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(1918-1948)**

Lopez-Gomez, Laura and Martinez-Rodrigue, Susana

University of Murcia

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Can economic rationality explain the feminization of shareholding? Evidence from female shareholders in Spain (1918-1948)

Running title:

Feminization of shareholding in Spain

Full name of authors:

Laura Lopez-Gómez – University of Murcia

Susana Martínez-Rodríguez (correspondence author) – University of Murcia¹

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Abstract (extended abstract: 246 words)

Purpose: This paper presents evidence that the feminization of capital is historically driven by rationality and profit-seeking, just as men's economic decisions are claimed to be. Our research is based on archival information from three banks from the first half of the 20th Century in Spain to show that when time arise to attract new investors and savers, capital became blind, and social conventions may fade away.

Method. To achieve the objective, we employ two methodologies: firstly, we utilize the Hodrick-Prescott filter to ascertain whether the feminization of shareholding exhibits an upward trend independent of cyclical effects. Subsequently, we estimate several logit models, encompassing a total of 34,121 data points. Through these estimations, we aim to discern the factors that increase the probability of women becoming shareholders in these banks.

Main findings: Evidence indicates that the feminization of shareholding was a sing of modernization, not a cycle derived from a sternal shock. The profile of women differs from that of men in terms of their portfolio size, and volatility. For men and women family ties played a crucial role in explaining shareholding

Research limitations: Our research is conducted using historical data, not replicable. Also is it a study case without extrapolation.

Value: Historical narratives delve into the origins of contemporary financial gender inequality in an effort to narrow the gender gap. The case of Spanish private banks may contribute to the current debate on gender financial gap, tracing women investors in assets and their rational behavior.

JEL Codes: G21, J16, N24

Key words: women shareholders, feminization of shareholding, commercial banks

1. Introduction

Policy makers have devoted attention to gender diversity on corporate boards and board of directors. Starting in 2003, numerous countries and supranational organizations have actively encouraged the implementation of quota policies in large companies – public or private firms (Casey, Skibnes, and Pringle 2011). While the literature still presents divergent views on the relationship between gender diversity and firm performance, the positive effects have gained firmer support (Chen et al. 2019; Matsa and Miller 2013; Carter 2006).

Prior to women ascending to the top management positions in corporations (Heemskerck and Fennema 2014), they actively participated in assets ownership as part of complex financial strategies to generate income and engage in speculative investment. Financial agency among women could mean the difference between having a limited economic security, or a recurring income and higher profits. This paper presents evidence that the feminization of capital is driven by rationality and profit-seeking, just as men's economic decisions are claimed to be. Our results reinforce the thesis that the presence of women investors was not only pioneering by developed economies but was rather a reflection of a deeper phenomenon associated with institutions and modernization. The paper suggests the metaphor that capital is gender-blind and explains the inclusion of women in shareholding through their familial connections. We use evidence from three banks from the first half of the 20th Century in Spain to show that when time arise to attract new investors and savers, capital became blind, and social conventions may fade away.

Authors previously have discussed the concept of feminisation of capital (Haan 2022) and democratization of access to financial assets (Rutterford 2021). For the US and UK context, researchers have indicated that in the first third of the 20th Century, just before the 1929 stock market crash, women outnumber men as owners of capital in a handful of prominent American companies, such as General Electric, or AT&T (Haan 2022, 522). During a historical phase when women did not have access to many of the vectors for social advancement available to men, ownership of shares offered a non-discriminatory dividend. Similar to men, the decision to access financial assets could be personal or based on professional consultation. The lower financial literacy among women suggest a potential over -influence of their family, and higher aversion to risk. Current literature emphasizes the importance of financial literacy in bridging the gap in assets ownership

(Fey et al. 2021; Almenberg and Dreber 2015; van Rooij, Lusardi, and Alessie 2011). Although from a historical perspective, when investing was only for an elite, financial literacy factor might be relativized. Because the majority of women engaging in financial transactions belonged to the elite or upper-middle class, they had easier access to the intellectual training, basic investment knowledge, networking opportunities for advice, and even the willingness to invest independently (Acheson et al. 2021). These elite women were joined by others less privileged – but still upper middle class – who, through savings or inheritance, viewed financial assets as an unbiased means for generating returns.

Female shareholding provides insight into the historical significance of women's economic decision-making and investment practices, as it aligns with a longer history of women's accumulation of financial assets and liquid wealth (Laurence, Maltby, and Rutterford 2012). These women were widows, or heiresses, and all of them made rational choices or sought advice to invest their savings and fortunes (Erickson 2022). The presence of a significant percentage of women acquiring shares suggest that capitalism was gender blind, offering another perspective to the current financial literature analyzing the gender financial gap. The mobilization of wealth into more liquid forms explains much of contemporary development (Deere and Doss 2006). Women willingness to participate in financial assets indicate that they try to find better opportunities for their capital (Froide 2016). Therefore, women protected their money – as family custodies – but also aimed for growth and profit.

This paper will look at the women shareholders in a group of banks representative of the private financial system in Spain. Spanish women had access to real estate ownership, which distinguishes it from other countries where legal innovations were necessary to uncover women's participation in financial matters, such as United Kingdom (Freeman, Pearson, and Taylor 2006; Newton and Cottrell 2006; Green et al. 2011; Rutterford 2021) or United States of America (Hazan, Weiss, and Zoabi 2019). Therefore, the usual caveats regarding legislative changes do not have a key point in explaining the increasing number of female shareholders in a not-so-sparking economic environment, because the legal framework was friendly (although far from an equalitarian society). Notably, significant social upheavals, both positive (the winds of freedom of the Second Republic in 1931) and negative (the onset of Franco's dictatorship after 1939), did not seem to disrupt the upward of women as investors. By examining the shareholder lists of three banks, this paper demonstrates that women owned a much larger share of financial assets than

previously assumed or acknowledged both for the literature and society. What does this study bring up to the discussion? In addition to the geographic variation in a topic dominated by Anglo-Saxon cases, always thought-provoking, it provides high-quality data that explore the family connections between male and female shareholders. The quantitative findings contribute to broadening and improving the international debate on why women invest and whether their investment behavior differs, or not, from that of men.

Current research is part of an agenda that explore the multidimensional side of women and finances in Spain for the contemporary period. In previous studies, we have shown in a study case that women participated in shareholding helped by familial connections (Martínez-Rodríguez and Lopez-Gomez 2023). Following this initial work, examining multiple banks from a similar period was imperative, although this task had resulted quite challenging. The current paper has assembled a new database that provides more robust evidence of how men and women utilize their family connections to penetrate the network of bank shareholders. We already published a very preliminary and qualitative paper on a similar issue (Martínez-Rodríguez 2021). The participation of women in assets ownership is a consequence of the expansion of financial wealth, a more enduring phenomenon that, once manifested, permeates society, and becomes a lasting presence. Our final goal aims to make a valuable contribution to the recent literature on gender and finance, which has implications for both contemporary and historical contexts.

The structure of the article is as follows. The second section provides a minimal historical background, description of the data, and methodology. The third section shows the main descriptive results of the paper. The analysis of three banks reveals that there was no single path, although relevant stylized facts can be drawn from them. Women did not occupy a marginal position as shareholders, nor was their participation the result of a particular external event. The lever for women's increase in shareholding was similar to the pattern used to incorporate multiple male members of the same family (as shareholders): kinship. This continuist strategy was not egalitarian because women had a smaller portfolio, although this did not mean they were massively modest shareholders (less than 5 shares). The fourth section offers a reflection, as a mode of discussion, on how the female shareholders are not only a specific of this study case, but they could be considered a manifestation of the modernization. The sixth section concludes the article.

2. Background, data and method

Banks have historically played a crucial role in financial stability and economic growth (Leventis, Dimitropoulos, and Owusu-Ansah 2013). Furthermore, banks have fiduciary responsibilities not only to shareholders but also to various stakeholders such as depositors, the government, and society at large (Mehran, Morrison, and Shapiro 2011). As banks served as final depositories for wealth, it was highly likely that women might be also users of other services provided by the bank, i.e., owner of any asset. It is plausible to write those women who purchased bank shares had (at least some) information, about efficiently managing their wealth. In Spain, for the studied period, women's rights concerning access to economic property already had been well-established for centuries. Spanish women had equal access to inheritances from their parents, just like their male siblings (Gete-Alonso and Solé Resina 2014). However, married women were subject to the authority of their husbands, in matters related to financial decision-making. Other studies have pointed out that the advent of the Second Republic – period of civil rights achievements, i.e. female vote in 1931 – did not impact women's access to financial assets (Martínez-Rodríguez and Lopez-Gomez 2023). In this study, we see that the rise of a fascism dictatorship, also did not diminish the presence of women.

The primary source for this paper is the list of Annual Shareholders' Meeting of three banks during selected years in the first half of the 20th Century (described into the references): Banco de La Coruña (1918-1922), Banco Hispano Americano (1922-1935), and Banco de Irún (1929-1948). The combination of these private banks provides a balanced sample of local, regional, and nationally established banks. We ensemble a unique database of 34,121 data points (2,331 shareholders from Banco de La Coruña; 29,631 shareholders from Banco Hispano Americano and 2,159 shareholders from Banco de Irún).

The Spanish shareholders lists furnished information about the shareholders' full names, the number of shares they owned and their place of residence. Ownership of the share correspond to individuals, groups or entities. The list did not provide information about marital status or professions, and this a limitation for the analysis. Halas a particularity that makes Spanish listings unique is that they can offer insights into kinship, which is a novel aspect for this research. In Spain, individuals are identified by two surnames. Women and men in Spain kept both surnames — first the paternal surname, followed by the maternal surname — throughout all their lives. Building on previous works (Guinnane and Martínez-Rodríguez 2018), we will assess the presence of sibling kinship by counting the number of men and women who shared both surnames with any other shareholders.

Previous works have already discussed the advantages and disadvantages of considering horizontal and direct kinship (siblings) as a result of parental inheritance (Martínez-Rodríguez and Lopez-Gomez 2023).

During the early 20th Century in Spain, a network of branches and a modernized banking system experienced significant growth and expansion. This transformation turned bank shares into a financial instrument that was considered more reliable and accessible to savers than other types of assets (Martínez Soto and Hoyo Aparicio 2018). The Banking Regulation Law of 1921 (*Ley de Regulación Bancaria de 1921*) applied to the studied period (Pons 2012a, 71–98). In the 1920s, there was a clear consolidation process among the country's main financial institutions (i.e. Banco Hispano Americano), and at the same time there were also a significant number of smaller banks with a local or regional scope (Martín-Aceña 2012, 112) as happened with Banco de La Coruña and Banco de Irún (hereafter Banco Coruña and Banco Irún). By the early 1930s, the number of private banks reached its peak at 127. However, the civil war (1936-39) led to the physical division of the country into two sides and shattered the financial system. By then, the bank office had become a new point of reference in urban areas, representing modernity. For the banks of Coruña and Irún, the database enables a comprehensive analysis of the early development of each bank. Banco Coruña was established in 1917, driven by the recognition of the city's merchants and other prominent men who demanded a local bank (Lindoso Tato and Vilar Rodríguez 2008).² Banco Irún (Guipuzcoa) was a local bank established with the support of the Official College of Agents and Commissioners of the Customs of Irún (Archivo Banco Bilbao Vizcaya 1999).³ Banco Hispano Americano, founded in 1900,⁴ was one of the largest private banks in the country. For the period of

² The Banco Coruña began with 5 million in capital, disbursing 2 million in 1918, 3 million in 1919, and fully utilizing its total registered capital by 1920 (Archivo Banco Bilbao Vizcaya 1999) (Archivo Histórico Banco Bilbao Vizcaya 2001).

³ The initial registered capital of 2 million was only disbursed at the 50% (Archivo Histórico Banco Bilbao Vizcaya 1998a).

⁴ The bank's deed, registered in 1900, showed a capital of 100 million, later increased to 200 million in 1930. By 1935, it had 100 million pesetas in circulation and another 100 million in the portfolio, indicating substantial growth potential (Archivo Histórico Banco Bilbao Vizcaya 1998b; García Ruiz and Tortella 2007).

the 1920s and 1930s showed a much more complex network of shareholders. The studied years from Bank Hispano Americano (from 1922 to 1935), coincided with its expansion across the national territory as well as the modernization of the national bank network (Pons 2012b, 78). In all banks there was changes in the shareholding, although, following the logic of the demographics, in Banco Hispano Americano and Banco Irún part of the original shares have changed hands, been inherited by second or even third generation of the first shareholders.

The combination of banks' profiles is interesting for analyzing the feminization of shareholding. Following a plausible hypothesis, shareholders who founded Banco Coruña or Banco Irún, may assume a higher risks, and the individuals involved in those transactions may be members of the same network or business relationships. Given the exclusion of upper-class women from the labor market, they may have had fewer opportunities to be invited to such networks, therefore women would not be as shareholders in first year of the bank or they would appeared less than later. Another hypothesis is that, regardless their stage in the life cycle of the bank, there might be a significant number of women shareholders, reflecting the spread of financial wealth of the society. Also, the fact that the number of women improved and increased over the years, aligned with the phenomenon of the feminization of capital. Did a mature network of shareholders have more women? Were these women relatives of other shareholders? Was it therefore a family strategy? What can we say of the men relatives of other shareholders? These hypotheses and questions are analyzed in the following section. We do not have answers for all.

The methodology employed to obtain the results highlights the graphical representations of descriptive statistics, such as percentages, variances, correlations, and cross-correlations. We use a mathematical tool, Hodrick-Prescott filter, to remove short-term fluctuations associated with the economic cycle. Furthermore, we implemented a logistic regression model to identify the characteristics that increase the probability of an individual being a shareholder and woman. A robust historical analysis supports the statistical tools that enable the understanding of the data and underlying factors influencing the presence of female shareholders. It is noteworthy to note that the approach adheres to a fundamentally binary structure, wherein female attributes are compared to male shareholders.

3. Results.

3.1. Description of women shareholders in Spanish private banks

The analysis of male and female shareholders in selected Spanish banks during the first half of the 20th Century reveals a noteworthy increase of women shareholders. Specifically, in the case of Banco Coruña, there was a noticeable increase in female shareholders, particularly after 1919, as depicted in Figure 1a. The proportion of women among the bank's shareholders climbed from around 12% in 1918 to over 15% in 1922. Interestingly, this upward trend in female shareholders coincided with a decline in the percentage of male shareholders in the same bank, as shown in Figure 1b. But while the total number of shareholders grew by 3.24 percentage points, the percentage of male shareholders decreased by 7.07 percentage points from 1918 to 1922. This suggests a changing ownership landscape for the bank, characterized by a decrease in male shareholders.

Figure 1a. Percentage women shareholders Banco Coruña (1918-1922).

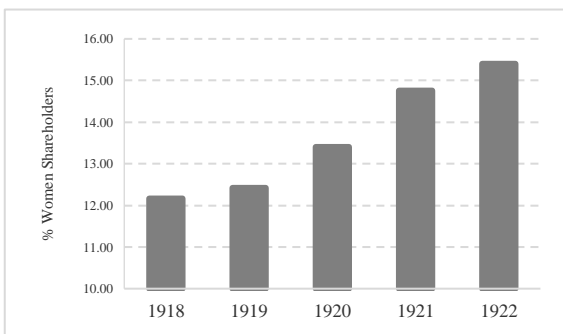
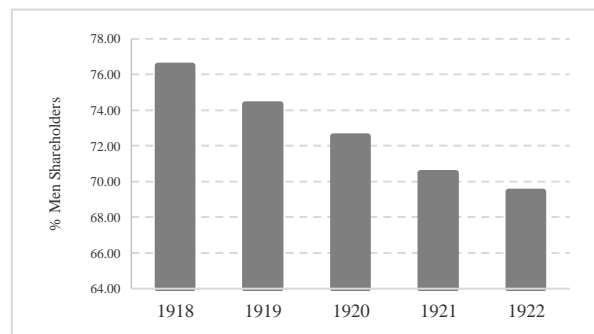


Figure 1b. Percentage men shareholders Banco Coruña (1918-1922).



Source: Own database

Table 1 provides key indicators regarding the presence of women and men at Banco Coruña (1918-1922). The average percentage of women shareholders over the analyzed period was 13.63%, while men shareholders accounted for 72.65% on average. Family groups – that is, several relatives who share the ownership of the same portfolio - constituted 9.76% of the shareholders. However, the presence of family relationships among shareholders is 3.62 for women and 4.85 for men; in term of shares the gap is higher. (For more indicators, see table A.I.1).

Table 1. Indicators of the presence of women and men at Banco Coruña (1918-1922)

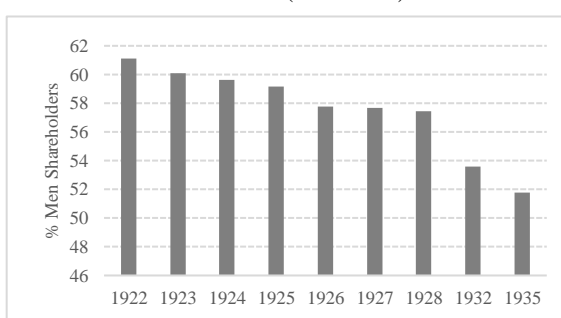
Source: Own database

The Banco Hispano Americano (1922-1935) exhibited a significantly higher percentage of female shareholders compared to Banco Coruña. Certainly, there is an issue of scale due to its extensive coverage and a distinct urban and mature profile since the 1920s. The extensive network of branches achieved over several decades was attributed to the institution's prestige and financial stability (García Ruiz and Tortella 2007). During the years examined, the proportion of female shareholders in the bank increased from 36.65% in 1922 to 46.03% in 1935. In contrast, the percentage of male shareholders experienced a decline, dropping from 61.11% to 51.79% over the same period.

Figure 3a. Percentage of Women shareholders Banco Hispano Americano (1922-1935).



Figure 3b. Percentage of men shareholders Banco Hispano Americano (1922-1935).



Source: Own database.

Table 2. Indicators of the presence of women and men at Banco Hispano Americano (1922-1935).

Source: Own database

Table 2 provides indicators of the presence of women and men at Banco Hispano Americano (1922-1935). On average women accounted for 40.15% of the shareholders, while men accounted for 57.58%. At the Banco Hispano Americano for the studied period the ownership of the shares was exclusively individual, and for that reason the presence of family groups among the shareholders is zero. A total of 34.85% of the shareholders had family ties. Among women shareholders, 17.55% were related to other shareholders, while among men shareholders, 17.97% had family connections. In terms of shares' ownership, 13.66% of the shares were in hands of women related by kinship with other shareholders, while 17.99% of the shares held by men were related to family ties. Banco Hispano Americano had a significantly higher percentage of female shareholders (40.15%) compared to Banco Coruña (13.63%). Banco Hispano Americano had a higher percentage of shares held by women (28.53%) compared to Banco Coruña (6.14%). The longevity of multigenerational family shareholders' at a bank with widespread geographical coverage in Spain explain this feminization of the shareholder base, a fact that has already been pointed out (Martínez-Rodríguez and Lopez-Gomez 2023). Women

at Banco Hispano Americano were an increasingly interested group when it comes to possessing their own financial assets and maintaining them to derive profitability. (For more indicators, see table A.I.2).

Figure 4 shows for Banco Irún a notable increase in the percentage of women shareholders, despite the challenging circumstances of a civil war (1936-1939) and the post-war era. The percentage of women shareholders rose from 12.57% in 1929 to 28.36% in 1948, while the percentage of male shareholders declined from 68.86% to 60.45%. Women were gaining ground among the shareholders, even in the midst of external shocks and economic uncertainty. The findings align with other studies conducted during the same period suggesting that access to financial assets was not significantly disrupted by transient external factors (Battilossi, Houpt, and Verdickt 2022). The increasing presence of women as shareholders in Banco de Irún, particularly in the post-war years, reflects their growing engagement in the financial realm. The finding highlights the enduring nature of the increasing presence of women in shareholder positions, pointing towards a deeper transformation in the economic and social landscape.

Figure 4a. Percentage of women shareholders Banco Irún (1929-1948).

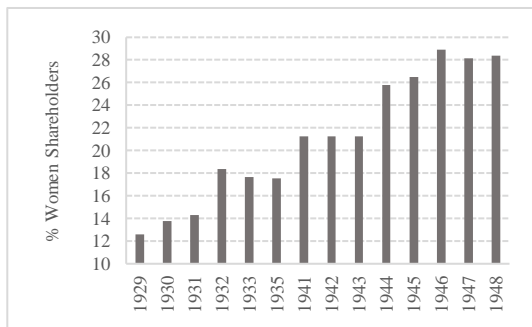
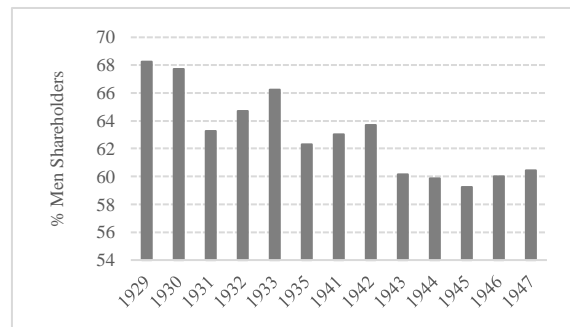


Figure 4b. Percentage of men shareholders Banco Irún (1929-1948).



Source: Own database

Despite being a local bank, like Banco Coruña, Banco Irún exhibits a higher percentage of female shareholders. Figure 4b illustrates the progressive decline in the percentage of male shareholders in Banco Irún, with occasional increases in specific years such as 1933 and 1942. However, the number of male shareholders in Banco Irún significantly surpasses the number of female shareholders, consistently remaining at around 60% throughout the analyzed period. This pattern aligns more closely with Banco Coruña rather than Banco Hispano Americano, where the gender distribution among shareholders was more evenly balanced.

Table 3 illustrates the presence of women and men at Banco Irún. The average percentage of women shareholders in Banco de Irún is 21.11%, which is higher than the percentage

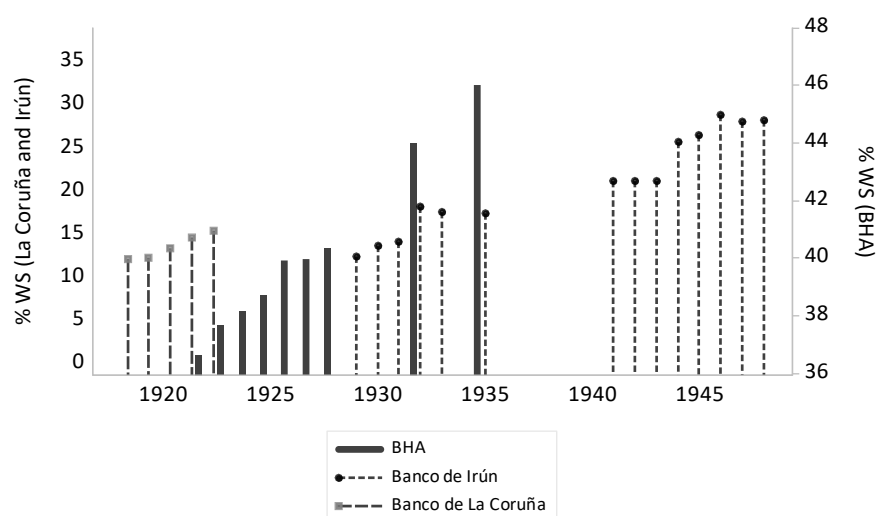
at Banco Coruña, but lower than the percentage at Banco Hispano Americano. In terms of family groups, Banco Irún shows a higher percentage compared to Banco Coruña. Women hold approximately 16.20% of the total shares at Banco Irún, which is higher than the percentage at Banco Coruña but lower than the percentage at Banco Hispano Americano. Men, on the other hand, hold around 65.38% of the shares, which is lower than Banco Coruña and higher than Banco Hispano Americano. Regarding shareholders related by kinship, Banco Irún has a higher percentage compared to Banco Coruña but lower than Banco Hispano Americano. This further corroborate the hypothesis that a higher representation of women in the shareholding structure of banks is observed during periods of greater institutional maturity and in urban settings. (For more indicators, see table A.I.3).

Table 3. Indicators of the presence of women and men at Banco de Irún (1929-1948).

Source: Own database

All in a nutshell, data reveals a progressive increase in the presence of female shareholders in Spanish banks during the first half of the 20th Century, which is of significant importance (Figure 5). Two patterns become evident. Firstly, the incorporation of women as owners of financial wealth suggests a new form of access to wealth that is gender blind as the increase in female shareholders did not seem to be affected by external shocks. Secondly, wealth inequality was not gender-blind, because a significant bias favoring men persists. It is worth noting that the study concern to three specific banks and the results are not extrapolatable.

Figure 5. Percentage of female shareholders in the three banks for the entire period (1918-1948).



Source: Own database

3.2. The smaller shareholders

A quantitative aspect that can provide insights into the process of women's access to financial assets is the progression and advancement of small shareholders. Financial literature indicates that women, in general, invest in assets less than men. Literature claims that the main reasons behind this gender gap are risk aversion (Fey et al. 2021) and lower financial knowledge (Almenberg and Dreber 2015). Table 4 pays attention to small portfolios consisting of 1 and 5 shares. The nominal value of each share (for each of the banks) was 500 pesetas – approximately 1,000 euros in 2023 using the historic standard of living –⁵. It is of interest to determine whether small shareholders exhibit a gender bias or not. The ownership of a single share can symbolize an effort to have a minimum income, the result of transforming savings into an investment product that yields profits, albeit subjected to risks. Holding 5 shares indicates a more active investor profile – 2,500 pesetas, approximately 5,000 euros in 2023 using the historic standard of living. For example, the month salary of a public school teacher was 1,100 pesetas (Boletín Oficial del Estado 1942).

Table 4. Small shareholders (≤ 5 shares). Men and women. Period average.

Source: Own database

When analyzing Banco Coruña, it becomes evident that a higher percentage of men own five shares or fewer compared to women (27,34%). This fact reflects the initial stage of the bank and its demographics. More than a quarter of all male shareholders had an initial contribution of five shares, represented the emerging middle classes who wanted to participate in the most significant financial event for the entire region (Lindoso Tato and Vilar Rodríguez 2008). None of the men hold a single share. However, although women were a few, they had a presence with the symbolic value of a single share. For Banco Hispano Americano, we would expect a significant presence of small shareholders because of the high presence of women. However, the similarity between men and women who hold both one and five shares is interesting. Women holding five shares representing nearly 10%, while those holding just one share do not even reach 1%. The lack of a

⁵ Average value as reported by 'Measuring Worth' for the year 1920. <https://www.measuringworth.com/calculators/spaincompare/relativevalue.php> (accessed 8 July 2023).

pronounced gender bias demonstrates a similar economic rationality behind – both male and female – shareholders, in seeking economic benefits. The proportion of women owning five shares stands at 4.30%, whereas this figure is three times higher for men (12.38%). Notably, it is worth mentioning that there is not a single female shareholder who possesses a single share. The results in this section underscores the notion that feminization from below was not exclusive to large banks and emphasizes the capital mobilization of local entities. Similar to Banco Coruña, Banco Irún demonstrates a significant gender disparity in the distribution of portfolios with five shares.

3.3. The relevance of the family to become shareholders

This section examines the family relationships between male and female shareholders of Spanish banks. Previous research posted out that women owners of banks stocks was closely related to the presence of relatives in the bank. The equal inheritance system that ruled in Spain during this period facilitated that upper class daughters inherited to financial capital (Martínez-Rodríguez 2021). However, married women in Spain were subject to their husband's authority to dispose of their assets, but they did not require his permission to accept formal ownership of an inheritance. Moreover, the dominance of an egalitarian inheritance system provided women with greater opportunities to accumulate capital compared to countries where male primogeniture prevailed (Zimmerman 2020). However, research on Spain has not delved into the thesis that inheritance law and marriage conventions hindered property concentration in male hands (Nazzari 1995).

Figure 6a. Percentage of shareholders related by kinship. Women and men (1918-1948).

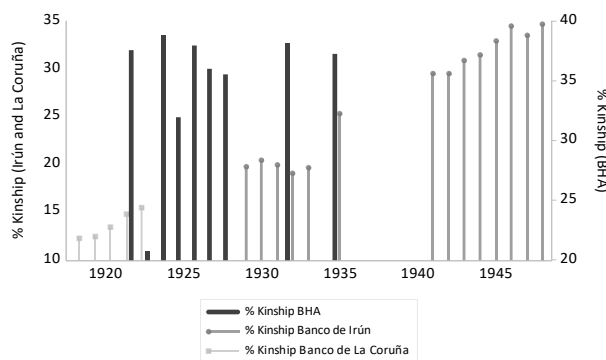


Figure 6b. Percentage of shareholders related by kinship. Female shareholders (1918-1948).

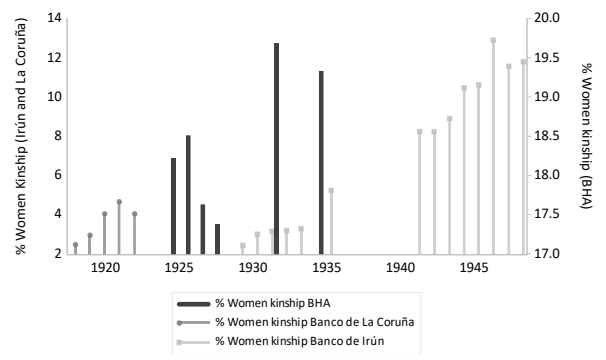
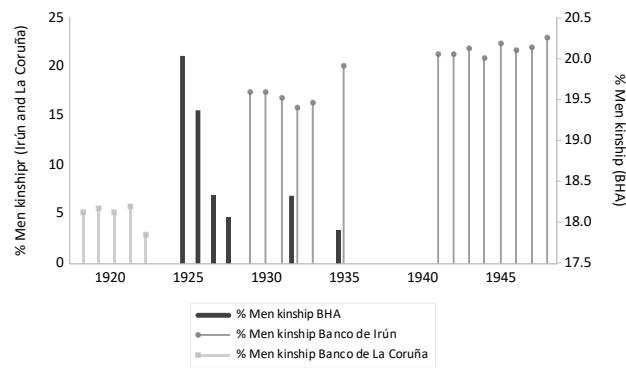


Figure 6c. Percentage of shareholders related by kinship. Male shareholders (1918-1948).



Source: Own database

Figures 6a) to 6c) show the evolution of the percentage of shareholders with kinship relationships. The overall percentage of shareholders shows an increasing trend for all three banks, with Banco Hispano Americano and Banco Irún exhibiting particularly high levels. These two banks consistently have more than 30% of shareholders who are related by kinship (sharing both surnames) during most of the period, reaching as high as 40% in the case of Banco Hispano Americano. The prevalence of endogamy among shareholders indicates the existence of shared investment strategies within families, seeking profitability for their savings. Endogamy was an entrance in the shareholding both for women and men.

The chronological context also contributed to the increase in the number of shareholders, particularly during the 1920s with the expansion of bank branches following the Banking Regulation Law of 1921. The persistence of family ties continued in the 1930s and 1940s. This enduring trend remains unaffected by significant political changes that impacted Spain during these two decades: the arrival of a new era of freedom during the Second Republic (1931) and the subsequent repression under the conservative Francoist regime established after the devastating civil war (1936-39).

For Banco Coruña the total percentage of male and female shareholders who have a family relationship was 4.01% in 1922, increasing by more than one percentage point since the beginning of the period. Even though the total number of shareholders related by kinship has not increased significantly, we do see that they represent a significant percentage of the total shareholders. Although the percentage of men with relatives is higher than that of women with relatives, men's evolution shows that their presence is also more volatile than that of women related by family.

Banco Hispano Americano exhibits a remarkably similar evolution and closely aligned values to Banco Coruña, diverging only towards the end of the period. In the 1930s, women with family ties tended to maintain their shares more than men with the same family connections in Banco Hispano Americano. When examining the percentage, both male and female, with family relationships in Banco Hispano Americano is higher compared to Banco Coruña. For Banco Hispano Americano, these values consistently exceed 30% for almost the entire period, peaking at nearly 40% in 1935. Significant exogenous shocks during this period, such as the advent of the Second Republic and the enactment of universal female suffrage, had no impact on the decision of families to transmit assets to their daughters. (We will delvet this topic later).

For Banco Irún, the pattern deviates from the previous banks. The percentage of male shareholders with relatives in the bank is higher than that of female shareholders, and both groups experience an increase and reach higher levels in the post-war years. The establishment of the Catholic fascist dictatorship in Spain after the Civil War did not diminish the incorporation of women into shareholding. Despite the political regime's clear stance on the traditional role of women, it appears that banks were relatively indifferent to these societal norms as long as women had savings to invest or channel.

In general, differentiating by gender - figures 6b) and 6c)- the percentage of men with kinship relationships is higher than that of women. And even though this was due to the fact that more men also owned shares, if we look at the evolutionary dynamics of this percentage for men and women, we see how, in the case of women, the increase is greater than in the case of men, following the trend of the presence of women in the three Spanish banks.

In Figure 7a) shareholders of Banco Coruña and Banco Hispano Americano show a gender-based difference in their selling behavior. Men appear to be more inclined to sell their shares, while women tend to hold onto their investments for longer, aiming for a stable annual income. This suggests a divergence in investment strategies between men and women in the financial markets. Men tend to adopt a short-term vision, capitalizing on favorable market conditions for immediate gains. On the other hand, women exhibit a more long-term perspective, seeking to secure their wealth over their lifetimes. As a result, women generally hold their shares for more extended periods, leading to reduced variability among male and female shareholders. This result may require further study, using more financial data for each bank.

Figure 7a shows the variance in the percentage of shares held by men and women over time for each bank. Meanwhile, Figure 7b reveals the variance in the percentage of shares held by men and women with kinship relations for each bank. In the case of Banco Coruña and Banco Irún, Figure 7b demonstrates that male shareholders with family relationships exhibited higher variance compared to women in the same situation. This suggests that women's investments tend to be more stable than men's. Overall, these findings indicate that gender-based differences in investment behavior and family wealth distribution have distinct implications on the financial dynamics of the banks analyzed.

Figure 7a). Variance of the percentage of shares held by men and women over the period for each bank.

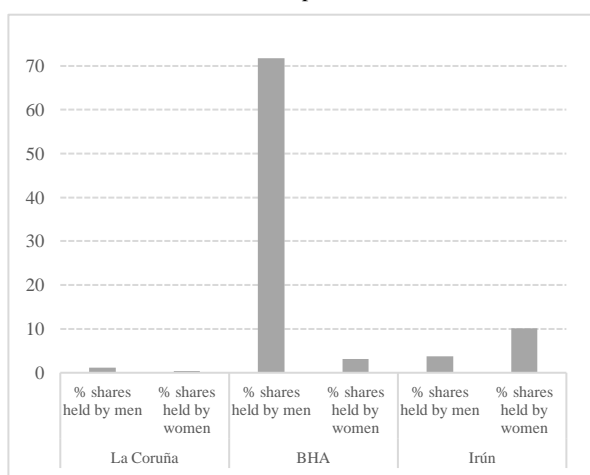
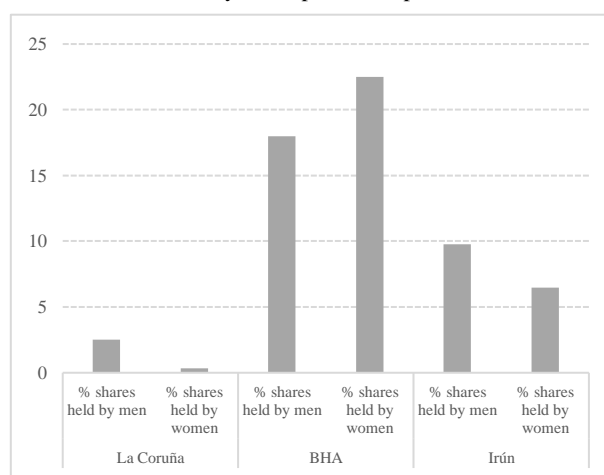


Figure 7b). Variance of the percentage of shares held by men and women related by kinship over the period for each bank.



Source: Own database

4. A discussion on female shareholders as a manifestation of modernization.

This section delves into an idea reiterated since the beginning of the text: the persistent increase in female shareholders is not a temporary aspect, but rather stems from deeper causes. To analyze in depth whether the special economic cycle is influencing this growing female presence, we use the Hodrick-Prescott filter to separate the cycle part from the trend part of the female shareholder series of the three banks.

Figure 8. Trend and cyclical component of the percentage of women shareholders

Source: Own database

Figures 8a) to 8d) show that the increasing presence of women among the shareholders of Spanish banks during the first half of the 20th Century was robust and not subjected to variations in the economic cycle. Given that the years analyzed coincide with the years prior to the Civil War (1936-1939) and the difficult post-war years, it is noteworthy that, even in this context, women began to have a greater presence in the financial markets.

In order to delve deeper into the reasons for the gradual increase of women among the shareholders of these Spanish banks at the beginning of the 20th Century, we conducted several logit estimations to identify the characteristics that increased (or decreased) the probability of being a female (male) shareholder during the studied period. Shouldn't the stages of economic and social turbulence affect risk-averse individuals more? In these estimations we have two possible dependent variables, female and male shareholder, this means that the results will be interpreted as follows: if the quotient of the explanatory variables is significant and positive, this means that the probability of being a female (male) shareholder is higher if the conditions of the explanatory variable are met. If the coefficient is significant and negative, the interpretation is the opposite.

Table 5. Logit regressions for the three banks at the beginning and at the end of the period. Dependent variable:
Female shareholder.

Table 5 shows the logit estimations whose dependent variable is whether or not a woman is a shareholder. The two explanatory variables are the number of shares owned by the shareholder and being a relative or not. This kinship variable is defined as follows: it takes the value 1 if the shareholders share both surnames and 0 otherwise. In the case of Banco Coruña and Banco Hispano Americano, the higher the number of shares, the lower the probability of being a female shareholder for all years. The same occurs for the last years of the 1940s for Banco Irún. In the case of the variable kinship, in all years for the first two banks, having family in the bank means a higher probability of being a female shareholder. During the first half of the 20th Century, Spanish women benefited from having relatives in the shareholding of private banks to join the network of shareholders. Interestingly, the variable kinship is not significant in the case of Banco de Irún. However, the figure 8d) shows that from 1941 onwards, there is an increase in the number of female shareholders with relatives in that bank. This increase is greater than in the case of men. Indeed, Figures 9a) and 9b), which show the cross-correlation between the percentage of

female shareholders and the percentage of male and female shareholders with kinship relationships, point out that after 1941 the correlation between these two variables – female shareholders and percentage of shareholders related by kinship – is positive and significant (over passing the black line set at ± 0.8), whereas before it was not.

Figure 9a). Cross-correlation between the lags and leads of the variable's percentage of female shareholders and percentage of shareholders related by kinship. Banco de Irún (1929-1935.)

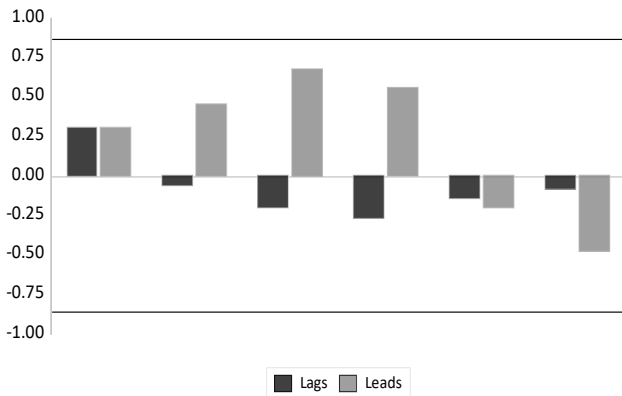
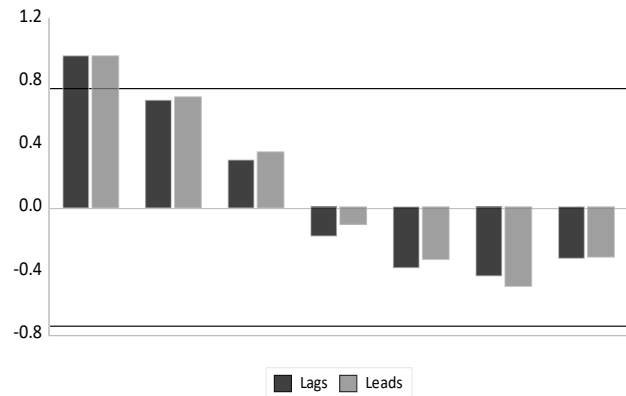


Figure 9b). Cross-correlation between the lags and leads of the variable's percentage of female shareholders and percentage of shareholders related by kinship. Banco de Irún (1941-1948).



Source: Own database

The correlation analysis reveals interesting findings regarding the relationship between the percentage of female shareholders and the percentage of shareholders with relatives in the previous year during different time periods. In the period from 1929 to 1935, the correlation falls within the confidence bands (represented by the black lines at ± 0.8), suggesting that the correlation was not significant then. However, between 1941 and 1948, the correlation exceeds the confidence bands, indicating a positive relationship between the percentage of female shareholders and the presence of shareholders with relatives in the previous year. These results imply that starting from 1941, women associated with the Banco Irún gained increasing importance, following the trend set by shareholders of the other two banks: it highlights the significant role of kinship in the shareholding structure, particularly for women. This emphasis on familial connections fostered financial inclusion for women and facilitated their participation in today's financial markets.

5. Conclusions

Historical research on women's investment in financial assets highlights significant facts. The first is the relevance of female capital in the modernization of a country. The wealth of women, channeled through bank shares, would have had a direct impact on the

economy, like that of men. Second, pioneer women investing in shares meant that they had the eagerness to take risks, or initiative to seek for specialized advice. Having family support did not diminish these traits, as men also relied on family ties, and specialized literature does not mention it as a risk-averse trait. The third fact is that feminization of financial assets was driven by profitability. Stepping out of the Anglo-Saxon literature reveals that the generalization of female shareholders does not necessarily have to be the result of external shocks. In the Spanish case, it seems more like a consequence of modernization. When a bank sought investors and the investment became well-known, shares ownership became popularized among the upper class. Female capital was not disregarded. Through a unique database of three private Spanish banks, we analyze the presence and evolution of their female shareholders (compared with male shareholders). Access to financial assets was framework by two robust institutions supported them: (1) the law, which for centuries guaranteed women's access to property; (2) the family, which actively supported women in accessing financial assets. Men and women accessed shareholding through family ties, although a bias persisted because men's portfolios were larger. Women generally hold their shares more time.

The incorporation of women as owners of financial assets suggests a new form of access to wealth that was gender blind, as the increase in female shareholding did not seem to be affected by external shocks. Women were also involved in the establishment of banks, but mainly, they flourished when the banks had already achieved a level of maturity. Women were there, indeed, due to family ties, as did so men. Families directed their daughters' wealth towards a product that offered higher profitability. The stocks offered unbiased returns, and bank shares in the Spanish case were among the few options for liquid assets that existed.

This paper leaves questions unanswered for future research. Firstly, it prompts us to consider the demographics: Were there other pioneering women financial investors before the studied period? Could it be a relevant collective of female shareholders in 19th Century Spain as well? Secondly, the research calls for more financial data to explore whether the refrain to sale assets was driven by cultural values that influenced women to adopt a more conservative approach, choosing to preserve wealth within the family.

Appendix I. Descriptive analysis

Table A.I.1. Descriptive statistics Banco Coruña (1918-1922).

Table A.I.2. Descriptive statistics Banco Hispano Americano (1922-1935).

Table A.I.3. Descriptive statistics Banco Irún (1929-1948).

Appendix II. Logit regression

Table A.II.1. Logit regressions for Banco Coruña. Dependent variable: Female shareholder.

Table A.II.2. Logit regressions for Banco Hispano Americano. Dependent variable: Female shareholder.

Table A.II.3. Logit regressions for Banco Irún. Dependent variable: Female shareholder.

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