

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
November 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	
November 1 2022	296.17100	1.83115	1.80160	1.66857	1.57123	
November 2 2022	296.19223	1.83129	1.80173	1.66869	1.57134	
November 3 2022	296.21347	1.83142	1.80186	1.66881	1.57145	
November 4 2022	296.23470	1.83155	1.80199	1.66893	1.57156	
November 5 2022	296.25593	1.83168	1.80212	1.66905	1.57168	
November 6 2022	296.27717	1.83181	1.80225	1.66917	1.57179	
November 7 2022	296.29840	1.83194	1.80237	1.66929	1.57190	
November 8 2022	296.31963	1.83207	1.80250	1.66941	1.57201	
November 9 2022	296.34087	1.83221	1.80263	1.66953	1.57213	
November 10 2022	296.36210	1.83234	1.80276	1.66965	1.57224	
November 11 2022	296.38333	1.83247	1.80289	1.66977	1.57235	
November 12 2022	296.40457	1.83260	1.80302	1.66988	1.57246	
November 13 2022	296.42580	1.83273	1.80315	1.67000	1.57258	
November 14 2022	296.44703	1.83286	1.80328	1.67012	1.57269	
November 15 2022	296.46827	1.83299	1.80341	1.67024	1.57280	
November 16 2022	296.48950	1.83312	1.80354	1.67036	1.57292	
November 17 2022	296.51073	1.83326	1.80367	1.67048	1.57303	
November 18 2022	296.53197	1.83339	1.80380	1.67060	1.57314	
November 19 2022	296.55320	1.83352	1.80392	1.67072	1.57325	
November 20 2022	296.57443	1.83365	1.80405	1.67084	1.57337	
November 21 2022	296.59567	1.83378	1.80418	1.67096	1.57348	
November 22 2022	296.61690	1.83391	1.80431	1.67108	1.57359	
November 23 2022	296.63813	1.83404	1.80444	1.67120	1.57370	
November 24 2022	296.65937	1.83417	1.80457	1.67132	1.57382	
November 25 2022	296.68060	1.83431	1.80470	1.67144	1.57393	
November 26 2022	296.70183	1.83444	1.80483	1.67156	1.57404	
November 27 2022	296.72307	1.83457	1.80496	1.67168	1.57415	
November 28 2022	296.74430	1.83470	1.80509	1.67180	1.57427	
November 29 2022	296.76553	1.83483	1.80522	1.67192	1.57438	
November 30 2022	296.78677	1.83496	1.80535	1.67204	1.57449	
CPI-U (NSA) for:			July 2022 296.276	August 2022 296.171	September 2022 296.808	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
November 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	
November 1 2022	296.17100	1.49222	1.46863	1.41373	1.37947	
November 2 2022	296.19223	1.49232	1.46874	1.41383	1.37957	
November 3 2022	296.21347	1.49243	1.46884	1.41393	1.37966	
November 4 2022	296.23470	1.49254	1.46895	1.41403	1.37976	
November 5 2022	296.25593	1.49264	1.46905	1.41413	1.37986	
November 6 2022	296.27717	1.49275	1.46916	1.41423	1.37996	
November 7 2022	296.29840	1.49286	1.46926	1.41434	1.38006	
November 8 2022	296.31963	1.49296	1.46937	1.41444	1.38016	
November 9 2022	296.34087	1.49307	1.46947	1.41454	1.38026	
November 10 2022	296.36210	1.49318	1.46958	1.41464	1.38036	
November 11 2022	296.38333	1.49328	1.46969	1.41474	1.38046	
November 12 2022	296.40457	1.49339	1.46979	1.41484	1.38055	
November 13 2022	296.42580	1.49350	1.46990	1.41494	1.38065	
November 14 2022	296.44703	1.49361	1.47000	1.41505	1.38075	
November 15 2022	296.46827	1.49371	1.47011	1.41515	1.38085	
November 16 2022	296.48950	1.49382	1.47021	1.41525	1.38095	
November 17 2022	296.51073	1.49393	1.47032	1.41535	1.38105	
November 18 2022	296.53197	1.49403	1.47042	1.41545	1.38115	
November 19 2022	296.55320	1.49414	1.47053	1.41555	1.38125	
November 20 2022	296.57443	1.49425	1.47063	1.41565	1.38135	
November 21 2022	296.59567	1.49435	1.47074	1.41576	1.38144	
November 22 2022	296.61690	1.49446	1.47084	1.41586	1.38154	
November 23 2022	296.63813	1.49457	1.47095	1.41596	1.38164	
November 24 2022	296.65937	1.49468	1.47105	1.41606	1.38174	
November 25 2022	296.68060	1.49478	1.47116	1.41616	1.38184	
November 26 2022	296.70183	1.49489	1.47126	1.41626	1.38194	
November 27 2022	296.72307	1.49500	1.47137	1.41636	1.38204	
November 28 2022	296.74430	1.49510	1.47148	1.41646	1.38214	
November 29 2022	296.76553	1.49521	1.47158	1.41657	1.38224	
November 30 2022	296.78677	1.49532	1.47169	1.41667	1.38233	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

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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	0-1/8% 10-Year TIPS Series A-2023 912828UH1 January 15, 2013 January 31, 2013 March 28, 2013 May 31, 2013
Maturity Date: Ref CPI on Dated Date:			February 15, 2040 216.13950	February 15, 2041 218.99100	February 15, 2042 225.96062	January 15, 2023 230.82203
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.37028	1.35243	1.31072	1.28311	
November 2 2022	296.19223	1.37038	1.35253	1.31081	1.28321	
November 3 2022	296.21347	1.37047	1.35263	1.31091	1.28330	
November 4 2022	296.23470	1.37057	1.35273	1.31100	1.28339	
November 5 2022	296.25593	1.37067	1.35282	1.31110	1.28348	
November 6 2022	296.27717	1.37077	1.35292	1.31119	1.28357	
November 7 2022	296.29840	1.37087	1.35302	1.31128	1.28367	
November 8 2022	296.31963	1.37096	1.35311	1.31138	1.28376	
November 9 2022	296.34087	1.37106	1.35321	1.31147	1.28385	
November 10 2022	296.36210	1.37116	1.35331	1.31157	1.28394	
November 11 2022	296.38333	1.37126	1.35340	1.31166	1.28403	
November 12 2022	296.40457	1.37136	1.35350	1.31175	1.28413	
November 13 2022	296.42580	1.37146	1.35360	1.31185	1.28422	
November 14 2022	296.44703	1.37155	1.35370	1.31194	1.28431	
November 15 2022	296.46827	1.37165	1.35379	1.31204	1.28440	
November 16 2022	296.48950	1.37175	1.35389	1.31213	1.28449	
November 17 2022	296.51073	1.37185	1.35399	1.31222	1.28459	
November 18 2022	296.53197	1.37195	1.35408	1.31232	1.28468	
November 19 2022	296.55320	1.37205	1.35418	1.31241	1.28477	
November 20 2022	296.57443	1.37214	1.35428	1.31250	1.28486	
November 21 2022	296.59567	1.37224	1.35437	1.31260	1.28495	
November 22 2022	296.61690	1.37234	1.35447	1.31269	1.28505	
November 23 2022	296.63813	1.37244	1.35457	1.31279	1.28514	
November 24 2022	296.65937	1.37254	1.35466	1.31288	1.28523	
November 25 2022	296.68060	1.37263	1.35476	1.31297	1.28532	
November 26 2022	296.70183	1.37273	1.35486	1.31307	1.28541	
November 27 2022	296.72307	1.37283	1.35496	1.31316	1.28551	
November 28 2022	296.74430	1.37293	1.35505	1.31326	1.28560	
November 29 2022	296.76553	1.37303	1.35515	1.31335	1.28569	
November 30 2022	296.78677	1.37313	1.35525	1.31344	1.28578	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	1-3/8% 30-Year TIPS TIPS of February 2044 912810RF7 February 15, 2014 February 28, 2014 June 30, 2014 October 31, 2014
Maturity Date: Ref CPI on Dated Date:			February 15, 2043 229.91100	July 15, 2023 232.71797	January 15, 2024 233.33058	February 15, 2044 233.05900
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.28820	1.27266	1.26932	1.27080	
November 2 2022	296.19223	1.28829	1.27275	1.26941	1.27089	
November 3 2022	296.21347	1.28838	1.27284	1.26950	1.27098	
November 4 2022	296.23470	1.28848	1.27293	1.26959	1.27107	
November 5 2022	296.25593	1.28857	1.27303	1.26968	1.27116	
November 6 2022	296.27717	1.28866	1.27312	1.26977	1.27125	
November 7 2022	296.29840	1.28875	1.27321	1.26987	1.27135	
November 8 2022	296.31963	1.28884	1.27330	1.26996	1.27144	
November 9 2022	296.34087	1.28894	1.27339	1.27005	1.27153	
November 10 2022	296.36210	1.28903	1.27348	1.27014	1.27162	
November 11 2022	296.38333	1.28912	1.27357	1.27023	1.27171	
November 12 2022	296.40457	1.28921	1.27366	1.27032	1.27180	
November 13 2022	296.42580	1.28931	1.27376	1.27041	1.27189	
November 14 2022	296.44703	1.28940	1.27385	1.27050	1.27198	
November 15 2022	296.46827	1.28949	1.27394	1.27059	1.27207	
November 16 2022	296.48950	1.28958	1.27403	1.27068	1.27216	
November 17 2022	296.51073	1.28968	1.27412	1.27078	1.27226	
November 18 2022	296.53197	1.28977	1.27421	1.27087	1.27235	
November 19 2022	296.55320	1.28986	1.27430	1.27096	1.27244	
November 20 2022	296.57443	1.28995	1.27439	1.27105	1.27253	
November 21 2022	296.59567	1.29005	1.27449	1.27114	1.27262	
November 22 2022	296.61690	1.29014	1.27458	1.27123	1.27271	
November 23 2022	296.63813	1.29023	1.27467	1.27132	1.27280	
November 24 2022	296.65937	1.29032	1.27476	1.27141	1.27289	
November 25 2022	296.68060	1.29041	1.27485	1.27150	1.27298	
November 26 2022	296.70183	1.29051	1.27494	1.27159	1.27308	
November 27 2022	296.72307	1.29060	1.27503	1.27169	1.27317	
November 28 2022	296.74430	1.29069	1.27512	1.27178	1.27326	
November 29 2022	296.76553	1.29078	1.27522	1.27187	1.27335	
November 30 2022	296.78677	1.29088	1.27531	1.27196	1.27344	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	0-3/8% 10-Year TIPS Series D-2025 912828XL9 July 15, 2015 July 31, 2015 September 30, 2015 November 30, 2015
Maturity Date: Ref CPI on Dated Date:			July 15, 2024 237.44594	January 15, 2025 236.85403	February 15, 2045 235.48150	July 15, 2025 237.14365
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.24732	1.25044	1.25773	1.24891	
November 2 2022	296.19223	1.24741	1.25053	1.25782	1.24900	
November 3 2022	296.21347	1.24750	1.25062	1.25791	1.24909	
November 4 2022	296.23470	1.24759	1.25071	1.25800	1.24918	
November 5 2022	296.25593	1.24768	1.25080	1.25809	1.24927	
November 6 2022	296.27717	1.24777	1.25089	1.25818	1.24936	
November 7 2022	296.29840	1.24786	1.25097	1.25827	1.24945	
November 8 2022	296.31963	1.24795	1.25106	1.25836	1.24954	
November 9 2022	296.34087	1.24804	1.25115	1.25845	1.24963	
November 10 2022	296.36210	1.24812	1.25124	1.25854	1.24972	
November 11 2022	296.38333	1.24821	1.25133	1.25863	1.24981	
November 12 2022	296.40457	1.24830	1.25142	1.25872	1.24989	
November 13 2022	296.42580	1.24839	1.25151	1.25881	1.24998	
November 14 2022	296.44703	1.24848	1.25160	1.25890	1.25007	
November 15 2022	296.46827	1.24857	1.25169	1.25899	1.25016	
November 16 2022	296.48950	1.24866	1.25178	1.25908	1.25025	
November 17 2022	296.51073	1.24875	1.25187	1.25917	1.25034	
November 18 2022	296.53197	1.24884	1.25196	1.25926	1.25043	
November 19 2022	296.55320	1.24893	1.25205	1.25935	1.25052	
November 20 2022	296.57443	1.24902	1.25214	1.25944	1.25061	
November 21 2022	296.59567	1.24911	1.25223	1.25953	1.25070	
November 22 2022	296.61690	1.24920	1.25232	1.25962	1.25079	
November 23 2022	296.63813	1.24929	1.25241	1.25971	1.25088	
November 24 2022	296.65937	1.24938	1.25250	1.25980	1.25097	
November 25 2022	296.68060	1.24947	1.25259	1.25989	1.25106	
November 26 2022	296.70183	1.24956	1.25268	1.25998	1.25115	
November 27 2022	296.72307	1.24964	1.25277	1.26007	1.25124	
November 28 2022	296.74430	1.24973	1.25286	1.26016	1.25133	
November 29 2022	296.76553	1.24982	1.25295	1.26025	1.25142	
November 30 2022	296.78677	1.24991	1.25304	1.26034	1.25151	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	0-3/8% 10-Year TIPS Series A-2027 912828V49 January 15, 2017 January 31, 2017 March 31, 2017 May 31, 2017
Maturity Date: Ref CPI on Dated Date:			January 15, 2026 237.61129	February 15, 2046 236.94448	July 15, 2026 239.70132	January 15, 2027 241.55919
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.24645	1.24996	1.23558	1.22608	
November 2 2022	296.19223	1.24654	1.25005	1.23567	1.22617	
November 3 2022	296.21347	1.24663	1.25014	1.23576	1.22626	
November 4 2022	296.23470	1.24672	1.25023	1.23585	1.22634	
November 5 2022	296.25593	1.24681	1.25032	1.23594	1.22643	
November 6 2022	296.27717	1.24690	1.25041	1.23603	1.22652	
November 7 2022	296.29840	1.24699	1.25050	1.23612	1.22661	
November 8 2022	296.31963	1.24708	1.25059	1.23620	1.22670	
November 9 2022	296.34087	1.24717	1.25068	1.23629	1.22678	
November 10 2022	296.36210	1.24726	1.25077	1.23638	1.22687	
November 11 2022	296.38333	1.24735	1.25086	1.23647	1.22696	
November 12 2022	296.40457	1.24743	1.25095	1.23656	1.22705	
November 13 2022	296.42580	1.24752	1.25103	1.23665	1.22714	
November 14 2022	296.44703	1.24761	1.25112	1.23674	1.22722	
November 15 2022	296.46827	1.24770	1.25121	1.23682	1.22731	
November 16 2022	296.48950	1.24779	1.25130	1.23691	1.22740	
November 17 2022	296.51073	1.24788	1.25139	1.23700	1.22749	
November 18 2022	296.53197	1.24797	1.25148	1.23709	1.22757	
November 19 2022	296.55320	1.24806	1.25157	1.23718	1.22766	
November 20 2022	296.57443	1.24815	1.25166	1.23727	1.22775	
November 21 2022	296.59567	1.24824	1.25175	1.23736	1.22784	
November 22 2022	296.61690	1.24833	1.25184	1.23744	1.22793	
November 23 2022	296.63813	1.24842	1.25193	1.23753	1.22801	
November 24 2022	296.65937	1.24851	1.25202	1.23762	1.22810	
November 25 2022	296.68060	1.24860	1.25211	1.23771	1.22819	
November 26 2022	296.70183	1.24869	1.25220	1.23780	1.22828	
November 27 2022	296.72307	1.24878	1.25229	1.23789	1.22837	
November 28 2022	296.74430	1.24886	1.25238	1.23798	1.22845	
November 29 2022	296.76553	1.24895	1.25247	1.23806	1.22854	
November 30 2022	296.78677	1.24904	1.25256	1.23815	1.22863	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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 9128282L3 July 15, 2017 July 31, 2017 September 29, 2017 November 30, 2017	0-1/2% 10-Year TIPS Series A-2028 9128283R9 January 15, 2018 January 31, 2018 March 29, 2018 May 31, 2018	1% 30-Year TIPS TIPS of February 2048 912810SB5 February 15, 2018 February 28, 2018 June 29, 2018 October 31, 2018
Maturity Date: Ref CPI on Dated Date:			February 15, 2047 241.39250	July 15, 2027 244.61839	January 15, 2028 246.66571	February 15, 2048 246.59650
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.22693	1.21075	1.20070	1.20103	
November 2 2022	296.19223	1.22702	1.21083	1.20078	1.20112	
November 3 2022	296.21347	1.22710	1.21092	1.20087	1.20121	
November 4 2022	296.23470	1.22719	1.21101	1.20096	1.20129	
November 5 2022	296.25593	1.22728	1.21109	1.20104	1.20138	
November 6 2022	296.27717	1.22737	1.21118	1.20113	1.20147	
November 7 2022	296.29840	1.22745	1.21127	1.20121	1.20155	
November 8 2022	296.31963	1.22754	1.21135	1.20130	1.20164	
November 9 2022	296.34087	1.22763	1.21144	1.20139	1.20172	
November 10 2022	296.36210	1.22772	1.21153	1.20147	1.20181	
November 11 2022	296.38333	1.22781	1.21162	1.20156	1.20190	
November 12 2022	296.40457	1.22789	1.21170	1.20164	1.20198	
November 13 2022	296.42580	1.22798	1.21179	1.20173	1.20207	
November 14 2022	296.44703	1.22807	1.21188	1.20182	1.20215	
November 15 2022	296.46827	1.22816	1.21196	1.20190	1.20224	
November 16 2022	296.48950	1.22825	1.21205	1.20199	1.20233	
November 17 2022	296.51073	1.22833	1.21214	1.20208	1.20241	
November 18 2022	296.53197	1.22842	1.21222	1.20216	1.20250	
November 19 2022	296.55320	1.22851	1.21231	1.20225	1.20258	
November 20 2022	296.57443	1.22860	1.21240	1.20233	1.20267	
November 21 2022	296.59567	1.22869	1.21248	1.20242	1.20276	
November 22 2022	296.61690	1.22877	1.21257	1.20251	1.20284	
November 23 2022	296.63813	1.22886	1.21266	1.20259	1.20293	
November 24 2022	296.65937	1.22895	1.21274	1.20268	1.20302	
November 25 2022	296.68060	1.22904	1.21283	1.20276	1.20310	
November 26 2022	296.70183	1.22913	1.21292	1.20285	1.20319	
November 27 2022	296.72307	1.22921	1.21300	1.20294	1.20327	
November 28 2022	296.74430	1.22930	1.21309	1.20302	1.20336	
November 29 2022	296.76553	1.22939	1.21318	1.20311	1.20345	
November 30 2022	296.78677	1.22948	1.21326	1.20319	1.20353	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-5/8% 5-Year TIPS Series X-2023 9128284H0 April 15, 2018 April 30, 2018 August 31, 2018 December 31, 2018	0-3/4% 10-Year TIPS Series D-2028 912828Y38 July 15, 2018 July 31, 2018 September 28, 2018 November 30, 2018	0-7/8% 10-Year TIPS Series A-2029 9128285W6 January 15, 2019 January 31, 2019 March 29, 2019 May 31, 2019	1% 30-Year TIPS TIPS of February 2049 912810SG4 February 15, 2019 February 28, 2019 August 30, 2019
Maturity Date: Ref CPI on Dated Date:			April 15, 2023 248.39153	July 15, 2028 251.01658	January 15, 2029 252.50248	February 15, 2049 251.63550
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.19236	1.17989	1.17294	1.17698	
November 2 2022	296.19223	1.19244	1.17997	1.17303	1.17707	
November 3 2022	296.21347	1.19253	1.18006	1.17311	1.17715	
November 4 2022	296.23470	1.19261	1.18014	1.17320	1.17724	
November 5 2022	296.25593	1.19270	1.18022	1.17328	1.17732	
November 6 2022	296.27717	1.19278	1.18031	1.17336	1.17741	
November 7 2022	296.29840	1.19287	1.18039	1.17345	1.17749	
November 8 2022	296.31963	1.19295	1.18048	1.17353	1.17757	
November 9 2022	296.34087	1.19304	1.18056	1.17362	1.17766	
November 10 2022	296.36210	1.19312	1.18065	1.17370	1.17774	
November 11 2022	296.38333	1.19321	1.18073	1.17378	1.17783	
November 12 2022	296.40457	1.19330	1.18082	1.17387	1.17791	
November 13 2022	296.42580	1.19338	1.18090	1.17395	1.17800	
November 14 2022	296.44703	1.19347	1.18099	1.17404	1.17808	
November 15 2022	296.46827	1.19355	1.18107	1.17412	1.17817	
November 16 2022	296.48950	1.19364	1.18116	1.17420	1.17825	
November 17 2022	296.51073	1.19372	1.18124	1.17429	1.17833	
November 18 2022	296.53197	1.19381	1.18132	1.17437	1.17842	
November 19 2022	296.55320	1.19389	1.18141	1.17446	1.17850	
November 20 2022	296.57443	1.19398	1.18149	1.17454	1.17859	
November 21 2022	296.59567	1.19407	1.18158	1.17462	1.17867	
November 22 2022	296.61690	1.19415	1.18166	1.17471	1.17876	
November 23 2022	296.63813	1.19424	1.18175	1.17479	1.17884	
November 24 2022	296.65937	1.19432	1.18183	1.17488	1.17892	
November 25 2022	296.68060	1.19441	1.18192	1.17496	1.17901	
November 26 2022	296.70183	1.19449	1.18200	1.17505	1.17909	
November 27 2022	296.72307	1.19458	1.18209	1.17513	1.17918	
November 28 2022	296.74430	1.19466	1.18217	1.17521	1.17926	
November 29 2022	296.76553	1.19475	1.18225	1.17530	1.17935	
November 30 2022	296.78677	1.19483	1.18234	1.17538	1.17943	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/2% 5-Year TIPS Series X-2024 9128286N5 April 15, 2019 April 30, 2019 June 28, 2019	0-1/4% 10-Year TIPS Series D-2029 9128287D6 July 15, 2019 July 31, 2019 September 30, 2019 November 29, 2019	0-1/8% 5-Year TIPS Series AE-2024 912828YL8 October 15, 2019 October 31, 2019 December 31, 2019	0-1/8% 10-Year TIPS Series A-2030 912828Z37 January 15, 2020 January 31, 2020 March 31, 2020 May 29, 2020
Maturity Date: Ref CPI on Dated Date:			April 15, 2024 252.20853	July 15, 2029 255.79368	October 15, 2024 256.56513	January 15, 2030 257.28368
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.17431	1.15785	1.15437	1.15115	
November 2 2022	296.19223	1.17439	1.15793	1.15445	1.15123	
November 3 2022	296.21347	1.17448	1.15802	1.15454	1.15131	
November 4 2022	296.23470	1.17456	1.15810	1.15462	1.15139	
November 5 2022	296.25593	1.17465	1.15818	1.15470	1.15148	
November 6 2022	296.27717	1.17473	1.15827	1.15478	1.15156	
November 7 2022	296.29840	1.17482	1.15835	1.15487	1.15164	
November 8 2022	296.31963	1.17490	1.15843	1.15495	1.15172	
November 9 2022	296.34087	1.17498	1.15852	1.15503	1.15181	
November 10 2022	296.36210	1.17507	1.15860	1.15511	1.15189	
November 11 2022	296.38333	1.17515	1.15868	1.15520	1.15197	
November 12 2022	296.40457	1.17524	1.15876	1.15528	1.15205	
November 13 2022	296.42580	1.17532	1.15885	1.15536	1.15214	
November 14 2022	296.44703	1.17540	1.15893	1.15545	1.15222	
November 15 2022	296.46827	1.17549	1.15901	1.15553	1.15230	
November 16 2022	296.48950	1.17557	1.15910	1.15561	1.15238	
November 17 2022	296.51073	1.17566	1.15918	1.15569	1.15247	
November 18 2022	296.53197	1.17574	1.15926	1.15578	1.15255	
November 19 2022	296.55320	1.17583	1.15935	1.15586	1.15263	
November 20 2022	296.57443	1.17591	1.15943	1.15594	1.15271	
November 21 2022	296.59567	1.17599	1.15951	1.15602	1.15280	
November 22 2022	296.61690	1.17608	1.15959	1.15611	1.15288	
November 23 2022	296.63813	1.17616	1.15968	1.15619	1.15296	
November 24 2022	296.65937	1.17625	1.15976	1.15627	1.15304	
November 25 2022	296.68060	1.17633	1.15984	1.15636	1.15313	
November 26 2022	296.70183	1.17641	1.15993	1.15644	1.15321	
November 27 2022	296.72307	1.17650	1.16001	1.15652	1.15329	
November 28 2022	296.74430	1.17658	1.16009	1.15660	1.15337	
November 29 2022	296.76553	1.17667	1.16018	1.15669	1.15346	
November 30 2022	296.78677	1.17675	1.16026	1.15677	1.15354	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/4% 30-Year TIPS TIPS of February 2050 912810SM1 February 15, 2020 February 28, 2020 August 31, 2020	0-1/8% 5-Year TIPS Series X-2025 912828ZJ2 April 15, 2020 April 30, 2020 June 30, 2020 July 13, 2020	0-1/8% 10-Year TIPS Series D-2030 912828ZZ6 July 15, 2020 July 31, 2020 September 30, 2020 November 30, 2020	0-1/8% 5-Year TIPS Series AE-2025 91282CAQ4 October 15, 2020 October 30, 2020 December 31, 2020
Maturity Date: Ref CPI on Dated Date:			February 15, 2050 257.09503	April 15, 2025 258.30093	July 15, 2030 256.39126	October 15, 2025 259.46997
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.15199	1.14661	1.15515	1.14145	
November 2 2022	296.19223	1.15207	1.14669	1.15524	1.14153	
November 3 2022	296.21347	1.15216	1.14678	1.15532	1.14161	
November 4 2022	296.23470	1.15224	1.14686	1.15540	1.14169	
November 5 2022	296.25593	1.15232	1.14694	1.15548	1.14177	
November 6 2022	296.27717	1.15240	1.14702	1.15557	1.14186	
November 7 2022	296.29840	1.15249	1.14711	1.15565	1.14194	
November 8 2022	296.31963	1.15257	1.14719	1.15573	1.14202	
November 9 2022	296.34087	1.15265	1.14727	1.15582	1.14210	
November 10 2022	296.36210	1.15273	1.14735	1.15590	1.14218	
November 11 2022	296.38333	1.15282	1.14743	1.15598	1.14226	
November 12 2022	296.40457	1.15290	1.14752	1.15606	1.14235	
November 13 2022	296.42580	1.15298	1.14760	1.15615	1.14243	
November 14 2022	296.44703	1.15306	1.14768	1.15623	1.14251	
November 15 2022	296.46827	1.15315	1.14776	1.15631	1.14259	
November 16 2022	296.48950	1.15323	1.14785	1.15639	1.14267	
November 17 2022	296.51073	1.15331	1.14793	1.15648	1.14276	
November 18 2022	296.53197	1.15339	1.14801	1.15656	1.14284	
November 19 2022	296.55320	1.15348	1.14809	1.15664	1.14292	
November 20 2022	296.57443	1.15356	1.14817	1.15673	1.14300	
November 21 2022	296.59567	1.15364	1.14826	1.15681	1.14308	
November 22 2022	296.61690	1.15372	1.14834	1.15689	1.14316	
November 23 2022	296.63813	1.15381	1.14842	1.15697	1.14325	
November 24 2022	296.65937	1.15389	1.14850	1.15706	1.14333	
November 25 2022	296.68060	1.15397	1.14859	1.15714	1.14341	
November 26 2022	296.70183	1.15406	1.14867	1.15722	1.14349	
November 27 2022	296.72307	1.15414	1.14875	1.15731	1.14357	
November 28 2022	296.74430	1.15422	1.14883	1.15739	1.14366	
November 29 2022	296.76553	1.15430	1.14891	1.15747	1.14374	
November 30 2022	296.78677	1.15439	1.14900	1.15755	1.14382	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 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	0-1/8% 10-Year TIPS Series D-2031 91282CCM1 July 15, 2021 July 30, 2021 September 30, 2021 November 30, 2021
Maturity Date: Ref CPI on Dated Date:			January 15, 2031 260.31619	February 15, 2051 260.35150	April 15, 2026 262.25027	July 15, 2031 268.02090
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.13774	1.13758	1.12934	1.10503	
November 2 2022	296.19223	1.13782	1.13766	1.12943	1.10511	
November 3 2022	296.21347	1.13790	1.13774	1.12951	1.10519	
November 4 2022	296.23470	1.13798	1.13783	1.12959	1.10527	
November 5 2022	296.25593	1.13806	1.13791	1.12967	1.10535	
November 6 2022	296.27717	1.13814	1.13799	1.12975	1.10543	
November 7 2022	296.29840	1.13823	1.13807	1.12983	1.10550	
November 8 2022	296.31963	1.13831	1.13815	1.12991	1.10558	
November 9 2022	296.34087	1.13839	1.13823	1.12999	1.10566	
November 10 2022	296.36210	1.13847	1.13832	1.13007	1.10574	
November 11 2022	296.38333	1.13855	1.13840	1.13015	1.10582	
November 12 2022	296.40457	1.13863	1.13848	1.13024	1.10590	
November 13 2022	296.42580	1.13871	1.13856	1.13032	1.10598	
November 14 2022	296.44703	1.13880	1.13864	1.13040	1.10606	
November 15 2022	296.46827	1.13888	1.13872	1.13048	1.10614	
November 16 2022	296.48950	1.13896	1.13880	1.13056	1.10622	
November 17 2022	296.51073	1.13904	1.13889	1.13064	1.10630	
November 18 2022	296.53197	1.13912	1.13897	1.13072	1.10638	
November 19 2022	296.55320	1.13920	1.13905	1.13080	1.10646	
November 20 2022	296.57443	1.13929	1.13913	1.13088	1.10653	
November 21 2022	296.59567	1.13937	1.13921	1.13096	1.10661	
November 22 2022	296.61690	1.13945	1.13929	1.13105	1.10669	
November 23 2022	296.63813	1.13953	1.13938	1.13113	1.10677	
November 24 2022	296.65937	1.13961	1.13946	1.13121	1.10685	
November 25 2022	296.68060	1.13969	1.13954	1.13129	1.10693	
November 26 2022	296.70183	1.13977	1.13962	1.13137	1.10701	
November 27 2022	296.72307	1.13986	1.13970	1.13145	1.10709	
November 28 2022	296.74430	1.13994	1.13978	1.13153	1.10717	
November 29 2022	296.76553	1.14002	1.13986	1.13161	1.10725	
November 30 2022	296.78677	1.14010	1.13995	1.13169	1.10733	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 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	0-1/8% 5-Year TIPS Series X-2027 91282CEJ6 April 15, 2022 April 29, 2022 June 30, 2022
Maturity Date: Ref CPI on Dated Date:			October 15, 2026 273.25771	January 15, 2032 277.20274	February 15, 2052 278.37500	April 15, 2027 282.34640
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2022	296.17100	1.08385	1.06843	1.06393	1.04896	
November 2 2022	296.19223	1.08393	1.06850	1.06400	1.04904	
November 3 2022	296.21347	1.08401	1.06858	1.06408	1.04911	
November 4 2022	296.23470	1.08409	1.06866	1.06416	1.04919	
November 5 2022	296.25593	1.08416	1.06873	1.06423	1.04926	
November 6 2022	296.27717	1.08424	1.06881	1.06431	1.04934	
November 7 2022	296.29840	1.08432	1.06889	1.06439	1.04941	
November 8 2022	296.31963	1.08440	1.06896	1.06446	1.04949	
November 9 2022	296.34087	1.08447	1.06904	1.06454	1.04956	
November 10 2022	296.36210	1.08455	1.06912	1.06461	1.04964	
November 11 2022	296.38333	1.08463	1.06919	1.06469	1.04972	
November 12 2022	296.40457	1.08471	1.06927	1.06477	1.04979	
November 13 2022	296.42580	1.08478	1.06935	1.06484	1.04987	
November 14 2022	296.44703	1.08486	1.06942	1.06492	1.04994	
November 15 2022	296.46827	1.08494	1.06950	1.06500	1.05002	
November 16 2022	296.48950	1.08502	1.06958	1.06507	1.05009	
November 17 2022	296.51073	1.08510	1.06965	1.06515	1.05017	
November 18 2022	296.53197	1.08517	1.06973	1.06522	1.05024	
November 19 2022	296.55320	1.08525	1.06981	1.06530	1.05032	
November 20 2022	296.57443	1.08533	1.06988	1.06538	1.05039	
November 21 2022	296.59567	1.08541	1.06996	1.06545	1.05047	
November 22 2022	296.61690	1.08548	1.07004	1.06553	1.05054	
November 23 2022	296.63813	1.08556	1.07011	1.06561	1.05062	
November 24 2022	296.65937	1.08564	1.07019	1.06568	1.05069	
November 25 2022	296.68060	1.08572	1.07027	1.06576	1.05077	
November 26 2022	296.70183	1.08579	1.07034	1.06584	1.05084	
November 27 2022	296.72307	1.08587	1.07042	1.06591	1.05092	
November 28 2022	296.74430	1.08595	1.07050	1.06599	1.05099	
November 29 2022	296.76553	1.08603	1.07057	1.06606	1.05107	
November 30 2022	296.78677	1.08611	1.07065	1.06614	1.05114	
CPI-U (NSA) for:	July 2022	296.276	August 2022	296.171	September 2022	296.808

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s): Maturity Date: Ref CPI on Dated Date:			0-5/8% 10-Year TIPS Series D-2032 91282CEZ0 July 15, 2022 July 29, 2022 September 30, 2022 July 15, 2032 290.54829					
Date			Ref CPI	Index Ratio				
November	1	2022	296.17100	1.01935				
November	2	2022	296.19223	1.01943				
November	3	2022	296.21347	1.01950				
November	4	2022	296.23470	1.01957				
November	5	2022	296.25593	1.01964				
November	6	2022	296.27717	1.01972				
November	7	2022	296.29840	1.01979				
November	8	2022	296.31963	1.01986				
November	9	2022	296.34087	1.01994				
November	10	2022	296.36210	1.02001				
November	11	2022	296.38333	1.02008				
November	12	2022	296.40457	1.02016				
November	13	2022	296.42580	1.02023				
November	14	2022	296.44703	1.02030				
November	15	2022	296.46827	1.02038				
November	16	2022	296.48950	1.02045				
November	17	2022	296.51073	1.02052				
November	18	2022	296.53197	1.02059				
November	19	2022	296.55320	1.02067				
November	20	2022	296.57443	1.02074				
November	21	2022	296.59567	1.02081				
November	22	2022	296.61690	1.02089				
November	23	2022	296.63813	1.02096				
November	24	2022	296.65937	1.02103				
November	25	2022	296.68060	1.02111				
November	26	2022	296.70183	1.02118				
November	27	2022	296.72307	1.02125				
November	28	2022	296.74430	1.02133				
November	29	2022	296.76553	1.02140				
November	30	2022	296.78677	1.02147				
CPI-U (NSA) for:			July 2022	296.276	August 2022	296.171	September 2022	296.808