Cross-selling financial products

Lucas Schmitz*

Most empirical work on retail banking focuses on the sale of a single banking product in isolation (e.g. Allen et al. (2019), Crawford et al. (2018), and Cuesta and Sepulveda (2018)). However, cross-selling - the practice of selling an additional product to an existing customer - is commonly used by banks (Qi, 2024). [1]

Three primary economic forces drive cross-selling. First, there are switching costs (Klemperer, 1995), for example consumers might find it costly to get a mortgage from a different bank than the one where they have their checking account. In this case, the incumbent bank has market power when selling the additional product, since switching to another provider would be costly for the customer. Second, consumers might have persistent unobserved preferences for certain banks (Dubé et al., 2009; Egan et al., 2025). Since the customer already buys from the bank, they likely have a strong preference for it, increasing the probability of purchasing additional products there. These two factors are demand-side reasons for cross-selling. A third reason is that banks might have informational advantages when selling to existing customers (Petersen and Rajan, 1994, 1995; Sharpe, 1990). By selling the first product to a customer; the bank might learn about the customer type, for example its creditworthiness, which creates an informational asymmetry with the other banks. This asymmetry is a form of supply-side reason for cross-selling.

The effects of cross-selling on welfare are ambiguous. They depend on the underlying reasons and the particular parameters of the model. For example, switching costs grant firms market power over existing consumers. However, they also intensify competition for new consumers, since firms have incentives to lower prices to attract them. For example, Dubé et al. (2009) finds that when switching costs are small, the pro-competitive effect dominates. Similarly, the welfare effects of asymmetric information depend on model parameters.

Understanding the reasons behind cross-selling is also important for policy design. For example, if the main reason is persistent unobserved preferences, then there is little scope for policy intervention. However, if the main reason is informational advantages, there is scope for open banking policies where consumers can share their data across banks.

This research

This project uses a dynamic structural model of demand and supply for banking services, where banks are multi-product firms, to answer the following research questions:

- What are the welfare effects of cross-selling relative to product-level pricing? Specifically, what is the impact on equilibrium mark-ups?

*Yale University lucas.schmitz@yale.edu

[1] Cross-selling differs from bundling because the products are purchased separately and at different times. Cross-selling refers to the practice of selling product B to a consumer already using product A. Cross-selling is similar to relationship banking, the practice of a consumer buying multiple products from the same bank over time, but the difference is that cross-selling requires the products to be different, relationship banking can involve the same product (e.g. multiple loans).

Prior work shows that the effects of switching costs on markups are ambiguous (Brown and Jeon, 2024; Dubé et al., 2009; MacKay and Remer, 2024) and the same with information asymmetries (Foley et al., 2020).

Both effects create locked-in consumers, increasing firm market power. However, they also create dynamic incentives to lower prices for new consumers in order to capture future rents. Dubé et al. (2009), for instance, shows that small switching costs can increase welfare.

- What is the relative importance of switching costs, persistent unobserved preferences and information asymmetries in driving cross-selling? The regulatory implications of each force differ; thus, effective competition policy requires identifying which factors are most important.

Model

To incorporate the different economic forces behind cross-selling we plan to extend the model of dynamic discrete choice of differentiated products of Dubé et al. (2009) by allowing firms to be multi-product firms and by allowing information asymmetries like in Sharpe (1990).

The main challenge would be to separately identify the three effects being studies: switching costs, peristent unobserved heterogeneity and information asymmetries.

Data

We plan to use data from the Chilean financial regulator (CMF). The data contains a sample of fixed-term deposits, credit card, installment consumer loans, and mortgages.[2] Previous studies using this data include Cuesta and Sepulveda (2018), Foley et al. (2020), and Liberman et al. (2018).

Literature

Recent empirical studies document cross-selling in banking (Basten and Juelsrud (2023) and Qi (2024)). This literature documents the existence of cross-selling but does not measure the economic forces behind it.

A large literature studies the informational asymmetries arising from repeated bank-customer interactions (Foley et al., 2020; Petersen and Rajan, 1994, 1995; Sharpe, 1990). Our contribution would be to use a structural model to quantity the economic forces behind cross-selling.

This project contributes to both literatures by using a model to quantify the relative importance of switching costs, preferences, and information asymmetries, and by measuring the welfare effects of cross-selling.

[2] The corresponding codes in the database are: fixed term deposits is D04,credit card credit and installment consumer loans are D04 and mortgages is D10.