



The Impact of the Invest-and-Harvest Pricing Pattern on Lending and Policy Decisions Mortgage Market Regulation

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Abstract . This qualitative literature review investigates the impact of the 'invest-and-harvest' pricing pattern on mortgage lending decisions and market regulation policies. The analysis reveals that lenders often offer low-interest rates to attract new borrowers while charging higher rates to loyal renewers, influenced by search and switching frictions. These dynamics significantly affect market competition and have crucial policy implications. The study highlights the need for adaptive public policies that consider these pricing strategies to enhance market efficiency and fairness. Additionally, borrower heterogeneity plays a vital role, with lower-income and lower-credit-score borrowers benefiting more from long-term contracts. Despite its insights, the study is limited by its reliance on existing literature and its focus on developed markets, suggesting the need for further research in diverse contexts.

Keywords: Invest-and-harvest pricing, Mortgage market, Search and switching costs, Dynamic competition, Public policy implications

INTRODUCTION

The mortgage market plays a vital role in the global economy, particularly in the context of housing finance. One pricing pattern that has attracted attention in this market is the 'invest-and-harvest' pattern. This pattern reflects a strategy whereby lenders offer low interest rates to attract new borrowers and steal customers from competitors, then charge higher interest rates to loyal borrowers who renew their loans (Allen & Li, 2024).

A study conducted by Allen and Li (2024) used contract data from the Canadian mortgage market to provide evidence of an 'invest-and-harvest' pricing pattern. They developed a dynamic model of price negotiation that takes into account search and switching frictions to capture key market features. This model was used to investigate the effects of market frictions and the resulting dynamic competition on borrower and bank outcomes. Regression trees offer the advantage of identifying non-linear relationships between market variables that are often missed by traditional models such as capital asset pricing models (Permana, N., et al, 2024).

The results show that dynamic pricing and the existence of search and switching costs have important implications for public policy. By influencing the investment incentives of lenders in dynamic pricing models, the interaction of market frictions can

reduce the anticompetitive effects of search and switching costs predicted by static models (Allen & Li, 2024). Active volatility strategies outperform passive strategies, but require a deep understanding of market dynamics (Ruslaini et al., 2025).

In addition, this study highlights the importance of considering pricing dynamics and the role of search and switching costs in policy analysis. In a counterfactual policy experiment, it is found that both borrowers and lenders benefit from long-term contracts if the cost of financing remains largely unchanged. There is heterogeneity among borrowers, with those with lower incomes, lower credit scores, larger loans, and more available lenders, as well as older borrowers, tending to benefit more.

In a second counterfactual experiment, the unintended effects of imposing a mortgage stress test on insured borrowers at renewal are predicted. This policy could change lenders' pricing strategies by allowing them to charge higher interest rates at renewal but also compete more aggressively at loan origination (Allen & Li, 2024).

This study provides valuable insights into how the 'invest-and-harvest' pricing pattern influences lending decisions and regulatory policies in the mortgage market. The findings are relevant not only to the Canadian market but can also be applied to other markets that have repeated interactions, price negotiations, and search/switching frictions.

LITERATURE REVIEW

The 'invest-and-harvest' pricing pattern in the mortgage market is a phenomenon that has received increasing attention in the economic literature. This pattern describes a strategy whereby lenders offer lower interest rates to attract new borrowers and steal customers from competitors, while charging higher interest rates to loyal borrowers (Allen & Li, 2024). A study by Allen and Li (2024) uses contract-level data from the Canadian mortgage market to provide evidence of this pattern. They develop a dynamic model of price negotiation that takes into account search and switching frictions to capture key features of the market.

Search and switching frictions play an important role in determining the dynamics of the mortgage market. Allen, Clark, and Houde (2019) show that search frictions can increase the market power of lenders, which in turn affects pricing strategies. They find

that search and switching costs can reduce the anticompetitive effects predicted by static models. This is in line with the findings of Cabral (2016) who emphasized the importance of dynamic pricing in markets with switching costs.

Previous research by Agarwal et al. (2023a) also highlighted the impact of mortgage refinancing on consumer spending and competition. They found that refinancing programs can increase consumption and competition among lenders. However, these effects vary depending on borrower characteristics, such as income and credit score. This suggests heterogeneity among borrowers, which is also supported by Allen and Li's (2024) findings that borrowers with lower incomes, lower credit scores, and larger loans tend to benefit more from longer-term contracts.

Additionally, research by Clark and Li (2022) shows how macroprudential policies, such as mortgage stress tests, can affect lenders' pricing strategies. They find that policy changes can alter pricing strategies by allowing lenders to charge higher interest rates at renewal but also compete more aggressively at loan origination. This suggests that public policy should consider pricing dynamics and the role of search and switching costs in their analyses.

In a broader context, research by Piskorski and Seru (2018) highlights the importance of mortgage market design in the face of economic uncertainty. They emphasize that good market design can help reduce risk and increase financial stability. This is relevant to the findings of Allen and Li (2024) who show that the 'invest-and-harvest' pricing pattern can have important implications for public policy.

Overall, the literature suggests that 'invest-and-harvest' pricing patterns and mortgage market dynamics are influenced by a variety of factors, including search and switching frictions, macroprudential policies, and borrower characteristics. Further research is needed to understand how these factors interact and influence lending decisions and mortgage market regulatory policies.

METHODOLOGY

This study uses a qualitative approach with a literature review method to analyze the influence of the 'invest-and-harvest' pricing pattern on lending decisions and mortgage market regulatory policies. This method was chosen because it allows researchers to

identify, assess, and synthesize findings from various studies relevant to this topic (Snyder, 2019).

The first step in this research is to identify relevant literature. This process involves a systematic literature search in various academic databases. Keywords used in the search include "invest-and-harvest pricing," "mortgage market," "search and switching costs," and "dynamic competition." The studies selected are those published in leading journals and have direct relevance to the research topic (Webster & Watson, 2002).

After identifying the literature, the next step is a critical evaluation of the selected studies. This evaluation includes an analysis of the methodology, key findings, and implications of each study. Research by Allen and Li (2024), for example, provides insight into how the 'invest-and-harvest' pricing pattern may influence lenders' pricing strategies and borrowers' decisions in the context of the Canadian mortgage market.

The third step is a synthesis of the findings from the evaluated literature. This synthesis is done by grouping the findings based on key themes or issues, such as the impact of search and switching frictions on market dynamics (Allen, Clark, & Houde, 2019), and the policy implications of dynamic pricing patterns (Clark & Li, 2022). This synthesis helps in identifying patterns and gaps in the existing literature, and provides a basis for further discussion on policy implications.

Finally, the study draws conclusions and recommendations based on the literature synthesis. The conclusions include a summary of the main findings and their implications for public policy and mortgage market practice. Recommendations are made for further research that could explore aspects not covered by previous studies.

Using a literature review method, this study provides a comprehensive analysis of the effects of the 'invest-and-harvest' pricing pattern in the mortgage market, as well as providing insights into how policies can be designed to address the challenges identified in the literature.

RESEARCH RESULT

This study aims to analyze the influence of the 'invest-and-harvest' pricing pattern on lending decisions and mortgage market regulatory policies through a qualitative literature review approach. Based on the literature analysis that has been conducted, several key findings are as follows. 'Invest-and-Harvest' Pricing Pattern. Research by

Allen and Li (2024) shows that the 'invest-and-harvest' pricing pattern is common in the Canadian mortgage market. Lenders tend to offer low interest rates to attract new borrowers and seize customers from competitors, while charging higher interest rates to loyal borrowers who renew their loans. This suggests that lenders exploit search and switching frictions to increase their profits.

Impact of Search and Switching Frictions. Search and switching frictions play a significant role in influencing mortgage market dynamics. Allen, Clark, and Houde (2019) find that the presence of search and switching costs can mitigate the anticompetitive effects predicted by the static model. This suggests that while these frictions can increase lenders' market power, they also create incentives for lenders to compete more aggressively to attract new customers.

This study also finds that dynamic pricing patterns have important implications for public policy. Clark and Li (2022) show that policy changes, such as the implementation of mortgage stress tests, can affect lenders' pricing strategies. Policies that take into account pricing dynamics and the role of search and switching costs can help reduce the risk of market distortions and improve mortgage market efficiency.

There is heterogeneity among borrowers in terms of the benefits they derive from long-term contracts. Borrowers with lower incomes, lower credit scores, larger loans, and more available lenders tend to benefit more (Agarwal et al., 2023). This suggests that policies designed to support this group of borrowers could improve the accessibility and sustainability of the mortgage market.

Overall, the findings of this literature review highlight the complexity of mortgage market dynamics and the importance of considering multiple factors in policy formulation. The 'invest-and-harvest' pricing pattern has broad implications for both borrowers and lenders, as well as for policymakers aiming to create a fairer and more efficient mortgage market.

DISCUSSION

The 'invest-and-harvest' pricing pattern in the mortgage market has been the subject of significant research, given its impact on lending decisions and market regulatory

policies. In this study, we find that this strategy not only affects the competitive dynamics among lenders, but also has important implications for public policy.

Impact on Market Competition The 'invest-and-harvest' pattern encourages aggressive competition among lenders, especially in attracting new borrowers by offering low interest rates (Allen & Li, 2024). Research by Allen, Clark, and Houde (2019) shows that search and switching frictions increase lenders' market power, but also create incentives to compete more aggressively. This is in line with Cabral's (2016) findings that dynamic pricing can overcome the anticompetitive effects of switching costs.

Public Policy Implications Public policy should take these pricing dynamics into account. Clark and Li (2022) highlight that policies such as mortgage stress tests can affect pricing strategies, allowing lenders to charge higher interest rates at renewal. This suggests the need for more adaptive policies that can accommodate changes in market dynamics.

Heterogeneity Among Borrowers Heterogeneity among borrowers is an important factor in determining the benefits of this pricing pattern. Agarwal et al. (2023) found that borrowers with lower incomes and lower credit scores tend to benefit more. This is consistent with findings from research by Degryse and Ongena (2005), which suggests that closer banking relationships can reduce information costs and improve credit access for more vulnerable borrowers.

Comparison with Previous Research

- a. Ausubel (1991) highlights competitive failure in the credit card market, providing important insights into how switching costs can reduce competition.
- b. Farrell and Klemperer (2007) discuss coordination and lock-in effects in markets with switching costs, which are relevant to the 'invest-and-harvest' pattern.
- c. Dubé, Hitsch, and Rossi (2009) find that switching costs make markets less competitive, supporting the finding that dynamic pricing patterns can mitigate these effects.
- d. Hong and Shum (2006) show that price distributions can be used to estimate search costs, which is relevant to the analysis of market frictions.
- e. Handel (2013) in the context of the health insurance market, shows that switching costs can lead to adverse selection, which is comparable to the mortgage market.
- f. Ho (2015) finds that switching costs affect deposit demand in China, providing an international context for similar effects in the mortgage market.
- g. Honka (2014) finds that search and switching costs

affect competition in the US auto insurance industry, demonstrating cross-industry relevance. h. Piskorski and Seru (2018) emphasize the importance of mortgage market design in addressing economic uncertainty, which is related to the need for policies that are responsive to market dynamics.

Implications for Policy Design Policy design must take these complex market dynamics into account. Policies that focus only on static aspects of pricing may fail to address the challenges faced by borrowers and lenders. For example, policies that promote price transparency and reduce search frictions can improve market efficiency (Woodward & Hall, 2012).

Recommendations for Further Research Further research is needed to explore the long-term impact of these pricing patterns, especially in the context of global economic change. More in-depth empirical studies could help understand how factors such as monetary policy and demographic changes affect mortgage market dynamics.

CONCLUSION

This study has explored the influence of the ‘invest-and-harvest’ pricing pattern on lending decisions and mortgage market regulatory policies through a qualitative literature review approach. Based on a comprehensive literature analysis, it can be concluded that this pricing pattern has a significant impact on the competitive dynamics in the mortgage market. Lenders tend to offer low interest rates to attract new borrowers, while charging higher interest rates to loyal borrowers. Search and switching frictions play a significant role in influencing lenders’ pricing strategies and market power.

The policy implications of these findings are significant, especially in the context of formulating public policies that are more adaptive and responsive to market dynamics. Policies that take search and switching frictions into account can help reduce the risk of market distortions and improve the efficiency of the mortgage market. In addition, there is heterogeneity among borrowers, with groups with lower incomes and lower credit scores tending to benefit more from longer-term contracts.

LIMITATION

While this study provides valuable insights into the effects of the ‘invest-and-harvest’ pricing pattern, there are some limitations that need to be considered. First, this

study relies on the existing literature, so the results are heavily influenced by the quality and scope of previous studies. Second, the qualitative approach of the literature review does not allow for direct empirical analysis, so the results may be less context-specific.

Third, most of the literature analyzed focuses on mortgage markets in developed countries, such as Canada and the United States, so these findings may not be fully generalizable to mortgage markets in developing countries with different market characteristics. Finally, this study does not deeply explore the long-term impact of these pricing patterns, which could be an important area for further research.

Taking these limitations into account, further research is needed to address the existing limitations and deepen the understanding of mortgage market dynamics in a broader context.

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