Abstract

In markets where prices are set for each individual t is common for consumers to receive initial offers and then leverage them to request revised offers—improved quotes provided after the consumer asks for better terms-, yet there is limited evidence on their effects on market outcomes and welfare.

The effect of revised offers are ambiguous and depend on [USE THE MODEL TO EXPLAIN ON WHAT DO THEY DEPEND]

Using data that records initial and revised offers, and leveraging a reform that prohibited revised offers, we study the welfare and distributional impacts of revised offers in an annuities market in Chile.

We develop and estimate a structural two-stage model of firm competition and consumer choice. Firms send simultaneous initial offers, consumers decide whether to solicit revisions, and firms respond with revised offers; we recover preference and cost parameters from observed offer sequences and purchase decisions. Counterfactuals [1] show that permitting revised offers [IN(DE)CREASES] purchase rates and [INCREASES-lowers] average final prices, [RAISING/LOWERING] aggregate consumer surplus, [MENTION DISTRIBUTIONAL IMPACTS].

In markets where prices are set for each individual, it is common for consumers to receive initial offers and then leverage them to request revised offers—improved quotes provided after the consumer asks for better terms. [2]

For example, when requesting a loan, banks make initial offers to customers and give them a Loan Estimate (LE) which is a document with the terms of the offer (see Figure 1). Then, customers can use the LE from one bank to improve the terms of the offer from another bank. Similarly, when buying car insurance, consumers are advised to gather quotes from multiple providers and ask firms to match a competitor's price or at least to provide a price lower than the initial quote [3]. For example a consumer advice website suggests asking:

"I've received quotes from [competitor] for less for the same coverage. What can you do to help me stay with your company?"

The effects of allowing consumers to request revised offers, leveraging an initial offer to improve the subsequent offer of a company, are ambiguous. On one hand, revised offers can improve terms relative to the initial offers. On the other hand, if firms anticipate requests for revised offers, they might make worse initial offers[4]. Moreover, revised offers could have distributional impacts, since some groups could be more likely to request revised offers. [5]

There are two economic forces at play. First, requesting a revised offer reveals information about the consumer's preferences, hence firms can use the two stages of the game to better price discriminate. Second, there is a strategic

[1] [what counterfactuals should we study?]

[2] Selection markets, where the cost of providing the good is consumer-dependent, are a prominent case of consumer-specific pricing

[3] See section 1.1 for details and examples.

[4] IT IS CRUCIAL TO HAVE A SIMPLE MODEL WHERE REVISED OFFERS IMPROVE THE EQUILIBRIUM SO THAT THE ARGUMENT MAKES SENSE AND TO PROVIDE A BETTER INTUITION.

[5] In mortgages, the Consumer Financial Protection Bureau has scrutinized revised offers and the disparities by race/ethnicity (source).

Despite the prevalence of revised offers in many markets, there is limited evidence on their impact[6]. One reason is data availability. Ideally, one would observe not only initial offers but also all revised offers and the consumer's purchase decision. But most datasets contain only purchases[7], so it is not possible to see the sequence of offers made to a particular consumer.

We study the impact of allowing consumers to request revised offers in a centralized market for annuities in Chile. The setting offers rich administrative data on initial and revised offers, as well as on the final purchase decision. Moreover, we leverage variation in the market design, since in 2025 the regulator prohibited revised offers.

We first provide descriptive evidence of the role of the revised offers. In our data more than 70% of customers request a revised offer. Moreover, when requesting a revised offer they get significant improvements over the initial offer of the same company, on average the improvement corresponds to almost two monthly wages.

To study the welfare effects of revised offers, we build a two-stage model of firm competition and consumer choice. In a first stage, firms simultaneously send initial offers to consumers. Consumers then decide whether to request revised offers from firms, choose one of the initial offers, or not purchase. In the second stage, firms simultaneously send revised offers to consumers that requested them. Finally, consumers choose one of the revised offers, one of the initial offers, or not purchase.

We find that [RESULTS TO BE ADDED]

Our paper contributes to three strands of the literature. First, we contribute to the work on [WRITE HERE]

Second, we contribute to the empirical literature on

Finally, our work speaks to the literature on

The remainder of the paper is organized as follows. Section 2 describes our setting and data. Section 3 provides descriptive evidence [WHAT DESCRIPTIVES]. Section 4 describes our model of competition with revised offers. Section 5 discusses the identification and estimation of the model and the main results from the estimates. Section 6 discusses our counterfactual analysis of the impacts of banning revised offers. Finally, Section 7 concludes.

[6] WE SHOULD MAKE A BETTER ARGUMENT WHY KNOWING THEIR IMPACT IS IMPORTANT. MAYBE ONE LINE OF ARGUMENT WOULD BE TO SAY THAT THERE COULD BE POTENTIAL BENEFITS OF POSTING PRICING WITHOUT THIS SEQUENTIAL OFFERS MECHANISM

[7] One notable exception is Coen et al. (2023), which contains all the initial offers, but without distinction between initial and revised offers.

1 Appendix

1.1 Other markets

This section documents that the two stage pricing environment with revised offers we study is not unique to SCOMP. In both mortgages and auto insurance, consumers first receive an initial quote and are explicitly encouraged to shop and present rival offers; firms then often respond with *revised* terms (sometimes framed as "match or beat").

In this section we review the institutional details of other markets which use revised offers.

1.1.1 Mortgage market

In the mortgage market, lenders issue a standardized Loan Estimate (LE) summarizing the terms of an initial offer (see Figure 1). Guidance from regulators and industry sources explicitly tells borrowers to leverage competing LEs to obtain improved terms. Concretely:

- **Regulator (CFPB).** "Your best bargaining chip is usually having Loan Estimates from other lenders in hand" (CFPB, 2024).
- **Consumer guide** "Keep in mind that the mortgage quotes you get are not set in stone. Mortgage lenders have the flexibility to adjust their fees and even their interest rates. That means you can often use competing offers as leverage to negotiate your costs." (Reports, 2025)
- **Consumer guide** "Once you have loan estimates from a few lenders, take a lower rate quote from a competitor to other lenders if you like the customer service or loan officer. They might be willing to match or beat the rate quote to win your business. That's why shopping around pays off." (Kearns, 2024)
- **Industry piece** "Many mortgage companies are advertising 'bring me your LE, and we will meet it or beat it.' " (Conner, 2024)

These sources describe the same two-stage interaction we study: a standardized, comparable *initial* quote (the LE), followed by *revised* offers when borrowers present rival LEs. The advice to "match or beat" makes the revision step explicit rather than incidental, and it hinges on the LE's comparability—exactly the role initial offers play in our setting.

Why this is analogous.

(i) There is a standardized initial document (the LE) that makes offers comparable across firms—analogous to the initial, comparable quotes in our setting.

(ii) The equilibrium interaction is explicitly two-stage: initial quote, followed by targeted improvements when the borrower returns with rival terms.

(iii) Pricing is personalized (risk- and borrower-specific), so the revised offer matters for who benefits, not just the average borrower.

1.1.2 Auto insurance

Consumer guides describe a similar process for auto insurance: obtain multiple quotes for the same coverage, then ask your current provider to match the lower competitor quote or at least offer a reduced rate; some insurers advertise price-matching explicitly, while others are less flexible. Some examples of advice given to consumers are:

(i) Research (2021) says "Similar to retail stores matching their competitors' sales prices, some insurance companies will offer you a lower rate on your car insurance if it's the same rate their competitor offers." and then provides steps to negotiate price matching which are:

   (a) Gather several different quotes from a variety of providers. Make sure you get quotes for the same amount of coverage that you already have.

   (b) Contact your current provider.

   (c) Let your provider know that you were able to find a lower rate for your policy. Ask them if they're willing to match the price or at least offer a lower rate than what you're currently paying.

   (d) If your insurance company refuses to lower your rates, you might want to consider going with another company. Find a company with good customer reviews and contact them with your quotes.

   (e) Keep contacting providers until you find one willing to price match or give you the lowest rates. Just make sure you get the coverage you need.

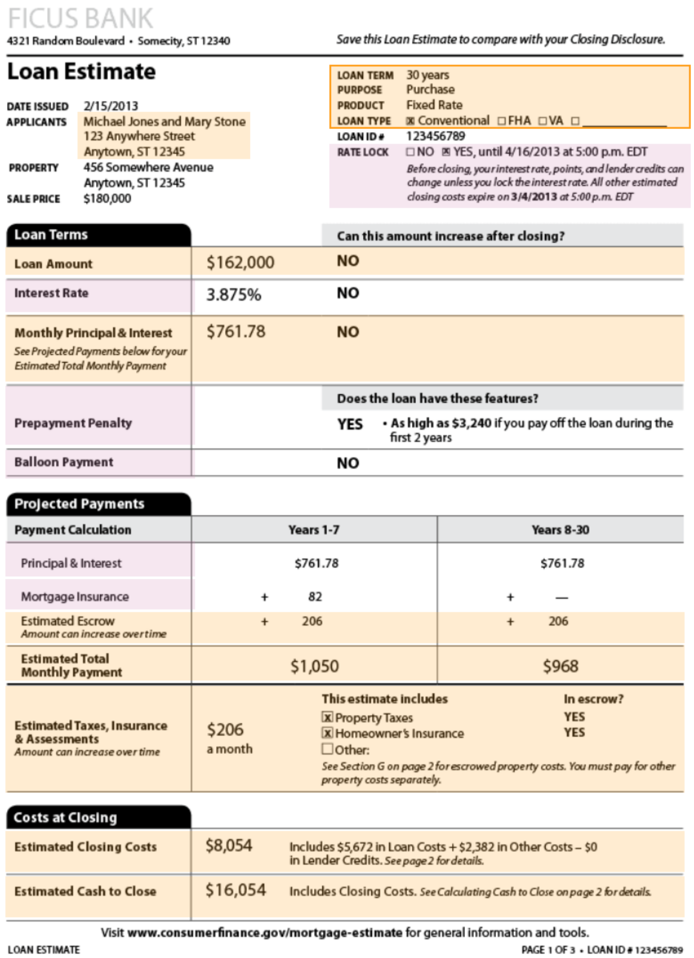
(ii) "Auto insurance price match is a practice where car insurance companies offer to match the lower price offered by a competitor for the same coverage. It allows consumers to get the same coverage at a lower cost by comparing rates from different companies." Sims (2020)

Why this is analogous. (i) Consumers start with individualized quotes and can trigger improved terms by disclosing competitor offers—again a two-stage interaction. (ii) Firm responses vary: some "meet or beat," others do not. This heterogeneity parallels differences in how firms revise terms in our setting and helps explain distributional effects.

Diego: this looks a lot like continuous time labor models with on-the-job (OTJ) search. Those models, however, assume perfect info once a firm and an employed worker meet.

Some articles say that insurance policies are non-negotiable, eg. Roehr, 2024

1.2 Figures


FICUS BANK

4321 Random Boulevard • Somecity, ST 12340

Save this Loan Estimate to compare with your Closing Disclosure.

Loan Estimate

DATE ISSUED	2/15/2013
APPLICANTS	Michael Jones and Mary Stone 123 Anywhere Street Anytown, ST 12345
PROPERTY	456 Somewhere Avenue Anytown, ST 12345
SALE PRICE	$180,000

LOAN TERM	30 years
PURPOSE	Purchase
PRODUCT	Fixed Rate
LOAN TYPE	☒ Conventional ☐ FHA ☐ VA ☐ ______
LOAN ID #	123456789
RATE LOCK	☐ NO ☒ YES, until 4/16/2013 at 5:00 p.m. EDT *Before closing, your interest rate, points, and lender credits can change unless you lock the interest rate. All other estimated closing costs expire on* ***3/4/2013*** *at 5:00 p.m. EDT*

Loan Terms		Can this amount increase after closing?
Loan Amount	$162,000	NO
Interest Rate	3.875%	NO
Monthly Principal & Interest *See Projected Payments below for your Estimated Total Monthly Payment*	$761.78	NO
		Does the loan have these features?
Prepayment Penalty		YES • **As high as $3,240** if you pay off the loan during the first 2 years
Balloon Payment		NO

Projected Payments		
Payment Calculation	Years 1-7	Years 8-30
Principal & Interest	$761.78	$761.78
Mortgage Insurance	+ 82	+ —
Estimated Escrow *Amount can increase over time*	+ 206	+ 206
Estimated Total Monthly Payment	$1,050	$968

Estimated Taxes, Insurance & Assessments *Amount can increase over time*	$206 a month	**This estimate includes** ☒ Property Taxes ☒ Homeowner's Insurance ☐ Other: *See Section G on page 2 for escrowed property costs. You must pay for other property costs separately.*	**In escrow?** YES YES

Costs at Closing		
Estimated Closing Costs	$8,054	Includes $5,672 in Loan Costs + $2,382 in Other Costs – $0 in Lender Credits. *See page 2 for details.*
Estimated Cash to Close	$16,054	Includes Closing Costs. *See Calculating Cash to Close on page 2 for details.*

Visit **www.consumerfinance.gov/mortgage-estimate** for general information and tools.

LOAN ESTIMATE PAGE 1 OF 3 • LOAN ID # 123456789

Figure 1: Example of a Loan Estimate, source: https://www.consumerfinance.gov/owning-a-home/loan-estimate/