

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

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	
April 1 2023	299.17000	1.84970	1.81984	1.68546	1.58714	
April 2 2023	299.22567	1.85004	1.82018	1.68578	1.58743	
April 3 2023	299.28133	1.85039	1.82052	1.68609	1.58773	
April 4 2023	299.33700	1.85073	1.82086	1.68641	1.58802	
April 5 2023	299.39267	1.85107	1.82120	1.68672	1.58832	
April 6 2023	299.44833	1.85142	1.82154	1.68703	1.58861	
April 7 2023	299.50400	1.85176	1.82187	1.68735	1.58891	
April 8 2023	299.55967	1.85211	1.82221	1.68766	1.58920	
April 9 2023	299.61533	1.85245	1.82255	1.68797	1.58950	
April 10 2023	299.67100	1.85279	1.82289	1.68829	1.58979	
April 11 2023	299.72667	1.85314	1.82323	1.68860	1.59009	
April 12 2023	299.78233	1.85348	1.82357	1.68891	1.59038	
April 13 2023	299.83800	1.85383	1.82391	1.68923	1.59068	
April 14 2023	299.89367	1.85417	1.82424	1.68954	1.59098	
April 15 2023	299.94933	1.85452	1.82458	1.68986	1.59127	
April 16 2023	300.00500	1.85486	1.82492	1.69017	1.59157	
April 17 2023	300.06067	1.85520	1.82526	1.69048	1.59186	
April 18 2023	300.11633	1.85555	1.82560	1.69080	1.59216	
April 19 2023	300.17200	1.85589	1.82594	1.69111	1.59245	
April 20 2023	300.22767	1.85624	1.82628	1.69142	1.59275	
April 21 2023	300.28333	1.85658	1.82662	1.69174	1.59304	
April 22 2023	300.33900	1.85692	1.82695	1.69205	1.59334	
April 23 2023	300.39467	1.85727	1.82729	1.69236	1.59363	
April 24 2023	300.45033	1.85761	1.82763	1.69268	1.59393	
April 25 2023	300.50600	1.85796	1.82797	1.69299	1.59422	
April 26 2023	300.56167	1.85830	1.82831	1.69331	1.59452	
April 27 2023	300.61733	1.85865	1.82865	1.69362	1.59481	
April 28 2023	300.67300	1.85899	1.82899	1.69393	1.59511	
April 29 2023	300.72867	1.85933	1.82932	1.69425	1.59540	
April 30 2023	300.78433	1.85968	1.82966	1.69456	1.59570	
CPI-U (NSA) for:			December 2022 296.797	January 2023 299.170	February 2023 300.840	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

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
April	1	2023	299.17000	1.50733	1.48350	1.42804	1.39343
April	2	2023	299.22567	1.50761	1.48378	1.42831	1.39369
April	3	2023	299.28133	1.50789	1.48406	1.42857	1.39395
April	4	2023	299.33700	1.50817	1.48433	1.42884	1.39421
April	5	2023	299.39267	1.50845	1.48461	1.42911	1.39447
April	6	2023	299.44833	1.50873	1.48488	1.42937	1.39473
April	7	2023	299.50400	1.50901	1.48516	1.42964	1.39499
April	8	2023	299.55967	1.50929	1.48544	1.42990	1.39525
April	9	2023	299.61533	1.50957	1.48571	1.43017	1.39551
April	10	2023	299.67100	1.50985	1.48599	1.43043	1.39577
April	11	2023	299.72667	1.51013	1.48626	1.43070	1.39603
April	12	2023	299.78233	1.51041	1.48654	1.43097	1.39629
April	13	2023	299.83800	1.51069	1.48682	1.43123	1.39655
April	14	2023	299.89367	1.51097	1.48709	1.43150	1.39681
April	15	2023	299.94933	1.51125	1.48737	1.43176	1.39706
April	16	2023	300.00500	1.51153	1.48764	1.43203	1.39732
April	17	2023	300.06067	1.51181	1.48792	1.43229	1.39758
April	18	2023	300.11633	1.51209	1.48820	1.43256	1.39784
April	19	2023	300.17200	1.51237	1.48847	1.43283	1.39810
April	20	2023	300.22767	1.51265	1.48875	1.43309	1.39836
April	21	2023	300.28333	1.51293	1.48902	1.43336	1.39862
April	22	2023	300.33900	1.51321	1.48930	1.43362	1.39888
April	23	2023	300.39467	1.51350	1.48958	1.43389	1.39914
April	24	2023	300.45033	1.51378	1.48985	1.43415	1.39940
April	25	2023	300.50600	1.51406	1.49013	1.43442	1.39966
April	26	2023	300.56167	1.51434	1.49040	1.43469	1.39992
April	27	2023	300.61733	1.51462	1.49068	1.43495	1.40018
April	28	2023	300.67300	1.51490	1.49096	1.43522	1.40044
April	29	2023	300.72867	1.51518	1.49123	1.43548	1.40069
April	30	2023	300.78433	1.51546	1.49151	1.43575	1.40095
CPI-U (NSA) for:			December 2022 296.797	January 2023 299.170	February 2023 300.840		

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April 2023

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	0-3/4% 30-Year TIPS TIPS of February 2042 912810QV3 February 15, 2012 February 29, 2012 June 29, 2012 October 31, 2012	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, 2040 216.13950	February 15, 2041 218.99100	February 15, 2042 225.96062	February 15, 2043 229.91100
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
April 1 2023	299.17000	1.38415	1.36613	1.32399	1.30124	
April 2 2023	299.22567	1.38441	1.36638	1.32424	1.30148	
April 3 2023	299.28133	1.38467	1.36664	1.32448	1.30173	
April 4 2023	299.33700	1.38493	1.36689	1.32473	1.30197	
April 5 2023	299.39267	1.38518	1.36715	1.32498	1.30221	
April 6 2023	299.44833	1.38544	1.36740	1.32522	1.30245	
April 7 2023	299.50400	1.38570	1.36765	1.32547	1.30270	
April 8 2023	299.55967	1.38596	1.36791	1.32572	1.30294	
April 9 2023	299.61533	1.38621	1.36816	1.32596	1.30318	
April 10 2023	299.67100	1.38647	1.36842	1.32621	1.30342	
April 11 2023	299.72667	1.38673	1.36867	1.32646	1.30366	
April 12 2023	299.78233	1.38699	1.36893	1.32670	1.30391	
April 13 2023	299.83800	1.38724	1.36918	1.32695	1.30415	
April 14 2023	299.89367	1.38750	1.36943	1.32719	1.30439	
April 15 2023	299.94933	1.38776	1.36969	1.32744	1.30463	
April 16 2023	300.00500	1.38802	1.36994	1.32769	1.30487	
April 17 2023	300.06067	1.38827	1.37020	1.32793	1.30512	
April 18 2023	300.11633	1.38853	1.37045	1.32818	1.30536	
April 19 2023	300.17200	1.38879	1.37070	1.32843	1.30560	
April 20 2023	300.22767	1.38905	1.37096	1.32867	1.30584	
April 21 2023	300.28333	1.38930	1.37121	1.32892	1.30609	
April 22 2023	300.33900	1.38956	1.37147	1.32917	1.30633	
April 23 2023	300.39467	1.38982	1.37172	1.32941	1.30657	
April 24 2023	300.45033	1.39008	1.37198	1.32966	1.30681	
April 25 2023	300.50600	1.39033	1.37223	1.32990	1.30705	
April 26 2023	300.56167	1.39059	1.37248	1.33015	1.30730	
April 27 2023	300.61733	1.39085	1.37274	1.33040	1.30754	
April 28 2023	300.67300	1.39111	1.37299	1.33064	1.30778	
April 29 2023	300.72867	1.39136	1.37325	1.33089	1.30802	
April 30 2023	300.78433	1.39162	1.37350	1.33114	1.30826	
CPI-U (NSA) for:	December 2022	296.797	January 2023	299.170	February 2023	300.840

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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-3/8% 10-Year TIPS Series D-2023 912828VM9 July 15, 2013 July 31, 2013 September 30, 2013 November 29, 2013	0-5/8% 10-Year TIPS Series A-2024 912828B25 January 15, 2014 January 31, 2014 March 31, 2014 May 30, 2014	1-3/8% 30-Year TIPS TIPS of February 2044 912810RF7 February 15, 2014 February 28, 2014 June 30, 2014 October 31, 2014	0-1/8% 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	
April 1 2023	299.17000	1.28555	1.28217	1.28367	1.25995	
April 2 2023	299.22567	1.28579	1.28241	1.28391	1.26018	
April 3 2023	299.28133	1.28603	1.28265	1.28414	1.26042	
April 4 2023	299.33700	1.28627	1.28289	1.28438	1.26065	
April 5 2023	299.39267	1.28650	1.28313	1.28462	1.26089	
April 6 2023	299.44833	1.28674	1.28337	1.28486	1.26112	
April 7 2023	299.50400	1.28698	1.28360	1.28510	1.26136	
April 8 2023	299.55967	1.28722	1.28384	1.28534	1.26159	
April 9 2023	299.61533	1.28746	1.28408	1.28558	1.26183	
April 10 2023	299.67100	1.28770	1.28432	1.28582	1.26206	
April 11 2023	299.72667	1.28794	1.28456	1.28605	1.26229	
April 12 2023	299.78233	1.28818	1.28480	1.28629	1.26253	
April 13 2023	299.83800	1.28842	1.28504	1.28653	1.26276	
April 14 2023	299.89367	1.28866	1.28527	1.28677	1.26300	
April 15 2023	299.94933	1.28890	1.28551	1.28701	1.26323	
April 16 2023	300.00500	1.28914	1.28575	1.28725	1.26347	
April 17 2023	300.06067	1.28937	1.28599	1.28749	1.26370	
April 18 2023	300.11633	1.28961	1.28623	1.28773	1.26394	
April 19 2023	300.17200	1.28985	1.28647	1.28797	1.26417	
April 20 2023	300.22767	1.29009	1.28671	1.28820	1.26440	
April 21 2023	300.28333	1.29033	1.28694	1.28844	1.26464	
April 22 2023	300.33900	1.29057	1.28718	1.28868	1.26487	
April 23 2023	300.39467	1.29081	1.28742	1.28892	1.26511	
April 24 2023	300.45033	1.29105	1.28766	1.28916	1.26534	
April 25 2023	300.50600	1.29129	1.28790	1.28940	1.26558	
April 26 2023	300.56167	1.29153	1.28814	1.28964	1.26581	
April 27 2023	300.61733	1.29177	1.28838	1.28988	1.26605	
April 28 2023	300.67300	1.29201	1.28861	1.29012	1.26628	
April 29 2023	300.72867	1.29225	1.28885	1.29035	1.26651	
April 30 2023	300.78433	1.29248	1.28909	1.29059	1.26675	
CPI-U (NSA) for:			December 2022 296.797	January 2023 299.170	February 2023 300.840	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

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	
April 1 2023	299.17000	1.26310	1.27046	1.26156	1.25907	
April 2 2023	299.22567	1.26333	1.27070	1.26179	1.25931	
April 3 2023	299.28133	1.26357	1.27093	1.26203	1.25954	
April 4 2023	299.33700	1.26380	1.27117	1.26226	1.25978	
April 5 2023	299.39267	1.26404	1.27141	1.26249	1.26001	
April 6 2023	299.44833	1.26427	1.27164	1.26273	1.26024	
April 7 2023	299.50400	1.26451	1.27188	1.26296	1.26048	
April 8 2023	299.55967	1.26474	1.27212	1.26320	1.26071	
April 9 2023	299.61533	1.26498	1.27235	1.26343	1.26095	
April 10 2023	299.67100	1.26521	1.27259	1.26367	1.26118	
April 11 2023	299.72667	1.26545	1.27282	1.26390	1.26142	
April 12 2023	299.78233	1.26568	1.27306	1.26414	1.26165	
April 13 2023	299.83800	1.26592	1.27330	1.26437	1.26188	
April 14 2023	299.89367	1.26615	1.27353	1.26461	1.26212	
April 15 2023	299.94933	1.26639	1.27377	1.26484	1.26235	
April 16 2023	300.00500	1.26662	1.27401	1.26508	1.26259	
April 17 2023	300.06067	1.26686	1.27424	1.26531	1.26282	
April 18 2023	300.11633	1.26709	1.27448	1.26555	1.26306	
April 19 2023	300.17200	1.26733	1.27472	1.26578	1.26329	
April 20 2023	300.22767	1.26756	1.27495	1.26602	1.26352	
April 21 2023	300.28333	1.26780	1.27519	1.26625	1.26376	
April 22 2023	300.33900	1.26803	1.27543	1.26649	1.26399	
April 23 2023	300.39467	1.26827	1.27566	1.26672	1.26423	
April 24 2023	300.45033	1.26850	1.27590	1.26695	1.26446	
April 25 2023	300.50600	1.26874	1.27613	1.26719	1.26470	
April 26 2023	300.56167	1.26897	1.27637	1.26742	1.26493	
April 27 2023	300.61733	1.26921	1.27661	1.26766	1.26516	
April 28 2023	300.67300	1.26944	1.27684	1.26789	1.26540	
April 29 2023	300.72867	1.26968	1.27708	1.26813	1.26563	
April 30 2023	300.78433	1.26991	1.27732	1.26836	1.26587	
CPI-U (NSA) for:	December 2022	296.797	January 2023	299.170	February 2023	300.840

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
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April 2023

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	
April 1 2023	299.17000	1.26262	1.24809	1.23850	1.23935	
April 2 2023	299.22567	1.26285	1.24833	1.23873	1.23958	
April 3 2023	299.28133	1.26309	1.24856	1.23896	1.23981	
April 4 2023	299.33700	1.26332	1.24879	1.23919	1.24004	
April 5 2023	299.39267	1.26356	1.24902	1.23942	1.24027	
April 6 2023	299.44833	1.26379	1.24926	1.23965	1.24050	
April 7 2023	299.50400	1.26403	1.24949	1.23988	1.24073	
April 8 2023	299.55967	1.26426	1.24972	1.24011	1.24097	
April 9 2023	299.61533	1.26450	1.24995	1.24034	1.24120	
April 10 2023	299.67100	1.26473	1.25019	1.24057	1.24143	
April 11 2023	299.72667	1.26497	1.25042	1.24080	1.24166	
April 12 2023	299.78233	1.26520	1.25065	1.24103	1.24189	
April 13 2023	299.83800	1.26544	1.25088	1.24126	1.24212	
April 14 2023	299.89367	1.26567	1.25111	1.24149	1.24235	
April 15 2023	299.94933	1.26591	1.25135	1.24172	1.24258	
April 16 2023	300.00500	1.26614	1.25158	1.24195	1.24281	
April 17 2023	300.06067	1.26638	1.25181	1.24218	1.24304	
April 18 2023	300.11633	1.26661	1.25204	1.24241	1.24327	
April 19 2023	300.17200	1.26685	1.25228	1.24264	1.24350	
April 20 2023	300.22767	1.26708	1.25251	1.24287	1.24373	
April 21 2023	300.28333	1.26732	1.25274	1.24310	1.24396	
April 22 2023	300.33900	1.26755	1.25297	1.24334	1.24419	
April 23 2023	300.39467	1.26779	1.25320	1.24357	1.24442	
April 24 2023	300.45033	1.26802	1.25344	1.24380	1.24465	
April 25 2023	300.50600	1.26825	1.25367	1.24403	1.24489	
April 26 2023	300.56167	1.26849	1.25390	1.24426	1.24512	
April 27 2023	300.61733	1.26872	1.25413	1.24449	1.24535	
April 28 2023	300.67300	1.26896	1.25437	1.24472	1.24558	
April 29 2023	300.72867	1.26919	1.25460	1.24495	1.24581	
April 30 2023	300.78433	1.26943	1.25483	1.24518	1.24604	
CPI-U (NSA) for:	December 2022	296.797	January 2023	299.170	February 2023	300.840

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April 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-3/8% 10-Year TIPS Series D-2027 9128282L3 July 15, 2017 July 31, 2017 September 29, 2017 November 30, 2017	0-1/2% 10-Year TIPS Series A-2028 9128283R9 January 15, 2018 January 31, 2018 March 29, 2018 May 31, 2018	1% 30-Year TIPS TIPS of February 2048 912810SB5 February 15, 2018 February 28, 2018 June 29, 2018 October 31, 2018	0-5/8% 5-Year TIPS Series X-2023 9128284H0 April 15, 2018 April 30, 2018 August 31, 2018 December 31, 2018		
Maturity Date: Ref CPI on Dated Date:			July 15, 2027 244.61839	January 15, 2028 246.66571	February 15, 2048 246.59650	April 15, 2023 248.39153		
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio			
April 1 2023	299.17000	1.22301	1.21286	1.21320	1.20443			
April 2 2023	299.22567	1.22323	1.21308	1.21342	1.20465			
April 3 2023	299.28133	1.22346	1.21331	1.21365	1.20488			
April 4 2023	299.33700	1.22369	1.21353	1.21387	1.20510			
April 5 2023	299.39267	1.22392	1.21376	1.21410	1.20533			
April 6 2023	299.44833	1.22414	1.21398	1.21433	1.20555			
April 7 2023	299.50400	1.22437	1.21421	1.21455	1.20577			
April 8 2023	299.55967	1.22460	1.21444	1.21478	1.20600			
April 9 2023	299.61533	1.22483	1.21466	1.21500	1.20622			
April 10 2023	299.67100	1.22506	1.21489	1.21523	1.20645			
April 11 2023	299.72667	1.22528	1.21511	1.21545	1.20667			
April 12 2023	299.78233	1.22551	1.21534	1.21568	1.20689			
April 13 2023	299.83800	1.22574	1.21556	1.21591	1.20712			
April 14 2023	299.89367	1.22597	1.21579	1.21613	1.20734			
April 15 2023	299.94933	1.22619	1.21602	1.21636	1.20757			
April 16 2023	300.00500	1.22642	1.21624	1.21658				
April 17 2023	300.06067	1.22665	1.21647	1.21681				
April 18 2023	300.11633	1.22688	1.21669	1.21703				
April 19 2023	300.17200	1.22710	1.21692	1.21726				
April 20 2023	300.22767	1.22733	1.21714	1.21749				
April 21 2023	300.28333	1.22756	1.21737	1.21771				
April 22 2023	300.33900	1.22779	1.21760	1.21794				
April 23 2023	300.39467	1.22801	1.21782	1.21816				
April 24 2023	300.45033	1.22824	1.21805	1.21839				
April 25 2023	300.50600	1.22847	1.21827	1.21861				
April 26 2023	300.56167	1.22870	1.21850	1.21884				
April 27 2023	300.61733	1.22892	1.21872	1.21907				
April 28 2023	300.67300	1.22915	1.21895	1.21929				
April 29 2023	300.72867	1.22938	1.21918	1.21952				
April 30 2023	300.78433	1.22961	1.21940	1.21974				
CPI-U (NSA) for:			December 2022	296.797	January 2023	299.170	February 2023	300.840

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	0-1/2% 5-Year TIPS Series X-2024 9128286N5 April 15, 2019 April 30, 2019 June 28, 2019
Maturity Date: Ref CPI on Dated Date:			July 15, 2028 251.01658	January 15, 2029 252.50248	February 15, 2049 251.63550	April 15, 2024 252.20853
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
April 1 2023	299.17000	1.19183	1.18482	1.18890	1.18620	
April 2 2023	299.22567	1.19206	1.18504	1.18912	1.18642	
April 3 2023	299.28133	1.19228	1.18526	1.18934	1.18664	
April 4 2023	299.33700	1.19250	1.18548	1.18957	1.18686	
April 5 2023	299.39267	1.19272	1.18570	1.18979	1.18708	
April 6 2023	299.44833	1.19294	1.18592	1.19001	1.18730	
April 7 2023	299.50400	1.19316	1.18614	1.19023	1.18753	
April 8 2023	299.55967	1.19339	1.18636	1.19045	1.18775	
April 9 2023	299.61533	1.19361	1.18658	1.19067	1.18797	
April 10 2023	299.67100	1.19383	1.18680	1.19089	1.18819	
April 11 2023	299.72667	1.19405	1.18702	1.19111	1.18841	
April 12 2023	299.78233	1.19427	1.18725	1.19134	1.18863	
April 13 2023	299.83800	1.19449	1.18747	1.19156	1.18885	
April 14 2023	299.89367	1.19472	1.18769	1.19178	1.18907	
April 15 2023	299.94933	1.19494	1.18791	1.19200	1.18929	
April 16 2023	300.00500	1.19516	1.18813	1.19222	1.18951	
April 17 2023	300.06067	1.19538	1.18835	1.19244	1.18973	
April 18 2023	300.11633	1.19560	1.18857	1.19266	1.18995	
April 19 2023	300.17200	1.19583	1.18879	1.19288	1.19017	
April 20 2023	300.22767	1.19605	1.18901	1.19311	1.19039	
April 21 2023	300.28333	1.19627	1.18923	1.19333	1.19062	
April 22 2023	300.33900	1.19649	1.18945	1.19355	1.19084	
April 23 2023	300.39467	1.19671	1.18967	1.19377	1.19106	
April 24 2023	300.45033	1.19693	1.18989	1.19399	1.19128	
April 25 2023	300.50600	1.19716	1.19011	1.19421	1.19150	
April 26 2023	300.56167	1.19738	1.19033	1.19443	1.19172	
April 27 2023	300.61733	1.19760	1.19055	1.19465	1.19194	
April 28 2023	300.67300	1.19782	1.19077	1.19488	1.19216	
April 29 2023	300.72867	1.19804	1.19099	1.19510	1.19238	
April 30 2023	300.78433	1.19826	1.19121	1.19532	1.19260	
CPI-U (NSA) for:	December 2022	296.797	January 2023	299.170	February 2023	300.840

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	0-1/4% 30-Year TIPS TIPS of February 2050 912810SM1 February 15, 2020 February 28, 2020 August 31, 2020
Maturity Date: Ref CPI on Dated Date:			July 15, 2029 255.79368	October 15, 2024 256.56513	January 15, 2030 257.28368	February 15, 2050 257.09503
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
April 1 2023	299.17000	1.16958	1.16606	1.16280	1.16366	
April 2 2023	299.22567	1.16979	1.16628	1.16302	1.16387	
April 3 2023	299.28133	1.17001	1.16649	1.16323	1.16409	
April 4 2023	299.33700	1.17023	1.16671	1.16345	1.16430	
April 5 2023	299.39267	1.17045	1.16693	1.16367	1.16452	
April 6 2023	299.44833	1.17066	1.16714	1.16388	1.16474	
April 7 2023	299.50400	1.17088	1.16736	1.16410	1.16495	
April 8 2023	299.55967	1.17110	1.16758	1.16432	1.16517	
April 9 2023	299.61533	1.17132	1.16779	1.16453	1.16539	
April 10 2023	299.67100	1.17153	1.16801	1.16475	1.16560	
April 11 2023	299.72667	1.17175	1.16823	1.16497	1.16582	
April 12 2023	299.78233	1.17197	1.16845	1.16518	1.16604	
April 13 2023	299.83800	1.17219	1.16866	1.16540	1.16625	
April 14 2023	299.89367	1.17240	1.16888	1.16561	1.16647	
April 15 2023	299.94933	1.17262	1.16910	1.16583	1.16669	
April 16 2023	300.00500	1.17284	1.16931	1.16605	1.16690	
April 17 2023	300.06067	1.17306	1.16953	1.16626	1.16712	
April 18 2023	300.11633	1.17328	1.16975	1.16648	1.16734	
April 19 2023	300.17200	1.17349	1.16996	1.16670	1.16755	
April 20 2023	300.22767	1.17371	1.17018	1.16691	1.16777	
April 21 2023	300.28333	1.17393	1.17040	1.16713	1.16799	
April 22 2023	300.33900	1.17415	1.17062	1.16735	1.16820	
April 23 2023	300.39467	1.17436	1.17083	1.16756	1.16842	
April 24 2023	300.45033	1.17458	1.17105	1.16778	1.16864	
April 25 2023	300.50600	1.17480	1.17127	1.16799	1.16885	
April 26 2023	300.56167	1.17502	1.17148	1.16821	1.16907	
April 27 2023	300.61733	1.17523	1.17170	1.16843	1.16928	
April 28 2023	300.67300	1.17545	1.17192	1.16864	1.16950	
April 29 2023	300.72867	1.17567	1.17213	1.16886	1.16972	
April 30 2023	300.78433	1.17589	1.17235	1.16908	1.16993	
CPI-U (NSA) for:	December 2022	296.797	January 2023	299.170	February 2023	300.840

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 5-Year TIPS Series X-2025 912828ZJ2 April 15, 2020 July 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	0-1/8% 10-Year TIPS Series A-2031 91282CBF7 January 15, 2021 January 29, 2021 March 31, 2021 May 28, 2021
Maturity Date: Ref CPI on Dated Date:			April 15, 2025 258.30093	July 15, 2030 256.39126	October 15, 2025 259.46997	January 15, 2031 260.31619
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
April 1 2023	299.17000	1.15822	1.16685	1.15300	1.14926	
April 2 2023	299.22567	1.15844	1.16707	1.15322	1.14947	
April 3 2023	299.28133	1.15865	1.16728	1.15343	1.14968	
April 4 2023	299.33700	1.15887	1.16750	1.15365	1.14990	
April 5 2023	299.39267	1.15908	1.16772	1.15386	1.15011	
April 6 2023	299.44833	1.15930	1.16794	1.15408	1.15033	
April 7 2023	299.50400	1.15952	1.16815	1.15429	1.15054	
April 8 2023	299.55967	1.15973	1.16837	1.15451	1.15075	
April 9 2023	299.61533	1.15995	1.16859	1.15472	1.15097	
April 10 2023	299.67100	1.16016	1.16880	1.15494	1.15118	
April 11 2023	299.72667	1.16038	1.16902	1.15515	1.15139	
April 12 2023	299.78233	1.16059	1.16924	1.15536	1.15161	
April 13 2023	299.83800	1.16081	1.16945	1.15558	1.15182	
April 14 2023	299.89367	1.16102	1.16967	1.15579	1.15204	
April 15 2023	299.94933	1.16124	1.16989	1.15601	1.15225	
April 16 2023	300.00500	1.16146	1.17011	1.15622	1.15246	
April 17 2023	300.06067	1.16167	1.17032	1.15644	1.15268	
April 18 2023	300.11633	1.16189	1.17054	1.15665	1.15289	
April 19 2023	300.17200	1.16210	1.17076	1.15687	1.15311	
April 20 2023	300.22767	1.16232	1.17097	1.15708	1.15332	
April 21 2023	300.28333	1.16253	1.17119	1.15730	1.15353	
April 22 2023	300.33900	1.16275	1.17141	1.15751	1.15375	
April 23 2023	300.39467	1.16296	1.17163	1.15772	1.15396	
April 24 2023	300.45033	1.16318	1.17184	1.15794	1.15417	
April 25 2023	300.50600	1.16339	1.17206	1.15815	1.15439	
April 26 2023	300.56167	1.16361	1.17228	1.15837	1.15460	
April 27 2023	300.61733	1.16383	1.17249	1.15858	1.15482	
April 28 2023	300.67300	1.16404	1.17271	1.15880	1.15503	
April 29 2023	300.72867	1.16426	1.17293	1.15901	1.15524	
April 30 2023	300.78433	1.16447	1.17315	1.15923	1.15546	
CPI-U (NSA) for:	December 2022	296.797	January 2023	299.170	February 2023	300.840

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 30-Year TIPS TIPS of February 2051 912810SV1 February 15, 2021 February 26, 2021 August 31, 2021	0-1/8% 5-Year TIPS Series X-2026 91282CCA7 April 15, 2021 April 30, 2021 June 30, 2021	0-1/8% 10-Year TIPS Series D-2031 91282CCM1 July 15, 2021 July 30, 2021 September 30, 2021 November 30, 2021	0-1/8% 5-Year TIPS Series AE-2026 91282CDC2 October 15, 2021 October 29, 2021 December 31, 2021		
Maturity Date: Ref CPI on Dated Date:			February 15, 2051 260.35150	April 15, 2026 262.25027	July 15, 2031 268.02090	October 15, 2026 273.25771		
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio			
April 1 2023	299.17000	1.14910	1.14078	1.11622	1.09483			
April 2 2023	299.22567	1.14931	1.14099	1.11643	1.09503			
April 3 2023	299.28133	1.14953	1.14121	1.11663	1.09523			
April 4 2023	299.33700	1.14974	1.14142	1.11684	1.09544			
April 5 2023	299.39267	1.14996	1.14163	1.11705	1.09564			
April 6 2023	299.44833	1.15017	1.14184	1.11726	1.09585			
April 7 2023	299.50400	1.15038	1.14205	1.11747	1.09605			
April 8 2023	299.55967	1.15060	1.14227	1.11767	1.09625			
April 9 2023	299.61533	1.15081	1.14248	1.11788	1.09646			
April 10 2023	299.67100	1.15102	1.14269	1.11809	1.09666			
April 11 2023	299.72667	1.15124	1.14290	1.11830	1.09686			
April 12 2023	299.78233	1.15145	1.14312	1.11850	1.09707			
April 13 2023	299.83800	1.15167	1.14333	1.11871	1.09727			
April 14 2023	299.89367	1.15188	1.14354	1.11892	1.09748			
April 15 2023	299.94933	1.15209	1.14375	1.11913	1.09768			
April 16 2023	300.00500	1.15231	1.14396	1.11933	1.09788			
April 17 2023	300.06067	1.15252	1.14418	1.11954	1.09809			
April 18 2023	300.11633	1.15274	1.14439	1.11975	1.09829			
April 19 2023	300.17200	1.15295	1.14460	1.11996	1.09849			
April 20 2023	300.22767	1.15316	1.14481	1.12017	1.09870			
April 21 2023	300.28333	1.15338	1.14503	1.12037	1.09890			
April 22 2023	300.33900	1.15359	1.14524	1.12058	1.09911			
April 23 2023	300.39467	1.15380	1.14545	1.12079	1.09931			
April 24 2023	300.45033	1.15402	1.14566	1.12100	1.09951			
April 25 2023	300.50600	1.15423	1.14587	1.12120	1.09972			
April 26 2023	300.56167	1.15445	1.14609	1.12141	1.09992			
April 27 2023	300.61733	1.15466	1.14630	1.12162	1.10012			
April 28 2023	300.67300	1.15487	1.14651	1.12183	1.10033			
April 29 2023	300.72867	1.15509	1.14672	1.12203	1.10053			
April 30 2023	300.78433	1.15530	1.14694	1.12224	1.10074			
CPI-U (NSA) for:			December 2022	296.797	January 2023	299.170	February 2023	300.840

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 10-Year TIPS Series A-2032 91282CDX6 January 15, 2022 January 31, 2022 March 31, 2022 May 31, 2022	0-1/8% 30-Year TIPS TIPS of February 2052 912810TE8 February 15, 2022 February 28, 2022 August 31, 2022	0-1/8% 5-Year TIPS Series X-2027 91282CEJ6 April 15, 2022 April 29, 2022 June 30, 2022	0-5/8% 10-Year TIPS Series D-2032 91282CEZ0 July 15, 2022 July 29, 2022 September 30, 2022 November 30, 2022
Maturity Date: Ref CPI on Dated Date:			January 15, 2032 277.20274	February 15, 2052 278.37500	April 15, 2027 282.34640	July 15, 2032 290.54829
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
April 1 2023	299.17000	1.07925	1.07470	1.05958	1.02967	
April 2 2023	299.22567	1.07945	1.07490	1.05978	1.02987	
April 3 2023	299.28133	1.07965	1.07510	1.05998	1.03006	
April 4 2023	299.33700	1.07985	1.07530	1.06018	1.03025	
April 5 2023	299.39267	1.08005	1.07550	1.06037	1.03044	
April 6 2023	299.44833	1.08025	1.07570	1.06057	1.03063	
April 7 2023	299.50400	1.08045	1.07590	1.06077	1.03082	
April 8 2023	299.55967	1.08065	1.07610	1.06097	1.03102	
April 9 2023	299.61533	1.08085	1.07630	1.06116	1.03121	
April 10 2023	299.67100	1.08105	1.07650	1.06136	1.03140	
April 11 2023	299.72667	1.08125	1.07670	1.06156	1.03159	
April 12 2023	299.78233	1.08146	1.07690	1.06175	1.03178	
April 13 2023	299.83800	1.08166	1.07710	1.06195	1.03197	
April 14 2023	299.89367	1.08186	1.07730	1.06215	1.03216	
April 15 2023	299.94933	1.08206	1.07750	1.06235	1.03236	
April 16 2023	300.00500	1.08226	1.07770	1.06254	1.03255	
April 17 2023	300.06067	1.08246	1.07790	1.06274	1.03274	
April 18 2023	300.11633	1.08266	1.07810	1.06294	1.03293	
April 19 2023	300.17200	1.08286	1.07830	1.06313	1.03312	
April 20 2023	300.22767	1.08306	1.07850	1.06333	1.03331	
April 21 2023	300.28333	1.08326	1.07870	1.06353	1.03351	
April 22 2023	300.33900	1.08346	1.07890	1.06373	1.03370	
April 23 2023	300.39467	1.08366	1.07910	1.06392	1.03389	
April 24 2023	300.45033	1.08386	1.07930	1.06412	1.03408	
April 25 2023	300.50600	1.08407	1.07950	1.06432	1.03427	
April 26 2023	300.56167	1.08427	1.07970	1.06451	1.03446	
April 27 2023	300.61733	1.08447	1.07990	1.06471	1.03466	
April 28 2023	300.67300	1.08467	1.08010	1.06491	1.03485	
April 29 2023	300.72867	1.08487	1.08030	1.06511	1.03504	
April 30 2023	300.78433	1.08507	1.08050	1.06530	1.03523	
CPI-U (NSA) for:	December 2022	296.797	January 2023	299.170	February 2023	300.840

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
April 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			1-5/8% 5-Year TIPS Series AE-2027 91282CFR7 October 15, 2022 October 31, 2022 December 30, 2022	1-1/8% 10-Year TIPS Series A-2033 91282CGK1 January 15, 2023 January 31, 2023	1-1/2% 30-Year TIPS TIPS of February 2053 912810TP3 February 15, 2023 February 28, 2023	
Maturity Date: Ref CPI on Dated Date:			October 15, 2027 296.22858	January 15, 2033 297.87606	February 15, 2053 297.25400	
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio		
April 1 2023	299.17000	1.00993	1.00434	1.00645		
April 2 2023	299.22567	1.01012	1.00453	1.00663		
April 3 2023	299.28133	1.01031	1.00472	1.00682		
April 4 2023	299.33700	1.01049	1.00490	1.00701		
April 5 2023	299.39267	1.01068	1.00509	1.00719		
April 6 2023	299.44833	1.01087	1.00528	1.00738		
April 7 2023	299.50400	1.01106	1.00547	1.00757		
April 8 2023	299.55967	1.01124	1.00565	1.00776		
April 9 2023	299.61533	1.01143	1.00584	1.00794		
April 10 2023	299.67100	1.01162	1.00603	1.00813		
April 11 2023	299.72667	1.01181	1.00621	1.00832		
April 12 2023	299.78233	1.01200	1.00640	1.00851		
April 13 2023	299.83800	1.01218	1.00659	1.00869		
April 14 2023	299.89367	1.01237	1.00677	1.00888		
April 15 2023	299.94933	1.01256	1.00696	1.00907		
April 16 2023	300.00500	1.01275	1.00715	1.00925		
April 17 2023	300.06067	1.01294	1.00733	1.00944		
April 18 2023	300.11633	1.01312	1.00752	1.00963		
April 19 2023	300.17200	1.01331	1.00771	1.00982		
April 20 2023	300.22767	1.01350	1.00789	1.01000		
April 21 2023	300.28333	1.01369	1.00808	1.01019		
April 22 2023	300.33900	1.01388	1.00827	1.01038		
April 23 2023	300.39467	1.01406	1.00846	1.01057		
April 24 2023	300.45033	1.01425	1.00864	1.01075		
April 25 2023	300.50600	1.01444	1.00883	1.01094		
April 26 2023	300.56167	1.01463	1.00902	1.01113		
April 27 2023	300.61733	1.01482	1.00920	1.01131		
April 28 2023	300.67300	1.01500	1.00939	1.01150		
April 29 2023	300.72867	1.01519	1.00958	1.01169		
April 30 2023	300.78433	1.01538	1.00976	1.01188		
CPI-U (NSA) for:	December 2022	296.797	January 2023	299.170	February 2023	300.840