

Putnam Mortgage Opportunities Fund

As of 8/31/2019

Security Detail

Security Description	Percent of Portfolio
FNMA FN30 TBA UMBS 03.0000 09/01/2049	35.34%
REPO TRIPA MORTG 2.18 09/03/2019	12.13%
FNMA FN30 TBA UMBS 04.0000 09/01/2049	5.40%
2.05 R ISWP FWD US0003M P 09/18/2029	1.68%
TREASURY BILL 00.0000 11/07/2019	1.51%
GNMA GII30 TBA 04.5000 09/01/2049	1.45%
TREASURY BILL 00.0000 12/12/2019	1.25%
TREASURY BILL 00.0000 11/21/2019	1.07%
2.145 R ISWP US0003M P 06/26/2029	1.05%
TREASURY BILL 00.0000 11/14/2019	0.95%
GNR 2018-153 AI IO 04.5000 09/16/2045	0.94%
GNR 2019-83 SL IO 03.9279 07/20/2049	0.81%
FNR 2019-41 SB IO 03.9048 08/25/2049	0.75%
FNR 2019-28 S IO 03.9048 06/25/2049	0.75%
GNR 2019-6 SM IO 03.8779 01/20/2049	0.75%
CAS 2018-C05 1B1 06.3953 01/25/2031	0.75%
GNMA GII30 TBA 04.0000 09/01/2049	0.72%
CAS 2017-C07 2M2 04.6453 05/25/2030	0.72%
STACR 2016-HQA4 M3 06.0453 04/25/2029	0.71%
STRU NSI-2513 SA IO 03.9048 06/25/2049	0.71%
GNR 2019-83 JS IO 03.9279 07/20/2049	0.62%
FNR 2018-1 MS IO 04.0048 02/25/2048	0.61%
CAS 2015-C04 1M2 07.8453 04/25/2028	0.60%
STACR 2019-DNA2 M2 04.5953 03/25/2049	0.60%
GNR 2019-100 JS IO 03.8800 08/20/2049	0.60%
FHR 4290 LS IO 03.9049 07/15/2035	0.59%
FNR 2019-45 SD IO 03.9048 08/25/2049	0.56%
STACR 2018-HQA2 B1 06.3953 10/25/2048	0.56%
CCMFC 2006-4A A2 02.3253 11/25/2047	0.54%
GNR 2019-H03 AI IO 02.2819 11/20/2068	0.54%
FNR 2011-126 SJ IO 03.8548 12/25/2041	0.53%
STACR 2016-HQA1 M3 08.4953 09/25/2028	0.53%
STACR 2018-DNA2 B1 05.8453 12/25/2030	0.52%
GNR 2019-89 JS IO 03.8779 04/20/2049	0.51%
GNR 2019-78 SM IO 03.9279 06/20/2049	0.49%
FNR 2019-5 SA IO 03.9548 03/25/2049	0.48%
SPST 2019-7 A 02.8453 09/24/2020	0.47%
CAS 2019-R04 2B1 07.3953 06/25/2039	0.46%
STACR 2018-DNA1 M2 03.9453 07/25/2030	0.44%
FNR 2019-21 SB IO 03.9048 05/25/2049	0.44%
FNR 2019-18 SL IO 03.9548 05/25/2049	0.44%

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Security Description	Percent of Portfolio
CAS 2017-C02 2B1 07.6453 09/25/2029	0.44%
STACR 2019-DNA1 M2 04.7953 01/25/2049	0.43%
CAS 2019-R04 2M2 04.2453 06/25/2039	0.43%
GNR 2015-182 IC IO 04.5000 12/20/2045	0.41%
COMM 2014-CR19 D P/P 144A 04.8735 08/10/2047	0.40%
CAS 2016-C03 2B 14.8953 10/25/2028	0.40%
GNR 2018-H01 AI IO 02.2221 01/20/2068	0.40%
FNR 2019-18 SH IO 04.0048 05/25/2049	0.40%
FNR 2016-91 AS IO 03.9548 12/25/2046	0.40%
GNR 2019-83 SA IO 03.9279 07/20/2049	0.40%
CAS 2017-C03 1B1 06.9953 10/25/2029	0.39%
CAS 2017-C04 2B1 07.1953 11/25/2029	0.38%
MSBAM 2013-C10 F P/P 144A 04.2180 07/15/2046	0.38%
FNMA FN30 TBA UMBS 05.0000 09/01/2049	0.37%
WFRBS 2013-C15 D P/P 144A 04.6237 08/15/2046	0.37%
FASST 2019-HB1 M5 P/P 144A 06.0000 04/25/2029	0.37%
CAS 2019-R02 1B1 06.2953 08/25/2031	0.36%
GNR 2014-3 SM IO 03.9279 01/20/2044	0.36%
BSCMS 2007-T26 AJ 05.5660 01/12/2045	0.36%
CAS 2017-C06 1M2 04.7953 02/25/2030	0.35%
2.29 R ISWP US0003M P 07/02/2049	0.35%
TREASURY BILL 00.0000 10/10/2019	0.34%
RMIR 2018-1 M2 04.2100 03/25/2028	0.34%
2.647 R ISWP US0003M P 06/12/2049	0.33%
GNR 2017-H05 CI IO 02.6699 02/20/2067	0.33%
GNR 2014-188 IB IO 04.0000 12/20/2044	0.33%
GNR 2014-27 S IO 03.9279 02/20/2044	0.32%
STACR 2018-DNA2 M2 04.2953 12/25/2030	0.32%
SPST 2018-8 A 02.8453 02/24/2020	0.32%
GSMS 2014-GC24 D P/P 144A 04.6665 09/10/2047	0.32%
SPST 2019-3 A 02.9611 06/24/2020	0.31%
STACR 2018-HQA1 M2 04.4453 09/25/2030	0.31%
JPMCC 2007-CB20 E P/P 144A 06.3895 02/12/2051	0.31%
FNR 2017-8 SB IO 03.9548 02/25/2047	0.31%
FNR 2016-85 SL IO 03.9548 11/25/2046	0.31%
FNR 2017-16 QS IO 03.9348 03/25/2047	0.31%
CAS 2017-C06 2M2 04.9453 02/25/2030	0.30%
STACR 2017-DNA1 B1 07.0953 07/25/2029	0.30%
JPMCC 2006-LDP9 AMS 05.3370 05/15/2047	0.30%
COMM 2014-CR17 E P/P 144A 05.0118 05/10/2047	0.30%
CAS 2016-C03 2M2 08.0453 10/25/2028	0.29%

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Security Description	Percent of Portfolio
GNR 2013-9 S IO 04.5779 01/20/2043	0.28%
GNR 2017-H21 AI IO 02.2251 10/20/2067	0.28%
WFRBS 2011-C2 F P/P 144A 05.0000 02/15/2044	0.28%
CAS 2017-C05 1B1 05.7453 01/25/2030	0.28%
FNR 2016-78 CS IO 03.9548 05/25/2039	0.27%
CAS 2018 - C01 1B1 05.6953 07/25/2030	0.27%
SPST 2019-WL1 A 02.7953 08/25/2052	0.27%
SPST 2018-5 A 02.8453 09/24/2019	0.27%
JPMBB 2014-C18 D P/P 144A 04.9728 02/15/2047	0.26%
TREASURY BILL 00.0000 12/05/2019	0.26%
FNR 2019-17 JS IO 03.9548 04/25/2049	0.25%
MWST 2019-1 A 02.9453 06/25/2052	0.25%
CAS 2015-C04 2M2 07.6953 04/25/2028	0.24%
GNR 2018-H02 HI IO 02.3934 01/20/2068	0.24%
GNR 2017-H04 BI IO 02.5419 02/20/2067	0.24%
MSC 2011-C3 G P/P 144A 05.2925 07/15/2049	0.24%
GNR 2017-H20 GI IO 02.2070 09/20/2067	0.24%
BALTA 2005-8 21A1 04.2759 10/25/2035	0.23%
GNR 2018-H07 IE IO 02.4052 02/20/2068	0.23%
OMIR 2018-1A M2 04.9953 07/25/2028	0.23%
OMIR 2017-1A B1 P/P 144A 07.8953 04/25/2027	0.23%
2.0745 R ISWP US0003M P 07/16/2029	0.22%
JPMCC 2011-C3 D P/P 144A 05.8526 02/15/2046	0.22%
GNR 2019-35 SE IO 03.9526 01/16/2044	0.22%
FHR 3346 SC IO 04.3549 10/15/2033	0.21%
WFCM 2014-LC16 D P/P 144A 03.9380 08/15/2050	0.21%
NHLT 2018-2A M5 P/P 144A 06.0000 07/25/2028	0.20%
GNR 2009-121 DI IO 04.5000 12/16/2039	0.20%
WFRBS 2012-C10 D P/P 144A 04.5853 12/15/2045	0.20%
BALTA 2006-6 1A1 02.4653 11/25/2036	0.20%
STACR 2015-DNA2 B 09.6953 12/25/2027	0.20%
WFRBS 2012-C9 E P/P 144A 04.9713 11/15/2045	0.20%
FNR 2018-36 SD IO 04.1048 06/25/2048	0.20%
WFRBS 2012-C7 E P/P 144A 04.9689 06/15/2045	0.20%
GNR 2017-H10 MI IO 01.8602 04/20/2067	0.20%
JPMCC 2013-LC11 E P/P 144A 03.2500 04/15/2046	0.19%
FNR 2016-88 BS IO 03.9548 12/25/2046	0.19%
GNR 2016-H22 AI IO 02.3739 10/20/2066	0.19%
FNR 2014-35 CS IO 04.0048 06/25/2044	0.19%
GNR 2016-84 IB IO 04.5000 11/16/2045	0.19%
STACR 2018-DNA3 B1 06.0453 09/25/2048	0.18%

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Security Description	Percent of Portfolio
GNR 2017-H11 NI IO 02.2966 05/20/2067	0.18%
STACR 2017-HQA1 M2 05.6953 08/25/2029	0.18%
GNR 2017-H16 IB IO 01.8358 08/20/2067	0.18%
STACR 2018-DNA1 B1 05.2953 07/25/2030	0.17%
GNR 2019-H09 EI IO 02.3099 04/20/2069	0.17%
UBSBB 2012-C4 D P/P 144A 04.6303 12/10/2045	0.17%
MSBAM 2013-C11 D P/P 144A 04.4990 08/15/2046	0.17%
GNR 2017-H22 DI IO 02.1344 11/20/2067	0.17%
COMM 2014-CR17 D P/P 144A 05.0118 05/10/2047	0.17%
GNR 2018-H01 IB IO 01.6101 01/20/2068	0.16%
FNR 2014-87 MS IO 04.1048 01/25/2045	0.16%
GNR 2018-H11 JI IO 02.7281 07/20/2068	0.16%
CMLTI 2007-AR5 1A1A 04.7327 04/25/2037	0.16%
GNR 2014-H08 CI IO 01.4888 03/20/2064	0.16%
CAS 2016-C07 2M2 06.4953 05/25/2029	0.16%
GNR 2017-H20 AI IO 02.1556 10/20/2067	0.16%
GNR 2010-125 SD IO 04.4826 01/16/2040	0.16%
WFCM 2013-LC12 D P/P 144A 04.4205 07/15/2046	0.16%
STACR 2016-DNA3 M3 07.1453 12/25/2028	0.16%
GNR 2013-167 SG IO 03.9779 11/20/2043	0.15%
MSBAM 2013-C10 E P/P 144A 04.2180 07/15/2046	0.15%
CAS 2019-R05 1M2 04.1453 07/25/2039	0.15%
GNR 2014-H23 BI IO 01.5625 11/20/2064	0.15%
GSR 2007-OA1 2A3A 02.4553 05/25/2037	0.15%
GNR 2016-H21 AI IO 02.2496 09/20/2066	0.15%
CAS 2016-C03 1M2 07.4453 10/25/2028	0.14%
GNR 2018-H11 AI IO 02.6783 02/20/2068	0.14%
STACR 2015-DNA3 B 11.4953 04/25/2028	0.14%
MSRR 2010-R4 4B 03.2981 02/26/2037	0.14%
WFMBS 2006-AR5 1A1 05.1932 04/25/2036	0.14%
GNR 2016-H27 EI IO 02.2340 12/20/2066	0.14%
GNR 2016-H24 CI IO 01.6904 10/20/2066	0.14%
GNR 2016-150 I IO 05.0000 11/20/2046	0.14%
JPMCC 2013-LC11 D 04.3069 04/15/2046	0.14%
UBSCM 2012-C1 E P/P 144A 05.0000 05/10/2045	0.14%
FNR 2010-99 NI IO 06.0000 09/25/2040	0.14%
WFMBS 2006-AR2 1A1 04.9789 03/25/2036	0.14%
GNR 2017-H03 DI IO 02.1755 12/20/2066	0.14%
WAMU 2005-AR10 1A3 04.1722 09/25/2035	0.13%
GNR 2016-H22 IO IO 01.8642 10/20/2066	0.13%
GNR 2017-H02 BI IO 02.3479 01/20/2067	0.13%

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Security Description	Percent of Portfolio
GNR 2018-H02 IM IO 02.3432 02/20/2068	0.13%
FNR 2016-83 BS IO 03.9548 11/25/2046	0.13%
OPTN FN30 3.0 10/03/19 CALL 101.71875 JPMC	0.13%
STACR 2016-HQA3 M3 05.9953 03/25/2029	0.13%
GNR 2017-H16 CI IO 01.6600 07/20/2067	0.13%
BALTA 2005-7 21A1 04.4736 09/25/2035	0.13%
GNR 2015-35 AI IO 05.0000 03/16/2045	0.13%
GNR 2013-67 IP IO 04.0000 04/16/2043	0.12%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 JP	0.12%
GNR 2015-H01 BI IO 01.5599 01/20/2065	0.12%
GNR 2013-182 SP IO 04.5279 12/20/2043	0.12%
SAMI 2006-AR7 A1BG 02.2653 08/25/2036	0.12%
STACR 2019-DNA1 B1 06.7953 01/25/2049	0.12%
1.965 R ISWP US0003M P 07/24/2029	0.12%
CWALT 2006-OA19 A1 02.3521 02/20/2047	0.12%
CWALT 2006-OA10 4A1 02.3353 08/25/2046	0.12%
GNR 2017-H16 HI IO 01.4953 08/20/2067	0.12%
GNR 2014-132 IO IO 05.0000 09/20/2044	0.12%
SWPTN 5WX10Y R 1.332 USD 09/16/2019 GS	0.12%
GNR 2016-H26 KI IO 01.8003 11/20/2066	0.12%
CWALT 2006-OA10 3A1 02.3353 08/25/2046	0.12%
GNR 2017-H03 CI IO 02.1717 12/20/2066	0.12%
1.92872 R ISWP US0003M P 08/05/2029	0.12%
MSC 2012-C4 D P/P 144A 05.6002 03/15/2045	0.12%
CAS 2016-C06 1M2 06.3953 04/25/2029	0.11%
GNR 2015-H04 AI IO 01.9113 12/20/2064	0.11%
STACR 2015-HQA2 B 12.6453 05/25/2028	0.11%
MSC 2012-C4 E P/P 144A 05.6002 03/15/2045	0.11%
GNR 2018-H08 FI IO 01.5955 06/20/2068	0.11%
GNR 2017-132 IA IO 04.5000 09/08/2047	0.11%
CAS 2018-C04 2M2 04.6953 12/25/2030	0.11%
CAS 2016-C05 2M2 06.5953 01/25/2029	0.11%
FHR 4560 IO IO 05.7844 05/15/2039	0.11%
GNR 2017-H08 EI IO 02.4262 02/20/2067	0.11%
VOLT 2018-NPL5 A1B P/P 144A 04.7037 08/25/2048	0.11%
GNR 2017-H14 JI IO 02.1856 06/20/2067	0.11%
MLFCF 2006-4 C 05.3240 12/12/2049	0.11%
JPMBB 2013-C14 F P/P 144A 03.5980 08/15/2046	0.11%
GNR 2015-H22 HI IO 02.0507 08/20/2065	0.10%
GSMS 2011-GC3 E P/P 144A 05.0000 03/10/2044	0.10%
GNR 2014-95 JI IO 04.5000 12/16/2039	0.10%

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Security Description	Percent of Portfolio
CAS 2017-C01 1M2 05.6953 07/25/2029	0.10%
GNR 2014-H06 BI IO 01.4809 02/20/2064	0.10%
FHR 4451 CI IO 07.0000 03/15/2045	0.10%
STACR 2019-DNA2 B1 06.4953 03/25/2049	0.10%
GSAA 2005-15 2A2 02.3953 01/25/2036	0.10%
STACR 2017-DNA2 B1 07.2953 10/25/2029	0.10%
FNR 2012-132 PI IO 05.0000 10/25/2042	0.10%
GNR 2018-H05 BI IO 02.3598 02/20/2068	0.10%
GNR 2017-H16 KI IO 01.4680 08/20/2067	0.10%
2.25 R ISWP FWD US0003M P 09/18/2049	0.10%
CAS 2019-R03 1M2 04.2953 09/25/2031	0.09%
FNR 2016-65 CS IO 03.9548 09/25/2046	0.09%
WFCM 2010-C1 E P/P 144A 04.0000 11/15/2043	0.09%
GNR 2015-165 IC IO 03.5000 07/16/2041	0.09%
GNR 2016-H18 QI IO 02.5607 06/20/2066	0.09%
1.923 R ISWP FWD US0003M P 07/16/2029	0.09%
GNR 2011-148 SN IO 04.4926 11/16/2041	0.09%
FNR 2017-48 LI IO 04.0000 05/25/2047	0.09%
GNR 2013-99 AS IO 03.8779 06/20/2043	0.09%
SCRT 2019-2 M 04.7500 08/25/2058	0.09%
MSBAM 2013-C7 D P/P 144A 04.3771 02/15/2046	0.09%
GNR 2017-H14 EI IO 01.5841 06/20/2067	0.09%
GNR 2016-164 IO IO 06.5000 12/20/2046	0.08%
HVMLT 2004-11 1A 02.8820 01/19/2035	0.08%
FNR 2018-1 JI IO 05.0000 02/25/2048	0.08%
GNR 2018-89 LS IO 04.1536 06/20/2048	0.08%
GNR 2017-132 IB IO 05.5000 09/20/2047	0.08%
LMAT 2019-GS2 A2 P/P 144A 04.2500 01/25/2059	0.08%
GSMS 2014-GC24 C 04.6665 09/10/2047	0.08%
GNR 2015-105 LI IO 05.0000 10/20/2039	0.08%
FNR 2011-134 SP IO 03.8548 02/25/2041	0.08%
GNR 2016-H17 DI IO 02.0529 07/20/2066	0.08%
GNR 2012-H29 CI IO 01.4134 02/20/2062	0.08%
JPMCC 2011-C3 E P/P 144A 05.8526 02/15/2046	0.08%
GNR 2017-H13 QI IO 02.1548 06/20/2067	0.08%
GNR 2012-H11 FI IO 01.2129 02/20/2062	0.08%
1.77862 R ISWP US0003M P 08/06/2029	0.08%
CMLTI 2007-AMC3 A2D 02.4953 03/25/2037	0.08%
GNR 2018-91 SJ IO 04.0779 07/20/2048	0.08%
GNR 2016-75 EI IO 03.5000 08/20/2045	0.08%
GNR 2013-6 AI IO 03.5000 08/20/2039	0.08%

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Security Description	Percent of Portfolio
FNR 2010-109 IM IO 05.5000 09/25/2040	0.08%
WFRBS 2012-C7 D P/P 144A 04.9689 06/15/2045	0.08%
FNR 2017-8 IO IO 06.0000 02/25/2047	0.08%
GNR 2015-89 LI IO 05.0000 12/20/2044	0.07%
JPMCC 2012-C6 E P/P 144A 05.3188 05/15/2045	0.07%
GNR 2017-H06 MI IO 02.3052 02/20/2067	0.07%
COMM 2012-CR4 B P/P 144A 03.7030 10/15/2045	0.07%
FNR 2012-90 DI IO 04.0000 03/25/2042	0.07%
FNR 2016-102 JI IO 03.5000 02/25/2046	0.07%
GNR 2017-H20 DI IO 02.1967 10/20/2067	0.07%
GNR 2015-H29 HI IO 02.0965 09/20/2065	0.07%
GNR 2017-H18 DI IO 02.1709 09/20/2067	0.07%
RBIT 2019-1 M5 P/P 144A 06.0000 07/25/2029	0.07%
CMLTI 2007-WFH3 M1 02.4053 06/25/2037	0.07%
2.3125 R ISWP FWD US0003M P 07/17/2049	0.07%
CAS 2018-C01 1M2 04.3953 07/25/2030	0.07%
FNR 2015-73 PI IO 03.5000 10/25/2045	0.07%
FHS 324 C21 IO 06.0000 06/15/2039	0.07%
CAS 2019-R03 1B1 06.2453 09/25/2031	0.07%
OMIR 2019-1A B1B 06.4953 07/25/2029	0.07%
GNR 2015-40 KI IO 04.0000 07/20/2044	0.07%
FNR 2012-49 QI IO 04.5000 12/25/2040	0.07%
SWPTN 6MX5Y R 1.731 USD 12/30/2019 BC	0.07%
IOS.FN30.350.12 R USL1M P 01/12/43 CS	0.07%
GNR 2017-H09 DI IO 01.8966 03/20/2067	0.06%
FHR 4127 PI IO 04.5000 07/15/2042	0.06%
GNR 2018-77 IO IO 05.0000 06/20/2048	0.06%
GNR 2017-68 IL IO 04.0000 08/20/2044	0.06%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 CG	0.06%
CAS 2015-C03 2M2 07.1453 07/25/2025	0.06%
FNR 2018-15 PI IO 04.0000 10/25/2047	0.06%
FHR 4707 AI IO 04.0000 07/15/2047	0.06%
CWALT 2005-51 3A3A 02.8121 11/20/2035	0.06%
GNMA GII30 BO3369 05.0000 06/20/2049	0.06%
FNR 2013-90 SD IO 04.4548 09/25/2043	0.06%
GNR 2017-45 IM IO 04.0000 10/20/2044	0.06%
GNMA 10000 BO5417 05.0000 06/20/2049	0.06%
WAMU 2004-AR12 A2B 03.0653 10/25/2044	0.06%
GNMA GII30 BO4634 05.0000 06/20/2049	0.06%
GNR 2017-H03 AI IO 02.2145 12/20/2066	0.06%
FHR 3981 WS IO 04.3549 05/15/2041	0.06%

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Security Description	Percent of Portfolio
GNR 2014-58 SA IO 03.9279 04/20/2044	0.06%
OMIR 2019-1A B1A 05.6453 07/25/2029	0.06%
2.569 R ISWP FWD US0003M P 06/12/2049	0.05%
GNR 2017-130 IB IO 04.0000 08/20/2047	0.05%
GNR 2017-H20 HI IO 02.1195 10/20/2067	0.05%
GNMA GII30 BP2045 05.0000 07/20/2049	0.05%
FHR 4801 IG IO 03.0000 06/15/2048	0.05%
GNR 2017-123 IO IO 05.0000 08/16/2047	0.05%
GNR 2016-H06 AI IO 02.0585 02/20/2066	0.05%
GNR 2017-H06 BI IO 02.3622 02/20/2067	0.05%
GNR 2017-99 AI IO 04.0000 01/20/2047	0.05%
GNR 2017-H22 EI IO 02.3575 10/20/2067	0.05%
GNR 2017-H08 DI IO 02.6999 02/20/2067	0.05%
FHR 4635 PI IO 04.0000 12/15/2046	0.05%
FHR 4475 CI IO 03.5000 01/15/2044	0.05%
GNR 2012-98 AI IO 04.5000 04/16/2042	0.05%
GNR 2012-H10 AI IO 01.2047 12/20/2061	0.05%
GNR 2017-26 EI IO 05.0000 02/20/2040	0.05%
GNR 2011-135 DI IO 05.0000 04/16/2040	0.05%
CWALT 2006-45T1 2A7 02.4853 02/25/2037	0.05%
GNR 2017-H19 MI IO 02.0429 04/20/2067	0.05%
GNR 2014-H25 BI IO 01.6850 12/20/2064	0.05%
GNR 2017-136 IY IO 05.0000 03/20/2045	0.05%
GNR 2012-103 CI IO 03.5000 08/16/2042	0.05%
FHR 4604 QI IO 03.5000 07/15/2046	0.05%
CWALT 2006-OA10 2A1 02.3353 08/25/2046	0.05%
1.624 R ISWP US0003M P 08/08/2029	0.05%
MSAC 2004-NC1 M2 04.4703 12/27/2033	0.05%
2.036 R ISWP US0003M P 07/17/2029	0.04%
CWALT 2006-OA10 1A1 03.4415 08/25/2046	0.04%
CAS 2016-C03 1B 13.8953 10/25/2028	0.04%
SAMI 2006-AR7 A1A 02.3553 08/25/2036	0.04%
JPALT 2007-A2 12A1 02.3453 06/25/2037	0.04%
BSCMS 2007-T28 D P/P 144A 05.7181 09/11/2042	0.04%
GNR 2010-H20 IF IO 01.4451 10/20/2060	0.04%
GNR 2016-49 IO IO 04.5000 11/16/2045	0.04%
GNMA GII30 BN1509 05.0000 05/20/2049	0.04%
FNR 2015-69 IO IO 06.0000 09/25/2045	0.04%
WAMU 2005-AR13 A1C4 02.5753 10/25/2045	0.04%
FHR 4550 AI IO 03.0000 10/15/2040	0.04%
1.468 R ISWP FWD US0003M P 08/29/2029	0.04%



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Security Description	Percent of Portfolio
GNR 2016-H16 DI IO 02.4588 06/20/2066	0.04%
BMIR 2015-1A B1 08.4453 07/25/2025	0.04%
BSMF 2006-AR2 2A1 02.3753 09/25/2046	0.04%
FHR 4134 PI IO 03.0000 11/15/2042	0.04%
FNS 397 2 IO 05.0000 09/25/2039	0.04%
GNR 2018-127 IB IO 04.5000 06/20/2045	0.03%
GNR 2016-H27 BI IO 02.2880 12/20/2066	0.03%
CFCRE 2011-C2 F P/P 144A 05.2500 12/15/2047	0.03%
GNR 2017-H03 EI IO 02.4277 01/20/2067	0.03%
GNR 2015-111 IJ IO 03.5000 08/20/2045	0.03%
FHR 4033 SC IO 04.3549 10/15/2036	0.03%
GNR 2013-H15 CI IO 01.7671 07/20/2063	0.03%
GNMA 10000 BO6603 05.0000 07/20/2049	0.03%
GNR 2016-138 DI IO 04.0000 10/20/2046	0.03%
GNR 2018-127 ID IO 05.0000 07/20/2045	0.03%
COMM 2012-CR3 E P/P 144A 04.9104 10/15/2045	0.03%
GNMA GII30 BO8266 05.0000 07/20/2049	0.03%
1.8275 R ISWP US0003M P 07/05/2021	0.03%
CAS 2016-C02 1B 14.3953 09/25/2028	0.03%
FHR 3984 DS IO 03.7549 01/15/2042	0.03%
JPMCC 2012-C6 G P/P 144A 02.9720 05/15/2045	0.03%
GNR 2014-44 IA IO 03.5000 05/20/2028	0.03%
GNR 2011-H15 AI IO 01.5140 06/20/2061	0.03%
GNR 2017-11 PI IO 04.0000 12/20/2046	0.03%
FHR 3747 SA IO 04.3049 10/15/2040	0.03%
FNR 2011-101 SA IO 03.7548 10/25/2041	0.03%
CAS 2017-C07 2B1 06.5953 05/25/2030	0.03%
GNR 2016-H20 NI IO 02.1375 09/20/2066	0.03%
GNR 2016-42 IO IO 05.0000 02/20/2046	0.03%
GNR 2014-161 HI IO 04.5000 06/20/2044	0.03%
FNMA FN30 BO0212 UMBS 04.5000 05/01/2049	0.03%
GNR 2017-17 EI IO 04.0000 09/20/2044	0.03%
GNR 2017-H16 JI IO 02.3453 08/20/2067	0.03%
CAS 2018-C05 1M2 04.4953 01/25/2031	0.03%
FNS 404 2 IO 04.5000 05/25/2040	0.03%
GNR 2017-6 DI IO 03.5000 01/20/2044	0.03%
FHR 4413 HI IO 03.5000 03/15/2040	0.03%
GNR 2017-120 IJ IO 04.0000 04/20/2047	0.03%
GNR 2017-141 ID IO 03.5000 07/20/2047	0.03%
FHR 4386 IL IO 04.0000 12/15/2043	0.03%
FNR 2017-78 KI IO 03.5000 10/25/2047	0.03%

## Security Detail

Security Description	Percent of Portfolio
GNR 2016-29 IO IO 04.0000 02/16/2046	0.03%
GNR 2019-78 SJ IO 03.8779 06/20/2049	0.02%
JPMBB 2014-C25 E P/P 144A 03.3320 11/15/2047	0.02%
STACR 2018-HQA2 M2 04.4453 10/25/2048	0.02%
GNR 2016-17 IA IO 04.5000 03/20/2045	0.02%
FHR 4568 MI IO 04.0000 04/15/2046	0.02%
GNR 2017-H06 DI IO 01.7732 02/20/2067	0.02%
MSC 2006-HQ10 B 05.4480 11/12/2041	0.02%
IOS.FN30.400.10 R USL1M P 01/12/41 CS	0.02%
FHR 4425 IO IO 04.0000 01/15/2045	0.02%
GNR 2017-H08 NI IO 02.2333 03/20/2067	0.02%
FNR 2017-7 JI IO 04.0000 02/25/2047	0.02%
FHR 4076 MS IO 04.5049 07/15/2040	0.02%
2.241 R ISWP FWD US0003M P 07/17/2049	0.02%
AHM 2007-1 GA1C 02.3353 05/25/2047	0.02%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 ML	0.02%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 ML	0.02%
CAS 2016-C05 2B 12.8953 01/25/2029	0.02%
FHR 4267 CS IO 03.8549 05/15/2039	0.02%
2.252 R ISWP FWD US0003M P 07/17/2049	0.02%
GSMS 2012-GC6 D P/P 144A 05.8397 01/10/2045	0.02%
GNMA GII30 BN1507 05.0000 05/20/2049	0.02%
GNR 2013-3 IT IO 05.0000 01/20/2043	0.02%
FNR 2012-103 SD IO 03.9048 09/25/2042	0.02%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 CG	0.02%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 MS	0.02%
GNR 2016-77 SL IO 03.9779 03/20/2043	0.02%
GNMA GII30 BN1508 05.0000 05/20/2049	0.02%
FNMA FN30 BN9825 UMBS 05.0000 05/01/2049	0.02%
GNR 2019-H14 IB IO 02.4926 08/20/2069	0.02%
GNR 2011-H16 FI IO 01.0412 07/20/2061	0.02%
FHR 4193 PI IO 04.0000 03/15/2043	0.02%
GNMA GII30 BN1510 05.5000 05/20/2049	0.02%
GNR 2013-23 IK IO 03.0000 09/20/2037	0.02%
GNR 2016-47 CI IO 04.0000 09/20/2045	0.02%
GNR 2015-69 IK IO 03.5000 03/20/2038	0.02%
GNR 2019-99 KS IO 03.8090 08/20/2049	0.02%
GNR 2015-96 NI IO 03.5000 01/20/2039	0.02%
GNR 2017-H09 IO IO 01.8607 04/20/2067	0.02%
FHR 4024 PI IO 04.5000 12/15/2041	0.02%
FHR 4425 WI IO 04.0000 03/15/2043	0.02%

## Security Detail

Security Description	Percent of Portfolio
FNMA FN30 BO0182 UMBS 05.0000 05/01/2049	0.02%
FNR 2016-97 KI IO 03.0000 06/25/2040	0.02%
2.231 R ISWP FWD US0003M P 07/17/2049	0.02%
FNR 2017-2 KI IO 04.0000 02/25/2047	0.02%
CWHL 2006-OA5 2A1 02.3453 04/25/2046	0.02%
2.229 R ISWP FWD US0003M P 07/17/2049	0.02%
GNR 2013-34 HI IO 04.5000 03/20/2043	0.02%
GNMA GII30 BN1511 05.5000 05/20/2049	0.02%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 ML	0.02%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 JP	0.02%
FHR 4694 GI IO 04.0000 02/15/2043	0.02%
SAMI 2007-AR1 2A1 02.3253 01/25/2037	0.02%
CSMC 2008-C1 AJ P/P 144A 05.9967 02/15/2041	0.02%
1.6245 R ISWP US0003M P 08/22/2049	0.02%
GNR 2017-63 PI IO 04.0000 12/20/2043	0.01%
GNR 2017-H14 DI IO 01.7001 06/20/2067	0.01%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 JP	0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 MS	0.01%
GNR 2017-H11 DI IO 01.9269 05/20/2067	0.01%
GNR 2012-H29 AI IO 01.4534 10/20/2062	0.01%
GNR 2012-H29 FI IO 01.4534 10/20/2062	0.01%
FHR 3852 SC IO 04.4549 04/15/2040	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
FHR 4403 CI IO 04.0000 10/15/2044	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
GNR 2014-98 AI IO 04.5000 10/20/2041	0.01%
GSAA 2006-8 2A2 02.3253 05/25/2036	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
INDX 2006-AR11 2A1 04.0918 06/25/2036	0.01%
MSC 2008-T29 F P/P 144A 06.2883 01/11/2043	0.01%
FNR 2012-36 SN IO 04.3048 04/25/2042	0.01%
CAS 2016-C01 1B 13.8953 08/25/2028	0.01%
GNR 2016-H24 IO IO 02.1130 09/20/2066	0.01%
FHR 4099 BI IO 03.5000 06/15/2039	0.01%
FNR 2010-140 GS IO 03.8548 07/25/2039	0.01%
FNR 2016-24 CI IO 04.0000 02/25/2046	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
GNR 2010-167 SG IO 04.3026 08/16/2038	0.01%
CWALT 2005-59 1A1 02.5021 11/20/2035	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%

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Security Description	Percent of Portfolio
GNR 2017-38 DI IO 05.0000 03/16/2047	0.01%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 CS	0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 MS	0.01%
FHR 3904 NI IO 03.5000 08/15/2026	0.01%
FHR 4560 PI IO 03.5000 05/15/2045	0.01%
FHR 4386 LI IO 04.0000 02/15/2043	0.01%
FHR 3714 KI IO 04.5000 11/15/2039	0.01%
CWALT 2006-OA7 1A2 03.4215 06/25/2046	0.01%
GNR 2017-H03 HI IO 01.5599 01/20/2067	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.01%
FHR 4656 AI IO 03.0000 09/15/2037	0.01%
FNR 2010-35 SG IO 04.2548 04/25/2040	0.01%
GNR 2015-106 CI IO 04.0000 05/20/2045	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
GNR 2015-H13 AI IO 01.9830 06/20/2065	0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 GS	0.01%
GNR 2016-H23 NI IO 02.2956 10/20/2066	0.01%
GNR 2015-52 IK IO 03.5000 04/20/2045	0.01%
GNR 2015-53 MI IO 04.0000 04/16/2045	0.01%
FHR 4299 JI IO 04.0000 07/15/2043	0.01%
GNR 2012-47 CI IO 04.0000 03/20/2042	0.01%
GNR 2016-37 IW IO 04.5000 02/20/2046	0.01%
FHR 4601 PI IO 04.5000 12/15/2045	0.01%
GNR 2016-H25 GI IO 01.4989 11/20/2066	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 JP	0.01%
GNR 2012-129 IO IO 04.5000 11/16/2042	0.01%
FNR 2016-70 QI IO 03.5000 10/25/2046	0.01%
GNR 2016-H12 AI IO 01.6490 07/20/2065	0.01%
GNR 2015-162 BI IO 04.0000 11/20/2040	0.01%
UBSBB 2012-C2 F P/P 144A 05.0000 05/10/2063	0.01%
FNR 2013-57 IQ IO 03.0000 06/25/2041	0.01%
FNR 2017-15 LI IO 04.0000 06/25/2046	0.01%
GNR 2016-149 MI IO 05.5000 05/20/2039	0.01%
GNR 2015-144 IA IO 04.0000 01/16/2043	0.01%
GNR 2015-H03 DI IO 02.0545 01/20/2065	0.01%
GNR 2012-H06 AI IO 01.3356 01/20/2062	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 JP	0.01%
FNR 2011-4 CS 08.6095 05/25/2040	0.01%
GNR 2015-87 AI IO 03.5000 12/20/2038	0.01%
MHL 2005-3 M4 03.0903 08/25/2035	0.01%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 CG	0.01%

## Security Detail

Security Description	Percent of Portfolio
FNR 2016-3 NI IO 06.0000 02/25/2046	0.01%
GNR 2012-H23 WI IO 01.5684 10/20/2062	0.01%
FHR 4530 TI IO 04.0000 11/15/2045	0.01%
GNR 2014-139 NI IO 03.5000 08/20/2028	0.01%
UBSBB 2012-C2 E P/P 144A 05.0478 05/10/2063	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.01%
GNR 2015-167 BI IO 04.5000 04/16/2045	0.01%
FHR 4182 PI IO 03.0000 12/15/2041	0.01%
FHR 4663 KI IO 03.5000 11/15/2042	0.01%
GNR 2016-H14 AI IO 02.1109 06/20/2066	0.01%
FHR 3829 AS IO 04.7549 03/15/2041	0.01%
GNR 2016-H02 HI IO 01.9504 01/20/2066	0.01%
FNR 2013-27 PI IO 03.0000 12/25/2041	0.01%
GNR 2010-9 UI IO 05.0000 01/20/2040	0.01%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 MS	0.01%
GNR 2015-79 GI IO 05.0000 10/20/2039	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 CS	0.01%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 CS	0.01%
GNR 2015-H26 EI IO 01.7281 10/20/2065	0.01%
GNR 2015-H25 AI IO 01.6098 09/20/2065	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
GNR 2016-83 PI IO 03.5000 06/20/2045	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
FNR 2011-98 AI IO 03.5000 11/25/2037	0.01%
IOS.FN30.400.14 R USL1M P 01/12/45 GS	0.01%
OPTN FN30 3.5 09/05/19 CALL 102.84375 JPMC	0.01%
GNR 2015-134 LI IO 03.5000 05/20/2039	0.01%
GNR 2015-186 AI IO 04.0000 12/20/2045	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 ML	0.01%
GNR 2015-H15 JI IO 01.9710 06/20/2065	0.01%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 ML	0.01%
GNR 2010-H22 CI IO 02.3638 10/20/2060	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.01%
GNR 2016-69 IO IO 04.0000 05/20/2046	0.01%
GNR 2015-H10 HI IO 02.1245 04/20/2065	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.01%
GNR 2012-91 IN IO 04.5000 05/20/2042	0.01%
GNR 2013-H24 AI IO 01.4784 09/20/2063	0.01%
IOS.FN30.400.14 R USL1M P 01/12/45 CS	0.01%
GNR 2014-H21 AI IO 01.7053 10/20/2064	0.01%

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Security Description	Percent of Portfolio
GNR 2010-134 ES IO 03.8279 11/20/2039	0.01%
GNR 2015-H20 CI IO 01.9907 08/20/2065	0.01%
FHR 4591 QI IO 03.5000 04/15/2046	0.01%
IOS.FN30.400.13 R USL1M P 01/12/44 CS	0.01%
GNR 2016-H11 HI IO 02.0982 01/20/2066	0.01%
FHR 4015 GI IO 04.0000 03/15/2027	0.01%
GNR 2015-80 IA IO 04.5000 06/20/2045	0.01%
GNR 2016-75 LI IO 06.0000 01/20/2040	0.01%
GNR 2011-156 SK IO 04.4279 04/20/2038	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 ML	0.01%
GNR 2015-H14 BI IO 01.5700 05/20/2065	0.01%
GNR 2016-H06 HI IO 02.0789 02/20/2066	0.01%
GNR 2015-H23 DI IO 01.8585 09/20/2065	0.01%
FHR 4510 HI IO 03.0000 03/15/2040	0.01%
GNR 2010-H19 BI IO 01.4568 08/20/2060	0.00%
GNR 2015-H25 EI IO 01.8514 10/20/2065	0.00%
GNR 2015-H10 CI IO 01.8097 04/20/2065	0.00%
GNR 2015-H20 AI IO 01.8350 08/20/2065	0.00%
GNR 2015-H24 BI IO 01.6169 08/20/2065	0.00%
OPTN FN30 3.0 10/03/19 PUT 100.4921875 JPMC	0.00%
FNR 2013-40 YI IO 03.5000 06/25/2042	0.00%
FHR 4663 TI IO 03.5000 10/15/2042	0.00%
GNR 2015-H25 BI IO 01.9657 10/20/2065	0.00%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 JP	0.00%
GNR 2016-77 SC IO 03.9279 10/20/2045	0.00%
GNR 2015-H26 DI IO 01.9732 10/20/2065	0.00%
GNR 2011-H07 FI IO 01.2382 02/20/2061	0.00%
FHR 4580 ID IO 03.5000 08/15/2045	0.00%
GNR 2015-H25 CI IO 02.0136 10/20/2065	0.00%
FHR 4452 QI IO 04.0000 11/15/2044	0.00%
GNR 2015-149 KI IO 04.0000 10/20/2045	0.00%
GNR 2014-H08 BI IO 01.4542 04/20/2064	0.00%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 CG	0.00%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 MS	0.00%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 ML	0.00%
GNR 2015-H24 HI IO 02.0359 09/20/2065	0.00%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 MS	0.00%
WFMBS 2005-AR16 6A4 04.9565 10/25/2035	0.00%
GNR 2010-35 DI IO 04.5000 03/20/2040	0.00%
GNR 2015-187 JI IO 04.0000 03/20/2045	0.00%
GNR 2013-H14 XI IO 01.6491 03/20/2063	0.00%

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Security Description	Percent of Portfolio
FHR 4462 PI IO 04.0000 04/15/2045	0.00%
IOS.FN30.400.13 R USL1M P 01/12/44 JP	0.00%
OPTN FN30 3.0 10/03/19 PUT 100.3046875 JPMC	0.00%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.00%
GNR 2014-H13 BI IO 01.5778 05/20/2064	0.00%
FHR 4500 GI IO 04.0000 08/15/2045	0.00%
BACM 2008-1 AJ 06.7858 02/10/2051	0.00%
GNR 2017-H06 EI IO 01.5749 02/20/2067	0.00%
GNR 2015-H22 EI IO 01.6056 08/20/2065	0.00%
GNR 2015-168 IG IO 03.5000 03/20/2043	0.00%
GNR 2014-60 SE IO 03.9279 04/20/2044	0.00%
FNR 2013-35 PI IO 03.0000 02/25/2042	0.00%
GNR 2015-H16 XI IO 01.9992 07/20/2065	0.00%
GNR 2013-182 SY IO 03.9279 12/20/2043	0.00%
CSMC 2007-C4 C P/P 144A 05.9096 09/15/2039	0.00%
GNR 2014-100 LI IO 04.5000 10/16/2043	0.00%
GNR 2015-20 PI IO 03.5000 02/20/2045	0.00%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.00%
FHR 4074 KS IO 04.5049 02/15/2041	0.00%
GNR 2013-14 IO IO 03.5000 12/20/2042	0.00%
GNR 2015-H23 BI IO 01.7343 09/20/2065	0.00%
GNR 2014-133 IP IO 05.0000 09/16/2044	0.00%
GNR 2016-H08 GI IO 01.4236 04/20/2066	0.00%
GNR 2016-H04 KI IO 01.8469 02/20/2066	0.00%
GNR 2015-H18 IA IO 01.8210 06/20/2065	0.00%
GNR 2011-H08 GI IO 01.2678 03/20/2061	0.00%
GNR 2016-104 GI IO 04.5000 01/20/2046	0.00%
GNR 2018-127 IE IO 03.5000 01/20/2046	0.00%
OPTN FN30 3.0 10/03/19 PUT 100.1171875 JPMC	0.00%
FNR 2011-59 BI IO 06.0000 08/25/2040	0.00%
GNR 2015-H26 GI IO 01.7987 10/20/2065	0.00%
GNR 2010-35 QI IO 04.5000 03/20/2040	0.00%
GNR 2011-22 PS IO 03.8279 07/20/2040	0.00%
FHR 4000 LI IO 04.0000 02/15/2042	0.00%
GNR 2014-H09 AI IO 01.4297 01/20/2064	0.00%
FHR 4389 IA IO 04.0000 09/15/2044	0.00%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 JP	0.00%
GNR 2016-156 PI IO 03.5000 11/20/2046	0.00%
GNR 2015-89 IP IO 04.0000 02/20/2045	0.00%
GNR 2018-127 IA IO 03.5000 04/20/2042	0.00%
GNR 2013-100 MI IO 03.5000 02/20/2043	0.00%

## Security Detail

Security Description	Percent of Portfolio
GNR 2010-9 QI IO 04.5000 01/20/2040	0.00%
FNR 2013-6 JI IO 03.0000 02/25/2043	0.00%
FHR 4206 IP IO 03.0000 12/15/2041	0.00%
FHR 4501 BI IO 03.5000 10/15/2043	0.00%
GNR 2015-H09 BI IO 01.6959 03/20/2065	0.00%
MSC 2007-HQ11 B 05.5380 02/12/2044	0.00%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.00%
FHR 4666 AI MTGE IO 03.0000 09/15/2035	0.00%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.00%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.00%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.00%
FNR 2013-41 SP IO 04.0548 06/25/2040	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 CG	0.00%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 JP	0.00%
GNR 2009-121 UI IO 05.0000 12/20/2039	0.00%
GNR 2010-35 UI IO 05.0000 03/20/2040	0.00%
FNR 2014-95 TI IO 04.0000 05/25/2039	0.00%
FNR 2012-90 EI IO 03.5000 02/25/2039	0.00%
FHR 4355 DI IO 04.0000 03/15/2044	0.00%
GNR 2015-H26 CI IO 00.4493 08/20/2065	0.00%
FNR 2012-86 CS IO 03.9548 04/25/2039	0.00%
GNR 2010-50 QS IO 04.3779 12/20/2038	0.00%
1.3265 R ISWP US0003M P 09/03/2024	0.00%
GNR 2015-82 GI IO 03.5000 12/20/2038	0.00%
OPTN FN30 3.0 09/05/19 PUT 101.6875 JPMC	0.00%
FHR 4073 AS IO 03.8549 08/15/2038	0.00%
GNR 2014-115 EI IO 04.0000 06/20/2038	0.00%
GNR 2016-167 SB IO 03.8279 04/20/2038	0.00%
CMB CMBX.NA.A.7 2047-01-17 200.0 01/17/2047 CS	0.00%
CMB CMBX.NA.A.7 2047-01-17 200.0 01/17/2047 CG	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 GS	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 BC	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 CS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%



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CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 GS	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
OPTN FN30 3.0 10/03/19 PUT 99.0546875 JPMC	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
OPTN FN30 3.0 10/03/19 PUT 99.2421875 JPMC	0.00%
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 CG	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
OPTN FN30 3.0 10/03/19 PUT 99.4296875 JPMC	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
OPTN FN30 3.0 10/03/19 PUT 99.5859375 JPMC	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
OPTN FN30 3.0 10/03/19 PUT 99.7734375 JPMC	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
IOS.FN30.300.13 P USL1M R 01/12/44 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
OPTN FN30 3.0 10/03/19 PUT 99.9609375 JPMC	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%

## Security Detail

Security Description	Percent of Portfolio
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 ML	0.00%
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 JP	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
OPTN FN30 3.0 09/05/19 CALL 101.6875 JPMC	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	0.00%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 ML	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 ML	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 ML	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 CG	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
1.555 R ISWP US0003M P 08/19/2021	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 ML	-0.01%
IOS.FN30.400.13 P USL1M R 01/12/44 JP	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 CS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
IOS.FN30.400.10 P USL1M R 01/12/41 BC	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 ML	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
OPTN FN30 3.5 09/05/19 PUT 102.84375 JPMC	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%

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Security Description	Percent of Portfolio
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 CG	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 ML	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 ML	-0.01%
IOS.FN30.400.10 P USL1M R 01/12/41 BC	-0.01%
1.621 R ISWP US0003M P 08/07/2021	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
1.52857 R ISWP US0003M P 08/27/2029	-0.01%
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 JP	-0.01%
1.531 R ISWP US0003M P 08/27/2029	-0.01%
1.431 R ISWP US0003M P 08/28/2024	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-0.01%
2.299 R ISWP FWD US0003M P 06/12/2049	-0.02%
1.4745 R ISWP US0003M P 08/07/2024	-0.02%
2.263 R ISWP FWD US0003M P 07/17/2049	-0.02%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.02%
1.475 R ISWP US0003M P 08/12/2024	-0.02%
2.278 R ISWP US0003M P 07/17/2049	-0.02%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 CG	-0.02%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.02%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-0.02%
2.199 R ISWP FWD US0003M P 07/17/2049	-0.02%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.02%
2.184 R ISWP FWD US0003M P 07/17/2049	-0.02%
2.18875 R ISWP FWD US0003M P 07/17/2049	-0.03%
1.975 R ISWP FWD US0003M P 08/29/2029	-0.03%
2.194 R ISWP FWD US0003M P 07/17/2049	-0.03%
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 MS	-0.03%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.03%
1.959 R ISWP FWD US0003M P 07/26/2029	-0.03%
1.414 R ISWP US0003M P 08/23/2024	-0.03%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 JP	-0.03%
IOS.FN30.350.12 P USL1M R 01/12/43 BC	-0.03%
IOS.FN30.350.12 P USL1M R 01/12/43 GS	-0.03%
SWPTN 6MX5Y P 1.731 USD 12/30/2019 BC	-0.04%
2.565 R ISWP FWD US0003M P 06/12/2049	-0.04%
1.5885 R ISWP US0003M P 08/13/2029	-0.04%
1.82 R ISWP US0003M P 07/12/2024	-0.04%
1.9775 R ISWP US0003M P 07/26/2029	-0.04%

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Security Description	Percent of Portfolio
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 JP	-0.04%
1.6485 R ISWP US0003M P 08/05/2024	-0.05%
2.488 R ISWP FWD US0003M P 06/12/2049	-0.05%
1.8725 R ISWP US0003M P 07/18/2024	-0.05%
1.6533 R ISWP US0003M P 08/08/2029	-0.05%
1.781 R ISWP US0003M P 07/24/2024	-0.05%
1.8355 R ISWP US0003M P 07/17/2024	-0.05%
1.8675 R ISWP US0003M P 07/15/2024	-0.05%
2.5365 R ISWP FWD US0003M P 06/12/2049	-0.05%
1.8585 R ISWP US0003M P 07/16/2024	-0.06%
2.5335 R ISWP FWD US0003M P 06/12/2049	-0.06%
1.7855 R ISWP US0003M P 08/02/2024	-0.06%
2.537 R ISWP FWD US0003M P 06/12/2049	-0.06%
2.6059 R ISWP FWD US0003M P 06/12/2049	-0.07%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-0.07%
1.7915 R ISWP US0003M P 07/25/2024	-0.08%
1.9448 R ISWP US0003M P 06/26/2029	-0.08%
1.9451 R ISWP US0003M P 06/26/2029	-0.08%
OPTN FN30 3.0 10/03/19 PUT 101.71875 JPMC	-0.08%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CS	-0.08%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.09%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 ML	-0.12%
2.065 R ISWP FWD US0003M P 07/17/2029	-0.12%
1.9002 R ISWP US0003M P 07/16/2021	-0.14%
SWPTN 5WX10Y R 1.462 USD 09/16/2019 GS	-0.14%
1.975 R ISWP US0003M P 07/26/2029	-0.18%
2.38 R ISWP US0003M P 07/02/2049	-0.20%
1.70 R ISWP FWD US0003M P 09/18/2021	-0.24%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.31%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.31%
2.245 R ISWP FWD US0003M P 06/26/2029	-0.59%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.66%
FNMA FN30 TBA UMBS 03.5000 09/01/2049	-1.07%
FNMA FN30 TBA UMBS 04.5000 09/01/2049	-1.09%
1.80 R ISWP FWD US0003M P 09/18/2024	-1.21%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-2.12%

