The Mechanism of Gender Differences in Housing Returns: From Negotiation and Wages to Return on Investment

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Abstract. This review explores the mechanisms that contribute to gender differences in housing investment returns. Research indicates that women typically experience lower annualized returns in real estate investments compared to men, and this disparity remains consistent across numerous countries and various institutional contexts. The primary mechanisms behind this phenomenon include: first, the gender wage gap, which restricts women's credit capacity and influences their real estate choices, ultimately affecting their asset portfolios and investment returns; second, women often engage in more conservative pricing and are more likely to make concessions during house purchase and sale negotiations. They are also more influenced by social norms and risk perceptions, which can diminish transaction returns. Furthermore, societal structures and cultural environments can amplify psychological pressures and self-restraint, thereby perpetuating and intensifying gender differences at various stages of the investment process. Future research should aim to deepen the exploration of regulatory mechanisms such as negotiation psychology, market design, and information transparency, as well as investigate the complex pathways through which gender differences evolve in different systems and cultures. This could enhance the theoretical understanding of wealth inequality within the housing market.

1 Introduction

Housing serves as a fundamental pillar for enhancing the quality of life among residents and ensuring social stability, while simultaneously representing the largest asset within global household wealth portfolios. The accumulation of self-owned housing provides families with the resilience to navigate economic fluctuations and significantly influences the social status of individuals as well as future intergenerational mobility. Empirical evidence indicates that, in many countries, housing assets constitute over half of household net wealth and act as a critical conduit for wealth appreciation [1]. However, the distribution of benefits within the housing market remains markedly uneven, with gender disparities becoming increasingly pronounced. Recent economic and sociological research has consistently highlighted that women are historically disadvantaged in real estate transactions, negotiation processes, and

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investment outcomes. This disadvantage is documented across various regions, including the United States, Europe, and Australia. Notably, even when controlling for explicit variations in housing supply and market cycles, a significant gender gap in returns on real estate investments persists [1]. This discrepancy not only constrains asset accumulation for women-led households but also exacerbates structural inequalities in wealth and opportunity, presenting a pressing issue that warrants urgent scholarly attention.

Existing theoretical frameworks and empirical investigations have posited multiple explanations for this observed gender disparity. Primarily, women encounter income disadvantages within the labor market, which perpetuates wage gaps that subsequently affect credit limits. These limitations restrict women's latitude in choice and investment scope during home purchases. The initial disadvantages stemming from unequal wage levels propagate through mechanisms of credit leverage and real estate allocation, ultimately widening the disparity in investment returns [2]. Additionally, the impact of gender differentiation during negotiation processes cannot be overlooked. Experimental studies suggest that women are inclined to present more conservative offers and to concede more readily during negotiations concerning high-value assets, such as real estate transactions. Furthermore, they exhibit increased susceptibility to social repercussions and psychological pressures following unsuccessful negotiations [3]. Societal expectations surrounding gender roles and entrenched structural norms have shaped women's more cautious and risk-averse bargaining behavior, which, in turn, exacerbates the gender gap in economic returns.

Deepening the understanding of these interrelations is crucial for enriching theoretical discourse surrounding wealth distribution and economic behavior. Traditional family investment theories often assume homogeneous behavior among market participants, frequently neglecting the influential role of gender in shaping wealth accumulation trajectories via wage differentials, credit limitations, and negotiation strategies. Contemporary analyses in housing economics and behavioral finance unveil a more intricate "chain of mechanisms," wherein the gender identity of economic agents and prevailing social norms collaboratively orchestrate persistent disparities in wealth accumulation and resource allocation. A scholarly elucidation of these mechanisms will significantly contribute to the literature on wealth distribution and furnish a robust theoretical framework for comprehending entrenched inequalities within the market.

From a practical standpoint, the gender gap in housing investment returns transcends mere microeconomic implications for household asset well-being; it also permeates social structures through intergenerational transmission, thereby impacting broader objectives of equity and mobility. Conducting a thorough examination of the nexus between gender and housing returns is irreplaceable for advancing our understanding of investment behavior patterns, enhancing market information transparency, and elucidating the functions of social norms and contextual variables. A sustained focus on these issues will provide a solid foundation for both theoretical innovation and empirical advancements in the domains of housing economics and gender economics.

2 Gender differences in housing wealth accumulation: phenomenon and research objectives

Housing, as a fundamental asset class for familial wealth creation, exhibits that marginal disparities in housing returns can precipitate significant wealth divergences across generations over extended periods. In contemporary discourse, the academic community has increasingly scrutinized the nuances of gender inequality within the housing market and its consequential ramifications on wealth distribution. Building on this foundation, the present paper endeavors to elucidate the multifaceted mechanisms—encompassing wages, negotiation dynamics, and psychological behaviors—that converge to produce gender

discrepancies in housing returns. Furthermore, it seeks to investigate the convergences and divergences in the manifestation of these mechanisms across varied social structures and market environments, along with their theoretical implications.

Extensive analyses utilizing large-sample data have unequivocally established that women have historically faced disadvantages in comparison to their male counterparts concerning the annualized returns on housing investments. This disparity is not confined to the United States but has also been consistently corroborated within Northern Europe and other developed nations [1,2]. Crucially, this gap in returns remains resistant to elimination even after controlling for pertinent economic variables, including the physical characteristics of the housing asset and the timing of transactions [1]. The intricacy of this phenomenon is underscored by the realization that its origins cannot be attributed to a singular mechanism; rather, it is an outcome of an interplay among diverse structural factors such as wage income, housing leverage, negotiation practices, and prevailing social norms. To advance the theoretical discourse and endeavor to accurately delineate the contributions of each component, this article systematically reviews an array of empirical and experimental literature, aiming to construct a comprehensive "wage-negotiation-investment return" causal framework. This framework will enhance our understanding of how gender systematically influences the processes underpinning housing wealth accumulation.

3 Wage gap and credit constraints: the basis for gender differences in housing returns

To elucidate the causal mechanisms underlying gender disparities in housing wealth, it is imperative to first consider the gender wage gap. An extensive body of literature consistently demonstrates that variations in wage income have a direct influence on women's disposable income and their capacity to secure loans. Notably, the impact of credit constraints on high-value assets, such as housing, is particularly pronounced [4,5]. Empirical evidence indicates that female homebuyers typically encounter higher thresholds for down payments, limited loan amounts, and a lower acceptance rate for high-leverage scenarios. Consequently, these constraints significantly limit their options regarding housing location and type [1,6]. This array of credit limitations not only reflects consumption capacity but also directly impacts housing investment returns through the quality of asset portfolios.

Further analysis suggests that gender disparities in wage negotiations represent a critical source of structural wage differentiation. Across major economies, whether at the initial recruitment stage regarding starting salary negotiations or during salary adjustment discussions throughout employment, women tend to articulate lower expectations compared to their male counterparts and demonstrate a propensity to "actively make concessions" during negotiations. Large-scale surveys and experimental data reveal that, on average, women's starting salary requests are 4% to 7% lower than those of equally qualified men, with a marginally lower likelihood of acceptance by employers [4]. This "low starting point - low salary increase - low loan - low investment return" mechanism has been repeatedly substantiated in real housing markets, substantially widening the long-term wealth accumulation gap between genders.

Research conducted by Säve-Söderbergh using data from a Swedish national recruitment database has shown that the disparity between starting salary expectations and actual approved salaries not only influences short-term income but also exacerbates wealth gaps over time through leverage effects [4]. A similar framework applies within the housing credit market: wages determine leverage, leverage influences potential appreciation, and the interplay of these factors culminates in gender differentiation in housing returns [7].

4 Gender differences in negotiation behavior and housing investment decisions

In addition to wage disparities, negotiation behavior—a critical variable influencing housing returns—has garnered significant scholarly attention. Gender-based differences in negotiation manifest across several dimensions: starting bargaining position, bidding pace, concession strategies, and psychological expectations. Research indicates that women tend to present more cautious initial offers and exhibit a quicker concession rhythm in real estate transaction negotiations. These behaviors have a direct impact on the actual transaction price and the long-term returns associated with real estate investments [5,8].

Andersen et al. conducted an empirical analysis utilizing data from the Zillow database in the United States, revealing that female homeowners typically set initial listing prices for their properties lower than their male counterparts. This gender disparity persists even after controlling for the physical characteristics of the properties and fluctuations in the housing market. Furthermore, in the context of purchasing homes, female buyers are more inclined to "compromise and close the deal," as opposed to sustaining a protracted impasse. This inclination toward prioritizing the interests of the other party throughout the negotiation process ultimately detracts from the return on individual investments and may lead to cumulative disadvantages across successive transactions, inhibiting overall wealth appreciation [2].

Hernandez-Arenaz and Iriberri designed an alternating bidding experiment aimed at systematically documenting gender dynamics in real estate negotiations. The results indicated that female participants, even when subjected to conditions of equal information and resource allocation, tended to make concessions prematurely and more readily reached agreements, resulting in significantly lower economic outcomes compared to their male counterparts. This negotiation pattern is posited to be influenced by the constraints imposed by social gender roles and by a rational trade-off between strategic penalties and resource risks [5].

Additionally, Hernandez-Arenaz and Iriberri conducted a natural experiment rooted in an online recruitment platform, demonstrating that women exhibited more conservative negotiation tactics when engaging with male opponents, with their initial asking prices markedly lower than those presented to female counterparts. They attributed this behavior to prevailing gender power dynamics and social stereotypes, suggesting that women's negotiating disadvantages are exacerbated in specific interpersonal relationship contexts [8]. Huang and Low's extensive meta-analysis further highlighted that the impact of single-sex dynamics is diminished in contexts characterized by low competition or complete information [9,10]. However, it amplifies significantly in scenarios of high competition or strong perceptions of gender roles, where environmental and structural variables emerge as critical mediators [11].

Mozahem et al. approached this issue from a psychological perspective, contending that women generally possess a low assessment of their own "sense of deservingness" prior to negotiations. This psychological bias profoundly affects their initial bids, concession behavior, and overall negotiation outcomes. Experimental findings suggest that enhancing women's perceptions of their "sense of deservingness" can positively influence their negotiation performance; nevertheless, societal and environmental variables continue to exert a dominant influence [6].

5 Psychological mechanisms and social norms: assessment of structural disadvantage

A narrow focus on individual behavioral discrepancies may lead to the neglect of the profound, systemic factors embedded within social structures. The prevailing academic literature posits that social norms and gender stereotypes exert a considerable regulatory influence on women's psychological expectations, risk orientations, and subsequent behavioral decisions [3,9,10]. Research conducted by Exley et al. systematically quantifies the social penalties and negative evaluations that women encounter when engaging in active bargaining, utilizing both behavioral experiments and field surveys. Their findings indicate that women are significantly more likely than men to be perceived as "greedy" or "unsociable" following attempts to negotiate, with the adverse incentive effects of the social environment markedly diminishing women's aspirations and strategies in negotiation contexts [3].

Building on this, Dreber et al.'s investigation centers on the influence of risk attitudes in the context of gender-specific bargaining behaviors. Through theoretical modeling complemented by multi-scenario experimental frameworks, they discern that women exhibit a pronounced inclination toward risk aversion, particularly in scenarios characterized by uncertainty or involving high-value assets. Within high-risk environments, women actively curtail their investment amounts and favor conservative strategies due to risk expectations, often resulting in diminished actual gains compared to their male counterparts. This phenomenon is particularly observable in the housing market [10].

The social underpinnings of psychological factors are increasingly elucidated in contemporary research. Mozahem et al. assert that gender entitlement is not merely a function of individual capability but rather a product of the long-term co-development of social incentives, cultural narratives, and educational frameworks. Women are conditioned from an early age to align with societal expectations that prioritize stability, conflict avoidance, and deference to authority. Upon their entry into labor and capital markets, this ingrained psychological orientation translates into observable variations in bargaining strategies [6,10]. Furthermore, a meta-analysis conducted by Huang and Low underscores the overarching moderating role of social norms and market design on gender-related effects, suggesting that the inherent impact of gender itself is considerably less pronounced than the influences exerted by situational and structural variables [11].

6 Market structure and information environment: external amplification and boundary conditions of the mechanism

The amplification and attenuation effects of market structure design and the informational environment on gender disparities present a significant theoretical foundation for comprehending the gender mechanisms influencing housing return rates. A large-scale natural experiment conducted by Demiral et al. illustrates that simple informational "reminders" and institutional designs, such as explicitly indicating "salary negotiable" in recruitment advertisements, can markedly enhance women's negotiation enthusiasm and their ultimate salary outcomes, thereby offering a pragmatic and feasible approach to alleviating the persistent wealth gap [7]. This experimental finding underscores the regulatory and intervening effects of market structure and information ecology, revealing their acute sensitivity to endogenous gender discrepancies.

Empirical research by Hernandez-Arenaz and Iriberri corroborates that women are more prone to making suboptimal choices when negotiating with men, primarily due to information asymmetry and prevailing power dynamics. However, as the negotiation context shifts and the breadth of information disclosure increases, the gender gap in decision-making tends to diminish [8]. Furthermore, Andersen et al.'s investigation of the U.S. real estate market reveals that in environments characterized by robust intermediary structures—such as

regional real estate agents and information-matching platforms—the differences in gender benefits have experienced slight convergence, though they remain statistically significant [2].

Goldsmith-Pinkham and Shue utilized a comprehensive chain transaction database to illuminate not only the disparities in long-term housing returns but also to trace multiple stage variables, encompassing market entry, resale, housing type selection, and negotiation strategies. Their findings elucidate the dynamic amplification of gender effects influenced by various market structures and external environments. Housing investment is inherently a multi-faceted decision-making process involving several stages and interactive variables. The "micro-disadvantages" encountered at any stage can be cumulatively amplified through a chain reaction, ultimately resulting in pronounced wealth differentiation [1].

7 Institutional environment, cultural background and international comparison

The manifestation and mechanisms underlying gender disparities in housing returns are evident not only at the micro-individual and market structure levels but are also constrained by the macro-institutional environment and cultural background. Andersen et al. conducted a comprehensive analysis of real estate databases across the four Nordic countries, revealing that even within societies recognized for their exemplary gender equality indices, the disadvantages faced by women in bargaining situations within the housing market remain pronounced. Consequently, the gender return gap in housing transactions has not been fundamentally resolved. This observation challenges the prevailing assumption that institutional equality directly translates into market equality [2].

Stevens and Whelan's longitudinal study of the Australian context suggests that a primary cause of the gender bargaining gap is not rooted in the negotiation capabilities of individuals but rather in the unequal access to negotiation opportunities. The interplay between subjective advocacy and the objective environment renders it considerably more challenging for women to secure "negotiation power." This systemic disadvantage perpetuates initial inequities regarding salary increments and wealth accumulation. Such discrepancies are evident across various domains, including employment, credit, and transactional interactions [9].

Furthermore, the evolution of housing credit standards, social security frameworks, and the provision of real estate agency services in diverse nations significantly influences gender-specific disparities. For instance, while Nordic countries exhibit a high level of gender equality, there remains an imbalance in the power dynamics related to information access within the real estate transaction process, placing female buyers and sellers in less advantageous positions during price negotiations. The pronounced initial salary gap observed in Australia and other regions acts as a "time mine," subsequently exacerbating disparities in real estate investment outcomes [2,9].

Through cross-national comparisons, it becomes evident that the fundamental mechanisms of gender differences permeate various countries globally. However, the specific manifestations, amplification and mitigation mechanisms, alongside the potential for policy intervention, are heavily contingent upon the local social milieu and institutional architecture.

8 Conclusion

This paper systematically examines and analyzes the influence of gender differences on wealth accumulation and investment returns within the housing market. It identifies multiple pathways, including wage disparities, negotiation behavior, and social psychological factors.

The findings indicate that women typically experience a disadvantage in annualized returns from hsousing investments, which is attributable to their less favorable positions in wage negotiations, limited access to credit resources, and more conservative negotiating strategies. Furthermore, social norms and psychological expectations significantly regulate women's investment behavior, resulting in a heightened risk aversion and self-imposed restrictions in transactions involving high-value assets. The interplay of these multidimensional mechanisms constructs a persistent gender return gap in the housing market, characterized by both stability and complexity across varying market structures and institutional contexts.

Looking ahead, it is imperative for the academic community to enhance the dynamic identification and causal attribution of each element within the mechanism chain of gender differences. This includes a focused inquiry into the reciprocal influences between wages and credit constraints, as well as the interplay between negotiation psychology and market structure. Expanding cross-national and cross-cultural empirical analyses is recommended, along with a thorough evaluation of external variables such as information disclosure, market design, and behavioral incentives, which are essential for addressing the gender return gap. Concurrently, employing behavioral experiments and big data analyses will refine the understanding of psychological mechanisms and social norms, thereby providing a more robust empirical foundation and theoretical support for advancing the theoretical frameworks of housing economics and gender economics.

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