

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	
October	1	2023	305.69100	1.89001	1.85951	1.72220	1.62173	
October	2	2023	305.73406	1.89028	1.85977	1.72245	1.62196	
October	3	2023	305.77713	1.89055	1.86003	1.72269	1.62219	
October	4	2023	305.82019	1.89081	1.86030	1.72293	1.62242	
October	5	2023	305.86326	1.89108	1.86056	1.72317	1.62264	
October	6	2023	305.90632	1.89135	1.86082	1.72342	1.62287	
October	7	2023	305.94939	1.89161	1.86108	1.72366	1.62310	
October	8	2023	305.99245	1.89188	1.86134	1.72390	1.62333	
October	9	2023	306.03552	1.89214	1.86161	1.72414	1.62356	
October	10	2023	306.07858	1.89241	1.86187	1.72439	1.62379	
October	11	2023	306.12165	1.89268	1.86213	1.72463	1.62402	
October	12	2023	306.16471	1.89294	1.86239	1.72487	1.62424	
October	13	2023	306.20777	1.89321	1.86265	1.72511	1.62447	
October	14	2023	306.25084	1.89348	1.86292	1.72536	1.62470	
October	15	2023	306.29390	1.89374	1.86318	1.72560	1.62493	
October	16	2023	306.33697	1.89401	1.86344	1.72584	1.62516	
October	17	2023	306.38003	1.89427	1.86370	1.72608	1.62539	
October	18	2023	306.42310	1.89454	1.86396	1.72633	1.62561	
October	19	2023	306.46616	1.89481	1.86423	1.72657	1.62584	
October	20	2023	306.50923	1.89507	1.86449	1.72681	1.62607	
October	21	2023	306.55229	1.89534	1.86475	1.72706	1.62630	
October	22	2023	306.59535	1.89561	1.86501	1.72730	1.62653	
October	23	2023	306.63842	1.89587	1.86527	1.72754	1.62676	
October	24	2023	306.68148	1.89614	1.86553	1.72778	1.62699	
October	25	2023	306.72455	1.89641	1.86580	1.72803	1.62721	
October	26	2023	306.76761	1.89667	1.86606	1.72827	1.62744	
October	27	2023	306.81068	1.89694	1.86632	1.72851	1.62767	
October	28	2023	306.85374	1.89720	1.86658	1.72875	1.62790	
October	29	2023	306.89681	1.89747	1.86684	1.72900	1.62813	
October	30	2023	306.93987	1.89774	1.86711	1.72924	1.62836	
October	31	2023	306.98294	1.89800	1.86737	1.72948	1.62858	
<b>CPI-U (NSA) for:</b>			<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

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

<b>Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):</b>			<b>2% 20-Year TIPS TIPS of January 2026 912810FS2 January 15, 2006 January 31, 2006 July 31, 2006</b>	<b>2-3/8% 20-Year TIPS TIPS of January 2027 912810PS1 January 15, 2007 January 31, 2007 July 31, 2007</b>	<b>1-3/4% 20-Year TIPS TIPS of January 2028 912810PV4 January 15, 2008 January 31, 2008 July 31, 2008</b>	<b>2-1/2% 20-Year TIPS TIPS of January 2029 912810PZ5 January 15, 2009 January 30, 2009 July 31, 2009</b>
<b>Maturity Date: Ref CPI on Dated Date:</b>			<b>January 15, 2026 198.47742</b>	<b>January 15, 2027 201.66452</b>	<b>January 15, 2028 209.49645</b>	<b>January 15, 2029 214.69971</b>
<b>Date</b>	<b>Ref CPI</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	<b>Index Ratio</b>	
October 1 2023	305.69100	1.54018	1.51584	1.45917	1.42381	
October 2 2023	305.73406	1.54040	1.51605	1.45938	1.42401	
October 3 2023	305.77713	1.54061	1.51627	1.45958	1.42421	
October 4 2023	305.82019	1.54083	1.51648	1.45979	1.42441	
October 5 2023	305.86326	1.54105	1.51669	1.45999	1.42461	
October 6 2023	305.90632	1.54127	1.51691	1.46020	1.42481	
October 7 2023	305.94939	1.54148	1.51712	1.46040	1.42501	
October 8 2023	305.99245	1.54170	1.51733	1.46061	1.42521	
October 9 2023	306.03552	1.54192	1.51755	1.46081	1.42541	
October 10 2023	306.07858	1.54213	1.51776	1.46102	1.42561	
October 11 2023	306.12165	1.54235	1.51797	1.46123	1.42581	
October 12 2023	306.16471	1.54257	1.51819	1.46143	1.42601	
October 13 2023	306.20777	1.54278	1.51840	1.46164	1.42621	
October 14 2023	306.25084	1.54300	1.51862	1.46184	1.42641	
October 15 2023	306.29390	1.54322	1.51883	1.46205	1.42662	
October 16 2023	306.33697	1.54343	1.51904	1.46225	1.42682	
October 17 2023	306.38003	1.54365	1.51926	1.46246	1.42702	
October 18 2023	306.42310	1.54387	1.51947	1.46266	1.42722	
October 19 2023	306.46616	1.54409	1.51968	1.46287	1.42742	
October 20 2023	306.50923	1.54430	1.51990	1.46308	1.42762	
October 21 2023	306.55229	1.54452	1.52011	1.46328	1.42782	
October 22 2023	306.59535	1.54474	1.52032	1.46349	1.42802	
October 23 2023	306.63842	1.54495	1.52054	1.46369	1.42822	
October 24 2023	306.68148	1.54517	1.52075	1.46390	1.42842	
October 25 2023	306.72455	1.54539	1.52096	1.46410	1.42862	
October 26 2023	306.76761	1.54560	1.52118	1.46431	1.42882	
October 27 2023	306.81068	1.54582	1.52139	1.46451	1.42902	
October 28 2023	306.85374	1.54604	1.52160	1.46472	1.42922	
October 29 2023	306.89681	1.54626	1.52182	1.46493	1.42942	
October 30 2023	306.93987	1.54647	1.52203	1.46513	1.42962	
October 31 2023	306.98294	1.54669	1.52225	1.46534	1.42982	
<b>CPI-U (NSA) for:</b>			<b>June 2023 305.109</b>	<b>July 2023 305.691</b>	<b>August 2023 307.026</b>	

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	
October 1 2023	305.69100	1.41432	1.39591	1.35285	1.32961	
October 2 2023	305.73406	1.41452	1.39610	1.35304	1.32979	
October 3 2023	305.77713	1.41472	1.39630	1.35323	1.32998	
October 4 2023	305.82019	1.41492	1.39650	1.35342	1.33017	
October 5 2023	305.86326	1.41512	1.39669	1.35361	1.33036	
October 6 2023	305.90632	1.41532	1.39689	1.35380	1.33054	
October 7 2023	305.94939	1.41552	1.39709	1.35399	1.33073	
October 8 2023	305.99245	1.41572	1.39728	1.35418	1.33092	
October 9 2023	306.03552	1.41592	1.39748	1.35438	1.33110	
October 10 2023	306.07858	1.41612	1.39768	1.35457	1.33129	
October 11 2023	306.12165	1.41632	1.39787	1.35476	1.33148	
October 12 2023	306.16471	1.41651	1.39807	1.35495	1.33167	
October 13 2023	306.20777	1.41671	1.39827	1.35514	1.33185	
October 14 2023	306.25084	1.41691	1.39846	1.35533	1.33204	
October 15 2023	306.29390	1.41711	1.39866	1.35552	1.33223	
October 16 2023	306.33697	1.41731	1.39886	1.35571	1.33242	
October 17 2023	306.38003	1.41751	1.39905	1.35590	1.33260	
October 18 2023	306.42310	1.41771	1.39925	1.35609	1.33279	
October 19 2023	306.46616	1.41791	1.39945	1.35628	1.33298	
October 20 2023	306.50923	1.41811	1.39964	1.35647	1.33316	
October 21 2023	306.55229	1.41831	1.39984	1.35666	1.33335	
October 22 2023	306.59535	1.41851	1.40004	1.35685	1.33354	
October 23 2023	306.63842	1.41871	1.40023	1.35704	1.33373	
October 24 2023	306.68148	1.41891	1.40043	1.35723	1.33391	
October 25 2023	306.72455	1.41910	1.40063	1.35742	1.33410	
October 26 2023	306.76761	1.41930	1.40082	1.35762	1.33429	
October 27 2023	306.81068	1.41950	1.40102	1.35781	1.33448	
October 28 2023	306.85374	1.41970	1.40122	1.35800	1.33466	
October 29 2023	306.89681	1.41990	1.40141	1.35819	1.33485	
October 30 2023	306.93987	1.42010	1.40161	1.35838	1.33504	
October 31 2023	306.98294	1.42030	1.40181	1.35857	1.33523	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	
October 1 2023	305.69100	1.31012	1.31165	1.28741	1.29063	
October 2 2023	305.73406	1.31030	1.31183	1.28759	1.29081	
October 3 2023	305.77713	1.31049	1.31202	1.28778	1.29099	
October 4 2023	305.82019	1.31067	1.31220	1.28796	1.29118	
October 5 2023	305.86326	1.31086	1.31239	1.28814	1.29136	
October 6 2023	305.90632	1.31104	1.31257	1.28832	1.29154	
October 7 2023	305.94939	1.31123	1.31276	1.28850	1.29172	
October 8 2023	305.99245	1.31141	1.31294	1.28868	1.29190	
October 9 2023	306.03552	1.31160	1.31312	1.28886	1.29208	
October 10 2023	306.07858	1.31178	1.31331	1.28905	1.29227	
October 11 2023	306.12165	1.31197	1.31349	1.28923	1.29245	
October 12 2023	306.16471	1.31215	1.31368	1.28941	1.29263	
October 13 2023	306.20777	1.31233	1.31386	1.28959	1.29281	
October 14 2023	306.25084	1.31252	1.31405	1.28977	1.29299	
October 15 2023	306.29390	1.31270	1.31423	1.28995	1.29318	
October 16 2023	306.33697	1.31289	1.31442	1.29013	1.29336	
October 17 2023	306.38003	1.31307	1.31460	1.29031	1.29354	
October 18 2023	306.42310	1.31326	1.31479	1.29050	1.29372	
October 19 2023	306.46616	1.31344	1.31497	1.29068	1.29390	
October 20 2023	306.50923	1.31363	1.31516	1.29086	1.29408	
October 21 2023	306.55229	1.31381	1.31534	1.29104	1.29427	
October 22 2023	306.59535	1.31400	1.31553	1.29122	1.29445	
October 23 2023	306.63842	1.31418	1.31571	1.29140	1.29463	
October 24 2023	306.68148	1.31436	1.31590	1.29158	1.29481	
October 25 2023	306.72455	1.31455	1.31608	1.29177	1.29499	
October 26 2023	306.76761	1.31473	1.31627	1.29195	1.29518	
October 27 2023	306.81068	1.31492	1.31645	1.29213	1.29536	
October 28 2023	306.85374	1.31510	1.31664	1.29231	1.29554	
October 29 2023	306.89681	1.31529	1.31682	1.29249	1.29572	
October 30 2023	306.93987	1.31547	1.31701	1.29267	1.29590	
October 31 2023	306.98294	1.31566	1.31719	1.29285	1.29608	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	
October 1 2023	305.69100	1.29815	1.28905	1.28652	1.29014	
October 2 2023	305.73406	1.29834	1.28924	1.28670	1.29032	
October 3 2023	305.77713	1.29852	1.28942	1.28688	1.29050	
October 4 2023	305.82019	1.29870	1.28960	1.28706	1.29068	
October 5 2023	305.86326	1.29888	1.28978	1.28724	1.29086	
October 6 2023	305.90632	1.29907	1.28996	1.28742	1.29105	
October 7 2023	305.94939	1.29925	1.29014	1.28760	1.29123	
October 8 2023	305.99245	1.29943	1.29033	1.28779	1.29141	
October 9 2023	306.03552	1.29962	1.29051	1.28797	1.29159	
October 10 2023	306.07858	1.29980	1.29069	1.28815	1.29177	
October 11 2023	306.12165	1.29998	1.29087	1.28833	1.29196	
October 12 2023	306.16471	1.30016	1.29105	1.28851	1.29214	
October 13 2023	306.20777	1.30035	1.29123	1.28869	1.29232	
October 14 2023	306.25084	1.30053	1.29141	1.28887	1.29250	
October 15 2023	306.29390	1.30071	1.29160	1.28905	1.29268	
October 16 2023	306.33697	1.30090	1.29178	1.28924	1.29286	
October 17 2023	306.38003	1.30108	1.29196	1.28942	1.29305	
October 18 2023	306.42310	1.30126	1.29214	1.28960	1.29323	
October 19 2023	306.46616	1.30144	1.29232	1.28978	1.29341	
October 20 2023	306.50923	1.30163	1.29250	1.28996	1.29359	
October 21 2023	306.55229	1.30181	1.29269	1.29014	1.29377	
October 22 2023	306.59535	1.30199	1.29287	1.29032	1.29395	
October 23 2023	306.63842	1.30218	1.29305	1.29050	1.29414	
October 24 2023	306.68148	1.30236	1.29323	1.29069	1.29432	
October 25 2023	306.72455	1.30254	1.29341	1.29087	1.29450	
October 26 2023	306.76761	1.30272	1.29359	1.29105	1.29468	
October 27 2023	306.81068	1.30291	1.29378	1.29123	1.29486	
October 28 2023	306.85374	1.30309	1.29396	1.29141	1.29504	
October 29 2023	306.89681	1.30327	1.29414	1.29159	1.29523	
October 30 2023	306.93987	1.30346	1.29432	1.29177	1.29541	
October 31 2023	306.98294	1.30364	1.29450	1.29195	1.29559	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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 912828L3 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	
October 1 2023	305.69100	1.27530	1.26549	1.26636	1.24966	
October 2 2023	305.73406	1.27548	1.26567	1.26654	1.24984	
October 3 2023	305.77713	1.27566	1.26585	1.26672	1.25002	
October 4 2023	305.82019	1.27584	1.26603	1.26690	1.25019	
October 5 2023	305.86326	1.27602	1.26620	1.26708	1.25037	
October 6 2023	305.90632	1.27620	1.26638	1.26726	1.25055	
October 7 2023	305.94939	1.27638	1.26656	1.26744	1.25072	
October 8 2023	305.99245	1.27656	1.26674	1.26761	1.25090	
October 9 2023	306.03552	1.27674	1.26692	1.26779	1.25107	
October 10 2023	306.07858	1.27692	1.26710	1.26797	1.25125	
October 11 2023	306.12165	1.27710	1.26727	1.26815	1.25143	
October 12 2023	306.16471	1.27728	1.26745	1.26833	1.25160	
October 13 2023	306.20777	1.27746	1.26763	1.26851	1.25178	
October 14 2023	306.25084	1.27764	1.26781	1.26868	1.25195	
October 15 2023	306.29390	1.27781	1.26799	1.26886	1.25213	
October 16 2023	306.33697	1.27799	1.26817	1.26904	1.25231	
October 17 2023	306.38003	1.27817	1.26834	1.26922	1.25248	
October 18 2023	306.42310	1.27835	1.26852	1.26940	1.25266	
October 19 2023	306.46616	1.27853	1.26870	1.26958	1.25283	
October 20 2023	306.50923	1.27871	1.26888	1.26975	1.25301	
October 21 2023	306.55229	1.27889	1.26906	1.26993	1.25319	
October 22 2023	306.59535	1.27907	1.26923	1.27011	1.25336	
October 23 2023	306.63842	1.27925	1.26941	1.27029	1.25354	
October 24 2023	306.68148	1.27943	1.26959	1.27047	1.25371	
October 25 2023	306.72455	1.27961	1.26977	1.27065	1.25389	
October 26 2023	306.76761	1.27979	1.26995	1.27082	1.25407	
October 27 2023	306.81068	1.27997	1.27013	1.27100	1.25424	
October 28 2023	306.85374	1.28015	1.27030	1.27118	1.25442	
October 29 2023	306.89681	1.28033	1.27048	1.27136	1.25459	
October 30 2023	306.93987	1.28051	1.27066	1.27154	1.25477	
October 31 2023	306.98294	1.28069	1.27084	1.27172	1.25495	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	Index Ratio	
October 1 2023	305.69100	1.23929	1.23964	1.21781	1.21065	
October 2 2023	305.73406	1.23947	1.23982	1.21798	1.21082	
October 3 2023	305.77713	1.23964	1.23999	1.21816	1.21099	
October 4 2023	305.82019	1.23982	1.24016	1.21833	1.21116	
October 5 2023	305.86326	1.23999	1.24034	1.21850	1.21133	
October 6 2023	305.90632	1.24017	1.24051	1.21867	1.21150	
October 7 2023	305.94939	1.24034	1.24069	1.21884	1.21167	
October 8 2023	305.99245	1.24051	1.24086	1.21901	1.21184	
October 9 2023	306.03552	1.24069	1.24104	1.21918	1.21201	
October 10 2023	306.07858	1.24086	1.24121	1.21936	1.21218	
October 11 2023	306.12165	1.24104	1.24139	1.21953	1.21235	
October 12 2023	306.16471	1.24121	1.24156	1.21970	1.21252	
October 13 2023	306.20777	1.24139	1.24174	1.21987	1.21269	
October 14 2023	306.25084	1.24156	1.24191	1.22004	1.21286	
October 15 2023	306.29390	1.24174	1.24209	1.22021	1.21303	
October 16 2023	306.33697	1.24191	1.24226	1.22039	1.21320	
October 17 2023	306.38003	1.24209	1.24243	1.22056	1.21337	
October 18 2023	306.42310	1.24226	1.24261	1.22073	1.21354	
October 19 2023	306.46616	1.24244	1.24278	1.22090	1.21372	
October 20 2023	306.50923	1.24261	1.24296	1.22107	1.21389	
October 21 2023	306.55229	1.24278	1.24313	1.22124	1.21406	
October 22 2023	306.59535	1.24296	1.24331	1.22141	1.21423	
October 23 2023	306.63842	1.24313	1.24348	1.22159	1.21440	
October 24 2023	306.68148	1.24331	1.24366	1.22176	1.21457	
October 25 2023	306.72455	1.24348	1.24383	1.22193	1.21474	
October 26 2023	306.76761	1.24366	1.24401	1.22210	1.21491	
October 27 2023	306.81068	1.24383	1.24418	1.22227	1.21508	
October 28 2023	306.85374	1.24401	1.24436	1.22244	1.21525	
October 29 2023	306.89681	1.24418	1.24453	1.22262	1.21542	
October 30 2023	306.93987	1.24436	1.24470	1.22279	1.21559	
October 31 2023	306.98294	1.24453	1.24488	1.22296	1.21576	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	
October 1 2023	305.69100	1.21482	1.21206	1.19507	1.19148	
October 2 2023	305.73406	1.21499	1.21223	1.19524	1.19164	
October 3 2023	305.77713	1.21516	1.21240	1.19541	1.19181	
October 4 2023	305.82019	1.21533	1.21257	1.19557	1.19198	
October 5 2023	305.86326	1.21550	1.21274	1.19574	1.19215	
October 6 2023	305.90632	1.21567	1.21291	1.19591	1.19231	
October 7 2023	305.94939	1.21584	1.21308	1.19608	1.19248	
October 8 2023	305.99245	1.21601	1.21325	1.19625	1.19265	
October 9 2023	306.03552	1.21619	1.21342	1.19642	1.19282	
October 10 2023	306.07858	1.21636	1.21359	1.19658	1.19299	
October 11 2023	306.12165	1.21653	1.21376	1.19675	1.19315	
October 12 2023	306.16471	1.21670	1.21393	1.19692	1.19332	
October 13 2023	306.20777	1.21687	1.21411	1.19709	1.19349	
October 14 2023	306.25084	1.21704	1.21428	1.19726	1.19366	
October 15 2023	306.29390	1.21721	1.21445	1.19743	1.19383	
October 16 2023	306.33697	1.21738	1.21462	1.19759	1.19399	
October 17 2023	306.38003	1.21755	1.21479	1.19776	1.19416	
October 18 2023	306.42310	1.21773	1.21496	1.19793	1.19433	
October 19 2023	306.46616	1.21790	1.21513	1.19810	1.19450	
October 20 2023	306.50923	1.21807	1.21530	1.19827	1.19466	
October 21 2023	306.55229	1.21824	1.21547	1.19844	1.19483	
October 22 2023	306.59535	1.21841	1.21564	1.19860	1.19500	
October 23 2023	306.63842	1.21858	1.21581	1.19877	1.19517	
October 24 2023	306.68148	1.21875	1.21598	1.19894	1.19534	
October 25 2023	306.72455	1.21892	1.21615	1.19911	1.19550	
October 26 2023	306.76761	1.21910	1.21633	1.19928	1.19567	
October 27 2023	306.81068	1.21927	1.21650	1.19945	1.19584	
October 28 2023	306.85374	1.21944	1.21667	1.19961	1.19601	
October 29 2023	306.89681	1.21961	1.21684	1.19978	1.19618	
October 30 2023	306.93987	1.21978	1.21701	1.19995	1.19634	
October 31 2023	306.98294	1.21995	1.21718	1.20012	1.19651	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>



**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	
October 1 2023	305.69100	1.18815	1.18902	1.18347	1.19228	
October 2 2023	305.73406	1.18832	1.18919	1.18364	1.19245	
October 3 2023	305.77713	1.18848	1.18935	1.18380	1.19262	
October 4 2023	305.82019	1.18865	1.18952	1.18397	1.19279	
October 5 2023	305.86326	1.18882	1.18969	1.18414	1.19296	
October 6 2023	305.90632	1.18898	1.18986	1.18430	1.19312	
October 7 2023	305.94939	1.18915	1.19002	1.18447	1.19329	
October 8 2023	305.99245	1.18932	1.19019	1.18464	1.19346	
October 9 2023	306.03552	1.18949	1.19036	1.18480	1.19363	
October 10 2023	306.07858	1.18965	1.19053	1.18497	1.19379	
October 11 2023	306.12165	1.18982	1.19069	1.18514	1.19396	
October 12 2023	306.16471	1.18999	1.19086	1.18530	1.19413	
October 13 2023	306.20777	1.19016	1.19103	1.18547	1.19430	
October 14 2023	306.25084	1.19032	1.19120	1.18564	1.19447	
October 15 2023	306.29390	1.19049	1.19136	1.18580	1.19463	
October 16 2023	306.33697	1.19066	1.19153	1.18597	1.19480	
October 17 2023	306.38003	1.19083	1.19170	1.18614	1.19497	
October 18 2023	306.42310	1.19099	1.19187	1.18630	1.19514	
October 19 2023	306.46616	1.19116	1.19203	1.18647	1.19531	
October 20 2023	306.50923	1.19133	1.19220	1.18664	1.19547	
October 21 2023	306.55229	1.19150	1.19237	1.18680	1.19564	
October 22 2023	306.59535	1.19166	1.19254	1.18697	1.19581	
October 23 2023	306.63842	1.19183	1.19270	1.18714	1.19598	
October 24 2023	306.68148	1.19200	1.19287	1.18730	1.19615	
October 25 2023	306.72455	1.19216	1.19304	1.18747	1.19631	
October 26 2023	306.76761	1.19233	1.19321	1.18764	1.19648	
October 27 2023	306.81068	1.19250	1.19337	1.18780	1.19665	
October 28 2023	306.85374	1.19267	1.19354	1.18797	1.19682	
October 29 2023	306.89681	1.19283	1.19371	1.18814	1.19699	
October 30 2023	306.93987	1.19300	1.19388	1.18830	1.19715	
October 31 2023	306.98294	1.19317	1.19404	1.18847	1.19732	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	
October 1 2023	305.69100	1.17814	1.17431	1.17415	1.16565	
October 2 2023	305.73406	1.17830	1.17447	1.17431	1.16581	
October 3 2023	305.77713	1.17847	1.17464	1.17448	1.16597	
October 4 2023	305.82019	1.17863	1.17480	1.17464	1.16614	
October 5 2023	305.86326	1.17880	1.17497	1.17481	1.16630	
October 6 2023	305.90632	1.17897	1.17513	1.17497	1.16647	
October 7 2023	305.94939	1.17913	1.17530	1.17514	1.16663	
October 8 2023	305.99245	1.17930	1.17546	1.17531	1.16680	
October 9 2023	306.03552	1.17946	1.17563	1.17547	1.16696	
October 10 2023	306.07858	1.17963	1.17580	1.17564	1.16712	
October 11 2023	306.12165	1.17980	1.17596	1.17580	1.16729	
October 12 2023	306.16471	1.17996	1.17613	1.17597	1.16745	
October 13 2023	306.20777	1.18013	1.17629	1.17613	1.16762	
October 14 2023	306.25084	1.18029	1.17646	1.17630	1.16778	
October 15 2023	306.29390	1.18046	1.17662	1.17646	1.16795	
October 16 2023	306.33697	1.18063	1.17679	1.17663	1.16811	
October 17 2023	306.38003	1.18079	1.17695	1.17679	1.16827	
October 18 2023	306.42310	1.18096	1.17712	1.17696	1.16844	
October 19 2023	306.46616	1.18112	1.17728	1.17712	1.16860	
October 20 2023	306.50923	1.18129	1.17745	1.17729	1.16877	
October 21 2023	306.55229	1.18146	1.17762	1.17746	1.16893	
October 22 2023	306.59535	1.18162	1.17778	1.17762	1.16909	
October 23 2023	306.63842	1.18179	1.17795	1.17779	1.16926	
October 24 2023	306.68148	1.18195	1.17811	1.17795	1.16942	
October 25 2023	306.72455	1.18212	1.17828	1.17812	1.16959	
October 26 2023	306.76761	1.18229	1.17844	1.17828	1.16975	
October 27 2023	306.81068	1.18245	1.17861	1.17845	1.16992	
October 28 2023	306.85374	1.18262	1.17877	1.17861	1.17008	
October 29 2023	306.89681	1.18278	1.17894	1.17878	1.17024	
October 30 2023	306.93987	1.18295	1.17910	1.17894	1.17041	
October 31 2023	306.98294	1.18312	1.17927	1.17911	1.17057	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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	
October 1 2023	305.69100	1.14055	1.11869	1.10277	1.09813	
October 2 2023	305.73406	1.14071	1.11885	1.10293	1.09828	
October 3 2023	305.77713	1.14087	1.11901	1.10308	1.09844	
October 4 2023	305.82019	1.14103	1.11916	1.10324	1.09859	
October 5 2023	305.86326	1.14119	1.11932	1.10339	1.09875	
October 6 2023	305.90632	1.14135	1.11948	1.10355	1.09890	
October 7 2023	305.94939	1.14151	1.11964	1.10370	1.09905	
October 8 2023	305.99245	1.14167	1.11979	1.10386	1.09921	
October 9 2023	306.03552	1.14183	1.11995	1.10401	1.09936	
October 10 2023	306.07858	1.14200	1.12011	1.10417	1.09952	
October 11 2023	306.12165	1.14216	1.12027	1.10432	1.09967	
October 12 2023	306.16471	1.14232	1.12042	1.10448	1.09983	
October 13 2023	306.20777	1.14248	1.12058	1.10463	1.09998	
October 14 2023	306.25084	1.14264	1.12074	1.10479	1.10014	
October 15 2023	306.29390	1.14280	1.12090	1.10495	1.10029	
October 16 2023	306.33697	1.14296	1.12106	1.10510	1.10045	
October 17 2023	306.38003	1.14312	1.12121	1.10526	1.10060	
October 18 2023	306.42310	1.14328	1.12137	1.10541	1.10076	
October 19 2023	306.46616	1.14344	1.12153	1.10557	1.10091	
October 20 2023	306.50923	1.14360	1.12169	1.10572	1.10107	
October 21 2023	306.55229	1.14376	1.12184	1.10588	1.10122	
October 22 2023	306.59535	1.14392	1.12200	1.10603	1.10138	
October 23 2023	306.63842	1.14408	1.12216	1.10619	1.10153	
October 24 2023	306.68148	1.14424	1.12232	1.10634	1.10168	
October 25 2023	306.72455	1.14441	1.12247	1.10650	1.10184	
October 26 2023	306.76761	1.14457	1.12263	1.10665	1.10199	
October 27 2023	306.81068	1.14473	1.12279	1.10681	1.10215	
October 28 2023	306.85374	1.14489	1.12295	1.10697	1.10230	
October 29 2023	306.89681	1.14505	1.12310	1.10712	1.10246	
October 30 2023	306.93987	1.14521	1.12326	1.10728	1.10261	
October 31 2023	306.98294	1.14537	1.12342	1.10743	1.10277	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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 July 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	
October 1 2023	305.69100	1.08268	1.05212	1.03194	1.02624	
October 2 2023	305.73406	1.08283	1.05227	1.03209	1.02638	
October 3 2023	305.77713	1.08299	1.05241	1.03223	1.02652	
October 4 2023	305.82019	1.08314	1.05256	1.03238	1.02667	
October 5 2023	305.86326	1.08329	1.05271	1.03252	1.02681	
October 6 2023	305.90632	1.08344	1.05286	1.03267	1.02696	
October 7 2023	305.94939	1.08360	1.05301	1.03282	1.02710	
October 8 2023	305.99245	1.08375	1.05316	1.03296	1.02725	
October 9 2023	306.03552	1.08390	1.05330	1.03311	1.02739	
October 10 2023	306.07858	1.08405	1.05345	1.03325	1.02754	
October 11 2023	306.12165	1.08421	1.05360	1.03340	1.02768	
October 12 2023	306.16471	1.08436	1.05375	1.03354	1.02783	
October 13 2023	306.20777	1.08451	1.05390	1.03369	1.02797	
October 14 2023	306.25084	1.08466	1.05404	1.03383	1.02811	
October 15 2023	306.29390	1.08482	1.05419	1.03398	1.02826	
October 16 2023	306.33697	1.08497	1.05434	1.03412	1.02840	
October 17 2023	306.38003	1.08512	1.05449	1.03427	1.02855	
October 18 2023	306.42310	1.08527	1.05464	1.03441	1.02869	
October 19 2023	306.46616	1.08543	1.05479	1.03456	1.02884	
October 20 2023	306.50923	1.08558	1.05493	1.03471	1.02898	
October 21 2023	306.55229	1.08573	1.05508	1.03485	1.02913	
October 22 2023	306.59535	1.08588	1.05523	1.03500	1.02927	
October 23 2023	306.63842	1.08604	1.05538	1.03514	1.02942	
October 24 2023	306.68148	1.08619	1.05553	1.03529	1.02956	
October 25 2023	306.72455	1.08634	1.05567	1.03543	1.02971	
October 26 2023	306.76761	1.08649	1.05582	1.03558	1.02985	
October 27 2023	306.81068	1.08665	1.05597	1.03572	1.02999	
October 28 2023	306.85374	1.08680	1.05612	1.03587	1.03014	
October 29 2023	306.89681	1.08695	1.05627	1.03601	1.03028	
October 30 2023	306.93987	1.08710	1.05642	1.03616	1.03043	
October 31 2023	306.98294	1.08726	1.05656	1.03630	1.03057	
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>

**TREASURY INFLATION-PROTECTED SECURITIES (TIPS)**  
**Ref CPI and Index Ratios for**  
**October 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 August 31, 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		
October 1 2023	305.69100	1.02838	1.01914	1.00653		
October 2 2023	305.73406	1.02853	1.01929	1.00667		
October 3 2023	305.77713	1.02867	1.01943	1.00681		
October 4 2023	305.82019	1.02882	1.01957	1.00695		
October 5 2023	305.86326	1.02896	1.01972	1.00710		
October 6 2023	305.90632	1.02911	1.01986	1.00724		
October 7 2023	305.94939	1.02925	1.02000	1.00738		
October 8 2023	305.99245	1.02940	1.02015	1.00752		
October 9 2023	306.03552	1.02954	1.02029	1.00766		
October 10 2023	306.07858	1.02969	1.02043	1.00781		
October 11 2023	306.12165	1.02983	1.02058	1.00795		
October 12 2023	306.16471	1.02998	1.02072	1.00809		
October 13 2023	306.20777	1.03012	1.02086	1.00823		
October 14 2023	306.25084	1.03027	1.02101	1.00837		
October 15 2023	306.29390	1.03041	1.02115	1.00851		
October 16 2023	306.33697	1.03056	1.02130	1.00866		
October 17 2023	306.38003	1.03070	1.02144	1.00880		
October 18 2023	306.42310	1.03085	1.02158	1.00894		
October 19 2023	306.46616	1.03099	1.02173	1.00908		
October 20 2023	306.50923	1.03114	1.02187	1.00922		
October 21 2023	306.55229	1.03128	1.02201	1.00937		
October 22 2023	306.59535	1.03143	1.02216	1.00951		
October 23 2023	306.63842	1.03157	1.02230	1.00965		
October 24 2023	306.68148	1.03172	1.02244	1.00979		
October 25 2023	306.72455	1.03186	1.02259	1.00993		
October 26 2023	306.76761	1.03200	1.02273	1.01007		
October 27 2023	306.81068	1.03215	1.02288	1.01022		
October 28 2023	306.85374	1.03229	1.02302	1.01036		
October 29 2023	306.89681	1.03244	1.02316	1.01050		
October 30 2023	306.93987	1.03258	1.02331	1.01064		
October 31 2023	306.98294	1.03273	1.02345	1.01078		
<b>CPI-U (NSA) for:</b>	<b>June 2023</b>	<b>305.109</b>	<b>July 2023</b>	<b>305.691</b>	<b>August 2023</b>	<b>307.026</b>