

CU Investment Solutions, LLC

Brady McLeod, Registered Representative
 Walter Thompson, Registered Representative
 Julie Chapin, Registered Representative
 Chris Hageman, Registered Representative
 Rachel Palmer, Registered Representative
 Lea Papamichael, Registered Representative
 Call 855-882-8474



New Issue Offerings 9/10/2019

Fixed Rate Callables												
Issuer	Cusip	Coupon	Maturity	Call Date	Price	Years To	Lockout	Call Frequency	Settle Date	Spread to Interp		
						Maturity	in Months			Treas	YTM	YTC
FEDERAL FARM CREDIT BANK	3133EKP42	1.990	9/16/2021	12/16/2019	100	2.00	3	Anytime	9/16/2019	0.37	1.990	1.990
FEDERAL HOME LOAN BANK	3130AGZN8	1.750	9/24/2021	9/24/2020	100	2.00	12	Anytime	9/24/2019	0.13	1.750	1.750
FEDERAL FARM CREDIT BANK	3133EKP59	2.020	12/16/2021	12/16/2019	100	2.25	3	Anytime	9/16/2019	0.41	2.021	2.020
FARMER MAC	31422BLR9	1.850	9/16/2022	9/16/2020	100	3.00	12	Quarterly	9/16/2019	0.26	1.850	1.850
FEDERAL HOME LOAN BANK	3130AGZP3	1.830	9/23/2022	9/23/2020	100	3.00	12	Anytime	9/23/2019	0.24	1.830	1.830
FEDERAL FARM CREDIT BANK	3133EKM94	1.900	9/11/2023	9/11/2020	100	4.00	12	Anytime	9/11/2019	0.34	1.900	1.900
FREDDIE MAC	3134GT6A6	2.000	9/11/2023	3/11/2020	100	4.00	6	Quarterly	9/11/2019	0.44	2.000	2.000
FREDDIE MAC	3134GT7E7	1.680	9/13/2024	9/13/2021	100	5.01	24	Onetime	9/13/2019	0.15	1.680	1.680
FEDERAL FARM CREDIT BANK	3133EKN93	1.960	9/16/2024	9/16/2020	100	5.01	12	Anytime	9/16/2019	0.43	1.960	1.960
FEDERAL HOME LOAN BANK	3130AGZQ1	2.170	9/13/2029	9/13/2021	100	10.01	24	Anytime	9/13/2019	0.50	2.170	2.170
FEDERAL HOME LOAN BANK	3130AH2L6	2.240	9/17/2029	9/17/2021	100	10.01	24	Anytime	9/17/2019	0.57	2.240	2.240

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Indicative Offerings - Mortgage-Backed Securities 9/10/2019

MBS Pools											
Issue	Coupon	WAL	Yield	I Spread	Price	Principal	Type	OAS	Current Face	Cusip	
FN BM3266	3.00	3.14	2.00	46	102.84	10/19-02/27	10 Year	19.2	104,812,307	3140J7TY1	
FN MA3656	3.50	3.49	2.23	70	104.00	10/19-12/28	10 Year	29.8	20,310,082	31418DB27	
FN MA3797	2.50	4.73	2.16	65	101.38	10/19-08/34	15 Year	31.0	119,747,072	31418DGF3	
FG G18549	2.50	3.88	2.02	50	101.68	10/19-10/29	15 Year	29.0	5,539,347	3128MMTF0	
FN MA3657	3.00	4.04	2.25	73	102.66	10/19-02/34	15 Year	35.9	247,868,897	31418DB35	
FN FM1227	3.00	3.12	2.01	48	102.77	10/19-10/27	15 Year	33.4	22,269,890	3140X4LH7	
FN MA3438	3.50	3.34	2.21	68	103.87	10/19-02/33	15 Year	45.6	65,680,041	31418CZC1	
FN MA3340	3.50	3.21	2.10	56	104.06	10/19-12/32	15 Year	53.4	64,404,680	31418CWA8	
FN MA3771	3.00	6.14	2.47	93	102.76	10/19-07/39	20 Year	38.0	21,600,000	31418DFM9	
FN MA3634	3.50	4.44	2.55	104	103.70	10/19-01/39	20 Year	57.6	5,924,905	31418DBC5	
FN MA3590	4.00	4.46	2.74	123	104.89	10/19-10/38	20 Year	69.2	9,502,372	31418C7C2	

CMOs											
Issue	Coupon	WAL	Yield	I Spread	Price	FMED U300 %	Principal	Type	OAS	Current Face	Cusip
FHR 4379 CB	2.25	2.45	1.93	37	100.68	-9.1%	10/19-07/25	EXCH,+	20.7	6,356,943	3137BCZG6
GNR 2015-99 KJ	2.50	2.99	1.96	42	101.45	-10.6%	10/19-01/27	EXCH,+	36.4	18,503,967	38379N2Q4
FNR 2015-80 LB	2.50	2.70	1.99	44	101.19	-10.2%	10/19-10/25	SEQ	4.1	10,377,004	3136AQLU2
GNR 2016-170 LG	2.50	2.42	2.09	52	100.85	-9.2%	10/19-02/25	AD,+	-10.4	65,314,021	38380TMG8
FHR 4557 HA	3.00	2.79	2.07	53	102.39	-9.7%	10/19-02/26	SEQ	-1.6	10,737,423	3137BNBE3
FNR 2017-18 CA	3.00	3.09	2.11	58	102.45	-10.7%	10/19-11/26	SEQ	6.7	2,001,137	3136AVQK8
FHR 4640 DA	3.00	2.27	1.99	42	102.11	-9.1%	10/19-10/24	SEQ	10.1	6,150,042	3137BTKY6

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Secondary Offerings 9/10/2019

Callables									
Issuer	Coupon	Maturity	Call Date	Call Type	Price	YTC	YTM	Spread to Interp	
								Treas	Cusip
FREDDIE MAC	1.625	9/9/2022	3/9/2020	Quarterly	99.75	2.136	1.711	0.12	3134GT6C2
FEDERAL FARM CREDIT BANK	1.850	11/8/2023	9/17/2019	Anytime	99.73	17.985	1.918	0.36	3133EGQA6
FREDDIE MAC	1.750	9/10/2024	3/10/2020	Quarterly	99.63	2.513	1.829	0.30	3134GT6D0

Bullets								
Issuer	Coupon	Maturity	Price	Yield	Spread to Interp		Benchmark	Cusip
					Treas	Benchmark		
FANNIE MAE	1.250	5/6/2021	99.42	1.609	-0.07	T 1 1/2 08/31/21	3135G0K69	
FEDERAL FARM CREDIT BANK	1.900	6/24/2021	100.55	1.587	-0.07	T 1 1/2 08/31/21	3133EKRVO	
FEDERAL FARM CREDIT BANK	1.980	11/22/2021	100.78	1.615	0.00	T 1 1/2 08/31/21	3133EHU84	
FEDERAL FARM CREDIT BANK	2.600	1/18/2022	102.28	1.610	0.00	T 1 1/2 08/31/21	3133EJ5P0	
FEDERAL HOME LOAN BANK	2.250	3/11/2022	101.65	1.575	-0.03	T 1 1/2 08/31/21	313378CR0	
FARMER MAC	1.800	8/26/2022	100.53	1.614	0.03	T 1 1/2 08/15/22	3132X0WX5	
FEDERAL HOME LOAN BANK	2.000	11/17/2022	101.25	1.594	0.01	T 1 1/2 08/15/22	3130ABAX4	
FEDERAL FARM CREDIT BANK	1.875	1/17/2023	100.95	1.584	0.01	T 1 1/2 08/15/22	3133EKVFO	
FEDERAL HOME LOAN BANK	2.375	9/8/2023	103.16	1.556	0.00	T 1 1/2 08/15/22	3130A3DL5	
FEDERAL HOME LOAN BANK	2.795	10/17/2023	104.90	1.557	0.00	T 1 1/4 08/31/24	313375ZL4	
FEDERAL FARM CREDIT BANK	2.950	5/15/2024	106.26	1.557	0.02	T 1 1/4 08/31/24	3133EDLP5	
FARMER MAC	1.650	8/20/2024	100.22	1.604	0.07	T 1 1/4 08/31/24	31422BKC3	

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