the insufficient knowledge base for adequately addressing profitable investments. The population from low-educated segments is unlikely to find investable assets properly and, hence, is less likely to make risky investments [31]. Although there are differences in financial knowledge between men and women [41], these can be reduced through education. However, the difference in risk aversion behavior continues to have a negative bias for women, even those belonging to highly educated groups with financial knowledge. Furthermore, gender differences have been observed not only concerning skills and expertise in asset investments but also in guiding financial-market expectations. Typically, male investors have a more optimistic view of the global economy. This may be partly due to the fact that female

investors have more economic pessimism concerning widespread increases in consumer prices.

Regarding the literature review, as can be seen in Table 1, the financialization of the economy has not been sufficiently studied in terms of gender equity. While the process has been a progressive one, previous research has proven that women are less linked to financial markets in comparison with men. The topic has led to scarce but rich literature, which is not exempt from some debate about risk investments.

Table 1. References summary table according to topics from the research issue.

Related Issues	Related Bibliography
Financialization: General	[5,6,11,15,17,42]
Financialization: Real Estate	[2,3,8,10,31]
Financialization: Examples	[3,9,22,23,31,37,43]
Financialization: REITs	[6,12,13,23,31,44,45]
Financialization: Policies	[2,14,18,19,23,29,46–48]
Gentrification	[3,9,10,22]
Innovation, Entrepreneurship, and Gender	[21,49]
Gender Investment Differences	[4,34,36,39,50–52]
Risk Aversion Gender Differences	[7,30,36,38,41,52,53]
Knowledge about Financial Markets	[1,7,16,41,50,54]
Investment Performance	[50,51,55]
Women and Financial Markets	[24–26,28,30,55,56]

Source: own compilation.

2.2. Legal Background on Housing Financialization in Spain

Although the fiscal policy of the European Union (EU) is geared towards the proper functioning of its single market, fiscal sovereignty is in the hands of its member states. So far, fiscal actions at the EU level have been limited to a slight harmonization of indirect taxes, and practically non-existent in the field of direct taxes. Nevertheless, the evolution of the Spanish tax system has led to the implementation of taxation categories that operate similarly to those in force in other EU countries, albeit with a higher burden on some tax liabilities. Specifically on the wealth tax issue, in fact, Spain is the only country within the EU continuing to apply that tax to wealth. This is currently levied and collected by regional governments. Although it was implemented in Spain for the first time in 1977 with an exceptional and transitory nature, it was not until 1991 that the basic regulations thereof were published. Then, it was repealed in 2008 but reestablished again in 2011. As shown in Table 2, the temporal evolution of the wealth tax legislation and the basic characteristics and novelties have met with mixed performance.

Table 2. Summarized list of acts concerning the imposition in Spain of wealth tax in chronological order.

Year of Entry into Force	Title of the Law	Reference
1977	Law 50/1977, of 14 November 1977, on urgent tax reform measures ¹	[57]
1991	Law 19/1991, of 6 June 1991, on the wealth tax ¹	[58]
2008	Law 4/2008, of 23 December, abolishing the taxation of wealth tax, generalizing the system of monthly refunds in the value-added tax, and introducing other modifications in the tax regulations	[59]
2011	Royal Decree-Law 13/2011, of 16 September, which reestablishes the wealth tax, temporarily	[60]

Source: own compilation. ¹ Spain joined the EU on 1 January 1986, then adopted the euro on 1 January 1999, and finally introduced banknotes and coins on 1 January 2002; although such facts predate the entry into force of this act, related amounts given in the former national currency, officially named ‘pesetas’, have been converted into euros at the fixed rate of EUR 1.00 = PTS 166.386 for a better understanding by the readers.

The main purpose of [57] was to introduce immediate adjustments and actions in the Spanish tax system of limited or specific duration to address general issues relating to the domestic economy and taxation depending on the existing circumstances at any given time, and whose key milestones are listed below:

- The taxable income is taxed at a rate between 0.2% (for taxable income up to EUR 150,253) and 2% (for taxable income over EUR 15,025,303);
- The obligation to file a tax return is for individuals whose taxable income exceeds EUR 24,040.

The introduction of [58] put an end to the exceptional and transitory nature of the tax, and whose main features are detailed below:

- The taxable income is taxed at a rate between 0.2% (taxable income up to EUR 150,253) and 2.5% (taxable income over EUR 9,616,194);
- Taxpayers (resident in Spain or with assets in Spain) are required to file a tax return when their taxable income exceeds EUR 90,151.82 or when the value of their assets and rights exceeds EUR 601,012.1;
- Although the act establishes the tax basis, regions may modify tax issues, such as rates and exemptions (under certain conditions and limits since 1 January 1997) [61];
- In the event that there are assets located in either of the two Spanish autonomous cities situated in Africa, tax filers are eligible for a 50% discount on the tax base, if applicable to the part of the tax corresponding to related property or rights.

When the act [59] entered into force, the wealth tax burden was abolished for the first time since 1977. However, strictly speaking, the tax did not disappear; rather, a 100% rebate was applied to the tax liability, thus eliminating the need to file the required return.

Upon the entry into force of [60], the Royal Decree-Law temporarily reinstated the wealth tax through an extraordinary measure, responding thus to the economic crisis due to the Great Recession. Although the application of the tax has been extended since then, this act brought the following novelties:

- Obligation to file a tax return for those taxpayers whose amount is to be paid, calculated according to the tax regulations, and considering the corresponding deductions or allowances positive. They also ought to submit a tax return when, even without having to pay tax, the value of their assets exceeds an amount of EUR 2,000,000;
- Concerning the taxable base, if there is a personal liability, the amount of the taxable base will be decreased by the amount that has been approved by each regional government. When a minimum exempt amount has not been established, then the taxable base is reduced by EUR 700,000.

Recently, according to Article 66 of Law 11/2020 [62], the wealth tax scale established from Article 30 of Law 19/1991 [58] has been changed from 2% to 3.5%. Similarly, there has been a modification of taxable income, going from the former bracket between EUR 0 and EUR 167,129.45, to a new bracket from EUR 10,695,996.06 onwards, respectively.

3. Research Approach

Although the matter of gendered financialization concerning real estate assets has focused the spotlight of academic interest on the research issue in the literature reviewed, the amount of empirical analysis has been hampered by the lack of data available in this area, particularly those relating to wealth tax statements disaggregated by item and sex, or even by age groups. Where similar taxation schemes are consequently applied, an empirical review would be useful, combined with specific and limited data on gender-differentiated effects. This has been shown to work in gender studies with those involving macroeconomic considerations [24], as well as those relating to some domestic analysis, such as in the cases of Ireland [63] and Mexico [28], or even those analyzing investor behaviors by using surveys [39]. Nonetheless, a characteristic feature of the wealth taxation schema imposed so far in Spain is that data repositories allow a rough estimate to be made

of investment preferences, allowing, thus, for the contrast of the approach with the results of previous studies in terms of statistical differences or similarities among gender groups.

The preliminary analysis indicates that financialization has led to a conversion of real estate assets into transferable assets in the form of shares and participations. This involves a transformation from safe-haven assets into volatile assets. It should, therefore, be examined whether it has had an impact on investment portfolios, as well as on observed differences between the decisions of women and men. Moreover, the review of the above-mentioned literature shows that the financialization of the economy has grown progressively to this day. Nevertheless, gender-related differences in investor behavior have slightly reduced. That is why the present study has analyzed the distribution of investment assets in Spain according to the gender of investors, thus focusing on the two main elements related to the process of the financialization of the real estate sector. On the one side, the distribution of property as a fixed asset is subject to low volatility and low risk; on the other side, the research has approached the ownership of corporate shares as the most liquid investment and being exposed to a higher level of risk. The research deals with the existing patrimonial difference according to the investor's gender. It does not treat changes according to other parameters, as can be seen in the graph. The important aspect here is that investments in movable assets (mainly equities) soar by that 1%, so the analysis of this segment of the population provides information that other segments cannot show because their participation in equities has a much lower representativeness.

Regarding wealth taxation in Spain, the main data analyzed in this paper come from the nationally representative source provided by the Spanish tax office [64]. This primary source database currently covers the period between 2003 and 2020, except for the years between 2008 and 2010 when the tax was abolished. In such periods, the conditions of taxation changed, affecting the taxation of a lower volume of citizens who submitted tax return forms with a greater number of patrimonial assets. In this sense, the number of tax filers decreased from 967,793 in 2007 to 102,297 in 2011, while the average equity rose from EUR 775,791 to EUR 2,710,424. To maintain homogeneous information, the data were used for the 10 years from 2011 to 2020. For that purpose, it was necessary to obtain data from the filing of personal assets, as well as its related distribution by the gender of filers. The related figures belong to those declared in Spain by persons subject to wealth tax. The tax office of the government of Spain makes public annually the statistical data of the persons who have made the model declaration D-714 two years before. This tax is mandatory for all those who, annually since 2011, present a tax base greater than EUR 700,000 or when the total of their assets turns out to be higher than EUR 2 million. The filing obligation is independent of whether the tax entails a levy, and therefore an annual tax outlay on the holding of assets, or is fully subsidized, as in the case of the Autonomous Community of Madrid. Given the obligation to submit a file for those filers whose taxable base is within the minimum assets required for this tax, regardless of any bonuses or exemptions, it is possible to access grouped data of the declarants. It should be noted here the growing evolution of the entire patrimony in Spain over the past decade, since there has been an increase in the declared wealth of 6.65% annually, going from EUR 430,668 million (2011) to EUR 768,517 million (2020). This has led to a significant rise in wealth tax submissions and the average amount of each declaration. Apparently, this is due to both the effect of inflation and the increase in the income of those persons required to file the tax return.

All data were disaggregated in the national statistics by each Spanish autonomous community and gender. Figures also were grouped into six main categories as follows: immovable capital, effects on economic activities, movable capital, insurance and income, luxury goods, as well as other goods and rights. Furthermore, according to the initially required level of detail of the data, absolute wealth data have been analyzed, as well as breakdowns by gender, regardless of other matters such as classification groups and territorial differences from tax databases not directly linked to the subject of this analysis. By way of a summary, finally in this point are shown in Table 3 the variables relating to asset types applicable to the wealth tax analyzed as part of this research.

Table 3. Summary table of the categorical variables concerning the overall application of wealth tax in Spain.

Asset Type	Asset Subtype	Main Features ¹
Immovable Capital	Urban Properties	Heritage value of urban goods
	Rural Properties	Assets value of rustic nature
Goods Subject to Economic Activity	Nonexempt Goods and Rights	Non-exempt assets and rights that are subject to the exercise of economic activities carried out by the taxpayer
	Exempt Goods and Rights	Exempted assets and rights that are used for the exercise of economic activities carried out by the taxpayer
Movable Capital	Account Deposits	Deposits in current or savings accounts, on-demand, or time, on behalf of third parties, as well as cash management accounts and financial accounts or any other type of deposit account
	Public Debt, Government Bonds, and Debentures	Certificates of deposit, promissory notes, debentures, bonds, and other securities representing the assignment of equity to third parties
	Shares and Interests in Collective Investments	Shares and units in the capital stock or in the equity fund of collective investment undertakings traded on organized markets
	Shares and Interests in Negotiated Legal Entities	Shares and interests in the capital stock or equity of legal entities traded in organized markets
	Shares and Interests in Non-negotiated Legal Entities	Shares in non-traded entities
Insurance and Annuities	Life Insurances	Life insurance contracted by the declarant computed at surrender value
	Temporary and Life Income	Temporary or life annuities incorporated as a result of the delivery of a capital sum in cash, and other assets, either movable or immovable
Luxury Goods	Jewelry, Furs, and High-End Vehicles	Jewelry, furs, and exclusive vehicles, such as luxury two-wheelers or cars, boats, airplanes, and sailboats
	Fine Art and Antiques	Valuation of non-exempt art objects and antiques
Other Goods and Rights	Real Rights of Enjoyment or Possession	Real rights of use and enjoyment, excluding the right of use and enjoyment of the habitual residence
	Administrative Franchises	Administrative concessions for the operation of services or assets of public domain or ownership
	Intellectual and Industrial Property Rights	Rights derived from intellectual and industrial property acquired from third parties
	Contractual Options	Contractual options derived from those contracts that entitle a person to decide, at the sole discretion and within the agreed term or period, about the performance of a main contract against a third party
	Other Goods and Economic Rights	Assets and rights of economic content not contemplated in the preceding paragraphs

Source: own elaboration from concepts summary according to wealth tax rules published by the Spanish tax office [64]. ¹ Description of asset types subject to disclosure on the wealth tax base.

4. Data Analysis

The evolution of tax collection shows high participation in the highest percentiles of movable capital, mainly in the form of different types of shares and corporate holdings. This is an expected characteristic, according to which the higher wealth percentiles have a higher volume of corporate investments compared to the rest of the country, whose real estate investments exceed those in movable assets. As shown in Table 4, out of the six items broken down in the tax, by 2020, 94% of the assets were concentrated in the form of movable capital (74%) and real estate (20%), the latter being almost entirely urban. This implies that the effect of the financialization of the real estate sector analyzed in this text is related to most of the declared properties.

Table 4. Statistical information from asset tax filers between 2011 and 2020.

Asset Type	Asset Subtype	W2011 ^a	W2020 ^b	R2011 ^c	R2020 ^d	VAR ^e	CAGR ^f
Immovable Capital	Urban Properties	0.16	0.19	1.01	1.00	−0.02	0.09
	Rural Properties	0.01	0.01	1.09	1.09	0.00	0.05
	Subtotal	0.17	0.20	1.02	1.00	−0.02	0.09
Goods Subject to Economic Activity	Nonexempt Goods and Rights	0.01	0.00	1.24	1.21	−0.02	−0.01
	Exempt Goods and Rights	0.01	0.01	1.33	1.18	−0.16	0.05
	Subtotal	0.02	0.02	1.31	1.18	−0.12	0.03
Movable Capital	Account Deposits	0.11	0.08	1.13	1.11	−0.01	0.03
	Public Debt, Government Bonds, and Debentures	0.04	0.01	1.27	1.22	−0.06	−0.05
	Shares and Interests in Collective Investments	0.09	0.14	1.13	1.08	−0.06	0.12
	Shares and Interests in Negotiated Legal Entities	0.09	0.07	1.43	1.41	−0.02	0.04
	Shares and Interests in Non-negotiated Legal Entities	0.43	0.43	1.66	1.84	0.18	0.07
	Subtotal	0.76	0.74	1.45	1.51	0.06	0.06
Insurance and Annuities	Life Insurances	0.01	0.02	1.14	0.87	−0.28	0.09
	Temporary and Life Income	0.00	0.00	0.85	0.74	−0.11	0.15
	Subtotal	0.01	0.02	1.11	0.85	−0.26	0.10
Luxury Goods	Jewelry, Furs, and High-End Vehicles	0.00	0.00	2.61	2.65	0.04	0.07
	Fine Art and Antiques	0.00	0.00	3.30	1.26	−2.04	0.10
	Subtotal	0.00	0.00	2.83	1.91	−0.92	0.09
Other Goods and Rights	Real Rights of Enjoyment or Possession	0.00	0.00	0.37	0.50	0.13	0.09
	Administrative Franchises	0.00	0.00	1.60	1.54	−0.06	0.05
	Intellectual and Industrial Property Rights	0.00	0.00	2.01	1.04	−0.96	0.07
	Contractual Options	0.00	0.00	1.49	1.71	0.22	0.03
	Other Goods and Economic Rights	0.03	0.02	1.51	1.36	−0.16	0.03
	Subtotal	0.03	0.02	1.42	1.27	−0.16	0.03
All Assets	Total Overall	1.00	1.00	1.35	1.36	0.01	0.07

Source: own elaboration based on data from the Spanish tax office [64]. Note: all figures are expressed as decimals. Caption: (a) relative weight in 2011; (b) relative weight in 2020; (c) ratio of the absolute value of assets of men compared to those of women in 2011; (d) ratio of the absolute value of assets of men compared to those of women in 2020; (e) variation coefficient of relative weight with regards to ratios from c and d, respectively; (f) Compound Annual Growth Rate (CAGR) in the gendered absolute values.

Consistent with the above, and continuing with the analysis of Table 4, it may be observed that the concentration of real estate assets in terms of market value has grown with regard to urban areas above the average of tax statements in the period under review. This significant increase has gone in hand with an increase in investing decisions made by women, which allowed an investment tendency towards parity between both genders. At the same time, the representation of economic activities over the total value of assets

has decreased by 1.5% during the period under analysis, achieving a gender-balanced distribution. With respect to movable capital, the main item of the assets analyzed, a growth close to the average of 6.6% has been observed, it being also the only item with growth in gender inequality during the period studied. Regarding insurance and annuities, this is the only item where women had greater wealth than men in 2020. Although there has been a significant inequality in favor of women concerning temporary assets or life annuities, this item presents the highest CAGR during the study period. With regard to luxury goods, they have been characterized by the greatest difference in favor of men, specifically up to 91%. It is worth noting the huge reduction in the number of items from art objects and antiques over the total assets, from 230% in 2011 to 26% in 2020. Regarding the items from goods and rights, a trend has been observed towards greater gender equality, from 42% higher than men's wealth to 27%. Such an item, indeed, is displaying the lowest growth during the decade. In addition, it should be noted that the fiscal behavior of the wealth tax in Spain has experienced a during past years since there has been an increase of asset declarations up to 6.65% annually, going from EUR 430,668 million in 2011 to EUR 768,517 million in 2020. This is due both to the number of tax statements and the average amount of each one, according to the tax data gathered from [64,65].

In this way, a panel of tax filers' data has been obtained including in its cross-sectional dimension the wealth tax statements as of 31 December of each reference year, whose temporal dimension comprises the ten years from 2011 to 2020. As indicated, the study presents annual cross-sectional data for all wealth tax filers for each of the asset subtypes analyzed. In addition, the presence of complete data for all subcategories and ten consecutive years has made it possible to study the research question in the form of a longitudinal study. It should also be noted that asset types, as well as their subtypes, have been considered consistently throughout the study. As suggested above, this seems to be the most consistent approach of such research on the issue, with longitudinal stability of the data, where the number of taxpayers has grown significantly in the past years, despite significant external economic fluctuations, either in terms of inflation or income. Concerned, however, that there might be significant losses from taxpayers with high levels of equity, mainly in 2011 due to the economic effects of the Great Recession, and thus subject to exemptions on wealth tax, the research has assessed aggregate data in the period under review. Similarly, since individual taxpayers had been free to vary their investment portfolios, it was observed that asset weights can become dependent upon macroeconomic variables, such as the interest rate or the economic cycle.

As the computer tools, the free software environment for computing statistical models and plotting related graphics named R, more specifically version 4.2.2, was selected by using the library called 'tidyverse' for the analysis of the data. Similarly, subroutines from libraries titled 'GGally', 'patchwork' and 'reshape' were executed for the preparation of figures.

5. Results

5.1. Main Findings

As already pointed out, the study covers 10 years (2011–2020) and is based on data from the related primary source [64]. The data of property tax filers for the year 2020 show a parity of the number of declarations by gender. Specifically, 109,152 men and 109,839 women filed, whose average assets were worth EUR 4062 and 2959 thousands, respectively. This implies that people of both sexes reach the highest levels of wealth, but it is significantly more concentrated in the hands of men, whose average wealth is 37.3% higher than that of women. During the period under review, there has been a 63.37% increase in male respondents compared to 73.24% in women. This has caused that wealth tax submissions by women in 2020 has represented as of 0.63% higher than those relating to male tax payers. In contrast, related declarations submitted by male tax payers was as of 5.38% in 2011. During the study period, however, the evolution of the number of tax returns has developed differently from the monetary amount of them, since declarations

of male taxpayers increased by 9.58% over the period analyzed, while those submitted by women increased by 2.55%. Furthermore, it is important to note that total assets grew by 7% annually above average, and the value of real estate assets, insurance, and annuities presented above-average growth. By contrast, the growth of assets assigned to economic activities and movable assets remained below the average growth. According to asset classifications from Table 4, those pertaining to movable capital represent 74% of the total for the year 2020, whereas those belonging to real estate comprise 20% of the total. Among all items, shares and participations in non-traded legal entities carry the greatest weight in the weighting structure for this year, 43% of the total, to be precise. These two categories, indeed, are the most relevant in terms of all assets declared on the wealth tax return for this relevant year. By contrast, none of the other four categories represent more than 2.3% of the total. Nonetheless, as shown in Table 4, the asset classification is made up of the six main categories displayed and their subclass lists, thus making it a comprehensive approach to the asset allocation of the investment portfolios.

As shown in Figure 1, equity held by men was 36% higher than that of women by 2020, having increased from being 35% higher in 2011. The most representative value in absolute terms is that corresponding to stocks and shares in non-traded legal entities, with 43% of total assets, which by 2020 presented a difference of 84% more equity being held by men than by women. Moreover, the most representative value in relative terms is that related to sumptuary goods, which concentrated in men's hands twice as much wealth as in women's, where values related to jewelry, furs, and vehicles stand out. However, the value in which women had a greater share than men is that relating to insurance and annuities, which reveals a reduction of 15% from male taxpayers in comparison with females. Furthermore, in the case of real estate, the ratio is one-to-one, which means that men and women have the same volume of assets invested in real estate. In sum, results do show significant differences in investment between men and women. Although the distribution of real estate assets turns out to be almost 1:1 between both genders, the share of companies' assets includes a distribution of assets by more than 1.6:1.

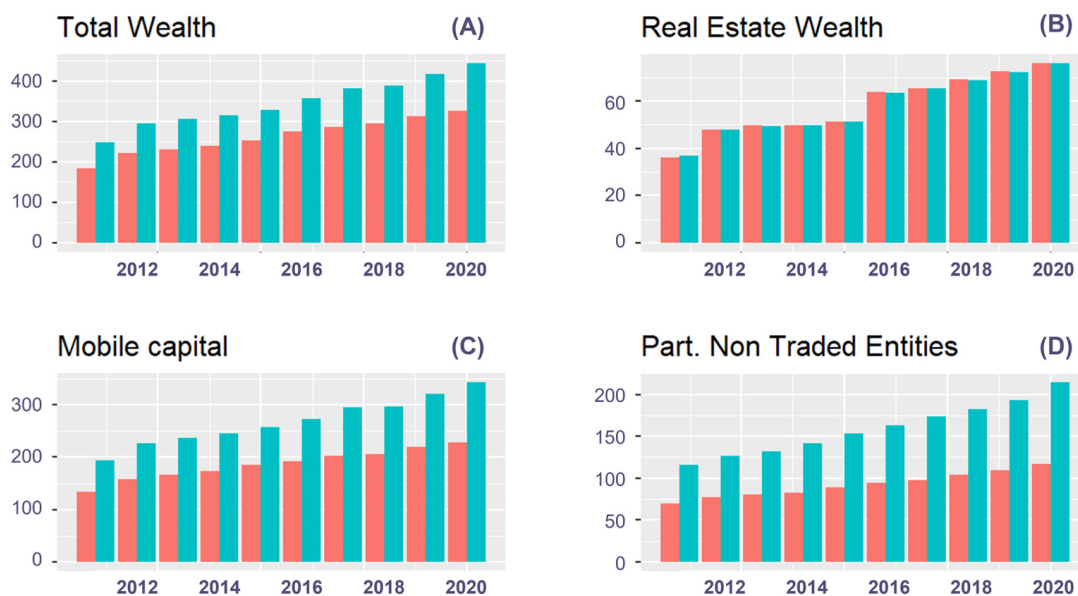


Figure 1. Evolution of tax filers according to the items analyzed as absolute values concerning men (blue colored) and women (orange colored) expressed in billions of euros over the period analyzed, specifically: (A) distribution of total capital held by men and women; (B) distribution of real estate capital by gender; (C) distribution of movable capital by gender; (D) distribution of ownership of shares and shares of unlisted companies. Source: own calculation based on data collected from the Spanish Tax Office [64].

As can be seen from Figure 2, during the study period, from 2011 to 2020, the presence of female taxpayers has deeply grown in almost all fields of taxation of the wealth tax in Spain. Notwithstanding these developments, with respect to shares in non-traded legal entities, men have increased their share from a male/female ratio of 1.66 in 2010 to 1.84 in 2020. The most notable increases in shareholding for women have occurred in art objects and antiques, moving from a situation of high concentration in the hands of men (230% more) to doing so slightly (26% more). Similarly, the share of intellectual and industrial property rights has gone from 101% more in the hands of men than women to 4% by 2020. Additionally, according to Figure 2, the evolution of the relative distribution of the highest equity items in absolute terms shows that the distribution of total wealth has remained stable over the years studied. Regardless of the minimum required for submitting the wealth tax, the number of return tax affirmations through electronic filing has led a steady growth during the 10 years.

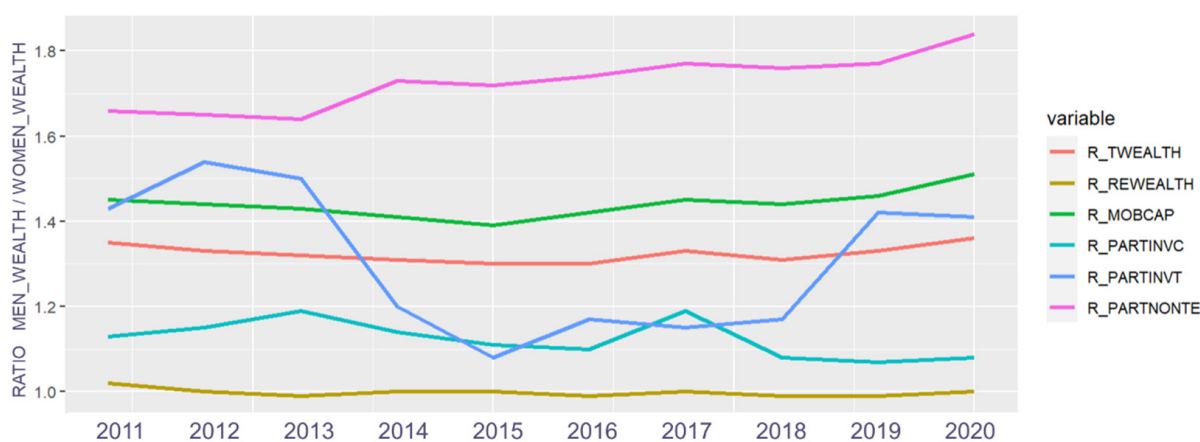


Figure 2. The gender ratio of assets according to the following items: R_TWEALTH (total assets ratio); R_REWEALTH (real estate ratio); R_MOBCAP (total movable assets ratio); R_PARTINVC (equity in shares and collective investment shares); R_PARTINVT (equity in shares and quoted shares); R_PARTNONTE (equity in shares and unquoted shares). Source: own calculation based on data collected from the Spanish Tax Office [64].

It is also noteworthy that Figure 2 shows how the distribution of real estate assets has remained equitable between men and women over the period analyzed, movable capitals grew driven by the rise in the value of shares and unlisted shares. Furthermore, the quoted shares are more gender-apportioned than those not quoted, albeit with quoted shares showing significant bias to tenure by men (plus 40% in 2020). With regard to movable capital, shares and shares in collective investment show a difference in ownership of less than 10%.

Aside from the items used to plot the variations in ratios from Figure 2, a grouping of significant items has been selected for a similar study of dimensions in absolute values by graphing the results, as shown in Figure 3. This provides a proper picture of the long-term trends of all items that comprise the gross base of the wealth tax in Spain, in addition to showing significant increases in related tax statements. This was also to be expected given that tax criteria and implementations have remained practically unchanged over the past decades. Despite that, tax filers have been subject to macroeconomic aspects, such as inflation or economic growth, thus affecting investment decisions. Although this is a challenge facing those involved in managing portfolios, either male or female investors, certain differences have been detected within each population segment by gender. Finally, the growth has differentially affected the wealth items analyzed. On one hand, the presence of women has increased in real estate by 1.73%, traded equities by 8.70%, and collective investment by 9.18%. On the other hand, their presence in non-traded equities worsened by 18.21%; thus, their percentage of the total fell by 1.04%.

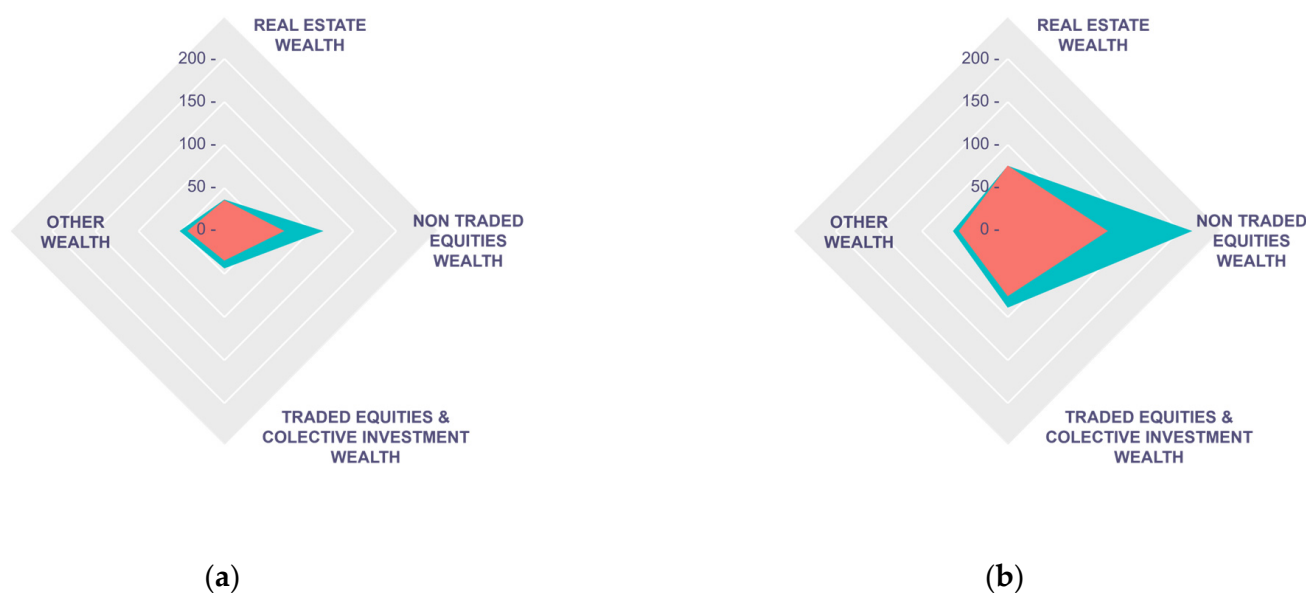


Figure 3. Comparative on the absolute distribution of real estate wealth between men (blue colored) and women (orange colored) expressed in billions of euros between two years, specifically: (a) referring to the year 2011; (b) referring to the year 2020. Source: own calculation based on data collected from the Spanish Tax Office [64].

5.2. Segmented Findings

The analysis of investment portfolios in this study has produced similar results to findings from the field of risk aversion among investors on the grounds of gender. Figure 4 shows the weight difference of each asset type in the portfolios of both men and women. Given that the absolute value of the male investment is 36.4% higher, the relative distribution in investment portfolios presents differences in decisions between both groups of analysis. The most prominent investment is the participation of men in shares and participation in non-negotiated legal entities, an element that occupied 48.4% of their portfolios in 2020, compared to 35.8% of their portfolios for women. It is also a difference that has grown in the decade under study, as shown by the fact that men have increased their exposure to this type of entity by 1.8%, while women have decreased it by 2.1%. Regarding such an investment type, the main assets most desired by female investors seem to be those relating to real estate, in which their investment is 23.4%, while the male investment rate makes up 17.1% of all portfolios analyzed; thus, women's investment represents a 6.3% higher value than the corresponding male rate. This difference has been increasing during the period analyzed, being on average 5.5% higher. To be precise, the two assets are intensively studied in this document. Three highlights in terms of the analysis of security in investments: First, the preference for liquidity, in this case in the form of deposits in accounts, which by 2020 represented 9.5% of the female portfolio, and 7.7% in the male one. Second, insurance and income, with a portfolio share of 2.3% and 1.4% due to female and male investors, respectively. Moreover, the holding of public debt and bonds, in which women have a slightly higher percentage of investment of their funds throughout the study, being 1.4% against 1.3% of men's by 2020. It should be noted that between 2011 and 2020 there was a significant reduction in the remuneration of public debt, which has led to a reduction in its share of the portfolios to about one-third of the initial value from 4% of the total in 2011 to 1.4% in 2020.

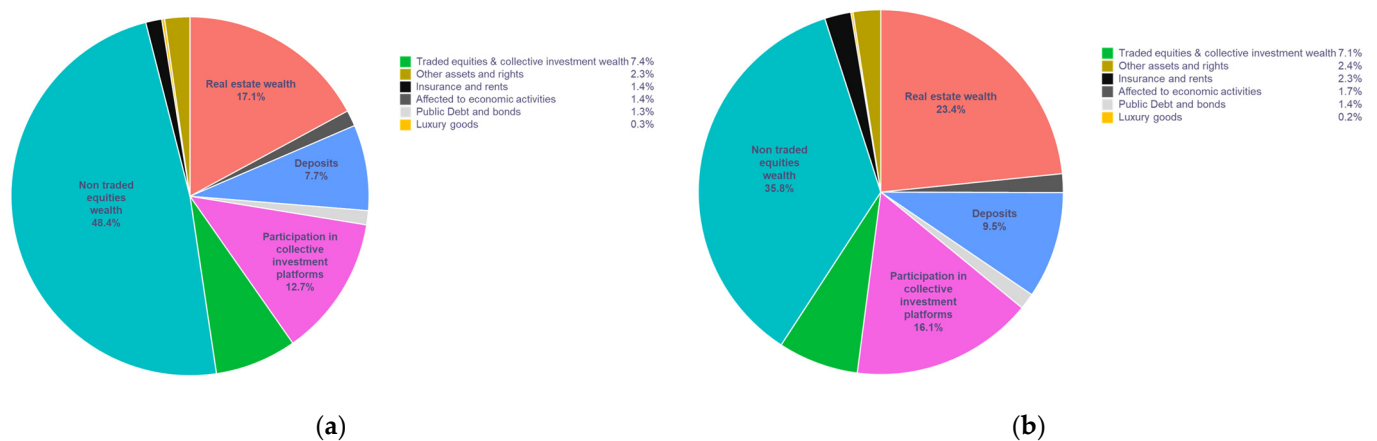


Figure 4. Distribution of investment portfolios by gender for the year 2020, specifically: (a) referring to male investors; (b) referring to female investors. Source: own calculation based on data from [65]. Note: for a better understanding, four main items have been labeled on their corresponding slices of the pie chart (although the total value of each graph is equal to 100%, differences can be observed due to existing decimals in subtotal of each asset category).

6. Discussion

During the study, extensive data analysis was done to determine the evolution of the largest assets in Spain, with particular attention paid to investment behavior differences between men and women. In this sense, it has been observed that their patrimonies have been invested by using various investment vehicles., and this aspect is aligned with the analyses shown in the literature. This characteristic has been observed in those assets considered as insurance in the form of life insurance or temporary and life annuities. Although they represent a low volume compared to the total assets analyzed, they are mostly concentrated in the hands of women, whose evolution over the last decade has resulted in a greater concentration. Furthermore, traditionally considered a lower-risk asset, real estate presents both a concentration and a positive evolution for women in terms of sectoral diversification in investment.

In the case of Spain, the only investment item that presents a great volume, including contributions significantly towards the adoption of male-related investment approaches, are those relating to shares and participations in non-traded legal entities. These entities range from start-ups to multinational companies without the need for financing from stock markets. Such an item has the most weight within the patrimony data analyzed in the study, in addition to increasing the difference between men and women with regard to the research matter. This could be the cause of a lack of adjustment path between both genders' asset portfolios. It was necessary to clarify such a finding by analyzing the results from the perspective of the financialization of the economy. In a simplified way, this implies the trend towards the conversion of fixed real estate assets subject to lower risk into transferable assets in the form of shares and participations subject to higher risk. As real estate is one of the relatively more preferred investment assets for women than for men, this study shows the opposite relation between financialization and the investment decisions of women. However, this may present different results and trends, since, although ownership in non-negotiated companies presents the highest male concentration, participation in collective investment instruments shows greater participation of women and a progressive trend towards balance. In an intermediate position, shares and participations in listed entities are shown, which, although tending to be more gender-distributed, show greater volatility over the period. This prevents a proper assessment of their effects on the issue under consideration. Nevertheless, it shows results that go in the same direction regarding risk aversion in investment decisions, with participation in companies seen as a risky asset. However, this shows that women have a higher preference for the shares of larger

companies, transparency, and liquidity compared to non-negotiated shares, with their greater male participation and a corresponding trend.

Regarding financialization, the introduction of the REITs in the Spanish market is characterized by listed enterprises with high standards of management, as well as good practices for information transparency and risk policy, thus promoting a reduction in investment risk compared to other movable assets. This would make it possible to estimate, with the results obtained, a more equitable distribution between the two sexes than in the cases of other types of shares and company shares. Regarding the level of financial knowledge mentioned in the literature, according to which women are disadvantaged compared to men, this is an element of greater difficulty to analyze, since the profiles of the citizens analyzed are characterized by having high assets. However, it can be considered that assets in the form of shares and participations in companies are those that present a higher need for financial knowledge, due, *inter alia*, to their exposure to high levels of risk. Because non-negotiated legal entities account for 43% of total wealth and are also the main source of inequality in wealth, this may be related to female entrepreneurship. This represents a high-risk investment decision that, at the same time, is a fundamental source of wealth growth thanks to the great capital multiplier potential presented by startups. In addition, the literature review shows the important relationship between financialization and politics. Lawmakers' decisions related to the regularization of corporate and financial instrument types are essential to generate previously nonexistent profitability opportunities. On the one hand, this may facilitate the creation of assets; on the other hand, this may condition the profitability of investments according to the tax conditions imposed in each case. These decisions, therefore, allow policymakers to make profitable models that increase or diminish equality. In that regard, the process of financialization under the current regulations implies the evolution towards gender-equal asset distribution, because such regulation encourages the acquisition of property by listed companies, moving towards less unbalanced assets than in the case of non-negotiated undertakings.

Due to all the above, the impact of financialization on the real estate sector entails a translation of the opportunities of direct investment in real estate assets to the generation of such opportunities from holding companies. Related investment decisions are significantly aligned with business profitability objectives, thus adding aspects of leverage and volatility to a traditionally more rigid market. Therefore, the present paper shows differences in investment decisions that are presumed to have been made by individuals in conditions of freedom. The fact that there are differences in the distribution of assets between men and women is the result of voluntary decisions by economic operators showing preferences for assets with different characteristics in which the profitability ratio, risk, and liquidity behave unevenly. The results also state the overview of the distribution of wealth in Spain declared by taxpayers with a total amount of related assets greater than EUR 700,000 yielded according to tax laws currently in force at any given time. In 2020, a total of 218,991 wealth tax filers declared taxable estates based on their total assets to the Spanish Tax Office. However, the share of this tax in the volume of the annual tax burden in Spain has been usually slightly above 1% over the past years. Specifically, there were 21,638,795 income tax filers in 2020. According to asset composition by wealth level for 2015 in Spain [66] (p. 46), based on data collected by the authors from the World Inequality Database, only 1% of all filers subject to wealth tax liability had 23.9% of the country's total wealth. In addition, whereas the wealth tax is levied on the net wealth of individuals with more than EUR 700,000 worth of assets living, with unrestricted tax liability, within their national territory, as well as on non-residents, with limited tax liability, in Spain, three regional governments have so far approved some allowances for the tax, namely by 100% in both Andalusian and Madrid, and by 25% in Galicia.

The analysis of the investment portfolios shows a greater diversification for women compared to men. This diversification coincides with lower exposure to higher-risk assets, such as direct investments, both in unlisted and listed companies, which results in more than a 10% difference in the configuration of both groups of portfolios. In contrast to this

situation, there is a decision to invest in lower-risk assets such as real estate, collective investment platforms, insurance, and annuities, or even a preference for liquidity in deposits. From the point of view of the process of converting real estate assets into movable assets through the intermediation of companies, such a finding confirms the significant changes in the preferences shown by both genders, mainly by women. The non-negotiated legal entities comprising 43% of total assets are the main source of inequality. It may be caused by a lower rate of female entrepreneurship. This entrepreneurial factor is not only a high-risk investment in decision-making, but also a fundamental source of wealth growth, thanks to the multiplier effect of the outbreaks of startups relating to their potential future capital expenditures.

The level of financial literacy, though not necessarily linked to the real estate sector, has been proven to be a key factor in any further decisions that wealth taxpayers, either male or female, make as an investor community. According to the earlier works mentioned above, women seem to be in an inferior position in this regard compared to men. This is particularly important where the cultural traditions relate to investment instruments that are not yet deeply understood, as in the case of massive private investments in real estate properties in Spain. This is an aspect that has been the most difficult to analyze, due to the profile of the citizens analyzed, all of whom have high net worth. Nevertheless, it can be considered that assets in the form of stocks and shares in companies are those presenting the highest need for financial literacy, given, among other reasons, their exposure to high levels of risk. Furthermore, the literature review underlines the significant relationship between the financialization process and political decisions. These decisions at the level of the regularization of the types of corporate and financial instruments are fundamental to the creation of opportunities for profitability. This encourages asset creation, as well as possible improvements in the profitability of investments depending on the fiscal conditions present at any given time. These actions allow politicians to make profitable models that, however, do not necessarily contribute to enhancing the gender balance among investors. In this sense, the process of financialization based on the current regulations implies the evolution towards more gender-unequal wealth, while at the same time, due to a regulation that favors the acquisition of real estate by listed companies, it generates a shift towards less unbalanced wealth than in the case of non-traded companies.

In line with the redistribution under the role of entrepreneurship, the financialization process could imply a progressive decrease in the real estate assets available under direct investment, replaced by an increase in available assets under equity investment. This restructuring will involve the decisions of all investors to restructure their portfolios and define the new locations of their investments. In this way, the current situation may change as the distribution of existing assets is different. This role of entrepreneurship can also be studied from the point of view of the concentration of non-negotiated assets in the hands of men since startups generally access financial markets through these formats. Indeed, the relationship between entrepreneurship and the life expectancy of companies with the concentration of this type of capital in male hands should be evaluated.

In sum, the impact of financialization on real estate entails the creation of opportunities for direct investment in real estate assets by creating greater profitability opportunities from holding companies. These decisions are therefore aligned with business profitability objectives, thus adding aspects of leverage and volatility to a traditionally more rigid market. The research has indeed shown that, unlike other financial investment instruments, there are differences in decisions made by individuals in a free and spontaneous manner about issues of asset allocation that are inherent to them. These differences in asset portfolios are the result of voluntary economic decisions to seek solid profitability and liquidity metrics, and thus depend on investment targets, risk tolerance, and the nature of the investors. And, therein lies the rub of the financialization of real estate assets in investment portfolios through the gender perspective regarding decision-making. This is precisely why the present research issue has been raised; its thematic contribution is consistent with the aim

of public policies in making resilience roadmaps for housing and real estate economics through better financing decisions and less-risky investments.

7. Conclusions

The financialization process is a global phenomenon, with the real estate sector as its main development element. This has meant that assets that were previously characterized by rigid behavior have now become liquid, and consequently subject to investment in financial markets. This leads to the channeling of the flow of capital to real estate, thus resulting in new investment approaches in terms of both ownership forms and price formation. Faced with this process, the impact on the distribution of capital between men and women based on the current holding of assets shows the existence of significant differences in terms of investment. This finding has also been confirmed in both absolute and relative values, thus showing that female investment is balanced among real estate, shares, and other movable assets, whereas men have a high preference for shares.

The analyzed literature mainly shows the existence of gender differences in investment decisions based on risk aversion. Such a common finding from previous works is consistent with the evidence from the present study since real estate appears as a lower-risk asset with a level of investment practically equal between men and women. Shares appear as the riskiest assets in the market, and whose greatest participation in both absolute and relative terms has traditionally been dominated by men. It should also be noted that the movable assets are not equally distributed among themselves, with a significantly higher preference for investment by men in shareholdings and shares in unlisted companies, while the discrepancy in listed companies is of almost half, from around 80% to 40%, respectively. In this sense, the female preference for movable goods is represented to a greater extent by more liquid and larger assets, and with more open public information and subject to greater regulation. Under this distribution, the risk of gender differences lies in the fact that financialization, among other elements, allows buildings to be converted into shares, making an asset in which investment is balanced between men and women into the type of asset in which the investment preference is most unbalanced.

As has already been pointed out throughout this paper, the study mainly aimed at responding to the research questions posed in the introduction. Based on the results of this article, answers can be briefly summarized as follows. Firstly, the analysis of the study sample has found significant differences among the investment portfolios owned by men and women, thus showing a greater preference of women for real estate investment, as well as for other lower-risk assets. Secondly, investments made by male investors have a higher percentage of movable assets, mostly in the form of unlisted shares. Thirdly, real estate financialization, which has been converting immovable properties into movable assets with a higher risk, in addition to the various distributions of asset portfolios mentioned above, has led to a great impact on the assets owned by women in comparison with those declared by men. Finally, the financialization process has not been neutral in regard to the investment decisions analyzed so far from the records of wealth taxation. The gender-based analysis of financialization in the real estate market can enhance the understanding of the impact of such a global process on policymakers and economic actors, thus helping more female investors reach their financial goals. Nonetheless, many further issues remain unanswered, and additional research is needed, as outlined hereafter.

Investment behaviors of men and women have been heterogeneous and generally in the opposite direction of political decisions, making it difficult to define any definitive recommendations on good practice for those in search of special investment conditions for companies that transform real estate assets into real estate investment models. The results of the study imply that policies aimed at the regulation and taxation of models related to real estate affect men more positively than women. Against this should be added that this fact does not favor equality policies. Such a political aspect leads to what is an important economic implication in terms of assessing and measuring effects on the real estate sector through the lens of differential effects on investment decisions, whether in terms of gender

or age. That is precisely one of the aspects where the novelty of this research approach lies, and therefore the conclusions may also be valuable to academia.

Concerning the practical implications for policymakers developing training programs for best practices in investments based on the research findings, and their necessary adoption by individual investors in equity investment, private sector lending, and private direct investment, it has mainly been aimed at informing the regulators of the opposition between the activity of creating specific regulations of economic policy and social action in favor of equality. It also stresses the need to promote financial training and risk analysis for the entire population, with special reference to the female gender. Therefore, it highlights the need to promote both financial knowledge and risk analysis from individuals interested in carrying out investments, with special emphasis on female investors.

As a result, it would be of interest for further academic approaches to assess differences in investments at the decision-making level, the level of advice, and through the use of collective investment tools. Hence, on the one hand, differences could be found under the direct investment profile that would require a high level of knowledge, experience, and proactivity on the part of the investor. On the other hand, portfolio managers with expertise in structured funds, in addition to high levels of diversification, could provide good practices for decision makers in investments rather than merely buying assets. These decisions, moreover, relate once again to the approach of the study, as it deals with profitability, risk, or financial knowledge. Against that backdrop, the role of entrepreneurship in the real estate sector may be of research interest as a predictor of the market trend. If companies involved in the process of real estate financialization are mainly capitalized and then managed by men, it is foreseeable that the returns on such investments will fall upon male investors, thus increasing inequality in overall asset holding. Finally, the analysis leads to a study of the role of inheritance in the distribution of capital. Given a population such as the Spanish one, in which the percentage of men and women is practically equal, it can be analyzed whether this equity translates into the same situation in inheritance, or analyze the differences that may arise. Such research should focus on whether the differences shown between men and women have any relation to the hereditary part or are due more to the decisions made by each investor.

8. Research Limitations and Future Directions

The above conclusions suggest the opportunity to extend the research scope beyond those tax filers only declaring assets since they represent a small percentage of the total number of individuals habitually submitting income tax returns to the tax authorities of the Ministry of the Treasury at the end of the tax year in Spain. For instance, according to data from the Spanish Tax Agency [64], in 2022 alone, of the 21,638,795 tax filers at the national level, 218,991 have declared their assets according to the current tax law in Spain, that is, representing 1.012% of the total tax returns submitted in that year. Given the possibility that the present findings could present differences from future works analyzing other socioeconomic levels, it might be necessary to disaggregate data on various demographic properties during each tax year or any part thereof. In addition, there is good cause to wonder whether increasing women's financial knowledge would lead to greater results in terms of capital sharing. Hence, future studies are needed to further explore the gender gap in such a research matter. Similarly, because the present review is limited to the Spanish population, it may be interesting to expand the scope of such a research approach to those countries whose financialization of real estate investments is higher, and even to those subject to capital inflows for the financialized acquisition of real estate assets. This future approach would provide more elements for analyzing the similarities and differences with the present case, as well as the role of distribution for men and women concerning investment decisions. Another suggestion for future research is one that was previously pointed out by [50], which seeks to analyze the fundamentals of risk aversion in the population by expanding the study to the entire population rather than to a specific segment, even in terms of geographical diversification [67]. It is also of paramount importance to

analyze the causes of the difference in the holding of shares by considering variables such as their development through entrepreneurship, regarding their holdings based on the purchases of securities on stock markets. In this regard, it is of interest for further study to assess the differences in distribution decisions about equity investments between men and women by analyzing the behavior of each group, thus evaluating whether the deviation observed is maintained or concentrated depending on each investment action.

The main limitation is based on the difficulty of obtaining the data and their limitation, given the need to have disaggregated information on the wealth of many people, differentiated between the different types of wealth, with special mention of real estate wealth and acquired shares. At the same time, the fact that all the data are aggregated limits the possibility of deepening the conclusions. At the same time, the temporal importance of the valuation of assets stands out, since the data analyzed starts in 2011, when Spain was at a low point in the economic cycle, entering a bullish phase, whereas the final data of the series for 2020 are given under special conditions derived from COVID-19.

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