Flipping in the housing market☆

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A B S T R A C T

We add arbitraging middlemen – investors who attempt to profit from buying low and selling high – to a canonical housing market search model. Flipping tends to take place in sluggish and tight, but not in moderate, markets. To follow is the possibility of multiple equilibria. In one equilibrium, most, if not all, transactions are intermediated, resulting in rapid turnover, a high vacancy rate, and high housing prices. In another equilibrium, few houses are bought and sold by middlemen. Turnover is slow, few houses are vacant, and prices are moderate. Moreover, flippers can enter and exit en masse in response to the smallest interest rate shock. The housing market can then be intrinsically unstable even when all flippers are akin to the arbitraging middlemen in classical finance theory. In speeding up turnover, the flipping that takes place in a sluggish and illiquid market tends to be socially beneficial. The flipping that takes place in a tight and liquid market can be wasteful as the efficiency gain from any faster turnover is unlikely to be large enough to offset the loss from more houses being left vacant in the hands of flippers.

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1. Introduction

In many housing markets, the purchases of owner-occupied houses by investors who attempt to profit from buying low and selling high rather than for occupation are commonplace. For a long time, anecdotal evidence abounds as to how the presence of these investors, who are popularly known as flippers in the U.S., in the housing market can be widespread. More recently, empirical studies have began to systematically document the extent to which transactions in the housing market are motivated by buying and selling for short-term gains and how these activities are correlated with the housing price cycle. In particular, Haughwout et al. (2011) report that the share of all new purchase mortgages in the U.S. taken out by investors – individuals who hold two or more first-lien mortgages – was as high as 25% on average during the early to mid 2000s. At the peak of the housing market boom in 2006, the figures reached 35% for the whole of the U.S. and 45% for the "bubble states". Depken et al. (2009) report that for the same period, on average, 13.7% of housing market transactions were for houses sold again within the first two years of purchase in the metropolitan Las Vegas area. At the peak in 2005, it reached a high of 25%. Bayer et al. (2011) report that for five counties in the LA metropolitan area, over 15% of all homes

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purchased near the peak of the housing market boom in 2003–2005 were re-sold within two years. Even in the cold period in the 1990s, the percentage remained above 5%.

Arguably, the central questions on flipping in the housing market are how it may contribute to housing price volatility and whether it serves any useful purpose. In this paper, we study a housing market search model along the lines of Arnott (1989) and Wheaton (1990) in which houses are demanded by flippers in addition to end-user households to address the two questions.

In our model, the end-user households are liquidity constrained to the extent that each cannot hold more than one house at a time. In this case, a household which desires to move because the old house is no longer a good match must first sell it before the household can buy a new house. The primary advantage of flippers in our model is that, collectively, they can hold as many houses as the market needs them to do so. A mismatched and liquidity-constrained household can then sell the old house quickly to flippers to be able to buy a new house sooner. Thus, first of all, the flippers in our model are akin to the arbitraging middlemen in illiquid markets in classical finance theory, who help speed up turnover and improve liquidity in the market. Such liquidity services, not surprisingly, are in greatest demand in an otherwise sluggish and illiquid market in which it can take a long time for mismatched households to sell houses themselves.

Oftentimes, investors in the housing market are cash-rich investors as well as experienced flippers. As cash-rich investors, they tend to have lower opportunity costs than others in holding vacant houses.[1] As experienced flippers, they should be more adept at bargaining than many end-user households, who only buy and sell houses infrequently.[2] To capture such financing and bargaining advantages, in our model, we allow for the possibility that the flippers finance real estate investment at a lower cost and possess a greater bargaining strength than others. With these advantages, flippers sell houses at a relatively high price, in which case mismatched households can be better off letting flippers sell on their behalf, irrespective of how quickly they can sell houses themselves, if the flippers are not buying houses from them at too big a discount. In a tight and liquid market where houses are sold quickly, there can only be a small "bid-ask" spread in house flipping. Then, flippers must be buying houses from mismatched households at a similarly high price if they are selling those houses later on at a high price. The main novelty in our analysis is that we find that mismatched households may find it attractive to sell to flippers not just in sluggish and illiquid markets, but also in tight and liquid markets for the especially high price they receive from selling to flippers in such markets where the flipper-sellers' advantages are passed onto household-sellers to the fullest extent possible.

Because flippers can also thrive in a tight and liquid market while the market tends to be tight and liquid when flipping is prevalent, there can be multiple equilibria in our model. In one equilibrium, most, if not all, transactions are intermediated, resulting in rapid turnover and high housing prices. In another equilibrium, few houses are bought and sold by flippers. Turnover is slow and prices are moderate.

With the multiplicity of equilibrium, wide swings in price and transaction can happen without any underlying changes in housing supply, preference, and interest rate. Moreover, in our model, flippers can enter and exit en masse in response to the smallest interest rate shock. Then, on top of the usual effect of interest rates on asset prices, any such shocks can have a significant indirect impact on housing prices through their influences on the activities of flippers. In all, we find that even in the entire absence of any kind of extrinsic uncertainty and less-than-fully rational agents, flipping can still contribute to housing price volatility. A natural question to follow up is how important such a channel of volatility can be. Our quantitative analysis indicates that housing prices can differ by up to 23% across steady-state equilibria and vary by as much as 26% in response to a seemingly unimportant interest rate shock when the model is calibrated to several observable characteristics of the U.S. housing market.

While more houses are being flipped and remain vacant in the hands of flippers, more households have to seek shelter in rental housing. In the model housing market, flipping can be excessive if the efficiency gains from the faster turnover fall short of the rental expenditures households incur during which houses are being flipped and left vacant. In an equilibrium where mismatched households are selling to flippers primarily for the high price flippers offer, they do not tend to be better off than if there were no flipping, for later on, the households will be buying new houses at a similarly high price. In this case, there is little to gain from flipping to offset its cost and the strategic complementary that gives rise to flipping in tight markets can be a form of market failure.

Our model has a number of readily testable implications. First, it trivially predicts a positive cross-section relation between housing prices and Time-On-The-Market (TOM) – mismatched homeowners can either sell quickly to flippers at a discount or to wait for a better offer from an end-user buyer to arrive – which agrees with the evidence reported in Merlo and Ortalo-Magne (2004), Leung et al. (2002) and Genesove and Mayer (1997), among others.

An important goal of the recent housing market search and matching literature is to understand the positive time-series correlation between housing prices and sales and the negative correlation between the two and the average TOM.[3] In our model, across steady-state equilibria, a positive relation between prices and sales and a negative relation between the two and the average TOM also hold – in the equilibrium in which more houses are sold to flippers, prices and sales are both

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[1] Herbert et al. (2013) report that many investors in the housing market are all-cash buyers.

[2] Bayer et al. (2011) document the prevalence of experienced flippers in the housing market and show that they often buy houses at lower prices and sell them at higher prices than others.

[3] Hort (2000) and Leung et al. (2003), among others, provide recent evidence. Kwok and Tse (2006) show that the same relation holds in the cross section.