

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2021

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	
July 1 2021	267.05400	1.65113	1.62448	1.50453	1.41676	
July 2 2021	267.12306	1.65156	1.62490	1.50492	1.41712	
July 3 2021	267.19213	1.65199	1.62532	1.50531	1.41749	
July 4 2021	267.26119	1.65241	1.62574	1.50570	1.41786	
July 5 2021	267.33026	1.65284	1.62616	1.50609	1.41822	
July 6 2021	267.39932	1.65327	1.62658	1.50648	1.41859	
July 7 2021	267.46839	1.65369	1.62700	1.50686	1.41895	
July 8 2021	267.53745	1.65412	1.62742	1.50725	1.41932	
July 9 2021	267.60652	1.65455	1.62784	1.50764	1.41969	
July 10 2021	267.67558	1.65497	1.62826	1.50803	1.42005	
July 11 2021	267.74465	1.65540	1.62868	1.50842	1.42042	
July 12 2021	267.81371	1.65583	1.62910	1.50881	1.42079	
July 13 2021	267.88277	1.65626	1.62952	1.50920	1.42115	
July 14 2021	267.95184	1.65668	1.62994	1.50959	1.42152	
July 15 2021	268.02090	1.65711	1.63036	1.50998	1.42189	
July 16 2021	268.08997	1.65754	1.63078	1.51037	1.42225	
July 17 2021	268.15903	1.65796	1.63120	1.51076	1.42262	
July 18 2021	268.22810	1.65839	1.63162	1.51114	1.42299	
July 19 2021	268.29716	1.65882	1.63204	1.51153	1.42335	
July 20 2021	268.36623	1.65924	1.63246	1.51192	1.42372	
July 21 2021	268.43529	1.65967	1.63288	1.51231	1.42408	
July 22 2021	268.50435	1.66010	1.63330	1.51270	1.42445	
July 23 2021	268.57342	1.66053	1.63372	1.51309	1.42482	
July 24 2021	268.64248	1.66095	1.63414	1.51348	1.42518	
July 25 2021	268.71155	1.66138	1.63456	1.51387	1.42555	
July 26 2021	268.78061	1.66181	1.63498	1.51426	1.42592	
July 27 2021	268.84968	1.66223	1.63541	1.51465	1.42628	
July 28 2021	268.91874	1.66266	1.63583	1.51504	1.42665	
July 29 2021	268.98781	1.66309	1.63625	1.51542	1.42702	
July 30 2021	269.05687	1.66351	1.63667	1.51581	1.42738	
July 31 2021	269.12594	1.66394	1.63709	1.51620	1.42775	
CPI-U (NSA) for:			March 2021 264.877	April 2021 267.054	May 2021 269.195	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2021

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
July	1	2021	267.05400	1.34551	1.32425	1.27474	1.24385
July	2	2021	267.12306	1.34586	1.32459	1.27507	1.24417
July	3	2021	267.19213	1.34621	1.32493	1.27540	1.24449
July	4	2021	267.26119	1.34656	1.32528	1.27573	1.24481
July	5	2021	267.33026	1.34691	1.32562	1.27606	1.24514
July	6	2021	267.39932	1.34725	1.32596	1.27639	1.24546
July	7	2021	267.46839	1.34760	1.32630	1.27672	1.24578
July	8	2021	267.53745	1.34795	1.32665	1.27705	1.24610
July	9	2021	267.60652	1.34830	1.32699	1.27738	1.24642
July	10	2021	267.67558	1.34864	1.32733	1.27771	1.24674
July	11	2021	267.74465	1.34899	1.32767	1.27804	1.24707
July	12	2021	267.81371	1.34934	1.32802	1.27837	1.24739
July	13	2021	267.88277	1.34969	1.32836	1.27870	1.24771
July	14	2021	267.95184	1.35004	1.32870	1.27903	1.24803
July	15	2021	268.02090	1.35038	1.32904	1.27936	1.24835
July	16	2021	268.08997	1.35073	1.32939	1.27969	1.24867
July	17	2021	268.15903	1.35108	1.32973	1.28002	1.24900
July	18	2021	268.22810	1.35143	1.33007	1.28035	1.24932
July	19	2021	268.29716	1.35178	1.33041	1.28068	1.24964
July	20	2021	268.36623	1.35212	1.33076	1.28101	1.24996
July	21	2021	268.43529	1.35247	1.33110	1.28134	1.25028
July	22	2021	268.50435	1.35282	1.33144	1.28167	1.25060
July	23	2021	268.57342	1.35317	1.33178	1.28200	1.25093
July	24	2021	268.64248	1.35352	1.33213	1.28232	1.25125
July	25	2021	268.71155	1.35386	1.33247	1.28265	1.25157
July	26	2021	268.78061	1.35421	1.33281	1.28298	1.25189
July	27	2021	268.84968	1.35456	1.33315	1.28331	1.25221
July	28	2021	268.91874	1.35491	1.33350	1.28364	1.25253
July	29	2021	268.98781	1.35526	1.33384	1.28397	1.25286
July	30	2021	269.05687	1.35560	1.33418	1.28430	1.25318
July	31	2021	269.12594	1.35595	1.33452	1.28463	1.25350
CPI-U (NSA) for:			March 2021 264.877	April 2021 267.054	May 2021 269.195		

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2021

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			2-1/8% 30-Year TIPS TIPS of February 2040 912810QF8 February 15, 2010 February 26, 2010 August 31, 2010	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:			February 15, 2040 216.13950	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	
July 1 2021	267.05400	1.23556	1.21947	1.18489	1.17991	
July 2 2021	267.12306	1.23588	1.21979	1.18519	1.18021	
July 3 2021	267.19213	1.23620	1.22011	1.18550	1.18052	
July 4 2021	267.26119	1.23652	1.22042	1.18580	1.18082	
July 5 2021	267.33026	1.23684	1.22074	1.18611	1.18113	
July 6 2021	267.39932	1.23716	1.22105	1.18642	1.18143	
July 7 2021	267.46839	1.23748	1.22137	1.18672	1.18174	
July 8 2021	267.53745	1.23780	1.22168	1.18703	1.18204	
July 9 2021	267.60652	1.23812	1.22200	1.18734	1.18235	
July 10 2021	267.67558	1.23844	1.22231	1.18764	1.18265	
July 11 2021	267.74465	1.23876	1.22263	1.18795	1.18296	
July 12 2021	267.81371	1.23908	1.22294	1.18826	1.18326	
July 13 2021	267.88277	1.23940	1.22326	1.18856	1.18357	
July 14 2021	267.95184	1.23972	1.22357	1.18887	1.18387	
July 15 2021	268.02090	1.24004	1.22389	1.18918	1.18418	
July 16 2021	268.08997	1.24036	1.22421		1.18448	
July 17 2021	268.15903	1.24068	1.22452		1.18479	
July 18 2021	268.22810	1.24100	1.22484		1.18509	
July 19 2021	268.29716	1.24131	1.22515		1.18540	
July 20 2021	268.36623	1.24163	1.22547		1.18570	
July 21 2021	268.43529	1.24195	1.22578		1.18601	
July 22 2021	268.50435	1.24227	1.22610		1.18632	
July 23 2021	268.57342	1.24259	1.22641		1.18662	
July 24 2021	268.64248	1.24291	1.22673		1.18693	
July 25 2021	268.71155	1.24323	1.22704		1.18723	
July 26 2021	268.78061	1.24355	1.22736		1.18754	
July 27 2021	268.84968	1.24387	1.22767		1.18784	
July 28 2021	268.91874	1.24419	1.22799		1.18815	
July 29 2021	268.98781	1.24451	1.22831		1.18845	
July 30 2021	269.05687	1.24483	1.22862		1.18876	
July 31 2021	269.12594	1.24515	1.22894		1.18906	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2021

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	
July 1 2021	267.05400	1.18186	1.16129	1.15697	1.16155	
July 2 2021	267.12306	1.18217	1.16159	1.15727	1.16185	
July 3 2021	267.19213	1.18247	1.16189	1.15757	1.16215	
July 4 2021	267.26119	1.18278	1.16219	1.15787	1.16245	
July 5 2021	267.33026	1.18308	1.16249	1.15817	1.16276	
July 6 2021	267.39932	1.18339	1.16279	1.15847	1.16306	
July 7 2021	267.46839	1.18369	1.16309	1.15876	1.16336	
July 8 2021	267.53745	1.18400	1.16339	1.15906	1.16366	
July 9 2021	267.60652	1.18431	1.16369	1.15936	1.16396	
July 10 2021	267.67558	1.18461	1.16399	1.15966	1.16426	
July 11 2021	267.74465	1.18492	1.16429	1.15996	1.16456	
July 12 2021	267.81371	1.18522	1.16459	1.16026	1.16486	
July 13 2021	267.88277	1.18553	1.16489	1.16056	1.16516	
July 14 2021	267.95184	1.18583	1.16520	1.16086	1.16546	
July 15 2021	268.02090	1.18614	1.16550	1.16116	1.16576	
July 16 2021	268.08997	1.18645	1.16580	1.16146	1.16606	
July 17 2021	268.15903	1.18675	1.16610	1.16176	1.16636	
July 18 2021	268.22810	1.18706	1.16640	1.16206	1.16666	
July 19 2021	268.29716	1.18736	1.16670	1.16236	1.16696	
July 20 2021	268.36623	1.18767	1.16700	1.16265	1.16726	
July 21 2021	268.43529	1.18797	1.16730	1.16295	1.16756	
July 22 2021	268.50435	1.18828	1.16760	1.16325	1.16786	
July 23 2021	268.57342	1.18859	1.16790	1.16355	1.16816	
July 24 2021	268.64248	1.18889	1.16820	1.16385	1.16846	
July 25 2021	268.71155	1.18920	1.16850	1.16415	1.16876	
July 26 2021	268.78061	1.18950	1.16880	1.16445	1.16906	
July 27 2021	268.84968	1.18981	1.16910	1.16475	1.16936	
July 28 2021	268.91874	1.19011	1.16940	1.16505	1.16966	
July 29 2021	268.98781	1.19042	1.16970	1.16535	1.16996	
July 30 2021	269.05687	1.19072	1.17000	1.16565	1.17027	
July 31 2021	269.12594	1.19103	1.17030	1.16595	1.17057	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2021

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% 10-Year TIPS Series D-2024 912828WU0 July 15, 2014 July 31, 2014 September 30, 2014 November 28, 2014
Maturity Date: Ref CPI on Dated Date:			July 15, 2023 232.71797	January 15, 2024 233.33058	February 15, 2044 233.05900	July 15, 2024 237.44594
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2021	267.05400	1.14754	1.14453	1.14586	1.12469	
July 2 2021	267.12306	1.14784	1.14483	1.14616	1.12498	
July 3 2021	267.19213	1.14814	1.14512	1.14646	1.12528	
July 4 2021	267.26119	1.14843	1.14542	1.14675	1.12557	
July 5 2021	267.33026	1.14873	1.14571	1.14705	1.12586	
July 6 2021	267.39932	1.14903	1.14601	1.14735	1.12615	
July 7 2021	267.46839	1.14932	1.14631	1.14764	1.12644	
July 8 2021	267.53745	1.14962	1.14660	1.14794	1.12673	
July 9 2021	267.60652	1.14992	1.14690	1.14824	1.12702	
July 10 2021	267.67558	1.15021	1.14719	1.14853	1.12731	
July 11 2021	267.74465	1.15051	1.14749	1.14883	1.12760	
July 12 2021	267.81371	1.15081	1.14779	1.14912	1.12789	
July 13 2021	267.88277	1.15110	1.14808	1.14942	1.12818	
July 14 2021	267.95184	1.15140	1.14838	1.14972	1.12848	
July 15 2021	268.02090	1.15170	1.14867	1.15001	1.12877	
July 16 2021	268.08997	1.15200	1.14897	1.15031	1.12906	
July 17 2021	268.15903	1.15229	1.14927	1.15061	1.12935	
July 18 2021	268.22810	1.15259	1.14956	1.15090	1.12964	
July 19 2021	268.29716	1.15289	1.14986	1.15120	1.12993	
July 20 2021	268.36623	1.15318	1.15015	1.15149	1.13022	
July 21 2021	268.43529	1.15348	1.15045	1.15179	1.13051	
July 22 2021	268.50435	1.15378	1.15075	1.15209	1.13080	
July 23 2021	268.57342	1.15407	1.15104	1.15238	1.13109	
July 24 2021	268.64248	1.15437	1.15134	1.15268	1.13138	
July 25 2021	268.71155	1.15467	1.15163	1.15298	1.13167	
July 26 2021	268.78061	1.15496	1.15193	1.15327	1.13197	
July 27 2021	268.84968	1.15526	1.15223	1.15357	1.13226	
July 28 2021	268.91874	1.15556	1.15252	1.15387	1.13255	
July 29 2021	268.98781	1.15585	1.15282	1.15416	1.13284	
July 30 2021	269.05687	1.15615	1.15311	1.15446	1.13313	
July 31 2021	269.12594	1.15645	1.15341	1.15475	1.13342	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2021

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	0-3/8% 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
Maturity Date: Ref CPI on Dated Date:			January 15, 2025 236.85403	February 15, 2045 235.48150	July 15, 2025 237.14365	January 15, 2026 237.61129
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2021	267.05400	1.12750	1.13408	1.12613	1.12391	
July 2 2021	267.12306	1.12780	1.13437	1.12642	1.12420	
July 3 2021	267.19213	1.12809	1.13466	1.12671	1.12449	
July 4 2021	267.26119	1.12838	1.13496	1.12700	1.12478	
July 5 2021	267.33026	1.12867	1.13525	1.12729	1.12507	
July 6 2021	267.39932	1.12896	1.13554	1.12758	1.12536	
July 7 2021	267.46839	1.12925	1.13584	1.12787	1.12566	
July 8 2021	267.53745	1.12955	1.13613	1.12817	1.12595	
July 9 2021	267.60652	1.12984	1.13642	1.12846	1.12624	
July 10 2021	267.67558	1.13013	1.13672	1.12875	1.12653	
July 11 2021	267.74465	1.13042	1.13701	1.12904	1.12682	
July 12 2021	267.81371	1.13071	1.13730	1.12933	1.12711	
July 13 2021	267.88277	1.13100	1.13760	1.12962	1.12740	
July 14 2021	267.95184	1.13130	1.13789	1.12991	1.12769	
July 15 2021	268.02090	1.13159	1.13818	1.13020	1.12798	
July 16 2021	268.08997	1.13188	1.13848	1.13050	1.12827	
July 17 2021	268.15903	1.13217	1.13877	1.13079	1.12856	
July 18 2021	268.22810	1.13246	1.13906	1.13108	1.12885	
July 19 2021	268.29716	1.13275	1.13936	1.13137	1.12914	
July 20 2021	268.36623	1.13304	1.13965	1.13166	1.12943	
July 21 2021	268.43529	1.13334	1.13994	1.13195	1.12972	
July 22 2021	268.50435	1.13363	1.14024	1.13224	1.13002	
July 23 2021	268.57342	1.13392	1.14053	1.13253	1.13031	
July 24 2021	268.64248	1.13421	1.14082	1.13283	1.13060	
July 25 2021	268.71155	1.13450	1.14112	1.13312	1.13089	
July 26 2021	268.78061	1.13479	1.14141	1.13341	1.13118	
July 27 2021	268.84968	1.13509	1.14170	1.13370	1.13147	
July 28 2021	268.91874	1.13538	1.14200	1.13399	1.13176	
July 29 2021	268.98781	1.13567	1.14229	1.13428	1.13205	
July 30 2021	269.05687	1.13596	1.14258	1.13457	1.13234	
July 31 2021	269.12594	1.13625	1.14288	1.13486	1.13263	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

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Ref CPI and Index Ratios for
July 2021

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% 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:			February 15, 2046 236.94448	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	
July 1 2021	267.05400	1.12707	1.11411	1.10554	1.10631	
July 2 2021	267.12306	1.12737	1.11440	1.10583	1.10659	
July 3 2021	267.19213	1.12766	1.11469	1.10611	1.10688	
July 4 2021	267.26119	1.12795	1.11498	1.10640	1.10716	
July 5 2021	267.33026	1.12824	1.11526	1.10669	1.10745	
July 6 2021	267.39932	1.12853	1.11555	1.10697	1.10774	
July 7 2021	267.46839	1.12882	1.11584	1.10726	1.10802	
July 8 2021	267.53745	1.12911	1.11613	1.10754	1.10831	
July 9 2021	267.60652	1.12941	1.11642	1.10783	1.10860	
July 10 2021	267.67558	1.12970	1.11670	1.10812	1.10888	
July 11 2021	267.74465	1.12999	1.11699	1.10840	1.10917	
July 12 2021	267.81371	1.13028	1.11728	1.10869	1.10945	
July 13 2021	267.88277	1.13057	1.11757	1.10897	1.10974	
July 14 2021	267.95184	1.13086	1.11786	1.10926	1.11003	
July 15 2021	268.02090	1.13115	1.11815	1.10955	1.11031	
July 16 2021	268.08997	1.13145	1.11843	1.10983	1.11060	
July 17 2021	268.15903	1.13174	1.11872	1.11012	1.11088	
July 18 2021	268.22810	1.13203	1.11901	1.11040	1.11117	
July 19 2021	268.29716	1.13232	1.11930	1.11069	1.11146	
July 20 2021	268.36623	1.13261	1.11959	1.11098	1.11174	
July 21 2021	268.43529	1.13290	1.11987	1.11126	1.11203	
July 22 2021	268.50435	1.13320	1.12016	1.11155	1.11231	
July 23 2021	268.57342	1.13349	1.12045	1.11183	1.11260	
July 24 2021	268.64248	1.13378	1.12074	1.11212	1.11289	
July 25 2021	268.71155	1.13407	1.12103	1.11240	1.11317	
July 26 2021	268.78061	1.13436	1.12131	1.11269	1.11346	
July 27 2021	268.84968	1.13465	1.12160	1.11298	1.11374	
July 28 2021	268.91874	1.13494	1.12189	1.11326	1.11403	
July 29 2021	268.98781	1.13524	1.12218	1.11355	1.11432	
July 30 2021	269.05687	1.13553	1.12247	1.11383	1.11460	
July 31 2021	269.12594	1.13582	1.12276	1.11412	1.11489	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

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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):			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	
July 1 2021	267.05400	1.09810	1.09172	1.08266	1.08296	
July 2 2021	267.12306	1.09839	1.09200	1.08294	1.08324	
July 3 2021	267.19213	1.09867	1.09228	1.08322	1.08352	
July 4 2021	267.26119	1.09896	1.09256	1.08350	1.08380	
July 5 2021	267.33026	1.09924	1.09285	1.08378	1.08408	
July 6 2021	267.39932	1.09952	1.09313	1.08406	1.08436	
July 7 2021	267.46839	1.09981	1.09341	1.08434	1.08464	
July 8 2021	267.53745	1.10009	1.09369	1.08462	1.08492	
July 9 2021	267.60652	1.10038	1.09398	1.08490	1.08520	
July 10 2021	267.67558	1.10066	1.09426	1.08518	1.08548	
July 11 2021	267.74465	1.10094	1.09454	1.08546	1.08576	
July 12 2021	267.81371	1.10123	1.09482	1.08574	1.08604	
July 13 2021	267.88277	1.10151	1.09510	1.08602	1.08632	
July 14 2021	267.95184	1.10180	1.09539	1.08630	1.08660	
July 15 2021	268.02090	1.10208	1.09567	1.08658	1.08688	
July 16 2021	268.08997	1.10236	1.09595	1.08686	1.08716	
July 17 2021	268.15903	1.10265	1.09623	1.08714	1.08744	
July 18 2021	268.22810	1.10293	1.09652	1.08742	1.08772	
July 19 2021	268.29716	1.10322	1.09680	1.08770	1.08800	
July 20 2021	268.36623	1.10350	1.09708	1.08798	1.08828	
July 21 2021	268.43529	1.10378	1.09736	1.08826	1.08856	
July 22 2021	268.50435	1.10407	1.09765	1.08854	1.08884	
July 23 2021	268.57342	1.10435	1.09793	1.08882	1.08912	
July 24 2021	268.64248	1.10464	1.09821	1.08910	1.08940	
July 25 2021	268.71155	1.10492	1.09849	1.08938	1.08968	
July 26 2021	268.78061	1.10520	1.09878	1.08966	1.08996	
July 27 2021	268.84968	1.10549	1.09906	1.08994	1.09024	
July 28 2021	268.91874	1.10577	1.09934	1.09022	1.09052	
July 29 2021	268.98781	1.10606	1.09962	1.09050	1.09080	
July 30 2021	269.05687	1.10634	1.09990	1.09078	1.09108	
July 31 2021	269.12594	1.10662	1.10019	1.09106	1.09136	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

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):			0-5/8% 5-Year TIPS Series X-2023 9128284H0 April 15, 2018 April 30, 2018 August 31, 2018 December 31, 2018	0-3/4% 10-Year TIPS Series D-2028 912828Y38 July 15, 2018 July 31, 2018 September 28, 2018 November 30, 2018	0-7/8% 10-Year TIPS Series A-2029 9128285W6 January 15, 2019 January 31, 2019 March 29, 2019 May 31, 2019	1% 30-Year TIPS TIPS of February 2049 912810SG4 February 15, 2019 February 28, 2019 August 30, 2019
Maturity Date: Ref CPI on Dated Date:			April 15, 2023 248.39153	July 15, 2028 251.01658	January 15, 2029 252.50248	February 15, 2049 251.63550
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2021	267.05400	1.07513	1.06389	1.05763	1.06127	
July 2 2021	267.12306	1.07541	1.06417	1.05790	1.06155	
July 3 2021	267.19213	1.07569	1.06444	1.05818	1.06182	
July 4 2021	267.26119	1.07597	1.06472	1.05845	1.06210	
July 5 2021	267.33026	1.07625	1.06499	1.05872	1.06237	
July 6 2021	267.39932	1.07652	1.06527	1.05900	1.06265	
July 7 2021	267.46839	1.07680	1.06554	1.05927	1.06292	
July 8 2021	267.53745	1.07708	1.06582	1.05954	1.06319	
July 9 2021	267.60652	1.07736	1.06609	1.05982	1.06347	
July 10 2021	267.67558	1.07764	1.06637	1.06009	1.06374	
July 11 2021	267.74465	1.07791	1.06664	1.06036	1.06402	
July 12 2021	267.81371	1.07819	1.06692	1.06064	1.06429	
July 13 2021	267.88277	1.07847	1.06719	1.06091	1.06457	
July 14 2021	267.95184	1.07875	1.06747	1.06118	1.06484	
July 15 2021	268.02090	1.07903	1.06774	1.06146	1.06512	
July 16 2021	268.08997	1.07930	1.06802	1.06173	1.06539	
July 17 2021	268.15903	1.07958	1.06829	1.06201	1.06566	
July 18 2021	268.22810	1.07986	1.06857	1.06228	1.06594	
July 19 2021	268.29716	1.08014	1.06884	1.06255	1.06621	
July 20 2021	268.36623	1.08042	1.06912	1.06283	1.06649	
July 21 2021	268.43529	1.08069	1.06939	1.06310	1.06676	
July 22 2021	268.50435	1.08097	1.06967	1.06337	1.06704	
July 23 2021	268.57342	1.08125	1.06994	1.06365	1.06731	
July 24 2021	268.64248	1.08153	1.07022	1.06392	1.06759	
July 25 2021	268.71155	1.08181	1.07049	1.06419	1.06786	
July 26 2021	268.78061	1.08208	1.07077	1.06447	1.06813	
July 27 2021	268.84968	1.08236	1.07104	1.06474	1.06841	
July 28 2021	268.91874	1.08264	1.07132	1.06501	1.06868	
July 29 2021	268.98781	1.08292	1.07159	1.06529	1.06896	
July 30 2021	269.05687	1.08320	1.07187	1.06556	1.06923	
July 31 2021	269.12594	1.08347	1.07214	1.06583	1.06951	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

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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):			0-1/2% 5-Year TIPS Series X-2024 9128286N5 April 15, 2019 April 30, 2019 June 28, 2019	0-1/4% 10-Year TIPS Series D-2029 9128287D6 July 15, 2019 July 31, 2019 September 30, 2019 November 29, 2019	0-1/8% 5-Year TIPS Series AE-2024 912828YL8 October 15, 2019 October 31, 2019 December 31, 2019	0-1/8% 10-Year TIPS Series A-2030 912828Z37 January 15, 2020 January 31, 2020 March 31, 2020 May 29, 2020
Maturity Date: Ref CPI on Dated Date:			April 15, 2024 252.20853	July 15, 2029 255.79368	October 15, 2024 256.56513	January 15, 2030 257.28368
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2021	267.05400	1.05886	1.04402	1.04088	1.03797	
July 2 2021	267.12306	1.05914	1.04429	1.04115	1.03824	
July 3 2021	267.19213	1.05941	1.04456	1.04142	1.03851	
July 4 2021	267.26119	1.05968	1.04483	1.04169	1.03878	
July 5 2021	267.33026	1.05996	1.04510	1.04196	1.03905	
July 6 2021	267.39932	1.06023	1.04537	1.04223	1.03932	
July 7 2021	267.46839	1.06050	1.04564	1.04250	1.03959	
July 8 2021	267.53745	1.06078	1.04591	1.04277	1.03985	
July 9 2021	267.60652	1.06105	1.04618	1.04304	1.04012	
July 10 2021	267.67558	1.06133	1.04645	1.04330	1.04039	
July 11 2021	267.74465	1.06160	1.04672	1.04357	1.04066	
July 12 2021	267.81371	1.06187	1.04699	1.04384	1.04093	
July 13 2021	267.88277	1.06215	1.04726	1.04411	1.04120	
July 14 2021	267.95184	1.06242	1.04753	1.04438	1.04146	
July 15 2021	268.02090	1.06270	1.04780	1.04465	1.04173	
July 16 2021	268.08997	1.06297	1.04807	1.04492	1.04200	
July 17 2021	268.15903	1.06324	1.04834	1.04519	1.04227	
July 18 2021	268.22810	1.06352	1.04861	1.04546	1.04254	
July 19 2021	268.29716	1.06379	1.04888	1.04573	1.04281	
July 20 2021	268.36623	1.06406	1.04915	1.04600	1.04308	
July 21 2021	268.43529	1.06434	1.04942	1.04627	1.04334	
July 22 2021	268.50435	1.06461	1.04969	1.04653	1.04361	
July 23 2021	268.57342	1.06489	1.04996	1.04680	1.04388	
July 24 2021	268.64248	1.06516	1.05023	1.04707	1.04415	
July 25 2021	268.71155	1.06543	1.05050	1.04734	1.04442	
July 26 2021	268.78061	1.06571	1.05077	1.04761	1.04469	
July 27 2021	268.84968	1.06598	1.05104	1.04788	1.04495	
July 28 2021	268.91874	1.06626	1.05131	1.04815	1.04522	
July 29 2021	268.98781	1.06653	1.05158	1.04842	1.04549	
July 30 2021	269.05687	1.06680	1.05185	1.04869	1.04576	
July 31 2021	269.12594	1.06708	1.05212	1.04896	1.04603	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

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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):			0-1/4% 30-Year TIPS TIPS of February 2050 912810SM1 February 15, 2020 February 28, 2020 August 31, 2020	0-1/8% 5-Year TIPS Series X-2025 912828ZJ2 April 15, 2020 April 30, 2020 June 30, 2020 July 13, 2020	0-1/8% 10-Year TIPS Series D-2030 912828ZZ6 July 15, 2020 July 31, 2020 September 30, 2020 November 30, 2020	0-1/8% 5-Year TIPS Series AE-2025 91282CAQ4 October 15, 2020 October 30, 2020 December 31, 2020
Maturity Date: Ref CPI on Dated Date:			February 15, 2050 257.09503	April 15, 2025 258.30093	July 15, 2030 256.39126	October 15, 2025 259.46997
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2021	267.05400	1.03874	1.03389	1.04159	1.02923	
July 2 2021	267.12306	1.03901	1.03415	1.04186	1.02950	
July 3 2021	267.19213	1.03927	1.03442	1.04213	1.02976	
July 4 2021	267.26119	1.03954	1.03469	1.04240	1.03003	
July 5 2021	267.33026	1.03981	1.03496	1.04267	1.03029	
July 6 2021	267.39932	1.04008	1.03522	1.04293	1.03056	
July 7 2021	267.46839	1.04035	1.03549	1.04320	1.03083	
July 8 2021	267.53745	1.04062	1.03576	1.04347	1.03109	
July 9 2021	267.60652	1.04089	1.03603	1.04374	1.03136	
July 10 2021	267.67558	1.04115	1.03629	1.04401	1.03162	
July 11 2021	267.74465	1.04142	1.03656	1.04428	1.03189	
July 12 2021	267.81371	1.04169	1.03683	1.04455	1.03216	
July 13 2021	267.88277	1.04196	1.03710	1.04482	1.03242	
July 14 2021	267.95184	1.04223	1.03736	1.04509	1.03269	
July 15 2021	268.02090	1.04250	1.03763	1.04536	1.03296	
July 16 2021	268.08997	1.04277	1.03790	1.04563	1.03322	
July 17 2021	268.15903	1.04303	1.03817	1.04590	1.03349	
July 18 2021	268.22810	1.04330	1.03843	1.04617	1.03375	
July 19 2021	268.29716	1.04357	1.03870	1.04644	1.03402	
July 20 2021	268.36623	1.04384	1.03897	1.04671	1.03429	
July 21 2021	268.43529	1.04411	1.03923	1.04698	1.03455	
July 22 2021	268.50435	1.04438	1.03950	1.04724	1.03482	
July 23 2021	268.57342	1.04465	1.03977	1.04751	1.03508	
July 24 2021	268.64248	1.04492	1.04004	1.04778	1.03535	
July 25 2021	268.71155	1.04518	1.04030	1.04805	1.03562	
July 26 2021	268.78061	1.04545	1.04057	1.04832	1.03588	
July 27 2021	268.84968	1.04572	1.04084	1.04859	1.03615	
July 28 2021	268.91874	1.04599	1.04111	1.04886	1.03642	
July 29 2021	268.98781	1.04626	1.04137	1.04913	1.03668	
July 30 2021	269.05687	1.04653	1.04164	1.04940	1.03695	
July 31 2021	269.12594	1.04680	1.04191	1.04967	1.03721	
CPI-U (NSA) for:	March 2021	264.877	April 2021	267.054	May 2021	269.195

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio		
July	1	2021	267.05400	1.02588	1.02574	1.01832		
July	2	2021	267.12306	1.02615	1.02601	1.01858		
July	3	2021	267.19213	1.02641	1.02627	1.01884		
July	4	2021	267.26119	1.02668	1.02654	1.01911		
July	5	2021	267.33026	1.02694	1.02681	1.01937		
July	6	2021	267.39932	1.02721	1.02707	1.01963		
July	7	2021	267.46839	1.02748	1.02734	1.01990		
July	8	2021	267.53745	1.02774	1.02760	1.02016		
July	9	2021	267.60652	1.02801	1.02787	1.02042		
July	10	2021	267.67558	1.02827	1.02813	1.02069		
July	11	2021	267.74465	1.02854	1.02840	1.02095		
July	12	2021	267.81371	1.02880	1.02866	1.02121		
July	13	2021	267.88277	1.02907	1.02893	1.02148		
July	14	2021	267.95184	1.02933	1.02919	1.02174		
July	15	2021	268.02090	1.02960	1.02946	1.02200		
July	16	2021	268.08997	1.02986	1.02972	1.02227		
July	17	2021	268.15903	1.03013	1.02999	1.02253		
July	18	2021	268.22810	1.03039	1.03025	1.02279		
July	19	2021	268.29716	1.03066	1.03052	1.02306		
July	20	2021	268.36623	1.03092	1.03078	1.02332		
July	21	2021	268.43529	1.03119	1.03105	1.02358		
July	22	2021	268.50435	1.03145	1.03131	1.02385		
July	23	2021	268.57342	1.03172	1.03158	1.02411		
July	24	2021	268.64248	1.03199	1.03185	1.02437		
July	25	2021	268.71155	1.03225	1.03211	1.02464		
July	26	2021	268.78061	1.03252	1.03238	1.02490		
July	27	2021	268.84968	1.03278	1.03264	1.02516		
July	28	2021	268.91874	1.03305	1.03291	1.02543		
July	29	2021	268.98781	1.03331	1.03317	1.02569		
July	30	2021	269.05687	1.03358	1.03344	1.02595		
July	31	2021	269.12594	1.03384	1.03370	1.02622		
CPI-U (NSA) for:			March 2021	264.877	April 2021	267.054	May 2021	269.195