

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
September 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
September	1	2023	305.10900	1.88642	1.85597	1.71892	1.61864
September	2	2023	305.12840	1.88654	1.85609	1.71903	1.61875
September	3	2023	305.14780	1.88666	1.85621	1.71914	1.61885
September	4	2023	305.16720	1.88678	1.85632	1.71925	1.61895
September	5	2023	305.18660	1.88690	1.85644	1.71936	1.61905
September	6	2023	305.20600	1.88702	1.85656	1.71947	1.61916
September	7	2023	305.22540	1.88714	1.85668	1.71958	1.61926
September	8	2023	305.24480	1.88726	1.85680	1.71969	1.61936
September	9	2023	305.26420	1.88738	1.85691	1.71980	1.61947
September	10	2023	305.28360	1.88750	1.85703	1.71991	1.61957
September	11	2023	305.30300	1.88762	1.85715	1.72002	1.61967
September	12	2023	305.32240	1.88774	1.85727	1.72013	1.61978
September	13	2023	305.34180	1.88786	1.85739	1.72024	1.61988
September	14	2023	305.36120	1.88798	1.85750	1.72034	1.61998
September	15	2023	305.38060	1.88810	1.85762	1.72045	1.62008
September	16	2023	305.40000	1.88822	1.85774	1.72056	1.62019
September	17	2023	305.41940	1.88834	1.85786	1.72067	1.62029
September	18	2023	305.43880	1.88846	1.85798	1.72078	1.62039
September	19	2023	305.45820	1.88858	1.85809	1.72089	1.62050
September	20	2023	305.47760	1.88870	1.85821	1.72100	1.62060
September	21	2023	305.49700	1.88882	1.85833	1.72111	1.62070
September	22	2023	305.51640	1.88894	1.85845	1.72122	1.62080
September	23	2023	305.53580	1.88906	1.85857	1.72133	1.62091
September	24	2023	305.55520	1.88918	1.85868	1.72144	1.62101
September	25	2023	305.57460	1.88930	1.85880	1.72155	1.62111
September	26	2023	305.59400	1.88942	1.85892	1.72166	1.62122
September	27	2023	305.61340	1.88954	1.85904	1.72177	1.62132
September	28	2023	305.63280	1.88966	1.85916	1.72187	1.62142
September	29	2023	305.65220	1.88977	1.85927	1.72198	1.62152
September	30	2023	305.67160	1.88989	1.85939	1.72209	1.62163
CPI-U (NSA) for:				May 2023 304.127	June 2023 305.109	July 2023 305.691	

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s): Maturity Date: Ref CPI on Dated Date:				2% 20-Year TIPS TIPS of January 2026 912810FS2 January 15, 2006 January 31, 2006 July 31, 2006 January 15, 2026 198.47742	2-3/8% 20-Year TIPS TIPS of January 2027 912810PS1 January 15, 2007 January 31, 2007 July 31, 2007 January 15, 2027 201.66452	1-3/4% 20-Year TIPS TIPS of January 2028 912810PV4 January 15, 2008 January 31, 2008 July 31, 2008 January 15, 2028 209.49645	2-1/2% 20-Year TIPS TIPS of January 2029 912810PZ5 January 15, 2009 January 30, 2009 July 31, 2009 January 15, 2029 214.69971		
Date				Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
September	1	2023	305.10900	1.53725	1.51295	1.45639	1.42110		
September	2	2023	305.12840	1.53735	1.51305	1.45648	1.42119		
September	3	2023	305.14780	1.53744	1.51315	1.45658	1.42128		
September	4	2023	305.16720	1.53754	1.51324	1.45667	1.42137		
September	5	2023	305.18660	1.53764	1.51334	1.45676	1.42146		
September	6	2023	305.20600	1.53774	1.51343	1.45686	1.42155		
September	7	2023	305.22540	1.53783	1.51353	1.45695	1.42164		
September	8	2023	305.24480	1.53793	1.51363	1.45704	1.42173		
September	9	2023	305.26420	1.53803	1.51372	1.45713	1.42182		
September	10	2023	305.28360	1.53813	1.51382	1.45723	1.42191		
September	11	2023	305.30300	1.53823	1.51392	1.45732	1.42200		
September	12	2023	305.32240	1.53832	1.51401	1.45741	1.42209		
September	13	2023	305.34180	1.53842	1.51411	1.45750	1.42218		
September	14	2023	305.36120	1.53852	1.51420	1.45760	1.42227		
September	15	2023	305.38060	1.53862	1.51430	1.45769	1.42236		
September	16	2023	305.40000	1.53871	1.51440	1.45778	1.42245		
September	17	2023	305.41940	1.53881	1.51449	1.45787	1.42254		
September	18	2023	305.43880	1.53891	1.51459	1.45797	1.42263		
September	19	2023	305.45820	1.53901	1.51468	1.45806	1.42272		
September	20	2023	305.47760	1.53911	1.51478	1.45815	1.42281		
September	21	2023	305.49700	1.53920	1.51488	1.45824	1.42290		
September	22	2023	305.51640	1.53930	1.51497	1.45834	1.42299		
September	23	2023	305.53580	1.53940	1.51507	1.45843	1.42308		
September	24	2023	305.55520	1.53950	1.51517	1.45852	1.42317		
September	25	2023	305.57460	1.53959	1.51526	1.45861	1.42327		
September	26	2023	305.59400	1.53969	1.51536	1.45871	1.42336		
September	27	2023	305.61340	1.53979	1.51545	1.45880	1.42345		
September	28	2023	305.63280	1.53989	1.51555	1.45889	1.42354		
September	29	2023	305.65220	1.53998	1.51565	1.45899	1.42363		
September	30	2023	305.67160	1.54008	1.51574	1.45908	1.42372		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

Ref CPI and Index Ratios for

September 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	
September	1	2023	305.10900	1.41163	1.39325	1.35028	1.32707		
September	2	2023	305.12840	1.41172	1.39334	1.35036	1.32716		
September	3	2023	305.14780	1.41181	1.39343	1.35045	1.32724		
September	4	2023	305.16720	1.41190	1.39351	1.35053	1.32733		
September	5	2023	305.18660	1.41199	1.39360	1.35062	1.32741		
September	6	2023	305.20600	1.41208	1.39369	1.35070	1.32750		
September	7	2023	305.22540	1.41217	1.39378	1.35079	1.32758		
September	8	2023	305.24480	1.41226	1.39387	1.35088	1.32767		
September	9	2023	305.26420	1.41235	1.39396	1.35096	1.32775		
September	10	2023	305.28360	1.41244	1.39405	1.35105	1.32783		
September	11	2023	305.30300	1.41253	1.39413	1.35113	1.32792		
September	12	2023	305.32240	1.41262	1.39422	1.35122	1.32800		
September	13	2023	305.34180	1.41271	1.39431	1.35131	1.32809		
September	14	2023	305.36120	1.41280	1.39440	1.35139	1.32817		
September	15	2023	305.38060	1.41289	1.39449	1.35148	1.32826		
September	16	2023	305.40000	1.41298	1.39458	1.35156	1.32834		
September	17	2023	305.41940	1.41307	1.39467	1.35165	1.32842		
September	18	2023	305.43880	1.41316	1.39476	1.35173	1.32851		
September	19	2023	305.45820	1.41325	1.39484	1.35182	1.32859		
September	20	2023	305.47760	1.41334	1.39493	1.35191	1.32868		
September	21	2023	305.49700	1.41343	1.39502	1.35199	1.32876		
September	22	2023	305.51640	1.41351	1.39511	1.35208	1.32885		
September	23	2023	305.53580	1.41360	1.39520	1.35216	1.32893		
September	24	2023	305.55520	1.41369	1.39529	1.35225	1.32902		
September	25	2023	305.57460	1.41378	1.39538	1.35234	1.32910		
September	26	2023	305.59400	1.41387	1.39546	1.35242	1.32918		
September	27	2023	305.61340	1.41396	1.39555	1.35251	1.32927		
September	28	2023	305.63280	1.41405	1.39564	1.35259	1.32935		
September	29	2023	305.65220	1.41414	1.39573	1.35268	1.32944		
September	30	2023	305.67160	1.41423	1.39582	1.35276	1.32952		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

Ref CPI and Index Ratios for

September 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):				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	0-1/4% 10-Year TIPS Series A-2025 912828H45 January 15, 2015 January 30, 2015 March 31, 2015 May 29, 2015		
Maturity Date: Ref CPI on Dated Date:				January 15, 2024 233.33058	February 15, 2044 233.05900	July 15, 2024 237.44594	January 15, 2025 236.85403		
Date				Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
September	1	2023	305.10900	1.30763	1.30915	1.28496	1.28817		
September	2	2023	305.12840	1.30771	1.30923	1.28504	1.28826		
September	3	2023	305.14780	1.30779	1.30932	1.28513	1.28834		
September	4	2023	305.16720	1.30787	1.30940	1.28521	1.28842		
September	5	2023	305.18660	1.30796	1.30948	1.28529	1.28850		
September	6	2023	305.20600	1.30804	1.30957	1.28537	1.28858		
September	7	2023	305.22540	1.30812	1.30965	1.28545	1.28866		
September	8	2023	305.24480	1.30821	1.30973	1.28553	1.28875		
September	9	2023	305.26420	1.30829	1.30982	1.28562	1.28883		
September	10	2023	305.28360	1.30837	1.30990	1.28570	1.28891		
September	11	2023	305.30300	1.30846	1.30998	1.28578	1.28899		
September	12	2023	305.32240	1.30854	1.31006	1.28586	1.28907		
September	13	2023	305.34180	1.30862	1.31015	1.28594	1.28916		
September	14	2023	305.36120	1.30871	1.31023	1.28602	1.28924		
September	15	2023	305.38060	1.30879	1.31031	1.28611	1.28932		
September	16	2023	305.40000	1.30887	1.31040	1.28619	1.28940		
September	17	2023	305.41940	1.30896	1.31048	1.28627	1.28948		
September	18	2023	305.43880	1.30904	1.31056	1.28635	1.28957		
September	19	2023	305.45820	1.30912	1.31065	1.28643	1.28965		
September	20	2023	305.47760	1.30921	1.31073	1.28651	1.28973		
September	21	2023	305.49700	1.30929	1.31081	1.28660	1.28981		
September	22	2023	305.51640	1.30937	1.31090	1.28668	1.28989		
September	23	2023	305.53580	1.30945	1.31098	1.28676	1.28998		
September	24	2023	305.55520	1.30954	1.31106	1.28684	1.29006		
September	25	2023	305.57460	1.30962	1.31115	1.28692	1.29014		
September	26	2023	305.59400	1.30970	1.31123	1.28700	1.29022		
September	27	2023	305.61340	1.30979	1.31131	1.28709	1.29030		
September	28	2023	305.63280	1.30987	1.31140	1.28717	1.29038		
September	29	2023	305.65220	1.30995	1.31148	1.28725	1.29047		
September	30	2023	305.67160	1.31004	1.31156	1.28733	1.29055		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

Ref CPI and Index Ratios for

September 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):				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	1% 30-Year TIPS TIPS of February 2046 912810RR1 February 15, 2016 February 29, 2016 June 30, 2016 October 31, 2016		
Maturity Date: Ref CPI on Dated Date:				February 15, 2045 235.48150	July 15, 2025 237.14365	January 15, 2026 237.61129	February 15, 2046 236.94448		
Date				Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
September	1	2023	305.10900	1.29568	1.28660	1.28407	1.28768		
September	2	2023	305.12840	1.29576	1.28668	1.28415	1.28776		
September	3	2023	305.14780	1.29585	1.28676	1.28423	1.28785		
September	4	2023	305.16720	1.29593	1.28685	1.28431	1.28793		
September	5	2023	305.18660	1.29601	1.28693	1.28439	1.28801		
September	6	2023	305.20600	1.29609	1.28701	1.28448	1.28809		
September	7	2023	305.22540	1.29618	1.28709	1.28456	1.28817		
September	8	2023	305.24480	1.29626	1.28717	1.28464	1.28825		
September	9	2023	305.26420	1.29634	1.28725	1.28472	1.28834		
September	10	2023	305.28360	1.29642	1.28734	1.28480	1.28842		
September	11	2023	305.30300	1.29651	1.28742	1.28488	1.28850		
September	12	2023	305.32240	1.29659	1.28750	1.28497	1.28858		
September	13	2023	305.34180	1.29667	1.28758	1.28505	1.28866		
September	14	2023	305.36120	1.29675	1.28766	1.28513	1.28875		
September	15	2023	305.38060	1.29683	1.28775	1.28521	1.28883		
September	16	2023	305.40000	1.29692	1.28783	1.28529	1.28891		
September	17	2023	305.41940	1.29700	1.28791	1.28537	1.28899		
September	18	2023	305.43880	1.29708	1.28799	1.28546	1.28907		
September	19	2023	305.45820	1.29716	1.28807	1.28554	1.28916		
September	20	2023	305.47760	1.29725	1.28815	1.28562	1.28924		
September	21	2023	305.49700	1.29733	1.28824	1.28570	1.28932		
September	22	2023	305.51640	1.29741	1.28832	1.28578	1.28940		
September	23	2023	305.53580	1.29749	1.28840	1.28586	1.28948		
September	24	2023	305.55520	1.29758	1.28848	1.28595	1.28956		
September	25	2023	305.57460	1.29766	1.28856	1.28603	1.28965		
September	26	2023	305.59400	1.29774	1.28865	1.28611	1.28973		
September	27	2023	305.61340	1.29782	1.28873	1.28619	1.28981		
September	28	2023	305.63280	1.29791	1.28881	1.28627	1.28989		
September	29	2023	305.65220	1.29799	1.28889	1.28635	1.28997		
September	30	2023	305.67160	1.29807	1.28897	1.28644	1.29006		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
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September 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):				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	0-3/8% 10-Year TIPS Series D-2027 912828ZL3 July 15, 2017 July 31, 2017 September 29, 2017 November 30, 2017		
Maturity Date: Ref CPI on Dated Date:				July 15, 2026 239.70132	January 15, 2027 241.55919	February 15, 2047 241.39250	July 15, 2027 244.61839		
Date				Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
September	1	2023	305.10900	1.27287	1.26308	1.26395	1.24729		
September	2	2023	305.12840	1.27295	1.26316	1.26403	1.24736		
September	3	2023	305.14780	1.27303	1.26324	1.26411	1.24744		
September	4	2023	305.16720	1.27311	1.26332	1.26420	1.24752		
September	5	2023	305.18660	1.27320	1.26340	1.26428	1.24760		
September	6	2023	305.20600	1.27328	1.26348	1.26436	1.24768		
September	7	2023	305.22540	1.27336	1.26356	1.26444	1.24776		
September	8	2023	305.24480	1.27344	1.26364	1.26452	1.24784		
September	9	2023	305.26420	1.27352	1.26372	1.26460	1.24792		
September	10	2023	305.28360	1.27360	1.26380	1.26468	1.24800		
September	11	2023	305.30300	1.27368	1.26388	1.26476	1.24808		
September	12	2023	305.32240	1.27376	1.26397	1.26484	1.24816		
September	13	2023	305.34180	1.27384	1.26405	1.26492	1.24824		
September	14	2023	305.36120	1.27392	1.26413	1.26500	1.24832		
September	15	2023	305.38060	1.27400	1.26421	1.26508	1.24840		
September	16	2023	305.40000	1.27409	1.26429	1.26516	1.24848		
September	17	2023	305.41940	1.27417	1.26437	1.26524	1.24855		
September	18	2023	305.43880	1.27425	1.26445	1.26532	1.24863		
September	19	2023	305.45820	1.27433	1.26453	1.26540	1.24871		
September	20	2023	305.47760	1.27441	1.26461	1.26548	1.24879		
September	21	2023	305.49700	1.27449	1.26469	1.26556	1.24887		
September	22	2023	305.51640	1.27457	1.26477	1.26564	1.24895		
September	23	2023	305.53580	1.27465	1.26485	1.26572	1.24903		
September	24	2023	305.55520	1.27473	1.26493	1.26580	1.24911		
September	25	2023	305.57460	1.27481	1.26501	1.26588	1.24919		
September	26	2023	305.59400	1.27489	1.26509	1.26596	1.24927		
September	27	2023	305.61340	1.27498	1.26517	1.26604	1.24935		
September	28	2023	305.63280	1.27506	1.26525	1.26612	1.24943		
September	29	2023	305.65220	1.27514	1.26533	1.26620	1.24951		
September	30	2023	305.67160	1.27522	1.26541	1.26628	1.24959		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

Ref CPI and Index Ratios for

September 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):				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		0-3/4% 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:				January 15, 2028 246.66571		February 15, 2048 246.59650		July 15, 2028 251.01658		January 15, 2029 252.50248	
Date				Ref CPI		Index Ratio		Index Ratio		Index Ratio	
September	1	2023	305.10900	1.23693	1.23728	1.21549	1.20834				
September	2	2023	305.12840	1.23701	1.23736	1.21557	1.20842				
September	3	2023	305.14780	1.23709	1.23744	1.21565	1.20849				
September	4	2023	305.16720	1.23717	1.23752	1.21573	1.20857				
September	5	2023	305.18660	1.23725	1.23760	1.21580	1.20865				
September	6	2023	305.20600	1.23733	1.23767	1.21588	1.20872				
September	7	2023	305.22540	1.23741	1.23775	1.21596	1.20880				
September	8	2023	305.24480	1.23748	1.23783	1.21603	1.20888				
September	9	2023	305.26420	1.23756	1.23791	1.21611	1.20896				
September	10	2023	305.28360	1.23764	1.23799	1.21619	1.20903				
September	11	2023	305.30300	1.23772	1.23807	1.21627	1.20911				
September	12	2023	305.32240	1.23780	1.23815	1.21634	1.20919				
September	13	2023	305.34180	1.23788	1.23822	1.21642	1.20926				
September	14	2023	305.36120	1.23796	1.23830	1.21650	1.20934				
September	15	2023	305.38060	1.23803	1.23838	1.21658	1.20942				
September	16	2023	305.40000	1.23811	1.23846	1.21665	1.20949				
September	17	2023	305.41940	1.23819	1.23854	1.21673	1.20957				
September	18	2023	305.43880	1.23827	1.23862	1.21681	1.20965				
September	19	2023	305.45820	1.23835	1.23870	1.21688	1.20972				
September	20	2023	305.47760	1.23843	1.23878	1.21696	1.20980				
September	21	2023	305.49700	1.23851	1.23885	1.21704	1.20988				
September	22	2023	305.51640	1.23858	1.23893	1.21712	1.20995				
September	23	2023	305.53580	1.23866	1.23901	1.21719	1.21003				
September	24	2023	305.55520	1.23874	1.23909	1.21727	1.21011				
September	25	2023	305.57460	1.23882	1.23917	1.21735	1.21018				
September	26	2023	305.59400	1.23890	1.23925	1.21743	1.21026				
September	27	2023	305.61340	1.23898	1.23933	1.21750	1.21034				
September	28	2023	305.63280	1.23906	1.23940	1.21758	1.21042				
September	29	2023	305.65220	1.23914	1.23948	1.21766	1.21049				
September	30	2023	305.67160	1.23921	1.23956	1.21773	1.21057				
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691		

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

Ref CPI and Index Ratios for

September 2023

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	
September	1	2023	305.10900	1.21250	1.20975	1.19279	1.18921		
September	2	2023	305.12840	1.21258	1.20983	1.19287	1.18928		
September	3	2023	305.14780	1.21266	1.20990	1.19295	1.18936		
September	4	2023	305.16720	1.21274	1.20998	1.19302	1.18943		
September	5	2023	305.18660	1.21281	1.21006	1.19310	1.18951		
September	6	2023	305.20600	1.21289	1.21013	1.19317	1.18958		
September	7	2023	305.22540	1.21297	1.21021	1.19325	1.18966		
September	8	2023	305.24480	1.21304	1.21029	1.19332	1.18974		
September	9	2023	305.26420	1.21312	1.21036	1.19340	1.18981		
September	10	2023	305.28360	1.21320	1.21044	1.19348	1.18989		
September	11	2023	305.30300	1.21327	1.21052	1.19355	1.18996		
September	12	2023	305.32240	1.21335	1.21060	1.19363	1.19004		
September	13	2023	305.34180	1.21343	1.21067	1.19370	1.19011		
September	14	2023	305.36120	1.21351	1.21075	1.19378	1.19019		
September	15	2023	305.38060	1.21358	1.21083	1.19386	1.19027		
September	16	2023	305.40000	1.21366	1.21090	1.19393	1.19034		
September	17	2023	305.41940	1.21374	1.21098	1.19401	1.19042		
September	18	2023	305.43880	1.21381	1.21106	1.19408	1.19049		
September	19	2023	305.45820	1.21389	1.21113	1.19416	1.19057		
September	20	2023	305.47760	1.21397	1.21121	1.19423	1.19064		
September	21	2023	305.49700	1.21405	1.21129	1.19431	1.19072		
September	22	2023	305.51640	1.21412	1.21136	1.19439	1.19079		
September	23	2023	305.53580	1.21420	1.21144	1.19446	1.19087		
September	24	2023	305.55520	1.21428	1.21152	1.19454	1.19095		
September	25	2023	305.57460	1.21435	1.21160	1.19461	1.19102		
September	26	2023	305.59400	1.21443	1.21167	1.19469	1.19110		
September	27	2023	305.61340	1.21451	1.21175	1.19477	1.19117		
September	28	2023	305.63280	1.21459	1.21183	1.19484	1.19125		
September	29	2023	305.65220	1.21466	1.21190	1.19492	1.19132		
September	30	2023	305.67160	1.21474	1.21198	1.19499	1.19140		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

Ref CPI and Index Ratios for

September 2023

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	
September	1	2023	305.10900	1.18589	1.18676	1.18122	1.19001		
September	2	2023	305.12840	1.18596	1.18683	1.18129	1.19009		
September	3	2023	305.14780	1.18604	1.18691	1.18137	1.19016		
September	4	2023	305.16720	1.18611	1.18698	1.18144	1.19024		
September	5	2023	305.18660	1.18619	1.18706	1.18152	1.19032		
September	6	2023	305.20600	1.18626	1.18713	1.18159	1.19039		
September	7	2023	305.22540	1.18634	1.18721	1.18167	1.19047		
September	8	2023	305.24480	1.18641	1.18728	1.18174	1.19054		
September	9	2023	305.26420	1.18649	1.18736	1.18182	1.19062		
September	10	2023	305.28360	1.18656	1.18743	1.18189	1.19069		
September	11	2023	305.30300	1.18664	1.18751	1.18197	1.19077		
September	12	2023	305.32240	1.18671	1.18759	1.18204	1.19085		
September	13	2023	305.34180	1.18679	1.18766	1.18212	1.19092		
September	14	2023	305.36120	1.18687	1.18774	1.18219	1.19100		
September	15	2023	305.38060	1.18694	1.18781	1.18227	1.19107		
September	16	2023	305.40000	1.18702	1.18789	1.18234	1.19115		
September	17	2023	305.41940	1.18709	1.18796	1.18242	1.19122		
September	18	2023	305.43880	1.18717	1.18804	1.18249	1.19130		
September	19	2023	305.45820	1.18724	1.18811	1.18257	1.19138		
September	20	2023	305.47760	1.18732	1.18819	1.18264	1.19145		
September	21	2023	305.49700	1.18739	1.18826	1.18272	1.19153		
September	22	2023	305.51640	1.18747	1.18834	1.18279	1.19160		
September	23	2023	305.53580	1.18754	1.18842	1.18287	1.19168		
September	24	2023	305.55520	1.18762	1.18849	1.18294	1.19175		
September	25	2023	305.57460	1.18770	1.18857	1.18302	1.19183		
September	26	2023	305.59400	1.18777	1.18864	1.18309	1.19190		
September	27	2023	305.61340	1.18785	1.18872	1.18317	1.19198		
September	28	2023	305.63280	1.18792	1.18879	1.18324	1.19206		
September	29	2023	305.65220	1.18800	1.18887	1.18332	1.19213		
September	30	2023	305.67160	1.18807	1.18894	1.18339	1.19221		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):				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	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		
Maturity Date: Ref CPI on Dated Date:				October 15, 2025 259.46997	January 15, 2031 260.31619	February 15, 2051 260.35150	April 15, 2026 262.25027		
Date				Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
September	1	2023	305.10900	1.17589	1.17207	1.17191	1.16343		
September	2	2023	305.12840	1.17597	1.17215	1.17199	1.16350		
September	3	2023	305.14780	1.17604	1.17222	1.17206	1.16357		
September	4	2023	305.16720	1.17612	1.17229	1.17214	1.16365		
September	5	2023	305.18660	1.17619	1.17237	1.17221	1.16372		
September	6	2023	305.20600	1.17627	1.17244	1.17228	1.16380		
September	7	2023	305.22540	1.17634	1.17252	1.17236	1.16387		
September	8	2023	305.24480	1.17642	1.17259	1.17243	1.16394		
September	9	2023	305.26420	1.17649	1.17267	1.17251	1.16402		
September	10	2023	305.28360	1.17657	1.17274	1.17258	1.16409		
September	11	2023	305.30300	1.17664	1.17282	1.17266	1.16417		
September	12	2023	305.32240	1.17672	1.17289	1.17273	1.16424		
September	13	2023	305.34180	1.17679	1.17297	1.17281	1.16431		
September	14	2023	305.36120	1.17687	1.17304	1.17288	1.16439		
September	15	2023	305.38060	1.17694	1.17311	1.17296	1.16446		
September	16	2023	305.40000	1.17701	1.17319	1.17303	1.16454		
September	17	2023	305.41940	1.17709	1.17326	1.17310	1.16461		
September	18	2023	305.43880	1.17716	1.17334	1.17318	1.16468		
September	19	2023	305.45820	1.17724	1.17341	1.17325	1.16476		
September	20	2023	305.47760	1.17731	1.17349	1.17333	1.16483		
September	21	2023	305.49700	1.17739	1.17356	1.17340	1.16491		
September	22	2023	305.51640	1.17746	1.17364	1.17348	1.16498		
September	23	2023	305.53580	1.17754	1.17371	1.17355	1.16505		
September	24	2023	305.55520	1.17761	1.17378	1.17363	1.16513		
September	25	2023	305.57460	1.17769	1.17386	1.17370	1.16520		
September	26	2023	305.59400	1.17776	1.17393	1.17377	1.16528		
September	27	2023	305.61340	1.17784	1.17401	1.17385	1.16535		
September	28	2023	305.63280	1.17791	1.17408	1.17392	1.16542		
September	29	2023	305.65220	1.17799	1.17416	1.17400	1.16550		
September	30	2023	305.67160	1.17806	1.17423	1.17407	1.16557		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

Ref CPI and Index Ratios for

September 2023

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 August 31, 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
September	1	2023	305.10900	1.13838	1.11656	1.10067	1.09604				
September	2	2023	305.12840	1.13845	1.11663	1.10074	1.09611				
September	3	2023	305.14780	1.13852	1.11670	1.10081	1.09618				
September	4	2023	305.16720	1.13859	1.11677	1.10088	1.09624				
September	5	2023	305.18660	1.13867	1.11685	1.10095	1.09631				
September	6	2023	305.20600	1.13874	1.11692	1.10102	1.09638				
September	7	2023	305.22540	1.13881	1.11699	1.10109	1.09645				
September	8	2023	305.24480	1.13888	1.11706	1.10116	1.09652				
September	9	2023	305.26420	1.13896	1.11713	1.10123	1.09659				
September	10	2023	305.28360	1.13903	1.11720	1.10130	1.09666				
September	11	2023	305.30300	1.13910	1.11727	1.10137	1.09673				
September	12	2023	305.32240	1.13917	1.11734	1.10144	1.09680				
September	13	2023	305.34180	1.13925	1.11741	1.10151	1.09687				
September	14	2023	305.36120	1.13932	1.11748	1.10158	1.09694				
September	15	2023	305.38060	1.13939	1.11756	1.10165	1.09701				
September	16	2023	305.40000	1.13946	1.11763	1.10172	1.09708				
September	17	2023	305.41940	1.13954	1.11770	1.10179	1.09715				
September	18	2023	305.43880	1.13961	1.11777	1.10186	1.09722				
September	19	2023	305.45820	1.13968	1.11784	1.10193	1.09729				
September	20	2023	305.47760	1.13975	1.11791	1.10200	1.09736				
September	21	2023	305.49700	1.13983	1.11798	1.10207	1.09743				
September	22	2023	305.51640	1.13990	1.11805	1.10214	1.09750				
September	23	2023	305.53580	1.13997	1.11812	1.10221	1.09757				
September	24	2023	305.55520	1.14004	1.11819	1.10228	1.09764				
September	25	2023	305.57460	1.14011	1.11827	1.10235	1.09771				
September	26	2023	305.59400	1.14019	1.11834	1.10242	1.09778				
September	27	2023	305.61340	1.14026	1.11841	1.10249	1.09785				
September	28	2023	305.63280	1.14033	1.11848	1.10256	1.09792				
September	29	2023	305.65220	1.14040	1.11855	1.10263	1.09799				
September	30	2023	305.67160	1.14048	1.11862	1.10270	1.09806				
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691		

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

Ref CPI and Index Ratios for

September 2023

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 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	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 March 31, 2023 May 31, 2023		
Maturity Date: Ref CPI on Dated Date:				April 15, 2027 282.34640	July 15, 2032 290.54829	October 15, 2027 296.22858	January 15, 2033 297.87606		
Date				Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
September	1	2023	305.10900	1.08062	1.05011	1.02998	1.02428		
September	2	2023	305.12840	1.08069	1.05018	1.03004	1.02435		
September	3	2023	305.14780	1.08076	1.05025	1.03011	1.02441		
September	4	2023	305.16720	1.08083	1.05031	1.03017	1.02448		
September	5	2023	305.18660	1.08089	1.05038	1.03024	1.02454		
September	6	2023	305.20600	1.08096	1.05045	1.03031	1.02461		
September	7	2023	305.22540	1.08103	1.05052	1.03037	1.02467		
September	8	2023	305.24480	1.08110	1.05058	1.03044	1.02474		
September	9	2023	305.26420	1.08117	1.05065	1.03050	1.02480		
September	10	2023	305.28360	1.08124	1.05072	1.03057	1.02487		
September	11	2023	305.30300	1.08131	1.05078	1.03063	1.02493		
September	12	2023	305.32240	1.08138	1.05085	1.03070	1.02500		
September	13	2023	305.34180	1.08144	1.05092	1.03076	1.02506		
September	14	2023	305.36120	1.08151	1.05098	1.03083	1.02513		
September	15	2023	305.38060	1.08158	1.05105	1.03090	1.02519		
September	16	2023	305.40000	1.08165	1.05112	1.03096	1.02526		
September	17	2023	305.41940	1.08172	1.05118	1.03103	1.02532		
September	18	2023	305.43880	1.08179	1.05125	1.03109	1.02539		
September	19	2023	305.45820	1.08186	1.05132	1.03116	1.02545		
September	20	2023	305.47760	1.08192	1.05138	1.03122	1.02552		
September	21	2023	305.49700	1.08199	1.05145	1.03129	1.02558		
September	22	2023	305.51640	1.08206	1.05152	1.03135	1.02565		
September	23	2023	305.53580	1.08213	1.05158	1.03142	1.02571		
September	24	2023	305.55520	1.08220	1.05165	1.03148	1.02578		
September	25	2023	305.57460	1.08227	1.05172	1.03155	1.02584		
September	26	2023	305.59400	1.08234	1.05178	1.03162	1.02591		
September	27	2023	305.61340	1.08241	1.05185	1.03168	1.02598		
September	28	2023	305.63280	1.08247	1.05192	1.03175	1.02604		
September	29	2023	305.65220	1.08254	1.05198	1.03181	1.02611		
September	30	2023	305.67160	1.08261	1.05205	1.03188	1.02617		
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691

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Ref CPI and Index Ratios for

September 2023

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):				1-1/2% 30-Year TIPS TIPS of February 2053 912810TP3 February 15, 2023 February 28, 2023	1-1/4% 5-Year TIPS Series X-2028 91282CGW5 April 15, 2023 April 28, 2023 June 30, 2023	1-3/8% 10-Year TIPS Series D-2033 91282CHP9 July 15, 2023 July 31, 2023			
Maturity Date: Ref CPI on Dated Date:				February 15, 2053 297.25400	April 15, 2028 299.94933	July 15, 2033 303.70803			
Date				Ref CPI	Index Ratio	Index Ratio	Index Ratio		
September	1	2023	305.10900	1.02643	1.01720	1.00461			
September	2	2023	305.12840	1.02649	1.01727	1.00468			
September	3	2023	305.14780	1.02656	1.01733	1.00474			
September	4	2023	305.16720	1.02662	1.01740	1.00480			
September	5	2023	305.18660	1.02669	1.01746	1.00487			
September	6	2023	305.20600	1.02675	1.01753	1.00493			
September	7	2023	305.22540	1.02682	1.01759	1.00500			
September	8	2023	305.24480	1.02688	1.01765	1.00506			
September	9	2023	305.26420	1.02695	1.01772	1.00512			
September	10	2023	305.28360	1.02701	1.01778	1.00519			
September	11	2023	305.30300	1.02708	1.01785	1.00525			
September	12	2023	305.32240	1.02714	1.01791	1.00532			
September	13	2023	305.34180	1.02721	1.01798	1.00538			
September	14	2023	305.36120	1.02727	1.01804	1.00544			
September	15	2023	305.38060	1.02734	1.01811	1.00551			
September	16	2023	305.40000	1.02740	1.01817	1.00557			
September	17	2023	305.41940	1.02747	1.01824	1.00563			
September	18	2023	305.43880	1.02753	1.01830	1.00570			
September	19	2023	305.45820	1.02760	1.01837	1.00576			
September	20	2023	305.47760	1.02767	1.01843	1.00583			
September	21	2023	305.49700	1.02773	1.01850	1.00589			
September	22	2023	305.51640	1.02780	1.01856	1.00595			
September	23	2023	305.53580	1.02786	1.01862	1.00602			
September	24	2023	305.55520	1.02793	1.01869	1.00608			
September	25	2023	305.57460	1.02799	1.01875	1.00615			
September	26	2023	305.59400	1.02806	1.01882	1.00621			
September	27	2023	305.61340	1.02812	1.01888	1.00627			
September	28	2023	305.63280	1.02819	1.01895	1.00634			
September	29	2023	305.65220	1.02825	1.01901	1.00640			
September	30	2023	305.67160	1.02832	1.01908	1.00647			
CPI-U (NSA) for:				May 2023	304.127	June 2023	305.109	July 2023	305.691