

# TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

## Ref CPI and Index Ratios for

January 2020

<b>Security:</b>				<b>3-5/8% 30-Year TIPS</b>	<b>3-7/8% 30-Year TIPS</b>	<b>3-3/8% 30-1/2-Year TIPS</b>	<b>2-3/8% 20-1/2-Year TIPS</b>		
<b>Description:</b>				<b>TIPS of April 2028</b>	<b>TIPS of April 2029</b>	<b>TIPS of April 2032</b>	<b>TIPS of January 2025</b>		
<b>CUSIP Number:</b>				<b>912810FD5</b>	<b>912810FH6</b>	<b>912810FQ6</b>	<b>912810FR4</b>		
<b>Dated Date:</b>				<b>April 15, 1998</b>	<b>April 15, 1999</b>	<b>October 15, 2001</b>	<b>July 15, 2004</b>		
<b>Original Issue Date:</b>				<b>April 15, 1998</b>	<b>April 15, 1999</b>	<b>October 15, 2001</b>	<b>July 30, 2004</b>		
<b>Additional Issue Date(s):</b>				<b>July 15, 1998</b>	<b>October 15, 1999</b> <b>October 16, 2000</b>		<b>January 31, 2005</b> <b>July 29, 2005</b>		
<b>Maturity Date:</b>				<b>April 15, 2028</b>	<b>April 15, 2029</b>	<b>April 15, 2032</b>	<b>January 15, 2025</b>		
<b>Ref CPI on Dated Date:</b>				<b>161.74000</b>	<b>164.39333</b>	<b>177.50000</b>	<b>188.49677</b>		
<b>Date</b>			<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>		
January	1	2020	257.34600	1.59111	1.56543	1.44984	1.36525		
January	2	2020	257.34155	1.59108	1.56540	1.44981	1.36523		
January	3	2020	257.33710	1.59105	1.56537	1.44979	1.36521		
January	4	2020	257.33265	1.59103	1.56535	1.44976	1.36518		
January	5	2020	257.32819	1.59100	1.56532	1.44974	1.36516		
January	6	2020	257.32374	1.59097	1.56529	1.44971	1.36514		
January	7	2020	257.31929	1.59094	1.56527	1.44969	1.36511		
January	8	2020	257.31484	1.59092	1.56524	1.44966	1.36509		
January	9	2020	257.31039	1.59089	1.56521	1.44964	1.36507		
January	10	2020	257.30594	1.59086	1.56518	1.44961	1.36504		
January	11	2020	257.30148	1.59083	1.56516	1.44959	1.36502		
January	12	2020	257.29703	1.59081	1.56513	1.44956	1.36499		
January	13	2020	257.29258	1.59078	1.56510	1.44954	1.36497		
January	14	2020	257.28813	1.59075	1.56508	1.44951	1.36495		
January	15	2020	257.28368	1.59072	1.56505	1.44949	1.36492		
January	16	2020	257.27923	1.59070	1.56502	1.44946	1.36490		
January	17	2020	257.27477	1.59067	1.56500	1.44944	1.36488		
January	18	2020	257.27032	1.59064	1.56497	1.44941	1.36485		
January	19	2020	257.26587	1.59061	1.56494	1.44939	1.36483		
January	20	2020	257.26142	1.59059	1.56491	1.44936	1.36481		
January	21	2020	257.25697	1.59056	1.56489	1.44934	1.36478		
January	22	2020	257.25252	1.59053	1.56486	1.44931	1.36476		
January	23	2020	257.24806	1.59050	1.56483	1.44928	1.36473		
January	24	2020	257.24361	1.59048	1.56481	1.44926	1.36471		
January	25	2020	257.23916	1.59045	1.56478	1.44923	1.36469		
January	26	2020	257.23471	1.59042	1.56475	1.44921	1.36466		
January	27	2020	257.23026	1.59039	1.56472	1.44918	1.36464		
January	28	2020	257.22581	1.59037	1.56470	1.44916	1.36462		
January	29	2020	257.22135	1.59034	1.56467	1.44913	1.36459		
January	30	2020	257.21690	1.59031	1.56464	1.44911	1.36457		
January	31	2020	257.21245	1.59028	1.56462	1.44908	1.36455		
<b>CPI-U (NSA) for:</b>				<b>September 2019</b>	<b>256.759</b>	<b>October 2019</b>	<b>257.346</b>	<b>November 2019</b>	<b>257.208</b>

# TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

## Ref CPI and Index Ratios for

January 2020

<b>Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):</b>				<b>2% 20-Year TIPS TIPS of January 2026 912810FS2 January 15, 2006 January 31, 2006 July 31, 2006</b>	<b>2-3/8% 20-Year TIPS TIPS of January 2027 912810PS1 January 15, 2007 January 31, 2007 July 31, 2007</b>	<b>1-3/4% 20-Year TIPS TIPS of January 2028 912810PV4 January 15, 2008 January 31, 2008 July 31, 2008</b>	<b>2-1/2% 20-Year TIPS TIPS of January 2029 912810PZ5 January 15, 2009 January 30, 2009 July 31, 2009</b>
<b>Maturity Date: Ref CPI on Dated Date:</b>				<b>January 15, 2026 198.47742</b>	<b>January 15, 2027 201.66452</b>	<b>January 15, 2028 209.49645</b>	<b>January 15, 2029 214.69971</b>
<b>Date</b>			<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>
January	1	2020	257.34600	1.29660	1.27611	1.22840	1.19863
January	2	2020	257.34155	1.29658	1.27609	1.22838	1.19861
January	3	2020	257.33710	1.29656	1.27607	1.22836	1.19859
January	4	2020	257.33265	1.29653	1.27604	1.22834	1.19857
January	5	2020	257.32819	1.29651	1.27602	1.22832	1.19855
January	6	2020	257.32374	1.29649	1.27600	1.22830	1.19853
January	7	2020	257.31929	1.29647	1.27598	1.22828	1.19851
January	8	2020	257.31484	1.29644	1.27595	1.22825	1.19849
January	9	2020	257.31039	1.29642	1.27593	1.22823	1.19847
January	10	2020	257.30594	1.29640	1.27591	1.22821	1.19845
January	11	2020	257.30148	1.29638	1.27589	1.22819	1.19842
January	12	2020	257.29703	1.29635	1.27587	1.22817	1.19840
January	13	2020	257.29258	1.29633	1.27584	1.22815	1.19838
January	14	2020	257.28813	1.29631	1.27582	1.22813	1.19836
January	15	2020	257.28368	1.29629	1.27580	1.22811	1.19834
January	16	2020	257.27923	1.29626	1.27578	1.22808	1.19832
January	17	2020	257.27477	1.29624	1.27576	1.22806	1.19830
January	18	2020	257.27032	1.29622	1.27573	1.22804	1.19828
January	19	2020	257.26587	1.29620	1.27571	1.22802	1.19826
January	20	2020	257.26142	1.29617	1.27569	1.22800	1.19824
January	21	2020	257.25697	1.29615	1.27567	1.22798	1.19822
January	22	2020	257.25252	1.29613	1.27565	1.22796	1.19820
January	23	2020	257.24806	1.29611	1.27562	1.22794	1.19818
January	24	2020	257.24361	1.29609	1.27560	1.22791	1.19816
January	25	2020	257.23916	1.29606	1.27558	1.22789	1.19813
January	26	2020	257.23471	1.29604	1.27556	1.22787	1.19811
January	27	2020	257.23026	1.29602	1.27554	1.22785	1.19809
January	28	2020	257.22581	1.29600	1.27551	1.22783	1.19807
January	29	2020	257.22135	1.29597	1.27549	1.22781	1.19805
January	30	2020	257.21690	1.29595	1.27547	1.22779	1.19803
January	31	2020	257.21245	1.29593	1.27545	1.22777	1.19801
<b>CPI-U (NSA) for:</b>				<b>September 2019    256.759</b>	<b>October 2019    257.346</b>	<b>November 2019    257.208</b>	

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**January 2020**

<b>Security:</b> <b>Description:</b> <b>CUSIP Number:</b> <b>Dated Date:</b> <b>Original Issue Date:</b> <b>Additional Issue Date(s):</b>				<b>1-3/8% 10-Year TIPS</b> <b>Series A-2020</b> <b>912828MF4</b> <b>January 15, 2010</b> <b>January 15, 2010</b> <b>April 15, 2010</b>	<b>2-1/8% 30-Year TIPS</b> <b>TIPS of February 2040</b> <b>912810QF8</b> <b>February 15, 2010</b> <b>February 26, 2010</b> <b>August 31, 2010</b>	<b>1-1/4% 10-Year TIPS</b> <b>Series D-2020</b> <b>912828NM8</b> <b>July 15, 2010</b> <b>July 15, 2010</b> <b>September 15, 2010</b> <b>November 15, 2010</b>	<b>1-1/8% 10-Year TIPS</b> <b>Series A-2021</b> <b>912828PP9</b> <b>January 15, 2011</b> <b>January 31, 2011</b> <b>March 31, 2011</b> <b>May 31, 2011</b>		
<b>Maturity Date:</b> <b>Ref CPI on Dated Date:</b>				<b>January 15, 2020</b> <b>216.24610</b>	<b>February 15, 2040</b> <b>216.13950</b>	<b>July 15, 2020</b> <b>218.08532</b>	<b>January 15, 2021</b> <b>218.75255</b>		
<b>Date</b>				<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	
January	1	2020	257.34600	1.19006	1.19065	1.18002	1.17643		
January	2	2020	257.34155	1.19004	1.19063	1.18000	1.17640		
January	3	2020	257.33710	1.19002	1.19061	1.17998	1.17638		
January	4	2020	257.33265	1.19000	1.19059	1.17996	1.17636		
January	5	2020	257.32819	1.18998	1.19057	1.17994	1.17634		
January	6	2020	257.32374	1.18996	1.19054	1.17992	1.17632		
January	7	2020	257.31929	1.18994	1.19052	1.17990	1.17630		
January	8	2020	257.31484	1.18992	1.19050	1.17988	1.17628		
January	9	2020	257.31039	1.18990	1.19048	1.17986	1.17626		
January	10	2020	257.30594	1.18988	1.19046	1.17984	1.17624		
January	11	2020	257.30148	1.18985	1.19044	1.17982	1.17622		
January	12	2020	257.29703	1.18983	1.19042	1.17980	1.17620		
January	13	2020	257.29258	1.18981	1.19040	1.17978	1.17618		
January	14	2020	257.28813	1.18979	1.19038	1.17976	1.17616		
January	15	2020	257.28368	1.18977	1.19036	1.17974	1.17614		
January	16	2020	257.27923		1.19034	1.17972	1.17612		
January	17	2020	257.27477		1.19032	1.17970	1.17610		
January	18	2020	257.27032		1.19030	1.17968	1.17608		
January	19	2020	257.26587		1.19028	1.17966	1.17606		
January	20	2020	257.26142		1.19026	1.17964	1.17604		
January	21	2020	257.25697		1.19024	1.17962	1.17602		
January	22	2020	257.25252		1.19022	1.17960	1.17600		
January	23	2020	257.24806		1.19019	1.17958	1.17598		
January	24	2020	257.24361		1.19017	1.17955	1.17596		
January	25	2020	257.23916		1.19015	1.17953	1.17594		
January	26	2020	257.23471		1.19013	1.17951	1.17592		
January	27	2020	257.23026		1.19011	1.17949	1.17590		
January	28	2020	257.22581		1.19009	1.17947	1.17588		
January	29	2020	257.22135		1.19007	1.17945	1.17586		
January	30	2020	257.21690		1.19005	1.17943	1.17583		
January	31	2020	257.21245		1.19003	1.17941	1.17581		
<b>CPI-U (NSA) for:</b>				<b>September 2019</b>	<b>256.759</b>	<b>October 2019</b>	<b>257.346</b>	<b>November 2019</b>	<b>257.208</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**

**Ref CPI and Index Ratios for**

**January 2020**

<b>Security:</b> <b>Description:</b> <b>CUSIP Number:</b> <b>Dated Date:</b> <b>Original Issue Date:</b> <b>Additional Issue Date(s):</b>				<b>2-1/8% 30-Year TIPS</b> <b>TIPS of February 2041</b> <b>912810QP6</b> <b>February 15, 2011</b> <b>February 28, 2011</b> <b>June 30, 2011</b> <b>October 31, 2011</b>	<b>0-5/8% 10-Year TIPS</b> <b>Series D-2021</b> <b>912828QV5</b> <b>July 15, 2011</b> <b>July 29, 2011</b> <b>September 30, 2011</b> <b>November 30, 2011</b>	<b>0-1/8% 10-Year TIPS</b> <b>Series A-2022</b> <b>912828SA9</b> <b>January 15, 2012</b> <b>January 31, 2012</b> <b>March 30, 2012</b> <b>May 31, 2012</b>	<b>0-3/4% 30-Year TIPS</b> <b>TIPS of February 2042</b> <b>912810QV3</b> <b>February 15, 2012</b> <b>February 29, 2012</b> <b>June 29, 2012</b> <b>October 31, 2012</b>		
<b>Maturity Date:</b> <b>Ref CPI on Dated Date:</b>				<b>February 15, 2041</b> <b>218.99100</b>	<b>July 15, 2021</b> <b>225.38381</b>	<b>January 15, 2022</b> <b>226.33474</b>	<b>February 15, 2042</b> <b>225.96062</b>		
<b>Date</b>				<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	
January	1	2020	257.34600	1.17514	1.14181	1.13702	1.13890		
January	2	2020	257.34155	1.17512	1.14179	1.13700	1.13888		
January	3	2020	257.33710	1.17510	1.14177	1.13698	1.13886		
January	4	2020	257.33265	1.17508	1.14175	1.13696	1.13884		
January	5	2020	257.32819	1.17506	1.14173	1.13694	1.13882		
January	6	2020	257.32374	1.17504	1.14171	1.13692	1.13880		
January	7	2020	257.31929	1.17502	1.14169	1.13690	1.13878		
January	8	2020	257.31484	1.17500	1.14167	1.13688	1.13876		
January	9	2020	257.31039	1.17498	1.14165	1.13686	1.13874		
January	10	2020	257.30594	1.17496	1.14163	1.13684	1.13872		
January	11	2020	257.30148	1.17494	1.14161	1.13682	1.13870		
January	12	2020	257.29703	1.17492	1.14159	1.13680	1.13868		
January	13	2020	257.29258	1.17490	1.14158	1.13678	1.13866		
January	14	2020	257.28813	1.17488	1.14156	1.13676	1.13864		
January	15	2020	257.28368	1.17486	1.14154	1.13674	1.13862		
January	16	2020	257.27923	1.17484	1.14152	1.13672	1.13860		
January	17	2020	257.27477	1.17482	1.14150	1.13670	1.13858		
January	18	2020	257.27032	1.17480	1.14148	1.13668	1.13856		
January	19	2020	257.26587	1.17478	1.14146	1.13666	1.13854		
January	20	2020	257.26142	1.17476	1.14144	1.13664	1.13852		
January	21	2020	257.25697	1.17474	1.14142	1.13662	1.13850		
January	22	2020	257.25252	1.17472	1.14140	1.13660	1.13848		
January	23	2020	257.24806	1.17470	1.14138	1.13658	1.13846		
January	24	2020	257.24361	1.17468	1.14136	1.13656	1.13844		
January	25	2020	257.23916	1.17466	1.14134	1.13654	1.13842		
January	26	2020	257.23471	1.17464	1.14132	1.13652	1.13841		
January	27	2020	257.23026	1.17462	1.14130	1.13650	1.13839		
January	28	2020	257.22581	1.17460	1.14128	1.13648	1.13837		
January	29	2020	257.22135	1.17457	1.14126	1.13646	1.13835		
January	30	2020	257.21690	1.17455	1.14124	1.13644	1.13833		
January	31	2020	257.21245	1.17453	1.14122	1.13642	1.13831		
<b>CPI-U (NSA) for:</b>				<b>September 2019</b>	<b>256.759</b>	<b>October 2019</b>	<b>257.346</b>	<b>November 2019</b>	<b>257.208</b>

# TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

## Ref CPI and Index Ratios for

January 2020

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	0-3/8% 10-Year TIPS Series D-2023 912828VM9 July 15, 2013 July 31, 2013 September 30, 2013 November 29, 2013
Maturity Date: Ref CPI on Dated Date:			July 15, 2022 229.96306	January 15, 2023 230.82203	February 15, 2043 229.91100	July 15, 2023 232.71797
Date	Ref CPI		Index Ratio	Index Ratio	Index Ratio	Index Ratio
January 1 2020	257.34600		1.11908	1.11491	1.11933	1.10583
January 2 2020	257.34155		1.11906	1.11489	1.11931	1.10581
January 3 2020	257.33710		1.11904	1.11487	1.11929	1.10579
January 4 2020	257.33265		1.11902	1.11485	1.11927	1.10577
January 5 2020	257.32819		1.11900	1.11483	1.11925	1.10575
January 6 2020	257.32374		1.11898	1.11481	1.11923	1.10573
January 7 2020	257.31929		1.11896	1.11480	1.11921	1.10571
January 8 2020	257.31484		1.11894	1.11478	1.11919	1.10569
January 9 2020	257.31039		1.11892	1.11476	1.11917	1.10567
January 10 2020	257.30594		1.11890	1.11474	1.11915	1.10566
January 11 2020	257.30148		1.11888	1.11472	1.11914	1.10564
January 12 2020	257.29703		1.11886	1.11470	1.11912	1.10562
January 13 2020	257.29258		1.11884	1.11468	1.11910	1.10560
January 14 2020	257.28813		1.11882	1.11466	1.11908	1.10558
January 15 2020	257.28368		1.11880	1.11464	1.11906	1.10556
January 16 2020	257.27923		1.11879	1.11462	1.11904	1.10554
January 17 2020	257.27477		1.11877	1.11460	1.11902	1.10552
January 18 2020	257.27032		1.11875	1.11458	1.11900	1.10550
January 19 2020	257.26587		1.11873	1.11456	1.11898	1.10548
January 20 2020	257.26142		1.11871	1.11454	1.11896	1.10546
January 21 2020	257.25697		1.11869	1.11453	1.11894	1.10545
January 22 2020	257.25252		1.11867	1.11451	1.11892	1.10543
January 23 2020	257.24806		1.11865	1.11449	1.11890	1.10541
January 24 2020	257.24361		1.11863	1.11447	1.11888	1.10539
January 25 2020	257.23916		1.11861	1.11445	1.11886	1.10537
January 26 2020	257.23471		1.11859	1.11443	1.11884	1.10535
January 27 2020	257.23026		1.11857	1.11441	1.11883	1.10533
January 28 2020	257.22581		1.11855	1.11439	1.11881	1.10531
January 29 2020	257.22135		1.11853	1.11437	1.11879	1.10529
January 30 2020	257.21690		1.11851	1.11435	1.11877	1.10527
January 31 2020	257.21245		1.11849	1.11433	1.11875	1.10525
CPI-U (NSA) for:			September 2019 256.759	October 2019 257.346	November 2019	257.208

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**January 2020**

<b>Security:</b> <b>Description:</b> <b>CUSIP Number:</b> <b>Dated Date:</b> <b>Original Issue Date:</b> <b>Additional Issue Date(s):</b>				<b>0-5/8% 10-Year TIPS</b> <b>Series A-2024</b> <b>912828B25</b> <b>January 15, 2014</b> <b>January 31, 2014</b> <b>March 31, 2014</b> <b>May 30, 2014</b>	<b>1-3/8% 30-Year TIPS</b> <b>TIPS of February 2044</b> <b>912810RF7</b> <b>February 15, 2014</b> <b>February 28, 2014</b> <b>June 30, 2014</b> <b>October 31, 2014</b>	<b>0-1/8% 10-Year TIPS</b> <b>Series D-2024</b> <b>912828WU0</b> <b>July 15, 2014</b> <b>July 31, 2014</b> <b>September 30, 2014</b> <b>November 28, 2014</b>	<b>0-1/4% 10-Year TIPS</b> <b>Series A-2025</b> <b>912828H45</b> <b>January 15, 2015</b> <b>January 30, 2015</b> <b>March 31, 2015</b> <b>May 29, 2015</b>		
<b>Maturity Date:</b> <b>Ref CPI on Dated Date:</b>				<b>January 15, 2024</b> <b>233.33058</b>	<b>February 15, 2044</b> <b>233.05900</b>	<b>July 15, 2024</b> <b>237.44594</b>	<b>January 15, 2025</b> <b>236.85403</b>		
<b>Date</b>				<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	
January	1	2020	257.34600	1.10292	1.10421	1.08381	1.08652		
January	2	2020	257.34155	1.10291	1.10419	1.08379	1.08650		
January	3	2020	257.33710	1.10289	1.10417	1.08377	1.08648		
January	4	2020	257.33265	1.10287	1.10415	1.08375	1.08646		
January	5	2020	257.32819	1.10285	1.10413	1.08373	1.08644		
January	6	2020	257.32374	1.10283	1.10411	1.08372	1.08642		
January	7	2020	257.31929	1.10281	1.10410	1.08370	1.08640		
January	8	2020	257.31484	1.10279	1.10408	1.08368	1.08639		
January	9	2020	257.31039	1.10277	1.10406	1.08366	1.08637		
January	10	2020	257.30594	1.10275	1.10404	1.08364	1.08635		
January	11	2020	257.30148	1.10273	1.10402	1.08362	1.08633		
January	12	2020	257.29703	1.10271	1.10400	1.08360	1.08631		
January	13	2020	257.29258	1.10270	1.10398	1.08358	1.08629		
January	14	2020	257.28813	1.10268	1.10396	1.08357	1.08627		
January	15	2020	257.28368	1.10266	1.10394	1.08355	1.08625		
January	16	2020	257.27923	1.10264	1.10392	1.08353	1.08624		
January	17	2020	257.27477	1.10262	1.10390	1.08351	1.08622		
January	18	2020	257.27032	1.10260	1.10388	1.08349	1.08620		
January	19	2020	257.26587	1.10258	1.10387	1.08347	1.08618		
January	20	2020	257.26142	1.10256	1.10385	1.08345	1.08616		
January	21	2020	257.25697	1.10254	1.10383	1.08343	1.08614		
January	22	2020	257.25252	1.10252	1.10381	1.08342	1.08612		
January	23	2020	257.24806	1.10250	1.10379	1.08340	1.08610		
January	24	2020	257.24361	1.10249	1.10377	1.08338	1.08609		
January	25	2020	257.23916	1.10247	1.10375	1.08336	1.08607		
January	26	2020	257.23471	1.10245	1.10373	1.08334	1.08605		
January	27	2020	257.23026	1.10243	1.10371	1.08332	1.08603		
January	28	2020	257.22581	1.10241	1.10369	1.08330	1.08601		
January	29	2020	257.22135	1.10239	1.10367	1.08328	1.08599		
January	30	2020	257.21690	1.10237	1.10366	1.08327	1.08597		
January	31	2020	257.21245	1.10235	1.10364	1.08325	1.08595		
<b>CPI-U (NSA) for:</b>				<b>September 2019</b>	<b>256.759</b>	<b>October 2019</b>	<b>257.346</b>	<b>November 2019</b>	<b>257.208</b>

# TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

## Ref CPI and Index Ratios for

January 2020

<b>Security:</b> <b>Description:</b> <b>CUSIP Number:</b> <b>Dated Date:</b> <b>Original Issue Date:</b> <b>Additional Issue Date(s):</b>				<b>0-3/4% 30-Year TIPS</b> <b>TIPS of February 2045</b> <b>912810RL4</b> <b>February 15, 2015</b> <b>February 27, 2015</b> <b>June 30, 2015</b> <b>October 30, 2015</b>	<b>0-1/8% 5-Year TIPS</b> <b>Series X-2020</b> <b>912828K33</b> <b>April 15, 2015</b> <b>April 30, 2015</b> <b>August 31, 2015</b> <b>December 31, 2015</b>	<b>0-3/8% 10-Year TIPS</b> <b>Series D-2025</b> <b>912828XL9</b> <b>July 15, 2015</b> <b>July 31, 2015</b> <b>September 30, 2015</b> <b>November 30, 2015</b>	<b>0-5/8% 10-Year TIPS</b> <b>Series A-2026</b> <b>912828N71</b> <b>January 15, 2016</b> <b>January 29, 2016</b> <b>March 31, 2016</b> <b>May 31, 2016</b>		
<b>Maturity Date:</b> <b>Ref CPI on Dated Date:</b>				<b>February 15, 2045</b> <b>235.48150</b>	<b>April 15, 2020</b> <b>234.18067</b>	<b>July 15, 2025</b> <b>237.14365</b>	<b>January 15, 2026</b> <b>237.61129</b>		
<b>Date</b>				<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	
January	1	2020	257.34600	1.09285	1.09892	1.08519	1.08305		
January	2	2020	257.34155	1.09283	1.09890	1.08517	1.08304		
January	3	2020	257.33710	1.09281	1.09888	1.08515	1.08302		
January	4	2020	257.33265	1.09279	1.09886	1.08513	1.08300		
January	5	2020	257.32819	1.09277	1.09884	1.08512	1.08298		
January	6	2020	257.32374	1.09276	1.09883	1.08510	1.08296		
January	7	2020	257.31929	1.09274	1.09881	1.08508	1.08294		
January	8	2020	257.31484	1.09272	1.09879	1.08506	1.08292		
January	9	2020	257.31039	1.09270	1.09877	1.08504	1.08290		
January	10	2020	257.30594	1.09268	1.09875	1.08502	1.08289		
January	11	2020	257.30148	1.09266	1.09873	1.08500	1.08287		
January	12	2020	257.29703	1.09264	1.09871	1.08498	1.08285		
January	13	2020	257.29258	1.09262	1.09869	1.08497	1.08283		
January	14	2020	257.28813	1.09260	1.09867	1.08495	1.08281		
January	15	2020	257.28368	1.09259	1.09865	1.08493	1.08279		
January	16	2020	257.27923	1.09257	1.09864	1.08491	1.08277		
January	17	2020	257.27477	1.09255	1.09862	1.08489	1.08275		
January	18	2020	257.27032	1.09253	1.09860	1.08487	1.08274		
January	19	2020	257.26587	1.09251	1.09858	1.08485	1.08272		
January	20	2020	257.26142	1.09249	1.09856	1.08483	1.08270		
January	21	2020	257.25697	1.09247	1.09854	1.08481	1.08268		
January	22	2020	257.25252	1.09245	1.09852	1.08480	1.08266		
January	23	2020	257.24806	1.09243	1.09850	1.08478	1.08264		
January	24	2020	257.24361	1.09242	1.09848	1.08476	1.08262		
January	25	2020	257.23916	1.09240	1.09846	1.08474	1.08260		
January	26	2020	257.23471	1.09238	1.09845	1.08472	1.08259		
January	27	2020	257.23026	1.09236	1.09843	1.08470	1.08257		
January	28	2020	257.22581	1.09234	1.09841	1.08468	1.08255		
January	29	2020	257.22135	1.09232	1.09839	1.08466	1.08253		
January	30	2020	257.21690	1.09230	1.09837	1.08465	1.08251		
January	31	2020	257.21245	1.09228	1.09835	1.08463	1.08249		
<b>CPI-U (NSA) for:</b>				<b>September 2019</b>	<b>256.759</b>	<b>October 2019</b>	<b>257.346</b>	<b>November 2019</b>	<b>257.208</b>

# TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

## Ref CPI and Index Ratios for

January 2020

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	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
Maturity Date: Ref CPI on Dated Date:			February 15, 2046 236.94448	April 15, 2021 237.00700	July 15, 2026 239.70132	January 15, 2027 241.55919
Date	Ref CPI		Index Ratio	Index Ratio	Index Ratio	Index Ratio
January 1 2020	257.34600		1.08610	1.08582	1.07361	1.06535
January 2 2020	257.34155		1.08608	1.08580	1.07359	1.06534
January 3 2020	257.33710		1.08606	1.08578	1.07357	1.06532
January 4 2020	257.33265		1.08605	1.08576	1.07356	1.06530
January 5 2020	257.32819		1.08603	1.08574	1.07354	1.06528
January 6 2020	257.32374		1.08601	1.08572	1.07352	1.06526
January 7 2020	257.31929		1.08599	1.08570	1.07350	1.06524
January 8 2020	257.31484		1.08597	1.08568	1.07348	1.06522
January 9 2020	257.31039		1.08595	1.08567	1.07346	1.06521
January 10 2020	257.30594		1.08593	1.08565	1.07344	1.06519
January 11 2020	257.30148		1.08591	1.08563	1.07343	1.06517
January 12 2020	257.29703		1.08590	1.08561	1.07341	1.06515
January 13 2020	257.29258		1.08588	1.08559	1.07339	1.06513
January 14 2020	257.28813		1.08586	1.08557	1.07337	1.06511
January 15 2020	257.28368		1.08584	1.08555	1.07335	1.06510
January 16 2020	257.27923		1.08582	1.08553	1.07333	1.06508
January 17 2020	257.27477		1.08580	1.08552	1.07331	1.06506
January 18 2020	257.27032		1.08578	1.08550	1.07330	1.06504
January 19 2020	257.26587		1.08576	1.08548	1.07328	1.06502
January 20 2020	257.26142		1.08575	1.08546	1.07326	1.06500
January 21 2020	257.25697		1.08573	1.08544	1.07324	1.06499
January 22 2020	257.25252		1.08571	1.08542	1.07322	1.06497
January 23 2020	257.24806		1.08569	1.08540	1.07320	1.06495
January 24 2020	257.24361		1.08567	1.08538	1.07318	1.06493
January 25 2020	257.23916		1.08565	1.08537	1.07317	1.06491
January 26 2020	257.23471		1.08563	1.08535	1.07315	1.06489
January 27 2020	257.23026		1.08561	1.08533	1.07313	1.06487
January 28 2020	257.22581		1.08560	1.08531	1.07311	1.06486
January 29 2020	257.22135		1.08558	1.08529	1.07309	1.06484
January 30 2020	257.21690		1.08556	1.08527	1.07307	1.06482
January 31 2020	257.21245		1.08554	1.08525	1.07305	1.06480
CPI-U (NSA) for:			September 2019 256.759	October 2019 257.346	November 2019	257.208



# TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

## Ref CPI and Index Ratios for

January 2020

<b>Security:</b> <b>Description:</b> <b>CUSIP Number:</b> <b>Dated Date:</b> <b>Original Issue Date:</b> <b>Additional Issue Date(s):</b>			<b>0-7/8% 30-Year TIPS</b> <b>TIPS of February 2047</b> <b>912810RW0</b> <b>February 15, 2017</b> <b>February 28, 2017</b> <b>June 30, 2017</b> <b>October 31, 2017</b>	<b>0-1/8% 5-Year TIPS</b> <b>Series X-2022</b> <b>912828X39</b> <b>April 15, 2017</b> <b>April 28, 2017</b> <b>August 31, 2017</b> <b>December 29, 2017</b>	<b>0-3/8% 10-Year TIPS</b> <b>Series D-2027</b> <b>9128282L3</b> <b>July 15, 2017</b> <b>July 31, 2017</b> <b>September 29, 2017</b> <b>November 30, 2017</b>	<b>0-1/2% 10-Year TIPS</b> <b>Series A-2028</b> <b>9128283R9</b> <b>January 15, 2018</b> <b>January 31, 2018</b> <b>March 29, 2018</b> <b>May 31, 2018</b>		
<b>Maturity Date:</b> <b>Ref CPI on Dated Date:</b>			<b>February 15, 2047</b> <b>241.39250</b>	<b>April 15, 2022</b> <b>243.19553</b>	<b>July 15, 2027</b> <b>244.61839</b>	<b>January 15, 2028</b> <b>246.66571</b>		
<b>Date</b>			<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	
January	1	2020	257.34600	1.06609	1.05819	1.05203	1.04330	
January	2	2020	257.34155	1.06607	1.05817	1.05201	1.04328	
January	3	2020	257.33710	1.06605	1.05815	1.05199	1.04326	
January	4	2020	257.33265	1.06603	1.05813	1.05198	1.04324	
January	5	2020	257.32819	1.06602	1.05811	1.05196	1.04323	
January	6	2020	257.32374	1.06600	1.05809	1.05194	1.04321	
January	7	2020	257.31929	1.06598	1.05808	1.05192	1.04319	
January	8	2020	257.31484	1.06596	1.05806	1.05190	1.04317	
January	9	2020	257.31039	1.06594	1.05804	1.05188	1.04315	
January	10	2020	257.30594	1.06592	1.05802	1.05187	1.04314	
January	11	2020	257.30148	1.06591	1.05800	1.05185	1.04312	
January	12	2020	257.29703	1.06589	1.05798	1.05183	1.04310	
January	13	2020	257.29258	1.06587	1.05797	1.05181	1.04308	
January	14	2020	257.28813	1.06585	1.05795	1.05179	1.04306	
January	15	2020	257.28368	1.06583	1.05793	1.05178	1.04305	
January	16	2020	257.27923	1.06581	1.05791	1.05176	1.04303	
January	17	2020	257.27477	1.06579	1.05789	1.05174	1.04301	
January	18	2020	257.27032	1.06578	1.05787	1.05172	1.04299	
January	19	2020	257.26587	1.06576	1.05786	1.05170	1.04297	
January	20	2020	257.26142	1.06574	1.05784	1.05168	1.04296	
January	21	2020	257.25697	1.06572	1.05782	1.05167	1.04294	
January	22	2020	257.25252	1.06570	1.05780	1.05165	1.04292	
January	23	2020	257.24806	1.06568	1.05778	1.05163	1.04290	
January	24	2020	257.24361	1.06567	1.05776	1.05161	1.04288	
January	25	2020	257.23916	1.06565	1.05775	1.05159	1.04287	
January	26	2020	257.23471	1.06563	1.05773	1.05158	1.04285	
January	27	2020	257.23026	1.06561	1.05771	1.05156	1.04283	
January	28	2020	257.22581	1.06559	1.05769	1.05154	1.04281	
January	29	2020	257.22135	1.06557	1.05767	1.05152	1.04279	
January	30	2020	257.21690	1.06555	1.05765	1.05150	1.04278	
January	31	2020	257.21245	1.06554	1.05764	1.05148	1.04276	
<b>CPI-U (NSA) for:</b>			<b>September 2019</b>	<b>256.759</b>	<b>October 2019</b>	<b>257.346</b>	<b>November 2019</b>	<b>257.208</b>

# TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

## Ref CPI and Index Ratios for

January 2020

<b>Security:</b> <b>Description:</b> <b>CUSIP Number:</b> <b>Dated Date:</b> <b>Original Issue Date:</b> <b>Additional Issue Date(s):</b>				<b>1% 30-Year TIPS</b> <b>TIPS of February 2048</b> <b>912810SB5</b> <b>February 15, 2018</b> <b>February 28, 2018</b> <b>June 29, 2018</b> <b>October 31, 2018</b>	<b>0-5/8% 5-Year TIPS</b> <b>Series X-2023</b> <b>9128284H0</b> <b>April 15, 2018</b> <b>April 30, 2018</b> <b>August 31, 2018</b> <b>December 31, 2018</b>	<b>0-3/4% 10-Year TIPS</b> <b>Series D-2028</b> <b>912828Y38</b> <b>July 15, 2018</b> <b>July 31, 2018</b> <b>September 28, 2018</b> <b>November 30, 2018</b>	<b>0-7/8% 10-Year TIPS</b> <b>Series A-2029</b> <b>9128285W6</b> <b>January 15, 2019</b> <b>January 31, 2019</b> <b>March 29, 2019</b> <b>May 31, 2019</b>		
<b>Maturity Date:</b> <b>Ref CPI on Dated Date:</b>				<b>February 15, 2048</b> <b>246.59650</b>	<b>April 15, 2023</b> <b>248.39153</b>	<b>July 15, 2028</b> <b>251.01658</b>	<b>January 15, 2029</b> <b>252.50248</b>		
<b>Date</b>				<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	
January	1	2020	257.34600	1.04359	1.03605	1.02522	1.01918		
January	2	2020	257.34155	1.04357	1.03603	1.02520	1.01916		
January	3	2020	257.33710	1.04356	1.03601	1.02518	1.01915		
January	4	2020	257.33265	1.04354	1.03600	1.02516	1.01913		
January	5	2020	257.32819	1.04352	1.03598	1.02514	1.01911		
January	6	2020	257.32374	1.04350	1.03596	1.02513	1.01909		
January	7	2020	257.31929	1.04348	1.03594	1.02511	1.01908		
January	8	2020	257.31484	1.04347	1.03592	1.02509	1.01906		
January	9	2020	257.31039	1.04345	1.03591	1.02507	1.01904		
January	10	2020	257.30594	1.04343	1.03589	1.02506	1.01902		
January	11	2020	257.30148	1.04341	1.03587	1.02504	1.01901		
January	12	2020	257.29703	1.04339	1.03585	1.02502	1.01899		
January	13	2020	257.29258	1.04337	1.03583	1.02500	1.01897		
January	14	2020	257.28813	1.04336	1.03582	1.02498	1.01895		
January	15	2020	257.28368	1.04334	1.03580	1.02497	1.01894		
January	16	2020	257.27923	1.04332	1.03578	1.02495	1.01892		
January	17	2020	257.27477	1.04330	1.03576	1.02493	1.01890		
January	18	2020	257.27032	1.04328	1.03575	1.02491	1.01888		
January	19	2020	257.26587	1.04327	1.03573	1.02490	1.01886		
January	20	2020	257.26142	1.04325	1.03571	1.02488	1.01885		
January	21	2020	257.25697	1.04323	1.03569	1.02486	1.01883		
January	22	2020	257.25252	1.04321	1.03567	1.02484	1.01881		
January	23	2020	257.24806	1.04319	1.03566	1.02482	1.01879		
January	24	2020	257.24361	1.04318	1.03564	1.02481	1.01878		
January	25	2020	257.23916	1.04316	1.03562	1.02479	1.01876		
January	26	2020	257.23471	1.04314	1.03560	1.02477	1.01874		
January	27	2020	257.23026	1.04312	1.03558	1.02475	1.01872		
January	28	2020	257.22581	1.04310	1.03557	1.02474	1.01871		
January	29	2020	257.22135	1.04309	1.03555	1.02472	1.01869		
January	30	2020	257.21690	1.04307	1.03553	1.02470	1.01867		
January	31	2020	257.21245	1.04305	1.03551	1.02468	1.01865		
<b>CPI-U (NSA) for:</b>				<b>September 2019</b>	<b>256.759</b>	<b>October 2019</b>	<b>257.346</b>	<b>November 2019</b>	<b>257.208</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**January 2020**

<b>Security:</b> <b>Description:</b> <b>CUSIP Number:</b> <b>Dated Date:</b> <b>Original Issue Date:</b> <b>Additional Issue Date(s):</b>				<b>1% 30-Year TIPS</b> <b>TIPS of February 2049</b> <b>912810SG4</b> <b>February 15, 2019</b> <b>February 28, 2019</b> <b>August 30, 2019</b>	<b>0-1/2% 5-Year TIPS</b> <b>Series X-2024</b> <b>9128286N5</b> <b>April 15, 2019</b> <b>April 30, 2019</b> <b>June 28, 2019</b>	<b>0-1/4% 10-Year TIPS</b> <b>Series D-2029</b> <b>9128287D6</b> <b>July 15, 2019</b> <b>July 31, 2019</b> <b>September 30, 2019</b> <b>November 29, 2019</b>	<b>0-1/8% 5-Year TIPS</b> <b>Series AE-2024</b> <b>912828YL8</b> <b>October 15, 2019</b> <b>October 31, 2019</b>		
<b>Maturity Date:</b> <b>Ref CPI on Dated Date:</b>				<b>February 15, 2049</b> <b>251.63550</b>	<b>April 15, 2024</b> <b>252.20853</b>	<b>July 15, 2029</b> <b>255.79368</b>	<b>October 15, 2024</b> <b>256.56513</b>		
<b>Date</b>				<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	
January	1	2020	257.34600	1.02269	1.02037	1.00607	1.00304		
January	2	2020	257.34155	1.02268	1.02035	1.00605	1.00303		
January	3	2020	257.33710	1.02266	1.02033	1.00603	1.00301		
January	4	2020	257.33265	1.02264	1.02032	1.00602	1.00299		
January	5	2020	257.32819	1.02262	1.02030	1.00600	1.00297		
January	6	2020	257.32374	1.02261	1.02028	1.00598	1.00296		
January	7	2020	257.31929	1.02259	1.02026	1.00596	1.00294		
January	8	2020	257.31484	1.02257	1.02025	1.00595	1.00292		
January	9	2020	257.31039	1.02255	1.02023	1.00593	1.00290		
January	10	2020	257.30594	1.02253	1.02021	1.00591	1.00289		
January	11	2020	257.30148	1.02252	1.02019	1.00589	1.00287		
January	12	2020	257.29703	1.02250	1.02018	1.00588	1.00285		
January	13	2020	257.29258	1.02248	1.02016	1.00586	1.00284		
January	14	2020	257.28813	1.02246	1.02014	1.00584	1.00282		
January	15	2020	257.28368	1.02245	1.02012	1.00583	1.00280		
January	16	2020	257.27923	1.02243	1.02011	1.00581	1.00278		
January	17	2020	257.27477	1.02241	1.02009	1.00579	1.00277		
January	18	2020	257.27032	1.02239	1.02007	1.00577	1.00275		
January	19	2020	257.26587	1.02238	1.02005	1.00576	1.00273		
January	20	2020	257.26142	1.02236	1.02003	1.00574	1.00271		
January	21	2020	257.25697	1.02234	1.02002	1.00572	1.00270		
January	22	2020	257.25252	1.02232	1.02000	1.00570	1.00268		
January	23	2020	257.24806	1.02230	1.01998	1.00569	1.00266		
January	24	2020	257.24361	1.02229	1.01996	1.00567	1.00264		
January	25	2020	257.23916	1.02227	1.01995	1.00565	1.00263		
January	26	2020	257.23471	1.02225	1.01993	1.00563	1.00261		
January	27	2020	257.23026	1.02223	1.01991	1.00562	1.00259		
January	28	2020	257.22581	1.02222	1.01989	1.00560	1.00258		
January	29	2020	257.22135	1.02220	1.01988	1.00558	1.00256		
January	30	2020	257.21690	1.02218	1.01986	1.00556	1.00254		
January	31	2020	257.21245	1.02216	1.01984	1.00555	1.00252		
<b>CPI-U (NSA) for:</b>				<b>September 2019</b>	<b>256.759</b>	<b>October 2019</b>	<b>257.346</b>	<b>November 2019</b>	<b>257.208</b>