

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
January 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			
January 1 2019	252.88500	1.56353	1.53829	1.42470	1.34159			
January 2 2019	252.85768	1.56336	1.53813	1.42455	1.34144			
January 3 2019	252.83035	1.56319	1.53796	1.42440	1.34130			
January 4 2019	252.80303	1.56302	1.53779	1.42424	1.34115			
January 5 2019	252.77571	1.56285	1.53763	1.42409	1.34101			
January 6 2019	252.74839	1.56268	1.53746	1.42393	1.34086			
January 7 2019	252.72106	1.56251	1.53730	1.42378	1.34072			
January 8 2019	252.69374	1.56235	1.53713	1.42363	1.34057			
January 9 2019	252.66642	1.56218	1.53696	1.42347	1.34043			
January 10 2019	252.63910	1.56201	1.53680	1.42332	1.34028			
January 11 2019	252.61177	1.56184	1.53663	1.42316	1.34014			
January 12 2019	252.58445	1.56167	1.53646	1.42301	1.33999			
January 13 2019	252.55713	1.56150	1.53630	1.42286	1.33985			
January 14 2019	252.52981	1.56133	1.53613	1.42270	1.33970			
January 15 2019	252.50248	1.56116	1.53597	1.42255	1.33956			
January 16 2019	252.47516	1.56099	1.53580	1.42240	1.33941			
January 17 2019	252.44784	1.56083	1.53563	1.42224	1.33927			
January 18 2019	252.42052	1.56066	1.53547	1.42209	1.33912			
January 19 2019	252.39319	1.56049	1.53530	1.42193	1.33898			
January 20 2019	252.36587	1.56032	1.53513	1.42178	1.33883			
January 21 2019	252.33855	1.56015	1.53497	1.42163	1.33869			
January 22 2019	252.31123	1.55998	1.53480	1.42147	1.33854			
January 23 2019	252.28390	1.55981	1.53464	1.42132	1.33840			
January 24 2019	252.25658	1.55964	1.53447	1.42116	1.33825			
January 25 2019	252.22926	1.55947	1.53430	1.42101	1.33811			
January 26 2019	252.20194	1.55930	1.53414	1.42086	1.33796			
January 27 2019	252.17461	1.55914	1.53397	1.42070	1.33782			
January 28 2019	252.14729	1.55897	1.53380	1.42055	1.33767			
January 29 2019	252.11997	1.55880	1.53364	1.42039	1.33753			
January 30 2019	252.09265	1.55863	1.53347	1.42024	1.33738			
January 31 2019	252.06532	1.55846	1.53331	1.42009	1.33724			
CPI-U (NSA) for:			September 2018	252.439	October 2018	252.885	November 2018	252.038

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
January 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	2-1/8% 10-Year TIPS Series A-2019 912828JX9 January 15, 2009 January 15, 2009 April 15, 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, 2019 214.69971
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January 1 2019	252.88500	1.27412	1.25399	1.20711	1.17785	
January 2 2019	252.85768	1.27399	1.25385	1.20698	1.17773	
January 3 2019	252.83035	1.27385	1.25372	1.20685	1.17760	
January 4 2019	252.80303	1.27371	1.25358	1.20672	1.17747	
January 5 2019	252.77571	1.27357	1.25345	1.20659	1.17735	
January 6 2019	252.74839	1.27344	1.25331	1.20646	1.17722	
January 7 2019	252.72106	1.27330	1.25318	1.20633	1.17709	
January 8 2019	252.69374	1.27316	1.25304	1.20620	1.17696	
January 9 2019	252.66642	1.27302	1.25290	1.20607	1.17684	
January 10 2019	252.63910	1.27289	1.25277	1.20593	1.17671	
January 11 2019	252.61177	1.27275	1.25263	1.20580	1.17658	
January 12 2019	252.58445	1.27261	1.25250	1.20567	1.17645	
January 13 2019	252.55713	1.27247	1.25236	1.20554	1.17633	
January 14 2019	252.52981	1.27234	1.25223	1.20541	1.17620	
January 15 2019	252.50248	1.27220	1.25209	1.20528	1.17607	
January 16 2019	252.47516	1.27206	1.25196	1.20515		
January 17 2019	252.44784	1.27192	1.25182	1.20502		
January 18 2019	252.42052	1.27178	1.25169	1.20489		
January 19 2019	252.39319	1.27165	1.25155	1.20476		
January 20 2019	252.36587	1.27151	1.25141	1.20463		
January 21 2019	252.33855	1.27137	1.25128	1.20450		
January 22 2019	252.31123	1.27123	1.25114	1.20437		
January 23 2019	252.28390	1.27110	1.25101	1.20424		
January 24 2019	252.25658	1.27096	1.25087	1.20411		
January 25 2019	252.22926	1.27082	1.25074	1.20398		
January 26 2019	252.20194	1.27068	1.25060	1.20385		
January 27 2019	252.17461	1.27055	1.25047	1.20372		
January 28 2019	252.14729	1.27041	1.25033	1.20359		
January 29 2019	252.11997	1.27027	1.25019	1.20346		
January 30 2019	252.09265	1.27013	1.25006	1.20333		
January 31 2019	252.06532	1.26999	1.24992	1.20320		
CPI-U (NSA) for:	September 2018	252.439	October 2018	252.885	November 2018	252.038

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			2-1/2% 20-Year TIPS TIPS of January 2029 912810PZ5 January 15, 2009 January 30, 2009 July 31, 2009	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
Maturity Date: Ref CPI on Dated Date:			January 15, 2029 214.69971	July 15, 2019 213.51819	January 15, 2020 216.24610	February 15, 2040 216.13950
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January 1 2019	252.88500	1.17785	1.18437	1.16943	1.17001	
January 2 2019	252.85768	1.17773	1.18424	1.16931	1.16988	
January 3 2019	252.83035	1.17760	1.18412	1.16918	1.16976	
January 4 2019	252.80303	1.17747	1.18399	1.16905	1.16963	
January 5 2019	252.77571	1.17735	1.18386	1.16893	1.16950	
January 6 2019	252.74839	1.17722	1.18373	1.16880	1.16938	
January 7 2019	252.72106	1.17709	1.18360	1.16867	1.16925	
January 8 2019	252.69374	1.17696	1.18348	1.16855	1.16912	
January 9 2019	252.66642	1.17684	1.18335	1.16842	1.16900	
January 10 2019	252.63910	1.17671	1.18322	1.16829	1.16887	
January 11 2019	252.61177	1.17658	1.18309	1.16817	1.16874	
January 12 2019	252.58445	1.17645	1.18296	1.16804	1.16862	
January 13 2019	252.55713	1.17633	1.18284	1.16792	1.16849	
January 14 2019	252.52981	1.17620	1.18271	1.16779	1.16836	
January 15 2019	252.50248	1.17607	1.18258	1.16766	1.16824	
January 16 2019	252.47516	1.17595	1.18245	1.16754	1.16811	
January 17 2019	252.44784	1.17582	1.18232	1.16741	1.16799	
January 18 2019	252.42052	1.17569	1.18220	1.16728	1.16786	
January 19 2019	252.39319	1.17556	1.18207	1.16716	1.16773	
January 20 2019	252.36587	1.17544	1.18194	1.16703	1.16761	
January 21 2019	252.33855	1.17531	1.18181	1.16690	1.16748	
January 22 2019	252.31123	1.17518	1.18168	1.16678	1.16735	
January 23 2019	252.28390	1.17505	1.18156	1.16665	1.16723	
January 24 2019	252.25658	1.17493	1.18143	1.16653	1.16710	
January 25 2019	252.22926	1.17480	1.18130	1.16640	1.16697	
January 26 2019	252.20194	1.17467	1.18117	1.16627	1.16685	
January 27 2019	252.17461	1.17455	1.18105	1.16615	1.16672	
January 28 2019	252.14729	1.17442	1.18092	1.16602	1.16660	
January 29 2019	252.11997	1.17429	1.18079	1.16589	1.16647	
January 30 2019	252.09265	1.17416	1.18066	1.16577	1.16634	
January 31 2019	252.06532	1.17404	1.18053	1.16564	1.16622	
CPI-U (NSA) for:	September 2018	252.439	October 2018	252.885	November 2018	252.038

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			1-1/4% 10-Year TIPS Series D-2020 912828NM8 July 15, 2010 July 15, 2010 September 15, 2010 November 15, 2010	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
Maturity Date: Ref CPI on Dated Date:			July 15, 2020 218.08532	January 15, 2021 218.75255	February 15, 2041 218.99100	July 15, 2021 225.38381
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January 1 2019	252.88500	1.15957	1.15603	1.15477	1.12202	
January 2 2019	252.85768	1.15944	1.15591	1.15465	1.12190	
January 3 2019	252.83035	1.15932	1.15578	1.15452	1.12178	
January 4 2019	252.80303	1.15919	1.15566	1.15440	1.12166	
January 5 2019	252.77571	1.15907	1.15553	1.15427	1.12153	
January 6 2019	252.74839	1.15894	1.15541	1.15415	1.12141	
January 7 2019	252.72106	1.15882	1.15528	1.15402	1.12129	
January 8 2019	252.69374	1.15869	1.15516	1.15390	1.12117	
January 9 2019	252.66642	1.15857	1.15503	1.15378	1.12105	
January 10 2019	252.63910	1.15844	1.15491	1.15365	1.12093	
January 11 2019	252.61177	1.15832	1.15478	1.15353	1.12081	
January 12 2019	252.58445	1.15819	1.15466	1.15340	1.12069	
January 13 2019	252.55713	1.15807	1.15453	1.15328	1.12056	
January 14 2019	252.52981	1.15794	1.15441	1.15315	1.12044	
January 15 2019	252.50248	1.15782	1.15428	1.15303	1.12032	
January 16 2019	252.47516	1.15769	1.15416	1.15290	1.12020	
January 17 2019	252.44784	1.15756	1.15403	1.15278	1.12008	
January 18 2019	252.42052	1.15744	1.15391	1.15265	1.11996	
January 19 2019	252.39319	1.15731	1.15378	1.15253	1.11984	
January 20 2019	252.36587	1.15719	1.15366	1.15240	1.11972	
January 21 2019	252.33855	1.15706	1.15353	1.15228	1.11959	
January 22 2019	252.31123	1.15694	1.15341	1.15215	1.11947	
January 23 2019	252.28390	1.15681	1.15328	1.15203	1.11935	
January 24 2019	252.25658	1.15669	1.15316	1.15190	1.11923	
January 25 2019	252.22926	1.15656	1.15303	1.15178	1.11911	
January 26 2019	252.20194	1.15644	1.15291	1.15165	1.11899	
January 27 2019	252.17461	1.15631	1.15278	1.15153	1.11887	
January 28 2019	252.14729	1.15619	1.15266	1.15140	1.11875	
January 29 2019	252.11997	1.15606	1.15253	1.15128	1.11863	
January 30 2019	252.09265	1.15594	1.15241	1.15116	1.11850	
January 31 2019	252.06532	1.15581	1.15229	1.15103	1.11838	
CPI-U (NSA) for:	September 2018	252.439	October 2018	252.885	November 2018	252.038

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

Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January	1	2019	252.88500	1.11731	1.11916	1.09968	1.09558	
January	2	2019	252.85768	1.11718	1.11903	1.09956	1.09547	
January	3	2019	252.83035	1.11706	1.11891	1.09944	1.09535	
January	4	2019	252.80303	1.11694	1.11879	1.09932	1.09523	
January	5	2019	252.77571	1.11682	1.11867	1.09920	1.09511	
January	6	2019	252.74839	1.11670	1.11855	1.09908	1.09499	
January	7	2019	252.72106	1.11658	1.11843	1.09896	1.09487	
January	8	2019	252.69374	1.11646	1.11831	1.09884	1.09476	
January	9	2019	252.66642	1.11634	1.11819	1.09873	1.09464	
January	10	2019	252.63910	1.11622	1.11807	1.09861	1.09452	
January	11	2019	252.61177	1.11610	1.11795	1.09849	1.09440	
January	12	2019	252.58445	1.11598	1.11783	1.09837	1.09428	
January	13	2019	252.55713	1.11586	1.11770	1.09825	1.09416	
January	14	2019	252.52981	1.11574	1.11758	1.09813	1.09405	
January	15	2019	252.50248	1.11562	1.11746	1.09801	1.09393	
January	16	2019	252.47516	1.11549	1.11734	1.09789	1.09381	
January	17	2019	252.44784	1.11537	1.11722	1.09778	1.09369	
January	18	2019	252.42052	1.11525	1.11710	1.09766	1.09357	
January	19	2019	252.39319	1.11513	1.11698	1.09754	1.09345	
January	20	2019	252.36587	1.11501	1.11686	1.09742	1.09334	
January	21	2019	252.33855	1.11489	1.11674	1.09730	1.09322	
January	22	2019	252.31123	1.11477	1.11662	1.09718	1.09310	
January	23	2019	252.28390	1.11465	1.11649	1.09706	1.09298	
January	24	2019	252.25658	1.11453	1.11637	1.09694	1.09286	
January	25	2019	252.22926	1.11441	1.11625	1.09683	1.09274	
January	26	2019	252.20194	1.11429	1.11613	1.09671	1.09263	
January	27	2019	252.17461	1.11417	1.11601	1.09659	1.09251	
January	28	2019	252.14729	1.11405	1.11589	1.09647	1.09239	
January	29	2019	252.11997	1.11393	1.11577	1.09635	1.09227	
January	30	2019	252.09265	1.11380	1.11565	1.09623	1.09215	
January	31	2019	252.06532	1.11368	1.11553	1.09611	1.09203	
CPI-U (NSA) for:			September 2018	252.439	October 2018	252.885	November 2018	252.038

Security:
Description:
CUSIP Number:
Dated Date:
Original Issue Date:
Additional Issue Date(s):

Maturity Date:
Ref CPI on Dated Date:

0-1/8% 10-Year TIPS
Series A-2022
912828SA9
January 15, 2012
February 31, 2012
March 30, 2012
May 31, 2012

January 15, 2022
226.33474

0-3/4% 30-Year TIPS
TIPS of February 2042
912810QV3
February 15, 2012
February 29, 2012
June 29, 2012
October 31, 2012

February 15, 2042
225.96062

0-1/8% 10-Year TIPS
Series D-2022
912828TE0
July 15, 2012
July 31, 2012
September 28, 2012
November 30, 2012

July 15, 2022
229.96306

0-1/8% 10-Year TIPS
Series A-2023
912828UH1
January 15, 2013
January 31, 2013
March 28, 2013
May 31, 2013

January 15, 2023
230.82203

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-5/8% 30-Year TIPS TIPS of February 2043 912810RA8 February 15, 2013 February 28, 2013 June 28, 2013 October 31, 2013	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
Maturity Date: Ref CPI on Dated Date:			February 15, 2043 229.91100	July 15, 2023 232.71797	January 15, 2024 233.33058	February 15, 2044 233.05900
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January 1 2019	252.88500	1.09993	1.08666	1.08381	1.08507	
January 2 2019	252.85768	1.09981	1.08654	1.08369	1.08495	
January 3 2019	252.83035	1.09969	1.08642	1.08357	1.08483	
January 4 2019	252.80303	1.09957	1.08631	1.08345	1.08472	
January 5 2019	252.77571	1.09945	1.08619	1.08334	1.08460	
January 6 2019	252.74839	1.09933	1.08607	1.08322	1.08448	
January 7 2019	252.72106	1.09921	1.08595	1.08310	1.08437	
January 8 2019	252.69374	1.09909	1.08584	1.08299	1.08425	
January 9 2019	252.66642	1.09897	1.08572	1.08287	1.08413	
January 10 2019	252.63910	1.09886	1.08560	1.08275	1.08401	
January 11 2019	252.61177	1.09874	1.08548	1.08263	1.08390	
January 12 2019	252.58445	1.09862	1.08537	1.08252	1.08378	
January 13 2019	252.55713	1.09850	1.08525	1.08240	1.08366	
January 14 2019	252.52981	1.09838	1.08513	1.08228	1.08354	
January 15 2019	252.50248	1.09826	1.08501	1.08217	1.08343	
January 16 2019	252.47516	1.09814	1.08490	1.08205	1.08331	
January 17 2019	252.44784	1.09802	1.08478	1.08193	1.08319	
January 18 2019	252.42052	1.09791	1.08466	1.08181	1.08308	
January 19 2019	252.39319	1.09779	1.08455	1.08170	1.08296	
January 20 2019	252.36587	1.09767	1.08443	1.08158	1.08284	
January 21 2019	252.33855	1.09755	1.08431	1.08146	1.08272	
January 22 2019	252.31123	1.09743	1.08419	1.08135	1.08261	
January 23 2019	252.28390	1.09731	1.08408	1.08123	1.08249	
January 24 2019	252.25658	1.09719	1.08396	1.08111	1.08237	
January 25 2019	252.22926	1.09707	1.08384	1.08100	1.08225	
January 26 2019	252.20194	1.09695	1.08372	1.08088	1.08214	
January 27 2019	252.17461	1.09684	1.08361	1.08076	1.08202	
January 28 2019	252.14729	1.09672	1.08349	1.08064	1.08190	
January 29 2019	252.11997	1.09660	1.08337	1.08053	1.08179	
January 30 2019	252.09265	1.09648	1.08325	1.08041	1.08167	
January 31 2019	252.06532	1.09636	1.08314	1.08029	1.08155	
CPI-U (NSA) for:	September 2018	252.439	October 2018	252.885	November 2018	252.038

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 5-Year TIPS Series X-2019 912828C99 April 15, 2014 April 30, 2014 August 29, 2014 December 31, 2014	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
Maturity Date: Ref CPI on Dated Date:			April 15, 2019 234.31967	July 15, 2024 237.44594	January 15, 2025 236.85403	February 15, 2045 235.48150
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January 1 2019	252.88500	1.07923	1.06502	1.06768	1.07391	
January 2 2019	252.85768	1.07911	1.06491	1.06757	1.07379	
January 3 2019	252.83035	1.07900	1.06479	1.06745	1.07367	
January 4 2019	252.80303	1.07888	1.06468	1.06734	1.07356	
January 5 2019	252.77571	1.07876	1.06456	1.06722	1.07344	
January 6 2019	252.74839	1.07865	1.06445	1.06711	1.07333	
January 7 2019	252.72106	1.07853	1.06433	1.06699	1.07321	
January 8 2019	252.69374	1.07841	1.06422	1.06688	1.07309	
January 9 2019	252.66642	1.07830	1.06410	1.06676	1.07298	
January 10 2019	252.63910	1.07818	1.06399	1.06664	1.07286	
January 11 2019	252.61177	1.07806	1.06387	1.06653	1.07275	
January 12 2019	252.58445	1.07795	1.06376	1.06641	1.07263	
January 13 2019	252.55713	1.07783	1.06364	1.06630	1.07251	
January 14 2019	252.52981	1.07771	1.06353	1.06618	1.07240	
January 15 2019	252.50248	1.07760	1.06341	1.06607	1.07228	
January 16 2019	252.47516	1.07748	1.06330	1.06595	1.07217	
January 17 2019	252.44784	1.07737	1.06318	1.06584	1.07205	
January 18 2019	252.42052	1.07725	1.06307	1.06572	1.07193	
January 19 2019	252.39319	1.07713	1.06295	1.06561	1.07182	
January 20 2019	252.36587	1.07702	1.06284	1.06549	1.07170	
January 21 2019	252.33855	1.07690	1.06272	1.06538	1.07159	
January 22 2019	252.31123	1.07678	1.06260	1.06526	1.07147	
January 23 2019	252.28390	1.07667	1.06249	1.06515	1.07135	
January 24 2019	252.25658	1.07655	1.06237	1.06503	1.07124	
January 25 2019	252.22926	1.07643	1.06226	1.06491	1.07112	
January 26 2019	252.20194	1.07632	1.06214	1.06480	1.07101	
January 27 2019	252.17461	1.07620	1.06203	1.06468	1.07089	
January 28 2019	252.14729	1.07608	1.06191	1.06457	1.07077	
January 29 2019	252.11997	1.07597	1.06180	1.06445	1.07066	
January 30 2019	252.09265	1.07585	1.06168	1.06434	1.07054	
January 31 2019	252.06532	1.07573	1.06157	1.06422	1.07043	
CPI-U (NSA) for:	September 2018	252.439	October 2018	252.885	November 2018	252.038

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 5-Year TIPS Series X-2020 912828K33 April 15, 2015 April 30, 2015 August 31, 2015 December 31, 2015	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
Maturity Date: Ref CPI on Dated Date:			April 15, 2020 234.18067	July 15, 2025 237.14365	January 15, 2026 237.61129	February 15, 2046 236.94448
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January 1 2019	252.88500	1.07987	1.06638	1.06428	1.06728	
January 2 2019	252.85768	1.07975	1.06626	1.06417	1.06716	
January 3 2019	252.83035	1.07964	1.06615	1.06405	1.06704	
January 4 2019	252.80303	1.07952	1.06603	1.06394	1.06693	
January 5 2019	252.77571	1.07940	1.06592	1.06382	1.06681	
January 6 2019	252.74839	1.07929	1.06580	1.06371	1.06670	
January 7 2019	252.72106	1.07917	1.06569	1.06359	1.06658	
January 8 2019	252.69374	1.07905	1.06557	1.06348	1.06647	
January 9 2019	252.66642	1.07894	1.06546	1.06336	1.06635	
January 10 2019	252.63910	1.07882	1.06534	1.06325	1.06624	
January 11 2019	252.61177	1.07870	1.06523	1.06313	1.06612	
January 12 2019	252.58445	1.07859	1.06511	1.06302	1.06601	
January 13 2019	252.55713	1.07847	1.06500	1.06290	1.06589	
January 14 2019	252.52981	1.07835	1.06488	1.06279	1.06578	
January 15 2019	252.50248	1.07824	1.06477	1.06267	1.06566	
January 16 2019	252.47516	1.07812	1.06465	1.06256	1.06555	
January 17 2019	252.44784	1.07800	1.06454	1.06244	1.06543	
January 18 2019	252.42052	1.07789	1.06442	1.06233	1.06532	
January 19 2019	252.39319	1.07777	1.06431	1.06221	1.06520	
January 20 2019	252.36587	1.07765	1.06419	1.06210	1.06508	
January 21 2019	252.33855	1.07754	1.06407	1.06198	1.06497	
January 22 2019	252.31123	1.07742	1.06396	1.06187	1.06485	
January 23 2019	252.28390	1.07730	1.06384	1.06175	1.06474	
January 24 2019	252.25658	1.07719	1.06373	1.06164	1.06462	
January 25 2019	252.22926	1.07707	1.06361	1.06152	1.06451	
January 26 2019	252.20194	1.07695	1.06350	1.06141	1.06439	
January 27 2019	252.17461	1.07684	1.06338	1.06129	1.06428	
January 28 2019	252.14729	1.07672	1.06327	1.06118	1.06416	
January 29 2019	252.11997	1.07660	1.06315	1.06106	1.06405	
January 30 2019	252.09265	1.07649	1.06304	1.06095	1.06393	
January 31 2019	252.06532	1.07637	1.06292	1.06083	1.06382	
CPI-U (NSA) for:	September 2018	252.439	October 2018	252.885	November 2018	252.038

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 5-Year TIPS Series X-2021 912828Q60 April 15, 2016 April 29, 2016 August 31, 2016 December 30, 2016	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
Maturity Date: Ref CPI on Dated Date:			April 15, 2021 237.00700	July 15, 2026 239.70132	January 15, 2027 241.55919	February 15, 2047 241.39250
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January 1 2019	252.88500	1.06699	1.05500	1.04689	1.04761	
January 2 2019	252.85768	1.06688	1.05489	1.04677	1.04750	
January 3 2019	252.83035	1.06676	1.05477	1.04666	1.04738	
January 4 2019	252.80303	1.06665	1.05466	1.04655	1.04727	
January 5 2019	252.77571	1.06653	1.05454	1.04643	1.04716	
January 6 2019	252.74839	1.06642	1.05443	1.04632	1.04704	
January 7 2019	252.72106	1.06630	1.05432	1.04621	1.04693	
January 8 2019	252.69374	1.06619	1.05420	1.04609	1.04682	
January 9 2019	252.66642	1.06607	1.05409	1.04598	1.04670	
January 10 2019	252.63910	1.06596	1.05397	1.04587	1.04659	
January 11 2019	252.61177	1.06584	1.05386	1.04576	1.04648	
January 12 2019	252.58445	1.06573	1.05375	1.04564	1.04636	
January 13 2019	252.55713	1.06561	1.05363	1.04553	1.04625	
January 14 2019	252.52981	1.06550	1.05352	1.04542	1.04614	
January 15 2019	252.50248	1.06538	1.05340	1.04530	1.04602	
January 16 2019	252.47516	1.06526	1.05329	1.04519	1.04591	
January 17 2019	252.44784	1.06515	1.05318	1.04508	1.04580	
January 18 2019	252.42052	1.06503	1.05306	1.04496	1.04569	
January 19 2019	252.39319	1.06492	1.05295	1.04485	1.04557	
January 20 2019	252.36587	1.06480	1.05283	1.04474	1.04546	
January 21 2019	252.33855	1.06469	1.05272	1.04462	1.04535	
January 22 2019	252.31123	1.06457	1.05261	1.04451	1.04523	
January 23 2019	252.28390	1.06446	1.05249	1.04440	1.04512	
January 24 2019	252.25658	1.06434	1.05238	1.04428	1.04501	
January 25 2019	252.22926	1.06423	1.05226	1.04417	1.04489	
January 26 2019	252.20194	1.06411	1.05215	1.04406	1.04478	
January 27 2019	252.17461	1.06400	1.05204	1.04395	1.04467	
January 28 2019	252.14729	1.06388	1.05192	1.04383	1.04455	
January 29 2019	252.11997	1.06377	1.05181	1.04372	1.04444	
January 30 2019	252.09265	1.06365	1.05169	1.04361	1.04433	
January 31 2019	252.06532	1.06354	1.05158	1.04349	1.04421	
CPI-U (NSA) for:	September 2018	252.439	October 2018	252.885	November 2018	252.038

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 5-Year TIPS Series X-2022 912828X39 April 15, 2017 April 28, 2017 August 31, 2017 December 29, 2017	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
Maturity Date: Ref CPI on Dated Date:			April 15, 2022 243.19553	July 15, 2027 244.61839	January 15, 2028 246.66571	February 15, 2048 246.59650
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
January 1 2019	252.88500	1.03984	1.03379	1.02521	1.02550	
January 2 2019	252.85768	1.03973	1.03368	1.02510	1.02539	
January 3 2019	252.83035	1.03962	1.03357	1.02499	1.02528	
January 4 2019	252.80303	1.03951	1.03346	1.02488	1.02517	
January 5 2019	252.77571	1.03939	1.03335	1.02477	1.02506	
January 6 2019	252.74839	1.03928	1.03324	1.02466	1.02495	
January 7 2019	252.72106	1.03917	1.03312	1.02455	1.02484	
January 8 2019	252.69374	1.03906	1.03301	1.02444	1.02473	
January 9 2019	252.66642	1.03894	1.03290	1.02433	1.02461	
January 10 2019	252.63910	1.03883	1.03279	1.02422	1.02450	
January 11 2019	252.61177	1.03872	1.03268	1.02411	1.02439	
January 12 2019	252.58445	1.03861	1.03257	1.02399	1.02428	
January 13 2019	252.55713	1.03849	1.03245	1.02388	1.02417	
January 14 2019	252.52981	1.03838	1.03234	1.02377	1.02406	
January 15 2019	252.50248	1.03827	1.03223	1.02366	1.02395	
January 16 2019	252.47516	1.03816	1.03212	1.02355	1.02384	
January 17 2019	252.44784	1.03804	1.03201	1.02344	1.02373	
January 18 2019	252.42052	1.03793	1.03190	1.02333	1.02362	
January 19 2019	252.39319	1.03782	1.03178	1.02322	1.02351	
January 20 2019	252.36587	1.03771	1.03167	1.02311	1.02340	
January 21 2019	252.33855	1.03760	1.03156	1.02300	1.02329	
January 22 2019	252.31123	1.03748	1.03145	1.02289	1.02317	
January 23 2019	252.28390	1.03737	1.03134	1.02278	1.02306	
January 24 2019	252.25658	1.03726	1.03122	1.02267	1.02295	
January 25 2019	252.22926	1.03715	1.03111	1.02256	1.02284	
January 26 2019	252.20194	1.03703	1.03100	1.02244	1.02273	
January 27 2019	252.17461	1.03692	1.03089	1.02233	1.02262	
January 28 2019	252.14729	1.03681	1.03078	1.02222	1.02251	
January 29 2019	252.11997	1.03670	1.03067	1.02211	1.02240	
January 30 2019	252.09265	1.03658	1.03055	1.02200	1.02229	
January 31 2019	252.06532	1.03647	1.03044	1.02189	1.02218	
CPI-U (NSA) for:	September 2018	252.439	October 2018	252.885	November 2018	252.038

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-5/8% 5-Year TIPS Series X-2023 9128284H0 April 15, 2018 April 30, 2018 August 31, 2018	0-3/4% 10-Year TIPS Series D-2028 912828Y38 July 15, 2018 July 31, 2018 September 28, 2018 November 30, 2018				
Maturity Date: Ref CPI on Dated Date:			April 15, 2023 248.39153	July 15, 2028 251.01658				
Date			Ref CPI	Index Ratio	Index Ratio			
January	1	2019	252.88500	1.01809	1.00744			
January	2	2019	252.85768	1.01798	1.00733			
January	3	2019	252.83035	1.01787	1.00723			
January	4	2019	252.80303	1.01776	1.00712			
January	5	2019	252.77571	1.01765	1.00701			
January	6	2019	252.74839	1.01754	1.00690			
January	7	2019	252.72106	1.01743	1.00679			
January	8	2019	252.69374	1.01732	1.00668			
January	9	2019	252.66642	1.01721	1.00657			
January	10	2019	252.63910	1.01710	1.00646			
January	11	2019	252.61177	1.01699	1.00635			
January	12	2019	252.58445	1.01688	1.00625			
January	13	2019	252.55713	1.01677	1.00614			
January	14	2019	252.52981	1.01666	1.00603			
January	15	2019	252.50248	1.01655	1.00592			
January	16	2019	252.47516	1.01644	1.00581			
January	17	2019	252.44784	1.01633	1.00570			
January	18	2019	252.42052	1.01622	1.00559			
January	19	2019	252.39319	1.01611	1.00548			
January	20	2019	252.36587	1.01600	1.00538			
January	21	2019	252.33855	1.01589	1.00527			
January	22	2019	252.31123	1.01578	1.00516			
January	23	2019	252.28390	1.01567	1.00505			
January	24	2019	252.25658	1.01556	1.00494			
January	25	2019	252.22926	1.01545	1.00483			
January	26	2019	252.20194	1.01534	1.00472			
January	27	2019	252.17461	1.01523	1.00461			
January	28	2019	252.14729	1.01512	1.00450			
January	29	2019	252.11997	1.01501	1.00440			
January	30	2019	252.09265	1.01490	1.00429			
January	31	2019	252.06532	1.01479	1.00418			
CPI-U (NSA) for:			September 2018	252.439	October 2018	252.885	November 2018	252.038