

## NATIONAL RESERVE BANK OF TONGA

### **COMMERCIAL BANKS AVERAGE BUYING EXCHANGE RATES**

	from 1 January 2019												to 30 December 2019													from 1 January 2019												
DATE	AUD	EUR	FJD	GBP	JPY	NZD	USD	WST	CHF	CAD	SEK	SGD	AUD	EUR	FJD	GBP	JPY	NZD	USD	WST	CHF	CAD	SEK	SGD	AUD	EUR	FJD	GBP	JPY	NZD	USD	WST	CHF	CAD	SEK	SGD		
<b>DECEMBER</b>																																						
31-Dec-19	0.6406	0.4105	0.9072	0.3467	49,160.06	0.6695	0.4487	1,1189	0.4391	0.5914	4,2036	0.6170	0.6257	0.3906	0.8942	0.3332	47,8056	0.6523	0.4378	1,0716	0.4241	0.5721	4,0751	0.5941	0.6109	0.3707	0.8812	0.3197	46,4506	0.6351	0.4270	1,0243	0.4091	0.5528	3,9465	0.5712		
30-Dec-19	0.6406	0.4105	0.9072	0.3467	49,1571	0.6714	0.4479	1,1212	0.4414	0.5920	4,2361	0.6166	0.6278	0.3925	0.8941	0.3348	47,8024	0.6542	0.4370	1,0739	0.4264	0.5727	4,1076	0.5937	0.6129	0.3726	0.8811	0.3213	46,4476	0.6370	0.4262	1,0266	0.4094	0.5534	3,9790	0.5708		
27-Dec-19	0.6426	0.4124	0.9071	0.3483	49,1571	0.6714	0.4479	1,1212	0.4414	0.5920	4,2361	0.6166	<b>PUBLIC HOLIDAY - Boxing Day</b>												<b>PUBLIC HOLIDAY - Boxing Day</b>													
26-Dec-19	0.6426	0.4124	0.9071	0.3483	49,1571	0.6714	0.4479	1,1212	0.4414	0.5920	4,2361	0.6166	<b>PUBLIC HOLIDAY - Christmas Day</b>												<b>PUBLIC HOLIDAY - Christmas Day</b>													
25-Dec-19	0.6426	0.4124	0.9071	0.3483	49,1571	0.6714	0.4479	1,1212	0.4414	0.5920	4,2361	0.6166	0.6285	0.3917	0.8940	0.3359	47,5702	0.6560	0.4360	1,0725	0.4261	0.5730	4,1141	0.5932	0.6109	0.3707	0.8812	0.3197	46,4506	0.6351	0.4270	1,0243	0.4091	0.5528	3,9465	0.5712		
24-Dec-19	0.6433	0.4116	0.9070	0.3494	49,8248	0.6732	0.4469	1,1198	0.4411	0.5923	4,2426	0.6161	0.6297	0.3910	0.8938	0.3334	47,5513	0.6585	0.4354	1,0717	0.4246	0.5724	4,0964	0.5921	0.6129	0.3707	0.8809	0.3199	46,1968	0.6412	0.4244	1,0244	0.4096	0.5531	3,9769	0.5692		
23-Dec-19	0.6441	0.4116	0.9067	0.3469	49,8058	0.6757	0.4465	1,1190	0.4396	0.5917	4,2250	0.6150	0.6305	0.3903	0.8939	0.3334	47,5454	0.6578	0.4353	1,0715	0.4233	0.5708	4,0979	0.5918	0.6136	0.3704	0.8809	0.3199	46,0999	0.6406	0.4243	1,0243	0.4093	0.5531	3,9693	0.5689		
20-Dec-19	0.6453	0.4102	0.9068	0.3469	49,8090	0.6750	0.4465	1,1188	0.4383	0.5901	4,2264	0.6147	0.6324	0.3899	0.8946	0.3311	47,5187	0.6599	0.4344	1,0764	0.4240	0.5694	4,0888	0.5912	0.6175	0.3700	0.8816	0.3176	46,1642	0.6427	0.4238	1,0291	0.4090	0.5530	3,9603	0.5683		
19-Dec-19	0.6472	0.4098	0.9073	0.3446	48,8733	0.6771	0.4455	1,1237	0.4390	0.5887	4,2174	0.6141	0.6329	0.3889	0.8953	0.3303	47,4904	0.6605	0.4347	1,0753	0.4240	0.5717	4,0734	0.5914	0.6181	0.3690	0.8823	0.3168	46,1357	0.6433	0.4229	1,0280	0.4090	0.5524	3,9448	0.5685		
18-Dec-19	0.6478	0.4088	0.9082	0.3438	48,8451	0.6777	0.4456	1,1226	0.4390	0.5910	4,2199	0.6142	0.6301	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
17-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
16-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
15-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
14-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
13-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
12-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
11-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
10-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
09-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
08-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
07-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
06-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
05-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
04-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
03-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
02-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.5722	4,0733	0.5923	0.6157	0.3704	0.8813	0.3116	46,2580	0.6413	0.4246	1,0286	0.4091	0.5529	3,9448	0.5685		
01-Dec-19	0.6478	0.4088	0.9071	0.3438	48,9673	0.6758	0.4463	1,1232	0.4409	0.5915	4,2199	0.6149	0.6304	0.3896	0.8942	0.3312	47,4617	0.6676	0.4354	1,0759	0.4259	0.572																

SEPTEMBER	20-Sep-19	0.6471	0.4089	0.9028	0.3562	47.7749	0.6997	0.4416	1.1252	0.4405	0.5900	4.3009	0.6190	0.6322	0.3890	0.8998	0.3427	46.4218	0.6824	0.4307	1.0779	0.4255	0.5707	4.1723	0.5961	0.6174	0.3692	0.8768	0.3292	45.0686	0.6652	0.4199	1.0306	0.4105	0.5514	4.0438	0.5732
	17-Sep-19	<b>PUBLIC HOLIDAY - State Funeral of Late Prime Minister; Hon. Samuelsi 'Akilisi Pohiva</b>																																			
	18-Sep-19	0.6425	0.4091	0.9024	0.3580	47.9700	0.6963	0.4429	1.1253	0.4420	0.5914	4.3053	0.6187	0.6276	0.3892	0.8894	0.3444	46.6165	0.6790	0.4320	1.0780	0.4270	0.5721	4.1767	0.5958	0.6128	0.3693	0.8764	0.3309	45.2631	0.6618	0.4212	1.0307	0.4120	0.5528	4.0482	0.5729
	17-Sep-19	<b>PUBLIC HOLIDAY - King Tupou VI Birthday</b>																																			
	16-Sep-19	0.6425	0.4100	0.9023	0.3584	47.7824	0.6946	0.4433	1.1235	0.4396	0.5911	4.2744	0.6187	0.6276	0.3901	0.8893	0.3449	46.4290	0.6773	0.4324	1.0762	0.4246	0.5718	4.1459	0.5958	0.6128	0.3702	0.8762	0.3314	45.0757	0.6601	0.4216	1.0289	0.4096	0.5525	4.0173	0.5729
	13-Sep-19	0.6437	0.4113	0.9030	0.3631	48.0425	0.6917	0.4437	1.1239	0.4417	0.5910	4.2939	0.6205	0.6291	0.3931	0.8899	0.3494	46.5560	0.6735	0.4329	1.0768	0.4276	0.5710	4.1900	0.5991	0.6140	0.3732	0.8760	0.3364	45.2027	0.6563	0.4221	1.0295	0.4126	0.5517	4.0615	0.5762
	12-Sep-19	0.6444	0.4130	0.9029	0.3635	47.9093	0.6903	0.4438	1.1241	0.4426	0.5903	4.3116	0.6220	0.6297	0.3911	0.8902	0.3497	46.4400	0.6735	0.4330	1.0761	0.4273	0.5691	4.1927	0.5996	0.6140	0.3713	0.8772	0.3362	45.0863	0.6563	0.4222	1.0296	0.4093	0.5494	4.0642	0.5767
	10-Sep-19	0.6441	0.4109	0.9039	0.3630	47.6517	0.6899	0.4439	1.1262	0.4424	0.5887	4.3077	0.6225	0.6293	0.3910	0.8909	0.3495	46.2985	0.6727	0.4330	1.0789	0.4274	0.5694	4.1792	0.5996	0.6144	0.3711	0.8779	0.3360	44.9453	0.6554	0.4222	1.0316	0.4124	0.5501	4.0506	0.5767
	09-Sep-19	0.6451	0.4114	0.9031	0.3647	47.5075	0.6904	0.4437	1.1241	0.4396	0.5891	4.2988	0.6226	0.6302	0.3915	0.8901	0.3512	46.1548	0.6732	0.4328	1.0768	0.4246	0.5698	4.1702	0.5997	0.6154	0.3716	0.8771	0.3377	44.8022	0.6559	0.4220	1.0295	0.4096	0.5505	4.0417	0.5768
	08-Sep-19	0.6467	0.4111	0.9031	0.3627	47.4640	0.6936	0.4428	1.1250	0.4390	0.5904	4.3136	0.6228	0.6318	0.3912	0.8901	0.3491	46.1111	0.6763	0.4319	1.0777	0.4240	0.5711	4.1850	0.5990	0.6170	0.3713	0.8772	0.3356	44.7582	0.6591	0.4211	1.0304	0.4090	0.5518	4.0465	0.5770
	05-Sep-19	0.6477	0.4097	0.9035	0.3635	47.1083	0.6940	0.4420	1.1258	0.4354	0.5894	4.3275	0.6219	0.6329	0.3894	0.8946	0.3515	45.7561	0.6769	0.4311	1.0783	0.4240	0.5701	4.1980	0.5990	0.6168	0.3700	0.8818	0.3380	44.4038	0.6597	0.4203	1.0312	0.4054	0.5506	4.0704	0.5761
	04-Sep-19	0.6494	0.4119	0.9075	0.3688	46.8360	0.6957	0.4411	1.1238	0.4376	0.5924	4.3537	0.6233	0.6347	0.3920	0.8947	0.3548	45.1018	0.6784	0.4302	1.0755	0.4226	0.5731	4.2252	0.5604	0.6169	0.3721	0.8820	0.3412	44.1587	0.6611	0.4194	1.0286	0.4076	0.5538	4.0966	0.5775
	03-Sep-19	0.6530	0.4115	0.9032	0.3685	46.8739	0.6976	0.4406	1.1263	0.4384	0.5917	4.3493	0.6229	0.6382	0.3916	0.8903	0.3550	45.5219	0.6803	0.4327	1.0790	0.4234	0.5724	4.2208	0.6000	0.6172	0.3707	0.8870	0.3387	44.0761	0.6635	0.4222	1.0279	0.4080	0.5525	4.0873	0.5760
	02-Sep-19	0.6523	0.4105	0.9029	0.3652	46.3876	0.6980	0.4405	1.1225	0.4380	0.5911	4.3448	0.6225	0.6374	0.3906	0.8901	0.3522	45.4281	0.6807	0.4326	1.0792	0.4230	0.5718	4.2159	0.5989	0.6174	0.3716	0.8772	0.3377	44.8022	0.6559	0.4220	1.0295	0.4096	0.5505	4.0417	0.5768
	30-Aug-19	0.6521	0.4076	0.9028	0.3652	47.0295	0.6974	0.4408	1.1228	0.4372	0.5902	4.3316	0.6216	0.6373	0.3877	0.8899	0.3517	45.6772	0.6802	0.4329	1.0756	0.4222	0.5713	4.2036	0.5987	0.6174	0.3679	0.8770	0.3382	44.3249	0.6629	0.4211	1.0283	0.4072	0.5520	4.0745	0.5758
	29-Aug-19	0.6523	0.4074	0.9035	0.3648	46.9408	0.6953	0.4413	1.1245	0.4354	0.5917	4.3124	0.6226	0.6375	0.3875	0.8905	0.3513	45.5886	0.6781	0.4310	1.0772	0.4240	0.5724	4.1838	0.5997	0.6168	0.3679	0.8820	0.3409	44.1569	0.6609	0.4196	1.0299	0.4054	0.5531	4.0553	0.5768
	28-Aug-19	0.6516	0.4075	0.9037	0.3631	46.8192	0.6934	0.4419	1.1240	0.4358	0.5918	4.2951	0.6238	0.6367	0.3876	0.8897	0.3495	45.6761	0.6764	0.4310	1.0767	0.4208	0.5725	4.2165	0.6009	0.6169	0.3679	0.8777	0.3360	44.1151	0.6591	0.4202	1.0294	0.4058	0.5532	4.0380	0.5779
	27-Aug-19	0.6502	0.4076	0.9040	0.3655	47.0379	0.6921	0.4424	1.1254	0.4353	0.5910	4.3031	0.6242	0.6354	0.3877	0.8910	0.3519	45.6856	0.6748	0.4315	1.0781	0.4203	0.5717	4.1745	0.6013	0.6165	0.3679	0.8820	0.3435	44.3335	0.6576	0.4207	1.0308	0.4053	0.5524	4.0460	0.5784
	26-Aug-19	0.6502	0.4050	0.9043	0.3641	46.5017	0.6918	0.4420	1.1235	0.4317	0.5922	4.2712	0.6239	0.6380	0.3851	0.8913	0.3505	45.1502	0.6740	0.4311	1.0762	0.4167	0.5729	4.1426	0.6010	0.6121	0.3673	0.8783	0.3373	44.4310	0.6591	0.4205	1.0289	0.4017	0.5533	4.0171	0.5781
	25-Aug-19	0.6517	0.4089	0.9041	0.3647	47.1358	0.6936	0.4422	1.1243	0.4370	0.5925	4.2987	0.6227	0.6368	0.3881	0.8912	0.3508	45.7834	0.6764	0.4313	1.0770	0.4224	0.5732	4.1703	0.5998	0.6129	0.3683	0.8782	0.3373	44.4310	0.6591	0.4205	1.0287	0.4070	0.5530	4.0161	0.5769
	24-Aug-19	0.6510	0.4084	0.9043	0.3638	47.2883	0.6903	0.4422	1.1243	0.4373	0.5928	4.2859	0.6227	0.6362	0.3885	0.8913	0.3548	45.9327	0.6734	0.4319	1.0770	0.4223	0.5735	4.1573	0.5996	0.6120	0.3683	0.8783	0.3343	44.4821	0.6562	0.4211	1.0297	0.4073	0.5542	4.0288	0.5767
	23-Aug-19	0.6513	0.4056	0.9066	0.3639	47.4341	0.6981	0.4438	1.1213	0.4345	0.5949	4.2967	0.6236	0.6367	0.3887	0.8914	0.3550	45.6265	0.6774	0.4320	1.0764	0.4208	0.5723	4.1366	0.6002	0.6120	0.3665	0.8784	0.3345	44.4157	0.6562	0.4211	1.0295	0.4056	0.5520	4.0570	0.5776
	22-Aug-19	0.6509	0.4051	0.9066	0.3636	47.4844	0.6974	0.4438	1.1228	0.4346	0.5946	4.2952	0.6225	0.6367	0.3887	0.8914	0.3551	45.7242	0.6722	0.4321	1.0764	0.4203	0.5723	4.1421	0.6001	0.6119	0.3672	0.8782	0.3343	44.4221	0.6562	0.4211	1.0299	0.4054	0.5522	4.0498	0.5782
	21-Aug-19	0.6505	0.4051	0.9066	0.3636	47.4853	0.6974	0.4438	1.1228	0.4347	0.5945	4.2952	0.6225	0.6367	0.3887	0.8914	0.3552	45.7339	0.6753	0.4323	1.0765	0.4203	0.5726	4.1427	0.6001	0.6119	0.3672	0.8782	0.3343	44.4221	0.6562	0.4211	1.0297	0.4055	0.5523	4.0498	0.5782
	20-Aug-19	0.6498	0.4059	0.9069	0.3639	47.5070	0.6735	0.4436	1.1239	0.4344	0.5945	4.2993	0.6203	0.6367	0.3887	0.8914	0.3553	45.4050	0.6753	0.4324	1.0762	0.4204	0.5723	4.1373	0.5997	0.6119	0.3672	0.8782	0.3343	44.4221	0.6562	0.4211	1.0297	0.4055	0.5523	4.0498	0.5782
	19-Aug-19	0.6496	0.4078	0.9071	0.3591	48.4659	0.6836	0.4465	1.1255	0.4485	0.6019	4.2802	0.6204	0.6319	0.3879	0.8976	0.3476	45.4145	0.6731	0.4322	1.0766	0.4211	0.5723	4.1556	0.5975	0.6117	0.3682	0.8782	0.3375	44.6737	0.6592	0.4211	1.0297	0.4073	0.5530	4.0767	

MAY	05-Jun-19	0.6397	0.4080	0.9081	0.3572	48.6044	0.6787	0.4490	1.1264	0.4471	0.6058	4.2589	0.6236	0.6248	0.3881	0.8950	0.3437	47.2500	0.6614	0.4381	1.0791	0.4321	0.5865	4.1304	0.6007	0.6100	0.3682	0.8819	0.3302	45.8956	0.6442	0.4272	1.0318	0.4171	0.5672	4.0018	0.5778
	04-Jun-19	0.6405	0.4079	0.9090	0.3578	48.5067	0.6793	0.4486	1.1264	0.4468	0.6074	4.2602	0.6229	0.6257	0.3880	0.8959	0.3443	47.1526	0.6620	0.4377	1.0791	0.4318	0.5881	4.1317	0.6000	0.6108	0.3682	0.8828	0.3308	45.7984	0.6448	0.4268	1.0318	0.4168	0.5688	4.0031	0.5771
<b>Jun-19</b>																																					
31-May-19	0.6432	0.4099	0.9072	0.3576	48.9469	0.6851	0.4463	1.1235	0.4514	0.6072	4.2762	0.6254	0.6284	0.3900	0.8942	0.3440	47.5923	0.6679	0.4354	1.0762	0.4364	0.5879	4.1476	0.6025	0.6135	0.3701	0.8811	0.3305	46.2377	0.6507	0.4246	1.0289	0.4214	0.5686	4.0191	0.5796	
30-May-19	0.6429	0.4109	0.9075	0.3584	48.9939	0.6850	0.4464	1.1245	0.4517	0.6077	4.2888	0.6267	0.6281	0.3910	0.8944	0.3449	47.6392	0.6677	0.4352	1.0772	0.4367	0.5884	4.1603	0.6038	0.6133	0.3711	0.8813	0.3314	46.2845	0.6505	0.4246	1.0299	0.4217	0.5691	4.0137	0.5808	
29-May-19	0.6432	0.4095	0.9083	0.3569	48.9464	0.6826	0.4470	1.1251	0.4524	0.6074	4.3098	0.6280	0.6284	0.3896	0.8952	0.3434	47.5917	0.6654	0.4361	1.0778	0.4374	0.5881	4.1812	0.6051	0.6133	0.3697	0.8821	0.3299	46.2370	0.6482	0.4252	1.0305	0.4224	0.5688	4.0527	0.5822	
28-May-19	0.6439	0.4084	0.9074	0.3563	49.0076	0.6828	0.4470	1.1244	0.4507	0.6052	4.3055	0.6248	0.6290	0.3885	0.8943	0.3424	47.6528	0.6655	0.4361	1.0769	0.4357	0.5859	4.1770	0.6019	0.6142	0.3687	0.8812	0.3293	46.2979	0.6483	0.4252	1.0296	0.4207	0.5664	4.0484	0.5790	
27-May-19	0.6426	0.4082	0.9079	0.3549	48.9341	0.6818	0.4472	1.1247	0.4497	0.6053	4.2898	0.6250	0.6278	0.3883	0.8949	0.3413	47.5794	0.6646	0.4360	1.0774	0.4347	0.5860	4.1611	0.6021	0.6129	0.3685	0.8818	0.3278	46.2248	0.6474	0.4254	1.0301	0.4197	0.5667	4.0325	0.5792	
26-May-19	0.6443	0.4080	0.9079	0.3563	48.9123	0.6832	0.4460	1.1227	0.4493	0.6055	4.3131	0.6254	0.6294	0.3881	0.8948	0.3424	47.5576	0.6662	0.4351	1.0754	0.4343	0.5862	4.1846	0.6025	0.6146	0.3682	0.8818	0.3293	46.2030	0.6490	0.4243	1.0281	0.4193	0.5669	4.0560	0.5796	
25-May-19	0.6453	0.4095	0.9084	0.3560	49.2244	0.6857	0.4458	1.1236	0.4515	0.6029	4.3144	0.6247	0.6305	0.3896	0.8954	0.3425	47.8693	0.6684	0.4349	1.0763	0.4365	0.5836	4.1859	0.6018	0.6156	0.3697	0.8824	0.3290	46.5142	0.6512	0.4241	1.0215	0.4163	0.5643	4.0573	0.5789	
24-May-19	0.6456	0.4089	0.9086	0.3551	49.3604	0.6852	0.4461	1.1239	0.4530	0.6024	4.3281	0.6243	0.6308	0.3890	0.8955	0.3416	48.8052	0.6679	0.4352	1.0766	0.4380	0.5831	4.1995	0.6014	0.6159	0.3692	0.8824	0.3281	46.6499	0.6507	0.4244	1.0293	0.4220	0.5638	4.0710	0.5785	
23-May-19	0.6449	0.4093	0.9091	0.3559	49.3973	0.6841	0.4466	1.1234	0.4524	0.6042	4.3404	0.6248	0.6292	0.3894	0.8960	0.3414	47.9386	0.6668	0.4357	1.0761	0.4372	0.5859	4.2120	0.6019	0.6143	0.3695	0.8834	0.3279	46.5853	0.6496	0.4248	1.0286	0.4222	0.5653	4.0835	0.5790	
22-May-19	0.6430	0.4079	0.9092	0.3558	49.2755	0.6838	0.4469	1.1240	0.4533	0.6056	4.3311	0.6252	0.6282	0.3892	0.8962	0.3415	47.9204	0.6664	0.4360	1.0767	0.4383	0.5863	4.2026	0.6023	0.6134	0.3699	0.8831	0.3280	46.5653	0.6491	0.4252	1.0294	0.4233	0.5670	4.0740	0.5794	
21-May-19	0.6459	0.4099	0.9081	0.3541	49.1916	0.6832	0.4468	1.1207	0.4532	0.6059	4.3313	0.6234	0.6271	0.3891	0.8951	0.3405	47.7645	0.6659	0.4359	1.0734	0.4382	0.5866	4.2027	0.6005	0.6162	0.3692	0.8820	0.3270	46.4094	0.6487	0.4250	1.0261	0.4232	0.5673	4.0742	0.5775	
20-May-19	0.6424	0.4086	0.9073	0.3548	49.1301	0.6809	0.4477	1.1225	0.4538	0.6071	4.3201	0.6229	0.6276	0.3887	0.8942	0.3373	47.7753	0.6636	0.4368	1.0752	0.4388	0.5878	4.1915	0.6000	0.6127	0.3689	0.8811	0.3238	46.4205	0.6464	0.4260	1.0279	0.4238	0.5685	4.0630	0.5771	
19-May-19	0.6436	0.4087	0.9074	0.3549	49.0226	0.6811	0.4480	1.1219	0.4529	0.6079	4.3370	0.6238	0.6287	0.3893	0.8963	0.3361	47.6677	0.6639	0.4371	1.0746	0.4379	0.5886	4.2085	0.6009	0.6169	0.3689	0.8831	0.3226	46.3128	0.6466	0.4262	1.0273	0.4223	0.5669	4.0799	0.5780	
18-May-19	0.6451	0.4092	0.9074	0.3549	49.0408	0.6822	0.4486	1.1227	0.4535	0.6067	4.3336	0.6216	0.6264	0.3894	0.8954	0.3357	47.8562	0.6630	0.4377	1.0750	0.4400	0.5874	4.2074	0.5987	0.6160	0.3689	0.8821	0.3222	46.5142	0.6512	0.4241	1.0275	0.4225	0.5681	4.0758	0.5778	
17-May-19	0.6444	0.4093	0.9082	0.3551	49.0375	0.6841	0.4487	1.1237	0.4536	0.6068	4.3414	0.6223	0.6264	0.3892	0.8962	0.3362	48.9691	0.6675	0.4357	1.0736	0.4457	0.5886	4.2120	0.6010	0.6161	0.3692	0.8820	0.3227	46.5565	0.6458	0.4248	1.0269	0.4222	0.5669	4.0835	0.5778	
16-May-19	0.6439	0.4094	0.9083	0.3552	49.0324	0.6842	0.4487	1.1241	0.4536	0.6069	4.3426	0.6222	0.6265	0.3893	0.8963	0.3363	48.9824	0.6676	0.4359	1.0737	0.4462	0.5887	4.2136	0.6010	0.6162	0.3692	0.8820	0.3228	46.4740	0.6461	0.4240	1.0261	0.4223	0.5673	4.0745	0.5778	
15-May-19	0.6421	0.4107	0.9087	0.3503	50.7289	0.6696	0.4529	1.1136	0.4553	0.6084	4.2263	0.6245	0.6247	0.3894	0.8941	0.3415	47.3720	0.6523	0.4340	1.0727	0.4377	0.5873	4.2233	0.6007	0.6121	0.3687	0.8817	0.3228	46.4036	0.6454	0.4247	1.0260	0.4224	0.5673	4.0745	0.5778	
14-May-19	0.6437	0.4115	0.9079	0.3506	50.6212	0.6722	0.4522	1.1193	0.4557	0.6091	4.2274	0.6234	0.6248	0.3894	0.8947	0.3370	49.2645	0.6550	0.4341	1.0720	0.4407	0.5898	4.0983	0.6007	0.6123	0.3682	0.8820	0.3227	46.4230	0.6453	0.4246	1.0257	0.4227	0.5670	4.0776	0.5778	
13-May-19	0.6429	0.4108	0.9088	0.3506	50.2971	0.6700	0.4529	1.1211	0.4559	0.6059	4.2214	0.6226	0.6250	0.3895	0.8955	0.3367	49.3847	0.6549	0.4349	1.0728	0.4378	0.5883	4.0930	0.6004	0.6120	0.3671	0.8823	0.3228	46.4230	0.6453	0.4246	1.0257	0.4227	0.5670	4.0776	0.5778	
12-May-19	0.6413	0.4113	0.9110	0.3504	50.5990	0.6650	0.4531	1.1189	0.4540	0.6069	4.2121	0.6226	0.6247	0.3878	0.8948	0.3367	49.4048	0.6546	0.4344	1.0716	0.4370	0.5876	4.0835	0.5997	0.6095	0.3671	0.8823	0.3228	46.3765	0.6453	0.4245	1.0256	0.4227	0.5668	4.0776	0.5778	
11-May-19	0.6432	0.4107	0.9091	0.3500	50.5376	0.6670	0.4521	1.1198	0.4537	0.6063	4.2131	0.6229	0.6247	0.3874	0.8949	0.3365	49.4182	0.6557	0.4342	1.0725	0.4387	0.5870	4.0846	0.6000	0.6102	0.3671	0.8820	0.3228	46.3765	0.6454	0.4246	1.0256	0.4227	0.5667	4.0776	0.5778	
10-May-19	0.6432	0.4107	0.9118	0.3506	50.6765	0.6675	0.4522	1.1189	0.4540	0.6075	4.2232	0.6241	0.6248	0.3874	0.8949	0.3366	49.2421	0.6488	0.4342	1.0716	0.4397	0.5882	4.1046	0.6017	0.6107	0.3675	0.8822	0.3228	46.4247	0.6454	0.4246	1.0256	0.4227	0.5668	4.0783	0.5778	
09-May-19	0.6432	0.4107	0.9116	0.3506	50.6569	0.6660	0.4521	1.1177	0.4535	0.6083	4.1754	0.6228	0.6248	0.3873	0.8999	0.3353	49.0930	0.6434	0.4337	1.0704	0.4381	0.5890	4.0468	0.5999	0.6065	0.3671	0.8822	0.3228	46.3765	0.6454	0.4246	1.0255	0.4226	0.5667	4.0783	0.5778	
08-May-19	0.6431	0.4102	0.9124																																		

FEBRUARY																																				
15-Feb-19	0.6361	0.4108	0.9139	0.3584	50.1798	0.6636	0.4535	1.1205	0.4577	0.6068	4.2371	0.6269	0.6213	0.3909	0.9007	0.3449	48.8235	0.6464	0.4426	1.0732	0.4427	0.5875	4.1085	0.6031	0.6065	0.3710	0.8874	0.3314	47.4672	0.6292	0.4317	1.0259	0.4277	0.5682	3.9800	0.5802
14-Feb-19	0.6360	0.4111	0.9127	0.3564	50.2908	0.6663	0.4530	1.1198	0.4588	0.6043	4.2222	0.6258	0.6212	0.3912	0.8994	0.3429	48.9345	0.6491	0.4421	1.0725	0.4438	0.5850	4.0936	0.6029	0.6063	0.3714	0.8862	0.3294	47.5782	0.6319	0.4312	1.0252	0.4288	0.5657	3.9651	0.5800
13-Feb-19	0.6344	0.4088	0.9116	0.3552	50.0814	0.6714	0.4519	1.1199	0.4564	0.6028	4.2101	0.6231	0.6196	0.3889	0.8984	0.3417	48.7255	0.6541	0.4410	1.0726	0.4414	0.5835	4.0816	0.6002	0.6048	0.3690	0.8851	0.3282	47.3696	0.6369	0.4301	1.0253	0.4264	0.5642	3.9530	0.5773
12-Feb-19	0.6369	0.4105	0.9106	0.3557	50.0024	0.6709	0.4515	1.1188	0.4555	0.6050	4.2274	0.6248	0.6221	0.3906	0.8973	0.3422	48.6467	0.6536	0.4406	1.0715	0.4405	0.5857	4.0989	0.6019	0.6073	0.3707	0.8841	0.3287	47.2910	0.6364	0.4297	1.0242	0.4255	0.5664	3.9703	0.5790
11-Feb-19	0.6354	0.4084	0.9120	0.3531	49.7545	0.6706	0.4520	1.1193	0.4538	0.6045	4.2141	0.6235	0.6205	0.3885	0.8988	0.3395	48.3988	0.6534	0.4411	1.0720	0.4388	0.5852	4.0855	0.6006	0.6057	0.3687	0.8855	0.3260	47.0431	0.6361	0.4302	1.0247	0.4238	0.5659	3.9570	0.5776
08-Feb-19	0.6351	0.4086	0.9119	0.3531	49.8413	0.6700	0.4524	1.1139	0.4549	0.6062	4.2096	0.6239	0.6203	0.3887	0.8986	0.3396	48.4858	0.6527	0.4415	1.0666	0.4399	0.5869	4.0811	0.6010	0.6054	0.3688	0.8854	0.3261	47.1303	0.6355	0.4306	1.0193	0.4249	0.5676	3.9525	0.5780
07-Feb-19	0.6357	0.4093	0.9116	0.3546	49.9796	0.6644	0.4536	1.1146	0.4565	0.6032	4.1978	0.6252	0.6209	0.3894	0.8983	0.3411	48.6238	0.6673	0.4427	1.0673	0.4415	0.5839	4.0699	0.6023	0.6060	0.3695	0.8849	0.3276	47.2676	0.6301	0.4318	1.0200	0.4265	0.5647	3.9407	0.5794
06-Feb-19	0.6285	0.4094	0.9125	0.3567	50.1615	0.6622	0.4558	1.1171	0.4568	0.6034	4.1810	0.6267	0.6137	0.3895	0.8991	0.3431	48.8053	0.6450	0.4449	1.0698	0.4418	0.5841	4.0524	0.6038	0.5986	0.3697	0.8858	0.3296	47.4492	0.6278	0.4340	1.0225	0.4268	0.5648	3.9239	0.5809
05-Feb-19	0.6289	0.4085	0.9119	0.3542	50.1036	0.6628	0.4556	1.1162	0.4566	0.6027	4.1783	0.6270	0.6141	0.3884	0.8985	0.3406	48.7475	0.6455	0.4447	1.0689	0.4416	0.5834	4.0497	0.6041	0.5992	0.3688	0.8851	0.3271	47.3915	0.6283	0.4338	1.0216	0.4266	0.5641	3.9212	0.5812
04-Feb-19	0.6278	0.4085	0.9121	0.3532	50.0067	0.6629	0.4563	1.1160	0.4551	0.6023	4.1548	0.6259	0.6129	0.3886	0.8988	0.3396	48.6506	0.6457	0.4454	1.0687	0.4401	0.5830	4.0263	0.6030	0.5981	0.3688	0.8854	0.3261	47.2945	0.6285	0.4345	1.0214	0.4251	0.5637	3.8977	0.5801
01-Feb-19	0.6266	0.4084	0.9110	0.3525	49.7442	0.6619	0.4565	1.1191	0.4558	0.6046	4.1580	0.6254	0.6119	0.3885	0.8977	0.3390	48.3885	0.6447	0.4456	1.0718	0.4400	0.5853	4.0294	0.6025	0.5971	0.3686	0.8843	0.3255	47.0328	0.6275	0.4347	1.0245	0.4258	0.5660	3.9009	0.5796
31-Jan-19	0.6255	0.4069	0.9130	0.3525	49.8159	0.6609	0.4558	1.1210	0.4573	0.6046	4.1604	0.6244	0.6106	0.3878	0.8997	0.3365	48.4605	0.6437	0.4449	1.0737	0.4423	0.5853	4.0319	0.6015	0.5958	0.3671	0.8864	0.3255	47.1058	0.6265	0.4340	1.0264	0.4273	0.5660	3.9033	0.5786
30-Jan-19	0.6341	0.4068	0.9111	0.3509	49.8164	0.6655	0.4541	1.1175	0.4541	0.6072	4.1461	0.6246	0.6193	0.3869	0.8978	0.3365	48.4609	0.6483	0.4432	1.0702	0.4391	0.5879	4.0176	0.6017	0.6044	0.3670	0.8845	0.3230	47.1053	0.6311	0.4323	1.0229	0.4241	0.5684	3.8890	0.5788
29-Jan-19	0.6318	0.4068	0.9107	0.3495	49.8201	0.6655	0.4542	1.1205	0.4521	0.6066	4.1437	0.6250	0.6170	0.3869	0.8974	0.3360	48.4646	0.6483	0.4433	1.0732	0.4371	0.5873	4.0151	0.6021	0.6021	0.3671	0.8842	0.3225	47.1091	0.6311	0.4324	1.0259	0.4221	0.5680	3.8866	0.5792
28-Jan-19	0.6309	0.4075	0.9111	0.3487	49.8956	0.6647	0.4541	1.1205	0.4526	0.6048	4.1340	0.6250	0.6161	0.3876	0.8980	0.3352	48.5399	0.6475	0.4432	1.0732	0.4376	0.5855	4.0055	0.6021	0.6012	0.3677	0.8848	0.3217	47.1841	0.6303	0.4323	1.0259	0.4226	0.5662	3.8769	0.5792
25-Jan-19	0.6366	0.4097	0.9114	0.3510	49.7732	0.6699	0.4524	1.1204	0.4531	0.6085	4.1430	0.6260	0.6178	0.3873	0.8986	0.3372	48.4504	0.6503	0.4421	1.0729	0.4376	0.5898	3.9824	0.6029	0.6067	0.3699	0.8844	0.3239	47.0624	0.6354	0.4306	1.0258	0.4231	0.5699	3.8859	0.5802
24-Jan-19	0.6326	0.4072	0.9119	0.3507	49.8059	0.6671	0.4530	1.1202	0.4526	0.6091	4.1113	0.6258	0.6178	0.3873	0.8986	0.3372	48.4504	0.6503	0.4421	1.0729	0.4376	0.5898	3.9824	0.6029	0.6029	0.3674	0.8854	0.3237	47.0949	0.6331	0.4312	1.0226	0.4226	0.5700	3.8542	0.5800
23-Jan-19	0.6327	0.4074	0.9114	0.3531	49.7709	0.6729	0.4522	1.1189	0.4528	0.6080	4.1105	0.6254	0.6179	0.3875	0.8981	0.3395	48.2154	0.6557	0.4413	1.0716	0.4378	0.5887	3.9820	0.6025	0.6025	0.3676	0.8849	0.3260	46.8599	0.6385	0.4304	1.0223	0.4228	0.5694	3.8534	0.5796
22-Jan-19	0.6291	0.4074	0.9108	0.3545	49.7040	0.6718	0.4528	1.1182	0.4534	0.6061	4.1084	0.6254	0.6143	0.3875	0.8975	0.3410	48.3488	0.6545	0.4420	1.0709	0.4384	0.5868	3.9799	0.6025	0.5995	0.3676	0.8842	0.3275	46.9937	0.6373	0.4311	1.0236	0.4234	0.5675	3.8513	0.5796
21-Jan-19	0.6290	0.4080	0.9104	0.3544	49.7540	0.6700	0.4532	1.1203	0.4518	0.6055	4.1137	0.6253	0.6141	0.3881	0.8972	0.3409	48.3988	0.6531	0.4423	1.0730	0.4366	0.5862	3.9852	0.6024	0.5993	0.3682	0.8839	0.3274	47.0436	0.6359	0.4314	1.0257	0.4218	0.5669	3.8566	0.5795
18-Jan-19	0.6284	0.4074	0.9110	0.3531	49.6369	0.6707	0.4532	1.1184	0.4523	0.6071	4.1181	0.6249	0.6134	0.3875	0.8977	0.3396	48.2817	0.6534	0.4423	1.0708	0.4373	0.5878	3.9894	0.6020	0.5986	0.3676	0.8844	0.3261	46.9268	0.6362	0.4314	1.0235	0.4223	0.5684	3.8610	0.5791
17-Jan-19	0.6303	0.4074	0.9105	0.3566	49.8861	0.6690	0.4537	1.1186	0.4509	0.6054	4.1084	0.6247	0.6155	0.3875	0.8972	0.3428	48.2309	0.6517	0.4428	1.0713	0.4359	0.5861	3.9804	0.6018	0.6007	0.3676	0.8839	0.3293	46.8757	0.6345	0.4319	1.0248	0.4209	0.5664	3.8518	0.5789
16-Jan-19	0.6298	0.4082	0.9122	0.3607	49.4583	0.6676	0.4541	1.1173	0.4512	0.6077	4.1127	0.6265	0.6150	0.3883	0.8989	0.3472	48.1032	0.6504	0.4432	1.0700	0.4362	0.5884	3.9841	0.6030	0.6002	0.3685	0.8856	0.3337	46.7481	0.6332	0.4323	1.0227	0.4212	0.5691	3.8556	0.5807
15-Jan-19	0.6294	0.4060	0.9116	0.3574	49.3712	0.6667	0.4546	1.1173	0.4479	0.6074	4.0987	0.6258	0.6146	0.3861	0.8983	0.3439	48.0163	0.6495	0.4437	1.0700	0.4329	0.5881	3.9702	0.6029	0.5997	0.3662	0.8849	0.3304	46.6613	0.6323	0.4328	1.0227	0.4179	0.5688	3.8416	0.5800
14-Jan-19	0.6284	0.4068	0.9125	0.3576	49.4899	0.6663	0.4547	1.1231	0.4486	0.6074	4.0892	0.6258	0.6136	0.3869	0.8992	0.3440	48.1347	0.6491	0.4438	1.0758	0.4330	0.5881	3.9607	0.6029	0.5987	0.3670	0.8859	0.3305	46.7799	0.6319	0.4329	1.0285	0.4186	0.5688	3.8321	0.5800
11-Jan-19	0.6302	0.4042	0.9120	0.3606	49.3618	0.6694	0.4540	1.1234	0.4482	0.6057	4.0694	0.6244	0.6153	0.3844	0.8987	0.3465	48.0068	0.6526	0.4431	1.0763	0.4332	0.5864	3.9410	0.6015	0.6002	0.3645	0.8855	0.3330	46.6518	0.6354	0.4322	1.0284	0.4182	0.5671	3.8125	0.5786
10-Jan-19	0.6297	0.4026	0.9120	0.3586	49.2978	0.6677	0.4537	1.1198	0.4449	0.6038	4.0569	0.6241																								