

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
March 2019

Security:			3-5/8% 30-Year TIPS	3-7/8% 30-Year TIPS	3-3/8% 30-1/2-Year TIPS	2-3/8% 20-1/2-Year TIPS
Description:			TIPS of April 2028	TIPS of April 2029	TIPS of April 2032	TIPS of January 2025
CUSIP Number:			912810FD5	912810FH6	912810FQ6	912810FR4
Dated Date:			April 15, 1998	April 15, 1999	October 15, 2001	July 15, 2004
Original Issue Date:			April 15, 1998	April 15, 1999	October 15, 2001	July 30, 2004
Additional Issue Date(s):			July 15, 1998	October 15, 1999 October 16, 2000		January 31, 2005 July 29, 2005
Maturity Date:			April 15, 2028	April 15, 2029	April 15, 2032	January 15, 2025
Ref CPI on Dated Date:			161.74000	164.39333	177.50000	188.49677
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.55331	1.52824	1.41540	1.33282	
March 2 2019	251.24845	1.55341	1.52834	1.41548	1.33291	
March 3 2019	251.26390	1.55351	1.52843	1.41557	1.33299	
March 4 2019	251.27935	1.55360	1.52853	1.41566	1.33307	
March 5 2019	251.29481	1.55370	1.52862	1.41575	1.33315	
March 6 2019	251.31026	1.55379	1.52871	1.41583	1.33323	
March 7 2019	251.32571	1.55389	1.52881	1.41592	1.33332	
March 8 2019	251.34116	1.55398	1.52890	1.41601	1.33340	
March 9 2019	251.35661	1.55408	1.52900	1.41609	1.33348	
March 10 2019	251.37206	1.55417	1.52909	1.41618	1.33356	
March 11 2019	251.38752	1.55427	1.52918	1.41627	1.33364	
March 12 2019	251.40297	1.55436	1.52928	1.41635	1.33373	
March 13 2019	251.41842	1.55446	1.52937	1.41644	1.33381	
March 14 2019	251.43387	1.55456	1.52947	1.41653	1.33389	
March 15 2019	251.44932	1.55465	1.52956	1.41662	1.33397	
March 16 2019	251.46477	1.55475	1.52965	1.41670	1.33405	
March 17 2019	251.48023	1.55484	1.52975	1.41679	1.33414	
March 18 2019	251.49568	1.55494	1.52984	1.41688	1.33422	
March 19 2019	251.51113	1.55503	1.52994	1.41696	1.33430	
March 20 2019	251.52658	1.55513	1.53003	1.41705	1.33438	
March 21 2019	251.54203	1.55522	1.53012	1.41714	1.33446	
March 22 2019	251.55748	1.55532	1.53022	1.41723	1.33455	
March 23 2019	251.57294	1.55542	1.53031	1.41731	1.33463	
March 24 2019	251.58839	1.55551	1.53041	1.41740	1.33471	
March 25 2019	251.60384	1.55561	1.53050	1.41749	1.33479	
March 26 2019	251.61929	1.55570	1.53059	1.41757	1.33487	
March 27 2019	251.63474	1.55580	1.53069	1.41766	1.33496	
March 28 2019	251.65019	1.55589	1.53078	1.41775	1.33504	
March 29 2019	251.66565	1.55599	1.53088	1.41783	1.33512	
March 30 2019	251.68110	1.55608	1.53097	1.41792	1.33520	
March 31 2019	251.69655	1.55618	1.53106	1.41801	1.33528	
CPI-U (NSA) for:			November 2018 252.038	December 2018 251.233	January 2019 251.712	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
March 2019

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			2% 20-Year TIPS TIPS of January 2026 912810FS2 January 15, 2006 January 31, 2006 July 31, 2006	2-3/8% 20-Year TIPS TIPS of January 2027 912810PS1 January 15, 2007 January 31, 2007 July 31, 2007	1-3/4% 20-Year TIPS TIPS of January 2028 912810PV4 January 15, 2008 January 31, 2008 July 31, 2008	2-1/2% 20-Year TIPS TIPS of January 2029 912810PZ5 January 15, 2009 January 30, 2009 July 31, 2009
Maturity Date: Ref CPI on Dated Date:			January 15, 2026 198.47742	January 15, 2027 201.66452	January 15, 2028 209.49645	January 15, 2029 214.69971
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.26580	1.24580	1.19922	1.17016	
March 2 2019	251.24845	1.26588	1.24587	1.19930	1.17023	
March 3 2019	251.26390	1.26596	1.24595	1.19937	1.17030	
March 4 2019	251.27935	1.26603	1.24603	1.19944	1.17038	
March 5 2019	251.29481	1.26611	1.24610	1.19952	1.17045	
March 6 2019	251.31026	1.26619	1.24618	1.19959	1.17052	
March 7 2019	251.32571	1.26627	1.24626	1.19967	1.17059	
March 8 2019	251.34116	1.26635	1.24633	1.19974	1.17066	
March 9 2019	251.35661	1.26642	1.24641	1.19981	1.17074	
March 10 2019	251.37206	1.26650	1.24649	1.19989	1.17081	
March 11 2019	251.38752	1.26658	1.24656	1.19996	1.17088	
March 12 2019	251.40297	1.26666	1.24664	1.20003	1.17095	
March 13 2019	251.41842	1.26674	1.24672	1.20011	1.17102	
March 14 2019	251.43387	1.26681	1.24679	1.20018	1.17110	
March 15 2019	251.44932	1.26689	1.24687	1.20026	1.17117	
March 16 2019	251.46477	1.26697	1.24695	1.20033	1.17124	
March 17 2019	251.48023	1.26705	1.24702	1.20040	1.17131	
March 18 2019	251.49568	1.26712	1.24710	1.20048	1.17138	
March 19 2019	251.51113	1.26720	1.24718	1.20055	1.17146	
March 20 2019	251.52658	1.26728	1.24725	1.20062	1.17153	
March 21 2019	251.54203	1.26736	1.24733	1.20070	1.17160	
March 22 2019	251.55748	1.26744	1.24741	1.20077	1.17167	
March 23 2019	251.57294	1.26751	1.24748	1.20085	1.17174	
March 24 2019	251.58839	1.26759	1.24756	1.20092	1.17182	
March 25 2019	251.60384	1.26767	1.24764	1.20099	1.17189	
March 26 2019	251.61929	1.26775	1.24771	1.20107	1.17196	
March 27 2019	251.63474	1.26783	1.24779	1.20114	1.17203	
March 28 2019	251.65019	1.26790	1.24787	1.20121	1.17210	
March 29 2019	251.66565	1.26798	1.24794	1.20129	1.17218	
March 30 2019	251.68110	1.26806	1.24802	1.20136	1.17225	
March 31 2019	251.69655	1.26814	1.24810	1.20144	1.17232	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			1-7/8% 10-Year TIPS Series D-2019 912828LA6 July 15, 2009 July 15, 2009 October 15, 2009	1-3/8% 10-Year TIPS Series A-2020 912828MF4 January 15, 2010 January 15, 2010 April 15, 2010	2-1/8% 30-Year TIPS TIPS of February 2040 912810QF8 February 15, 2010 February 26, 2010 August 31, 2010	1-1/4% 10-Year TIPS Series D-2020 912828NM8 July 15, 2010 July 15, 2010 September 15, 2010 November 15, 2010
Maturity Date: Ref CPI on Dated Date:			July 15, 2019 213.51819	January 15, 2020 216.24610	February 15, 2040 216.13950	July 15, 2020 218.08532
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.17664	1.16179	1.16237	1.15199	
March 2 2019	251.24845	1.17671	1.16186	1.16244	1.15206	
March 3 2019	251.26390	1.17678	1.16193	1.16251	1.15214	
March 4 2019	251.27935	1.17685	1.16201	1.16258	1.15221	
March 5 2019	251.29481	1.17692	1.16208	1.16265	1.15228	
March 6 2019	251.31026	1.17700	1.16215	1.16272	1.15235	
March 7 2019	251.32571	1.17707	1.16222	1.16279	1.15242	
March 8 2019	251.34116	1.17714	1.16229	1.16287	1.15249	
March 9 2019	251.35661	1.17721	1.16236	1.16294	1.15256	
March 10 2019	251.37206	1.17729	1.16244	1.16301	1.15263	
March 11 2019	251.38752	1.17736	1.16251	1.16308	1.15270	
March 12 2019	251.40297	1.17743	1.16258	1.16315	1.15277	
March 13 2019	251.41842	1.17750	1.16265	1.16322	1.15284	
March 14 2019	251.43387	1.17758	1.16272	1.16329	1.15292	
March 15 2019	251.44932	1.17765	1.16279	1.16337	1.15299	
March 16 2019	251.46477	1.17772	1.16286	1.16344	1.15306	
March 17 2019	251.48023	1.17779	1.16294	1.16351	1.15313	
March 18 2019	251.49568	1.17787	1.16301	1.16358	1.15320	
March 19 2019	251.51113	1.17794	1.16308	1.16365	1.15327	
March 20 2019	251.52658	1.17801	1.16315	1.16372	1.15334	
March 21 2019	251.54203	1.17808	1.16322	1.16379	1.15341	
March 22 2019	251.55748	1.17815	1.16329	1.16387	1.15348	
March 23 2019	251.57294	1.17823	1.16336	1.16394	1.15355	
March 24 2019	251.58839	1.17830	1.16344	1.16401	1.15362	
March 25 2019	251.60384	1.17837	1.16351	1.16408	1.15369	
March 26 2019	251.61929	1.17844	1.16358	1.16415	1.15377	
March 27 2019	251.63474	1.17852	1.16365	1.16422	1.15384	
March 28 2019	251.65019	1.17859	1.16372	1.16430	1.15391	
March 29 2019	251.66565	1.17866	1.16379	1.16437	1.15398	
March 30 2019	251.68110	1.17873	1.16386	1.16444	1.15405	
March 31 2019	251.69655	1.17881	1.16394	1.16451	1.15412	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

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Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			1-1/8% 10-Year TIPS Series A-2021 912828PP9 January 15, 2011 January 31, 2011 March 31, 2011 May 31, 2011	2-1/8% 30-Year TIPS TIPS of February 2041 912810QP6 February 15, 2011 February 28, 2011 June 30, 2011 October 31, 2011	0-5/8% 10-Year TIPS Series D-2021 912828QV5 July 15, 2011 July 29, 2011 September 30, 2011 November 30, 2011	0-1/8% 10-Year TIPS Series A-2022 912828SA9 January 15, 2012 January 31, 2012 March 30, 2012 May 31, 2012
Maturity Date: Ref CPI on Dated Date:			January 15, 2021 218.75255	February 15, 2041 218.99100	July 15, 2021 225.38381	January 15, 2022 226.33474
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.14848	1.14723	1.11469	1.11001	
March 2 2019	251.24845	1.14855	1.14730	1.11476	1.11007	
March 3 2019	251.26390	1.14862	1.14737	1.11483	1.11014	
March 4 2019	251.27935	1.14869	1.14744	1.11490	1.11021	
March 5 2019	251.29481	1.14876	1.14751	1.11496	1.11028	
March 6 2019	251.31026	1.14883	1.14758	1.11503	1.11035	
March 7 2019	251.32571	1.14890	1.14765	1.11510	1.11042	
March 8 2019	251.34116	1.14897	1.14772	1.11517	1.11048	
March 9 2019	251.35661	1.14905	1.14779	1.11524	1.11055	
March 10 2019	251.37206	1.14912	1.14786	1.11531	1.11062	
March 11 2019	251.38752	1.14919	1.14794	1.11538	1.11069	
March 12 2019	251.40297	1.14926	1.14801	1.11544	1.11076	
March 13 2019	251.41842	1.14933	1.14808	1.11551	1.11083	
March 14 2019	251.43387	1.14940	1.14815	1.11558	1.11089	
March 15 2019	251.44932	1.14947	1.14822	1.11565	1.11096	
March 16 2019	251.46477	1.14954	1.14829	1.11572	1.11103	
March 17 2019	251.48023	1.14961	1.14836	1.11579	1.11110	
March 18 2019	251.49568	1.14968	1.14843	1.11586	1.11117	
March 19 2019	251.51113	1.14975	1.14850	1.11592	1.11124	
March 20 2019	251.52658	1.14982	1.14857	1.11599	1.11130	
March 21 2019	251.54203	1.14989	1.14864	1.11606	1.11137	
March 22 2019	251.55748	1.14996	1.14871	1.11613	1.11144	
March 23 2019	251.57294	1.15003	1.14878	1.11620	1.11151	
March 24 2019	251.58839	1.15010	1.14885	1.11627	1.11158	
March 25 2019	251.60384	1.15018	1.14892	1.11634	1.11164	
March 26 2019	251.61929	1.15025	1.14899	1.11640	1.11171	
March 27 2019	251.63474	1.15032	1.14906	1.11647	1.11178	
March 28 2019	251.65019	1.15039	1.14913	1.11654	1.11185	
March 29 2019	251.66565	1.15046	1.14921	1.11661	1.11192	
March 30 2019	251.68110	1.15053	1.14928	1.11668	1.11199	
March 31 2019	251.69655	1.15060	1.14935	1.11675	1.11205	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-3/4% 30-Year TIPS TIPS of February 2042 912810QV3 February 15, 2012 February 29, 2012 June 29, 2012 October 31, 2012	0-1/8% 10-Year TIPS Series D-2022 912828TE0 July 15, 2012 July 31, 2012 September 28, 2012 November 30, 2012	0-1/8% 10-Year TIPS Series A-2023 912828UH1 January 15, 2013 January 31, 2013 March 28, 2013 May 31, 2013	0-5/8% 30-Year TIPS TIPS of February 2043 912810RA8 February 15, 2013 February 28, 2013 June 28, 2013 October 31, 2013
Maturity Date: Ref CPI on Dated Date:			February 15, 2042 225.96062	July 15, 2022 229.96306	January 15, 2023 230.82203	February 15, 2043 229.91100
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.11184	1.09249	1.08843	1.09274	
March 2 2019	251.24845	1.11191	1.09256	1.08849	1.09281	
March 3 2019	251.26390	1.11198	1.09263	1.08856	1.09287	
March 4 2019	251.27935	1.11205	1.09269	1.08863	1.09294	
March 5 2019	251.29481	1.11212	1.09276	1.08870	1.09301	
March 6 2019	251.31026	1.11219	1.09283	1.08876	1.09308	
March 7 2019	251.32571	1.11225	1.09290	1.08883	1.09314	
March 8 2019	251.34116	1.11232	1.09296	1.08890	1.09321	
March 9 2019	251.35661	1.11239	1.09303	1.08896	1.09328	
March 10 2019	251.37206	1.11246	1.09310	1.08903	1.09335	
March 11 2019	251.38752	1.11253	1.09316	1.08910	1.09341	
March 12 2019	251.40297	1.11260	1.09323	1.08916	1.09348	
March 13 2019	251.41842	1.11266	1.09330	1.08923	1.09355	
March 14 2019	251.43387	1.11273	1.09337	1.08930	1.09361	
March 15 2019	251.44932	1.11280	1.09343	1.08936	1.09368	
March 16 2019	251.46477	1.11287	1.09350	1.08943	1.09375	
March 17 2019	251.48023	1.11294	1.09357	1.08950	1.09382	
March 18 2019	251.49568	1.11301	1.09364	1.08957	1.09388	
March 19 2019	251.51113	1.11308	1.09370	1.08963	1.09395	
March 20 2019	251.52658	1.11314	1.09377	1.08970	1.09402	
March 21 2019	251.54203	1.11321	1.09384	1.08977	1.09408	
March 22 2019	251.55748	1.11328	1.09390	1.08983	1.09415	
March 23 2019	251.57294	1.11335	1.09397	1.08990	1.09422	
March 24 2019	251.58839	1.11342	1.09404	1.08997	1.09429	
March 25 2019	251.60384	1.11349	1.09411	1.09003	1.09435	
March 26 2019	251.61929	1.11355	1.09417	1.09010	1.09442	
March 27 2019	251.63474	1.11362	1.09424	1.09017	1.09449	
March 28 2019	251.65019	1.11369	1.09431	1.09023	1.09455	
March 29 2019	251.66565	1.11376	1.09437	1.09030	1.09462	
March 30 2019	251.68110	1.11383	1.09444	1.09037	1.09469	
March 31 2019	251.69655	1.11390	1.09451	1.09044	1.09476	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-3/8% 10-Year TIPS Series D-2023 912828VM9 July 15, 2013 July 31, 2013 September 30, 2013 November 29, 2013	0-5/8% 10-Year TIPS Series A-2024 912828B25 January 15, 2014 January 31, 2014 March 31, 2014 May 30, 2014	1-3/8% 30-Year TIPS TIPS of February 2044 912810RF7 February 15, 2014 February 28, 2014 June 30, 2014 October 31, 2014	0-1/8% 5-Year TIPS Series X-2019 912828C99 April 15, 2014 April 30, 2014 August 29, 2014 December 31, 2014
Maturity Date: Ref CPI on Dated Date:			July 15, 2023 232.71797	January 15, 2024 233.33058	February 15, 2044 233.05900	April 15, 2019 234.31967
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.07956	1.07673	1.07798	1.07218	
March 2 2019	251.24845	1.07963	1.07679	1.07805	1.07225	
March 3 2019	251.26390	1.07969	1.07686	1.07811	1.07231	
March 4 2019	251.27935	1.07976	1.07692	1.07818	1.07238	
March 5 2019	251.29481	1.07983	1.07699	1.07825	1.07244	
March 6 2019	251.31026	1.07989	1.07706	1.07831	1.07251	
March 7 2019	251.32571	1.07996	1.07712	1.07838	1.07258	
March 8 2019	251.34116	1.08002	1.07719	1.07844	1.07264	
March 9 2019	251.35661	1.08009	1.07726	1.07851	1.07271	
March 10 2019	251.37206	1.08016	1.07732	1.07858	1.07277	
March 11 2019	251.38752	1.08022	1.07739	1.07864	1.07284	
March 12 2019	251.40297	1.08029	1.07745	1.07871	1.07291	
March 13 2019	251.41842	1.08036	1.07752	1.07878	1.07297	
March 14 2019	251.43387	1.08042	1.07759	1.07884	1.07304	
March 15 2019	251.44932	1.08049	1.07765	1.07891	1.07310	
March 16 2019	251.46477	1.08056	1.07772	1.07897	1.07317	
March 17 2019	251.48023	1.08062	1.07779	1.07904	1.07324	
March 18 2019	251.49568	1.08069	1.07785	1.07911	1.07330	
March 19 2019	251.51113	1.08076	1.07792	1.07917	1.07337	
March 20 2019	251.52658	1.08082	1.07798	1.07924	1.07343	
March 21 2019	251.54203	1.08089	1.07805	1.07931	1.07350	
March 22 2019	251.55748	1.08095	1.07812	1.07937	1.07357	
March 23 2019	251.57294	1.08102	1.07818	1.07944	1.07363	
March 24 2019	251.58839	1.08109	1.07825	1.07951	1.07370	
March 25 2019	251.60384	1.08115	1.07831	1.07957	1.07376	
March 26 2019	251.61929	1.08122	1.07838	1.07964	1.07383	
March 27 2019	251.63474	1.08129	1.07845	1.07970	1.07390	
March 28 2019	251.65019	1.08135	1.07851	1.07977	1.07396	
March 29 2019	251.66565	1.08142	1.07858	1.07984	1.07403	
March 30 2019	251.68110	1.08149	1.07865	1.07990	1.07409	
March 31 2019	251.69655	1.08155	1.07871	1.07997	1.07416	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

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Ref CPI and Index Ratios for
March 2019

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 10-Year TIPS Series D-2024 912828WU0 July 15, 2014 July 31, 2014 September 30, 2014 November 28, 2014	0-1/4% 10-Year TIPS Series A-2025 912828H45 January 15, 2015 January 30, 2015 March 31, 2015 May 29, 2015	0-3/4% 30-Year TIPS TIPS of February 2045 912810RL4 February 15, 2015 February 27, 2015 June 30, 2015 October 30, 2015	0-1/8% 5-Year TIPS Series X-2020 912828K33 April 15, 2015 April 30, 2015 August 31, 2015 December 31, 2015
Maturity Date: Ref CPI on Dated Date:			July 15, 2024 237.44594	January 15, 2025 236.85403	February 15, 2045 235.48150	April 15, 2020 234.18067
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.05806	1.06071	1.06689	1.07282	
March 2 2019	251.24845	1.05813	1.06077	1.06696	1.07288	
March 3 2019	251.26390	1.05819	1.06084	1.06702	1.07295	
March 4 2019	251.27935	1.05826	1.06090	1.06709	1.07301	
March 5 2019	251.29481	1.05832	1.06097	1.06715	1.07308	
March 6 2019	251.31026	1.05839	1.06103	1.06722	1.07315	
March 7 2019	251.32571	1.05845	1.06110	1.06728	1.07321	
March 8 2019	251.34116	1.05852	1.06116	1.06735	1.07328	
March 9 2019	251.35661	1.05858	1.06123	1.06742	1.07334	
March 10 2019	251.37206	1.05865	1.06130	1.06748	1.07341	
March 11 2019	251.38752	1.05871	1.06136	1.06755	1.07348	
March 12 2019	251.40297	1.05878	1.06143	1.06761	1.07354	
March 13 2019	251.41842	1.05884	1.06149	1.06768	1.07361	
March 14 2019	251.43387	1.05891	1.06156	1.06774	1.07367	
March 15 2019	251.44932	1.05898	1.06162	1.06781	1.07374	
March 16 2019	251.46477	1.05904	1.06169	1.06787	1.07381	
March 17 2019	251.48023	1.05911	1.06175	1.06794	1.07387	
March 18 2019	251.49568	1.05917	1.06182	1.06801	1.07394	
March 19 2019	251.51113	1.05924	1.06188	1.06807	1.07400	
March 20 2019	251.52658	1.05930	1.06195	1.06814	1.07407	
March 21 2019	251.54203	1.05937	1.06201	1.06820	1.07414	
March 22 2019	251.55748	1.05943	1.06208	1.06827	1.07420	
March 23 2019	251.57294	1.05950	1.06214	1.06833	1.07427	
March 24 2019	251.58839	1.05956	1.06221	1.06840	1.07433	
March 25 2019	251.60384	1.05963	1.06227	1.06847	1.07440	
March 26 2019	251.61929	1.05969	1.06234	1.06853	1.07447	
March 27 2019	251.63474	1.05976	1.06240	1.06860	1.07453	
March 28 2019	251.65019	1.05982	1.06247	1.06866	1.07460	
March 29 2019	251.66565	1.05989	1.06253	1.06873	1.07466	
March 30 2019	251.68110	1.05995	1.06260	1.06879	1.07473	
March 31 2019	251.69655	1.06002	1.06267	1.06886	1.07480	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-3/8% 10-Year TIPS Series D-2025 912828XL9 July 15, 2015 July 31, 2015 September 30, 2015 November 30, 2015	0-5/8% 10-Year TIPS Series A-2026 912828N71 January 15, 2016 January 29, 2016 March 31, 2016 May 31, 2016	1% 30-Year TIPS TIPS of February 2046 912810RR1 February 15, 2016 February 29, 2016 June 30, 2016 October 31, 2016	0-1/8% 5-Year TIPS Series X-2021 912828Q60 April 15, 2016 April 29, 2016 August 31, 2016 December 30, 2016
Maturity Date: Ref CPI on Dated Date:			July 15, 2025 237.14365	January 15, 2026 237.61129	February 15, 2046 236.94448	April 15, 2021 237.00700
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.05941	1.05733	1.06030	1.06002	
March 2 2019	251.24845	1.05948	1.05739	1.06037	1.06009	
March 3 2019	251.26390	1.05954	1.05746	1.06043	1.06015	
March 4 2019	251.27935	1.05961	1.05752	1.06050	1.06022	
March 5 2019	251.29481	1.05967	1.05759	1.06056	1.06028	
March 6 2019	251.31026	1.05974	1.05765	1.06063	1.06035	
March 7 2019	251.32571	1.05980	1.05772	1.06069	1.06041	
March 8 2019	251.34116	1.05987	1.05778	1.06076	1.06048	
March 9 2019	251.35661	1.05993	1.05785	1.06082	1.06055	
March 10 2019	251.37206	1.06000	1.05791	1.06089	1.06061	
March 11 2019	251.38752	1.06006	1.05798	1.06096	1.06068	
March 12 2019	251.40297	1.06013	1.05804	1.06102	1.06074	
March 13 2019	251.41842	1.06019	1.05811	1.06109	1.06081	
March 14 2019	251.43387	1.06026	1.05817	1.06115	1.06087	
March 15 2019	251.44932	1.06032	1.05824	1.06122	1.06094	
March 16 2019	251.46477	1.06039	1.05830	1.06128	1.06100	
March 17 2019	251.48023	1.06046	1.05837	1.06135	1.06107	
March 18 2019	251.49568	1.06052	1.05843	1.06141	1.06113	
March 19 2019	251.51113	1.06059	1.05850	1.06148	1.06120	
March 20 2019	251.52658	1.06065	1.05856	1.06154	1.06126	
March 21 2019	251.54203	1.06072	1.05863	1.06161	1.06133	
March 22 2019	251.55748	1.06078	1.05869	1.06167	1.06139	
March 23 2019	251.57294	1.06085	1.05876	1.06174	1.06146	
March 24 2019	251.58839	1.06091	1.05882	1.06180	1.06152	
March 25 2019	251.60384	1.06098	1.05889	1.06187	1.06159	
March 26 2019	251.61929	1.06104	1.05895	1.06193	1.06165	
March 27 2019	251.63474	1.06111	1.05902	1.06200	1.06172	
March 28 2019	251.65019	1.06117	1.05908	1.06206	1.06178	
March 29 2019	251.66565	1.06124	1.05915	1.06213	1.06185	
March 30 2019	251.68110	1.06130	1.05921	1.06219	1.06191	
March 31 2019	251.69655	1.06137	1.05928	1.06226	1.06198	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 10-Year TIPS Series D-2026 912828S50 July 15, 2016 July 29, 2016 September 30, 2016 November 30, 2016	0-3/8% 10-Year TIPS Series A-2027 912828V49 January 15, 2017 January 31, 2017 March 31, 2017 May 31, 2017	0-7/8% 30-Year TIPS TIPS of February 2047 912810RW0 February 15, 2017 February 28, 2017 June 30, 2017 October 31, 2017	0-1/8% 5-Year TIPS Series X-2022 912828X39 April 15, 2017 April 28, 2017 August 31, 2017 December 29, 2017
Maturity Date: Ref CPI on Dated Date:			July 15, 2026 239.70132	January 15, 2027 241.55919	February 15, 2047 241.39250	April 15, 2022 243.19553
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.04811	1.04005	1.04077	1.03305	
March 2 2019	251.24845	1.04817	1.04011	1.04083	1.03311	
March 3 2019	251.26390	1.04824	1.04018	1.04089	1.03318	
March 4 2019	251.27935	1.04830	1.04024	1.04096	1.03324	
March 5 2019	251.29481	1.04837	1.04030	1.04102	1.03330	
March 6 2019	251.31026	1.04843	1.04037	1.04109	1.03337	
March 7 2019	251.32571	1.04850	1.04043	1.04115	1.03343	
March 8 2019	251.34116	1.04856	1.04050	1.04121	1.03349	
March 9 2019	251.35661	1.04862	1.04056	1.04128	1.03356	
March 10 2019	251.37206	1.04869	1.04062	1.04134	1.03362	
March 11 2019	251.38752	1.04875	1.04069	1.04141	1.03368	
March 12 2019	251.40297	1.04882	1.04075	1.04147	1.03375	
March 13 2019	251.41842	1.04888	1.04081	1.04153	1.03381	
March 14 2019	251.43387	1.04895	1.04088	1.04160	1.03388	
March 15 2019	251.44932	1.04901	1.04094	1.04166	1.03394	
March 16 2019	251.46477	1.04908	1.04101	1.04173	1.03400	
March 17 2019	251.48023	1.04914	1.04107	1.04179	1.03407	
March 18 2019	251.49568	1.04920	1.04113	1.04185	1.03413	
March 19 2019	251.51113	1.04927	1.04120	1.04192	1.03419	
March 20 2019	251.52658	1.04933	1.04126	1.04198	1.03426	
March 21 2019	251.54203	1.04940	1.04133	1.04205	1.03432	
March 22 2019	251.55748	1.04946	1.04139	1.04211	1.03438	
March 23 2019	251.57294	1.04953	1.04145	1.04217	1.03445	
March 24 2019	251.58839	1.04959	1.04152	1.04224	1.03451	
March 25 2019	251.60384	1.04966	1.04158	1.04230	1.03457	
March 26 2019	251.61929	1.04972	1.04165	1.04237	1.03464	
March 27 2019	251.63474	1.04978	1.04171	1.04243	1.03470	
March 28 2019	251.65019	1.04985	1.04177	1.04249	1.03476	
March 29 2019	251.66565	1.04991	1.04184	1.04256	1.03483	
March 30 2019	251.68110	1.04998	1.04190	1.04262	1.03489	
March 31 2019	251.69655	1.05004	1.04197	1.04269	1.03496	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
March 2019

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-3/8% 10-Year TIPS Series D-2027 9128282L3 July 15, 2017 July 31, 2017 September 29, 2017 November 30, 2017	0-1/2% 10-Year TIPS Series A-2028 9128283R9 January 15, 2018 January 31, 2018 March 29, 2018 May 31, 2018	1% 30-Year TIPS TIPS of February 2048 912810SB5 February 15, 2018 February 28, 2018 June 29, 2018 October 31, 2018	0-5/8% 5-Year TIPS Series X-2023 9128284H0 April 15, 2018 April 30, 2018 August 31, 2018 December 31, 2018
Maturity Date: Ref CPI on Dated Date:			July 15, 2027 244.61839	January 15, 2028 246.66571	February 15, 2048 246.59650	April 15, 2023 248.39153
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
March 1 2019	251.23300	1.02704	1.01852	1.01880	1.01144	
March 2 2019	251.24845	1.02710	1.01858	1.01886	1.01150	
March 3 2019	251.26390	1.02717	1.01864	1.01893	1.01156	
March 4 2019	251.27935	1.02723	1.01870	1.01899	1.01163	
March 5 2019	251.29481	1.02729	1.01877	1.01905	1.01169	
March 6 2019	251.31026	1.02736	1.01883	1.01912	1.01175	
March 7 2019	251.32571	1.02742	1.01889	1.01918	1.01181	
March 8 2019	251.34116	1.02748	1.01895	1.01924	1.01187	
March 9 2019	251.35661	1.02755	1.01902	1.01930	1.01194	
March 10 2019	251.37206	1.02761	1.01908	1.01937	1.01200	
March 11 2019	251.38752	1.02767	1.01914	1.01943	1.01206	
March 12 2019	251.40297	1.02774	1.01921	1.01949	1.01212	
March 13 2019	251.41842	1.02780	1.01927	1.01955	1.01219	
March 14 2019	251.43387	1.02786	1.01933	1.01962	1.01225	
March 15 2019	251.44932	1.02792	1.01939	1.01968	1.01231	
March 16 2019	251.46477	1.02799	1.01946	1.01974	1.01237	
March 17 2019	251.48023	1.02805	1.01952	1.01980	1.01243	
March 18 2019	251.49568	1.02811	1.01958	1.01987	1.01250	
March 19 2019	251.51113	1.02818	1.01964	1.01993	1.01256	
March 20 2019	251.52658	1.02824	1.01971	1.01999	1.01262	
March 21 2019	251.54203	1.02830	1.01977	1.02006	1.01268	
March 22 2019	251.55748	1.02837	1.01983	1.02012	1.01275	
March 23 2019	251.57294	1.02843	1.01989	1.02018	1.01281	
March 24 2019	251.58839	1.02849	1.01996	1.02024	1.01287	
March 25 2019	251.60384	1.02856	1.02002	1.02031	1.01293	
March 26 2019	251.61929	1.02862	1.02008	1.02037	1.01299	
March 27 2019	251.63474	1.02868	1.02014	1.02043	1.01306	
March 28 2019	251.65019	1.02875	1.02021	1.02049	1.01312	
March 29 2019	251.66565	1.02881	1.02027	1.02056	1.01318	
March 30 2019	251.68110	1.02887	1.02033	1.02062	1.01324	
March 31 2019	251.69655	1.02894	1.02040	1.02068	1.01331	
CPI-U (NSA) for:	November 2018	252.038	December 2018	251.233	January 2019	251.712

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
March 2019

Security:			0-3/4% 10-Year TIPS	0-7/8% 10-Year TIPS		
Description:			Series D-2028	Series A-2029		
CUSIP Number:			912828Y38	9128285W6		
Dated Date:			July 15, 2018	January 15, 2019		
Original Issue Date:			July 31, 2018	January 31, 2019		
Additional Issue Date(s):			September 28, 2018			
			November 30, 2018			
Maturity Date:			July 15, 2028	January 15, 2029		
Ref CPI on Dated Date:			251.01658	252.50248		
Date			Ref CPI	Index Ratio	Index Ratio	
March	1	2019	251.23300	1.00086	0.99497	
March	2	2019	251.24845	1.00092	0.99503	
March	3	2019	251.26390	1.00099	0.99509	
March	4	2019	251.27935	1.00105	0.99516	
March	5	2019	251.29481	1.00111	0.99522	
March	6	2019	251.31026	1.00117	0.99528	
March	7	2019	251.32571	1.00123	0.99534	
March	8	2019	251.34116	1.00129	0.99540	
March	9	2019	251.35661	1.00135	0.99546	
March	10	2019	251.37206	1.00142	0.99552	
March	11	2019	251.38752	1.00148	0.99558	
March	12	2019	251.40297	1.00154	0.99565	
March	13	2019	251.41842	1.00160	0.99571	
March	14	2019	251.43387	1.00166	0.99577	
March	15	2019	251.44932	1.00172	0.99583	
March	16	2019	251.46477	1.00179	0.99589	
March	17	2019	251.48023	1.00185	0.99595	
March	18	2019	251.49568	1.00191	0.99601	
March	19	2019	251.51113	1.00197	0.99607	
March	20	2019	251.52658	1.00203	0.99614	
March	21	2019	251.54203	1.00209	0.99620	
March	22	2019	251.55748	1.00215	0.99626	
March	23	2019	251.57294	1.00222	0.99632	
March	24	2019	251.58839	1.00228	0.99638	
March	25	2019	251.60384	1.00234	0.99644	
March	26	2019	251.61929	1.00240	0.99650	
March	27	2019	251.63474	1.00246	0.99656	
March	28	2019	251.65019	1.00252	0.99662	
March	29	2019	251.66565	1.00259	0.99669	
March	30	2019	251.68110	1.00265	0.99675	
March	31	2019	251.69655	1.00271	0.99681	
CPI-U (NSA) for:			November 2018	252.038	December 2018	251.233
					January 2019	251.712