

Correspondents vs. Retail Channels

Understanding Default Risk

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The correspondent business channel originated over \$300 billion of mortgages in 2016. According to Milliman's Default Score¹ model, correspondent lenders have originated purchase loans for sale to the government-sponsored enterprises (GSEs) with higher risks of default compared with the retail channel. Specifically, Milliman's Default Score model indicates that correspondent originations for purchase loans have approximately 10% more default risk than retail originations over the same time period. Loans with higher default rates cost more to service and could potentially have higher guarantee fees from the GSE's.

In this analysis, we focus on the purchase market because the Mortgage Bankers Association (MBA) forecasts² that interest rates will increase over 50 basis points (bps) in 2017, which will result in lower refinance activity and a shift toward a purchase market. MBA³ projects that, by the end of 2017, the purchase volume for 2017 will represent 70% of all originations. As mortgage originators look to maintain volume in a reduced refinance market, we may expect correspondent lending to be a source of volume for mortgage aggregators. It is important for aggregators and lenders to understand the different risk profile from this channel of originations. In this article we will examine the difference in risk profile of originations for purchase mortgages between the correspondent and retail channel.

Correspondent vs. retail GSE purchase loans

We first look at correspondent versus retail loan origination channels in aggregate by total volume and estimated default risk by origination month using Milliman's Default Score. Specifically, the default risk for each loan in our dataset is estimated using Milliman's Default Score, and the resulting estimates are aggregated and indexed for comparison purposes.

The data in Figure 1 shows historical purchase loan volume delivered to the GSEs from May 2015 (the start of our data) through December 2016. In addition to the monthly GSE purchase volume deliveries, we have plotted the incremental percentage spread between the correspondent average default risk and the retail average default risk.⁴ For this analysis, default risk is indexed to represent the difference in the instances of retail default risk as compared with correspondent default risk over time.

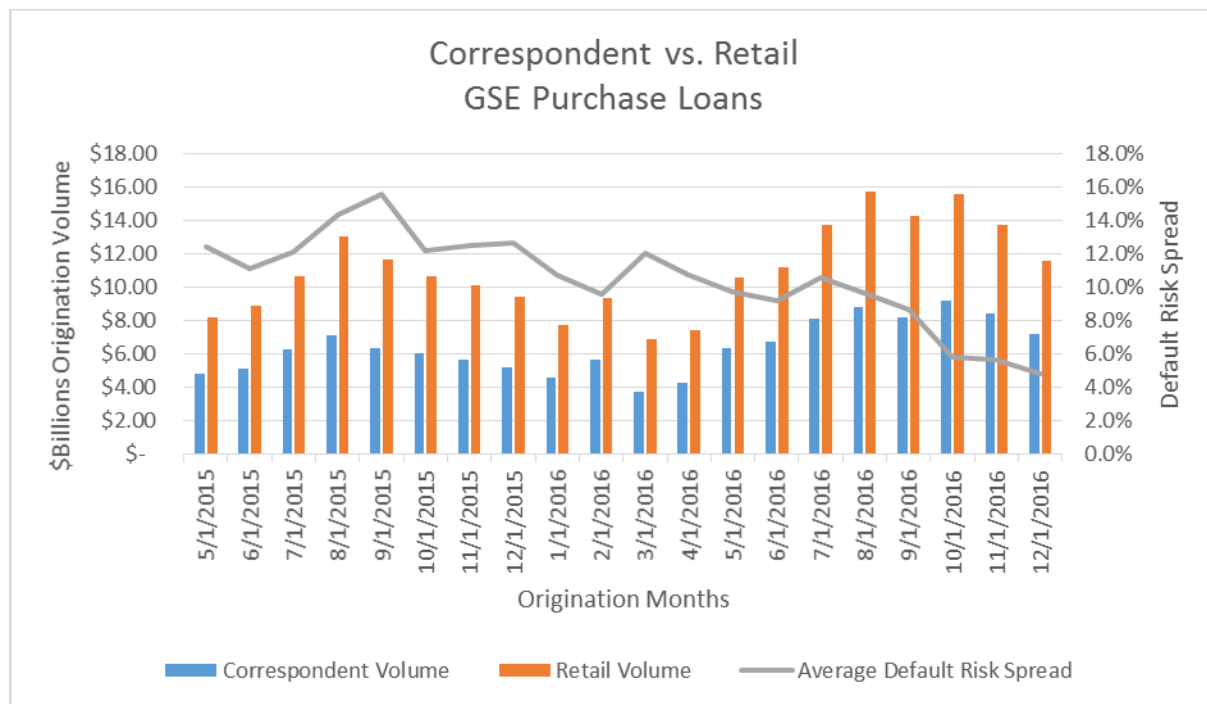
¹ The Default Score is a loan-level lifetime probability estimate of default, where default is defined as a loan that becomes 90 days or more delinquent. The Milliman Default Score is a composite default rate calculation that combines three attributes of mortgage credit risk to estimate the frequency of borrower defaults. The three attributes are: 1) creditworthiness of the borrower, 2) underwriting properties of the loan, and 3) macroeconomic influences.

² MBA Mortgage Finance Forecast (March 15, 2017).

³ MBA Mortgage Finance Forecast (March 15, 2017), *ibid*.

⁴ Default risk spread = (Correspondent default risk - Retail default risk) / Retail default risk.

Figure 1: Correspondent vs. Retail, GSE Purchase Loans



The figure above shows that correspondent loans have a default score that is, on average, 10% higher than the default score for retail originations. It is interesting to note that the default risk spread varies over time. Despite the continued increase in retail volume over correspondent volume, we see that the default risk spread reduced over the last few months of 2016.

Default score components of risk

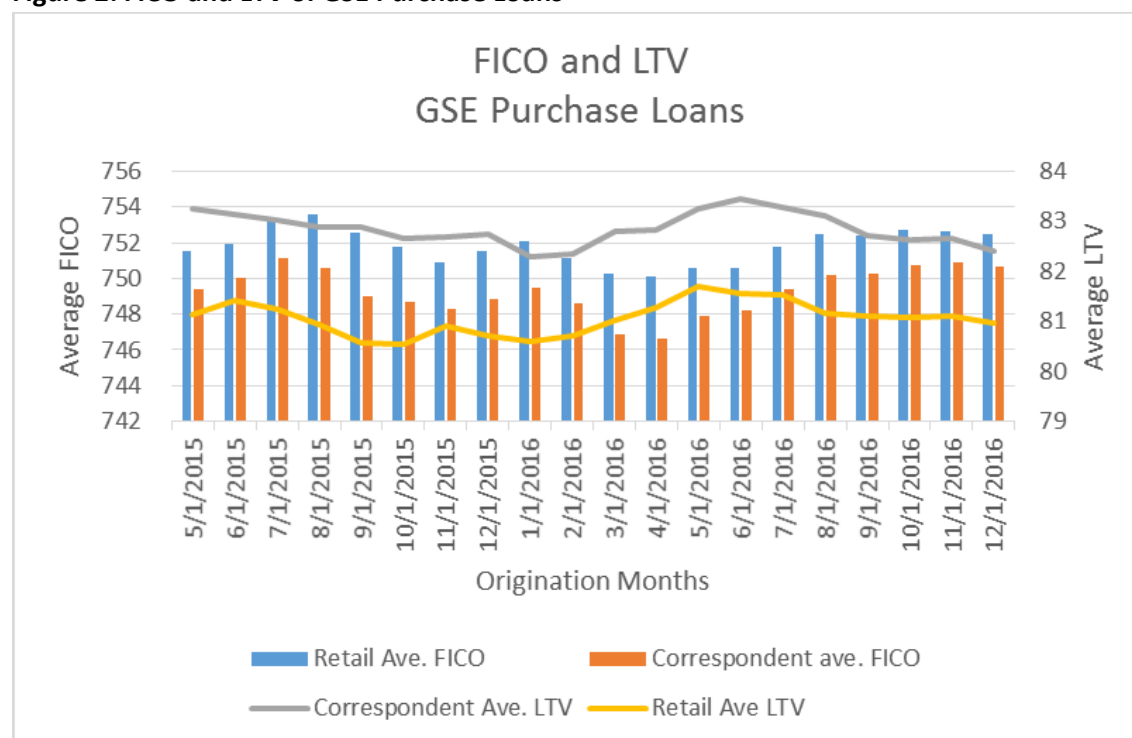
To understand both the difference in default risk and recent tightening in the spread, we drilled into the components of Milliman's Default Score model. The Default Score is a loan-level lifetime probability estimate of default, where default is defined as a loan that becomes 90 days or more delinquent. The Default Score segments risk into:

- Borrower risk (measured by borrower credit score, debt to income ratio, and loan to value ratio)
- Risk related to loan and property features (i.e., property type, loan purpose, etc.)
- Economic risk (measured by historical and forecast economic data series).

In performing our review of the data and results we found that underwriting risk and economic risk were generally consistent between the two origination channels. However, we did notice a difference in borrower risk. In Milliman's model, borrower risk is estimated as a function of borrower credit score, loan to value ratio, and debt to income ratio. In the chart in Figure 2, we see the average FICO and LTV for loans originated by correspondents and retail sources. The average credit score for correspondent loans is approximately 5 points lower than retail, and the average loan to value ratio is approximately 2

percent higher. Borrowers with a high-LTV's are subject to greater risk of future negative equity positions resulting from declines in home price appreciation or the costs associated with the disposition of delinquent property.

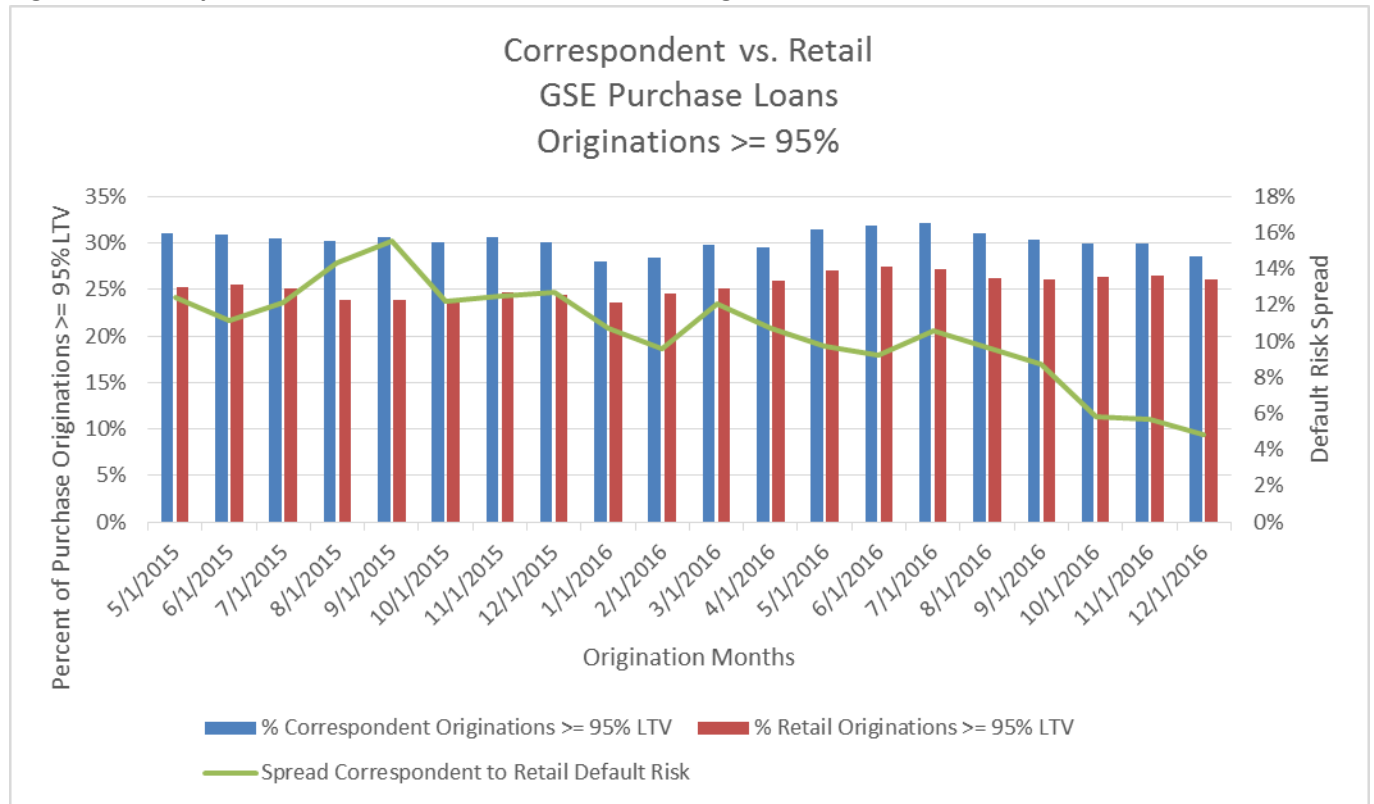
Figure 2: FICO and LTV of GSE Purchase Loans



Higher LTV loan trends

The difference in average loan to value ratios in Figure 2 above are not significant, but average results can mask deeper underlying risks. Specifically, if the average LTV for correspondent lenders is higher because they have more concentration in the 95% plus LTV cohort, then there is more of a concern. In other words, it's not the average result that drives risk, but it is the concentration of a few high risk loans that drive risk. To understand the trend of higher LTV loans originated by correspondents, we analyzed the amount of high-LTV loans between correspondent and retail originations where a high-LTV loan is defined as a loan with an LTV of 95% or greater. In the chart in Figure 3, we see that correspondents are originating more of the higher-LTV purchase loan market than retail channels. Specifically, approximately 30% of correspondent purchase loans were in the 95% plus LTV space, and approximately 25% of retail purchase loans were in the 95% plus LTV space. This delta is the main driver in the higher default rate estimate between correspondent and retail channels. The green line represents the spread between correspondent default risk and retail default risk.

Figure 3: Correspondent vs. Retail, GSE Purchase Loans Originations \geq 95%

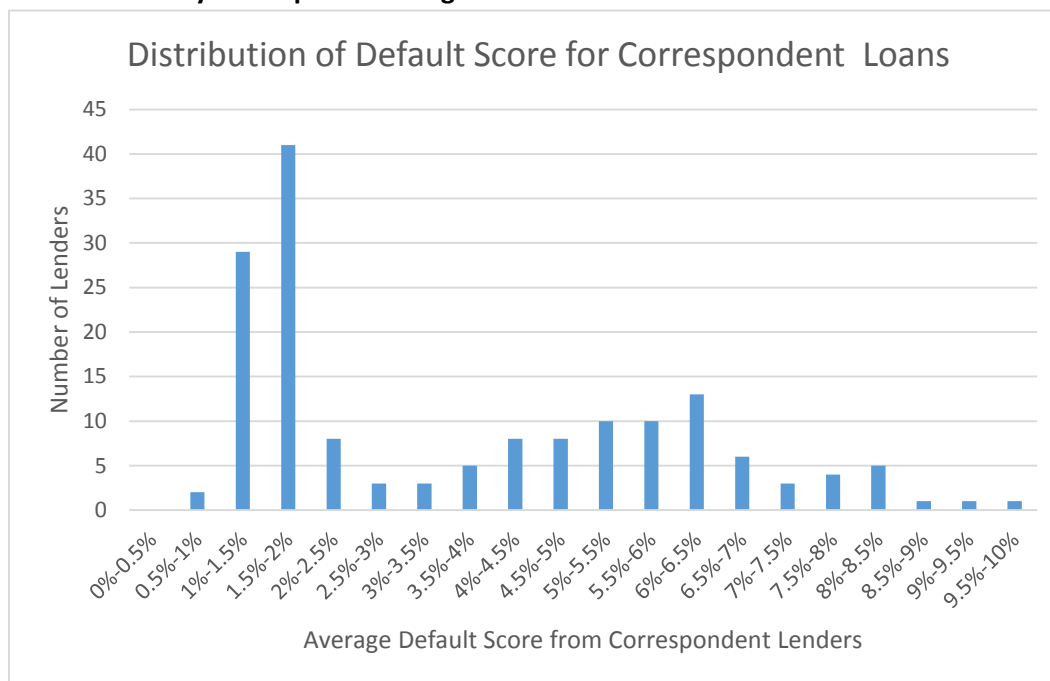


Given the MBA projections of increasing rates, home prices and purchase transactions, we would expect risk characteristics such as LTV to increase. It is important for lenders to monitor their channels of business as well as their product risks. Moving forward, we may see higher volumes of adjustable rate mortgages that are associated with higher default risk.

Variability in seller default risk profiles

Looking further into the data, we observe that not all sellers have similar default risk profiles with respect to loans purchased in the correspondent lending channel. In the chart in Figure 4 we show the histogram of the average default score for correspondent lenders with volume in excess of \$100 million. The bars on the chart represent the number of observations and the x-axis on the chart shows the average default score. Most lenders have a default score between 1.5% and 2.0%; however, some lenders have default scores from correspondent lenders in excess of 6%.

Figure 4: Default Risk by Correspondent Originator



If sellers utilize the correspondent channel to increase purchase originations, it is important for lenders to understand the relative risks of loans purchased and where they compare against their peers. This type of analysis can help lenders make informed decisions on which loans to purchase from correspondents and help them define the underwriting guidelines for their loan purchase agreements.

Conclusion

As stated, this analysis focused on the purchase market. Lenders need to consider how their strategies to tap broader purchase markets might increase or decrease default risk spread across retail and correspondent channels.

- Will there be a difference between how aggressively each channel pursues loan offers that are not qualified mortgage (QM) loans?
- How will the predicted increase in demand for adjustable rate mortgages (ARMs) impact loan default trends?
- What product mix will optimize loan volumes as rates rise and the mortgage industry shifts toward a purchase market?

As a best practice, lenders should seek to leverage technology tools and loan-scoring models in the evaluation of their loan pipelines and closed loans to assess risk.

This white paper includes a companion infographic created by LoanLogics, which is available at loanlogics.com.

About Milliman

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Milliman serves the full spectrum of business, financial, government, union, education, and nonprofit organizations. In addition to our consulting actuaries, Milliman's body of professionals includes numerous other specialists, ranging from clinicians to economists. More information on Milliman's mortgage practice can be found at www.milliman.com/mortgage.