

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description					Percent of Portfolio
FNMA FN30 TBA	UMBS	03.0000	08/01/2049		29.97%
REPO TRIPA MORTG 2.53 08/01/2019					16.20%
FNMA FN30 TBA	UMBS	04.0000	08/01/2049		5.36%
GNMA GII30 TBA		04.5000	08/01/2049		1.44%
TREASURY BILL		00.0000	08/20/2019		1.28%
TREASURY BILL		00.0000	12/12/2019		1.19%
TREASURY BILL		00.0000	08/01/2019		1.08%
TREASURY BILL		00.0000	08/13/2019		0.86%
GNR 2019-83 SL	IO	03.7750	07/20/2049		0.82%
FNR 2019-41 SB	IO	03.6480	08/25/2049		0.78%
CAS 2018-C05 1B1		06.5160	01/25/2031		0.74%
GNR 2019-6 SM	IO	03.7785	01/20/2049		0.74%
CAS 2017-C07 2M2		04.7660	05/25/2030		0.72%
GNMA GII30 TBA		04.0000	08/01/2049		0.72%
STACR 2016-HQA4 M3		06.1660	04/25/2029		0.71%
FNR 2019-28 S	IO	03.7840	06/25/2049		0.70%
STRU NSI-2513 SA	IO	03.7840	06/25/2049		0.69%
CAS 2015-C04 1M2		07.9660	04/25/2028		0.61%
STACR 2019-DNA2 M2		04.7160	03/25/2049		0.60%
FNR 2019-45 SD	IO	03.7785	08/25/2049		0.58%
GNR 2019-89 JS	IO	03.7785	04/20/2049		0.56%
CCMFC 2006-4A A2		02.4460	11/25/2047		0.56%
STACR 2018-HQA2 B1		06.5160	10/25/2048		0.55%
FHR 4290 LS	IO	03.7750	07/15/2035		0.55%
STACR 2016-HQA1 M3		08.6160	09/25/2028		0.54%
GNR 2019-H03 AI	IO	02.2561	11/20/2068		0.54%
GNR 2019-78 SM	IO	03.8285	06/20/2049		0.53%
STACR 2018-DNA2 B1		05.9660	12/25/2030		0.52%
FNR 2011-126 SJ	IO	03.7340	12/25/2041		0.50%
SPST 2019-7 A		00.0000	09/24/2020		0.47%
FNR 2019-21 SB	IO	03.7840	05/25/2049		0.46%
CAS 2019-R04 2B1		07.5160	06/25/2039		0.45%
FNR 2019-5 SA	IO	03.8340	03/25/2049		0.45%
STACR 2018-DNA1 M2		04.0660	07/25/2030		0.44%
CAS 2017-C06 1M2		04.9160	02/25/2030		0.44%
GNR 2015-182 IC	IO	04.5000	12/20/2045		0.44%
CAS 2017-C02 2B1		07.7660	09/25/2029		0.44%
FNR 2019-18 SL	IO	03.8340	05/25/2049		0.43%
CAS 2019-R04 2M2		04.3660	06/25/2039		0.43%
CAS 2016-C03 2B		15.0160	10/25/2028		0.40%
COMM 2014-CR19 D	P/P 144A	04.7178	08/10/2047		0.39%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description			Percent of Portfolio
GNR 2018-H01 AI IO	02.2246	01/20/2068	0.39%
CAS 2017-C03 1B1	07.1160	10/25/2029	0.39%
FNR 2019-18 SH IO	03.8840	05/25/2049	0.38%
CAS 2017-C04 2B1	07.3160	11/25/2029	0.38%
MSBAM 2013-C10 F	P/P 144A 04.0821	07/15/2046	0.37%
FASST 2019-HB1 M5	P/P 144A 06.0000	04/25/2029	0.37%
FNMA FN30 TBA UMBS	05.0000	08/01/2049	0.37%
FNR 2016-91 AS IO	03.8340	12/25/2046	0.36%
CAS 2019-R02 1B1	06.4160	08/25/2031	0.36%
GNR 2014-188 IB IO	04.0000	12/20/2044	0.36%
BSCMS 2007-T26 AJ	05.4636	01/12/2045	0.36%
GNR 2014-3 SM IO	03.8285	01/20/2044	0.36%
STACR 2019-DNA1 M2	05.0544	01/25/2049	0.35%
RMIR 2018-1 M2	04.2100	03/25/2028	0.33%
CAS 2016-C03 2M2	08.1660	10/25/2028	0.32%
SPST 2018-8 A	03.1296	02/24/2020	0.32%
GNR 2017-H05 CI IO	02.6339	02/20/2067	0.31%
SPST 2019-3 A	03.0834	06/24/2020	0.31%
JPMCC 2007-CB20 E	P/P 144A 06.1834	02/12/2051	0.31%
STACR 2018-HQA1 M2	04.5660	09/25/2030	0.31%
GNR 2014-27 S IO	03.8285	02/20/2044	0.31%
CAS 2017-C06 2M2	05.0660	02/25/2030	0.31%
GSMS 2014-GC24 D	P/P 144A 04.5334	09/10/2047	0.31%
STACR 2017-DNA1 B1	07.2160	07/25/2029	0.30%
JPMCC 2006-LDP9 AMS	05.3370	05/15/2047	0.30%
FNR 2017-16 QS IO	03.8140	03/25/2047	0.30%
COMM 2014-CR17 E	P/P 144A 04.8502	05/10/2047	0.29%
STACR 2018-DNA2 M2	04.4160	12/25/2030	0.29%
FNR 2017-8 SB IO	03.8340	02/25/2047	0.29%
FNR 2016-85 SL IO	03.8340	11/25/2046	0.29%
WFRBS 2011-C2 F	P/P 144A 05.0000	02/15/2044	0.28%
GNR 2013-9 S IO	04.4785	01/20/2043	0.28%
GNR 2017-H21 AI IO	02.2315	10/20/2067	0.28%
CAS 2017-C05 1B1	05.8660	01/25/2030	0.28%
CAS 2018 - C01 1B1	05.8160	07/25/2030	0.27%
SPST 2019-WL1 A	08/25/2052		0.27%
SPST 2018-5 A	03.1296	09/24/2019	0.27%
2.145 R ISWP US0003M P	06/26/2029		0.27%
JPMBB 2014-C18 D	P/P 144A 04.8124	02/15/2047	0.26%
TREASURY BILL	00.0000	12/05/2019	0.26%
CAS 2015-C04 2M2	07.8160	04/25/2028	0.25%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
FNR 2019-17 JS IO 03.8340 04/25/2049	0.25%
2.05 R ISWP FWD US0003M P 09/18/2029	0.25%
WFRBS 2013-C15 D P/P 144A 04.4724 08/15/2046	0.24%
MWST 2019-1 A 03.0660 06/25/2052	0.24%
BALTA 2005-8 21A1 04.4400 10/25/2035	0.24%
FNR 2016-78 CS IO 03.8340 05/25/2039	0.24%
GNR 2017-H20 GI IO 02.2197 09/20/2067	0.24%
GNR 2018-H02 HI IO 02.3929 01/20/2068	0.24%
MSC 2011-C3 G P/P 144A 05.1107 07/15/2049	0.24%
GNR 2017-H04 BI IO 02.5437 02/20/2067	0.24%
GNR 2018-H07 IE IO 02.4238 02/20/2068	0.23%
OMIR 2018-1A M2 05.3563 07/25/2028	0.23%
OMIR 2017-1A B1 P/P 144A 08.0160 04/25/2027	0.23%
GNR 2009-121 DI IO 04.5000 12/16/2039	0.22%
JPMCC 2011-C3 D P/P 144A 05.6637 02/15/2046	0.22%
WFCM 2014-LC16 D P/P 144A 03.9380 08/15/2050	0.20%
NHLT 2018-2A M5 P/P 144A 06.0000 07/25/2028	0.20%
1.70 R ISWP FWD US0003M P 09/18/2021	0.20%
BALTA 2006-6 1A1 02.5860 11/25/2036	0.20%
GNR 2019-35 SE IO 03.8180 01/16/2044	0.20%
STACR 2015-DNA2 B 09.8160 12/25/2027	0.20%
WFRBS 2012-C10 D P/P 144A 04.4376 12/15/2045	0.20%
WFRBS 2012-C7 E P/P 144A 04.8147 06/15/2045	0.20%
GNR 2016-84 IB IO 04.5000 11/16/2045	0.20%
WFRBS 2012-C9 E P/P 144A 04.8110 11/15/2045	0.19%
FHR 3346 SC IO 04.2250 10/15/2033	0.19%
GNR 2017-H10 MI IO 01.8620 04/20/2067	0.19%
JPMCC 2013-LC11 E P/P 144A 03.2500 04/15/2046	0.19%
FNR 2018-36 SD IO 03.9840 06/25/2048	0.18%
GNR 2016-H22 AI IO 02.3374 10/20/2066	0.18%
STACR 2018-DNA3 B1 06.1660 09/25/2048	0.18%
FNR 2016-88 BS IO 03.8340 12/25/2046	0.18%
STACR 2017-HQA1 M2 05.8160 08/25/2029	0.18%
GNR 2017-H11 NI IO 02.2989 05/20/2067	0.18%
FNR 2014-35 CS IO 03.8840 06/25/2044	0.17%
STACR 2018-DNA1 B1 05.4160 07/25/2030	0.17%
GNR 2019-H09 EI IO 02.2817 04/20/2069	0.17%
MSBAM 2013-C11 D P/P 144A 04.3540 08/15/2046	0.17%
GNR 2017-H16 IB IO 01.8636 08/20/2067	0.17%
CMLTI 2007-AR5 1A1A 04.7384 04/25/2037	0.17%
UBSBB 2012-C4 D P/P 144A 04.4812 12/10/2045	0.17%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description		Percent of Portfolio
CAS 2016-C07 2M2	06.6160 05/25/2029	0.17%
GNR 2017-H22 DI IO	02.1347 11/20/2067	0.16%
COMM 2014-CR17 D	P/P 144A 04.8502 05/10/2047	0.16%
GNR 2018-H01 IB IO	01.6341 01/20/2068	0.16%
STACR 2016-DNA3 M3	07.2660 12/25/2028	0.16%
GNR 2018-H11 JI IO	02.4668 07/20/2068	0.16%
GNR 2017-H20 AI IO	02.1560 10/20/2067	0.16%
GNR 2014-H08 CI IO	01.5079 03/20/2064	0.16%
FNR 2010-99 NI IO	06.0000 09/25/2040	0.15%
WFCM 2013-LC12 D	P/P 144A 04.2852 07/15/2046	0.15%
GNR 2010-125 SD IO	04.3480 01/16/2040	0.15%
FNR 2014-87 MS IO	03.9840 01/25/2045	0.15%
GSR 2007-OA1 2A3A	02.5760 05/25/2037	0.15%
GNR 2013-167 SG IO	03.8785 11/20/2043	0.15%
MSBAM 2013-C10 E	P/P 144A 04.0821 07/15/2046	0.15%
CAS 2019-R05 1M2	04.2660 07/25/2039	0.15%
CAS 2016-C03 1M2	07.5660 10/25/2028	0.15%
GNR 2016-150 I IO	05.0000 11/20/2046	0.15%
GNR 2014-H23 BI IO	01.5810 11/20/2064	0.14%
GNR 2018-H11 AI IO	02.4166 02/20/2068	0.14%
TREASURY BILL	00.0000 08/15/2019	0.14%
WFMBS 2006-AR5 1A1	05.1962 04/25/2036	0.14%
STACR 2015-DNA3 B	11.6160 04/25/2028	0.14%
WFMBS 2006-AR2 1A1	04.9640 03/25/2036	0.14%
CMB CMBX.NA.BB.7	2047-01-17 500.0 01/17/2047 JP	0.14%
GNR 2016-H24 CI IO	01.7085 10/20/2066	0.14%
GNR 2016-H21 AI IO	02.2309 09/20/2066	0.14%
MSRR 2010-R4 4B	03.1876 02/26/2037	0.14%
JPMCC 2013-LC11 D	04.1680 04/15/2046	0.14%
GNR 2017-H03 DI IO	02.1929 12/20/2066	0.14%
GNR 2016-H27 EI IO	02.1988 12/20/2066	0.14%
WAMU 2005-AR10 1A3	04.1091 09/25/2035	0.13%
UBSCM 2012-C1 E	P/P 144A 05.0000 05/10/2045	0.13%
GNR 2015-35 AI IO	05.0000 03/16/2045	0.13%
2.647 R ISWP US0003M P	06/12/2049	0.13%
CAS 2017-C01 1M2	05.8160 07/25/2029	0.13%
GNR 2018-H02 IM IO	02.3417 02/20/2068	0.13%
GNR 2016-H22 IO IO	01.8820 10/20/2066	0.13%
GNR 2017-H02 BI IO	02.3511 01/20/2067	0.13%
GNR 2014-132 IO IO	05.0000 09/20/2044	0.13%
BALTA 2005-7 21A1	04.4813 09/25/2035	0.13%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
MSBAM 2014-C17 D P/P 144A 04.7439 08/15/2047	0.13%
GNR 2013-67 IP IO 04.0000 04/16/2043	0.13%
STACR 2016-HQA3 M3 06.1160 03/25/2029	0.13%
SAMI 2006-AR7 A1BG 02.3860 08/25/2036	0.13%
GNR 2017-H16 CI IO 01.6801 07/20/2067	0.12%
FHR 4560 IO IO 05.7886 05/15/2039	0.12%
CWALT 2006-OA19 A1 02.4515 02/20/2047	0.12%
GNR 2015-H01 BI IO 01.5805 01/20/2065	0.12%
FNR 2016-83 BS IO 03.8340 11/25/2046	0.12%
GNR 2017-132 IA IO 04.5000 09/08/2047	0.12%
CWALT 2006-OA10 4A1 02.4560 08/25/2046	0.12%
GNR 2013-182 SP IO 04.4285 12/20/2043	0.12%
GNR 2017-H16 HI IO 01.4953 08/20/2067	0.12%
CWALT 2006-OA10 3A1 02.4560 08/25/2046	0.12%
CAS 2016-C06 1M2 06.5160 04/25/2029	0.12%
MLCFC 2006-4 C 05.3240 12/12/2049	0.12%
CAS 2016-C05 2M2 06.7160 01/25/2029	0.12%
GNR 2017-H03 CI IO 02.1864 12/20/2066	0.12%
GNR 2015-165 IC IO 03.5000 07/16/2041	0.11%
MSC 2012-C4 D P/P 144A 05.4196 03/15/2045	0.11%
STACR 2015-HQA2 B 12.7660 05/25/2028	0.11%
MSC 2012-C4 E P/P 144A 05.4196 03/15/2045	0.11%
GNR 2015-H04 AI IO 01.8747 12/20/2064	0.11%
GNR 2017-H08 EI IO 02.4243 02/20/2067	0.11%
GNR 2016-H26 KI IO 01.7763 11/20/2066	0.11%
GNR 2017-H14 JI IO 02.1866 06/20/2067	0.11%
CAS 2018-C04 2M2 04.8160 12/25/2030	0.11%
VOLT 2018-NPL5 A1B P/P 144A 04.7037 08/25/2048	0.11%
GNR 2018-H08 FI IO 01.5952 06/20/2068	0.11%
FNR 2012-132 PI IO 05.0000 10/25/2042	0.11%
FNR 2017-48 LI IO 04.0000 05/25/2047	0.11%
GNR 2014-95 JI IO 04.5000 12/16/2039	0.11%
FHR 4451 CI IO 07.0000 03/15/2045	0.10%
JPMBB 2013-C14 F P/P 144A 03.5980 08/15/2046	0.10%
GNR 2015-H22 HI IO 02.0516 08/20/2065	0.10%
GNR 2013-99 AS IO 03.7785 06/20/2043	0.10%
FNR 2016-102 JI IO 03.5000 02/25/2046	0.10%
GSMS 2011-GC3 E P/P 144A 05.0000 03/10/2044	0.10%
FNR 2015-73 PI IO 03.5000 10/25/2045	0.10%
GSAA 2005-15 2A2 02.5160 01/25/2036	0.10%
STACR 2019-DNA2 B1 06.6160 03/25/2049	0.10%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description			Percent of Portfolio
GNR 2016-75 EI	IO	03.5000 08/20/2045	0.10%
GNR 2014-H06 BI	IO	01.4996 02/20/2064	0.10%
STACR 2017-DNA2 B1		07.4160 10/25/2029	0.10%
GNR 2018-H05 BI	IO	02.3598 02/20/2068	0.10%
FNR 2010-109 IM	IO	05.5000 09/25/2040	0.10%
GNR 2017-H16 KI	IO	01.4873 08/20/2067	0.10%
GNR 2016-164 IO	IO	06.5000 12/20/2046	0.09%
CAS 2019-R03 1M2		04.4160 09/25/2031	0.09%
WFCM 2010-C1 E	P/P 144A	04.0000 11/15/2043	0.09%
FNR 2012-90 DI	IO	04.0000 03/25/2042	0.09%
FNR 2016-65 CS	IO	03.8340 09/25/2046	0.09%
HVMLT 2004-11 1A		02.9979 01/19/2035	0.09%
FNR 2018-1 JI	IO	05.0000 02/25/2048	0.09%
GNR 2016-H18 QI	IO	02.3377 06/20/2066	0.09%
GNR 2015-105 LI	IO	05.0000 10/20/2039	0.09%
GNR 2017-132 IB	IO	05.5000 09/20/2047	0.09%
GNR 2017-H14 EI	IO	01.5861 06/20/2067	0.08%
FNR 2011-134 SP	IO	03.7340 02/25/2041	0.08%
MSBAM 2013-C7 D	P/P 144A	04.2393 02/15/2046	0.08%
GNR 2018-89 LS	IO	04.1536 06/20/2048	0.08%
GNR 2011-148 SN	IO	04.3580 11/16/2041	0.08%
SCRT 2019-2 M		04.7500 08/25/2058	0.08%
LMAT 2019-GS2 A2	P/P 144A	04.2500 01/25/2059	0.08%
GNR 2013-6 AI	IO	03.5000 08/20/2039	0.08%
GNR 2012-H11 FI	IO	01.2310 02/20/2062	0.08%
JPMCC 2011-C3 E	P/P 144A	05.6637 02/15/2046	0.08%
GSMS 2014-GC24 C		04.5334 09/10/2047	0.08%
FHR 4707 AI	IO	04.0000 07/15/2047	0.08%
FNR 2012-49 QI	IO	04.5000 12/25/2040	0.08%
GNR 2016-H17 DI	IO	02.1162 07/20/2066	0.08%
CMLTI 2007-AMC3 A2D		02.6160 03/25/2037	0.08%
GNR 2015-89 LI	IO	05.0000 12/20/2044	0.08%
GNR 2017-H13 QI	IO	02.1567 06/20/2067	0.08%
GNR 2012-H29 CI	IO	01.4453 02/20/2062	0.08%
GNR 2018-91 SJ	IO	03.9785 07/20/2048	0.08%
FNR 2017-8 IO	IO	06.0000 02/25/2047	0.08%
FNR 2018-15 PI	IO	04.0000 10/25/2047	0.08%
WFRBS 2012-C7 D	P/P 144A	04.8147 06/15/2045	0.08%
FHR 4127 PI	IO	04.5000 07/15/2042	0.08%
GNR 2015-40 KI	IO	04.0000 07/20/2044	0.07%
FHR 4475 CI	IO	03.5000 01/15/2044	0.07%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
GNR 2017-68 IL IO 04.0000 08/20/2044	0.07%
JPMCC 2012-C6 E P/P 144A 05.1473 05/15/2045	0.07%
COMM 2012-CR4 B P/P 144A 03.7030 10/15/2045	0.07%
GNR 2017-H06 MI IO 02.3022 02/20/2067	0.07%
FHS 324 C21 IO 06.0000 06/15/2039	0.07%
GNR 2015-H29 HI IO 02.0965 09/20/2065	0.07%
GNR 2018-77 IO IO 05.0000 06/20/2048	0.07%
FHR 4801 IG IO 03.0000 06/15/2048	0.07%
IOS.FN30.350.12 R USL1M P 01/12/43 CS	0.07%
GNR 2017-H20 DI IO 02.1919 10/20/2067	0.07%
GNR 2017-H18 DI IO 02.1682 09/20/2067	0.07%
CMLTI 2007-WFH3 M1 02.5260 06/25/2037	0.07%
RBIT 2019-1 M5 P/P 144A 06.0000 07/25/2029	0.07%
CAS 2018-C01 1M2 04.5160 07/25/2030	0.07%
CAS 2019-R03 1B1 06.3660 09/25/2031	0.07%
GNR 2017-45 IM IO 04.0000 10/20/2044	0.07%
OMIR 2019-1A B1B 06.6160 07/25/2029	0.07%
CAS 2015-C03 2M2 07.2660 07/25/2025	0.06%
GNR 2017-130 IB IO 04.0000 08/20/2047	0.06%
GNR 2017-H09 DI IO 01.9125 03/20/2067	0.06%
FHR 4635 PI IO 04.0000 12/15/2046	0.06%
CWALT 2005-51 3A3A 02.9115 11/20/2035	0.06%
FHR 3981 WS IO 04.2250 05/15/2041	0.06%
WAMU 2004-AR12 A2B 03.1860 10/25/2044	0.06%
GNMA GII30 BO3369 05.0000 06/20/2049	0.06%
FNR 2013-90 SD IO 04.3340 09/25/2043	0.06%
GNMA 10000 BO5417 05.0000 06/20/2049	0.06%
GNMA GII30 BO4634 05.0000 06/20/2049	0.06%
GNR 2017-99 AI IO 04.0000 01/20/2047	0.06%
FHR 4604 QI IO 03.5000 07/15/2046	0.06%
OMIR 2019-1A B1A 05.7660 07/25/2029	0.05%
GNR 2017-26 EI IO 05.0000 02/20/2040	0.05%
GNR 2012-98 AI IO 04.5000 04/16/2042	0.05%
GNR 2017-123 IO IO 05.0000 08/16/2047	0.05%
GNR 2017-H03 AI IO 02.2146 12/20/2066	0.05%
GNR 2014-58 SA IO 03.8285 04/20/2044	0.05%
GNR 2017-H20 HI IO 02.1222 10/20/2067	0.05%
GNMA GII30 BP2045 05.0000 07/20/2049	0.05%
BMIR 2015-1A B1 08.5660 07/25/2025	0.05%
CWALT 2006-45T1 2A7 02.6060 02/25/2037	0.05%
GNR 2016-H06 AI IO 02.0226 02/20/2066	0.05%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

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GNR 2017-H22 EI IO 02.3693 10/20/2067	0.05%
GNR 2012-103 CI IO 03.5000 08/16/2042	0.05%
GNR 2017-H08 DI IO 02.6969 02/20/2067	0.05%
2.29 R ISWP US0003M P 07/02/2049	0.05%
GNR 2017-H06 BI IO 02.3624 02/20/2067	0.05%
GNR 2011-135 DI IO 05.0000 04/16/2040	0.05%
GNR 2017-136 IY IO 05.0000 03/20/2045	0.05%
MSAC 2004-NC1 M2 04.5910 12/27/2033	0.05%
GNR 2012-H10 AI IO 01.2237 12/20/2061	0.05%
GNR 2017-H19 MI IO 02.0433 04/20/2067	0.05%
FHR 4550 AI IO 03.0000 10/15/2040	0.05%
CWALT 2006-OA10 2A1 02.4560 08/25/2046	0.05%
GNR 2014-H25 BI IO 01.7023 12/20/2064	0.05%
FHR 4134 PI IO 03.0000 11/15/2042	0.05%
CWALT 2006-OA10 1A1 03.4693 08/25/2046	0.05%
JPALT 2007-A2 12A1 02.4660 06/25/2037	0.04%
GNR 2015-111 IJ IO 03.5000 08/20/2045	0.04%
CAS 2016-C03 1B 14.0160 10/25/2028	0.04%
SAMI 2006-AR7 A1A 02.4760 08/25/2036	0.04%
GNR 2016-49 IO IO 04.5000 11/16/2045	0.04%
BSCMS 2007-T28 D P/P 144A 05.5336 09/11/2042	0.04%
GNR 2017-6 DI IO 03.5000 01/20/2044	0.04%
WAMU 2005-AR13 A1C4 02.6960 10/25/2045	0.04%
FNR 2015-69 IO IO 06.0000 09/25/2045	0.04%
2.0745 R ISWP US0003M P 07/16/2029	0.04%
GNMA GII30 BN1509 05.0000 05/20/2049	0.04%
GNR 2017-141 ID IO 03.5000 07/20/2047	0.04%
GNR 2018-127 IB IO 04.5000 06/20/2045	0.04%
GNR 2010-H20 IF IO 01.4634 10/20/2060	0.04%
FHR 4033 SC IO 04.2250 10/15/2036	0.04%
FNS 397 2 IO 05.0000 09/25/2039	0.04%
GNR 2017-17 EI IO 04.0000 09/20/2044	0.04%
BSMF 2006-AR2 2A1 02.4960 09/25/2046	0.04%
GNR 2016-H16 DI IO 02.2478 06/20/2066	0.04%
FHR 4413 HI IO 03.5000 03/15/2040	0.04%
OPTN FN30 3.5 08/06/19 CALL 102.06640625 JPMC	0.04%
GNR 2016-138 DI IO 04.0000 10/20/2046	0.04%
GNR 2018-127 ID IO 05.0000 07/20/2045	0.04%
GNR 2017-11 PI IO 04.0000 12/20/2046	0.04%
FNR 2017-78 KI IO 03.5000 10/25/2047	0.03%
GNR 2017-120 IJ IO 04.0000 04/20/2047	0.03%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
CFCRE 2011-C2 F P/P 144A 05.2500 12/15/2047	0.03%
GNR 2013-H15 CI IO 01.7870 07/20/2063	0.03%
GNR 2016-H27 BI IO 02.2892 12/20/2066	0.03%
SWPTN 5WX10Y R 1.875 USD 08/27/2019 GS	0.03%
GNMA 10000 BO6603 05.0000 07/20/2049	0.03%
GNR 2017-H03 EI IO 02.4215 01/20/2067	0.03%
COMM 2012-CR3 E P/P 144A 04.7521 10/15/2045	0.03%
GNMA GII30 BO8266 05.0000 07/20/2049	0.03%
FHR 4386 IL IO 04.0000 12/15/2043	0.03%
GNR 2014-44 IA IO 03.5000 05/20/2028	0.03%
GNR 2014-161 HI IO 04.5000 06/20/2044	0.03%
GNR 2016-42 IO IO 05.0000 02/20/2046	0.03%
CAS 2016-C02 1B 14.5160 09/25/2028	0.03%
FHR 3984 DS IO 03.6250 01/15/2042	0.03%
GNR 2011-H15 AI IO 01.5454 06/20/2061	0.03%
JPMCC 2012-C6 G P/P 144A 02.9720 05/15/2045	0.03%
FNR 2011-101 SA IO 03.6340 10/25/2041	0.03%
CAS 2017-C07 2B1 06.7160 05/25/2030	0.03%
FHR 3747 SA IO 04.1750 10/15/2040	0.03%
FHR 4568 MI IO 04.0000 04/15/2046	0.03%
FNMA FN30 BO0212 UMBS 04.5000 05/01/2049	0.03%
FNS 404 2 IO 04.5000 05/25/2040	0.03%
GNR 2017-H16 JI IO 02.3612 08/20/2067	0.03%
GNR 2016-H20 NI IO 02.1357 09/20/2066	0.03%
CAS 2018-C05 1M2 04.6160 01/25/2031	0.03%
GNR 2016-29 IO IO 04.0000 02/16/2046	0.03%
FHR 4425 IO IO 04.0000 01/15/2045	0.03%
GNR 2016-17 IA IO 04.5000 03/20/2045	0.03%
FNR 2017-7 JI IO 04.0000 02/25/2047	0.03%
IOS.FN30.400.10 R USL1M P 01/12/41 CS	0.03%
FHR 4267 CS IO 03.7250 05/15/2039	0.02%
JPMBB 2014-C25 E P/P 144A 03.3320 11/15/2047	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%
GNR 2019-78 SJ IO 03.7785 06/20/2049	0.02%
FHR 4076 MS IO 04.3750 07/15/2040	0.02%
MSC 2006-HQ10 B 05.4480 11/12/2041	0.02%
GNR 2017-H06 DI IO 01.7911 02/20/2067	0.02%
GNR 2015-96 NI IO 03.5000 01/20/2039	0.02%
AHM 2007-1 GA1C 02.4560 05/25/2047	0.02%
GNR 2017-H08 NI IO 02.2312 03/20/2067	0.02%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
FNR 2016-97 KI IO 03.0000 06/25/2040	0.02%
GNR 2013-3 IT IO 05.0000 01/20/2043	0.02%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 CG	0.02%
CAS 2016-C05 2B 13.0160 01/25/2029	0.02%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 MS	0.02%
GNMA GII30 BN1507 05.0000 05/20/2049	0.02%
OPTN FN30 3.0 10/03/19 PUT 100.4921875 JPMC	0.02%
GNR 2016-77 SL IO 03.8785 03/20/2043	0.02%
GNR 2016-47 CI IO 04.0000 09/20/2045	0.02%
FHR 4024 PI IO 04.5000 12/15/2041	0.02%
FHR 4694 GI IO 04.0000 02/15/2043	0.02%
FHR 4425 WI IO 04.0000 03/15/2043	0.02%
FNR 2012-103 SD IO 03.7840 09/25/2042	0.02%
2.569 R ISWP FWD US0003M P 06/12/2049	0.02%
GNR 2013-23 IK IO 03.0000 09/20/2037	0.02%
FNR 2017-2 KI IO 04.0000 02/25/2047	0.02%
FHR 4193 PI IO 04.0000 03/15/2043	0.02%
GNR 2015-69 IK IO 03.5000 03/20/2038	0.02%
GNMA GII30 BN1508 05.0000 05/20/2049	0.02%
FNMA FN30 BN9825 UMBS 05.0000 05/01/2049	0.02%
GNR 2011-H16 FI IO 01.0602 07/20/2061	0.02%
GNMA GII30 BN1510 05.5000 05/20/2049	0.02%
1.80 R ISWP FWD US0003M P 09/18/2024	0.02%
FHR 4656 AI IO 03.0000 09/15/2037	0.02%
GNR 2013-34 HI IO 04.5000 03/20/2043	0.02%
STRU BOK-1162 FL2 USD 03.7840 08/20/2049	0.02%
FHR 4403 CI IO 04.0000 10/15/2044	0.02%
FHR 4099 BI IO 03.5000 06/15/2039	0.02%
GNR 2017-H09 IO IO 01.8612 04/20/2067	0.02%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.02%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 MS	0.02%
FNMA FN30 BO0182 UMBS 05.0000 05/01/2049	0.02%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.02%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.02%
GNR 2014-98 AI IO 04.5000 10/20/2041	0.02%
CWHL 2006-OA5 2A1 02.4660 04/25/2046	0.02%
FNR 2016-24 CI IO 04.0000 02/25/2046	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%
OPTN FN30 3.0 10/03/19 PUT 100.3046875 JPMC	0.02%
GNR 2017-63 PI IO 04.0000 12/20/2043	0.02%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
SAMI 2007-AR1 2A1 02.4460 01/25/2037	0.02%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.02%
GNMA GII30 BN1511 05.5000 05/20/2049	0.02%
1.9002 R ISWP US0003M P 07/16/2021	0.02%
FNR 2010-140 GS IO 03.7340 07/25/2039	0.02%
CMB CMBX.NA.BB.11 2054-11-18 500.0 11/18/2054 JP	0.02%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.02%
CSMC 2008-C1 AJ P/P 144A 05.8033 02/15/2041	0.02%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 CG	0.02%
FHR 3852 SC IO 04.3250 04/15/2040	0.01%
GNR 2012-H29 AI IO 01.4831 10/20/2062	0.01%
GNR 2012-H29 FI IO 01.4831 10/20/2062	0.01%
FHR 4560 PI IO 03.5000 05/15/2045	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
GNR 2017-H14 DI IO 01.7214 06/20/2067	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 CG	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 CG	0.01%
GNR 2017-H11 DI IO 01.9267 05/20/2067	0.01%
FHR 3714 KI IO 04.5000 11/15/2039	0.01%
FHR 4386 LI IO 04.0000 02/15/2043	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 CG	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 CG	0.01%
GNR 2010-167 SG IO 04.1680 08/16/2038	0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 MS	0.01%
GSAA 2006-8 2A2 02.4460 05/25/2036	0.01%
FHR 3904 NI IO 03.5000 08/15/2026	0.01%
FNR 2012-36 SN IO 04.1840 04/25/2042	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.01%
INDX 2006-AR11 2A1 04.0884 06/25/2036	0.01%
CAS 2016-C01 1B 14.0160 08/25/2028	0.01%
MSC 2008-T29 F P/P 144A 06.1074 01/11/2043	0.01%
GNR 2017-38 DI IO 05.0000 03/16/2047	0.01%
GNR 2016-H24 IO IO 02.1096 09/20/2066	0.01%
CVALT 2005-59 1A1 02.6015 11/20/2035	0.01%
OPTN FN30 3.0 10/03/19 PUT 100.1171875 JPMC	0.01%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 CS	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
FHR 4299 JI IO 04.0000 07/15/2043	0.01%
FNR 2017-15 LI IO 04.0000 06/25/2046	0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 GS	0.01%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
CWALT 2006-OA7 1A2 03.4493 06/25/2046	0.01%
GNR 2017-H03 HI IO 01.5589 01/20/2067	0.01%
FHR 4601 PI IO 04.5000 12/15/2045	0.01%
GNR 2015-52 IK IO 03.5000 04/20/2045	0.01%
FNR 2010-35 SG IO 04.1340 04/25/2040	0.01%
2.3125 R ISWP FWD US0003M P 07/17/2049	0.01%
GNR 2012-47 CI IO 04.0000 03/20/2042	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 JP	0.01%
FNR 2016-70 QI IO 03.5000 10/25/2046	0.01%
FNR 2013-57 IQ IO 03.0000 06/25/2041	0.01%
GNR 2016-37 IW IO 04.5000 02/20/2046	0.01%
GNR 2015-H13 AI IO 01.9452 06/20/2065	0.01%
GNR 2015-144 IA IO 04.0000 01/16/2043	0.01%
GNR 2015-162 BI IO 04.0000 11/20/2040	0.01%
GNR 2015-53 MI IO 04.0000 04/16/2045	0.01%
GNR 2015-87 AI IO 03.5000 12/20/2038	0.01%
GNR 2016-H23 NI IO 02.2761 10/20/2066	0.01%
FHR 4530 TI IO 04.0000 11/15/2045	0.01%
GNR 2016-H25 GI IO 01.5218 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%
UBSBB 2012-C2 F P/P 144A 04.8909 05/10/2063	0.01%
2.25 R ISWP FWD US0003M P 09/18/2049	0.01%
FHR 4663 KI IO 03.5000 11/15/2042	0.01%
GNR 2016-149 MI IO 05.5000 05/20/2039	0.01%
GNR 2016-H12 AI IO 01.6683 07/20/2065	0.01%
FNR 2011-98 AI IO 03.5000 11/25/2037	0.01%
FHR 4510 HI IO 03.0000 03/15/2040	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.01%
GNR 2015-79 GI IO 05.0000 10/20/2039	0.01%
GNR 2014-139 NI IO 03.5000 08/20/2028	0.01%
FHR 4182 PI IO 03.0000 12/15/2041	0.01%
FNR 2011-4 CS 08.3680 05/25/2040	0.01%
GNR 2015-H03 DI IO 02.0176 01/20/2065	0.01%
GNR 2012-H06 AI IO 01.3628 01/20/2062	0.01%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 CG	0.01%
MHL 2005-3 M4 03.2110 08/25/2035	0.01%
FNR 2016-3 NI IO 06.0000 02/25/2046	0.01%
GNR 2012-H23 WI IO 01.5866 10/20/2062	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 CS	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 MS	0.01%
GNR 2015-167 BI IO 04.5000 04/16/2045	0.01%
FNR 2013-27 PI IO 03.0000 12/25/2041	0.01%
UBSBB 2012-C2 E P/P 144A 04.8909 05/10/2063	0.01%
FHR 4663 TI IO 03.5000 10/15/2042	0.01%
GNR 2010-9 UI IO 05.0000 01/20/2040	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 ML	0.01%
FHR 3829 AS IO 04.6250 03/15/2041	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.01%
GNR 2016-H14 AI IO 02.0764 06/20/2066	0.01%
GNR 2015-134 LI IO 03.5000 05/20/2039	0.01%
IOS.FN30.400.14 R USL1M P 01/12/45 GS	0.01%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 CS	0.01%
GNR 2016-H02 HI IO 01.9140 01/20/2066	0.01%
GSMS 2012-GC6 D P/P 144A 05.6514 01/10/2045	0.01%
CMB CMBX.NA.BB.9 2058-09-17 500.0 09/17/2058 GS	0.01%
GNR 2015-186 AI IO 04.0000 12/20/2045	0.01%
GNR 2015-H26 EI IO 01.7465 10/20/2065	0.01%
GNR 2016-69 IO IO 04.0000 05/20/2046	0.01%
GNR 2016-83 PI IO 03.5000 06/20/2045	0.01%
GNR 2015-H25 AI IO 01.6280 09/20/2065	0.01%
GNR 2012-91 IN IO 04.5000 05/20/2042	0.01%
IOS.FN30.400.14 R USL1M P 01/12/45 CS	0.01%
FHR 4580 ID IO 03.5000 08/15/2045	0.01%
FHR 4591 QI IO 03.5000 04/15/2046	0.01%
CMB CMBX.NA.BB.10 2059-11-17 500.0 11/17/2059 ML	0.01%
GNR 2010-134 ES IO 03.7285 11/20/2039	0.01%
GNR 2010-H22 CI IO 02.3895 10/20/2060	0.01%
2.036 R ISWP US0003M P 07/17/2029	0.01%
GNR 2015-H15 JI IO 01.9876 06/20/2065	0.01%
GNR 2015-80 IA IO 04.5000 06/20/2045	0.01%
GNR 2013-H24 AI IO 01.4965 09/20/2063	0.01%
GNR 2015-H10 HI IO 02.0842 04/20/2065	0.01%
IOS.FN30.400.13 R USL1M P 01/12/44 CS	0.01%
FNR 2013-40 YI IO 03.5000 06/25/2042	0.01%
FHR 4015 GI IO 04.0000 03/15/2027	0.01%
GNR 2016-H11 HI IO 02.0981 01/20/2066	0.01%
GNR 2014-H21 AI IO 01.6699 10/20/2064	0.01%
GNR 2015-H20 CI IO 01.9976 08/20/2065	0.01%
GNR 2016-75 LI IO 06.0000 01/20/2040	0.01%
FHR 4452 QI IO 04.0000 11/15/2044	0.01%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description			Percent of Portfolio
GNR 2015-H23 DI	IO	01.8779 09/20/2065	0.01%
GNR 2015-H14 BI	IO	01.5901 05/20/2065	0.00%
GNR 2016-H06 HI	IO	02.0781 02/20/2066	0.00%
GNR 2011-156 SK	IO	04.3285 04/20/2038	0.00%
GNR 2010-H19 BI	IO	01.4856 08/20/2060	0.00%
GNR 2015-H10 CI	IO	01.8284 04/20/2065	0.00%
CMB CMBX.NA.BB.11 2054-11-18	500.0 11/18/2054 JP		0.00%
GNR 2015-H25 EI	IO	01.8669 10/20/2065	0.00%
FHR 4462 PI	IO	04.0000 04/15/2045	0.00%
GNR 2015-H24 BI	IO	01.6344 08/20/2065	0.00%
GNR 2015-H20 AI	IO	01.8525 08/20/2065	0.00%
1.7915 R ISWP US0003M P	07/25/2024		0.00%
GNR 2015-149 KI	IO	04.0000 10/20/2045	0.00%
GNR 2015-187 JI	IO	04.0000 03/20/2045	0.00%
1.781 R ISWP US0003M P	07/24/2024		0.00%
GNR 2015-H26 DI	IO	01.9377 10/20/2065	0.00%
GNR 2016-77 SC	IO	03.8285 10/20/2045	0.00%
GNR 2011-H07 FI	IO	01.2566 02/20/2061	0.00%
GNR 2015-H25 BI	IO	01.9315 10/20/2065	0.00%
GNR 2015-168 IG	IO	03.5000 03/20/2043	0.00%
GNR 2015-H25 CI	IO	01.9783 10/20/2065	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%
FHR 4500 GI	IO	04.0000 08/15/2045	0.00%
GNR 2015-H24 HI	IO	02.0281 09/20/2065	0.00%
GNR 2010-35 DI	IO	04.5000 03/20/2040	0.00%
GNR 2014-H08 BI	IO	01.4708 04/20/2064	0.00%
IOS.FN30.400.13 R USL1M P	01/12/44 JP		0.00%
WFMBS 2005-AR16 6A4		04.9452 10/25/2035	0.00%
FNR 2013-35 PI	IO	03.0000 02/25/2042	0.00%
GNR 2013-H14 XI	IO	01.6738 03/20/2063	0.00%
CMB CMBX.NA.BB.9 2058-09-17	500.0 09/17/2058 MS		0.00%
FNR 2011-59 BI	IO	06.0000 08/25/2040	0.00%
GNR 2013-14 IO	IO	03.5000 12/20/2042	0.00%
GNR 2018-127 IE	IO	03.5000 01/20/2046	0.00%
GNR 2017-H06 EI	IO	01.5971 02/20/2067	0.00%
GNR 2014-H13 BI	IO	01.5998 05/20/2064	0.00%
GNR 2014-100 LI	IO	04.5000 10/16/2043	0.00%
FHR 4074 KS	IO	04.3750 02/15/2041	0.00%
BACM 2008-1 AJ		06.5669 02/10/2051	0.00%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description			Percent of Portfolio
GNR 2015-20 PI IO	03.5000	02/20/2045	0.00%
GNR 2015-H22 EI IO	01.6314	08/20/2065	0.00%
GNR 2014-133 IP IO	05.0000	09/16/2044	0.00%
CSMC 2007-C4 C	P/P 144A 05.7189	09/15/2039	0.00%
GNR 2013-182 SY IO	03.8285	12/20/2043	0.00%
GNR 2014-60 SE IO	03.8285	04/20/2044	0.00%
GNR 2016-104 GI IO	04.5000	01/20/2046	0.00%
GNR 2015-H16 XI IO	02.0147	07/20/2065	0.00%
1.965 R ISWP US0003M P	07/24/2029		0.00%
GNR 2015-89 IP IO	04.0000	02/20/2045	0.00%
GNR 2016-H08 GI IO	01.4426	04/20/2066	0.00%
GNR 2015-H23 BI IO	01.7533	09/20/2065	0.00%
GNR 2010-35 QI IO	04.5000	03/20/2040	0.00%
GNR 2016-H04 KI IO	01.8106	02/20/2066	0.00%
FHR 4389 IA IO	04.0000	09/15/2044	0.00%
GNR 2015-H18 IA IO	01.8371	06/20/2065	0.00%
GNR 2011-22 PS IO	03.7285	07/20/2040	0.00%
GNR 2011-H08 GI IO	01.2867	03/20/2061	0.00%
FHR 4000 LI IO	04.0000	02/15/2042	0.00%
FHR 4666 AI MTGE IO	03.0000	09/15/2035	0.00%
FHR 4501 BI IO	03.5000	10/15/2043	0.00%
GNR 2015-H26 GI IO	01.8164	10/20/2065	0.00%
GNR 2016-156 PI IO	03.5000	11/20/2046	0.00%
GNR 2013-100 MI IO	03.5000	02/20/2043	0.00%
GNR 2018-127 IA IO	03.5000	04/20/2042	0.00%
CMB CMBX.NA.BB.11 2054-11-18	500.0	11/18/2054 JP	0.00%
FHR 4206 IP IO	03.0000	12/15/2041	0.00%
GNR 2014-H09 AI IO	01.4493	01/20/2064	0.00%
FNR 2013-6 JI IO	03.0000	02/25/2043	0.00%
GNR 2010-9 QI IO	04.5000	01/20/2040	0.00%
2.252 R ISWP FWD US0003M P	07/17/2049		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 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%
2.241 R ISWP FWD US0003M P	07/17/2049		0.00%
CMB CMBX.NA.BB.9 2058-09-17	500.0	09/17/2058 JP	0.00%
FNR 2014-95 TI IO	04.0000	05/25/2039	0.00%
MSC 2007-HQ11 B	05.5380	02/12/2044	0.00%
GNR 2015-H09 BI IO	01.7135	03/20/2065	0.00%
FNR 2012-90 EI IO	03.5000	02/25/2039	0.00%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 CG	0.00%
FNR 2013-41 SP IO 03.9340 06/25/2040	0.00%
GNR 2010-35 UI IO 05.0000 03/20/2040	0.00%
GNR 2009-121 UI IO 05.0000 12/20/2039	0.00%
FHR 4355 DI IO 04.0000 03/15/2044	0.00%
OPTN FN30 3.0 08/06/19 PUT 100.89453125 JPMC	0.00%
2.231 R ISWP FWD US0003M P 07/17/2049	0.00%
2.229 R ISWP FWD US0003M P 07/17/2049	0.00%
GNR 2010-50 QS IO 04.2785 12/20/2038	0.00%
GNR 2015-H26 CI IO 00.5027 08/20/2065	0.00%
FNR 2012-86 CS IO 03.8340 04/25/2039	0.00%
GNR 2015-82 GI IO 03.5000 12/20/2038	0.00%
FHR 4073 AS IO 03.7250 08/15/2038	0.00%
1.9448 R ISWP US0003M P 06/26/2029	0.00%
1.9451 R ISWP US0003M P 06/26/2029	0.00%
GNR 2014-115 EI IO 04.0000 06/20/2038	0.00%
GNR 2016-167 SB IO 03.7285 04/20/2038	0.00%
1.82 R ISWP US0003M P 07/12/2024	0.00%
CMB CMBX.NA.A.6 2063-05-11 200.0 05/11/2063 GS	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-.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%
CMB CMBX.NA.BBB-.7 2047-01-17 300.0 01/17/2047 MS	0.00%
2.184 R ISWP FWD US0003M P 07/17/2049	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%
1.959 R ISWP FWD US0003M P 07/26/2029	0.00%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
2.18875 R ISWP FWD US0003M P 07/17/2049	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 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 CG	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
2.194 R ISWP FWD US0003M P 07/17/2049	0.00%
2.199 R ISWP FWD US0003M P 07/17/2049	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 3.5 08/06/19 PUT 102.06640625 JPMC	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
1.975 R ISWP FWD US0003M P 08/29/2029	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 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 CG	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
OPTN FN30 3.0 08/06/19 CALL 100.89453125 JPMC	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	0.00%
1.8355 R ISWP US0003M P 07/17/2024	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 MS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	0.00%
2.263 R ISWP FWD US0003M P 07/17/2049	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	0.00%
1.9775 R ISWP US0003M P 07/26/2029	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%
2.278 R ISWP US0003M P 07/17/2049	0.00%
IOS.FN30.300.13 P USL1M R 01/12/44 GS	0.00%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
2.299 R ISWP FWD US0003M P 06/12/2049	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 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.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 MS	0.00%
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 JP	0.00%
OPTN FN30 3.0 10/03/19 PUT 99.0546875 JPMC	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CS	0.00%
SWPTN 6MX5Y P 1.731 USD 12/30/2019 BC	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 CS	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	0.00%
1.8585 R ISWP US0003M P 07/16/2024	0.00%
OPTN FN30 3.0 10/03/19 PUT 99.2421875 JPMC	0.00%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 ML	0.00%
1.923 R ISWP FWD US0003M P 07/16/2029	0.00%
1.8675 R ISWP US0003M P 07/15/2024	0.00%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CS	0.00%
1.8725 R ISWP US0003M P 07/18/2024	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 CS	-0.01%
OPTN FN30 3.0 10/03/19 PUT 99.4296875 JPMC	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 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 MS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 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 MS	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.01%
OPTN FN30 3.0 10/03/19 PUT 99.5859375 JPMC	-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%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.01%
1.975 R ISWP US0003M P 07/26/2029	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-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 CG	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CS	-0.01%
OPTN FN30 3.0 10/03/19 PUT 99.7734375 JPMC	-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%
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 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 ML	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 GS	-0.01%
OPTN FN30 3.0 10/03/19 PUT 99.9609375 JPMC	-0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 CS	-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 CS	-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 CG	-0.01%
1.8275 R ISWP US0003M P 07/05/2021	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CS	-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 CG	-0.01%
2.565 R ISWP FWD US0003M P 06/12/2049	-0.01%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CS	-0.01%
IOS.FN30.400.10 P USL1M R 01/12/41 BC	-0.01%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 CG	-0.01%
2.488 R ISWP FWD US0003M P 06/12/2049	-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 CG	-0.01%
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 JP	-0.02%
SWPTN 6MX5Y R 1.731 USD 12/30/2019 BC	-0.02%
2.5365 R ISWP FWD US0003M P 06/12/2049	-0.02%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.02%

Putnam Mortgage Opportunities Fund

As of 7/31/2019

Security Detail

Security Description	Percent of Portfolio
2.5335 R ISWP FWD US0003M P 06/12/2049	-0.02%
CMB CMBX.NA.BB.7 2047-01-17 500.0 01/17/2047 CG	-0.02%
2.065 R ISWP FWD US0003M P 07/17/2029	-0.02%
2.537 R ISWP FWD US0003M P 06/12/2049	-0.02%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-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 CG	-0.03%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.03%
2.6059 R ISWP FWD US0003M P 06/12/2049	-0.03%
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 MS	-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	-0.04%
SWPTN 5WX10Y R 1.975 USD 08/27/2019 GS	-0.04%
2.38 R ISWP US0003M P 07/02/2049	-0.04%
CMB CMBX.NA.BB.6 2063-05-11 500.0 05/11/2063 JP	-0.05%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.05%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.06%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-0.07%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.07%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.08%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 ML	-0.12%
2.245 R ISWP FWD US0003M P 06/26/2029	-0.20%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.30%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 MS	-0.30%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 CG	-0.32%
FNMA FN30 TBA UMBS 03.5000 08/01/2049	-1.06%
FNMA FN30 TBA UMBS 04.5000 08/01/2049	-1.09%
CMB CMBX.NA.BBB-.6 2063-05-11 300.0 05/11/2063 JP	-2.06%

