

Single-Family Rental Research

Performance Summary Covering All Morningstar-Rated Securitizations

July 2017

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Introduction

More summer lease expirations pushed the vacancy rate higher for the third straight month across single-borrower, single-family rental securitizations rated by Morningstar Credit Ratings, LLC. The average vacancy rate now stands at 4.9% from a revised 4.4% the month prior. The increase in vacancy may also be attributable to a slightly lower retention rate for full-term leases and a higher turnover rate for May, the latest data available. While the average retention rate decreased slightly month-over-month, it remained strong in the high-70s, while the increase in turnover is matching the trend seen last summer. Among the top 20 metropolitan statistical areas, Houston had the highest vacancy rate at 6.9% and the Sarasota-Bradenton-Venice, Florida MSA followed at 6.7%. Additionally, Houston's rent change, while still positive, is the lowest among the top 20 MSAs at 1.1%. The SWAY 2014-1 transaction paid off in July, bringing the performance summary to an analysis of 23 single-borrower deals and over 87,000 properties.

Morningstar publishes its performance summary to provide market participants detailed property-level information on each securitization. The data below summarizes issuer-reported property-level information through June. Page 4 includes a summary of the seven multiborrower transactions. For deals seasoned at least one year, we provide Morningstar DealView® Surveillance Analysis reports, available on our website, www.morningstarcreditratings.com.

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Single-Borrower Performance

The average vacancy rate increased to 4.9% in June, and additional lease expirations could increase the rate in coming months. While increasing, the HPA 2016-2 vacancy rate has remained below the average vacancy rate despite entering a period of increased lease expiration. Chart 5 shows the MSA-level vacancy rate in single-borrower transactions. MSAs with vacancy rates above the 4.9% average are red, while those below are blue. The average retention rate on full-term leases dropped slightly to 77.0% in May, the latest month available, but the rate remains strong. Only one single-borrower, single-family rental securitization posted a retention rate below 70.0%, and eight deals had retention rates at or above 80.0%. The overall turnover rate jumped to 3.6% as of the most recent data available. Turnover rates are higher in the summer months as tenants generally prefer to move when the weather is nicer and children are out of school.

The average delinquency rate ticked up slightly to 0.7%, and four deals had delinquency rates at or above 1.0%, up from two the month prior. AMSR 2016-SFR1 saw the largest month-over-month increase and has the highest delinquency rate at 2.7%. Any review of delinquency should be viewed within the context of the delinquency definitions in Table 5.

Rents rose 4.4% in June. Chart 1 shows that the rent gains for securitized properties were higher than their RentRange benchmarks. The RentRange benchmarks track the year-over-year change on three- and four-bedroom median rents, weighted by MSA to match the geographic concentration of the Morningstar database. Rent gains for securitized properties should remain higher than the RentRange benchmarks through the summer, based on the historical trends in Chart 1.

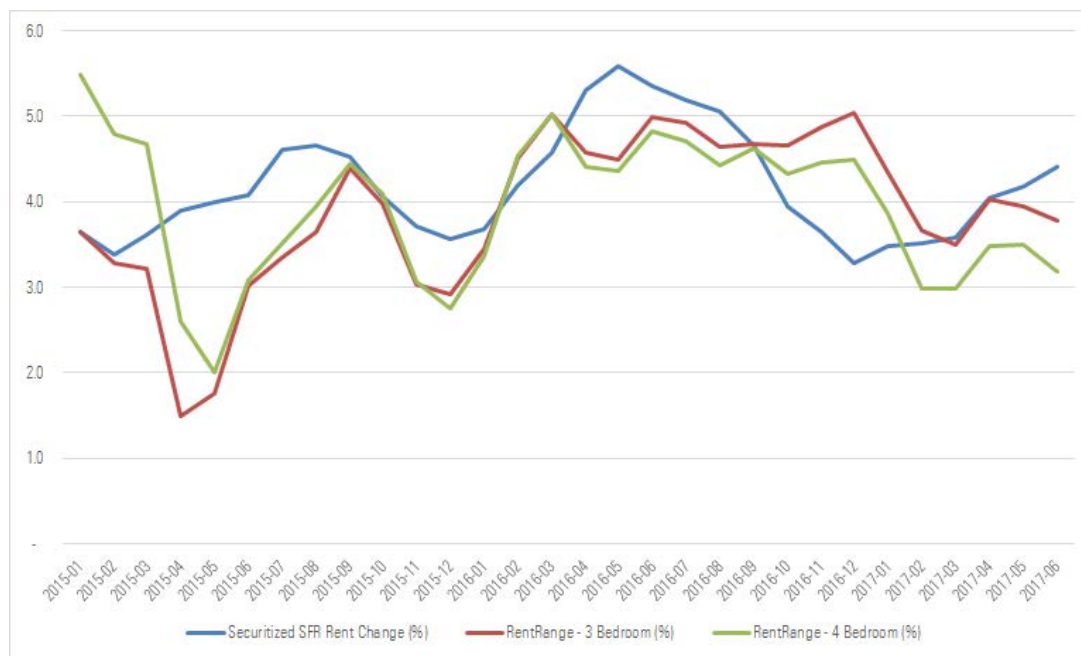
Chart 2 shows the rental change of renewals versus vacant-to-occupied properties. For May, the latest month for which data is available, the rent change for vacant-to-occupied properties was 4.6%, while the rent change for renewal properties was at 3.9%. Chart 3 shows that the average contractual rents by MSA have been largely in line with or slightly higher than their property-level RentRange estimates. Exceptions are most notable in the Florida MSAs of Sarasota-Bradenton-Venice and Fort Lauderdale. Chart 4 shows the MSA-level blended rent change. MSAs with rent changes above the 4.4% average are blue, while those below are red. The size of the circle indicates the percentage of properties by count from a given MSA in Morningstar's database. Table 1 shows the MSA-level blended rent change for the past 12 months.

Multiborrower Performance

There have been seven multiborrower transactions: B2R 2015-1, B2R 2015-2, B2R 2016-1, FKL 2015-SFR1, CAF 2015-1, CAF 2016-1, and CAF 2016-2. As of the most recent remittance report, B2R 2015-1 had two loans that were 30 days delinquent and two loans that were at least 90 days delinquent. One of the loans at least 90 days delinquent is 0.2% of the transaction balance and was transferred to special servicing in June for payment default. The other at least 90 days past due loan in B2R 2015-1 makes up 0.3% of the deal balance and is in foreclosure. The loan remains in special servicing. In all, four loans from B2R 2015-1, totaling 0.9% of the transaction balance, have been transferred to special servicing. Separately, one loan in B2R 2015-2 was 30 days delinquent and three were more than 90 days delinquent. Four loans were transferred to special servicing, which account for 0.7% of the deal balance. B2R 2016-1 had two loans that were 60 days past due and two more than 90 days delinquent. The past due loans in B2R 2016-1 make up a combined 1.2% of the deal balance. Four loans in B2R 2016-1 have been transferred to special servicing. CAF 2015-1 had two loans that were 30 days past due and one loan that is at least 90 days delinquent that was transferred to special servicing in June. In total, three loans equaling 5.9% of the transaction balance have been transferred to special servicing. CAF 2016-1 had two loans that were 30 days past due, totaling 1.5% of the transaction balance, while CAF 2016-2 had one loan 30 days delinquent, one loan 60 days delinquent, and one loan at least 90 days delinquent in special servicing. The 60 or more days past due loan in CAF 2016-2 makes up 2.5% of the deal balance. Finally, all borrowers in FKL 2015-SFR1 are current. However, one loan that is approximately 1.7% of the deal balance was transferred to special servicing in October for imminent default.

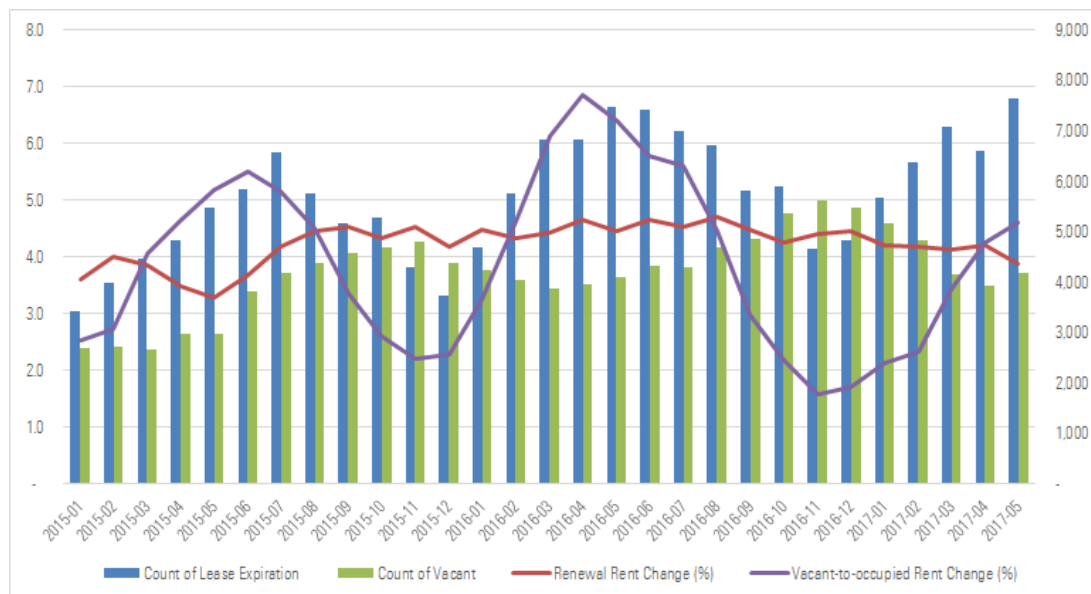
Single-Borrower Charts and Tables

Chart 1 – Single-Family Rental Rent Change Versus RentRange Year-Over-Year Rent Change



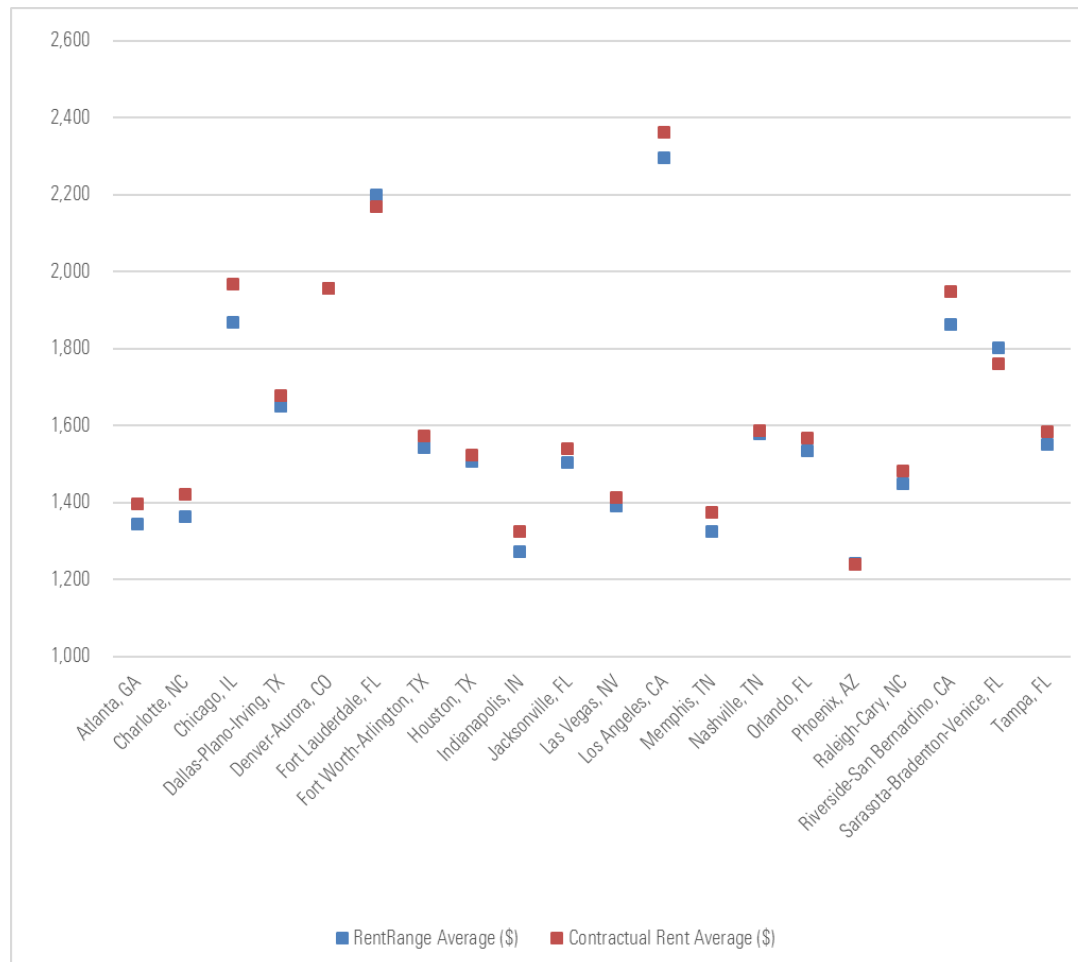
Sources: Morningstar Credit Ratings, LLC; RentRange

Chart 2 – Rental Changes for Renewals Versus Vacant-to-Occupied Properties



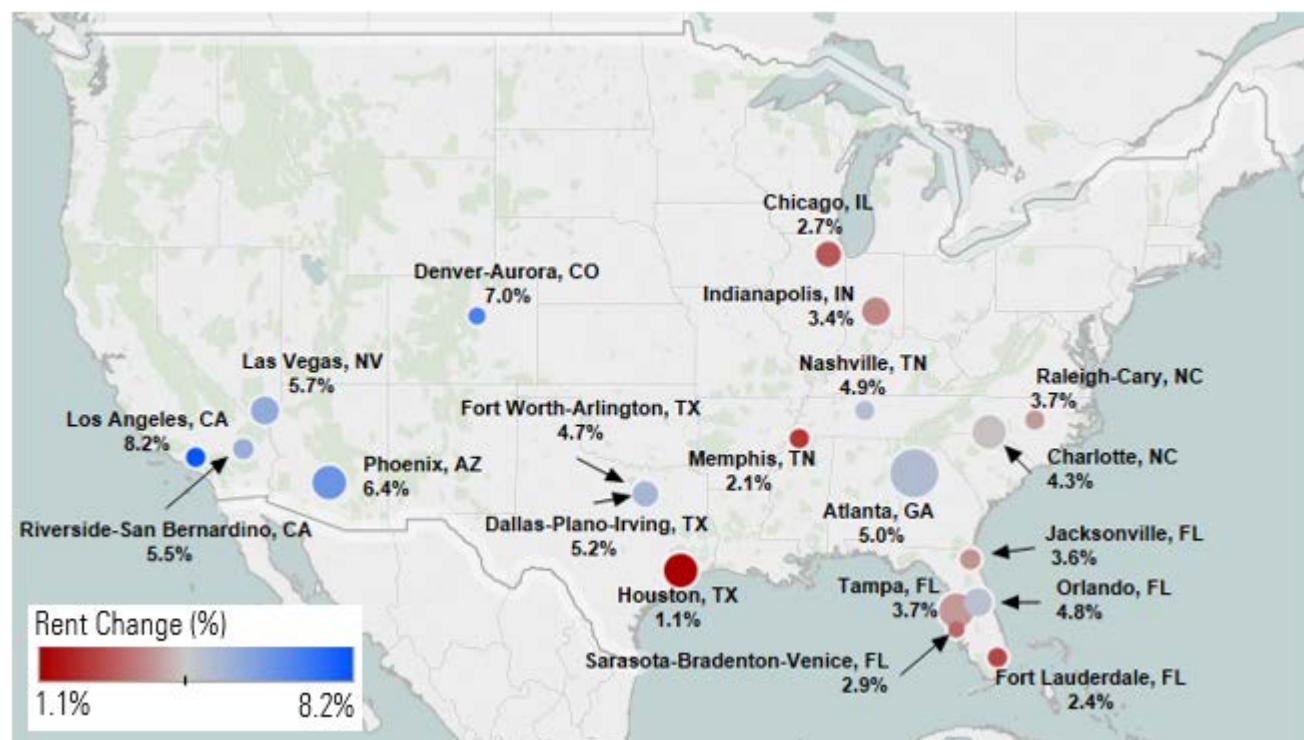
Source: Morningstar Credit Ratings, LLC

Chart 3 – June Average Contractual Rent Versus Property-Level RentRange Estimate by MSA



Sources: Morningstar Credit Ratings, LLC; RentRange

Chart 4 – MSA-Level Blended Rent Change*



Sources: Morningstar Credit Ratings, LLC; Tableau Software

*The size of the circles represents the total percentage (by count) of properties in each MSA, ranging from 1.5% to 12.5%. Because of their proximity, the Fort Worth-Arlington, Texas, MSA is hidden behind the Dallas-Plano-Irving, Texas, MSA.

Table 1 – Blended Rent Change (by Percentage) - Top MSAs

		Year 2016					Year 2017						
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Atlanta, GA		5.4	5.7	5.0	4.4	4.3	3.7	3.8	3.9	3.9	4.5	4.6	5.0
Charlotte, NC		5.1	5.3	5.2	4.0	3.4	3.2	2.2	2.7	2.9	4.1	4.1	4.3
Chicago, IL		2.4	2.6	1.8	1.8	0.4	0.4	0.8	1.4	1.9	1.7	2.7	2.7
Dallas-Plano-Irving, TX		4.8	5.0	4.5	4.0	3.7	2.9	2.7	3.6	3.8	4.4	4.9	5.2
Denver-Aurora, CO		10.4	8.5	7.8	6.2	6.5	4.1	6.3	5.4	6.3	6.7	5.9	7.0
Fort Lauderdale, FL		4.3	4.5	3.4	3.7	3.3	2.6	3.6	2.8	2.8	3.9	3.6	2.4
Fort Worth-Arlington, TX		5.2	4.5	3.9	3.8	3.9	3.0	3.4	3.8	4.1	4.5	4.3	4.7
Houston, TX		2.8	2.1	3.1	-0.2	-0.3	-0.1	0.7	-0.1	0.5	1.9	1.7	1.1
Indianapolis, IN		3.2	2.7	2.1	1.8	-0.2	-1.0	-2.8	0.4	0.7	1.6	2.4	3.4
Jacksonville, FL		3.9	3.7	3.3	3.0	2.2	1.9	1.5	2.0	1.7	2.2	2.9	3.6
Las Vegas, NV		4.9	4.9	4.8	4.8	4.4	4.2	4.4	4.4	4.6	4.8	5.4	5.7
Los Angeles, CA		8.1	7.9	7.3	6.3	7.0	7.0	6.1	8.2	7.1	7.3	7.2	8.2
Memphis, TN		3.6	3.2	3.6	3.0	3.2	2.2	1.9	0.5	0.2	0.5	0.8	2.1
Nashville, TN		4.9	4.4	3.9	4.0	3.9	3.0	3.0	2.4	2.5	4.1	4.0	4.9
Orlando, FL		5.4	5.5	5.3	4.4	3.9	3.7	4.1	4.1	4.1	4.8	4.9	4.8
Phoenix, AZ		8.0	6.4	6.4	5.8	5.5	5.2	5.9	6.1	5.7	6.4	6.6	6.4
Raleigh-Cary, NC		4.3	3.7	3.6	2.4	2.9	2.5	2.0	3.0	3.1	4.2	3.5	3.7
Riverside-San Bernardino, CA		5.4	5.5	4.7	4.5	4.5	5.1	4.6	5.1	4.8	5.0	5.5	5.5
Sarasota-Bradenton-Venice, FL		4.7	4.1	3.8	3.7	3.8	2.0	2.9	1.8	2.3	2.3	2.7	2.9
Tampa, FL		4.7	4.6	4.1	3.2	3.6	3.5	2.9	2.7	2.7	3.4	3.1	3.7

Table 2a – Month-End Vacancy (by Count)



		Year 2016						Year 2017						Total Count
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
AH4R 2014-SFR2		200	193	199	191	201	179	162	193	164	165	194	210	4,484
AH4R 2014-SFR3		221	204	256	259	248	215	206	236	223	219	194	223	4,500
AH4R 2015-SFR1		205	225	274	260	268	264	258	239	198	183	175	197	4,660
AH4R 2015-SFR2		194	150	136	150	167	156	182	198	195	226	232	256	4,124
AMSR 2016-SFR1					335	345	306	291	288	251	230	237	293	4,262
CAH 2014-1		160	178	175	178	193	182	155	125	125	140	180	216	3,326
CAH 2014-2		159	182	187	178	185	171	160	152	152	164	190	220	3,666
CAH 2015-1		224	220	198	210	195	194	184	164	160	194	224	249	3,851
CSH 2016-1			143	148	169	190	180	161	153	155	183	176	176	3,563
CSH 2016-2							177	193	168	173	186	184	189	3,993
HPA 2016-1		76	89	99	93	79	65	59	52	46	48	53	62	2,048
HPA 2016-2				9	14	17	18	22	20	29	37	48	62	1,349
IH 2014-SFR2		155	183	193	197	184	158	155	158	138	147	144	167	3,619
IH 2014-SFR3		188	188	194	192	197	180	192	174	168	163	169	172	3,915
IH 2015-SFR1		130	155	164	144	146	142	151	153	124	118	104	107	2,999
IH 2015-SFR2		152	179	178	176	213	186	183	155	145	138	161	161	3,507
IH 2015-SFR3		308	344	381	375	397	384	389	346	315	298	270	292	6,985
PRD 2015-SFR2		123	125	137	194	234	274	255	201	140	139	155	132	3,293
PRD 2015-SFR3		239	263	251	259	226	206	191	149	86	93	133	190	3,158
PRD 2016-SFR1			210	254	310	364	397	414	346	232	238	229	239	5,567
PRD 2016-SFR2							195	186	140	84	101	108	144	3,744
TAH 2015-SFR1		212	189	206	189	179	153	130	135	118	119	131	139	3,218
TAH 2016-SFR1						157	184	175	188	183	164	178	188	3,439
Overall SFR		2,946	3,420	3,639	4,073	4,385	4,566	4,454	4,133	3,604	3,693	3,869	4,284	87,270

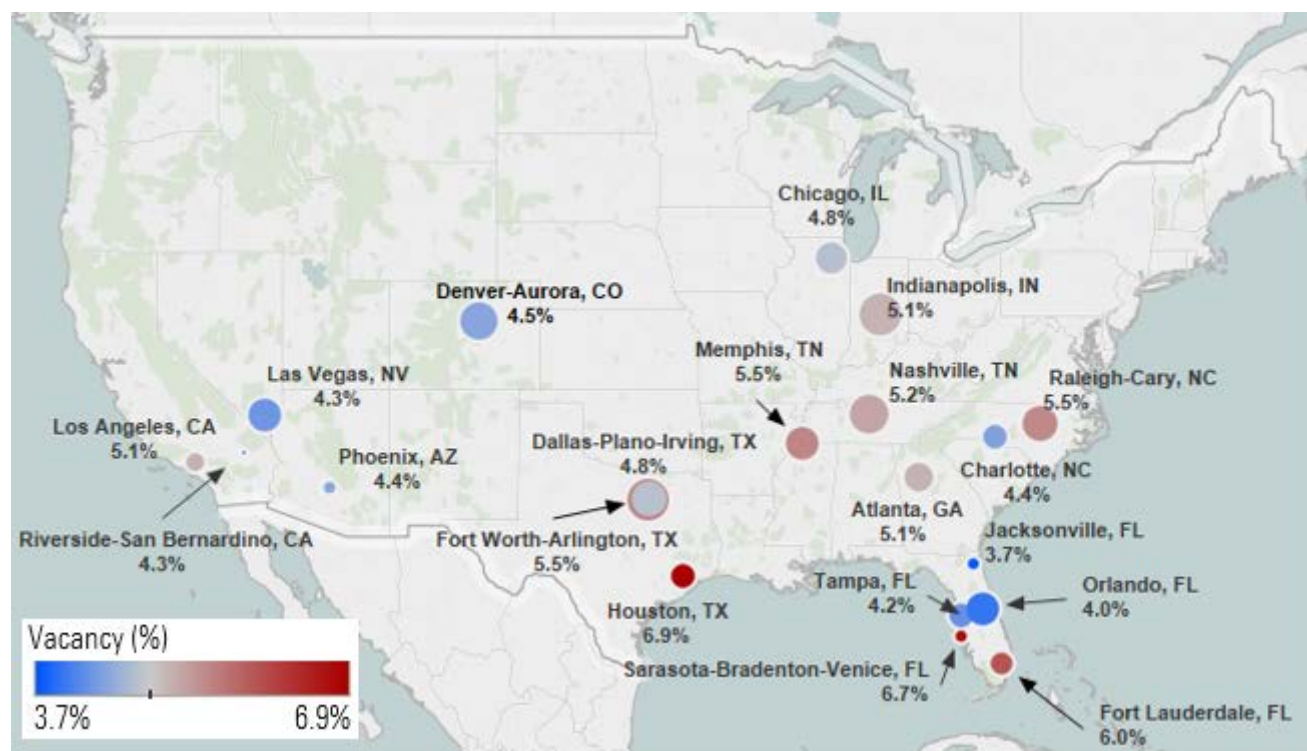
Table 2b – Month-End Vacancy (by Percentage)

		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
AH4R 2014-SFR2		4.5	4.3	4.4	4.3	4.5	4.0	3.6	4.3	3.7	3.7	4.3	4.7
AH4R 2014-SFR3		4.9	4.5	5.7	5.8	5.5	4.8	4.6	5.2	5.0	4.9	4.3	5.0
AH4R 2015-SFR1		4.4	4.8	5.9	5.6	5.8	5.7	5.5	5.1	4.2	3.9	3.8	4.2
AH4R 2015-SFR2		4.7	3.6	3.3	3.6	4.0	3.8	4.4	4.8	4.7	5.5	5.6	6.2
AMSR 2016-SFR1					7.9	8.1	7.2	6.8	6.8	5.9	5.4	5.6	6.9
CAH 2014-1		4.8	5.3	5.2	5.3	5.8	5.4	4.6	3.7	3.7	4.2	5.4	6.5
CAH 2014-2		4.3	4.9	5.1	4.8	5.0	4.6	4.3	4.1	4.1	4.5	5.2	6.0
CAH 2015-1		5.8	5.7	5.1	5.4	5.0	5.0	4.8	4.2	4.1	5.0	5.8	6.5
CSH 2016-1			4.0	4.2	4.7	5.3	5.1	4.5	4.3	4.4	5.1	4.9	4.9
CSH 2016-2							4.4	4.8	4.2	4.3	4.7	4.6	4.7
HPA 2016-1		3.5	4.2	4.7	4.4	3.7	3.1	2.8	2.5	2.2	2.3	2.6	3.0
HPA 2016-2				0.6	1.0	1.2	1.3	1.6	1.4	2.1	2.7	3.5	4.6
IH 2014-SFR2		4.2	5.0	5.2	5.3	5.0	4.3	4.2	4.3	3.8	4.0	4.0	4.6
IH 2014-SFR3		4.7	4.7	4.8	4.8	4.9	4.5	4.8	4.4	4.3	4.1	4.3	4.4
IH 2015-SFR1		4.3	5.1	5.4	4.8	4.8	4.7	5.0	5.1	4.1	3.9	3.4	3.6
IH 2015-SFR2		4.3	5.1	5.1	5.0	6.1	5.3	5.2	4.4	4.1	3.9	4.6	4.6
IH 2015-SFR3		4.3	4.8	5.3	5.2	5.5	5.3	5.4	4.8	4.4	4.2	3.8	4.2
PRD 2015-SFR2		3.7	3.8	4.1	5.9	7.1	8.3	7.7	6.1	4.2	4.2	4.7	4.0
PRD 2015-SFR3		7.6	8.3	7.9	8.2	7.1	6.5	6.0	4.7	2.7	2.9	4.2	6.0
PRD 2016-SFR1			3.8	4.6	5.6	6.5	7.1	7.4	6.2	4.2	4.3	4.1	4.3
PRD 2016-SFR2							5.2	5.0	3.7	2.2	2.7	2.9	3.8
TAH 2015-SFR1		6.1	5.4	5.9	5.6	5.3	4.6	3.9	4.1	3.6	3.6	4.0	4.3
TAH 2016-SFR1						4.6	5.4	5.1	5.5	5.3	4.8	5.2	5.5
Overall SFR		4.7	4.8	5.0	5.3	5.5	5.2	5.1	4.7	4.1	4.2	4.4	4.9

Table 2c – Month-End Vacancy (by Percentage) – Top MSAs

		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Atlanta, GA		4.9	4.9	4.5	4.8	4.8	4.6	5.1	4.5	4.1	4.1	5.6	5.1
Charlotte, NC		4.3	4.5	5.1	5.5	6.0	5.6	5.2	4.6	3.7	4.2	4.4	4.4
Chicago, IL		6.9	6.4	6.1	6.4	5.5	5.4	4.7	4.5	4.3	4.3	4.0	4.8
Dallas-P plano-Irving, TX		4.0	4.3	4.4	5.4	5.3	4.4	4.2	3.9	3.5	4.0	5.1	4.8
Denver-Aurora, CO		5.8	4.2	5.1	4.4	6.8	5.7	5.4	4.2	5.3	5.2	4.4	4.5
Fort Lauderdale, FL		5.9	6.2	7.2	6.9	6.6	6.0	6.6	6.7	5.8	6.7	5.9	6.0
Fort Worth-Arlington, TX		4.0	3.4	3.4	4.0	4.6	5.0	5.1	4.5	4.1	3.7	4.8	5.5
Houston, TX		7.8	7.5	7.8	8.0	7.7	7.1	6.2	6.2	6.0	5.8	6.2	6.9
Indianapolis, IN		5.8	6.7	6.9	8.7	8.1	6.8	6.2	5.2	4.3	4.8	4.1	5.1
Jacksonville, FL		4.9	5.4	6.4	6.9	7.3	7.6	6.6	4.8	3.5	4.1	4.1	3.7
Las Vegas, NV		4.3	3.8	3.7	4.1	3.7	4.3	3.4	3.3	3.0	4.1	3.6	4.3
Los Angeles, CA		3.1	3.3	3.9	3.2	3.0	2.9	2.4	2.7	3.2	3.9	4.4	5.1
Memphis, TN		6.5	5.3	6.6	8.3	8.7	8.8	8.1	7.8	5.0	4.1	4.5	5.5
Nashville, TN		2.9	2.8	3.5	4.8	5.8	5.5	5.5	5.9	4.3	3.6	4.1	5.2
Orlando, FL		4.2	4.5	4.7	4.7	5.0	4.5	4.0	3.8	3.3	3.4	3.8	4.0
Phoenix, AZ		3.5	3.8	4.3	4.4	4.6	4.2	3.6	3.0	2.9	3.3	3.6	4.4
Raleigh-Cary, NC		4.0	4.1	5.2	4.6	4.8	5.0	5.1	5.8	4.6	5.2	5.1	5.5
Riverside-San Bernardino, CA		4.1	5.1	4.0	3.8	4.0	3.6	4.0	4.5	4.3	4.3	3.3	4.3
Sarasota-Bradenton-Venice, FL		7.1	7.0	6.8	7.2	7.2	6.6	7.4	6.1	5.1	6.6	7.1	6.7
Tampa, FL		4.9	4.9	4.8	5.1	5.0	5.2	5.3	4.4	4.0	4.1	3.9	4.2

Chart 5 – MSA-Level Vacancy and Lease Expiration Percentage (by Count)*



Morningstar Credit Ratings, LLC; Tableau Software

*The size of the circles represents the past three months of lease expirations by count as a percentage of each MSA, ranging from 20.3% to 29.2%. Because of their proximity, the Fort Worth-Arlington, Texas, MSA is hidden behind Dallas-Plano-Irving, Texas, MSA.

Table 3a – Lease Expiration (by Count)

		Year 2016						Year 2017						Total Count
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
AH4R 2014-SFR2		358	297	221	190	195	150	290	334	362	387	518	399	4,484
AH4R 2014-SFR3		432	396	288	216	146	169	295	287	306	273	398	474	4,500
AH4R 2015-SFR1		540	430	361	341	293	266	319	272	242	215	249	382	4,660
AH4R 2015-SFR2		165	82	99	116	122	124	245	355	466	407	516	464	4,124
AMSR 2016-SFR1					217	174	156	200	294	314	355	382	439	4,262
CAH 2014-1		349	390	322	290	210	154	175	189	190	214	216	270	3,326
CAH 2014-2		234	262	238	245	221	222	269	286	322	328	303	263	3,666
CAH 2015-1		404	421	313	286	241	210	220	178	200	268	294	368	3,851
CSH 2016-1			271	257	230	182	184	174	253	294	331	282	337	3,563
CSH 2016-2							217	242	266	308	324	389	335	3,993
HPA 2016-1		298	263	262	141	62	48	64	71	116	165	168	222	2,048
HPA 2016-2				4	8	10	5	6	2	139	212	276	388	1,349
IH 2014-SFR2		279	278	194	203	154	153	191	187	222	258	297	318	3,619
IH 2014-SFR3		323	245	209	184	203	171	213	214	241	262	302	331	3,915
IH 2015-SFR1		180	191	183	200	207	196	255	213	192	166	138	164	2,999
IH 2015-SFR2		222	219	218	247	270	219	221	247	258	192	184	199	3,507
IH 2015-SFR3		427	460	449	532	480	445	522	530	520	395	368	405	6,985
PRD 2015-SFR2		113	150	177	304	165	149	179	217	266	215	391	186	3,293
PRD 2015-SFR3		442	412	210	74	27	27	42	55	68	164	345	353	3,158
PRD 2016-SFR1			170	263	420	242	312	353	358	502	470	448	394	5,567
PRD 2016-SFR2							115	70	79	87	101	318	402	3,744
TAH 2015-SFR1		222	173	239	235	144	142	145	227	265	237	210	236	3,218
TAH 2016-SFR1						93	85	122	218	190	309	296	280	3,439
Overall SFR		4,988	5,110	4,507	4,679	3,841	3,919	4,812	5,332	6,070	6,248	7,288	7,609	87,270

Table 3b – Lease Expiration (by Percentage)

		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
AH4R 2014-SFR2		8.0	6.6	4.9	4.2	4.3	3.3	6.5	7.4	8.1	8.6	11.6	8.9
AH4R 2014-SFR3		9.6	8.8	6.4	4.8	3.2	3.8	6.6	6.4	6.8	6.1	8.8	10.5
AH4R 2015-SFR1		11.6	9.2	7.7	7.3	6.3	5.7	6.8	5.8	5.2	4.6	5.3	8.2
AH4R 2015-SFR2		4.0	2.0	2.4	2.8	3.0	3.0	5.9	8.6	11.3	9.9	12.5	11.3
AMSR 2016-SFR1					5.1	4.1	3.7	4.7	6.9	7.4	8.3	9.0	10.3
CAH 2014-1		10.4	11.6	9.6	8.6	6.3	4.6	5.2	5.7	5.7	6.4	6.5	8.1
CAH 2014-2		6.3	7.1	6.4	6.6	6.0	6.0	7.3	7.8	8.8	8.9	8.3	7.2
CAH 2015-1		10.4	10.9	8.1	7.4	6.2	5.4	5.7	4.6	5.2	6.9	7.6	9.6
CSH 2016-1			7.6	7.2	6.5	5.1	5.2	4.9	7.1	8.3	9.3	7.9	9.5
CSH 2016-2							5.4	6.1	6.7	7.7	8.1	9.7	8.4
HPA 2016-1		13.8	12.3	12.3	6.7	2.9	2.3	3.1	3.4	5.6	8.0	8.2	10.8
HPA 2016-2				0.3	0.6	0.7	0.4	0.4	0.1	10.0	15.5	20.2	28.8
IH 2014-SFR2		7.6	7.5	5.3	5.5	4.2	4.2	5.2	5.1	6.1	7.1	8.2	8.8
IH 2014-SFR3		8.1	6.1	5.2	4.6	5.1	4.3	5.3	5.4	6.1	6.6	7.7	8.5
IH 2015-SFR1		5.9	6.3	6.0	6.6	6.9	6.5	8.4	7.1	6.4	5.5	4.6	5.5
IH 2015-SFR2		6.3	6.2	6.2	7.0	7.7	6.2	6.3	7.0	7.3	5.5	5.2	5.7
IH 2015-SFR3		5.9	6.4	6.2	7.4	6.7	6.2	7.3	7.4	7.3	5.5	5.1	5.8
PRD 2015-SFR2		3.4	4.5	5.4	9.2	5.0	4.5	5.4	6.6	8.1	6.5	11.9	5.6
PRD 2015-SFR3		14.0	13.0	6.6	2.3	0.9	0.9	1.3	1.7	2.2	5.2	10.9	11.2
PRD 2016-SFR1			3.0	4.7	7.5	4.3	5.6	6.3	6.4	9.0	8.4	8.0	7.1
PRD 2016-SFR2							3.1	1.9	2.1	2.3	2.7	8.5	10.7
TAH 2015-SFR1		6.3	4.9	6.8	6.9	4.3	4.2	4.3	6.8	8.0	7.2	6.4	7.3
TAH 2016-SFR1						2.7	2.5	3.5	6.3	5.5	9.0	8.6	8.1
Overall SFR		8.0	7.2	6.2	6.1	4.8	4.5	5.5	6.1	6.9	7.1	8.3	8.7

Table 3c – Lease Expiration (by Percentage) – Top MSAs

		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Atlanta, GA		7.0	5.7	5.7	5.9	4.5	5.0	5.5	5.9	6.8	7.2	8.4	8.9
Charlotte, NC		8.2	8.4	6.8	6.0	4.9	4.0	4.6	4.8	6.0	6.9	7.7	8.5
Chicago, IL		7.9	6.0	5.7	4.9	3.4	3.3	5.6	6.2	7.5	7.6	9.3	8.3
Dallas-Piano-Irving, TX		9.2	7.3	5.1	6.9	4.0	4.6	5.1	5.7	6.9	7.2	9.0	10.4
Denver-Aurora, CO		12.3	9.6	9.2	4.4	5.5	3.4	4.7	5.0	7.6	9.8	7.7	10.0
Fort Lauderdale, FL		6.0	6.3	7.0	5.7	4.8	4.6	7.9	6.4	8.8	8.5	6.6	7.7
Fort Worth-Arlington, TX		7.7	6.4	4.9	5.2	3.7	3.7	4.7	5.2	7.6	8.0	9.6	11.5
Houston, TX		8.3	6.6	5.5	5.0	3.6	4.4	4.2	6.4	6.5	6.9	7.6	8.6
Indianapolis, IN		9.3	7.1	6.2	3.5	1.4	1.1	4.9	4.5	6.3	9.1	10.5	9.6
Jacksonville, FL		7.1	6.9	6.9	6.5	6.3	5.0	5.7	5.9	6.3	5.9	8.0	7.0
Las Vegas, NV		8.6	7.9	6.5	7.8	4.2	4.9	5.7	6.3	6.5	7.8	8.4	9.4
Los Angeles, CA		5.7	6.8	6.5	4.1	4.4	4.1	4.9	5.0	7.1	7.9	6.9	7.3
Memphis, TN		9.0	7.8	7.6	5.4	3.3	4.2	4.7	5.2	7.0	6.3	11.0	8.7
Nashville, TN		8.1	7.0	6.8	6.6	5.7	4.2	4.7	5.3	7.2	7.9	9.8	10.3
Orlando, FL		9.7	7.4	5.7	6.1	4.4	4.7	5.0	6.0	6.5	6.9	9.8	9.1
Phoenix, AZ		7.0	6.9	6.5	6.4	4.8	5.2	6.4	6.9	7.1	5.8	7.8	7.5
Raleigh-Cary, NC		8.3	7.9	5.3	6.4	4.2	3.6	4.4	7.1	6.5	6.1	10.7	9.8
Riverside-San Bernardino, CA		7.1	6.6	5.4	6.3	5.7	4.9	6.0	6.4	7.9	6.7	6.7	6.9
Sarasota-Bradenton-Venice, FL		9.1	8.6	6.6	6.4	4.9	4.6	5.2	5.0	7.4	6.5	6.6	7.8
Tampa, FL		8.4	7.4	5.8	6.2	4.7	5.3	5.3	5.9	6.2	7.1	7.8	8.4

**Table 4a – Historical Months of Vacancy for June Vacancies (by Count)**

		1	2	3	4	5	6	7	8	9	10	11	12+	Total
AH4R 2014-SFR2		50	62	36	25	13	14	7	1	2	0	0	0	210
AH4R 2014-SFR3		45	47	42	32	24	16	6	6	1	0	2	2	223
AH4R 2015-SFR1		51	47	34	25	10	14	9	3	3	0	0	1	197
AH4R 2015-SFR2		91	64	45	30	17	4	1	3	1	0	0	0	256
AMSR 2016-SFR1		131	91	43	17	8	2	0	1	0	0			293
CAH 2014-1		37	55	32	29	22	10	11	9	4	3	1	3	216
CAH 2014-2		40	49	56	33	13	8	5	4	4	5	1	2	220
CAH 2015-1		89	71	28	24	14	12	4	3	0	0	2	2	249
CSH 2016-1		101	34	24	9	2	1	0	0	0	2	3	0	176
CSH 2016-2		106	56	15	9	1	0	2	0					189
HPA 2016-1		29	17	9	4	0	1	2	0	0	0	0	0	62
HPA 2016-2		38	18	1	3	1	0	0	0	0	1	0		62
IH 2014-SFR2		48	48	30	13	7	8	3	4	3	0	0	3	167
IH 2014-SFR3		55	43	35	15	5	8	3	3	3	0	1	1	172
IH 2015-SFR1		25	27	25	11	7	5	1	0	0	0	1	5	107
IH 2015-SFR2		49	43	26	26	11	0	0	2	1	1	0	1	160
IH 2015-SFR3		107	85	42	23	16	3	5	0	1	1	0	9	292
PRD 2015-SFR2		55	21	34	14	4	3	1	0	0	0	0	0	132
PRD 2015-SFR3		101	50	21	8	5	3	2	0	0	0	0	0	190
PRD 2016-SFR1		130	67	23	7	9	0	0	0	0	0	2	1	239
PRD 2016-SFR2		105	33	4	1	1	0	0	0					144
TAH 2015-SFR1		45	31	26	13	2	11	3	3	3	1	0	1	139
TAH 2016-SFR1		110	51	13	9	0	1	3	1	0				188
Overall SFR		1,638	1,110	644	380	192	124	68	43	26	14	13	31	4,283

**Table 4b – Historical Months of Vacancy for June Vacancies (by Percentage)**

		1	2	3	4	5	6	7	8	9	10	11	12+	Total
AH4R 2014-SFR2		23.8	29.5	17.1	11.9	6.2	6.7	3.3	0.5	1.0	0.0	0.0	0.0	100.0
AH4R 2014-SFR3		20.2	21.1	18.8	14.3	10.8	7.2	2.7	2.7	0.4	0.0	0.9	0.9	100.0
AH4R 2015-SFR1		25.9	23.9	17.3	12.7	5.1	7.1	4.6	1.5	1.5	0.0	0.0	0.5	100.0
AH4R 2015-SFR2		35.5	25.0	17.6	11.7	6.6	1.6	0.4	1.2	0.4	0.0	0.0	0.0	100.0
AMSR 2016-SFR1		44.7	31.1	14.7	5.8	2.7	0.7	0.0	0.3	0.0	0.0	0.0	0.0	100.0
CAH 2014-1		17.1	25.5	14.8	13.4	10.2	4.6	5.1	4.2	1.9	1.4	0.5	1.4	100.0
CAH 2014-2		18.2	22.3	25.5	15.0	5.9	3.6	2.3	1.8	1.8	2.3	0.5	0.9	100.0
CAH 2015-1		35.7	28.5	11.2	9.6	5.6	4.8	1.6	1.2	0.0	0.0	0.8	0.8	100.0
CSH 2016-1		57.4	19.3	13.6	5.1	1.1	0.6	0.0	0.0	0.0	1.1	1.7	0.0	100.0
CSH 2016-2		56.1	29.6	7.9	4.8	0.5	0.0	1.1	0.0	0.0	0.0	0.0	0.0	100.0
HPA 2016-1		46.8	27.4	14.5	6.5	0.0	1.6	3.2	0.0	0.0	0.0	0.0	0.0	100.0
HPA 2016-2		61.3	29.0	1.6	4.8	1.6	0.0	0.0	0.0	0.0	1.6	0.0	0.0	100.0
IH 2014-SFR2		28.7	28.7	18.0	7.8	4.2	4.8	1.8	2.4	1.8	0.0	0.0	1.8	100.0
IH 2014-SFR3		32.0	25.0	20.3	8.7	2.9	4.7	1.7	1.7	1.7	0.0	0.6	0.6	100.0
IH 2015-SFR1		23.4	25.2	23.4	10.3	6.5	4.7	0.9	0.0	0.0	0.0	0.9	4.7	100.0
IH 2015-SFR2		30.4	26.7	16.1	16.1	6.8	0.0	0.6	1.2	0.6	0.6	0.0	0.6	100.0
IH 2015-SFR3		36.6	29.1	14.4	7.9	5.5	1.0	1.7	0.0	0.3	0.3	0.0	3.1	100.0
PRD 2015-SFR2		41.7	15.9	25.8	10.6	3.0	2.3	0.8	0.0	0.0	0.0	0.0	0.0	100.0
PRD 2015-SFR3		53.2	26.3	11.1	4.2	2.6	1.6	1.1	0.0	0.0	0.0	0.0	0.0	100.0
PRD 2016-SFR1		54.4	28.0	9.6	2.9	3.8	0.0	0.0	0.0	0.0	0.0	0.8	0.4	100.0
PRD 2016-SFR2		72.9	22.9	2.8	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
TAH 2015-SFR1		32.4	22.3	18.7	9.4	1.4	7.9	2.2	2.2	2.2	0.7	0.0	0.7	100.0
TAH 2016-SFR1		58.5	27.1	6.9	4.8	0.0	0.5	1.6	0.5	0.0	0.0	0.0	0.0	100.0
Overall SFR		38.2	25.9	15.0	8.9	4.5	2.9	1.6	1.0	0.6	0.3	0.3	0.7	100.0

Table 5 – Delinquency Definition

Issuer	Definition
American Homes 4 Rent	Past due one calendar month or more (not dependent on day count) and owing \$200 or more
Amherst	Past due one calendar month or more (not dependent on day count) and owing \$500 or more
Colony American Homes/Colony Starwood Homes	Past due one calendar month or more (not dependent on day count) and owing \$200 or more
Home Partners of America	Past due 30 days or more (not dependent on calendar month) and owing \$500 or more
Invitation Homes	Past due 30 days or more (not dependent on calendar month) and owing 25% of one month's rent or more
Progress Residential	Past due 30 days or more (not dependent on calendar month) and owing \$200 or more ¹
Tricon American Homes	Past due 30 days or more (not dependent on calendar month) and owing \$500 or more ²

¹Includes Section 8 rent, pet fees, and MTM fees, but excludes late fees and damage fees.

²Based on total receivables.

Table 6a – Month-End Delinquency (by Count)

		Year 2016						Year 2017						Total Count
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
AH4R 2014-SFR2		16	18	22	12	23	27	16	28	21	14	12	10	4,484
AH4R 2014-SFR3		10	14	17	17	18	10	15	15	12	11	8	9	4,500
AH4R 2015-SFR1		16	15	16	15	24	17	16	12	20	12	10	10	4,660
AH4R 2015-SFR2		19	21	23	20	19	18	19	15	12	3	6	7	4,124
AMSR 2016-SFR1					81	99	109	106	94	56	67	78	113	4,262
CAH 2014-1		22	20	21	24	26	23	39	28	17	18	22	15	3,326
CAH 2014-2		28	29	42	41	32	41	44	47	37	27	31	21	3,666
CAH 2015-1		20	26	35	19	23	28	40	27	23	17	17	18	3,851
CSH 2016-1			29	26	20	22	32	35	29	22	17	20	15	3,563
CSH 2016-2							43	33	42	40	21	17	30	3,993
HPA 2016-1		27	30	36	22	21	24	19	16	12	12	7	16	2,048
HPA 2016-2				14	13	10	14	20	20	11	8	6	6	1,349
IH 2014-SFR2		14	16	21	26	18	24	32	26	26	33	33	39	3,619
IH 2014-SFR3		26	20	24	18	32	32	25	39	36	26	32	23	3,915
IH 2015-SFR1		22	15	13	15	18	25	23	28	25	22	21	36	2,999
IH 2015-SFR2		21	26	22	42	35	37	22	25	33	38	28	33	3,507
IH 2015-SFR3		57	56	48	60	64	65	74	82	63	75	71	80	6,985
PRD 2015-SFR2		20	18	24	31	26	22	19	20	13	18	15	14	3,293
PRD 2015-SFR3		19	19	20	18	17	10	15	17	4	8	9	8	3,158
PRD 2016-SFR1			47	51	45	38	44	40	42	24	26	20	24	5,567
PRD 2016-SFR2							26	27	16	11	10	14	18	3,744
TAH 2015-SFR1		19	17	17	15	18	16	35	38	22	20	22	16	3,218
TAH 2016-SFR1						20	67	68	59	31	29	26	15	3,439
Overall SFR		356	436	492	554	603	754	782	765	571	532	525	576	87,270

Table 6b – Month-End Delinquency (by Percentage)

		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
AH4R 2014-SFR2		0.4	0.4	0.5	0.3	0.5	0.6	0.4	0.6	0.5	0.3	0.3	0.2
AH4R 2014-SFR3		0.2	0.3	0.4	0.4	0.4	0.2	0.3	0.3	0.3	0.2	0.2	0.2
AH4R 2015-SFR1		0.3	0.3	0.3	0.3	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2
AH4R 2015-SFR2		0.5	0.5	0.6	0.5	0.5	0.4	0.5	0.4	0.3	0.1	0.1	0.2
AMSR 2016-SFR1					1.9	2.3	2.6	2.5	2.2	1.3	1.6	1.8	2.7
CAH 2014-1		0.7	0.6	0.6	0.7	0.8	0.7	1.2	0.8	0.5	0.5	0.7	0.5
CAH 2014-2		0.8	0.8	1.1	1.1	0.9	1.1	1.2	1.3	1.0	0.7	0.8	0.6
CAH 2015-1		0.5	0.7	0.9	0.5	0.6	0.7	1.0	0.7	0.6	0.4	0.4	0.5
CSH 2016-1			0.8	0.7	0.6	0.6	0.9	1.0	0.8	0.6	0.5	0.6	0.4
CSH 2016-2							1.1	0.8	1.1	1.0	0.5	0.4	0.8
HPA 2016-1		1.2	1.4	1.7	1.0	1.0	1.1	0.9	0.8	0.6	0.6	0.3	0.8
HPA 2016-2				1.0	0.9	0.7	1.0	1.4	1.4	0.8	0.6	0.4	0.4
IH 2014-SFR2		0.4	0.4	0.6	0.7	0.5	0.7	0.9	0.7	0.7	0.9	0.9	1.1
IH 2014-SFR3		0.6	0.5	0.6	0.4	0.8	0.8	0.6	1.0	0.9	0.7	0.8	0.6
IH 2015-SFR1		0.7	0.5	0.4	0.5	0.6	0.8	0.8	0.9	0.8	0.7	0.7	1.2
IH 2015-SFR2		0.6	0.7	0.6	1.2	1.0	1.1	0.6	0.7	0.9	1.1	0.8	0.9
IH 2015-SFR3		0.8	0.8	0.7	0.8	0.9	0.9	1.0	1.1	0.9	1.0	1.0	1.1
PRD 2015-SFR2		0.6	0.5	0.7	0.9	0.8	0.7	0.6	0.6	0.4	0.5	0.5	0.4
PRD 2015-SFR3		0.6	0.6	0.6	0.6	0.5	0.3	0.5	0.5	0.1	0.3	0.3	0.3
PRD 2016-SFR1			0.8	0.9	0.8	0.7	0.8	0.7	0.8	0.4	0.5	0.4	0.4
PRD 2016-SFR2							0.7	0.7	0.4	0.3	0.3	0.4	0.5
TAH 2015-SFR1		0.5	0.5	0.5	0.4	0.5	0.5	1.0	1.1	0.7	0.6	0.7	0.5
TAH 2016-SFR1						0.6	1.9	2.0	1.7	0.9	0.8	0.8	0.4
Overall SFR		0.6	0.6	0.7	0.7	0.8	0.9	0.9	0.9	0.7	0.6	0.6	0.7

**Table 7 – Monthly Retention Rate of Expiring Leases**

		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
AH4R 2014-SFR2		72.6	75.1	76.9	77.9	80.5	74.7	74.8	78.4	84.8	75.2	74.1	TBD
AH4R 2014-SFR3		77.3	73.2	74.7	79.6	72.6	74.6	78.0	78.7	73.9	83.2	71.1	TBD
AH4R 2015-SFR1		76.1	73.7	77.8	80.4	81.9	77.1	77.4	76.1	75.6	72.1	69.1	TBD
AH4R 2015-SFR2		75.8	70.7	77.8	72.4	69.7	69.4	78.8	74.1	77.9	75.4	73.6	TBD
AMSR 2016-SFR1					72.8	81.6	81.4	79.5	83.0	83.8	82.3	80.1	TBD
CAH 2014-1		76.8	80.0	78.6	77.2	77.6	76.0	80.6	77.2	80.0	79.4	74.5	TBD
CAH 2014-2		72.2	76.7	75.2	78.0	76.9	81.5	80.7	79.7	82.9	82.9	78.5	TBD
CAH 2015-1		76.0	75.1	78.0	79.7	82.2	76.7	80.5	80.3	80.0	76.1	75.2	TBD
CSH 2016-1			76.4	79.4	76.1	73.1	78.3	85.1	78.3	82.0	78.5	77.7	TBD
CSH 2016-2							76.0	75.2	79.3	75.6	80.2	76.6	TBD
HPA 2016-1		80.5	86.3	87.0	84.4	80.6	70.8	82.8	88.7	78.4	80.0	82.1	TBD
HPA 2016-2				75.0	75.0	70.0	100.0	100.0	100.0	88.5	85.8	81.9	TBD
IH 2014-SFR2		72.0	72.3	75.3	75.9	74.0	79.7	78.5	78.1	76.6	74.8	76.8	TBD
IH 2014-SFR3		75.5	75.5	78.0	78.3	78.3	76.0	80.3	73.8	78.0	79.0	78.1	TBD
IH 2015-SFR1		65.6	67.5	78.7	78.5	80.2	77.6	78.4	80.3	82.3	80.7	81.9	TBD
IH 2015-SFR2		70.3	70.8	73.4	73.3	77.4	79.9	78.3	84.6	79.8	77.6	71.2	TBD
IH 2015-SFR3		72.4	75.4	73.9	79.5	75.0	80.4	77.6	81.3	79.4	75.4	78.3	TBD
PRD 2015-SFR2		65.5	75.3	74.0	77.0	77.6	79.2	78.8	77.4	77.8	74.9	77.7	TBD
PRD 2015-SFR3		72.9	74.3	75.7	78.4	70.4	81.5	69.0	72.7	73.5	73.8	73.3	TBD
PRD 2016-SFR1			77.6	77.9	78.3	76.9	72.8	76.5	77.9	81.9	77.4	81.0	TBD
PRD 2016-SFR2							66.1	75.7	78.5	72.4	77.2	81.1	TBD
TAH 2015-SFR1		83.3	82.1	82.8	83.0	77.1	85.9	80.7	87.2	86.0	83.5	82.4	TBD
TAH 2016-SFR1						86.0	80.0	86.9	80.7	78.9	81.2	81.8	TBD
Overall SFR		74.6	75.6	77.5	78.1	77.7	77.4	78.7	79.4	80.0	78.5	77.0	TBD

TBD – To Be Determined

**Table 8 – Monthly Retention Rate of MTM Leases**

		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
AH4R 2014-SFR2		83.0	77.9	86.6	86.4	86.0	82.6	89.9	86.3	85.9	87.2	81.3	TBD
AH4R 2014-SFR3		75.7	74.4	79.6	82.0	84.1	87.5	83.6	79.6	88.2	83.0	84.3	TBD
AH4R 2015-SFR1		85.4	76.0	81.3	80.7	80.6	80.9	89.5	86.3	82.5	82.5	79.0	TBD
AH4R 2015-SFR2		81.9	80.7	82.5	85.2	76.6	84.5	85.9	84.8	81.4	82.1	77.5	TBD
AMSR 2016-SFR1					91.7	95.3	93.1	96.0	93.6	94.8	96.7	94.7	TBD
CAH 2014-1		75.7	81.0	69.0	79.4	81.5	75.4	84.2	66.1	79.5	83.8	74.4	TBD
CAH 2014-2		71.9	54.7	63.6	77.8	79.5	65.8	88.9	72.9	53.7	84.6	72.9	TBD
CAH 2015-1		63.5	74.1	63.6	69.6	82.6	81.1	77.3	71.1	80.0	61.9	67.5	TBD
CSH 2016-1			79.5	61.7	72.2	76.7	77.4	76.7	67.9	68.8	76.9	65.9	TBD
CSH 2016-2							69.2	70.5	64.4	72.7	73.0	81.1	TBD
HPA 2016-1													TBD
HPA 2016-2													TBD
IH 2014-SFR2		79.1	67.6	74.1	81.4	83.3	90.5	92.9	85.4	85.4	83.9	80.4	TBD
IH 2014-SFR3		75.0	76.7	76.4	76.9	82.0	80.9	91.1	88.0	83.3	79.6	83.7	TBD
IH 2015-SFR1		87.2	79.6	80.0	88.6	81.3	88.9	78.3	81.3	68.5	92.7	77.8	TBD
IH 2015-SFR2		79.1	86.7	75.5	78.7	87.8	81.1	85.4	89.1	86.7	79.1	77.8	TBD
IH 2015-SFR3		76.8	82.4	81.6	84.0	78.0	82.7	83.3	74.4	86.7	78.6	73.9	TBD
PRD 2015-SFR2		78.9	80.6	75.0	79.5	76.3	74.6	80.7	77.8	73.8	83.6	80.3	TBD
PRD 2015-SFR3		67.6	70.0	70.6	73.0	76.3	84.1	92.7	90.9	75.5	82.5	78.3	TBD
PRD 2016-SFR1			79.0	83.1	80.8	76.4	84.0	80.2	82.1	79.3	79.7	81.5	TBD
PRD 2016-SFR2							78.8	91.1	84.0	82.2	81.4	81.4	TBD
TAH 2015-SFR1		96.7	92.9	93.8	92.4	93.0	96.8	95.5	96.9	97.5	93.5	95.0	TBD
TAH 2016-SFR1						92.6	96.9	90.6	92.9	95.3	93.1	92.7	TBD
Overall SFR		82.6	79.8	80.9	84.7	86.0	87.0	89.0	86.3	86.8	86.8	84.7	TBD

TBD – To Be Determined
22

Table 9a – MTM Tenants (by Count)



























		Year 2016						Year 2017						Total Count
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
AH4R 2014-SFR2		261	249	209	187	178	170	140	159	176	216	256	273	4,484
AH4R 2014-SFR3		284	284	246	209	185	164	159	174	174	190	210	222	4,500
AH4R 2015-SFR1		242	272	210	215	202	199	181	206	208	202	202	189	4,660
AH4R 2015-SFR2		282	217	173	142	132	114	111	133	171	186	238	239	4,124
AMSR 2016-SFR1					368	383	402	393	421	433	479	514	577	4,262
CAH 2014-1		74	63	71	68	65	65	57	56	44	37	39	38	3,326
CAH 2014-2		64	53	44	36	39	38	36	48	41	39	48	55	3,666
CAH 2015-1		74	58	66	56	46	53	44	45	45	42	40	40	3,851
CSH 2016-1			44	47	36	30	31	30	28	32	39	41	41	3,563
CSH 2016-2							39	44	45	44	37	53	62	3,993
HPA 2016-1		0	0	0	0	0	0	0	0	0	0	0	0	2,048
HPA 2016-2				0	0	0	0	0	0	0	0	0	1	1,349
IH 2014-SFR2		97	109	71	56	58	58	57	64	69	83	77	84	3,619
IH 2014-SFR3		92	87	73	70	64	67	69	64	70	70	75	83	3,915
IH 2015-SFR1		63	70	59	67	74	61	76	67	66	64	64	68	2,999
IH 2015-SFR2		73	63	68	76	69	72	61	64	86	90	81	77	3,507
IH 2015-SFR3		141	131	140	156	175	159	164	173	169	162	163	147	6,985
PRD 2015-SFR2		54	47	60	65	79	75	85	94	96	97	119	96	3,293
PRD 2015-SFR3		133	127	107	80	61	50	51	55	60	67	91	96	3,158
PRD 2016-SFR1			76	98	113	109	111	142	163	182	203	187	170	5,567
PRD 2016-SFR2							65	58	61	54	58	95	103	3,744
TAH 2015-SFR1		474	439	389	363	329	294	302	299	306	300	298	288	3,218
TAH 2016-SFR1						237	231	249	258	278	287	298	311	3,439
Overall SFR		2,408	2,389	2,131	2,363	2,515	2,518	2,509	2,677	2,804	2,948	3,189	3,260	87,270

Table 9b – MTM Tenants (by Percentage)

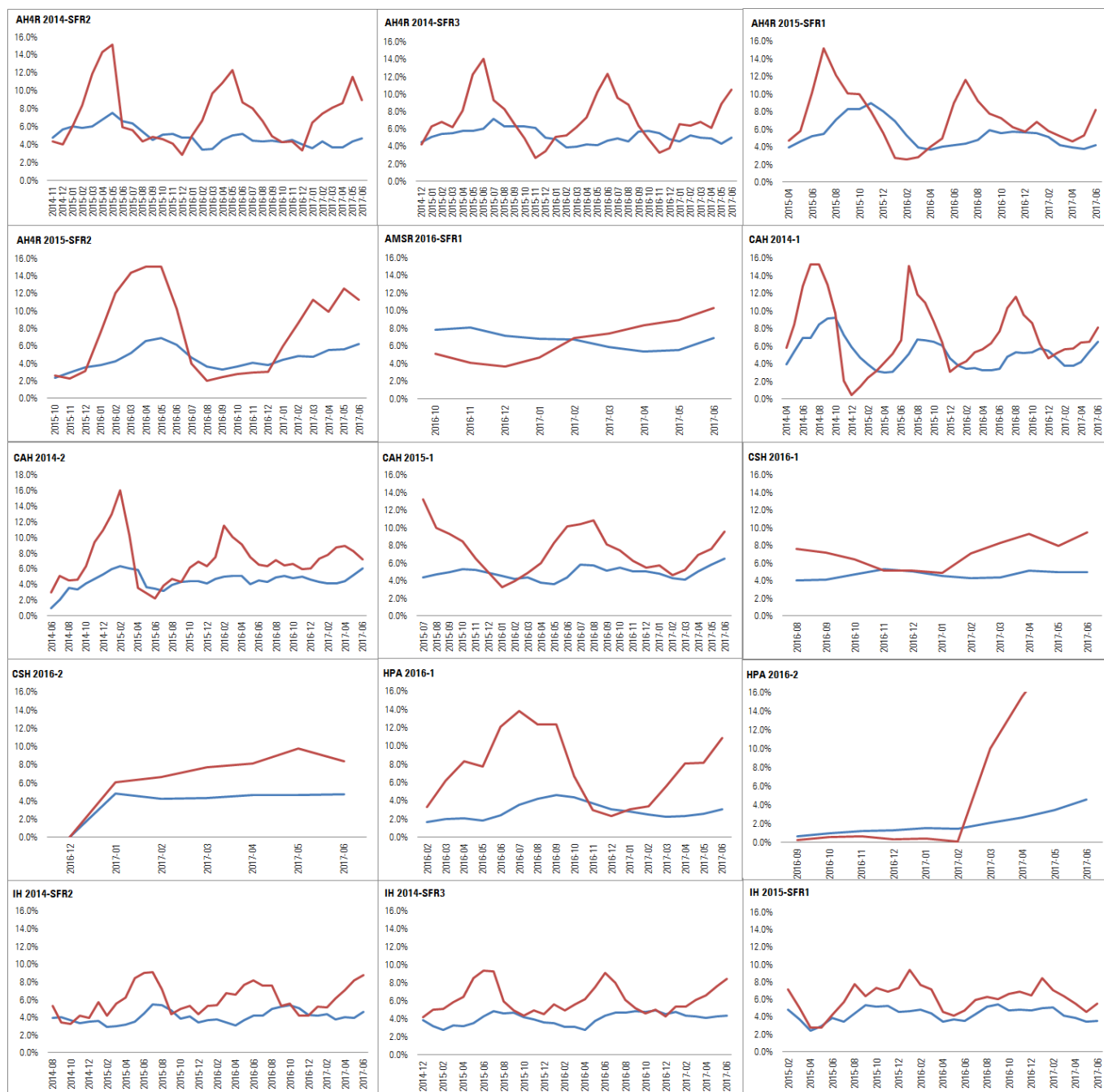
		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
AH4R 2014-SFR2		5.8	5.6	4.7	4.2	4.0	3.8	3.1	3.5	3.9	4.8	5.7	6.1
AH4R 2014-SFR3		6.3	6.3	5.5	4.6	4.1	3.6	3.5	3.9	3.9	4.2	4.7	4.9
AH4R 2015-SFR1		5.2	5.8	4.5	4.6	4.3	4.3	3.9	4.4	4.5	4.3	4.3	4.1
AH4R 2015-SFR2		6.8	5.3	4.2	3.4	3.2	2.8	2.7	3.2	4.1	4.5	5.8	5.8
AMSR 2016-SFR1					8.6	9.0	9.4	9.2	9.9	10.2	11.2	12.1	13.5
CAH 2014-1		2.2	1.9	2.1	2.0	1.9	1.9	1.7	1.7	1.3	1.1	1.2	1.1
CAH 2014-2		1.7	1.4	1.2	1.0	1.1	1.0	1.0	1.3	1.1	1.1	1.3	1.5
CAH 2015-1		1.9	1.5	1.7	1.4	1.2	1.4	1.1	1.2	1.2	1.1	1.0	1.0
CSH 2016-1			1.2	1.3	1.0	0.8	0.9	0.8	0.8	0.9	1.1	1.2	1.2
CSH 2016-2							1.0	1.1	1.1	1.1	0.9	1.3	1.6
HPA 2016-1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HPA 2016-2				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
IH 2014-SFR2		2.6	3.0	1.9	1.5	1.6	1.6	1.6	1.8	1.9	2.3	2.1	2.3
IH 2014-SFR3		2.3	2.2	1.8	1.7	1.6	1.7	1.7	1.6	1.8	1.8	1.9	2.1
IH 2015-SFR1		2.1	2.3	1.9	2.2	2.4	2.0	2.5	2.2	2.2	2.1	2.1	2.3
IH 2015-SFR2		2.1	1.8	1.9	2.2	2.0	2.0	1.7	1.8	2.4	2.6	2.3	2.2
IH 2015-SFR3		2.0	1.8	1.9	2.2	2.4	2.2	2.3	2.4	2.4	2.3	2.3	2.1
PRD 2015-SFR2		1.6	1.4	1.8	2.0	2.4	2.3	2.6	2.9	2.9	2.9	3.6	2.9
PRD 2015-SFR3		4.2	4.0	3.4	2.5	1.9	1.6	1.6	1.7	1.9	2.1	2.9	3.0
PRD 2016-SFR1			1.4	1.8	2.0	2.0	2.0	2.5	2.9	3.3	3.6	3.4	3.1
PRD 2016-SFR2							1.7	1.5	1.6	1.4	1.5	2.5	2.8
TAH 2015-SFR1		13.5	12.5	11.1	10.7	9.7	8.8	9.0	9.0	9.2	9.2	9.1	8.9
TAH 2016-SFR1						6.9	6.7	7.2	7.5	8.1	8.3	8.7	9.0
Overall SFR		3.9	3.3	2.9	3.1	3.1	2.9	2.9	3.0	3.2	3.4	3.6	3.7

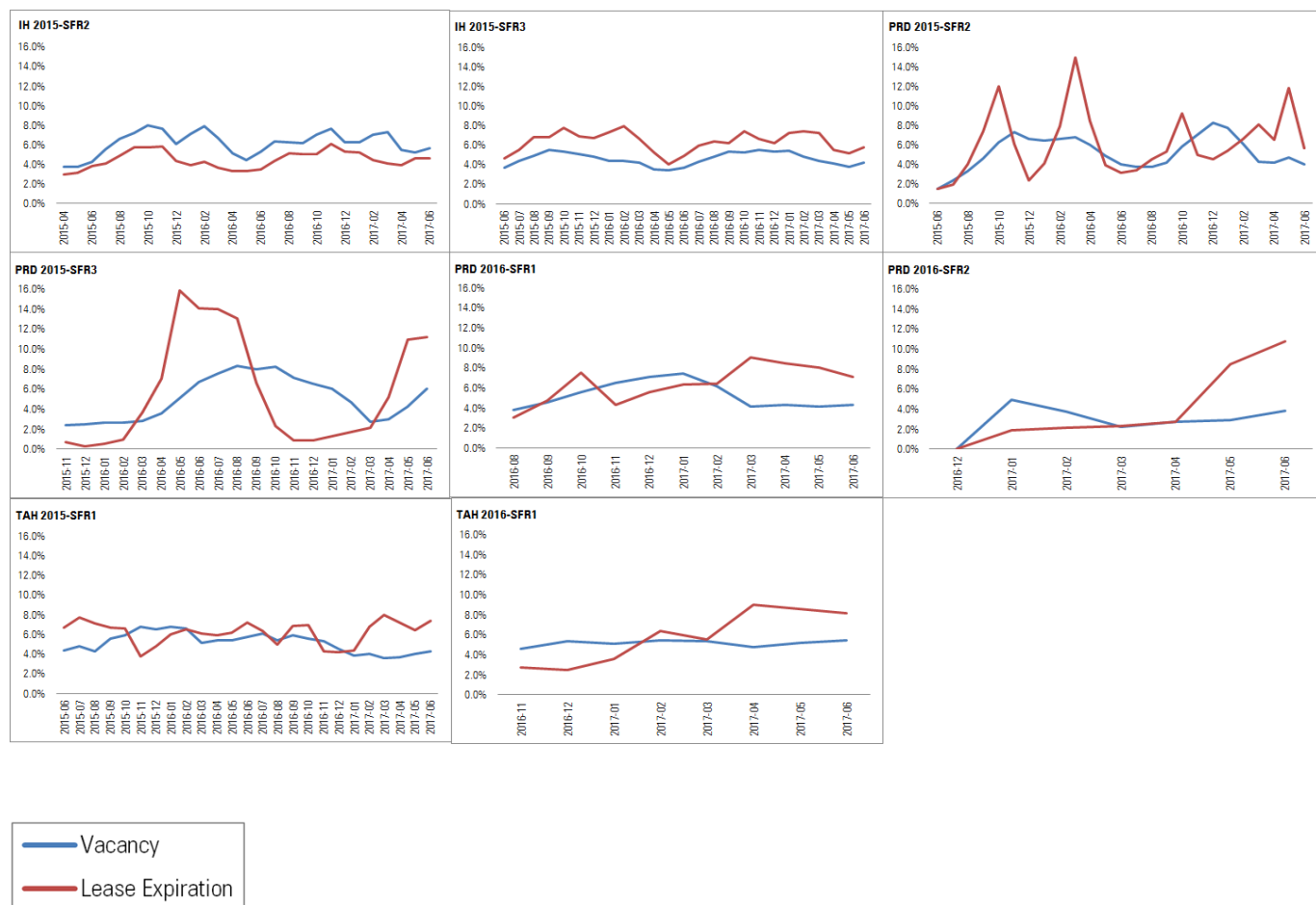
Table 10 – Monthly Turnover Rate

		Year 2016						Year 2017					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
AH4R 2014-SFR2		4.1	4.3	2.8	2.9	2.5	2.3	2.5	3.0	2.5	3.5	4.9	TBD
AH4R 2014-SFR3		5.3	4.8	3.6	2.6	2.6	2.2	2.9	2.9	3.2	2.5	3.9	TBD
AH4R 2015-SFR1		5.1	5.0	3.6	3.4	2.9	3.0	3.1	2.6	2.9	2.9	3.9	TBD
AH4R 2015-SFR2		4.0	3.2	2.1	2.4	2.4	3.0	2.5	3.3	4.3	3.9	5.0	TBD
AMSR 2016-SFR1						2.4	1.7	2.6	2.5	2.7	2.3	2.8	TBD
CAH 2014-1		3.6	4.3	3.7	3.3	3.3	2.3	2.5	2.3	2.7	2.3	4.7	TBD
CAH 2014-2		2.9	3.5	3.5	2.9	2.4	2.1	2.4	2.9	3.0	3.1	4.0	TBD
CAH 2015-1		4.7	4.6	3.6	3.1	2.6	2.3	2.3	2.2	2.3	3.1	4.0	TBD
CSH 2016-1			3.6	3.2	3.2	2.6	2.2	2.0	3.0	2.8	3.5	3.4	TBD
CSH 2016-2							3.5	3.1	2.5	3.5	3.1	4.1	TBD
HPA 2016-1		4.7	3.2	2.5	2.5	1.6	1.8	1.7	1.4	2.2	3.0	2.6	TBD
HPA 2016-2					1.0	0.7	0.9	0.8	1.0	2.1	2.8	4.4	TBD
IH 2014-SFR2		3.4	3.7	3.1	2.8	2.6	1.8	2.2	2.3	2.6	2.9	3.4	TBD
IH 2014-SFR3		4.0	3.4	2.7	2.5	2.4	2.0	2.5	2.0	2.8	2.7	2.9	TBD
IH 2015-SFR1		3.8	3.8	2.7	2.2	2.6	2.7	2.9	2.8	2.7	2.7	2.3	TBD
IH 2015-SFR2		3.3	3.7	2.8	3.4	3.5	2.4	2.7	2.0	2.9	2.4	3.2	TBD
IH 2015-SFR3		3.2	3.6	3.0	2.9	3.0	2.6	2.7	2.7	3.1	2.4	2.7	TBD
PRD 2015-SFR2		2.3	2.6	2.7	3.8	2.8	2.9	2.6	2.5	3.6	3.2	4.2	TBD
PRD 2015-SFR3		5.7	5.6	3.7	2.4	1.6	1.5	1.6	1.4	2.4	2.1	4.1	TBD
PRD 2016-SFR1			2.5	2.7	2.8	2.8	2.7	3.0	2.5	3.6	3.4	3.6	TBD
PRD 2016-SFR2							5.5	1.8	1.3	2.1	2.2	2.9	TBD
TAH 2015-SFR1		4.0	1.8	2.8	3.6	3.1	1.6	1.4	1.7	2.2	2.7	2.2	TBD
TAH 2016-SFR1							1.9	1.5	2.4	2.8	2.4	3.1	TBD
Overall SFR		4.0	3.7	3.0	2.7	2.5	2.5	2.4	2.4	2.9	2.8	3.6	TBD

TBD – To Be Determined

Appendix I – Vacancy Versus Lease Expiration





Appendix II – Description of Analysis

Morningstar tracks key metrics to gauge the performance of single-borrower, single-family rental transactions. There are several ways to view these metrics. For example, the vacancy rate might be calculated based on property count, by cash flow, or by days of occupancy. To account for different reporting across issuers, Morningstar seeks commonality across the single-borrower issuers' monthly reporting to derive its calculations.

Multiborrower deals are similar to single-borrower transactions in that the underlying collateral is generally single-family rental properties. They differ, though, in that single-borrower deals are backed by one loan, while multiborrower deals have many loans. B2R 2015-1 is secured by 136 loans; B2R 2015-2, 202 loans; B2R 2016-1, 161 loans; FKL 2015-SFR1, 16 loans; CAF 2015-1, 69 loans; CAF 2016-1, 85 loans; and CAF 2016-2, 71 loans. As such, the monthly reporting for multiborrower deals is different from the data reported in the single-borrower sector. For example, delinquency reported in Tables 6a and 6b are tenants that are past due on rental payments at a property level. For multiborrower transactions, delinquency is measured by borrowers that are past due on payments at the loan level.

Chart 1 – Single-Family Rental Rent Change Versus RentRange Year-Over-Year Rent Change

To calculate the rent change across single-borrower, single-family rental transactions, Morningstar isolated the leases starting in a given period and compared the contractual rent in that period with the prior occupied contractual rent. Morningstar then compared this rent change with the year-over-year change in three- and four-bedroom median rents from RentRange. Morningstar weighted the RentRange median rents by geography to match the MSA concentration of the Morningstar single-family rental database.

Chart 2 – Rental Changes for Renewals Versus Vacant-to-Occupied Properties

Morningstar calculated the rent change using the contractual rent for the corresponding period versus the prior occupied contractual rent. To determine the lease expiration sample, Morningstar used the logic outlined in the section, Tables 3a, 3b, and 3c – Lease Expiration. Morningstar then looked at the property tape to determine the renewed properties and compared that contractual rent with the prior contractual rent. For vacant properties subsequently occupied by new tenants, Morningstar isolated those properties that were vacant in a given month and occupied in the next month and again compared the current contractual rent with the prior contractual rent.

Chart 3 – June Average Contractual Rent Versus Property-Level RentRange Estimate by MSA

Chart 3, which shows some of the MSAs most frequently found in single-family rental securitizations, takes a snapshot of the June contractual rents in the Morningstar single-family rental database and compares these rents with their property-specific rent estimates from RentRange.

Chart 4 – MSA-Level Blended Rent Change

Chart 4 shows the blended rent change of some of the MSAs frequently found in single-family rental securitizations. The size of each circle represents the percentage of properties in each MSA from Morningstar’s database. MSAs in red are below the overall average rent change for the month, while those in blue are above.

Table 1 – Blended Rent Change (by Percentage) – Top MSAs

Table 1 shows the MSA-level blended rent change for the past 12 months using the same rent change calculation used in Chart 1 and Chart 4.

Tables 2a, 2b, and 2c – Month-End Vacancy

Table 2a displays deal-level vacancy by the month-end count of empty properties. Table 2b shows the deal-level vacancy as a percentage of the total properties in each pool. Table 2c shows the MSA-level vacancy percentage for some of the MSAs frequently found in single-family rental securitizations. The vacancy rate is heavily influenced by the number of lease expirations in each month. Generally, the more leases expiring in a given month, the higher the vacancy rate will be. Because each transaction or MSA has a distinct lease expiration schedule, the vacancy rate should not be viewed at one point in time, but rather in the context of its lease expiration cycle, as reported in Tables 3a, 3b, and 3c and as seen in the charts in Appendix I.

Chart 5 – MSA-Level Vacancy and Lease Expiration Percentage (by Count)

Chart 5 shows the vacancy rate of some of the MSAs frequently found in single-family rental securitizations. The size of each circle represents the percentage of leases expiring in the past three months. MSAs in red are above the overall average vacancy percentage for the month, while those in blue are below. Typically, the more leases expiring, the higher the vacancy rate.

Tables 3a, 3b, and 3c – Lease Expiration

Because lease expiration profiles change over time as tenants renew or new tenants occupy vacant properties, Morningstar seeks to rely on more recently published reporting of lease expirations, rather than solely using the lease expiration schedule from the cutoff

date. To determine June lease expirations, Morningstar looks for all June lease expirations in the March property tape. Morningstar looks three months back to set a lease expiration sample that more accurately captures tenants who renew their leases in months before their scheduled lease expiration. Certain issuers have indicated that they proactively work to renew tenants a few months before the lease expiration date. Because Morningstar is looking three months back to determine its sample, there are instances when tenants vacate properties between the time Morningstar determines its sample and the month in which the tenant must make a decision to stay in the property. Morningstar excludes those vacated properties from its lease expiration sample and its retention rate calculation in Table 7. In the current example, properties that become vacant or that have move out dates in either April or May are removed from the June lease expiration count.

Tables 4a and 4b – Historical Months of Vacancy

Tables 4a and 4b show the number of months of vacancy the June unoccupied properties have experienced. In other words, if a property is unoccupied as of the June property tape, these tables summarize the number of total months the property has been vacant since the transaction cutoff date. Depending on the length of performance history, the overall vacancy may be in line with the number of consecutive vacant months, but this might not always be the case for those properties that have gone through multiple leasing cycles. Table 4a shows historical months of vacancy by count, and Table 4b is as a percentage of the June vacancies.

Table 5 – Delinquency Definition

Morningstar's calculation of delinquency is based on the number of properties flagged as delinquent in the monthly property-level data. Each issuer uses its own criteria for classifying a tenant as delinquent. Table 5 summarizes the delinquency definition for each issuer and contains details on the length of time that must pass from a tenant's due date to be considered delinquent. The length of time is either based on a count of 30 days or is based on the calendar month. The slight distinction, for example, either results in a property with payment due on March 1 considered as delinquent after 30 days or as delinquent on April 1. None of the issuers factor a grace period into their delinquency definition, meaning their respective measures of past due begin if payment has not been received by the stated due date. In addition to timing, these conditions can also differ by the total dollar threshold an issuer uses to classify a tenant as delinquent and by the types of overdue payments that the issuer uses to count toward that threshold. For example, most issuers use only base rent to determine the dollar amount of delinquency. However, Tricon American Homes counts total receivables to determine the past due amount. Progress Residential includes certain fees above base rent but not total receivables.

Tables 6a and 6b – Month-End Delinquency

Table 6a shows the month-end count of delinquencies based on the definition in Table 5, and Table 6b shows delinquency as a percentage of the total number of properties in each pool. Any review of delinquency should be viewed within the context of the delinquency definitions in Table 5.

Table 7 – Monthly Retention Rate of Expiring Leases

When evaluating an issuer's ability to keep tenants in a property, Morningstar considers a retention rate. Once again, differences in monthly reporting affect the calculation that Morningstar uses. Typically, a renewal rate would review those tenants who signed a full-term lease. Considering the different methods issuers use to designate tenants with either a renewal or an MTM status, Morningstar opted to report the retention rate instead of the renewal rate. The retention rate is defined as those properties that retained previous tenants, whether on full-term or MTM leases, divided by the total number of leases due to expire in that period, as reported in Table 3a and explained in Appendix II. If there is not enough seasoning in the deal to look three months back to determine the lease expiration sample, Morningstar relies on the cutoff tape lease expiration profile. As a result, the first three months of retention rate reported in Table 7 will use the cutoff tape to find the sample of lease expirations. After isolating the applicable lease expiration sample, Morningstar looks at the most recent property tape to determine the lease status of the properties. In this report, Morningstar uses the June property tape to determine the lease status for May expirations. Morningstar relies on the issuer's labeling of vacant, renewal, new lease, or MTM, to the extent that these notations are available in each tape.

Table 8 – Monthly Retention Rate of MTM Leases

In Table 8, Morningstar reviews the retention rate of those properties in an MTM status. This table looks at previous tenants who went to an MTM status and either renewed or remained in the property on an MTM basis. For the MTM retention rate, Morningstar looks for MTM tenants in the previous month's property tape, and then looks to the current month for their occupancy status. For example, the May 2017 retention rates are the June statuses of May MTM tenants.


Tables 9a and 9b – MTM Tenants

In Tables 9a and 9b, Morningstar shows the count and percentage of properties with MTM tenants. Securitizations with higher concentrations of MTM tenants typically report higher retention rates of their MTM leases. MTM tenants are usually subject to a monthly fee, which may encourage them to eventually sign full-term leases.

Table 10 – Monthly Turnover Rate

In evaluating how effective an issuer is at retaining tenants, Morningstar considers the monthly turnover rate. For this metric, Morningstar strives to apply a consistent calculation given the differences in issuers' reporting. Morningstar considers a property turned over if it meets one of three criteria:

- The property is vacant but was occupied in the previous month and the move-out date, if available, is on or after the first day of the current month;
- The move-out date is on or after the first day of the current month, including the last day of the current month; or
- The property was occupied in the prior month and a tenant has signed a new lease that starts on or after the second day of the current month.

Download supporting Performance Summary Tables in Excel by clicking the download icon  found at the top of each table and page one.

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