

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
December 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	
December 1 2023	307.78900	1.90299	1.87227	1.73402	1.63286	
December 2 2023	307.78519	1.90296	1.87225	1.73400	1.63284	
December 3 2023	307.78139	1.90294	1.87223	1.73398	1.63282	
December 4 2023	307.77758	1.90292	1.87220	1.73396	1.63280	
December 5 2023	307.77377	1.90289	1.87218	1.73394	1.63278	
December 6 2023	307.76997	1.90287	1.87216	1.73392	1.63276	
December 7 2023	307.76616	1.90285	1.87213	1.73389	1.63274	
December 8 2023	307.76235	1.90282	1.87211	1.73387	1.63272	
December 9 2023	307.75855	1.90280	1.87209	1.73385	1.63270	
December 10 2023	307.75474	1.90277	1.87206	1.73383	1.63268	
December 11 2023	307.75094	1.90275	1.87204	1.73381	1.63266	
December 12 2023	307.74713	1.90273	1.87202	1.73379	1.63264	
December 13 2023	307.74332	1.90270	1.87199	1.73377	1.63262	
December 14 2023	307.73952	1.90268	1.87197	1.73374	1.63260	
December 15 2023	307.73571	1.90266	1.87195	1.73372	1.63258	
December 16 2023	307.73190	1.90263	1.87192	1.73370	1.63256	
December 17 2023	307.72810	1.90261	1.87190	1.73368	1.63254	
December 18 2023	307.72429	1.90259	1.87188	1.73366	1.63252	
December 19 2023	307.72048	1.90256	1.87186	1.73364	1.63250	
December 20 2023	307.71668	1.90254	1.87183	1.73362	1.63248	
December 21 2023	307.71287	1.90252	1.87181	1.73359	1.63246	
December 22 2023	307.70906	1.90249	1.87179	1.73357	1.63244	
December 23 2023	307.70526	1.90247	1.87176	1.73355	1.63242	
December 24 2023	307.70145	1.90244	1.87174	1.73353	1.63240	
December 25 2023	307.69765	1.90242	1.87172	1.73351	1.63238	
December 26 2023	307.69384	1.90240	1.87169	1.73349	1.63236	
December 27 2023	307.69003	1.90237	1.87167	1.73346	1.63234	
December 28 2023	307.68623	1.90235	1.87165	1.73344	1.63232	
December 29 2023	307.68242	1.90233	1.87162	1.73342	1.63230	
December 30 2023	307.67861	1.90230	1.87160	1.73340	1.63228	
December 31 2023	307.67481	1.90228	1.87158	1.73338	1.63226	
CPI-U (NSA) for:			August 2023 307.026	September 2023 307.789	October 2023 307.671	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
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December 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	
December 1 2023	307.78900	1.55075	1.52624	1.46918	1.43358	
December 2 2023	307.78519	1.55073	1.52622	1.46917	1.43356	
December 3 2023	307.78139	1.55071	1.52620	1.46915	1.43354	
December 4 2023	307.77758	1.55069	1.52619	1.46913	1.43353	
December 5 2023	307.77377	1.55067	1.52617	1.46911	1.43351	
December 6 2023	307.76997	1.55065	1.52615	1.46909	1.43349	
December 7 2023	307.76616	1.55064	1.52613	1.46908	1.43347	
December 8 2023	307.76235	1.55062	1.52611	1.46906	1.43345	
December 9 2023	307.75855	1.55060	1.52609	1.46904	1.43344	
December 10 2023	307.75474	1.55058	1.52607	1.46902	1.43342	
December 11 2023	307.75094	1.55056	1.52605	1.46900	1.43340	
December 12 2023	307.74713	1.55054	1.52604	1.46898	1.43338	
December 13 2023	307.74332	1.55052	1.52602	1.46897	1.43337	
December 14 2023	307.73952	1.55050	1.52600	1.46895	1.43335	
December 15 2023	307.73571	1.55048	1.52598	1.46893	1.43333	
December 16 2023	307.73190	1.55046	1.52596	1.46891	1.43331	
December 17 2023	307.72810	1.55044	1.52594	1.46889	1.43330	
December 18 2023	307.72429	1.55042	1.52592	1.46888	1.43328	
December 19 2023	307.72048	1.55041	1.52590	1.46886	1.43326	
December 20 2023	307.71668	1.55039	1.52588	1.46884	1.43324	
December 21 2023	307.71287	1.55037	1.52587	1.46882	1.43322	
December 22 2023	307.70906	1.55035	1.52585	1.46880	1.43321	
December 23 2023	307.70526	1.55033	1.52583	1.46879	1.43319	
December 24 2023	307.70145	1.55031	1.52581	1.46877	1.43317	
December 25 2023	307.69765	1.55029	1.52579	1.46875	1.43315	
December 26 2023	307.69384	1.55027	1.52577	1.46873	1.43314	
December 27 2023	307.69003	1.55025	1.52575	1.46871	1.43312	
December 28 2023	307.68623	1.55023	1.52573	1.46869	1.43310	
December 29 2023	307.68242	1.55021	1.52571	1.46868	1.43308	
December 30 2023	307.67861	1.55019	1.52570	1.46866	1.43306	
December 31 2023	307.67481	1.55018	1.52568	1.46864	1.43305	
CPI-U (NSA) for:			August 2023 307.026	September 2023 307.789	October 2023 307.671	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
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December 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	
December 1 2023	307.78900	1.42403	1.40549	1.36214	1.33873	
December 2 2023	307.78519	1.42401	1.40547	1.36212	1.33871	
December 3 2023	307.78139	1.42399	1.40545	1.36210	1.33870	
December 4 2023	307.77758	1.42398	1.40543	1.36209	1.33868	
December 5 2023	307.77377	1.42396	1.40542	1.36207	1.33866	
December 6 2023	307.76997	1.42394	1.40540	1.36205	1.33865	
December 7 2023	307.76616	1.42392	1.40538	1.36203	1.33863	
December 8 2023	307.76235	1.42391	1.40537	1.36202	1.33862	
December 9 2023	307.75855	1.42389	1.40535	1.36200	1.33860	
December 10 2023	307.75474	1.42387	1.40533	1.36198	1.33858	
December 11 2023	307.75094	1.42385	1.40531	1.36197	1.33857	
December 12 2023	307.74713	1.42384	1.40530	1.36195	1.33855	
December 13 2023	307.74332	1.42382	1.40528	1.36193	1.33853	
December 14 2023	307.73952	1.42380	1.40526	1.36192	1.33852	
December 15 2023	307.73571	1.42378	1.40524	1.36190	1.33850	
December 16 2023	307.73190	1.42377	1.40523	1.36188	1.33848	
December 17 2023	307.72810	1.42375	1.40521	1.36187	1.33847	
December 18 2023	307.72429	1.42373	1.40519	1.36185	1.33845	
December 19 2023	307.72048	1.42371	1.40517	1.36183	1.33843	
December 20 2023	307.71668	1.42369	1.40516	1.36182	1.33842	
December 21 2023	307.71287	1.42368	1.40514	1.36180	1.33840	
December 22 2023	307.70906	1.42366	1.40512	1.36178	1.33838	
December 23 2023	307.70526	1.42364	1.40510	1.36176	1.33837	
December 24 2023	307.70145	1.42362	1.40509	1.36175	1.33835	
December 25 2023	307.69765	1.42361	1.40507	1.36173	1.33833	
December 26 2023	307.69384	1.42359	1.40505	1.36171	1.33832	
December 27 2023	307.69003	1.42357	1.40504	1.36170	1.33830	
December 28 2023	307.68623	1.42355	1.40502	1.36168	1.33828	
December 29 2023	307.68242	1.42354	1.40500	1.36166	1.33827	
December 30 2023	307.67861	1.42352	1.40498	1.36165	1.33825	
December 31 2023	307.67481	1.42350	1.40497	1.36163	1.33823	
CPI-U (NSA) for:			August 2023 307.026	September 2023 307.789	October 2023 307.671	

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December 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	
December 1 2023	307.78900	1.31911	1.32065	1.29625	1.29949	
December 2 2023	307.78519	1.31909	1.32063	1.29623	1.29947	
December 3 2023	307.78139	1.31908	1.32062	1.29622	1.29946	
December 4 2023	307.77758	1.31906	1.32060	1.29620	1.29944	
December 5 2023	307.77377	1.31905	1.32058	1.29618	1.29942	
December 6 2023	307.76997	1.31903	1.32057	1.29617	1.29941	
December 7 2023	307.76616	1.31901	1.32055	1.29615	1.29939	
December 8 2023	307.76235	1.31900	1.32053	1.29614	1.29938	
December 9 2023	307.75855	1.31898	1.32052	1.29612	1.29936	
December 10 2023	307.75474	1.31896	1.32050	1.29610	1.29934	
December 11 2023	307.75094	1.31895	1.32049	1.29609	1.29933	
December 12 2023	307.74713	1.31893	1.32047	1.29607	1.29931	
December 13 2023	307.74332	1.31892	1.32045	1.29606	1.29930	
December 14 2023	307.73952	1.31890	1.32044	1.29604	1.29928	
December 15 2023	307.73571	1.31888	1.32042	1.29602	1.29926	
December 16 2023	307.73190	1.31887	1.32040	1.29601	1.29925	
December 17 2023	307.72810	1.31885	1.32039	1.29599	1.29923	
December 18 2023	307.72429	1.31883	1.32037	1.29598	1.29921	
December 19 2023	307.72048	1.31882	1.32035	1.29596	1.29920	
December 20 2023	307.71668	1.31880	1.32034	1.29594	1.29918	
December 21 2023	307.71287	1.31879	1.32032	1.29593	1.29917	
December 22 2023	307.70906	1.31877	1.32031	1.29591	1.29915	
December 23 2023	307.70526	1.31875	1.32029	1.29590	1.29913	
December 24 2023	307.70145	1.31874	1.32027	1.29588	1.29912	
December 25 2023	307.69765	1.31872	1.32026	1.29586	1.29910	
December 26 2023	307.69384	1.31870	1.32024	1.29585	1.29909	
December 27 2023	307.69003	1.31869	1.32022	1.29583	1.29907	
December 28 2023	307.68623	1.31867	1.32021	1.29582	1.29905	
December 29 2023	307.68242	1.31865	1.32019	1.29580	1.29904	
December 30 2023	307.67861	1.31864	1.32017	1.29578	1.29902	
December 31 2023	307.67481	1.31862	1.32016	1.29577	1.29901	
CPI-U (NSA) for:	August 2023	307.026	September 2023	307.789	October 2023	307.671

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
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December 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	
December 1 2023	307.78900	1.30706	1.29790	1.29535	1.29899	
December 2 2023	307.78519	1.30705	1.29789	1.29533	1.29898	
December 3 2023	307.78139	1.30703	1.29787	1.29531	1.29896	
December 4 2023	307.77758	1.30701	1.29785	1.29530	1.29894	
December 5 2023	307.77377	1.30700	1.29784	1.29528	1.29893	
December 6 2023	307.76997	1.30698	1.29782	1.29527	1.29891	
December 7 2023	307.76616	1.30697	1.29780	1.29525	1.29890	
December 8 2023	307.76235	1.30695	1.29779	1.29523	1.29888	
December 9 2023	307.75855	1.30693	1.29777	1.29522	1.29886	
December 10 2023	307.75474	1.30692	1.29776	1.29520	1.29885	
December 11 2023	307.75094	1.30690	1.29774	1.29519	1.29883	
December 12 2023	307.74713	1.30688	1.29772	1.29517	1.29882	
December 13 2023	307.74332	1.30687	1.29771	1.29515	1.29880	
December 14 2023	307.73952	1.30685	1.29769	1.29514	1.29878	
December 15 2023	307.73571	1.30684	1.29768	1.29512	1.29877	
December 16 2023	307.73190	1.30682	1.29766	1.29511	1.29875	
December 17 2023	307.72810	1.30680	1.29764	1.29509	1.29874	
December 18 2023	307.72429	1.30679	1.29763	1.29507	1.29872	
December 19 2023	307.72048	1.30677	1.29761	1.29506	1.29870	
December 20 2023	307.71668	1.30676	1.29760	1.29504	1.29869	
December 21 2023	307.71287	1.30674	1.29758	1.29503	1.29867	
December 22 2023	307.70906	1.30672	1.29756	1.29501	1.29865	
December 23 2023	307.70526	1.30671	1.29755	1.29499	1.29864	
December 24 2023	307.70145	1.30669	1.29753	1.29498	1.29862	
December 25 2023	307.69765	1.30667	1.29752	1.29496	1.29861	
December 26 2023	307.69384	1.30666	1.29750	1.29495	1.29859	
December 27 2023	307.69003	1.30664	1.29748	1.29493	1.29857	
December 28 2023	307.68623	1.30663	1.29747	1.29491	1.29856	
December 29 2023	307.68242	1.30661	1.29745	1.29490	1.29854	
December 30 2023	307.67861	1.30659	1.29744	1.29488	1.29853	
December 31 2023	307.67481	1.30658	1.29742	1.29487	1.29851	
CPI-U (NSA) for:	August 2023	307.026	September 2023	307.789	October 2023	307.671

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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	
December 1 2023	307.78900	1.28405	1.27418	1.27506	1.25824	
December 2 2023	307.78519	1.28404	1.27416	1.27504	1.25823	
December 3 2023	307.78139	1.28402	1.27414	1.27502	1.25821	
December 4 2023	307.77758	1.28400	1.27413	1.27501	1.25819	
December 5 2023	307.77377	1.28399	1.27411	1.27499	1.25818	
December 6 2023	307.76997	1.28397	1.27410	1.27498	1.25816	
December 7 2023	307.76616	1.28396	1.27408	1.27496	1.25815	
December 8 2023	307.76235	1.28394	1.27407	1.27495	1.25813	
December 9 2023	307.75855	1.28393	1.27405	1.27493	1.25812	
December 10 2023	307.75474	1.28391	1.27403	1.27491	1.25810	
December 11 2023	307.75094	1.28389	1.27402	1.27490	1.25809	
December 12 2023	307.74713	1.28388	1.27400	1.27488	1.25807	
December 13 2023	307.74332	1.28386	1.27399	1.27487	1.25805	
December 14 2023	307.73952	1.28385	1.27397	1.27485	1.25804	
December 15 2023	307.73571	1.28383	1.27396	1.27484	1.25802	
December 16 2023	307.73190	1.28381	1.27394	1.27482	1.25801	
December 17 2023	307.72810	1.28380	1.27392	1.27480	1.25799	
December 18 2023	307.72429	1.28378	1.27391	1.27479	1.25798	
December 19 2023	307.72048	1.28377	1.27389	1.27477	1.25796	
December 20 2023	307.71668	1.28375	1.27388	1.27476	1.25795	
December 21 2023	307.71287	1.28373	1.27386	1.27474	1.25793	
December 22 2023	307.70906	1.28372	1.27385	1.27473	1.25791	
December 23 2023	307.70526	1.28370	1.27383	1.27471	1.25790	
December 24 2023	307.70145	1.28369	1.27381	1.27469	1.25788	
December 25 2023	307.69765	1.28367	1.27380	1.27468	1.25787	
December 26 2023	307.69384	1.28366	1.27378	1.27466	1.25785	
December 27 2023	307.69003	1.28364	1.27377	1.27465	1.25784	
December 28 2023	307.68623	1.28362	1.27375	1.27463	1.25782	
December 29 2023	307.68242	1.28361	1.27374	1.27461	1.25781	
December 30 2023	307.67861	1.28359	1.27372	1.27460	1.25779	
December 31 2023	307.67481	1.28358	1.27370	1.27458	1.25777	
CPI-U (NSA) for:	August 2023	307.026	September 2023	307.789	October 2023	307.671

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Ref CPI and Index Ratios for
December 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	
December 1 2023	307.78900	1.24780	1.24815	1.22617	1.21895	
December 2 2023	307.78519	1.24778	1.24813	1.22615	1.21894	
December 3 2023	307.78139	1.24777	1.24812	1.22614	1.21892	
December 4 2023	307.77758	1.24775	1.24810	1.22612	1.21891	
December 5 2023	307.77377	1.24774	1.24809	1.22611	1.21889	
December 6 2023	307.76997	1.24772	1.24807	1.22609	1.21888	
December 7 2023	307.76616	1.24771	1.24806	1.22608	1.21886	
December 8 2023	307.76235	1.24769	1.24804	1.22606	1.21885	
December 9 2023	307.75855	1.24767	1.24802	1.22605	1.21883	
December 10 2023	307.75474	1.24766	1.24801	1.22603	1.21882	
December 11 2023	307.75094	1.24764	1.24799	1.22602	1.21880	
December 12 2023	307.74713	1.24763	1.24798	1.22600	1.21879	
December 13 2023	307.74332	1.24761	1.24796	1.22599	1.21877	
December 14 2023	307.73952	1.24760	1.24795	1.22597	1.21876	
December 15 2023	307.73571	1.24758	1.24793	1.22596	1.21874	
December 16 2023	307.73190	1.24757	1.24792	1.22594	1.21873	
December 17 2023	307.72810	1.24755	1.24790	1.22593	1.21871	
December 18 2023	307.72429	1.24754	1.24789	1.22591	1.21870	
December 19 2023	307.72048	1.24752	1.24787	1.22590	1.21868	
December 20 2023	307.71668	1.24750	1.24786	1.22588	1.21867	
December 21 2023	307.71287	1.24749	1.24784	1.22587	1.21865	
December 22 2023	307.70906	1.24747	1.24782	1.22585	1.21864	
December 23 2023	307.70526	1.24746	1.24781	1.22584	1.21862	
December 24 2023	307.70145	1.24744	1.24779	1.22582	1.21861	
December 25 2023	307.69765	1.24743	1.24778	1.22581	1.21859	
December 26 2023	307.69384	1.24741	1.24776	1.22579	1.21858	
December 27 2023	307.69003	1.24740	1.24775	1.22578	1.21856	
December 28 2023	307.68623	1.24738	1.24773	1.22576	1.21855	
December 29 2023	307.68242	1.24737	1.24772	1.22575	1.21853	
December 30 2023	307.67861	1.24735	1.24770	1.22573	1.21852	
December 31 2023	307.67481	1.24734	1.24769	1.22572	1.21850	
CPI-U (NSA) for:	August 2023	307.026	September 2023	307.789	October 2023	307.671

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
December 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	
December 1 2023	307.78900	1.22315	1.22038	1.20327	1.19965	
December 2 2023	307.78519	1.22314	1.22036	1.20326	1.19964	
December 3 2023	307.78139	1.22312	1.22034	1.20324	1.19962	
December 4 2023	307.77758	1.22311	1.22033	1.20323	1.19961	
December 5 2023	307.77377	1.22309	1.22031	1.20321	1.19959	
December 6 2023	307.76997	1.22308	1.22030	1.20320	1.19958	
December 7 2023	307.76616	1.22306	1.22028	1.20318	1.19956	
December 8 2023	307.76235	1.22305	1.22027	1.20317	1.19955	
December 9 2023	307.75855	1.22303	1.22025	1.20315	1.19953	
December 10 2023	307.75474	1.22302	1.22024	1.20314	1.19952	
December 11 2023	307.75094	1.22300	1.22022	1.20312	1.19950	
December 12 2023	307.74713	1.22299	1.22021	1.20311	1.19949	
December 13 2023	307.74332	1.22297	1.22019	1.20309	1.19947	
December 14 2023	307.73952	1.22296	1.22018	1.20308	1.19946	
December 15 2023	307.73571	1.22294	1.22016	1.20306	1.19944	
December 16 2023	307.73190	1.22293	1.22015	1.20305	1.19943	
December 17 2023	307.72810	1.22291	1.22013	1.20303	1.19942	
December 18 2023	307.72429	1.22290	1.22012	1.20302	1.19940	
December 19 2023	307.72048	1.22288	1.22010	1.20300	1.19939	
December 20 2023	307.71668	1.22287	1.22009	1.20299	1.19937	
December 21 2023	307.71287	1.22285	1.22007	1.20297	1.19936	
December 22 2023	307.70906	1.22284	1.22006	1.20296	1.19934	
December 23 2023	307.70526	1.22282	1.22004	1.20294	1.19933	
December 24 2023	307.70145	1.22281	1.22003	1.20293	1.19931	
December 25 2023	307.69765	1.22279	1.22001	1.20291	1.19930	
December 26 2023	307.69384	1.22278	1.22000	1.20290	1.19928	
December 27 2023	307.69003	1.22276	1.21998	1.20288	1.19927	
December 28 2023	307.68623	1.22275	1.21997	1.20287	1.19925	
December 29 2023	307.68242	1.22273	1.21995	1.20285	1.19924	
December 30 2023	307.67861	1.22272	1.21994	1.20284	1.19922	
December 31 2023	307.67481	1.22270	1.21992	1.20282	1.19921	
CPI-U (NSA) for:			August 2023 307.026	September 2023 307.789	October 2023 307.671	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
December 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	
December 1 2023	307.78900	1.19630	1.19718	1.19159	1.20047	
December 2 2023	307.78519	1.19629	1.19717	1.19158	1.20045	
December 3 2023	307.78139	1.19627	1.19715	1.19156	1.20044	
December 4 2023	307.77758	1.19626	1.19714	1.19155	1.20042	
December 5 2023	307.77377	1.19624	1.19712	1.19153	1.20041	
December 6 2023	307.76997	1.19623	1.19711	1.19152	1.20039	
December 7 2023	307.76616	1.19621	1.19709	1.19150	1.20038	
December 8 2023	307.76235	1.19620	1.19708	1.19149	1.20036	
December 9 2023	307.75855	1.19618	1.19706	1.19147	1.20035	
December 10 2023	307.75474	1.19617	1.19705	1.19146	1.20033	
December 11 2023	307.75094	1.19615	1.19703	1.19144	1.20032	
December 12 2023	307.74713	1.19614	1.19702	1.19143	1.20030	
December 13 2023	307.74332	1.19612	1.19700	1.19141	1.20029	
December 14 2023	307.73952	1.19611	1.19699	1.19140	1.20027	
December 15 2023	307.73571	1.19609	1.19697	1.19138	1.20026	
December 16 2023	307.73190	1.19608	1.19696	1.19137	1.20024	
December 17 2023	307.72810	1.19607	1.19694	1.19135	1.20023	
December 18 2023	307.72429	1.19605	1.19693	1.19134	1.20021	
December 19 2023	307.72048	1.19604	1.19691	1.19133	1.20020	
December 20 2023	307.71668	1.19602	1.19690	1.19131	1.20018	
December 21 2023	307.71287	1.19601	1.19688	1.19130	1.20017	
December 22 2023	307.70906	1.19599	1.19687	1.19128	1.20015	
December 23 2023	307.70526	1.19598	1.19685	1.19127	1.20014	
December 24 2023	307.70145	1.19596	1.19684	1.19125	1.20012	
December 25 2023	307.69765	1.19595	1.19682	1.19124	1.20011	
December 26 2023	307.69384	1.19593	1.19681	1.19122	1.20009	
December 27 2023	307.69003	1.19592	1.19679	1.19121	1.20008	
December 28 2023	307.68623	1.19590	1.19678	1.19119	1.20007	
December 29 2023	307.68242	1.19589	1.19677	1.19118	1.20005	
December 30 2023	307.67861	1.19587	1.19675	1.19116	1.20004	
December 31 2023	307.67481	1.19586	1.19674	1.19115	1.20002	
CPI-U (NSA) for:	August 2023	307.026	September 2023	307.789	October 2023	307.671

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
December 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	
December 1 2023	307.78900	1.18622	1.18237	1.18221	1.17365	
December 2 2023	307.78519	1.18621	1.18235	1.18219	1.17363	
December 3 2023	307.78139	1.18619	1.18234	1.18218	1.17362	
December 4 2023	307.77758	1.18618	1.18232	1.18216	1.17360	
December 5 2023	307.77377	1.18616	1.18231	1.18215	1.17359	
December 6 2023	307.76997	1.18615	1.18229	1.18213	1.17357	
December 7 2023	307.76616	1.18613	1.18228	1.18212	1.17356	
December 8 2023	307.76235	1.18612	1.18226	1.18210	1.17354	
December 9 2023	307.75855	1.18610	1.18225	1.18209	1.17353	
December 10 2023	307.75474	1.18609	1.18223	1.18207	1.17352	
December 11 2023	307.75094	1.18608	1.18222	1.18206	1.17350	
December 12 2023	307.74713	1.18606	1.18221	1.18204	1.17349	
December 13 2023	307.74332	1.18605	1.18219	1.18203	1.17347	
December 14 2023	307.73952	1.18603	1.18218	1.18202	1.17346	
December 15 2023	307.73571	1.18602	1.18216	1.18200	1.17344	
December 16 2023	307.73190	1.18600	1.18215	1.18199	1.17343	
December 17 2023	307.72810	1.18599	1.18213	1.18197	1.17341	
December 18 2023	307.72429	1.18597	1.18212	1.18196	1.17340	
December 19 2023	307.72048	1.18596	1.18210	1.18194	1.17338	
December 20 2023	307.71668	1.18594	1.18209	1.18193	1.17337	
December 21 2023	307.71287	1.18593	1.18207	1.18191	1.17336	
December 22 2023	307.70906	1.18591	1.18206	1.18190	1.17334	
December 23 2023	307.70526	1.18590	1.18204	1.18188	1.17333	
December 24 2023	307.70145	1.18588	1.18203	1.18187	1.17331	
December 25 2023	307.69765	1.18587	1.18202	1.18185	1.17330	
December 26 2023	307.69384	1.18586	1.18200	1.18184	1.17328	
December 27 2023	307.69003	1.18584	1.18199	1.18183	1.17327	
December 28 2023	307.68623	1.18583	1.18197	1.18181	1.17325	
December 29 2023	307.68242	1.18581	1.18196	1.18180	1.17324	
December 30 2023	307.67861	1.18580	1.18194	1.18178	1.17323	
December 31 2023	307.67481	1.18578	1.18193	1.18177	1.17321	
CPI-U (NSA) for:	August 2023	307.026	September 2023	307.789	October 2023	307.671

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
December 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	
December 1 2023	307.78900	1.14838	1.12637	1.11034	1.10566	
December 2 2023	307.78519	1.14836	1.12636	1.11033	1.10565	
December 3 2023	307.78139	1.14835	1.12634	1.11031	1.10564	
December 4 2023	307.77758	1.14833	1.12633	1.11030	1.10562	
December 5 2023	307.77377	1.14832	1.12631	1.11028	1.10561	
December 6 2023	307.76997	1.14831	1.12630	1.11027	1.10559	
December 7 2023	307.76616	1.14829	1.12629	1.11026	1.10558	
December 8 2023	307.76235	1.14828	1.12627	1.11024	1.10557	
December 9 2023	307.75855	1.14826	1.12626	1.11023	1.10555	
December 10 2023	307.75474	1.14825	1.12624	1.11022	1.10554	
December 11 2023	307.75094	1.14823	1.12623	1.11020	1.10553	
December 12 2023	307.74713	1.14822	1.12622	1.11019	1.10551	
December 13 2023	307.74332	1.14821	1.12620	1.11017	1.10550	
December 14 2023	307.73952	1.14819	1.12619	1.11016	1.10549	
December 15 2023	307.73571	1.14818	1.12617	1.11015	1.10547	
December 16 2023	307.73190	1.14816	1.12616	1.11013	1.10546	
December 17 2023	307.72810	1.14815	1.12615	1.11012	1.10544	
December 18 2023	307.72429	1.14814	1.12613	1.11011	1.10543	
December 19 2023	307.72048	1.14812	1.12612	1.11009	1.10542	
December 20 2023	307.71668	1.14811	1.12610	1.11008	1.10540	
December 21 2023	307.71287	1.14809	1.12609	1.11006	1.10539	
December 22 2023	307.70906	1.14808	1.12608	1.11005	1.10538	
December 23 2023	307.70526	1.14806	1.12606	1.11004	1.10536	
December 24 2023	307.70145	1.14805	1.12605	1.11002	1.10535	
December 25 2023	307.69765	1.14804	1.12603	1.11001	1.10534	
December 26 2023	307.69384	1.14802	1.12602	1.11000	1.10532	
December 27 2023	307.69003	1.14801	1.12601	1.10998	1.10531	
December 28 2023	307.68623	1.14799	1.12599	1.10997	1.10529	
December 29 2023	307.68242	1.14798	1.12598	1.10995	1.10528	
December 30 2023	307.67861	1.14796	1.12596	1.10994	1.10527	
December 31 2023	307.67481	1.14795	1.12595	1.10993	1.10525	
CPI-U (NSA) for:	August 2023	307.026	September 2023	307.789	October 2023	307.671

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

Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 5-Year TIPS Series X-2027 91282CEJ6 April 15, 2022 April 29, 2022 June 30, 2022	0-5/8% 10-Year TIPS Series D-2032 91282CEZ0 July 15, 2022 July 29, 2022 September 30, 2022 November 30, 2022	1-5/8% 5-Year TIPS Series AE-2027 91282CFR7 October 15, 2022 October 31, 2022 December 30, 2022	1-1/8% 10-Year TIPS Series A-2033 91282CGK1 January 15, 2023 January 31, 2023 March 31, 2023 May 31, 2023
Maturity Date: Ref CPI on Dated Date:			April 15, 2027 282.34640	July 15, 2032 290.54829	October 15, 2027 296.22858	January 15, 2033 297.87606
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
December 1 2023	307.78900	1.09011	1.05934	1.03903	1.03328	
December 2 2023	307.78519	1.09010	1.05933	1.03901	1.03327	
December 3 2023	307.78139	1.09008	1.05931	1.03900	1.03325	
December 4 2023	307.77758	1.09007	1.05930	1.03899	1.03324	
December 5 2023	307.77377	1.09006	1.05929	1.03897	1.03323	
December 6 2023	307.76997	1.09004	1.05927	1.03896	1.03321	
December 7 2023	307.76616	1.09003	1.05926	1.03895	1.03320	
December 8 2023	307.76235	1.09002	1.05925	1.03894	1.03319	
December 9 2023	307.75855	1.09000	1.05923	1.03892	1.03318	
December 10 2023	307.75474	1.08999	1.05922	1.03891	1.03316	
December 11 2023	307.75094	1.08998	1.05921	1.03890	1.03315	
December 12 2023	307.74713	1.08996	1.05919	1.03888	1.03314	
December 13 2023	307.74332	1.08995	1.05918	1.03887	1.03313	
December 14 2023	307.73952	1.08994	1.05917	1.03886	1.03311	
December 15 2023	307.73571	1.08992	1.05916	1.03885	1.03310	
December 16 2023	307.73190	1.08991	1.05914	1.03883	1.03309	
December 17 2023	307.72810	1.08990	1.05913	1.03882	1.03307	
December 18 2023	307.72429	1.08988	1.05912	1.03881	1.03306	
December 19 2023	307.72048	1.08987	1.05910	1.03879	1.03305	
December 20 2023	307.71668	1.08986	1.05909	1.03878	1.03304	
December 21 2023	307.71287	1.08984	1.05908	1.03877	1.03302	
December 22 2023	307.70906	1.08983	1.05906	1.03876	1.03301	
December 23 2023	307.70526	1.08981	1.05905	1.03874	1.03300	
December 24 2023	307.70145	1.08980	1.05904	1.03873	1.03298	
December 25 2023	307.69765	1.08979	1.05902	1.03872	1.03297	
December 26 2023	307.69384	1.08977	1.05901	1.03870	1.03296	
December 27 2023	307.69003	1.08976	1.05900	1.03869	1.03295	
December 28 2023	307.68623	1.08975	1.05898	1.03868	1.03293	
December 29 2023	307.68242	1.08973	1.05897	1.03867	1.03292	
December 30 2023	307.67861	1.08972	1.05896	1.03865	1.03291	
December 31 2023	307.67481	1.08971	1.05895	1.03864	1.03290	
CPI-U (NSA) for:	August 2023	307.026	September 2023	307.789	October 2023	307.671

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
December 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 September 29, 2023	2-3/8% 5-Year TIPS Series AE-2028 91282CJH5 October 15, 2023 October 31, 2023
Maturity Date: Ref CPI on Dated Date:			February 15, 2053 297.25400	April 15, 2028 299.94933	July 15, 2033 303.70803	October 15, 2028 306.29390
Date	Ref CPI	Index Ratio	Index Ratio	Index Ratio	Index Ratio	
December 1 2023	307.78900	1.03544	1.02614	1.01344	1.00488	
December 2 2023	307.78519	1.03543	1.02612	1.01342	1.00487	
December 3 2023	307.78139	1.03542	1.02611	1.01341	1.00486	
December 4 2023	307.77758	1.03540	1.02610	1.01340	1.00484	
December 5 2023	307.77377	1.03539	1.02609	1.01339	1.00483	
December 6 2023	307.76997	1.03538	1.02607	1.01337	1.00482	
December 7 2023	307.76616	1.03536	1.02606	1.01336	1.00481	
December 8 2023	307.76235	1.03535	1.02605	1.01335	1.00479	
December 9 2023	307.75855	1.03534	1.02604	1.01334	1.00478	
December 10 2023	307.75474	1.03533	1.02602	1.01332	1.00477	
December 11 2023	307.75094	1.03531	1.02601	1.01331	1.00476	
December 12 2023	307.74713	1.03530	1.02600	1.01330	1.00474	
December 13 2023	307.74332	1.03529	1.02598	1.01329	1.00473	
December 14 2023	307.73952	1.03527	1.02597	1.01327	1.00472	
December 15 2023	307.73571	1.03526	1.02596	1.01326	1.00471	
December 16 2023	307.73190	1.03525	1.02595	1.01325	1.00469	
December 17 2023	307.72810	1.03524	1.02593	1.01324	1.00468	
December 18 2023	307.72429	1.03522	1.02592	1.01322	1.00467	
December 19 2023	307.72048	1.03521	1.02591	1.01321	1.00466	
December 20 2023	307.71668	1.03520	1.02590	1.01320	1.00465	
December 21 2023	307.71287	1.03518	1.02588	1.01319	1.00463	
December 22 2023	307.70906	1.03517	1.02587	1.01317	1.00462	
December 23 2023	307.70526	1.03516	1.02586	1.01316	1.00461	
December 24 2023	307.70145	1.03515	1.02584	1.01315	1.00460	
December 25 2023	307.69765	1.03513	1.02583	1.01314	1.00458	
December 26 2023	307.69384	1.03512	1.02582	1.01312	1.00457	
December 27 2023	307.69003	1.03511	1.02581	1.01311	1.00456	
December 28 2023	307.68623	1.03510	1.02579	1.01310	1.00455	
December 29 2023	307.68242	1.03508	1.02578	1.01309	1.00453	
December 30 2023	307.67861	1.03507	1.02577	1.01307	1.00452	
December 31 2023	307.67481	1.03506	1.02576	1.01306	1.00451	
CPI-U (NSA) for:			August 2023 307.026	September 2023 307.789	October 2023 307.671	