

## DUS: A Primer

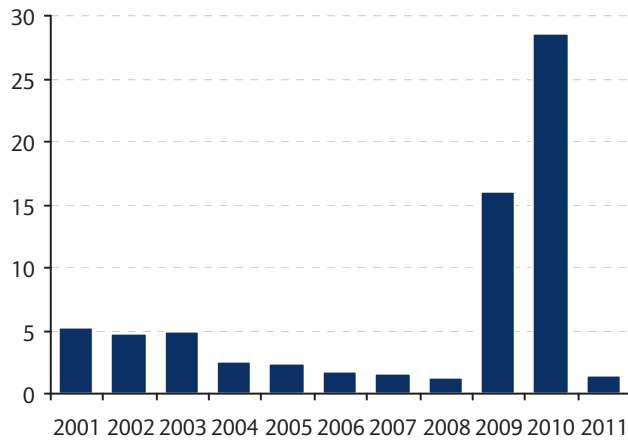
- DUS bonds are mostly backed by multifamily loans originated by a network of pre-approved lenders and are underwritten to Fannie Mae (FNMA) criteria. Similar to other agency issued securities, scheduled interest and principal payments on DUS bonds are guaranteed by FNMA.
- DUS financing has grown in popularity in the past two years as conduits withdrew from the market following the downturn. A majority of outstanding DUS pools are, therefore, from the 2009-10 vintages.
- Typically, lenders share the losses if a loan defaults. This encourages better credit underwriting, leading to lower default rates compared to conduits.
- These loans also come with strong prepay protection, usually in the form of yield maintenance requirements. Current voluntary speeds remain below 1 CPR.
- DUS bonds offer comparatively high coupons with low prepay risk and mildly positive convexity due to the nature of yield maintenance penalties. Trading close to S+70, they look cheap, compared to low convexity single-family 3.5s or agency debt.
- Since DUS pools typically consist of a single loan, they can be used to add exposure in specific geographies.
- Because of their small size, DUS pools sometimes face liquidity concerns. To improve liquidity, investors can aggregate DUS pools to create “Megs.” This also helps in diversifying risk, with the investor less exposed to single-loan defaults.

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Figure 1: Outstanding by vintage (\$bn)



Source: FNMA, Barclays Capital

Figure 2: Outstanding by prefix

Prefix	Type	Outstanding (\$bn)	Share
HY	Conventional, Balloon, Actual/360, Maturity>7y	47	65%
HX	Short-Term, Balloon, Level-Pay; Actual/360, Maturity<7y	9	13%
MY	Balloon, Level-Pay, Maturity>7y	6	8%
HA	ARM, Actual/360, Maturity dates vary	5	7%
ML	Subordinates, Actual/360, Maturity dates may vary.	2	3%

Source: FNMA, Barclays Capital

### What is the DUS program?

Under the DUS (Delegated Underwriting and Servicing) Program, a network of pre-approved lenders underwrites loans on multifamily properties with five plus units. There are currently 26 approved lenders (Appendix A). The loans are made according to underwriting criteria established by Fannie Mae, and are subsequently bundled into pools backed by a FNMA guaranty.

While the program was initiated in 1988, securitization of DUS multifamily loans began only in 1994 and now makes up close to \$70bn in outstanding balance. \$45bn of this has been issued in the past few years (Figure 1). Starting in 2003, DUS issuance declined because private CMBS labels were offering better rates, and more multifamily loans made their way into CMBS conduits. With the private label conduits largely withdrawing from the market following the 2008 financial crisis, some recent multifamily originations have been diverted to the DUS channel. The rapid growth of this market during the past two years explains why this product is proving increasingly popular among various groups of investors.

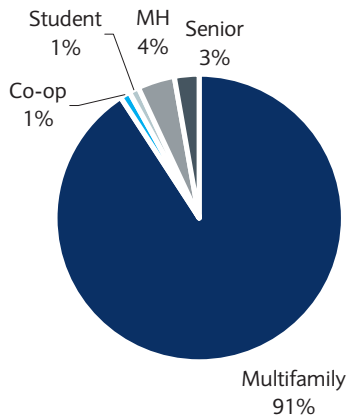
There is no maximum or minimum restriction on the number of loans that can be securitized into a single DUS pool. In practice, an overwhelming majority (more than 96% of 2009 vintage DUS pools) is made up of a single loan. Pool types are identified by their two letter prefix, used to identify the mortgage type. For example, HY stands for standard conventional multifamily property. As Figure 2 shows – about 65% of outstanding DUS are made up of HY pools or conventional fixed rate loans with maturities greater than seven years. These pass-through pools can then be either traded independently or further aggregated into what are known as “Megs.” Some DUS pools are also used as collateral for structured instruments with time-tranching.

### DUS collateral

A number of property categories are eligible for loans under the DUS program. These range from the conventional multifamilies found in most CMBS conduit deals, to more esoteric property types such as Rural Rental Housing (see Appendix B). That said, an overwhelming 90% of outstanding DUS loans are backed by standard multifamily collateral, with manufactured housing and seniors housing loans making up only a relatively small share of the DUS universe (Figure 3).

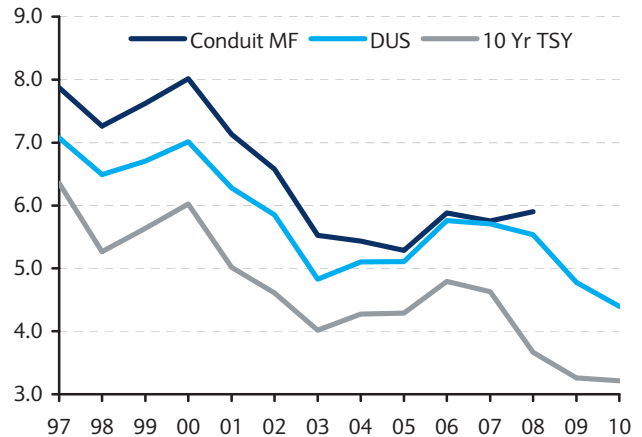
Regarding loan terms, DUS loans can be fixed or floating, with maturities of 5, 7, or 10 years. Some fixed rate loans might have longer terms of up to 30 years (which sets them apart

Figure 3: Outstanding by property type



Source: FNMA, Barclays Capital

Figure 4: Conduit MF versus DUS WACs



Source: FNMA, Intex, Barclays Capital

from the conduit loans); however, these are less common. The most popular DUS loan type is a fixed 10y balloon structure maturing in 10 years with a 9.5 year yield maintenance period (about 60% of DUS universe are composed of such loans).

DUS loans are typically non-recourse and assumable. The assumption fee structure is similar to that of CMBS conduits and typically is 75-100bp. The primary difference is that while conduit multifamily loans can be modified and assumed simultaneously, DUS loans are just assumed.

Some characteristics, such as property type and loan terms, might be somewhat similar; however, DUS loans can differ significantly from conduit MFs in terms of some other credit metrics. These come about primarily because of Fannie Mae underwriting guidelines, which all DUS lenders need to follow while making new loans.

*Tier-based underwriting and loss sharing*

The DUS program follows a three-tier credit underwriting structure, Figure 5. Tier 4 loans, for instance, with higher DSCRs and lower LTVs, will receive better interest rates than a loan that falls in Tier 2. In addition, the better (or Tier 4) underwritten loans will also typically have lower servicing and FNMA guarantee fees.

In addition to the tier-based assessment, the properties are usually subjected to a number of additional tests including appraisal, environmental assessment, and a physical need assessment. Appraisals are based on USPAP standards, which may have prevented the most aggressive pro forma appraisals that were common in the conduit space. Most importantly, DUS lenders also enter into a loss-sharing arrangement with Fannie Mae on the loans they originate explaining better credit performance. Typically, one-third of the losses are borne by the lender *pari passu*, although some agreements could specify the lender taking the first loss piece of a defaulted loan. DUS lenders are required to maintain a certain level of capital against their Fannie Mae obligations to be able to meet the standards of loss sharing agreement, if needed. For some of the larger loans, the loss sharing provision might be waived, if the lender is considered to be too small to maintain the required reserve. In these rare instances it is our understanding that Fannie re-underwrites such loans (effectively waiving the “delegated” feature). As more multifamily borrowers view the possibility of refinancing their loans through the agency route, it is possible that such instances will increase in the future.

Figure 5: Tier-based credit underwriting

Rating	Minimum DSCR	Maximum LTV Ratio
Tier 2	1.25	80
Tier 3	1.35	65
Tier 4	1.55	55

Source: FNMA, Barclays Capital

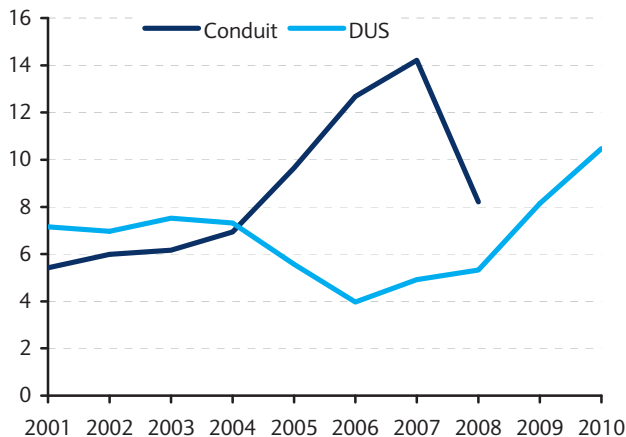
Approved DUS lenders are also entitled to service the loans they have previously originated. As such, in addition to an upfront fee at the time of origination, DUS lenders earn a running servicing strip, which is typically higher than the fees in conduit loans. Needless to say, the attractive servicing terms, along with the possibility of eventual losses, provide a strong incentive for the lenders to err on the side of caution while underwriting slightly dented collateral, and in keeping loans current.

DUS originations also differ somewhat from other agency multifamily products. Loans securitized through the Freddie K series, for instance, are originated by Freddie Mac itself and do not rely on delegated lenders, as in the case of DUS. For further details on the Freddie K series, please see *Agency CMBS Primer: Freddie Mac K certificates program*, May 4, 2010.

The tighter underwriting guidelines, coupled with the loss-sharing arrangement, has a significant effect on credit characteristics. As Figure 4 shows, DUS pass-through coupons (after deducting guarantee fees paid to FNMA) for older vintages have been lower than the net coupon for MF loans securitized in conduit trusts, signifying better collateral. This relationship broke down in the 2005-07 episode, when the conduit market grew exponentially, often under-pricing credit risk to increase volume. As Figure 1 shows, there was a concomitant decline in DUS outstanding in these vintages. Since then, however, DUS net coupons have once again dipped below what is offered through conduit execution.

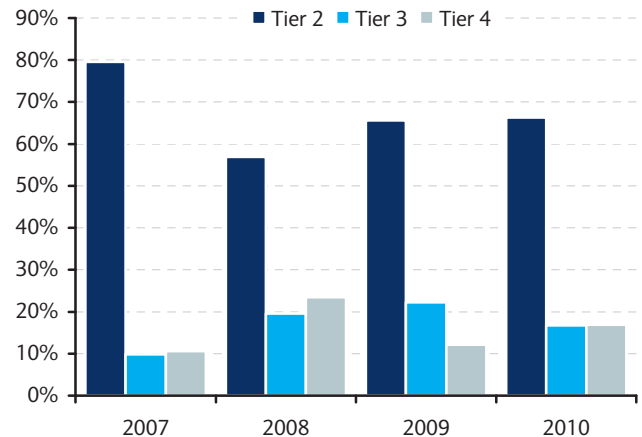
The conduit versus DUS divergence can also be seen in Figure 6, which shows the average loan size of outstanding loans in various vintages. As Figure 6 demonstrates, the average sizes of pre 2004-vintage MF conduit loans were roughly similar to an average DUS loan, before zooming higher in the 2005-08 episode. This was probably due to better terms (resulting from looser underwriting) offered by the conduit lenders. As conduit issuance stalled in 2009-10, larger loans have started making their way into DUS pools.

Figure 6: Conduit MF versus DUS loan size (\$mn)



Source: FNMA, Intex, Barclays Capital

Figure 7: Outstanding by tier-based credit quality



Source: FNMA, Barclays Capital

That said, there has been some tightening in credit, even for DUS pools. Figure 7 shows the relative share of different tiers in each DUS vintage; 2008 and 2009 vintages have a higher share of better loans categorized as Tier 3 and 4 (about 30-40%), compared with the 2007 vintage (20%).

### Prepay protection

Most DUS loans have fairly strong prepay protection in the form of yield maintenance requirements, though defeasance provisions and lock-outs also exist to a lesser extent. The most typical multifamily pool would have a 10y loan term with a 9.5y yield maintenance period (commonly referred to as 10/9.5 pools).

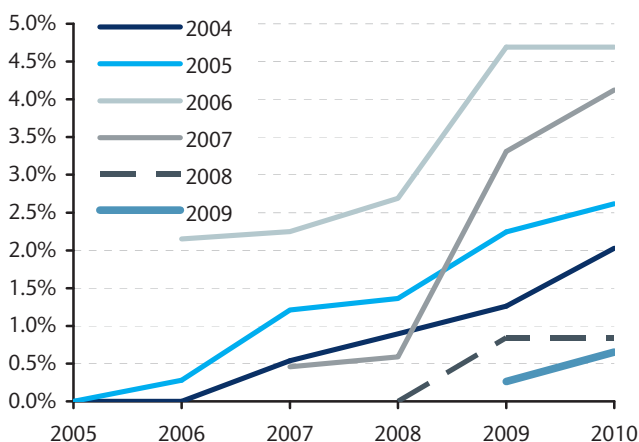
Under the yield maintenance provisions, a borrower who voluntarily prepays during the penalty period would need to pay an additional fee. This fee is calculated as the greater of 1% of the principal, and the present value of the future interest cash flows minus the corresponding US Treasury. For loans that prepay after the expiry of the yield maintenance period, the borrower would still need to pay a premium of 1% of the prepaid balance, up to three months prior to the maturity of the loan. A share of this prepayment fee will be kept by Fannie Mae according to a specified formula, while the rest will be passed on to the investor. However, Fannie has the right (but not the obligation) to waive this 1% prepayment penalty at their discretion.

In addition to yield-maintenance provisions, defeasance and lock-outs, some loans may also have a prepayment fee option known as “declining premium.” Under this, the prepayment fee is based on certain percentage of unpaid balance which will decline over time. The investor will then receive a share of this premium.

### The Fannie guaranty

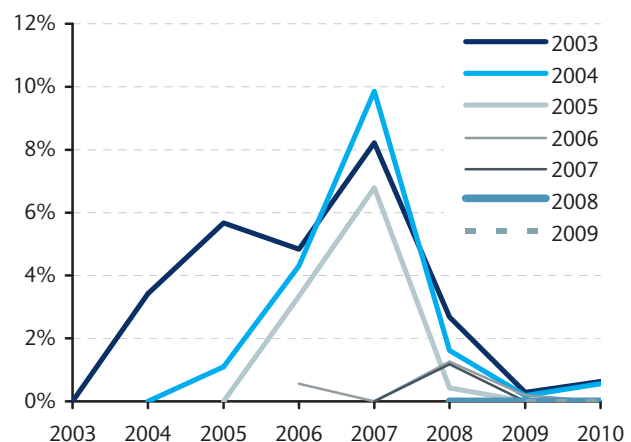
Like other agency MBS, investors in DUS pools are guaranteed timely payments of interest and principal. This includes the monthly interest and principal and the balloon amount. On loans that have voluntarily prepaid, FNMA would pass on any prepay penalty payment collected after deducting its share of the penalty, although there is no specific guaranty on the yield maintenance payments. On loans that fall delinquent, Fannie has the option to purchase from the pool any loan that has been 120+ days in delinquency. On early pay defaults, where a loan falls delinquent within four months of the first payment date, the loan

Figure 8: Cumulative buyouts from 10/9.5 DUS pools



Source: FNMA, Barclays Capital

Figure 9: Payoffs by year from 10/9.5 DUS pools



Source: FNMA, Barclays Capital

could be repurchased by FNMA as soon as it is 30+ days delinquent and put back to the originator. Typically, Fannie tends to buy out loans as soon as they become eligible.

### Historical performance

As we have discussed before, DUS underwriting has generally been on the conservative end of the scale, compared with conduit originations. This is borne out in the performance data released by Fannie Mae. Figure 8 looks at the cumulative balance of loans bought out of 10/9.5 multifamily pools, broken out by vintage. Expectedly, involuntary prepayments are the highest in the 2005-07 vintages, and 2007 buyouts are still trending sharply higher. It is useful to note that the higher share of buyouts comes off comparatively low issuance. Most multifamily loans in these vintages were being securitized in conduits, while some others were being held by Fannie in its portfolio.

In any case, DUS buyouts are considerably lower than the 15% serious delinquency rate seen in the MF conduit space (Figure 10). Despite the uptick in delinquency buyouts, DUS loans are still performing better than their conduit counterparts by orders of magnitude.

Figure 10: Conduit MF 60+ Delinquency



Source: Intex, Barclays Capital

Admittedly, this is not a strict apples-to-apples comparison. Bought-out loans would presumably include only those that are 120+days delinquent and neglect ones that are 60-120 days delinquent and still in the DUS pool. This is, however, only a small factor: DUS serious delinquencies were reported at 0.6%, as of September 2010.

While it is clear that DUS loans perform significantly better than MF loans in conduits, they have not been entirely immune to the downturn; note the uptick in DUS buyouts in 2009, mostly on loans from the 2006-07 vintages. Since then, however, the pace of buyouts has cooled off somewhat, analogous to the performance improvement in the conduit universe.

Voluntary prepayments are very low, as we would expect, given the prepay penalty provisions embedded in DUS loans. Prepays did, however, pick up during the boom years in 2006-07, when a number of loans either refinanced into other agency pools or the private label market. Private labels, by virtue of looser underwriting, were offering comparable rates to DUS, along with the opportunity for possible cash-out refis. Since then, prepays have fallen once again to sub 1 CPR levels (Figure 9).

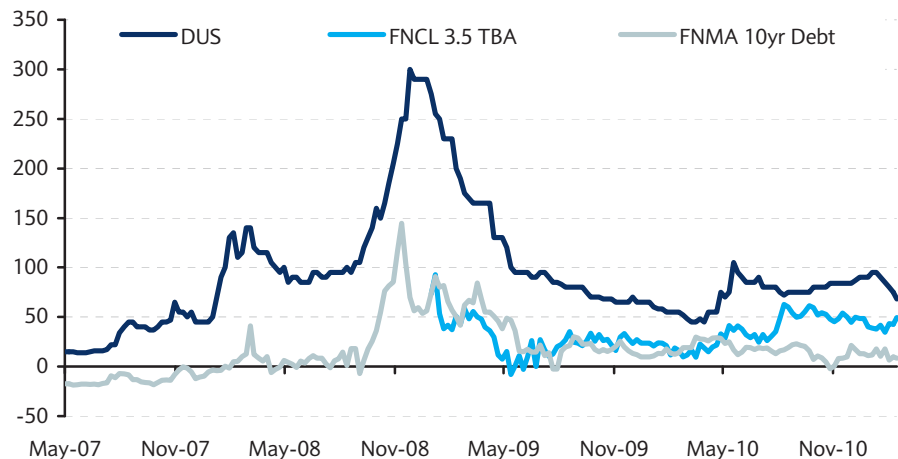
## Multifamily Megas and ACES

As we mentioned before, DUS pools are typically made of one loan and are of rather small sizes. To increase the size of offered pools and enhance liquidity in this space, Fannie also issues Megas<sup>1</sup>. In a DUS Mega, DUS securities with the same prefix and similar fixed rate coupon (with a 100bp range) are aggregated into larger pools. Investors can submit DUS bonds to Fannie, which will then structure the Megas in return for a transaction fee. In addition, Fannie issues multifamily DUS REMICs under the ACES program (Alternative Credit Enhancement Securities), in which principal and interest from DUS pools are structured into time-tranched sequential securities.

## DUS looks cheap to comparable assets

Spreads over swaps on DUS pools have tightened to near the 70bp mark over the past month (mid 60s for the seasoned paper and low 80s for the new issue). Investors typically price these bonds to 0 CPY, owing to the 1% prepay penalty that exists even after the YM provisions have expired.

Figure 11: Spreads on comparable sectors (bp)



Source: FNMA, Barclays Capital

Despite the recent tightening, there are few comparable products in the market that combine the relatively high coupon the DUS provide with exceptional prepay protection. 10y agency debt trades considerably tighter, at about 10bp. Even compared with, for example, the low convexity 3.5% 30y FNMA single families, which trade at a zero volatility spread of about 40-50bp, DUS bonds look cheap. In addition, due to the nature of yield maintenance payment calculations, DUS pools are slightly positively convex. As rates dip, the present value of the excess spread between the loan coupon and the corresponding Treasury widens, increasing YM payments to the bond. DUS pools are, therefore, ideal for investors looking for stable cash flows at relatively cheap levels, compared with agency single families.

CDRs on DUS pools are leveling off, and we expect to see further improvement as multifamily property financials recover. As we have pointed out in *Multifamily: Bottomed in Q4, what's next?*, July 26, 2010, apartment vacancies have declining since Q4 09, and asking rents have begun to climb. Also, favorable demographics, coupled with declining homeownership rates, suggest strong demand growth for apartment rentals over the next decade.

<sup>1</sup> First MEGA pool was issued in 1996.

**Apart from fundamental valuations, there are several other reasons why investors favor DUS bonds.** These securities are popular with banks looking for assets that do not require excessive risk-capital. With 20% risk-weight, DUS pools are equivalent to other agency single-family products. In addition, because they usually consist of a single loan, they provide an easy method for investors to add exposure in specific geographies. This is especially useful for smaller banks that could receive tax concessions when buying local mortgage assets.

The additional attractiveness of DUS certificates could be attributed to lower spread volatility (for example, at the end of 2008, conduit spreads for AAA dupers widened to S+1500 area, while DUS certificates still traded in the S+280 area) and the absence of any extension risk since Fannie guarantees the balloon payment at maturity.

### **Risks**

The flip side is that because most DUS pools consist of only one loan, the investor takes on the risk of an idiosyncratic involuntary prepayment. This is especially important on older DUS bonds with higher WACs which trade at premium. Even if the defaulted loan resolution results in higher than par recovery, the guarantee covers only par and the trust is not entitled to get the excess proceeds. Some DUS pools may also trade wider, due to the perceived weaker collateral quality of specific originators. On more recent issuance with lower WACs, the recent sell-off in Treasuries has led to several late 2010 DUS bonds trading at a discount. Faster involuntary prepayments on these loans would be beneficial.

In addition, smaller pool sizes also restrict liquidity, and a few market participants could influence pricing considerably. For instance, spreads widened in the middle of 2010 because of a few FHLBs temporarily withdrawing from the market. Since then, the investor base has widened as the market hunts for yield in a tightening environment. There is, however, very little overlap in the investor base between the conduit and the DUS universe.

These risks are somewhat mitigated by investing in Megas, which are of larger size, more diversified, and less exposed to single-borrower defaults. They typically trade a few bp tighter than standard multifamily DUS pools.

**Appendix A: List of DUS Lenders**

DUS Lenders	
Alliant Capital Finance, LLC	Greystone Servicing Corporation, Inc.
AmeriSphere Multifamily Finance, LLC	HomeStreet Capital Corporation
Arbor Commercial Funding, LLC	HSBC Bank USA, N.A.
Beech Street Capital, LLC	JP Morgan Chase Bank, N.A.
Berkadia Commercial Mortgage LLC	KeyCorp Real Estate Capital Markets, Inc
CBRE Multifamily Capital, Inc	M&T Realty Capital Corporation
Centerline Mortgage Capital, Inc.	Oak Grove Commercial Mortgage, LLC
Citibank, N.A.	Pillar Multifamily, LLC
CWCapital LLC	PNC Multifamily Mortgage, LLC
Deutsche Bank Berkshire Mortgage, Inc	Prudential Multifamily Mortgage, Inc.
(DB Mortgage Services, LLC)	Red Mortgage Capital, LLC
Dougherty Mortgage, LLC	Walker & Dunlop, LLC
Grandbridge Real Estate Capital, LLC	Wells Fargo Bank, N.A.

Source: FNMA

**Appendix B: Types of multifamily mortgaged properties eligible for DUS/MBS**

Property Type	Description
Standard Conventional Multifamily	A multifamily loan secured by a residential property composed of five or more dwelling units and in which generally no more than 20 percent of the net rentable area is rented to, or to be rented to non-residential tenants.
Multifamily Affordable Housing and Low-Income Housing Tax Credit	A multifamily loan on a mortgaged property encumbered by a regulatory agreement or recorded restriction that limits rents, imposes income restrictions on tenants or places other restrictions on the use of the property.
Seniors Housing	A multifamily loan secured by a mortgaged property that is intended to be used for elderly residents for whom the owner or operator provides special services that are typically associated with either “independent living” or “assisted living.” Some Alzheimer’s and skilled nursing capabilities are permitted.
Manufactured Housing Community	A multifamily loan secured by a residential development that consists of sites for manufactured homes and includes utilities, roads and other infrastructure. In some cases, landscaping and various other amenities such as a clubhouse, swimming pool, and tennis and/or sports courts are also included.
Cooperative Blanket	A multifamily loan made to a cooperative housing corporation and secured by a first or subordinate lien on a cooperative multifamily housing project that contains five or more units.
Student Housing/ Dedicated Student Housing	Multifamily loans secured by multifamily properties in which college or graduate students make up a significant portion of the tenants.
Military Housing	A multifamily loan secured by a multifamily property in which more than 20% of the units are occupied by persons serving in or employed by the military or which is located in an area where military and military-related employment accounts for 20% or more of the local employment base.
Rural Rental Housing	A multifamily loan secured by an affordable multifamily property located within specified rural areas designated by the Rural Rental Housing Guaranteed Loan Program of the USDA. The USDA guarantees up to 90% of any loss incurred upon liquidation of loans it has approved, provided that the loan was underwritten and serviced in accordance with the USDA requirements.

Source: FNMA

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