Journal of Housing Economics 22 (2013) 265–277

Contents lists available at ScienceDirect

Journal of Housing Economics

journal homepage: www.elsevier.com/locate/jhec

Buyer brokerage: Experimental evidence

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ARTICLE INFO

Article history:
Received 20 May 2013
Available online 5 November 2013

Keywords:
Buyer's broker
Negotiation
Agency problems
Experiments

ABSTRACT

This paper offers an experimental investigation of two commission structures for buyer brokerage. One commission structure is the currently used structure in the industry where both the seller's broker and the buyer's broker each receive a percentage of the sales price as their compensation from the seller. In an alternative commission structure, while the seller's broker still receives a percentage of the sales price from the seller, the buyer's broker is compensated by the buyer and the compensation is inversely related to the sales price. We find that how the buyer's broker gets compensated has significant implications. While both commission structures yield a similar probability of reaching an agreement, the alternative commission structure yields a lower price and a longer time to reach an agreement. Furthermore, the alternative commission structure achieves a better alignment of the interests of the buyer and the buyer's broker without affecting the earnings of the players in the transaction. We also find that the improvement in the alignment of interests is more significant for female buyers than for male buyers. Furthermore, a higher listing price by the seller and a higher initial bid price by the buyer each lead to a significant increase in the negotiated price.

1. Introduction

Prior to 1993, Multiple Listing Services (MLS) had mandated that both the listing broker and the selling broker were to be treated as subagents of sellers. That required each broker to represent the best interests of the seller, and this created serious agency problems between the buyer and the selling agent who was helping the buyer find a house. Since this requirement was lifted by NAR® in 1993, MLSs now can accommodate buyer brokerage whereby the selling agent has fiduciary responsibility towards the buyer, not the seller.

Even though buyer's broker can now represent the interests' of the buyer, they generally still get paid by the seller. Furthermore, their compensation is typically a percentage of the selling price. Theoretically, this creates an obvious conflict of interest between the buyer and the buyer's broker since the buyer's broker's commission is an increasing, not a decreasing, function of the transaction price.

Although the current compensation structure in the industry is expected to create a conflict of interest between the buyer and her broker, there has been no empirical test of this theoretical prediction. This is clearly an important problem since it has implications for millions of home buyers who use brokerage services for their transactions every year. The challenge for an empirical test of this important question is that we do not have observations of buyer brokerage services under an alternative commission structure that provides a better alignment of the interests of the buyer and her agent. The current study offers the first empirical test of this potential agency problem created by the current compensation structure by generating the data in a controlled experimental market.

The alternative commission structure for buyer's brokers utilized in our experiment is based on Colwell, Trefz-

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http://dx.doi.org/10.1016/j.jhe.2013.10.004

ger and Treleven (1993) and Yavas and Colwell (1999). Under this alternative structure the total commission, F, is a pre-determined fixed amount.[1] When there is a sale, the seller's broker receives k portion of the negotiated price (P) as commission while the buyer's broker receives the remainder of the total commission, $F - kP$. Under this commission structure, as the price increases, the seller's broker's commission increases while the buyer's broker's commission diminishes. Thus, the seller's broker tries to negotiate a higher price while the buyer's broker tries to negotiate a lower price. This ensures the interests of the seller's broker to be in the same direction as those of the seller and the interests of the buyer's broker to be in the same direction as those of the buyer.

In this study we offer an experimental comparison of this alternative commission structure with the currently used commission structure for buyer's brokers and analyze their impact on the outcome of price negotiations. Under the currently used commission structure in residential brokerage industry in the U.S., both the seller's broker and the buyer's broker each receive 3% of the sales price as compensation, and they are both paid by the seller. We will refer to this commission structure as compensation S. Under the alternative commission structure, the total compensation for the two brokers is fixed around 6% of the *expected* price, and while the seller's broker is paid 3% of the negotiated sales price by the seller, the buyer's broker is paid by the buyer and receives the difference between the fixed total compensation and the 3% of the sales price. We will refer to this alternative as compensation B. The key difference between the two commission structures is that while the buyer's broker's commission revenue is an increasing function of the selling price under compensation S, it is a decreasing function of the selling price under compensation B. As a result, commission S, which is the current practice in the industry, creates a conflict of interest between the buyer and the buyer's broker. This contradicts with the fiduciary duty of buyer's brokers towards their buyer clients to serve the best interests of their clients.

Brokers are involved in the matching stage as well as the bargaining stage of transactions between buyers and sellers.[2] The experimental methodology enables us to isolate these two stages from each other and focus on the role of the broker on the outcome of the bargaining between the buyer and the seller. It also enables us to identify the impact of such factors as the buyer's and seller's reservation prices, initial listing price by the seller, initial bid price by the buyer, and the gender of players on the outcome of the bargaining game. Some of these factors, such as the buyer's and seller's reservation price and the buyer's initial bid price are not available in field data because of their unobservable nature.

Each transaction in the experiment involves a seller, a buyer, a seller's broker and a buyer's broker. Negotiations between the buyer and seller go through their brokers. What we find is that the commission structure for the buyer's broker does impact the negotiation outcome. Confirming the theoretical prediction, the buyer obtains a lower price under compensation B than under compensation S. We also observe an increase in the time it takes to reach an agreement under compensation B. However, we do not observe a significant difference in the likelihood of reaching an agreement between the two compensation structures. In addition, there is no significant change in the earnings of the buyers, sellers and brokers as we move from one compensation structure to another. In other words, compensation B offers a better alignment of the interests of the buyer and the buyer's broker without affecting the earnings of the players in the transaction. The improvement in the alignment of interests is more significant for female buyers than for male buyers. We also find that a higher listing price by the seller and a higher initial bid price by the buyer lead to a significant increase in the price.

The rest of the paper is organized as follows: section I reviews the relevant literature and presents the theory. Section II explains the experimental design. Section III gives the results and section IV concludes.

2. Literature review

There are a few experimental studies in the literature that test the impact of intermediaries on bargaining. The one that is closest to this paper is the study by Yavas et al. (2001). Their paper investigates the impact of brokers on sales price, agreement rate, and time to sale. The seller's broker and the buyer's broker in their experiment are both compensated by the seller and receive a percentage of the transaction price. In other words, the brokerage structure in their experiment is that of traditional subagency structure, and it corresponds to compensation S in our experiment. In one of their experimental treatments, buyers and sellers negotiate with each other directly while in another treatment they negotiate with each other through brokers. Comparing the negotiation outcomes with and without brokers, they find that presence of a broker increases the sales price, decreases the agreement rate, and increases the time to reach an agreement. Because prevalence of brokerage strongly suggests that it has an economic role, and their study finds lower agreement rate for negotiations involving a broker, the authors conclude that the main contribution of an intermediary may be in the search and matching phase, not in the negotiation phase.

In an early experimental study, Harnett et al. (1968) study intermediated bargaining in a context where the intermediary is not a broker but a dealer. They find that giving the intermediary an informational advantage is not profitable for the dealer. The intermediary's situation improves when the traders are also informed. The main explanation, according to the authors, is that when the traders are uninformed, they become tougher bargainers.

There have been a few other experimental studies that investigated the role of agents in negotiations. Schotter et al. (2000) examine the efficiency of bargaining when principals employ agents as compared to bargaining face-to-face. They find that, compared to direct bargaining,

[1] Colwell et al. (1993) propose that the total commission is a percentage of the assessed value of the property. Alternatively, it could be set as a percentage of the appraised value. What is critical for this alternative commission structure is that the total commission is pre-determined and independent of the negotiated transaction price.

[2] See Yavas (1992,1996) for an early analysis of the role of agents in search, matching and bargaining stages of a real estate transaction.