Research in Brief

COMMUNITY DEVELOPMENT STUDIES & EDUCATION

Summary — Information Losses in Home Purchase Appraisals*

Home purchase appraisals are supposed to provide independent estimates of a home's value, but it has been known since the 1990s that approximately 90 percent of appraisals have been at or above the agreed-upon offer price. A working paper from the Federal Reserve Bank of Philadelphia titled "Information Losses in Home Purchase Appraisals," by Paul S. Calem, Lauren Lambie-Hanson, and Leonard I. Nakamura, evaluates whether appraisals are biased and how institutional or regulatory pressure contributes to information loss in current property valuation methods.

BACKGROUND

In the U.S., home purchase appraisals are required when a mortgage is guaranteed by a government-sponsored enterprise or the federal government, or if the mortgage was originated by a federally insured commercial bank or savings and loan institution. Appraisal estimates are based on prices of comparable nearby homes as well as features of the appraised home that affect its market value. Both the appraised value and the accepted offer price are taken into consideration during the mortgage underwriting process.

Underwriters are required by regulation to use the lesser of the appraised value or the agreed-upon transaction price to determine the value of a home. This requirement could put pressure on appraisers to inflate the value of a home to the agreed-upon transaction price to facilitate a successful mortgage origination and to avoid the costs associated with a missed lending opportunity. On the other hand, an upwardly biased appraisal can increase the buyer's risk of default. Frequently, the appraised value is set at the transaction price, a circumstance that the working paper's authors refer to as "information loss," since there is then little independent information conveyed by the appraisal. The authors provide a model of the incentive for this information loss that balances the desire to complete the mortgage against the risk of default.

The working paper summarized in this brief estimates the degree of information loss in the appraisal process today and identifies community- and appraisal-level characteristics that help predict the degree or likelihood of an inflated appraisal.

DATA AND METHODOLOGY

The authors used a unique data set that contained a nationwide sample of presale, premortgage transactions on single-family homes from 2007 through 2012. The data set, produced by real estate technology company FNC, Inc., included information on accepted offer prices (rounded to the nearest $50,000) and the ratio of the contract price to the reported appraised value, as well as the zip code of the property. The authors used this information to test the validity of their model of appraisal information loss. The data set also included a lender code that distinguished between appraisals solicited directly by lenders and those coordinated by appraisal management companies (AMCs), which act as intermediaries between lenders and appraisers.

The role of AMCs in home purchase appraisals increased in importance after the Home Valuation Code of Conduct (HVCC) was adopted in 2009.[1] The HVCC regulation incentivized

* The views expressed here are those of the authors and do not necessarily represent the views of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.

[1] For further discussion on the HVCC, refer to Ding, Lei, and Leonard Nakamura, "The Impact of the Home Valuation Code of Conduct on Appraisal and Mortgage Outcomes," Federal Reserve Bank of Philadelphia Working Paper 14-23 (August 2014); www.philadelphiafed.org/research-and-data/publications/working-papers/2014/wp14-23.pdf.

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lenders to increase their use of AMCs to ensure independence in the appraisal process. The authors tested for both the impact of the HVCC in reducing appraisal bias and the effect of using AMCs to increase the objectivity of the appraisers.

RESULTS

The authors estimated the extent of information loss by analyzing it at both the county level and the appraisal level. At the county level, the authors developed a model to explain the share of appraisals at or just above the accepted offer price in a given county and quarter. The appraisal-level analysis allowed the authors to explore the effects of neighborhood- and transaction-level characteristics on appraised values. Through these two approaches, the authors found that:

- Approximately half of appraisals were equal to the accepted offer price or were 1 percent above it, while less than 10 percent fell below this price.
- A home that was appraised at or slightly above the accepted price could be up to 8 percent overvalued in the appraisal.
- Rising house prices and a greater variance of appraised values relative to contract prices in the county increase the likelihood that appraisers will bias the home appraisal estimate upward.
- Factors that contribute to a reduction in information loss include a high neighborhood foreclosure rate, a high home price relative to the neighborhood, the introduction of the HVCC regulation, and the increased use of AMCs.

Given their findings, the authors argue that appraisals are more likely to be unbiased when the risk of default is high and information on the true value of the home is most important; conversely, information loss appears to be greater when default risk is minimized and a home's true value is of less importance in the underwriting process. These tendencies could extend the duration of both a housing bubble and a market recovery.

POLICY IMPLICATIONS

The research summarized in this brief investigates the relationship between appraised value and accepted transaction price and finds that a large number of appraisals are biased. Regulations have partially addressed information loss within the home purchase appraisal process, but problems remain. The consistent overvaluation of homes could not only lead to artificial house price inflation within neighborhoods, but it could also allow buyers to pay more for a home than it is worth and lenders to incur higher default risks as a result of higher-than-anticipated loan-to-value ratios. The authors urge securitizers and regulators to be creative in developing methods for conducting property valuations that produce accurate appraisals more consistently.

BEYOND THE BRIEF

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