

Housing Credit Index

GSE Credit Risk Transfer Securities

March 2017

Over the past few years, Fannie Mae (Connecticut Avenue Securities (CAS)) and Freddie Mac (Structured Agency Credit Risk (STACR)), have issued over \$40bn in securities (see Figure 1) through their Credit Risk Transfer (CRT) transactions. The GSEs have issued bonds since 2013 in an effort to transfer a portion of mortgage credit risk associated with newly originated agency loans to private investors.

The credit profile and performance of the reference pools of CRT deals have been superior relative to any previously originated vintages. Figure 2 highlights the cumulative collateral default % by vintage for Fannie Mae originated loans. Recently originated loans have experienced extremely low delinquencies and defaults as a result of tight lending standards. This trend is expected to continue, even as the underlying collateral evolves overtime, as long as credit standards remain strong.

In an effort to gauge the ongoing credit quality of the CRT reference pools and to ensure that there is no deterioration in credit quality associated with the recently originated mortgages, FBC's Housing Credit Index identifies and tracks changes in the key features of the underlying loans since issuance of these deals.

Figure 1. Fannie Mae and Freddie Mac issuance since inception in 2013. The Agencies anticipate issuing an additional \$10 bn for the remainder of 2017.

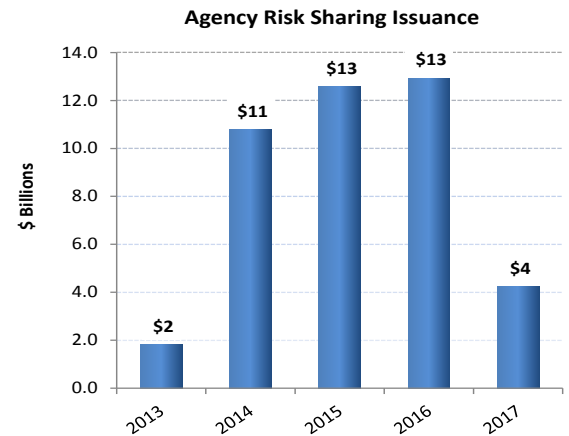
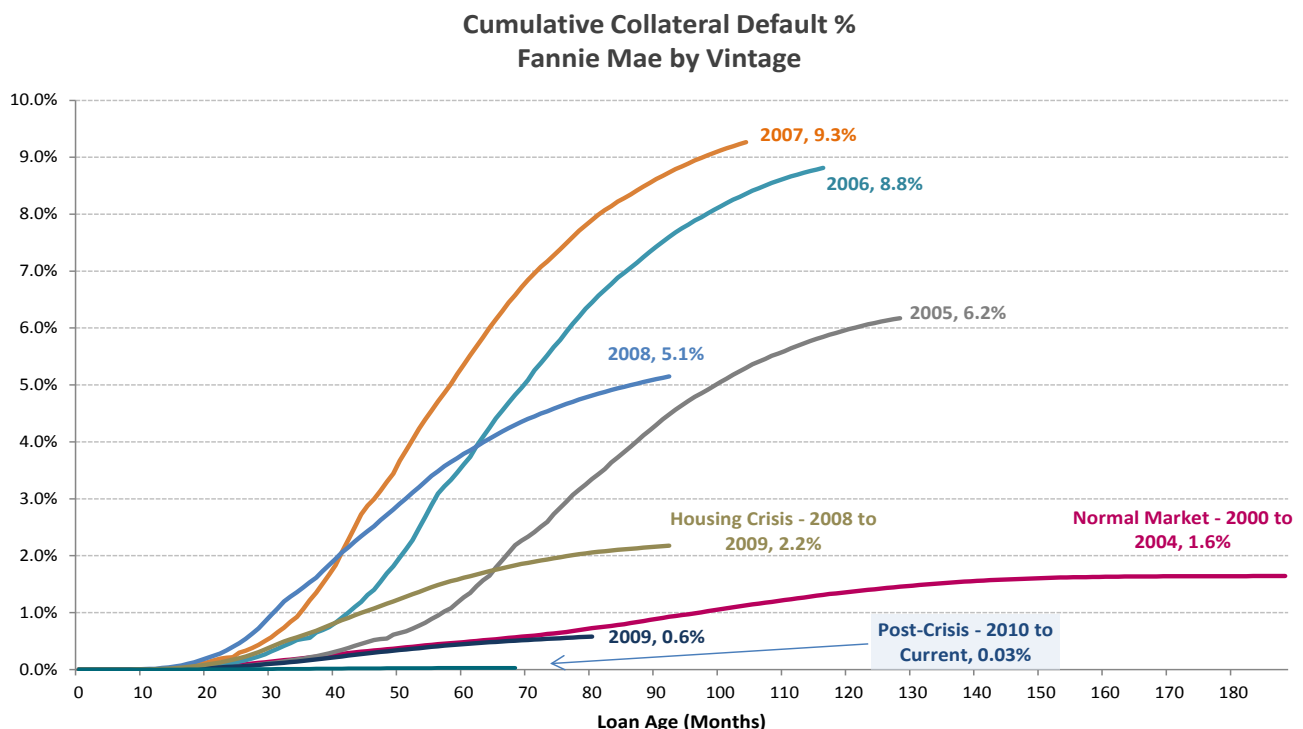


Figure 2. Cumulative Fannie Mae Collateral Default % by Vintage.



Methodology:

The FBC Housing Credit Index is calculated using the following factors, equally weighted, to indicate the collateral quality: 1. Debt-to-Income ratio (DTI), 2. Credit Score (FICO), 3. Loan-to-Value ratio (LTV), 4. Occupancy Status (Owner Occupied %), and 5. Property Type (Condominium %).

The Framework is applied to both, Low LTV (60% to 80%) and High LTV (81% to 97%) CRT deals. We used CAS 2014-C01 as the benchmark for the Low LTV CRT deals and CAS 2014-C02 as the benchmark for the High LTV CRT deals. The benchmark deals were assigned an index value of 100 based on the above-mentioned factors. A decline in the index implies that lending standards are tightening, while increases in the index are indicative of loosening credit.

FBC Index and Trends of Low LTV CRT Reference Pools:

Figure 3 displays the FBC Housing Credit Index value for Low LTV CRT deals issued since January 2014. There is a slight upward trend in the index value (up from 100 to 102) since the benchmark deal issued in January 2014, implying mortgage credit has slightly expanded. By examining the underlying factors (Figure 4-7), we see DTI (up from 32% to 35%), FICO (down from 765 to 750), and LTV (up from 74.5% to 75.5%) are the main contributing factors to the upward trend. Owner occupancy and proportion of condominium properties in the deals remained stable. However, we expect these mortgage loans to continue to perform well as the loan characteristics have shifted within a very tight band.

Figure 3. FBC Low LTV Housing Credit Index.

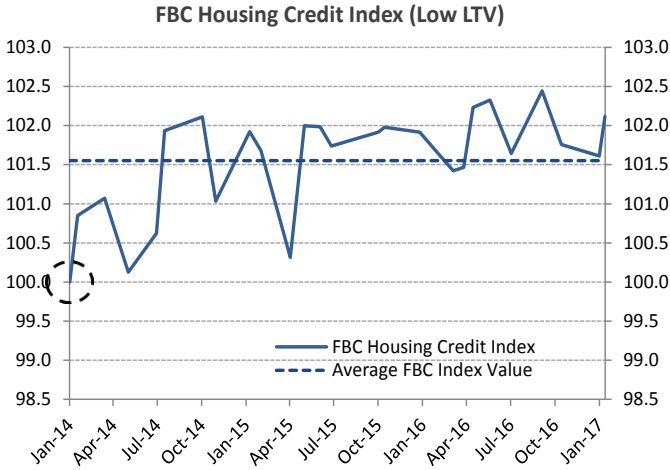


Figure 4. Debt-to-Income ratio

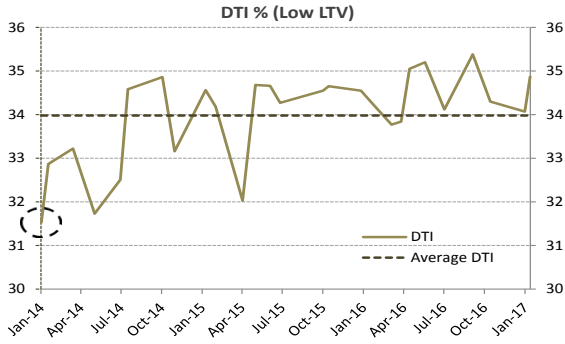


Figure 5. Credit Score (FICO)

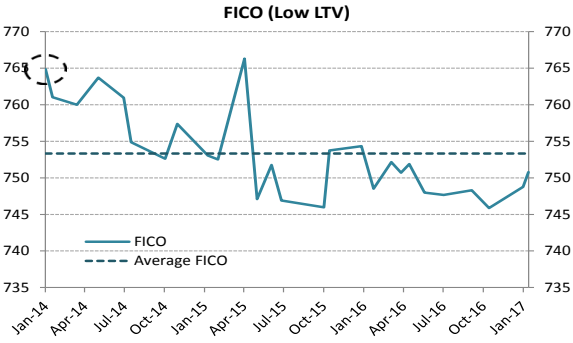


Figure 6. Loan-to-Value ratio

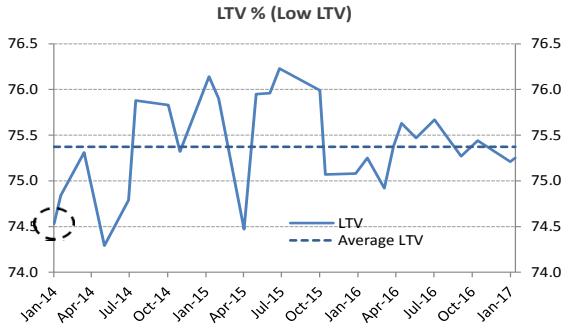
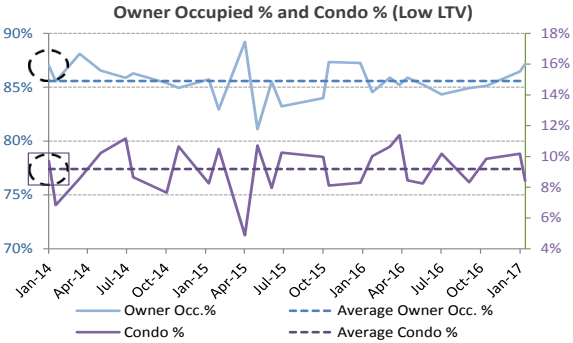


Figure 7. Owner Occupied % and Condo %



FBC Index and Trends of High LTV CRT Reference Pools:

Similar to the Low LTV deals, the FBC Housing Credit Index value for the High LTV CRT deals also demonstrates a slight expansion in credit availability (up from 100 to 101.5) since May 2014 when CAS 2014-C02 was issued (Figure 8). The loan characteristics have shifted within an even tighter band, with DTI up from 33% to 35% (Figure 9), FICO down from 755 to 748 (Figure 10), and LTV up from 91% to 92% (Figure 11). Owner occupancy and proportion of condominium properties in the deals remained stable. Once again, only a marginal drift in credit quality.

Figure 8. FBC High LTV Housing Credit Index

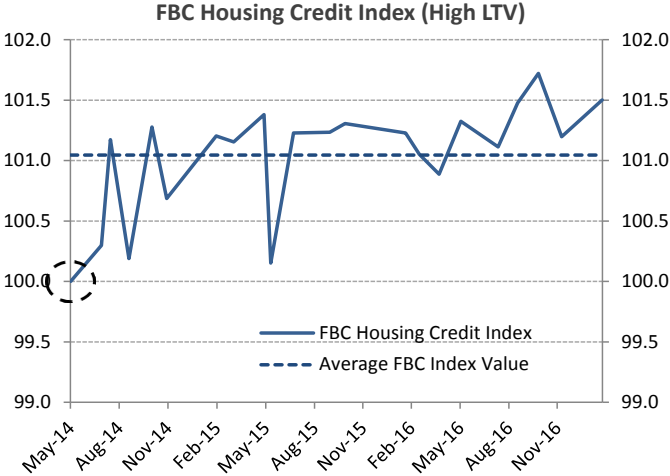


Figure 9. Debt-to-Income ratio

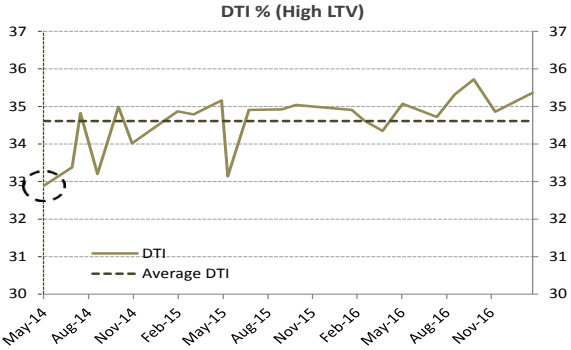


Figure 10. Credit Score (FICO)

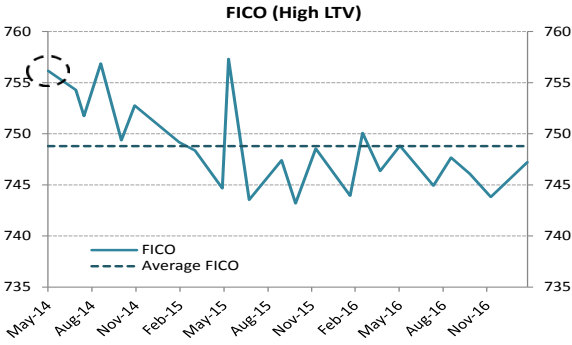


Figure 11. Loan-to-Value ratio

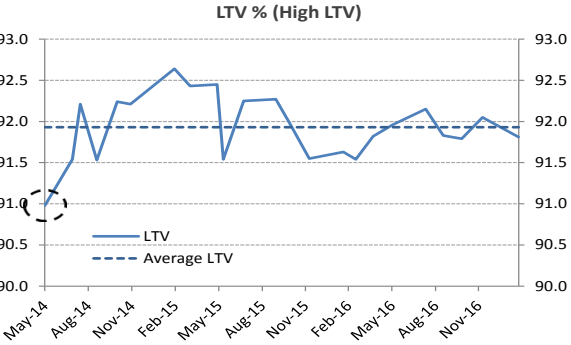
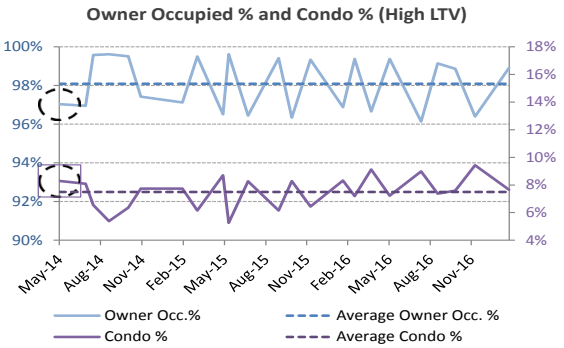


Figure 12. Owner Occupied % and Condo %



Conclusion:

STACR and CAS investments offer diversified credit exposure across the U.S. Housing market. While credit expansion and occurrences of risk layering ought to be monitored going forward, at this time there is no indication of deterioration in credit quality. In addition to credit quality, the underwriting processes continue to be closely monitored by the GSEs. Steady home price appreciation experienced since 2014 across the U.S. has resulted in improved borrower equity, further de-incentivizing delinquency.

Low LTV Deals (As of Issuance)							
Deal	Issuance Date	Collateral Balance (\$, mm)	Weighted Average DTI %	Weighted Average FICO	Weighted Average LTV %	Owner Occupied %	Condominium %
STACR 2013-DN1	Jul 2013	22,584	32.2%	766	74.8%	89.2%	4.9%
CAS 2013-C01	Oct 2013	26,756	31.8%	765	74.9%	86.6%	9.4%
STACR 2013-DN2	Nov 2013	35,327	32.1%	764	74.3%	88.5%	5.5%
CAS 2014-C01	Jan 2014	29,309	31.5%	765	74.5%	87.0%	9.7%
STACR 2014-DN1	Feb 2014	32,441	32.9%	761	74.8%	85.5%	6.8%
STACR 2014-DN2	Apr 2014	28,147	33.2%	760	75.3%	88.1%	8.6%
CAS 2014-C02	May 2014	46,843	31.7%	764	74.3%	86.5%	10.2%
CAS 2014-C03	Jul 2014	59,214	32.5%	761	74.8%	85.9%	11.2%
STACR 2014-DN3	Aug 2014	19,746	34.6%	755	75.9%	86.3%	8.7%
STACR 2014-DN4	Oct 2014	15,741	34.9%	753	75.8%	85.4%	7.7%
CAS 2014-C04	Nov 2014	35,846	33.2%	757	75.3%	84.9%	10.7%
STACR 2015-DN1	Feb 2015	27,644	34.6%	753	76.1%	85.7%	8.3%
CAS 2015-C01	Feb 2015	31,389	34.2%	753	75.9%	82.9%	10.5%
STACR 2015-DNA1	Apr 2015	31,876	32.0%	766	74.5%	89.2%	4.9%
CAS 2015-C02	May 2015	28,002	34.7%	747	76.0%	81.1%	10.7%
STACR 2015-DNA2	Jun 2015	31,986	34.7%	752	76.0%	85.5%	8.0%
CAS 2015-C03	Jul 2015	28,252	34.3%	747	76.2%	83.2%	10.3%
CAS 2015-C04	Oct 2015	26,876	34.6%	746	76.0%	84.0%	10.0%
STACR 2015-DNA3	Nov 2015	34,706	34.7%	754	75.1%	87.3%	8.1%
STACR 2016-DNA1	Jan 2016	35,724	34.6%	754	75.1%	87.3%	8.3%
CAS 2016-C01	Feb 2016	19,000	34.2%	749	75.3%	84.5%	10.0%
CAS 2016-C02	Mar 2016	36,035	33.8%	752	74.9%	85.9%	10.6%
CAS 2016-C03	Apr 2016	11,862	33.8%	751	75.4%	85.2%	11.4%
STACR 2016-DNA2	May 2016	30,121	35.1%	752	75.6%	85.9%	8.5%
STACR 2016-DNA3	Jun 2016	26,468	35.2%	748	75.5%	85.2%	8.2%
CAS 2016-C04	Jul 2016	42,179	34.1%	748	75.7%	84.3%	10.2%
STACR 2016-DNA4	Sep 2016	24,845	35.4%	748	75.3%	84.9%	8.3%
CAS 2016-C06	Nov 2016	33,124	34.3%	746	75.4%	85.1%	9.9%
CAS 2017-C01	Jan 2017	43,758	34.1%	749	75.2%	86.5%	10.2%
STACR 2017-DNA1	Feb 2017	33,965	34.9%	751	75.3%	87.2%	8.4%
Total/Weighted Average		929,765	33.7%	755	75.2%	85.9%	9.0%

High LTV Deals (As of Issuance)							
Deal	Issuance Date	Collateral Balance (\$, mm)	Weighted Average DTI %	Weighted Average FICO	Weighted Average LTV %	Owner Occupied %	Condominium %
CAS 2014-C02	May 2014	13,975	32.9%	756	91.0%	97.0%	8.3%
CAS 2014-C03	Jul 2014	19,010	33.4%	754	91.5%	97.0%	8.1%
STACR 2014-HQ1	Aug 2014	9,975	34.8%	752	92.2%	99.6%	6.6%
STACR 2014-HQ2	Sep 2014	33,434	33.2%	757	91.5%	99.6%	5.4%
STACR 2014-HQ3	Oct 2014	8,001	35.0%	749	92.2%	99.5%	6.4%
CAS 2014-C04	Nov 2014	18,027	34.0%	753	92.2%	97.4%	7.7%
CAS 2015-C01	Feb 2015	18,804	34.9%	749	92.6%	97.1%	7.7%
STACR 2015-HQ1	Mar 2015	16,552	34.8%	748	92.4%	99.5%	6.2%
CAS 2015-C02	May 2015	17,007	35.2%	745	92.5%	96.5%	8.7%
STACR 2015-HQ2	Jun 2015	30,325	33.1%	757	91.5%	99.6%	5.3%
CAS 2015-C03	Jul 2015	20,074	34.9%	744	92.3%	96.5%	8.3%
STACR 2015-HQA1	Sep 2015	19,377	34.9%	747	92.3%	99.4%	6.2%
CAS 2015-C04	Oct 2015	18,169	35.0%	743	92.0%	96.3%	8.3%
STACR 2015-HQA2	Dec 2015	17,103	35.0%	749	91.6%	99.3%	6.4%
CAS 2016-C01	Feb 2016	10,828	34.9%	744	91.6%	96.9%	8.3%
STACR 2016-HQA1	Mar 2016	17,931	34.6%	750	91.5%	99.4%	7.2%
CAS 2016-C03	Apr 2016	25,391	34.4%	746	91.8%	96.7%	9.1%
STACR 2016-HQA2	Jun 2016	18,455	35.1%	749	92.0%	99.4%	7.2%
CAS 2016-C05	Aug 2016	38,668	34.7%	745	92.2%	96.1%	9.0%
STACR 2016-HQA3	Sep 2016	15,709	35.3%	748	91.8%	99.1%	7.4%
STACR 2016-HQA4	Oct 2016	13,847	35.7%	746	91.8%	98.9%	7.6%
CAS 2016-C07	Dec 2016	22,515	34.9%	744	92.1%	96.4%	9.4%
STACR 2017-HQA1	Feb 2017	29,659	35.4%	747	91.8%	98.9%	7.7%
Total/Weighted Average		452,837	34.5%	749	91.9%	98.0%	7.5%

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