

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

Security:			3-5/8% 30-Year TIPS	3-7/8% 30-Year TIPS	3-3/8% 30-1/2-Year TIPS	2-3/8% 20-1/2-Year TIPS
Description:			TIPS of April 2028	TIPS of April 2029	TIPS of April 2032	TIPS of January 2025
CUSIP Number:			912810FD5	912810FH6	912810FQ6	912810FR4
Dated Date:			April 15, 1998	April 15, 1999	October 15, 2001	July 15, 2004
Original Issue Date:			April 15, 1998	April 15, 1999	October 15, 2001	July 30, 2004
Additional Issue Date(s):			July 15, 1998	October 15, 1999 October 16, 2000		January 31, 2005 July 29, 2005
Maturity Date:			April 15, 2028	April 15, 2029	April 15, 2032	January 15, 2025
Ref CPI on Dated Date:			161.74000	164.39333	177.50000	188.49677
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2023	307.02600	1.89827	1.86763	1.72972	1.62881	
November 2 2023	307.05143	1.89843	1.86779	1.72987	1.62895	
November 3 2023	307.07687	1.89858	1.86794	1.73001	1.62908	
November 4 2023	307.10230	1.89874	1.86809	1.73015	1.62922	
November 5 2023	307.12773	1.89890	1.86825	1.73030	1.62935	
November 6 2023	307.15317	1.89906	1.86840	1.73044	1.62949	
November 7 2023	307.17860	1.89921	1.86856	1.73058	1.62962	
November 8 2023	307.20403	1.89937	1.86871	1.73073	1.62976	
November 9 2023	307.22947	1.89953	1.86887	1.73087	1.62989	
November 10 2023	307.25490	1.89968	1.86902	1.73101	1.63003	
November 11 2023	307.28033	1.89984	1.86918	1.73116	1.63016	
November 12 2023	307.30577	1.90000	1.86933	1.73130	1.63030	
November 13 2023	307.33120	1.90016	1.86949	1.73144	1.63043	
November 14 2023	307.35663	1.90031	1.86964	1.73159	1.63057	
November 15 2023	307.38207	1.90047	1.86980	1.73173	1.63070	
November 16 2023	307.40750	1.90063	1.86995	1.73187	1.63084	
November 17 2023	307.43293	1.90078	1.87011	1.73202	1.63097	
November 18 2023	307.45837	1.90094	1.87026	1.73216	1.63111	
November 19 2023	307.48380	1.90110	1.87042	1.73230	1.63124	
November 20 2023	307.50923	1.90126	1.87057	1.73245	1.63138	
November 21 2023	307.53467	1.90141	1.87072	1.73259	1.63151	
November 22 2023	307.56010	1.90157	1.87088	1.73273	1.63165	
November 23 2023	307.58553	1.90173	1.87103	1.73288	1.63178	
November 24 2023	307.61097	1.90189	1.87119	1.73302	1.63192	
November 25 2023	307.63640	1.90204	1.87134	1.73316	1.63205	
November 26 2023	307.66183	1.90220	1.87150	1.73331	1.63219	
November 27 2023	307.68727	1.90236	1.87165	1.73345	1.63232	
November 28 2023	307.71270	1.90251	1.87181	1.73359	1.63246	
November 29 2023	307.73813	1.90267	1.87196	1.73374	1.63259	
November 30 2023	307.76357	1.90283	1.87212	1.73388	1.63273	
CPI-U (NSA) for:			July 2023 305.691	August 2023 307.026	September 2023 307.789	

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			2% 20-Year TIPS TIPS of January 2026 912810FS2 January 15, 2006 January 31, 2006 July 31, 2006	2-3/8% 20-Year TIPS TIPS of January 2027 912810PS1 January 15, 2007 January 31, 2007 July 31, 2007	1-3/4% 20-Year TIPS TIPS of January 2028 912810PV4 January 15, 2008 January 31, 2008 July 31, 2008	2-1/2% 20-Year TIPS TIPS of January 2029 912810PZ5 January 15, 2009 January 30, 2009 July 31, 2009
Maturity Date: Ref CPI on Dated Date:			January 15, 2026 198.47742	January 15, 2027 201.66452	January 15, 2028 209.49645	January 15, 2029 214.69971
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November 1 2023	307.02600	1.54691	1.52246	1.46554	1.43003	
November 2 2023	307.05143	1.54703	1.52259	1.46566	1.43014	
November 3 2023	307.07687	1.54716	1.52271	1.46579	1.43026	
November 4 2023	307.10230	1.54729	1.52284	1.46591	1.43038	
November 5 2023	307.12773	1.54742	1.52296	1.46603	1.43050	
November 6 2023	307.15317	1.54755	1.52309	1.46615	1.43062	
November 7 2023	307.17860	1.54768	1.52322	1.46627	1.43074	
November 8 2023	307.20403	1.54780	1.52334	1.46639	1.43085	
November 9 2023	307.22947	1.54793	1.52347	1.46651	1.43097	
November 10 2023	307.25490	1.54806	1.52359	1.46664	1.43109	
November 11 2023	307.28033	1.54819	1.52372	1.46676	1.43121	
November 12 2023	307.30577	1.54832	1.52385	1.46688	1.43133	
November 13 2023	307.33120	1.54844	1.52397	1.46700	1.43145	
November 14 2023	307.35663	1.54857	1.52410	1.46712	1.43157	
November 15 2023	307.38207	1.54870	1.52422	1.46724	1.43168	
November 16 2023	307.40750	1.54883	1.52435	1.46736	1.43180	
November 17 2023	307.43293	1.54896	1.52448	1.46749	1.43192	
November 18 2023	307.45837	1.54908	1.52460	1.46761	1.43204	
November 19 2023	307.48380	1.54921	1.52473	1.46773	1.43216	
November 20 2023	307.50923	1.54934	1.52486	1.46785	1.43228	
November 21 2023	307.53467	1.54947	1.52498	1.46797	1.43239	
November 22 2023	307.56010	1.54960	1.52511	1.46809	1.43251	
November 23 2023	307.58553	1.54973	1.52523	1.46821	1.43263	
November 24 2023	307.61097	1.54985	1.52536	1.46834	1.43275	
November 25 2023	307.63640	1.54998	1.52549	1.46846	1.43287	
November 26 2023	307.66183	1.55011	1.52561	1.46858	1.43299	
November 27 2023	307.68727	1.55024	1.52574	1.46870	1.43311	
November 28 2023	307.71270	1.55037	1.52586	1.46882	1.43322	
November 29 2023	307.73813	1.55049	1.52599	1.46894	1.43334	
November 30 2023	307.76357	1.55062	1.52612	1.46906	1.43346	
CPI-U (NSA) for:	July 2023	305.691	August 2023	307.026	September 2023	307.789

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November 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	
November 1 2023	307.02600	1.42050	1.40200	1.35876	1.33541	
November 2 2023	307.05143	1.42062	1.40212	1.35887	1.33552	
November 3 2023	307.07687	1.42073	1.40224	1.35898	1.33563	
November 4 2023	307.10230	1.42085	1.40235	1.35910	1.33574	
November 5 2023	307.12773	1.42097	1.40247	1.35921	1.33585	
November 6 2023	307.15317	1.42109	1.40258	1.35932	1.33597	
November 7 2023	307.17860	1.42121	1.40270	1.35943	1.33608	
November 8 2023	307.20403	1.42132	1.40282	1.35955	1.33619	
November 9 2023	307.22947	1.42144	1.40293	1.35966	1.33630	
November 10 2023	307.25490	1.42156	1.40305	1.35977	1.33641	
November 11 2023	307.28033	1.42168	1.40316	1.35988	1.33652	
November 12 2023	307.30577	1.42179	1.40328	1.36000	1.33663	
November 13 2023	307.33120	1.42191	1.40340	1.36011	1.33674	
November 14 2023	307.35663	1.42203	1.40351	1.36022	1.33685	
November 15 2023	307.38207	1.42215	1.40363	1.36033	1.33696	
November 16 2023	307.40750	1.42226	1.40374	1.36045	1.33707	
November 17 2023	307.43293	1.42238	1.40386	1.36056	1.33718	
November 18 2023	307.45837	1.42250	1.40398	1.36067	1.33729	
November 19 2023	307.48380	1.42262	1.40409	1.36078	1.33740	
November 20 2023	307.50923	1.42273	1.40421	1.36090	1.33751	
November 21 2023	307.53467	1.42285	1.40433	1.36101	1.33762	
November 22 2023	307.56010	1.42297	1.40444	1.36112	1.33774	
November 23 2023	307.58553	1.42309	1.40456	1.36124	1.33785	
November 24 2023	307.61097	1.42321	1.40467	1.36135	1.33796	
November 25 2023	307.63640	1.42332	1.40479	1.36146	1.33807	
November 26 2023	307.66183	1.42344	1.40491	1.36157	1.33818	
November 27 2023	307.68727	1.42356	1.40502	1.36169	1.33829	
November 28 2023	307.71270	1.42368	1.40514	1.36180	1.33840	
November 29 2023	307.73813	1.42379	1.40525	1.36191	1.33851	
November 30 2023	307.76357	1.42391	1.40537	1.36202	1.33862	
CPI-U (NSA) for:	July 2023	305.691	August 2023	307.026	September 2023	307.789

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November 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	
November 1 2023	307.02600	1.31584	1.31737	1.29304	1.29627	
November 2 2023	307.05143	1.31595	1.31748	1.29314	1.29637	
November 3 2023	307.07687	1.31606	1.31759	1.29325	1.29648	
November 4 2023	307.10230	1.31617	1.31770	1.29336	1.29659	
November 5 2023	307.12773	1.31628	1.31781	1.29346	1.29670	
November 6 2023	307.15317	1.31639	1.31792	1.29357	1.29680	
November 7 2023	307.17860	1.31650	1.31803	1.29368	1.29691	
November 8 2023	307.20403	1.31660	1.31814	1.29379	1.29702	
November 9 2023	307.22947	1.31671	1.31825	1.29389	1.29713	
November 10 2023	307.25490	1.31682	1.31836	1.29400	1.29723	
November 11 2023	307.28033	1.31693	1.31847	1.29411	1.29734	
November 12 2023	307.30577	1.31704	1.31857	1.29421	1.29745	
November 13 2023	307.33120	1.31715	1.31868	1.29432	1.29756	
November 14 2023	307.35663	1.31726	1.31879	1.29443	1.29766	
November 15 2023	307.38207	1.31737	1.31890	1.29453	1.29777	
November 16 2023	307.40750	1.31748	1.31901	1.29464	1.29788	
November 17 2023	307.43293	1.31759	1.31912	1.29475	1.29798	
November 18 2023	307.45837	1.31769	1.31923	1.29486	1.29809	
November 19 2023	307.48380	1.31780	1.31934	1.29496	1.29820	
November 20 2023	307.50923	1.31791	1.31945	1.29507	1.29831	
November 21 2023	307.53467	1.31802	1.31956	1.29518	1.29841	
November 22 2023	307.56010	1.31813	1.31967	1.29528	1.29852	
November 23 2023	307.58553	1.31824	1.31978	1.29539	1.29863	
November 24 2023	307.61097	1.31835	1.31988	1.29550	1.29874	
November 25 2023	307.63640	1.31846	1.31999	1.29561	1.29884	
November 26 2023	307.66183	1.31857	1.32010	1.29571	1.29895	
November 27 2023	307.68727	1.31868	1.32021	1.29582	1.29906	
November 28 2023	307.71270	1.31878	1.32032	1.29593	1.29917	
November 29 2023	307.73813	1.31889	1.32043	1.29603	1.29927	
November 30 2023	307.76357	1.31900	1.32054	1.29614	1.29938	
CPI-U (NSA) for:	July 2023	305.691	August 2023	307.026	September 2023	307.789

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
November 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	
November 1 2023	307.02600	1.30382	1.29468	1.29214	1.29577	
November 2 2023	307.05143	1.30393	1.29479	1.29224	1.29588	
November 3 2023	307.07687	1.30404	1.29490	1.29235	1.29599	
November 4 2023	307.10230	1.30415	1.29501	1.29246	1.29609	
November 5 2023	307.12773	1.30425	1.29511	1.29256	1.29620	
November 6 2023	307.15317	1.30436	1.29522	1.29267	1.29631	
November 7 2023	307.17860	1.30447	1.29533	1.29278	1.29642	
November 8 2023	307.20403	1.30458	1.29543	1.29288	1.29652	
November 9 2023	307.22947	1.30469	1.29554	1.29299	1.29663	
November 10 2023	307.25490	1.30479	1.29565	1.29310	1.29674	
November 11 2023	307.28033	1.30490	1.29576	1.29321	1.29685	
November 12 2023	307.30577	1.30501	1.29586	1.29331	1.29695	
November 13 2023	307.33120	1.30512	1.29597	1.29342	1.29706	
November 14 2023	307.35663	1.30523	1.29608	1.29353	1.29717	
November 15 2023	307.38207	1.30533	1.29619	1.29363	1.29727	
November 16 2023	307.40750	1.30544	1.29629	1.29374	1.29738	
November 17 2023	307.43293	1.30555	1.29640	1.29385	1.29749	
November 18 2023	307.45837	1.30566	1.29651	1.29396	1.29760	
November 19 2023	307.48380	1.30577	1.29661	1.29406	1.29770	
November 20 2023	307.50923	1.30587	1.29672	1.29417	1.29781	
November 21 2023	307.53467	1.30598	1.29683	1.29428	1.29792	
November 22 2023	307.56010	1.30609	1.29694	1.29438	1.29803	
November 23 2023	307.58553	1.30620	1.29704	1.29449	1.29813	
November 24 2023	307.61097	1.30631	1.29715	1.29460	1.29824	
November 25 2023	307.63640	1.30641	1.29726	1.29470	1.29835	
November 26 2023	307.66183	1.30652	1.29736	1.29481	1.29846	
November 27 2023	307.68727	1.30663	1.29747	1.29492	1.29856	
November 28 2023	307.71270	1.30674	1.29758	1.29503	1.29867	
November 29 2023	307.73813	1.30685	1.29769	1.29513	1.29878	
November 30 2023	307.76357	1.30695	1.29779	1.29524	1.29888	
CPI-U (NSA) for:	July 2023	305.691	August 2023	307.026	September 2023	307.789

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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	
November 1 2023	307.02600	1.28087	1.27102	1.27190	1.25512	
November 2 2023	307.05143	1.28098	1.27112	1.27200	1.25523	
November 3 2023	307.07687	1.28108	1.27123	1.27211	1.25533	
November 4 2023	307.10230	1.28119	1.27133	1.27221	1.25543	
November 5 2023	307.12773	1.28129	1.27144	1.27232	1.25554	
November 6 2023	307.15317	1.28140	1.27154	1.27242	1.25564	
November 7 2023	307.17860	1.28151	1.27165	1.27253	1.25575	
November 8 2023	307.20403	1.28161	1.27175	1.27263	1.25585	
November 9 2023	307.22947	1.28172	1.27186	1.27274	1.25595	
November 10 2023	307.25490	1.28182	1.27197	1.27284	1.25606	
November 11 2023	307.28033	1.28193	1.27207	1.27295	1.25616	
November 12 2023	307.30577	1.28204	1.27218	1.27305	1.25627	
November 13 2023	307.33120	1.28214	1.27228	1.27316	1.25637	
November 14 2023	307.35663	1.28225	1.27239	1.27327	1.25647	
November 15 2023	307.38207	1.28235	1.27249	1.27337	1.25658	
November 16 2023	307.40750	1.28246	1.27260	1.27348	1.25668	
November 17 2023	307.43293	1.28257	1.27270	1.27358	1.25679	
November 18 2023	307.45837	1.28267	1.27281	1.27369	1.25689	
November 19 2023	307.48380	1.28278	1.27291	1.27379	1.25699	
November 20 2023	307.50923	1.28289	1.27302	1.27390	1.25710	
November 21 2023	307.53467	1.28299	1.27312	1.27400	1.25720	
November 22 2023	307.56010	1.28310	1.27323	1.27411	1.25731	
November 23 2023	307.58553	1.28320	1.27333	1.27421	1.25741	
November 24 2023	307.61097	1.28331	1.27344	1.27432	1.25751	
November 25 2023	307.63640	1.28342	1.27354	1.27442	1.25762	
November 26 2023	307.66183	1.28352	1.27365	1.27453	1.25772	
November 27 2023	307.68727	1.28363	1.27376	1.27463	1.25783	
November 28 2023	307.71270	1.28373	1.27386	1.27474	1.25793	
November 29 2023	307.73813	1.28384	1.27397	1.27485	1.25803	
November 30 2023	307.76357	1.28395	1.27407	1.27495	1.25814	
CPI-U (NSA) for:	July 2023	305.691	August 2023	307.026	September 2023	307.789

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Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/2% 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	Index Ratio	
November 1 2023	307.02600	1.24470	1.24505	1.22313	1.21593	
November 2 2023	307.05143	1.24481	1.24516	1.22323	1.21603	
November 3 2023	307.07687	1.24491	1.24526	1.22333	1.21613	
November 4 2023	307.10230	1.24501	1.24536	1.22343	1.21623	
November 5 2023	307.12773	1.24512	1.24547	1.22354	1.21634	
November 6 2023	307.15317	1.24522	1.24557	1.22364	1.21644	
November 7 2023	307.17860	1.24532	1.24567	1.22374	1.21654	
November 8 2023	307.20403	1.24543	1.24578	1.22384	1.21664	
November 9 2023	307.22947	1.24553	1.24588	1.22394	1.21674	
November 10 2023	307.25490	1.24563	1.24598	1.22404	1.21684	
November 11 2023	307.28033	1.24574	1.24609	1.22414	1.21694	
November 12 2023	307.30577	1.24584	1.24619	1.22424	1.21704	
November 13 2023	307.33120	1.24594	1.24629	1.22435	1.21714	
November 14 2023	307.35663	1.24605	1.24639	1.22445	1.21724	
November 15 2023	307.38207	1.24615	1.24650	1.22455	1.21734	
November 16 2023	307.40750	1.24625	1.24660	1.22465	1.21744	
November 17 2023	307.43293	1.24635	1.24670	1.22475	1.21754	
November 18 2023	307.45837	1.24646	1.24681	1.22485	1.21764	
November 19 2023	307.48380	1.24656	1.24691	1.22495	1.21775	
November 20 2023	307.50923	1.24666	1.24701	1.22506	1.21785	
November 21 2023	307.53467	1.24677	1.24712	1.22516	1.21795	
November 22 2023	307.56010	1.24687	1.24722	1.22526	1.21805	
November 23 2023	307.58553	1.24697	1.24732	1.22536	1.21815	
November 24 2023	307.61097	1.24708	1.24743	1.22546	1.21825	
November 25 2023	307.63640	1.24718	1.24753	1.22556	1.21835	
November 26 2023	307.66183	1.24728	1.24763	1.22566	1.21845	
November 27 2023	307.68727	1.24739	1.24774	1.22576	1.21855	
November 28 2023	307.71270	1.24749	1.24784	1.22587	1.21865	
November 29 2023	307.73813	1.24759	1.24794	1.22597	1.21875	
November 30 2023	307.76357	1.24769	1.24805	1.22607	1.21885	
CPI-U (NSA) for:	July 2023	305.691	August 2023	307.026	September 2023	307.789

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
November 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	
November 1 2023	307.02600	1.22012	1.21735	1.20029	1.19668	
November 2 2023	307.05143	1.22022	1.21745	1.20039	1.19678	
November 3 2023	307.07687	1.22032	1.21755	1.20049	1.19688	
November 4 2023	307.10230	1.22043	1.21765	1.20059	1.19698	
November 5 2023	307.12773	1.22053	1.21775	1.20069	1.19708	
November 6 2023	307.15317	1.22063	1.21785	1.20078	1.19717	
November 7 2023	307.17860	1.22073	1.21795	1.20088	1.19727	
November 8 2023	307.20403	1.22083	1.21806	1.20098	1.19737	
November 9 2023	307.22947	1.22093	1.21816	1.20108	1.19747	
November 10 2023	307.25490	1.22103	1.21826	1.20118	1.19757	
November 11 2023	307.28033	1.22113	1.21836	1.20128	1.19767	
November 12 2023	307.30577	1.22123	1.21846	1.20138	1.19777	
November 13 2023	307.33120	1.22133	1.21856	1.20148	1.19787	
November 14 2023	307.35663	1.22144	1.21866	1.20158	1.19797	
November 15 2023	307.38207	1.22154	1.21876	1.20168	1.19807	
November 16 2023	307.40750	1.22164	1.21886	1.20178	1.19817	
November 17 2023	307.43293	1.22174	1.21896	1.20188	1.19826	
November 18 2023	307.45837	1.22184	1.21906	1.20198	1.19836	
November 19 2023	307.48380	1.22194	1.21916	1.20208	1.19846	
November 20 2023	307.50923	1.22204	1.21927	1.20218	1.19856	
November 21 2023	307.53467	1.22214	1.21937	1.20228	1.19866	
November 22 2023	307.56010	1.22224	1.21947	1.20238	1.19876	
November 23 2023	307.58553	1.22235	1.21957	1.20248	1.19886	
November 24 2023	307.61097	1.22245	1.21967	1.20257	1.19896	
November 25 2023	307.63640	1.22255	1.21977	1.20267	1.19906	
November 26 2023	307.66183	1.22265	1.21987	1.20277	1.19916	
November 27 2023	307.68727	1.22275	1.21997	1.20287	1.19926	
November 28 2023	307.71270	1.22285	1.22007	1.20297	1.19936	
November 29 2023	307.73813	1.22295	1.22017	1.20307	1.19945	
November 30 2023	307.76357	1.22305	1.22027	1.20317	1.19955	
CPI-U (NSA) for:	July 2023	305.691	August 2023	307.026	September 2023	307.789

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

Security:			0-1/8% 10-Year TIPS	0-1/4% 30-Year TIPS	0-1/8% 5-Year TIPS	0-1/8% 10-Year TIPS		
Description:			Series A-2030	TIPS of February 2050	Series X-2025	Series D-2030		
CUSIP Number:			912828Z37	912810SM1	912828ZJ2	912828ZZ6		
Dated Date:			January 15, 2020	February 15, 2020	April 15, 2020	July 15, 2020		
Original Issue Date:			January 31, 2020	February 28, 2020	April 30, 2020	July 31, 2020		
Additional Issue Date(s):			March 31, 2020	August 31, 2020	June 30, 2020	September 30, 2020		
			May 29, 2020		July 13, 2020	November 30, 2020		
Maturity Date:			January 15, 2030	February 15, 2050	April 15, 2025	July 15, 2030		
Ref CPI on Dated Date:			257.28368	257.09503	258.30093	256.39126		
Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
November	1	2023	307.02600	1.19334	1.19421	1.18864	1.19749	
November	2	2023	307.05143	1.19344	1.19431	1.18874	1.19759	
November	3	2023	307.07687	1.19353	1.19441	1.18883	1.19769	
November	4	2023	307.10230	1.19363	1.19451	1.18893	1.19779	
November	5	2023	307.12773	1.19373	1.19461	1.18903	1.19789	
November	6	2023	307.15317	1.19383	1.19471	1.18913	1.19799	
November	7	2023	307.17860	1.19393	1.19481	1.18923	1.19809	
November	8	2023	307.20403	1.19403	1.19490	1.18933	1.19818	
November	9	2023	307.22947	1.19413	1.19500	1.18942	1.19828	
November	10	2023	307.25490	1.19423	1.19510	1.18952	1.19838	
November	11	2023	307.28033	1.19432	1.19520	1.18962	1.19848	
November	12	2023	307.30577	1.19442	1.19530	1.18972	1.19858	
November	13	2023	307.33120	1.19452	1.19540	1.18982	1.19868	
November	14	2023	307.35663	1.19462	1.19550	1.18992	1.19878	
November	15	2023	307.38207	1.19472	1.19560	1.19002	1.19888	
November	16	2023	307.40750	1.19482	1.19570	1.19011	1.19898	
November	17	2023	307.43293	1.19492	1.19579	1.19021	1.19908	
November	18	2023	307.45837	1.19502	1.19589	1.19031	1.19918	
November	19	2023	307.48380	1.19512	1.19599	1.19041	1.19928	
November	20	2023	307.50923	1.19521	1.19609	1.19051	1.19937	
November	21	2023	307.53467	1.19531	1.19619	1.19061	1.19947	
November	22	2023	307.56010	1.19541	1.19629	1.19070	1.19957	
November	23	2023	307.58553	1.19551	1.19639	1.19080	1.19967	
November	24	2023	307.61097	1.19561	1.19649	1.19090	1.19977	
November	25	2023	307.63640	1.19571	1.19659	1.19100	1.19987	
November	26	2023	307.66183	1.19581	1.19669	1.19110	1.19997	
November	27	2023	307.68727	1.19591	1.19678	1.19120	1.20007	
November	28	2023	307.71270	1.19601	1.19688	1.19130	1.20017	
November	29	2023	307.73813	1.19610	1.19698	1.19139	1.20027	
November	30	2023	307.76357	1.19620	1.19708	1.19149	1.20037	
CPI-U (NSA) for:			July 2023	305.691	August 2023	307.026	September 2023	307.789

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

Security:			0-1/8% 5-Year TIPS	0-1/8% 10-Year TIPS	0-1/8% 30-Year TIPS	0-1/8% 5-Year TIPS		
Description:			Series AE-2025	Series A-2031	TIPS of February 2051	Series X-2026		
CUSIP Number:			91282CAQ4	91282CBF7	912810SV1	91282CCA7		
Dated Date:			October 15, 2020	January 15, 2021	February 15, 2021	April 15, 2021		
Original Issue Date:			October 30, 2020	January 29, 2021	February 26, 2021	April 30, 2021		
Additional Issue Date(s):			December 31, 2020	March 31, 2021 May 28, 2021	August 31, 2021	June 30, 2021		
Maturity Date:			October 15, 2025	January 15, 2031	February 15, 2051	April 15, 2026		
Ref CPI on Dated Date:			259.46997	260.31619	260.35150	262.25027		
Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio		
November	1	2023	307.02600	1.18328	1.17943	1.17927	1.17074	
November	2	2023	307.05143	1.18338	1.17953	1.17937	1.17083	
November	3	2023	307.07687	1.18348	1.17963	1.17947	1.17093	
November	4	2023	307.10230	1.18358	1.17973	1.17957	1.17103	
November	5	2023	307.12773	1.18367	1.17983	1.17967	1.17112	
November	6	2023	307.15317	1.18377	1.17992	1.17976	1.17122	
November	7	2023	307.17860	1.18387	1.18002	1.17986	1.17132	
November	8	2023	307.20403	1.18397	1.18012	1.17996	1.17142	
November	9	2023	307.22947	1.18407	1.18022	1.18006	1.17151	
November	10	2023	307.25490	1.18416	1.18031	1.18015	1.17161	
November	11	2023	307.28033	1.18426	1.18041	1.18025	1.17171	
November	12	2023	307.30577	1.18436	1.18051	1.18035	1.17180	
November	13	2023	307.33120	1.18446	1.18061	1.18045	1.17190	
November	14	2023	307.35663	1.18456	1.18071	1.18054	1.17200	
November	15	2023	307.38207	1.18465	1.18080	1.18064	1.17209	
November	16	2023	307.40750	1.18475	1.18090	1.18074	1.17219	
November	17	2023	307.43293	1.18485	1.18100	1.18084	1.17229	
November	18	2023	307.45837	1.18495	1.18110	1.18094	1.17239	
November	19	2023	307.48380	1.18505	1.18119	1.18103	1.17248	
November	20	2023	307.50923	1.18514	1.18129	1.18113	1.17258	
November	21	2023	307.53467	1.18524	1.18139	1.18123	1.17268	
November	22	2023	307.56010	1.18534	1.18149	1.18133	1.17277	
November	23	2023	307.58553	1.18544	1.18158	1.18142	1.17287	
November	24	2023	307.61097	1.18554	1.18168	1.18152	1.17297	
November	25	2023	307.63640	1.18563	1.18178	1.18162	1.17306	
November	26	2023	307.66183	1.18573	1.18188	1.18172	1.17316	
November	27	2023	307.68727	1.18583	1.18198	1.18181	1.17326	
November	28	2023	307.71270	1.18593	1.18207	1.18191	1.17336	
November	29	2023	307.73813	1.18603	1.18217	1.18201	1.17345	
November	30	2023	307.76357	1.18612	1.18227	1.18211	1.17355	
CPI-U (NSA) for:			July 2023	305.691	August 2023	307.026	September 2023	307.789

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

Security:			0-1/8% 10-Year TIPS	0-1/8% 5-Year TIPS	0-1/8% 10-Year TIPS	0-1/8% 30-Year TIPS		
Description:			Series D-2031	Series AE-2026	Series A-2032	TIPS of February 2052		
CUSIP Number:			91282CCM1	91282CDC2	91282CDX6	912810TE8		
Dated Date:			July 15, 2021	October 15, 2021	January 15, 2022	February 15, 2022		
Original Issue Date:			July 30, 2021	October 29, 2021	January 31, 2022	February 28, 2022		
Additional Issue Date(s):			September 30, 2021	December 31, 2021	March 31, 2022	August 31, 2022		
Maturity Date:			July 15, 2031	October 15, 2026	January 15, 2032	February 15, 2052		
Ref CPI on Dated Date:			268.02090	273.25771	277.20274	278.37500		
Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio		
November	1	2023	307.02600	1.14553	1.12358	1.10759		
November	2	2023	307.05143	1.14562	1.12367	1.10768		
November	3	2023	307.07687	1.14572	1.12376	1.10777		
November	4	2023	307.10230	1.14581	1.12386	1.10786		
November	5	2023	307.12773	1.14591	1.12395	1.10795		
November	6	2023	307.15317	1.14600	1.12404	1.10805		
November	7	2023	307.17860	1.14610	1.12414	1.10814		
November	8	2023	307.20403	1.14619	1.12423	1.10823		
November	9	2023	307.22947	1.14629	1.12432	1.10832		
November	10	2023	307.25490	1.14638	1.12441	1.10841		
November	11	2023	307.28033	1.14648	1.12451	1.10850		
November	12	2023	307.30577	1.14657	1.12460	1.10860		
November	13	2023	307.33120	1.14667	1.12469	1.10869		
November	14	2023	307.35663	1.14676	1.12479	1.10878		
November	15	2023	307.38207	1.14686	1.12488	1.10887		
November	16	2023	307.40750	1.14695	1.12497	1.10896		
November	17	2023	307.43293	1.14705	1.12507	1.10905		
November	18	2023	307.45837	1.14714	1.12516	1.10915		
November	19	2023	307.48380	1.14724	1.12525	1.10924		
November	20	2023	307.50923	1.14733	1.12535	1.10933		
November	21	2023	307.53467	1.14743	1.12544	1.10942		
November	22	2023	307.56010	1.14752	1.12553	1.10951		
November	23	2023	307.58553	1.14762	1.12562	1.10960		
November	24	2023	307.61097	1.14771	1.12572	1.10970		
November	25	2023	307.63640	1.14781	1.12581	1.10979		
November	26	2023	307.66183	1.14790	1.12590	1.10988		
November	27	2023	307.68727	1.14800	1.12600	1.10997		
November	28	2023	307.71270	1.14809	1.12609	1.11006		
November	29	2023	307.73813	1.14819	1.12618	1.11016		
November	30	2023	307.76357	1.14828	1.12628	1.11025		
CPI-U (NSA) for:			July 2023	305.691	August 2023	307.026	September 2023	307.789

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

Security:			0-1/8% 5-Year TIPS	0-5/8% 10-Year TIPS	1-5/8% 5-Year TIPS	1-1/8% 10-Year TIPS
Description:			Series X-2027	Series D-2032	Series AE-2027	Series A-2033
CUSIP Number:			91282CEJ6	91282CEZ0	91282CFR7	91282CGK1
Dated Date:			April 15, 2022	July 15, 2022	October 15, 2022	January 15, 2023
Original Issue Date:			April 29, 2022	July 29, 2022	October 31, 2022	January 31, 2023
Additional Issue Date(s):			June 30, 2022	September 30, 2022	December 30, 2022	March 31, 2023
Maturity Date:			April 15, 2027	July 15, 2032	October 15, 2027	January 15, 2033
Ref CPI on Dated Date:			282.34640	290.54829	296.22858	297.87606
Date			Ref CPI	Index Ratio	Index Ratio	Index Ratio
November	1	2023	307.02600	1.08741	1.05671	1.03645
November	2	2023	307.05143	1.08750	1.05680	1.03654
November	3	2023	307.07687	1.08759	1.05689	1.03662
November	4	2023	307.10230	1.08768	1.05698	1.03671
November	5	2023	307.12773	1.08777	1.05706	1.03679
November	6	2023	307.15317	1.08786	1.05715	1.03688
November	7	2023	307.17860	1.08795	1.05724	1.03696
November	8	2023	307.20403	1.08804	1.05733	1.03705
November	9	2023	307.22947	1.08813	1.05741	1.03714
November	10	2023	307.25490	1.08822	1.05750	1.03722
November	11	2023	307.28033	1.08831	1.05759	1.03731
November	12	2023	307.30577	1.08840	1.05768	1.03739
November	13	2023	307.33120	1.08849	1.05776	1.03748
November	14	2023	307.35663	1.08858	1.05785	1.03757
November	15	2023	307.38207	1.08867	1.05794	1.03765
November	16	2023	307.40750	1.08876	1.05803	1.03774
November	17	2023	307.43293	1.08885	1.05811	1.03782
November	18	2023	307.45837	1.08894	1.05820	1.03791
November	19	2023	307.48380	1.08903	1.05829	1.03800
November	20	2023	307.50923	1.08912	1.05838	1.03808
November	21	2023	307.53467	1.08921	1.05846	1.03817
November	22	2023	307.56010	1.08930	1.05855	1.03825
November	23	2023	307.58553	1.08939	1.05864	1.03834
November	24	2023	307.61097	1.08948	1.05873	1.03842
November	25	2023	307.63640	1.08957	1.05881	1.03851
November	26	2023	307.66183	1.08966	1.05890	1.03860
November	27	2023	307.68727	1.08975	1.05899	1.03868
November	28	2023	307.71270	1.08984	1.05908	1.03877
November	29	2023	307.73813	1.08993	1.05916	1.03885
November	30	2023	307.76357	1.09002	1.05925	1.03894
CPI-U (NSA) for:			July 2023	305.691	August 2023	307.026
					September 2023	307.789

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s): Maturity Date: Ref CPI on Dated Date:			1-1/2% 30-Year TIPS TIPS of February 2053 912810TP3 February 15, 2023 February 28, 2023 August 31, 2023 February 15, 2053 297.25400	1-1/4% 5-Year TIPS Series X-2028 91282CGW5 April 15, 2023 April 28, 2023 June 30, 2023 April 15, 2028 299.94933	1-3/8% 10-Year TIPS Series D-2033 91282CHP9 July 15, 2023 July 31, 2023 September 29, 2023 July 15, 2033 303.70803	
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio		
November 1 2023	307.02600	1.03287	1.02359	1.01092		
November 2 2023	307.05143	1.03296	1.02368	1.01101		
November 3 2023	307.07687	1.03305	1.02376	1.01109		
November 4 2023	307.10230	1.03313	1.02385	1.01118		
November 5 2023	307.12773	1.03322	1.02393	1.01126		
November 6 2023	307.15317	1.03330	1.02402	1.01134		
November 7 2023	307.17860	1.03339	1.02410	1.01143		
November 8 2023	307.20403	1.03347	1.02419	1.01151		
November 9 2023	307.22947	1.03356	1.02427	1.01159		
November 10 2023	307.25490	1.03364	1.02436	1.01168		
November 11 2023	307.28033	1.03373	1.02444	1.01176		
November 12 2023	307.30577	1.03382	1.02453	1.01185		
November 13 2023	307.33120	1.03390	1.02461	1.01193		
November 14 2023	307.35663	1.03399	1.02470	1.01201		
November 15 2023	307.38207	1.03407	1.02478	1.01210		
November 16 2023	307.40750	1.03416	1.02486	1.01218		
November 17 2023	307.43293	1.03424	1.02495	1.01226		
November 18 2023	307.45837	1.03433	1.02503	1.01235		
November 19 2023	307.48380	1.03441	1.02512	1.01243		
November 20 2023	307.50923	1.03450	1.02520	1.01252		
November 21 2023	307.53467	1.03459	1.02529	1.01260		
November 22 2023	307.56010	1.03467	1.02537	1.01268		
November 23 2023	307.58553	1.03476	1.02546	1.01277		
November 24 2023	307.61097	1.03484	1.02554	1.01285		
November 25 2023	307.63640	1.03493	1.02563	1.01293		
November 26 2023	307.66183	1.03501	1.02571	1.01302		
November 27 2023	307.68727	1.03510	1.02580	1.01310		
November 28 2023	307.71270	1.03518	1.02588	1.01319		
November 29 2023	307.73813	1.03527	1.02597	1.01327		
November 30 2023	307.76357	1.03536	1.02605	1.01335		
CPI-U (NSA) for:	July 2023	305.691	August 2023	307.026	September 2023	307.789