

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
August 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	
August 1 2023	304.12700	1.88034	1.85000	1.71339	1.61343	
August 2 2023	304.15868	1.88054	1.85019	1.71357	1.61360	
August 3 2023	304.19035	1.88074	1.85038	1.71375	1.61377	
August 4 2023	304.22203	1.88093	1.85057	1.71393	1.61394	
August 5 2023	304.25371	1.88113	1.85077	1.71411	1.61411	
August 6 2023	304.28539	1.88132	1.85096	1.71428	1.61427	
August 7 2023	304.31706	1.88152	1.85115	1.71446	1.61444	
August 8 2023	304.34874	1.88172	1.85134	1.71464	1.61461	
August 9 2023	304.38042	1.88191	1.85154	1.71482	1.61478	
August 10 2023	304.41210	1.88211	1.85173	1.71500	1.61495	
August 11 2023	304.44377	1.88230	1.85192	1.71518	1.61511	
August 12 2023	304.47545	1.88250	1.85212	1.71535	1.61528	
August 13 2023	304.50713	1.88270	1.85231	1.71553	1.61545	
August 14 2023	304.53881	1.88289	1.85250	1.71571	1.61562	
August 15 2023	304.57048	1.88309	1.85269	1.71589	1.61579	
August 16 2023	304.60216	1.88328	1.85289	1.71607	1.61595	
August 17 2023	304.63384	1.88348	1.85308	1.71625	1.61612	
August 18 2023	304.66552	1.88367	1.85327	1.71643	1.61629	
August 19 2023	304.69719	1.88387	1.85346	1.71660	1.61646	
August 20 2023	304.72887	1.88407	1.85366	1.71678	1.61663	
August 21 2023	304.76055	1.88426	1.85385	1.71696	1.61679	
August 22 2023	304.79223	1.88446	1.85404	1.71714	1.61696	
August 23 2023	304.82390	1.88465	1.85424	1.71732	1.61713	
August 24 2023	304.85558	1.88485	1.85443	1.71750	1.61730	
August 25 2023	304.88726	1.88505	1.85462	1.71767	1.61747	
August 26 2023	304.91894	1.88524	1.85481	1.71785	1.61763	
August 27 2023	304.95061	1.88544	1.85501	1.71803	1.61780	
August 28 2023	304.98229	1.88563	1.85520	1.71821	1.61797	
August 29 2023	305.01397	1.88583	1.85539	1.71839	1.61814	
August 30 2023	305.04565	1.88602	1.85558	1.71857	1.61831	
August 31 2023	305.07732	1.88622	1.85578	1.71875	1.61848	
CPI-U (NSA) for:			April 2023 303.363	May 2023 304.127	June 2023 305.109	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
August 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	
August 1 2023	304.12700	1.53230	1.50808	1.45170	1.41652	
August 2 2023	304.15868	1.53246	1.50824	1.45186	1.41667	
August 3 2023	304.19035	1.53262	1.50840	1.45201	1.41682	
August 4 2023	304.22203	1.53278	1.50856	1.45216	1.41697	
August 5 2023	304.25371	1.53294	1.50871	1.45231	1.41711	
August 6 2023	304.28539	1.53310	1.50887	1.45246	1.41726	
August 7 2023	304.31706	1.53326	1.50903	1.45261	1.41741	
August 8 2023	304.34874	1.53342	1.50918	1.45276	1.41756	
August 9 2023	304.38042	1.53358	1.50934	1.45291	1.41770	
August 10 2023	304.41210	1.53374	1.50950	1.45307	1.41785	
August 11 2023	304.44377	1.53390	1.50965	1.45322	1.41800	
August 12 2023	304.47545	1.53406	1.50981	1.45337	1.41815	
August 13 2023	304.50713	1.53422	1.50997	1.45352	1.41829	
August 14 2023	304.53881	1.53438	1.51013	1.45367	1.41844	
August 15 2023	304.57048	1.53453	1.51028	1.45382	1.41859	
August 16 2023	304.60216	1.53469	1.51044	1.45397	1.41874	
August 17 2023	304.63384	1.53485	1.51060	1.45412	1.41888	
August 18 2023	304.66552	1.53501	1.51075	1.45428	1.41903	
August 19 2023	304.69719	1.53517	1.51091	1.45443	1.41918	
August 20 2023	304.72887	1.53533	1.51107	1.45458	1.41933	
August 21 2023	304.76055	1.53549	1.51123	1.45473	1.41947	
August 22 2023	304.79223	1.53565	1.51138	1.45488	1.41962	
August 23 2023	304.82390	1.53581	1.51154	1.45503	1.41977	
August 24 2023	304.85558	1.53597	1.51170	1.45518	1.41992	
August 25 2023	304.88726	1.53613	1.51185	1.45533	1.42006	
August 26 2023	304.91894	1.53629	1.51201	1.45548	1.42021	
August 27 2023	304.95061	1.53645	1.51217	1.45564	1.42036	
August 28 2023	304.98229	1.53661	1.51232	1.45579	1.42051	
August 29 2023	305.01397	1.53677	1.51248	1.45594	1.42065	
August 30 2023	305.04565	1.53693	1.51264	1.45609	1.42080	
August 31 2023	305.07732	1.53709	1.51280	1.45624	1.42095	
CPI-U (NSA) for:	April 2023	303.363	May 2023	304.127	June 2023	305.109

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
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August 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	
August 1 2023	304.12700	1.40709	1.38876	1.34593	1.32280	
August 2 2023	304.15868	1.40723	1.38891	1.34607	1.32294	
August 3 2023	304.19035	1.40738	1.38905	1.34621	1.32308	
August 4 2023	304.22203	1.40753	1.38920	1.34635	1.32322	
August 5 2023	304.25371	1.40767	1.38934	1.34649	1.32335	
August 6 2023	304.28539	1.40782	1.38949	1.34663	1.32349	
August 7 2023	304.31706	1.40797	1.38963	1.34677	1.32363	
August 8 2023	304.34874	1.40811	1.38978	1.34691	1.32377	
August 9 2023	304.38042	1.40826	1.38992	1.34705	1.32391	
August 10 2023	304.41210	1.40841	1.39007	1.34719	1.32404	
August 11 2023	304.44377	1.40855	1.39021	1.34733	1.32418	
August 12 2023	304.47545	1.40870	1.39036	1.34747	1.32432	
August 13 2023	304.50713	1.40885	1.39050	1.34761	1.32446	
August 14 2023	304.53881	1.40899	1.39065	1.34775	1.32459	
August 15 2023	304.57048	1.40914	1.39079	1.34789	1.32473	
August 16 2023	304.60216	1.40929	1.39093	1.34803	1.32487	
August 17 2023	304.63384	1.40943	1.39108	1.34817	1.32501	
August 18 2023	304.66552	1.40958	1.39122	1.34831	1.32515	
August 19 2023	304.69719	1.40972	1.39137	1.34845	1.32528	
August 20 2023	304.72887	1.40987	1.39151	1.34859	1.32542	
August 21 2023	304.76055	1.41002	1.39166	1.34873	1.32556	
August 22 2023	304.79223	1.41016	1.39180	1.34887	1.32570	
August 23 2023	304.82390	1.41031	1.39195	1.34901	1.32583	
August 24 2023	304.85558	1.41046	1.39209	1.34915	1.32597	
August 25 2023	304.88726	1.41060	1.39224	1.34929	1.32611	
August 26 2023	304.91894	1.41075	1.39238	1.34943	1.32625	
August 27 2023	304.95061	1.41090	1.39253	1.34957	1.32639	
August 28 2023	304.98229	1.41104	1.39267	1.34971	1.32652	
August 29 2023	305.01397	1.41119	1.39282	1.34985	1.32666	
August 30 2023	305.04565	1.41134	1.39296	1.34999	1.32680	
August 31 2023	305.07732	1.41148	1.39310	1.35013	1.32694	
CPI-U (NSA) for:			April 2023 303.363	May 2023 304.127	June 2023 305.109	

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August 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	
August 1 2023	304.12700	1.30342	1.30494	1.28083	1.28403	
August 2 2023	304.15868	1.30355	1.30507	1.28096	1.28416	
August 3 2023	304.19035	1.30369	1.30521	1.28109	1.28429	
August 4 2023	304.22203	1.30382	1.30534	1.28123	1.28443	
August 5 2023	304.25371	1.30396	1.30548	1.28136	1.28456	
August 6 2023	304.28539	1.30410	1.30562	1.28149	1.28470	
August 7 2023	304.31706	1.30423	1.30575	1.28163	1.28483	
August 8 2023	304.34874	1.30437	1.30589	1.28176	1.28496	
August 9 2023	304.38042	1.30450	1.30602	1.28189	1.28510	
August 10 2023	304.41210	1.30464	1.30616	1.28203	1.28523	
August 11 2023	304.44377	1.30477	1.30629	1.28216	1.28536	
August 12 2023	304.47545	1.30491	1.30643	1.28229	1.28550	
August 13 2023	304.50713	1.30505	1.30657	1.28243	1.28563	
August 14 2023	304.53881	1.30518	1.30670	1.28256	1.28577	
August 15 2023	304.57048	1.30532	1.30684	1.28269	1.28590	
August 16 2023	304.60216	1.30545	1.30697	1.28283	1.28603	
August 17 2023	304.63384	1.30559	1.30711	1.28296	1.28617	
August 18 2023	304.66552	1.30572	1.30725	1.28309	1.28630	
August 19 2023	304.69719	1.30586	1.30738	1.28323	1.28643	
August 20 2023	304.72887	1.30600	1.30752	1.28336	1.28657	
August 21 2023	304.76055	1.30613	1.30765	1.28349	1.28670	
August 22 2023	304.79223	1.30627	1.30779	1.28363	1.28684	
August 23 2023	304.82390	1.30640	1.30793	1.28376	1.28697	
August 24 2023	304.85558	1.30654	1.30806	1.28389	1.28710	
August 25 2023	304.88726	1.30668	1.30820	1.28403	1.28724	
August 26 2023	304.91894	1.30681	1.30833	1.28416	1.28737	
August 27 2023	304.95061	1.30695	1.30847	1.28429	1.28750	
August 28 2023	304.98229	1.30708	1.30861	1.28443	1.28764	
August 29 2023	305.01397	1.30722	1.30874	1.28456	1.28777	
August 30 2023	305.04565	1.30735	1.30888	1.28470	1.28791	
August 31 2023	305.07732	1.30749	1.30901	1.28483	1.28804	
CPI-U (NSA) for:	April 2023	303.363	May 2023	304.127	June 2023	305.109

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
August 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	
August 1 2023	304.12700	1.29151	1.28246	1.27993	1.28354	
August 2 2023	304.15868	1.29165	1.28259	1.28007	1.28367	
August 3 2023	304.19035	1.29178	1.28273	1.28020	1.28380	
August 4 2023	304.22203	1.29191	1.28286	1.28033	1.28394	
August 5 2023	304.25371	1.29205	1.28299	1.28047	1.28407	
August 6 2023	304.28539	1.29218	1.28313	1.28060	1.28421	
August 7 2023	304.31706	1.29232	1.28326	1.28073	1.28434	
August 8 2023	304.34874	1.29245	1.28339	1.28087	1.28447	
August 9 2023	304.38042	1.29259	1.28353	1.28100	1.28461	
August 10 2023	304.41210	1.29272	1.28366	1.28113	1.28474	
August 11 2023	304.44377	1.29286	1.28379	1.28127	1.28487	
August 12 2023	304.47545	1.29299	1.28393	1.28140	1.28501	
August 13 2023	304.50713	1.29313	1.28406	1.28153	1.28514	
August 14 2023	304.53881	1.29326	1.28420	1.28167	1.28527	
August 15 2023	304.57048	1.29339	1.28433	1.28180	1.28541	
August 16 2023	304.60216	1.29353	1.28446	1.28193	1.28554	
August 17 2023	304.63384	1.29366	1.28460	1.28207	1.28568	
August 18 2023	304.66552	1.29380	1.28473	1.28220	1.28581	
August 19 2023	304.69719	1.29393	1.28486	1.28233	1.28594	
August 20 2023	304.72887	1.29407	1.28500	1.28247	1.28608	
August 21 2023	304.76055	1.29420	1.28513	1.28260	1.28621	
August 22 2023	304.79223	1.29434	1.28526	1.28273	1.28634	
August 23 2023	304.82390	1.29447	1.28540	1.28287	1.28648	
August 24 2023	304.85558	1.29461	1.28553	1.28300	1.28661	
August 25 2023	304.88726	1.29474	1.28566	1.28313	1.28675	
August 26 2023	304.91894	1.29487	1.28580	1.28327	1.28688	
August 27 2023	304.95061	1.29501	1.28593	1.28340	1.28701	
August 28 2023	304.98229	1.29514	1.28607	1.28353	1.28715	
August 29 2023	305.01397	1.29528	1.28620	1.28367	1.28728	
August 30 2023	305.04565	1.29541	1.28633	1.28380	1.28741	
August 31 2023	305.07732	1.29555	1.28647	1.28393	1.28755	
CPI-U (NSA) for:	April 2023	303.363	May 2023	304.127	June 2023	305.109

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
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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	
August 1 2023	304.12700	1.26877	1.25902	1.25989	1.24327	
August 2 2023	304.15868	1.26891	1.25915	1.26002	1.24340	
August 3 2023	304.19035	1.26904	1.25928	1.26015	1.24353	
August 4 2023	304.22203	1.26917	1.25941	1.26028	1.24366	
August 5 2023	304.25371	1.26930	1.25954	1.26041	1.24379	
August 6 2023	304.28539	1.26944	1.25967	1.26054	1.24392	
August 7 2023	304.31706	1.26957	1.25980	1.26067	1.24405	
August 8 2023	304.34874	1.26970	1.25993	1.26080	1.24418	
August 9 2023	304.38042	1.26983	1.26007	1.26094	1.24431	
August 10 2023	304.41210	1.26996	1.26020	1.26107	1.24444	
August 11 2023	304.44377	1.27010	1.26033	1.26120	1.24457	
August 12 2023	304.47545	1.27023	1.26046	1.26133	1.24470	
August 13 2023	304.50713	1.27036	1.26059	1.26146	1.24483	
August 14 2023	304.53881	1.27049	1.26072	1.26159	1.24495	
August 15 2023	304.57048	1.27062	1.26085	1.26172	1.24508	
August 16 2023	304.60216	1.27076	1.26098	1.26185	1.24521	
August 17 2023	304.63384	1.27089	1.26111	1.26199	1.24534	
August 18 2023	304.66552	1.27102	1.26125	1.26212	1.24547	
August 19 2023	304.69719	1.27115	1.26138	1.26225	1.24560	
August 20 2023	304.72887	1.27129	1.26151	1.26238	1.24573	
August 21 2023	304.76055	1.27142	1.26164	1.26251	1.24586	
August 22 2023	304.79223	1.27155	1.26177	1.26264	1.24599	
August 23 2023	304.82390	1.27168	1.26190	1.26277	1.24612	
August 24 2023	304.85558	1.27181	1.26203	1.26290	1.24625	
August 25 2023	304.88726	1.27195	1.26216	1.26304	1.24638	
August 26 2023	304.91894	1.27208	1.26229	1.26317	1.24651	
August 27 2023	304.95061	1.27221	1.26243	1.26330	1.24664	
August 28 2023	304.98229	1.27234	1.26256	1.26343	1.24677	
August 29 2023	305.01397	1.27248	1.26269	1.26356	1.24690	
August 30 2023	305.04565	1.27261	1.26282	1.26369	1.24703	
August 31 2023	305.07732	1.27274	1.26295	1.26382	1.24716	
CPI-U (NSA) for:	April 2023	303.363	May 2023	304.127	June 2023	305.109

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
August 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	
August 1 2023	304.12700	1.23295	1.23330	1.21158	1.20445	
August 2 2023	304.15868	1.23308	1.23343	1.21171	1.20458	
August 3 2023	304.19035	1.23321	1.23356	1.21183	1.20470	
August 4 2023	304.22203	1.23334	1.23368	1.21196	1.20483	
August 5 2023	304.25371	1.23347	1.23381	1.21209	1.20495	
August 6 2023	304.28539	1.23359	1.23394	1.21221	1.20508	
August 7 2023	304.31706	1.23372	1.23407	1.21234	1.20520	
August 8 2023	304.34874	1.23385	1.23420	1.21246	1.20533	
August 9 2023	304.38042	1.23398	1.23433	1.21259	1.20546	
August 10 2023	304.41210	1.23411	1.23445	1.21272	1.20558	
August 11 2023	304.44377	1.23424	1.23458	1.21284	1.20571	
August 12 2023	304.47545	1.23436	1.23471	1.21297	1.20583	
August 13 2023	304.50713	1.23449	1.23484	1.21310	1.20596	
August 14 2023	304.53881	1.23462	1.23497	1.21322	1.20608	
August 15 2023	304.57048	1.23475	1.23510	1.21335	1.20621	
August 16 2023	304.60216	1.23488	1.23522	1.21347	1.20633	
August 17 2023	304.63384	1.23501	1.23535	1.21360	1.20646	
August 18 2023	304.66552	1.23514	1.23548	1.21373	1.20658	
August 19 2023	304.69719	1.23526	1.23561	1.21385	1.20671	
August 20 2023	304.72887	1.23539	1.23574	1.21398	1.20684	
August 21 2023	304.76055	1.23552	1.23587	1.21411	1.20696	
August 22 2023	304.79223	1.23565	1.23600	1.21423	1.20709	
August 23 2023	304.82390	1.23578	1.23612	1.21436	1.20721	
August 24 2023	304.85558	1.23591	1.23625	1.21448	1.20734	
August 25 2023	304.88726	1.23603	1.23638	1.21461	1.20746	
August 26 2023	304.91894	1.23616	1.23651	1.21474	1.20759	
August 27 2023	304.95061	1.23629	1.23664	1.21486	1.20771	
August 28 2023	304.98229	1.23642	1.23677	1.21499	1.20784	
August 29 2023	305.01397	1.23655	1.23689	1.21511	1.20796	
August 30 2023	305.04565	1.23668	1.23702	1.21524	1.20809	
August 31 2023	305.07732	1.23680	1.23715	1.21537	1.20822	
CPI-U (NSA) for:	April 2023	303.363	May 2023	304.127	June 2023	305.109

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			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	
August 1 2023	304.12700	1.20860	1.20586	1.18895	1.18538	
August 2 2023	304.15868	1.20873	1.20598	1.18908	1.18550	
August 3 2023	304.19035	1.20885	1.20611	1.18920	1.18563	
August 4 2023	304.22203	1.20898	1.20623	1.18933	1.18575	
August 5 2023	304.25371	1.20910	1.20636	1.18945	1.18587	
August 6 2023	304.28539	1.20923	1.20648	1.18957	1.18600	
August 7 2023	304.31706	1.20936	1.20661	1.18970	1.18612	
August 8 2023	304.34874	1.20948	1.20673	1.18982	1.18624	
August 9 2023	304.38042	1.20961	1.20686	1.18995	1.18637	
August 10 2023	304.41210	1.20973	1.20699	1.19007	1.18649	
August 11 2023	304.44377	1.20986	1.20711	1.19019	1.18661	
August 12 2023	304.47545	1.20999	1.20724	1.19032	1.18674	
August 13 2023	304.50713	1.21011	1.20736	1.19044	1.18686	
August 14 2023	304.53881	1.21024	1.20749	1.19056	1.18698	
August 15 2023	304.57048	1.21036	1.20761	1.19069	1.18711	
August 16 2023	304.60216	1.21049	1.20774	1.19081	1.18723	
August 17 2023	304.63384	1.21062	1.20786	1.19094	1.18735	
August 18 2023	304.66552	1.21074	1.20799	1.19106	1.18748	
August 19 2023	304.69719	1.21087	1.20812	1.19118	1.18760	
August 20 2023	304.72887	1.21099	1.20824	1.19131	1.18773	
August 21 2023	304.76055	1.21112	1.20837	1.19143	1.18785	
August 22 2023	304.79223	1.21124	1.20849	1.19155	1.18797	
August 23 2023	304.82390	1.21137	1.20862	1.19168	1.18810	
August 24 2023	304.85558	1.21150	1.20874	1.19180	1.18822	
August 25 2023	304.88726	1.21162	1.20887	1.19193	1.18834	
August 26 2023	304.91894	1.21175	1.20900	1.19205	1.18847	
August 27 2023	304.95061	1.21187	1.20912	1.19217	1.18859	
August 28 2023	304.98229	1.21200	1.20925	1.19230	1.18871	
August 29 2023	305.01397	1.21213	1.20937	1.19242	1.18884	
August 30 2023	305.04565	1.21225	1.20950	1.19255	1.18896	
August 31 2023	305.07732	1.21238	1.20962	1.19267	1.18908	
CPI-U (NSA) for:			April 2023 303.363	May 2023 304.127	June 2023 305.109	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
August 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	
August 1 2023	304.12700	1.18207	1.18294	1.17741	1.18618	
August 2 2023	304.15868	1.18219	1.18306	1.17754	1.18631	
August 3 2023	304.19035	1.18231	1.18318	1.17766	1.18643	
August 4 2023	304.22203	1.18244	1.18331	1.17778	1.18655	
August 5 2023	304.25371	1.18256	1.18343	1.17790	1.18668	
August 6 2023	304.28539	1.18268	1.18355	1.17803	1.18680	
August 7 2023	304.31706	1.18281	1.18368	1.17815	1.18692	
August 8 2023	304.34874	1.18293	1.18380	1.17827	1.18705	
August 9 2023	304.38042	1.18305	1.18392	1.17839	1.18717	
August 10 2023	304.41210	1.18318	1.18405	1.17852	1.18730	
August 11 2023	304.44377	1.18330	1.18417	1.17864	1.18742	
August 12 2023	304.47545	1.18342	1.18429	1.17876	1.18754	
August 13 2023	304.50713	1.18355	1.18441	1.17889	1.18767	
August 14 2023	304.53881	1.18367	1.18454	1.17901	1.18779	
August 15 2023	304.57048	1.18379	1.18466	1.17913	1.18791	
August 16 2023	304.60216	1.18392	1.18478	1.17925	1.18804	
August 17 2023	304.63384	1.18404	1.18491	1.17938	1.18816	
August 18 2023	304.66552	1.18416	1.18503	1.17950	1.18828	
August 19 2023	304.69719	1.18428	1.18515	1.17962	1.18841	
August 20 2023	304.72887	1.18441	1.18528	1.17974	1.18853	
August 21 2023	304.76055	1.18453	1.18540	1.17987	1.18865	
August 22 2023	304.79223	1.18465	1.18552	1.17999	1.18878	
August 23 2023	304.82390	1.18478	1.18565	1.18011	1.18890	
August 24 2023	304.85558	1.18490	1.18577	1.18023	1.18902	
August 25 2023	304.88726	1.18502	1.18589	1.18036	1.18915	
August 26 2023	304.91894	1.18515	1.18602	1.18048	1.18927	
August 27 2023	304.95061	1.18527	1.18614	1.18060	1.18940	
August 28 2023	304.98229	1.18539	1.18626	1.18072	1.18952	
August 29 2023	305.01397	1.18552	1.18639	1.18085	1.18964	
August 30 2023	305.04565	1.18564	1.18651	1.18097	1.18977	
August 31 2023	305.07732	1.18576	1.18663	1.18109	1.18989	
CPI-U (NSA) for:			April 2023 303.363	May 2023 304.127	June 2023 305.109	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
August 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	
August 1 2023	304.12700	1.17211	1.16830	1.16814	1.15968	
August 2 2023	304.15868	1.17223	1.16842	1.16826	1.15980	
August 3 2023	304.19035	1.17235	1.16854	1.16838	1.15992	
August 4 2023	304.22203	1.17247	1.16866	1.16851	1.16004	
August 5 2023	304.25371	1.17260	1.16879	1.16863	1.16017	
August 6 2023	304.28539	1.17272	1.16891	1.16875	1.16029	
August 7 2023	304.31706	1.17284	1.16903	1.16887	1.16041	
August 8 2023	304.34874	1.17296	1.16915	1.16899	1.16053	
August 9 2023	304.38042	1.17309	1.16927	1.16911	1.16065	
August 10 2023	304.41210	1.17321	1.16939	1.16924	1.16077	
August 11 2023	304.44377	1.17333	1.16952	1.16936	1.16089	
August 12 2023	304.47545	1.17345	1.16964	1.16948	1.16101	
August 13 2023	304.50713	1.17357	1.16976	1.16960	1.16113	
August 14 2023	304.53881	1.17370	1.16988	1.16972	1.16125	
August 15 2023	304.57048	1.17382	1.17000	1.16984	1.16137	
August 16 2023	304.60216	1.17394	1.17012	1.16997	1.16149	
August 17 2023	304.63384	1.17406	1.17025	1.17009	1.16161	
August 18 2023	304.66552	1.17418	1.17037	1.17021	1.16174	
August 19 2023	304.69719	1.17431	1.17049	1.17033	1.16186	
August 20 2023	304.72887	1.17443	1.17061	1.17045	1.16198	
August 21 2023	304.76055	1.17455	1.17073	1.17057	1.16210	
August 22 2023	304.79223	1.17467	1.17085	1.17070	1.16222	
August 23 2023	304.82390	1.17479	1.17098	1.17082	1.16234	
August 24 2023	304.85558	1.17492	1.17110	1.17094	1.16246	
August 25 2023	304.88726	1.17504	1.17122	1.17106	1.16258	
August 26 2023	304.91894	1.17516	1.17134	1.17118	1.16270	
August 27 2023	304.95061	1.17528	1.17146	1.17130	1.16282	
August 28 2023	304.98229	1.17540	1.17158	1.17143	1.16294	
August 29 2023	305.01397	1.17553	1.17171	1.17155	1.16306	
August 30 2023	305.04565	1.17565	1.17183	1.17167	1.16319	
August 31 2023	305.07732	1.17577	1.17195	1.17179	1.16331	
CPI-U (NSA) for:	April 2023	303.363	May 2023	304.127	June 2023	305.109

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 10-Year TIPS Series 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	
August 1 2023	304.12700	1.13471	1.11297	1.09713	1.09251	
August 2 2023	304.15868	1.13483	1.11308	1.09724	1.09262	
August 3 2023	304.19035	1.13495	1.11320	1.09736	1.09274	
August 4 2023	304.22203	1.13507	1.11332	1.09747	1.09285	
August 5 2023	304.25371	1.13519	1.11343	1.09759	1.09296	
August 6 2023	304.28539	1.13530	1.11355	1.09770	1.09308	
August 7 2023	304.31706	1.13542	1.11366	1.09781	1.09319	
August 8 2023	304.34874	1.13554	1.11378	1.09793	1.09330	
August 9 2023	304.38042	1.13566	1.11390	1.09804	1.09342	
August 10 2023	304.41210	1.13578	1.11401	1.09816	1.09353	
August 11 2023	304.44377	1.13590	1.11413	1.09827	1.09365	
August 12 2023	304.47545	1.13601	1.11424	1.09839	1.09376	
August 13 2023	304.50713	1.13613	1.11436	1.09850	1.09387	
August 14 2023	304.53881	1.13625	1.11447	1.09861	1.09399	
August 15 2023	304.57048	1.13637	1.11459	1.09873	1.09410	
August 16 2023	304.60216	1.13649	1.11471	1.09884	1.09422	
August 17 2023	304.63384	1.13660	1.11482	1.09896	1.09433	
August 18 2023	304.66552	1.13672	1.11494	1.09907	1.09444	
August 19 2023	304.69719	1.13684	1.11505	1.09919	1.09456	
August 20 2023	304.72887	1.13696	1.11517	1.09930	1.09467	
August 21 2023	304.76055	1.13708	1.11529	1.09941	1.09478	
August 22 2023	304.79223	1.13720	1.11540	1.09953	1.09490	
August 23 2023	304.82390	1.13731	1.11552	1.09964	1.09501	
August 24 2023	304.85558	1.13743	1.11563	1.09976	1.09513	
August 25 2023	304.88726	1.13755	1.11575	1.09987	1.09524	
August 26 2023	304.91894	1.13767	1.11587	1.09999	1.09535	
August 27 2023	304.95061	1.13779	1.11598	1.10010	1.09547	
August 28 2023	304.98229	1.13790	1.11610	1.10021	1.09558	
August 29 2023	305.01397	1.13802	1.11621	1.10033	1.09569	
August 30 2023	305.04565	1.13814	1.11633	1.10044	1.09581	
August 31 2023	305.07732	1.13826	1.11645	1.10056	1.09592	
CPI-U (NSA) for:			April 2023 303.363	May 2023 304.127	June 2023 305.109	

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			0-1/8% 5-Year TIPS Series 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	
August 1 2023	304.12700	1.07714	1.04673	1.02666	1.02099	
August 2 2023	304.15868	1.07725	1.04684	1.02677	1.02109	
August 3 2023	304.19035	1.07737	1.04695	1.02688	1.02120	
August 4 2023	304.22203	1.07748	1.04706	1.02698	1.02130	
August 5 2023	304.25371	1.07759	1.04717	1.02709	1.02141	
August 6 2023	304.28539	1.07770	1.04728	1.02720	1.02152	
August 7 2023	304.31706	1.07781	1.04739	1.02730	1.02162	
August 8 2023	304.34874	1.07793	1.04750	1.02741	1.02173	
August 9 2023	304.38042	1.07804	1.04761	1.02752	1.02184	
August 10 2023	304.41210	1.07815	1.04772	1.02763	1.02194	
August 11 2023	304.44377	1.07826	1.04783	1.02773	1.02205	
August 12 2023	304.47545	1.07838	1.04793	1.02784	1.02215	
August 13 2023	304.50713	1.07849	1.04804	1.02795	1.02226	
August 14 2023	304.53881	1.07860	1.04815	1.02805	1.02237	
August 15 2023	304.57048	1.07871	1.04826	1.02816	1.02247	
August 16 2023	304.60216	1.07882	1.04837	1.02827	1.02258	
August 17 2023	304.63384	1.07894	1.04848	1.02837	1.02269	
August 18 2023	304.66552	1.07905	1.04859	1.02848	1.02279	
August 19 2023	304.69719	1.07916	1.04870	1.02859	1.02290	
August 20 2023	304.72887	1.07927	1.04881	1.02870	1.02301	
August 21 2023	304.76055	1.07939	1.04892	1.02880	1.02311	
August 22 2023	304.79223	1.07950	1.04902	1.02891	1.02322	
August 23 2023	304.82390	1.07961	1.04913	1.02902	1.02332	
August 24 2023	304.85558	1.07972	1.04924	1.02912	1.02343	
August 25 2023	304.88726	1.07983	1.04935	1.02923	1.02354	
August 26 2023	304.91894	1.07995	1.04946	1.02934	1.02364	
August 27 2023	304.95061	1.08006	1.04957	1.02944	1.02375	
August 28 2023	304.98229	1.08017	1.04968	1.02955	1.02386	
August 29 2023	305.01397	1.08028	1.04979	1.02966	1.02396	
August 30 2023	305.04565	1.08040	1.04990	1.02976	1.02407	
August 31 2023	305.07732	1.08051	1.05001	1.02987	1.02418	
CPI-U (NSA) for:	April 2023	303.363	May 2023	304.127	June 2023	305.109

TREASURY INFLATION-PROTECTED SECURITIES (TIPS)
Ref CPI and Index Ratios for
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Security: Description: CUSIP Number: Dated Date: Original Issue Date: Additional Issue Date(s):			1-1/2% 30-Year TIPS TIPS of February 2053 912810TP3 February 15, 2023 February 28, 2023	1-1/4% 5-Year TIPS Series X-2028 91282CGW5 April 15, 2023 April 28, 2023 June 30, 2023				
Maturity Date: Ref CPI on Dated Date:			February 15, 2053 297.25400	April 15, 2028 299.94933				
Date			Ref CPI	Index Ratio	Index Ratio			
August	1	2023	304.12700	1.02312	1.01393			
August	2	2023	304.15868	1.02323	1.01403			
August	3	2023	304.19035	1.02333	1.01414			
August	4	2023	304.22203	1.02344	1.01424			
August	5	2023	304.25371	1.02355	1.01435			
August	6	2023	304.28539	1.02365	1.01446			
August	7	2023	304.31706	1.02376	1.01456			
August	8	2023	304.34874	1.02387	1.01467			
August	9	2023	304.38042	1.02397	1.01477			
August	10	2023	304.41210	1.02408	1.01488			
August	11	2023	304.44377	1.02419	1.01498			
August	12	2023	304.47545	1.02429	1.01509			
August	13	2023	304.50713	1.02440	1.01520			
August	14	2023	304.53881	1.02451	1.01530			
August	15	2023	304.57048	1.02461	1.01541			
August	16	2023	304.60216	1.02472	1.01551			
August	17	2023	304.63384	1.02483	1.01562			
August	18	2023	304.66552	1.02493	1.01572			
August	19	2023	304.69719	1.02504	1.01583			
August	20	2023	304.72887	1.02515	1.01593			
August	21	2023	304.76055	1.02525	1.01604			
August	22	2023	304.79223	1.02536	1.01615			
August	23	2023	304.82390	1.02547	1.01625			
August	24	2023	304.85558	1.02557	1.01636			
August	25	2023	304.88726	1.02568	1.01646			
August	26	2023	304.91894	1.02579	1.01657			
August	27	2023	304.95061	1.02589	1.01667			
August	28	2023	304.98229	1.02600	1.01678			
August	29	2023	305.01397	1.02611	1.01688			
August	30	2023	305.04565	1.02621	1.01699			
August	31	2023	305.07732	1.02632	1.01710			
CPI-U (NSA) for:			April 2023	303.363	May 2023	304.127	June 2023	305.109