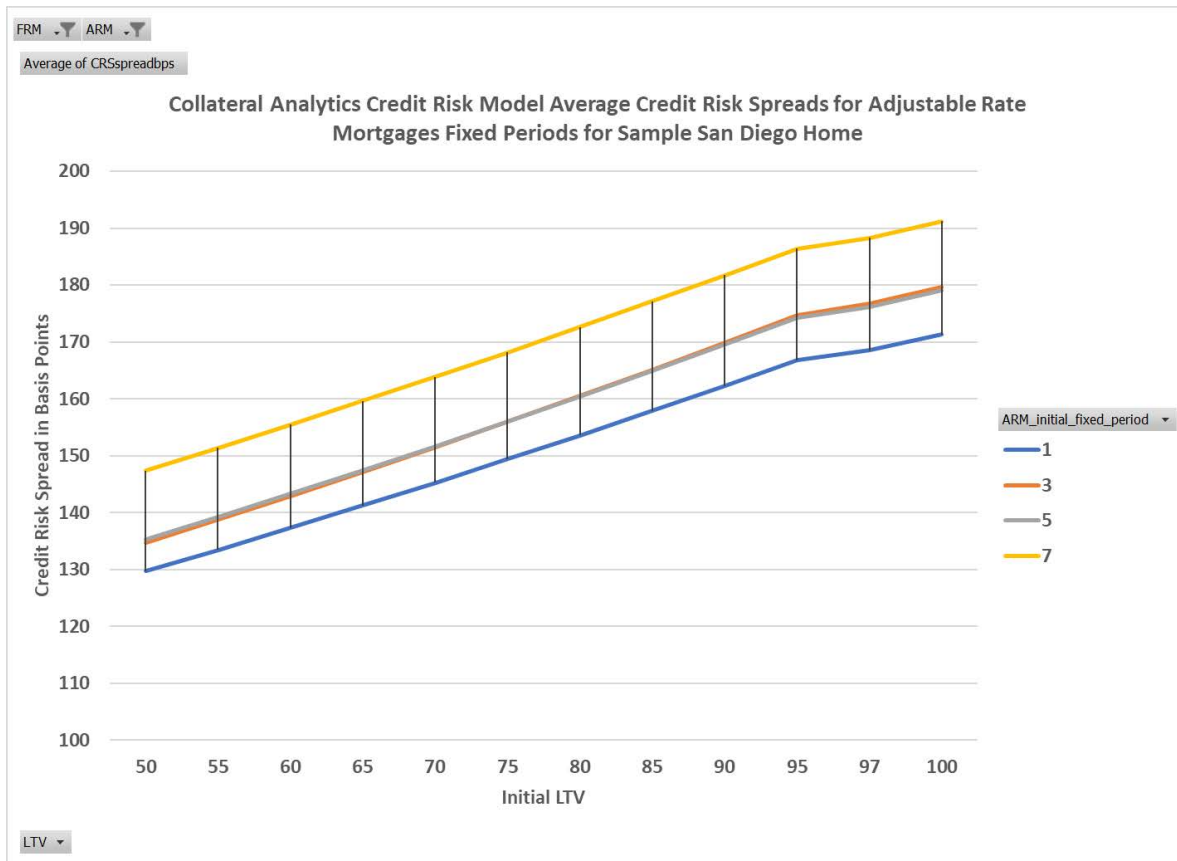


Figure 3 shifts the focus and projects losses for the same sample property but now the borrower is using a standard 5-year adjustable Rate Mortgage (ARM). For this mortgage, interest rates are fixed for the first 5 years and then adjust every year for the remaining 25 years. The first thing to note is that the CRS is substantially higher for the 5-year ARM than for fixed rate mortgages. This reflects that the borrower selection process and the impact of changing interest rates on defaults and prepayments. As we move from very low to very high credit scores, the CRS approximates doubling roughly from approximately 0.5% to a little over 1% credit scores. These results emphasize the need to have separate models for fixed and adjustable rate mortgages as the CRM does.

Figure 3

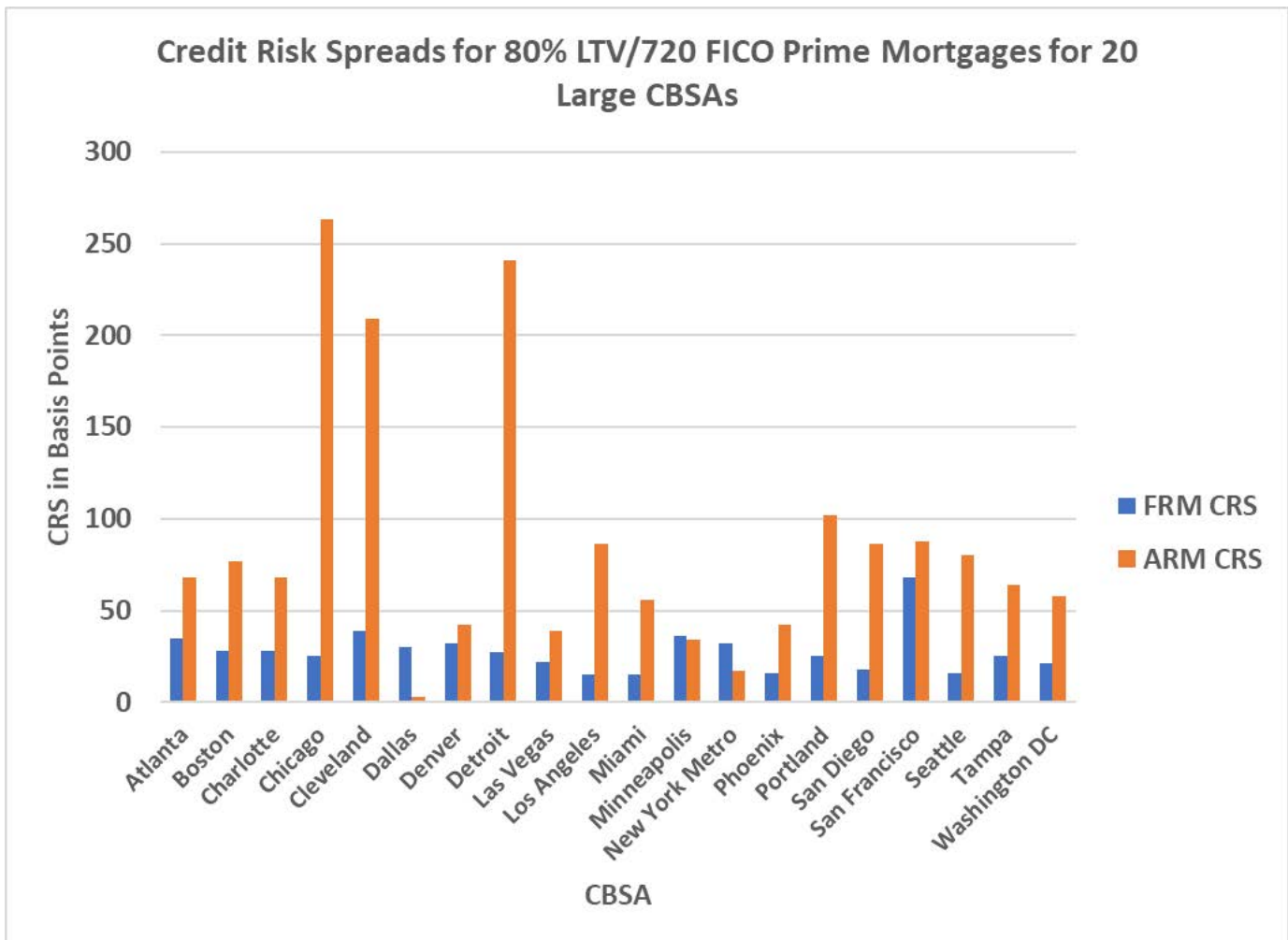
Figure shows how the CRS varies across different initial fixed periods. Adjustable rate loans that start to adjust faster have lower CRSs. The first year and five-year ARMs are very similar in performance while one year and more than five-year ARMs have substantially different default, prepayment, and loss profiles that drive the CRS.

Figure 4



Another feature of the Collateral Analytics CRM is the ability to highlight variations in credit risk among different markets. Figure 5 shows the CRS values for a benchmark 80% LTV fixed and adjustable rate mortgage with 720 FICO Score for a representative home in each of 20 major CBSAs. These variations reflect historical differences in our default and prepayment models of mortgage performance among these markets as well as what our respective home models forecast for home prices going forward.

Figure 5



Conclusions

This paper highlights the importance of providing a flexible modeling strategy when estimating risk for adjustable rate loans. The new Collateral Analytics Credit Risk Model (CRM) provides expected performance measures for individual mortgages over their lifetime. The model also provides the same types of risk measures for a pool of mortgages over their lifetime. It takes into consideration the nature of the location of the property and the characteristics of the loan, thus making it an ideal tool for CECL compliance. The risk measures are available for new originations, seasoned loans and pools of loans. embedded in the CRM is Collateral Analytics' leading AVM technology and detailed models of default, prepayment and losses.