

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

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 2022	289.10900	1.78749	1.75864	1.62878	1.53376	
July 2 2022	289.21181	1.78813	1.75927	1.62936	1.53431	
July 3 2022	289.31461	1.78876	1.75989	1.62994	1.53485	
July 4 2022	289.41742	1.78940	1.76052	1.63052	1.53540	
July 5 2022	289.52023	1.79003	1.76114	1.63110	1.53594	
July 6 2022	289.62303	1.79067	1.76177	1.63168	1.53649	
July 7 2022	289.72584	1.79131	1.76239	1.63226	1.53703	
July 8 2022	289.82865	1.79194	1.76302	1.63284	1.53758	
July 9 2022	289.93145	1.79258	1.76364	1.63342	1.53812	
July 10 2022	290.03426	1.79321	1.76427	1.63400	1.53867	
July 11 2022	290.13706	1.79385	1.76490	1.63457	1.53922	
July 12 2022	290.23987	1.79448	1.76552	1.63515	1.53976	
July 13 2022	290.34268	1.79512	1.76615	1.63573	1.54031	
July 14 2022	290.44548	1.79576	1.76677	1.63631	1.54085	
July 15 2022	290.54829	1.79639	1.76740	1.63689	1.54140	
July 16 2022	290.65110	1.79703	1.76802	1.63747	1.54194	
July 17 2022	290.75390	1.79766	1.76865	1.63805	1.54249	
July 18 2022	290.85671	1.79830	1.76927	1.63863	1.54303	
July 19 2022	290.95952	1.79893	1.76990	1.63921	1.54358	
July 20 2022	291.06232	1.79957	1.77052	1.63979	1.54412	
July 21 2022	291.16513	1.80020	1.77115	1.64037	1.54467	
July 22 2022	291.26794	1.80084	1.77177	1.64095	1.54521	
July 23 2022	291.37074	1.80148	1.77240	1.64153	1.54576	
July 24 2022	291.47355	1.80211	1.77303	1.64210	1.54631	
July 25 2022	291.57635	1.80275	1.77365	1.64268	1.54685	
July 26 2022	291.67916	1.80338	1.77428	1.64326	1.54740	
July 27 2022	291.78197	1.80402	1.77490	1.64384	1.54794	
July 28 2022	291.88477	1.80465	1.77553	1.64442	1.54849	
July 29 2022	291.98758	1.80529	1.77615	1.64500	1.54903	
July 30 2022	292.09039	1.80593	1.77678	1.64558	1.54958	
July 31 2022	292.19319	1.80656	1.77740	1.64616	1.55012	
CPI-U (NSA) for:			March 2022 287.504	April 2022 289.109	May 2022 292.296	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

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	2022	289.10900	1.45663	1.43361	1.38002	1.34657
July	2	2022	289.21181	1.45715	1.43412	1.38051	1.34705
July	3	2022	289.31461	1.45767	1.43463	1.38100	1.34753
July	4	2022	289.41742	1.45819	1.43514	1.38149	1.34801
July	5	2022	289.52023	1.45871	1.43565	1.38198	1.34849
July	6	2022	289.62303	1.45922	1.43616	1.38247	1.34897
July	7	2022	289.72584	1.45974	1.43667	1.38296	1.34945
July	8	2022	289.82865	1.46026	1.43718	1.38345	1.34993
July	9	2022	289.93145	1.46078	1.43769	1.38394	1.35040
July	10	2022	290.03426	1.46130	1.43820	1.38444	1.35088
July	11	2022	290.13706	1.46181	1.43871	1.38493	1.35136
July	12	2022	290.23987	1.46233	1.43922	1.38542	1.35184
July	13	2022	290.34268	1.46285	1.43973	1.38591	1.35232
July	14	2022	290.44548	1.46337	1.44024	1.38640	1.35280
July	15	2022	290.54829	1.46389	1.44075	1.38689	1.35328
July	16	2022	290.65110	1.46440	1.44126	1.38738	1.35376
July	17	2022	290.75390	1.46492	1.44177	1.38787	1.35424
July	18	2022	290.85671	1.46544	1.44228	1.38836	1.35471
July	19	2022	290.95952	1.46596	1.44279	1.38885	1.35519
July	20	2022	291.06232	1.46648	1.44330	1.38934	1.35567
July	21	2022	291.16513	1.46699	1.44381	1.38983	1.35615
July	22	2022	291.26794	1.46751	1.44432	1.39032	1.35663
July	23	2022	291.37074	1.46803	1.44483	1.39081	1.35711
July	24	2022	291.47355	1.46855	1.44534	1.39131	1.35759
July	25	2022	291.57635	1.46907	1.44585	1.39180	1.35807
July	26	2022	291.67916	1.46958	1.44636	1.39229	1.35854
July	27	2022	291.78197	1.47010	1.44687	1.39278	1.35902
July	28	2022	291.88477	1.47062	1.44738	1.39327	1.35950
July	29	2022	291.98758	1.47114	1.44789	1.39376	1.35998
July	30	2022	292.09039	1.47166	1.44840	1.39425	1.36046
July	31	2022	292.19319	1.47217	1.44891	1.39474	1.36094
CPI-U (NSA) for:			March 2022 287.504	April 2022 289.109	May 2022 292.296		

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July 2022

Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July	1	2022	289.10900	1.33760	1.32019	1.27947	1.25720	
July	2	2022	289.21181	1.33808	1.32066	1.27992	1.25764	
July	3	2022	289.31461	1.33856	1.32113	1.28038	1.25809	
July	4	2022	289.41742	1.33903	1.32160	1.28083	1.25854	
July	5	2022	289.52023	1.33951	1.32206	1.28129	1.25899	
July	6	2022	289.62303	1.33998	1.32253	1.28174	1.25943	
July	7	2022	289.72584	1.34046	1.32300	1.28220	1.25988	
July	8	2022	289.82865	1.34093	1.32347	1.28265	1.26033	
July	9	2022	289.93145	1.34141	1.32394	1.28311	1.26077	
July	10	2022	290.03426	1.34188	1.32441	1.28356	1.26122	
July	11	2022	290.13706	1.34236	1.32488	1.28402	1.26167	
July	12	2022	290.23987	1.34284	1.32535	1.28447	1.26212	
July	13	2022	290.34268	1.34331	1.32582	1.28493	1.26256	
July	14	2022	290.44548	1.34379	1.32629	1.28538	1.26301	
July	15	2022	290.54829	1.34426	1.32676	1.28584	1.26346	
July	16	2022	290.65110	1.34474	1.32723	1.28629		
July	17	2022	290.75390	1.34521	1.32770	1.28675		
July	18	2022	290.85671	1.34569	1.32817	1.28720		
July	19	2022	290.95952	1.34617	1.32864	1.28766		
July	20	2022	291.06232	1.34664	1.32911	1.28811		
July	21	2022	291.16513	1.34712	1.32958	1.28857		
July	22	2022	291.26794	1.34759	1.33005	1.28902		
July	23	2022	291.37074	1.34807	1.33051	1.28948		
July	24	2022	291.47355	1.34854	1.33098	1.28993		
July	25	2022	291.57635	1.34902	1.33145	1.29039		
July	26	2022	291.67916	1.34949	1.33192	1.29084		
July	27	2022	291.78197	1.34997	1.33239	1.29130		
July	28	2022	291.88477	1.35045	1.33286	1.29175		
July	29	2022	291.98758	1.35092	1.33333	1.29221		
July	30	2022	292.09039	1.35140	1.33380	1.29266		
July	31	2022	292.19319	1.35187	1.33427	1.29312		
CPI-U (NSA) for:			March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
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July 2022

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	0-5/8% 10-Year TIPS Series A-2024 912828B25 January 15, 2014 January 31, 2014 March 31, 2014 May 30, 2014
Maturity Date: Ref CPI on Dated Date:			January 15, 2023 230.82203	February 15, 2043 229.91100	July 15, 2023 232.71797	January 15, 2024 233.33058
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2022	289.10900	1.25252	1.25748	1.24231	1.23905	
July 2 2022	289.21181	1.25296	1.25793	1.24276	1.23949	
July 3 2022	289.31461	1.25341	1.25838	1.24320	1.23993	
July 4 2022	289.41742	1.25386	1.25882	1.24364	1.24038	
July 5 2022	289.52023	1.25430	1.25927	1.24408	1.24082	
July 6 2022	289.62303	1.25475	1.25972	1.24452	1.24126	
July 7 2022	289.72584	1.25519	1.26017	1.24497	1.24170	
July 8 2022	289.82865	1.25564	1.26061	1.24541	1.24214	
July 9 2022	289.93145	1.25608	1.26106	1.24585	1.24258	
July 10 2022	290.03426	1.25653	1.26151	1.24629	1.24302	
July 11 2022	290.13706	1.25697	1.26195	1.24673	1.24346	
July 12 2022	290.23987	1.25742	1.26240	1.24717	1.24390	
July 13 2022	290.34268	1.25786	1.26285	1.24762	1.24434	
July 14 2022	290.44548	1.25831	1.26330	1.24806	1.24478	
July 15 2022	290.54829	1.25875	1.26374	1.24850	1.24522	
July 16 2022	290.65110	1.25920	1.26419	1.24894	1.24566	
July 17 2022	290.75390	1.25965	1.26464	1.24938	1.24610	
July 18 2022	290.85671	1.26009	1.26508	1.24982	1.24654	
July 19 2022	290.95952	1.26054	1.26553	1.25027	1.24698	
July 20 2022	291.06232	1.26098	1.26598	1.25071	1.24742	
July 21 2022	291.16513	1.26143	1.26643	1.25115	1.24787	
July 22 2022	291.26794	1.26187	1.26687	1.25159	1.24831	
July 23 2022	291.37074	1.26232	1.26732	1.25203	1.24875	
July 24 2022	291.47355	1.26276	1.26777	1.25248	1.24919	
July 25 2022	291.57635	1.26321	1.26821	1.25292	1.24963	
July 26 2022	291.67916	1.26365	1.26866	1.25336	1.25007	
July 27 2022	291.78197	1.26410	1.26911	1.25380	1.25051	
July 28 2022	291.88477	1.26454	1.26956	1.25424	1.25095	
July 29 2022	291.98758	1.26499	1.27000	1.25468	1.25139	
July 30 2022	292.09039	1.26544	1.27045	1.25513	1.25183	
July 31 2022	292.19319	1.26588	1.27090	1.25557	1.25227	
CPI-U (NSA) for:	March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	0-1/4% 10-Year TIPS Series A-2025 912828H45 January 15, 2015 January 30, 2015 March 31, 2015 May 29, 2015	0-3/4% 30-Year TIPS TIPS of February 2045 912810RL4 February 15, 2015 February 27, 2015 June 30, 2015 October 30, 2015
Maturity Date: Ref CPI on Dated Date:			February 15, 2044 233.05900	July 15, 2024 237.44594	January 15, 2025 236.85403	February 15, 2045 235.48150
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2022	289.10900	1.24050	1.21758	1.22062	1.22774	
July 2 2022	289.21181	1.24094	1.21801	1.22106	1.22817	
July 3 2022	289.31461	1.24138	1.21844	1.22149	1.22861	
July 4 2022	289.41742	1.24182	1.21888	1.22192	1.22905	
July 5 2022	289.52023	1.24226	1.21931	1.22236	1.22948	
July 6 2022	289.62303	1.24270	1.21974	1.22279	1.22992	
July 7 2022	289.72584	1.24314	1.22018	1.22323	1.23035	
July 8 2022	289.82865	1.24358	1.22061	1.22366	1.23079	
July 9 2022	289.93145	1.24403	1.22104	1.22409	1.23123	
July 10 2022	290.03426	1.24447	1.22147	1.22453	1.23166	
July 11 2022	290.13706	1.24491	1.22191	1.22496	1.23210	
July 12 2022	290.23987	1.24535	1.22234	1.22540	1.23254	
July 13 2022	290.34268	1.24579	1.22277	1.22583	1.23297	
July 14 2022	290.44548	1.24623	1.22321	1.22626	1.23341	
July 15 2022	290.54829	1.24667	1.22364	1.22670	1.23385	
July 16 2022	290.65110	1.24711	1.22407	1.22713	1.23428	
July 17 2022	290.75390	1.24755	1.22451	1.22757	1.23472	
July 18 2022	290.85671	1.24800	1.22494	1.22800	1.23516	
July 19 2022	290.95952	1.24844	1.22537	1.22843	1.23559	
July 20 2022	291.06232	1.24888	1.22580	1.22887	1.23603	
July 21 2022	291.16513	1.24932	1.22624	1.22930	1.23647	
July 22 2022	291.26794	1.24976	1.22667	1.22974	1.23690	
July 23 2022	291.37074	1.25020	1.22710	1.23017	1.23734	
July 24 2022	291.47355	1.25064	1.22754	1.23060	1.23778	
July 25 2022	291.57635	1.25108	1.22797	1.23104	1.23821	
July 26 2022	291.67916	1.25152	1.22840	1.23147	1.23865	
July 27 2022	291.78197	1.25197	1.22884	1.23191	1.23909	
July 28 2022	291.88477	1.25241	1.22927	1.23234	1.23952	
July 29 2022	291.98758	1.25285	1.22970	1.23277	1.23996	
July 30 2022	292.09039	1.25329	1.23013	1.23321	1.24040	
July 31 2022	292.19319	1.25373	1.23057	1.23364	1.24083	
CPI-U (NSA) for:	March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-3/8% 10-Year TIPS Series D-2025 912828XL9 July 15, 2015 July 31, 2015 September 30, 2015 November 30, 2015	0-5/8% 10-Year TIPS Series A-2026 912828N71 January 15, 2016 January 29, 2016 March 31, 2016 May 31, 2016	1% 30-Year TIPS TIPS of February 2046 912810RR1 February 15, 2016 February 29, 2016 June 30, 2016 October 31, 2016	0-1/8% 10-Year TIPS Series D-2026 912828S50 July 15, 2016 July 29, 2016 September 30, 2016 November 30, 2016
Maturity Date: Ref CPI on Dated Date:			July 15, 2025 237.14365	January 15, 2026 237.61129	February 15, 2046 236.94448	July 15, 2026 239.70132
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2022	289.10900	1.21913	1.21673	1.22016	1.20612	
July 2 2022	289.21181	1.21956	1.21716	1.22059	1.20655	
July 3 2022	289.31461	1.22000	1.21760	1.22102	1.20698	
July 4 2022	289.41742	1.22043	1.21803	1.22146	1.20741	
July 5 2022	289.52023	1.22086	1.21846	1.22189	1.20784	
July 6 2022	289.62303	1.22130	1.21889	1.22232	1.20827	
July 7 2022	289.72584	1.22173	1.21933	1.22276	1.20870	
July 8 2022	289.82865	1.22216	1.21976	1.22319	1.20912	
July 9 2022	289.93145	1.22260	1.22019	1.22363	1.20955	
July 10 2022	290.03426	1.22303	1.22062	1.22406	1.20998	
July 11 2022	290.13706	1.22347	1.22106	1.22449	1.21041	
July 12 2022	290.23987	1.22390	1.22149	1.22493	1.21084	
July 13 2022	290.34268	1.22433	1.22192	1.22536	1.21127	
July 14 2022	290.44548	1.22477	1.22236	1.22580	1.21170	
July 15 2022	290.54829	1.22520	1.22279	1.22623	1.21213	
July 16 2022	290.65110	1.22563	1.22322	1.22666	1.21256	
July 17 2022	290.75390	1.22607	1.22365	1.22710	1.21298	
July 18 2022	290.85671	1.22650	1.22409	1.22753	1.21341	
July 19 2022	290.95952	1.22693	1.22452	1.22796	1.21384	
July 20 2022	291.06232	1.22737	1.22495	1.22840	1.21427	
July 21 2022	291.16513	1.22780	1.22538	1.22883	1.21470	
July 22 2022	291.26794	1.22823	1.22582	1.22927	1.21513	
July 23 2022	291.37074	1.22867	1.22625	1.22970	1.21556	
July 24 2022	291.47355	1.22910	1.22668	1.23013	1.21599	
July 25 2022	291.57635	1.22953	1.22711	1.23057	1.21642	
July 26 2022	291.67916	1.22997	1.22755	1.23100	1.21684	
July 27 2022	291.78197	1.23040	1.22798	1.23144	1.21727	
July 28 2022	291.88477	1.23084	1.22841	1.23187	1.21770	
July 29 2022	291.98758	1.23127	1.22885	1.23230	1.21813	
July 30 2022	292.09039	1.23170	1.22928	1.23274	1.21856	
July 31 2022	292.19319	1.23214	1.22971	1.23317	1.21899	
CPI-U (NSA) for:	March 2022	287.504	April 2022	289.109	May 2022	292.296

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Ref CPI and Index Ratios for
July 2022

Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July	1	2022	289.10900	1.19685	1.19767	1.18188	1.17207	
July	2	2022	289.21181	1.19727	1.19810	1.18230	1.17248	
July	3	2022	289.31461	1.19770	1.19852	1.18272	1.17290	
July	4	2022	289.41742	1.19812	1.19895	1.18314	1.17332	
July	5	2022	289.52023	1.19855	1.19938	1.18356	1.17374	
July	6	2022	289.62303	1.19897	1.19980	1.18398	1.17415	
July	7	2022	289.72584	1.19940	1.20023	1.18440	1.17457	
July	8	2022	289.82865	1.19982	1.20065	1.18482	1.17499	
July	9	2022	289.93145	1.20025	1.20108	1.18524	1.17540	
July	10	2022	290.03426	1.20068	1.20150	1.18566	1.17582	
July	11	2022	290.13706	1.20110	1.20193	1.18608	1.17624	
July	12	2022	290.23987	1.20153	1.20236	1.18650	1.17665	
July	13	2022	290.34268	1.20195	1.20278	1.18692	1.17707	
July	14	2022	290.44548	1.20238	1.20321	1.18734	1.17749	
July	15	2022	290.54829	1.20280	1.20363	1.18776	1.17790	
July	16	2022	290.65110	1.20323	1.20406	1.18818	1.17832	
July	17	2022	290.75390	1.20365	1.20449	1.18860	1.17874	
July	18	2022	290.85671	1.20408	1.20491	1.18902	1.17915	
July	19	2022	290.95952	1.20451	1.20534	1.18944	1.17957	
July	20	2022	291.06232	1.20493	1.20576	1.18986	1.17999	
July	21	2022	291.16513	1.20536	1.20619	1.19028	1.18040	
July	22	2022	291.26794	1.20578	1.20662	1.19070	1.18082	
July	23	2022	291.37074	1.20621	1.20704	1.19112	1.18124	
July	24	2022	291.47355	1.20663	1.20747	1.19154	1.18165	
July	25	2022	291.57635	1.20706	1.20789	1.19196	1.18207	
July	26	2022	291.67916	1.20749	1.20832	1.19238	1.18249	
July	27	2022	291.78197	1.20791	1.20874	1.19280	1.18290	
July	28	2022	291.88477	1.20834	1.20917	1.19322	1.18332	
July	29	2022	291.98758	1.20876	1.20960	1.19365	1.18374	
July	30	2022	292.09039	1.20919	1.21002	1.19407	1.18415	
July	31	2022	292.19319	1.20961	1.21045	1.19449	1.18457	
CPI-U (NSA) for:			March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	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
Maturity Date: Ref CPI on Dated Date:			February 15, 2048 246.59650	April 15, 2023 248.39153	July 15, 2028 251.01658	January 15, 2029 252.50248
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2022	289.10900	1.17240	1.16392	1.15175	1.14497	
July 2 2022	289.21181	1.17281	1.16434	1.15216	1.14538	
July 3 2022	289.31461	1.17323	1.16475	1.15257	1.14579	
July 4 2022	289.41742	1.17365	1.16517	1.15298	1.14620	
July 5 2022	289.52023	1.17406	1.16558	1.15339	1.14660	
July 6 2022	289.62303	1.17448	1.16599	1.15380	1.14701	
July 7 2022	289.72584	1.17490	1.16641	1.15421	1.14742	
July 8 2022	289.82865	1.17532	1.16682	1.15462	1.14782	
July 9 2022	289.93145	1.17573	1.16724	1.15503	1.14823	
July 10 2022	290.03426	1.17615	1.16765	1.15544	1.14864	
July 11 2022	290.13706	1.17657	1.16806	1.15585	1.14905	
July 12 2022	290.23987	1.17698	1.16848	1.15626	1.14945	
July 13 2022	290.34268	1.17740	1.16889	1.15667	1.14986	
July 14 2022	290.44548	1.17782	1.16931	1.15708	1.15027	
July 15 2022	290.54829	1.17823	1.16972	1.15749	1.15067	
July 16 2022	290.65110	1.17865	1.17013	1.15790	1.15108	
July 17 2022	290.75390	1.17907	1.17055	1.15831	1.15149	
July 18 2022	290.85671	1.17948	1.17096	1.15872	1.15190	
July 19 2022	290.95952	1.17990	1.17137	1.15912	1.15230	
July 20 2022	291.06232	1.18032	1.17179	1.15953	1.15271	
July 21 2022	291.16513	1.18074	1.17220	1.15994	1.15312	
July 22 2022	291.26794	1.18115	1.17262	1.16035	1.15353	
July 23 2022	291.37074	1.18157	1.17303	1.16076	1.15393	
July 24 2022	291.47355	1.18199	1.17344	1.16117	1.15434	
July 25 2022	291.57635	1.18240	1.17386	1.16158	1.15475	
July 26 2022	291.67916	1.18282	1.17427	1.16199	1.15515	
July 27 2022	291.78197	1.18324	1.17469	1.16240	1.15556	
July 28 2022	291.88477	1.18365	1.17510	1.16281	1.15597	
July 29 2022	291.98758	1.18407	1.17551	1.16322	1.15638	
July 30 2022	292.09039	1.18449	1.17593	1.16363	1.15678	
July 31 2022	292.19319	1.18490	1.17634	1.16404	1.15719	
CPI-U (NSA) for:	March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	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
Maturity Date: Ref CPI on Dated Date:			February 15, 2049 251.63550	April 15, 2024 252.20853	July 15, 2029 255.79368	October 15, 2024 256.56513
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2022	289.10900	1.14892	1.14631	1.13024	1.12684	
July 2 2022	289.21181	1.14933	1.14672	1.13064	1.12725	
July 3 2022	289.31461	1.14974	1.14712	1.13105	1.12765	
July 4 2022	289.41742	1.15015	1.14753	1.13145	1.12805	
July 5 2022	289.52023	1.15055	1.14794	1.13185	1.12845	
July 6 2022	289.62303	1.15096	1.14835	1.13225	1.12885	
July 7 2022	289.72584	1.15137	1.14876	1.13265	1.12925	
July 8 2022	289.82865	1.15178	1.14916	1.13306	1.12965	
July 9 2022	289.93145	1.15219	1.14957	1.13346	1.13005	
July 10 2022	290.03426	1.15260	1.14998	1.13386	1.13045	
July 11 2022	290.13706	1.15301	1.15039	1.13426	1.13085	
July 12 2022	290.23987	1.15341	1.15079	1.13466	1.13125	
July 13 2022	290.34268	1.15382	1.15120	1.13507	1.13165	
July 14 2022	290.44548	1.15423	1.15161	1.13547	1.13205	
July 15 2022	290.54829	1.15464	1.15202	1.13587	1.13245	
July 16 2022	290.65110	1.15505	1.15242	1.13627	1.13286	
July 17 2022	290.75390	1.15546	1.15283	1.13667	1.13326	
July 18 2022	290.85671	1.15587	1.15324	1.13708	1.13366	
July 19 2022	290.95952	1.15627	1.15365	1.13748	1.13406	
July 20 2022	291.06232	1.15668	1.15405	1.13788	1.13446	
July 21 2022	291.16513	1.15709	1.15446	1.13828	1.13486	
July 22 2022	291.26794	1.15750	1.15487	1.13868	1.13526	
July 23 2022	291.37074	1.15791	1.15528	1.13908	1.13566	
July 24 2022	291.47355	1.15832	1.15568	1.13949	1.13606	
July 25 2022	291.57635	1.15873	1.15609	1.13989	1.13646	
July 26 2022	291.67916	1.15913	1.15650	1.14029	1.13686	
July 27 2022	291.78197	1.15954	1.15691	1.14069	1.13726	
July 28 2022	291.88477	1.15995	1.15732	1.14109	1.13766	
July 29 2022	291.98758	1.16036	1.15772	1.14150	1.13806	
July 30 2022	292.09039	1.16077	1.15813	1.14190	1.13846	
July 31 2022	292.19319	1.16118	1.15854	1.14230	1.13887	
CPI-U (NSA) for:	March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	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
Maturity Date: Ref CPI on Dated Date:			January 15, 2030 257.28368	February 15, 2050 257.09503	April 15, 2025 258.30093	July 15, 2030 256.39126
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2022	289.10900	1.12370	1.12452	1.11927	1.12761	
July 2 2022	289.21181	1.12410	1.12492	1.11967	1.12801	
July 3 2022	289.31461	1.12450	1.12532	1.12007	1.12841	
July 4 2022	289.41742	1.12490	1.12572	1.12047	1.12881	
July 5 2022	289.52023	1.12530	1.12612	1.12086	1.12921	
July 6 2022	289.62303	1.12570	1.12652	1.12126	1.12961	
July 7 2022	289.72584	1.12609	1.12692	1.12166	1.13001	
July 8 2022	289.82865	1.12649	1.12732	1.12206	1.13042	
July 9 2022	289.93145	1.12689	1.12772	1.12246	1.13082	
July 10 2022	290.03426	1.12729	1.12812	1.12285	1.13122	
July 11 2022	290.13706	1.12769	1.12852	1.12325	1.13162	
July 12 2022	290.23987	1.12809	1.12892	1.12365	1.13202	
July 13 2022	290.34268	1.12849	1.12932	1.12405	1.13242	
July 14 2022	290.44548	1.12889	1.12972	1.12445	1.13282	
July 15 2022	290.54829	1.12929	1.13012	1.12484	1.13322	
July 16 2022	290.65110	1.12969	1.13052	1.12524	1.13362	
July 17 2022	290.75390	1.13009	1.13092	1.12564	1.13402	
July 18 2022	290.85671	1.13049	1.13132	1.12604	1.13443	
July 19 2022	290.95952	1.13089	1.13172	1.12644	1.13483	
July 20 2022	291.06232	1.13129	1.13212	1.12683	1.13523	
July 21 2022	291.16513	1.13169	1.13252	1.12723	1.13563	
July 22 2022	291.26794	1.13209	1.13292	1.12763	1.13603	
July 23 2022	291.37074	1.13249	1.13332	1.12803	1.13643	
July 24 2022	291.47355	1.13289	1.13372	1.12843	1.13683	
July 25 2022	291.57635	1.13329	1.13412	1.12882	1.13723	
July 26 2022	291.67916	1.13369	1.13452	1.12922	1.13763	
July 27 2022	291.78197	1.13409	1.13492	1.12962	1.13803	
July 28 2022	291.88477	1.13449	1.13532	1.13002	1.13843	
July 29 2022	291.98758	1.13489	1.13572	1.13042	1.13883	
July 30 2022	292.09039	1.13529	1.13612	1.13081	1.13923	
July 31 2022	292.19319	1.13568	1.13652	1.13121	1.13963	
CPI-U (NSA) for:	March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July	1	2022	289.10900	1.11423	1.11061	1.11046	1.10242	
July	2	2022	289.21181	1.11463	1.11100	1.11085	1.10281	
July	3	2022	289.31461	1.11502	1.11140	1.11125	1.10320	
July	4	2022	289.41742	1.11542	1.11179	1.11164	1.10359	
July	5	2022	289.52023	1.11581	1.11219	1.11204	1.10398	
July	6	2022	289.62303	1.11621	1.11258	1.11243	1.10438	
July	7	2022	289.72584	1.11661	1.11298	1.11283	1.10477	
July	8	2022	289.82865	1.11700	1.11337	1.11322	1.10516	
July	9	2022	289.93145	1.11740	1.11377	1.11362	1.10555	
July	10	2022	290.03426	1.11780	1.11416	1.11401	1.10594	
July	11	2022	290.13706	1.11819	1.11456	1.11441	1.10634	
July	12	2022	290.23987	1.11859	1.11495	1.11480	1.10673	
July	13	2022	290.34268	1.11898	1.11535	1.11519	1.10712	
July	14	2022	290.44548	1.11938	1.11574	1.11559	1.10751	
July	15	2022	290.54829	1.11978	1.11614	1.11598	1.10790	
July	16	2022	290.65110	1.12017	1.11653	1.11638	1.10830	
July	17	2022	290.75390	1.12057	1.11693	1.11677	1.10869	
July	18	2022	290.85671	1.12096	1.11732	1.11717	1.10908	
July	19	2022	290.95952	1.12136	1.11772	1.11756	1.10947	
July	20	2022	291.06232	1.12176	1.11811	1.11796	1.10986	
July	21	2022	291.16513	1.12215	1.11851	1.11835	1.11026	
July	22	2022	291.26794	1.12255	1.11890	1.11875	1.11065	
July	23	2022	291.37074	1.12295	1.11930	1.11914	1.11104	
July	24	2022	291.47355	1.12334	1.11969	1.11954	1.11143	
July	25	2022	291.57635	1.12374	1.12009	1.11993	1.11182	
July	26	2022	291.67916	1.12413	1.12048	1.12033	1.11222	
July	27	2022	291.78197	1.12453	1.12088	1.12072	1.11261	
July	28	2022	291.88477	1.12493	1.12127	1.12112	1.11300	
July	29	2022	291.98758	1.12532	1.12167	1.12151	1.11339	
July	30	2022	292.09039	1.12572	1.12206	1.12191	1.11378	
July	31	2022	292.19319	1.12612	1.12245	1.12230	1.11418	
CPI-U (NSA) for:			March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	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
Maturity Date: Ref CPI on Dated Date:			July 15, 2031 268.02090	October 15, 2026 273.25771	January 15, 2032 277.20274	February 15, 2052 278.37500
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
July 1 2022	289.10900	1.07868	1.05801	1.04295	1.03856	
July 2 2022	289.21181	1.07906	1.05838	1.04332	1.03893	
July 3 2022	289.31461	1.07945	1.05876	1.04369	1.03930	
July 4 2022	289.41742	1.07983	1.05914	1.04406	1.03967	
July 5 2022	289.52023	1.08022	1.05951	1.04443	1.04004	
July 6 2022	289.62303	1.08060	1.05989	1.04481	1.04041	
July 7 2022	289.72584	1.08098	1.06027	1.04518	1.04078	
July 8 2022	289.82865	1.08137	1.06064	1.04555	1.04114	
July 9 2022	289.93145	1.08175	1.06102	1.04592	1.04151	
July 10 2022	290.03426	1.08213	1.06139	1.04629	1.04188	
July 11 2022	290.13706	1.08252	1.06177	1.04666	1.04225	
July 12 2022	290.23987	1.08290	1.06215	1.04703	1.04262	
July 13 2022	290.34268	1.08328	1.06252	1.04740	1.04299	
July 14 2022	290.44548	1.08367	1.06290	1.04777	1.04336	
July 15 2022	290.54829	1.08405	1.06328	1.04814	1.04373	
July 16 2022	290.65110	1.08443	1.06365	1.04851	1.04410	
July 17 2022	290.75390	1.08482	1.06403	1.04889	1.04447	
July 18 2022	290.85671	1.08520	1.06440	1.04926	1.04484	
July 19 2022	290.95952	1.08559	1.06478	1.04963	1.04521	
July 20 2022	291.06232	1.08597	1.06516	1.05000	1.04558	
July 21 2022	291.16513	1.08635	1.06553	1.05037	1.04595	
July 22 2022	291.26794	1.08674	1.06591	1.05074	1.04632	
July 23 2022	291.37074	1.08712	1.06629	1.05111	1.04668	
July 24 2022	291.47355	1.08750	1.06666	1.05148	1.04705	
July 25 2022	291.57635	1.08789	1.06704	1.05185	1.04742	
July 26 2022	291.67916	1.08827	1.06741	1.05222	1.04779	
July 27 2022	291.78197	1.08865	1.06779	1.05259	1.04816	
July 28 2022	291.88477	1.08904	1.06817	1.05296	1.04853	
July 29 2022	291.98758	1.08942	1.06854	1.05334	1.04890	
July 30 2022	292.09039	1.08980	1.06892	1.05371	1.04927	
July 31 2022	292.19319	1.09019	1.06930	1.05408	1.04964	
CPI-U (NSA) for:	March 2022	287.504	April 2022	289.109	May 2022	292.296

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
July 2022

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 5-Year TIPS Series X-2027 91282CEJ6 April 15, 2022 April 29, 2022					
Maturity Date: Ref CPI on Dated Date:			April 15, 2027 282.34640					
Date			Ref CPI	Index Ratio				
July	1	2022	289.10900	1.02395				
July	2	2022	289.21181	1.02432				
July	3	2022	289.31461	1.02468				
July	4	2022	289.41742	1.02504				
July	5	2022	289.52023	1.02541				
July	6	2022	289.62303	1.02577				
July	7	2022	289.72584	1.02614				
July	8	2022	289.82865	1.02650				
July	9	2022	289.93145	1.02686				
July	10	2022	290.03426	1.02723				
July	11	2022	290.13706	1.02759				
July	12	2022	290.23987	1.02796				
July	13	2022	290.34268	1.02832				
July	14	2022	290.44548	1.02868				
July	15	2022	290.54829	1.02905				
July	16	2022	290.65110	1.02941				
July	17	2022	290.75390	1.02978				
July	18	2022	290.85671	1.03014				
July	19	2022	290.95952	1.03051				
July	20	2022	291.06232	1.03087				
July	21	2022	291.16513	1.03123				
July	22	2022	291.26794	1.03160				
July	23	2022	291.37074	1.03196				
July	24	2022	291.47355	1.03233				
July	25	2022	291.57635	1.03269				
July	26	2022	291.67916	1.03305				
July	27	2022	291.78197	1.03342				
July	28	2022	291.88477	1.03378				
July	29	2022	291.98758	1.03415				
July	30	2022	292.09039	1.03451				
July	31	2022	292.19319	1.03487				
CPI-U (NSA) for:			March 2022	287.504	April 2022	289.109	May 2022	292.296