Appendix
On Forecast Stability

Appendix A.

Tables A.1, A.2 and A.3 respectively show the MASE, RMSSE, and sMAPE based accuracy and stability results of vertical stability experiments across the four experimental datasets.

Table A.1: MASE, MASC and MASC_I results of vertical stability experiments.

		MASE				MASC				MASC_I			
		M4	M3	Favorita	M5	M4	M3	Favorita	M5	M4	M3	Favorita	M5
N-BEATS	Base	0.6385	0.6431	-	-	0.3073	0.2603	-	-	0.4561	0.3921	-	-
N-BEATS	Stable	0.6485	0.6391	-	-	0.2532	0.1931	-	-	0.4155	0.3314	-	-
N-BEATS	PI_0.2	0.6346	0.6423	-	-	0.2762	0.2113	-	-	0.4358	0.3589	-	-
N-BEATS	PI_0.4	0.6382	0.6450	-	-	0.2239	0.1769	-	-	0.3983	0.3296	-	-
N-BEATS	PI_0.5	0.6425	0.6478	-	-	0.2099	0.1676	-	-	0.3820	0.3166	-	-
N-BEATS	PI_0.6	0.6485	0.6515	-	-	0.2056	0.1639	-	-	0.3676	0.3048	-	-
N-BEATS	PI_0.8	0.6650	0.6615	-	-	0.2201	0.1715	-	-	0.3445	0.2852	-	-
N-BEATS	PI_1	0.6871	0.6748	-	-	0.2545	0.1924	-	-	0.3298	0.2710	-	-
N-BEATS	FI_0.2	0.6343	0.6419	-	-	0.2754	0.2098	-	-	0.4299	0.3538	-	-
N-BEATS	FI_0.4	0.6374	0.6439	-	-	0.2098	0.1632	-	-	0.3691	0.3050	-	-
N-BEATS	FI_0.5	0.6424	0.6466	-	-	0.1785	0.1403	-	-	0.3317	0.2744	-	-
N-BEATS	FI_0.6	0.6505	0.6512	-	-	0.1473	0.1169	-	-	0.2875	0.2381	-	-
N-BEATS	FI_0.8	0.6826	0.6700	-	-	0.0815	0.0659	-	-	0.1713	0.1420	-	-
N-BEATS	FI_1	0.7532	0.7164	-	-	0.0000	0.0000	-	-	0.0000	0.0000	-	-
PR	Base	0.7911	0.7552	0.7737	1.3569	0.2186	0.1901	0.1666	0.4012	0.3721	0.2875	0.1966	0.6465
PR	PI_0.2	0.7983	0.7593	0.7715	1.3493	0.1969	0.1574	0.1313	0.3123	0.3546	0.2597	0.1740	0.6063
PR	PI_0.4	0.8075	0.7650	0.7705	1.3465	0.1695	0.1319	0.1022	0.2512	0.3231	0.2344	0.1540	0.5735
PR	PI_0.5	0.8128	0.7684	0.7704	1.3469	0.1604	0.1236	0.0932	0.2371	0.3084	0.2230	0.1452	0.5604
PR	PI_0.6	0.8186	0.7721	0.7707	1.3485	0.1546	0.1188	0.0881	0.2355	0.2946	0.2123	0.1373	0.5496
PR	PI_0.8	0.8316	0.7807	0.7723	1.3555	0.1520	0.1188	0.0883	0.2653	0.2699	0.1940	0.1250	0.5357
PR	PI_1	0.8465	0.7908	0.7752	1.3674	0.1596	0.1286	0.1010	0.3261	0.2497	0.1804	0.1187	0.5325
PR	FI_0.2	0.7989	0.7598	0.7713	1.3485	0.1948	0.1562	0.1312	0.3122	0.3495	0.2559	0.1717	0.6010
PR	FI_0.4	0.8108	0.7676	0.7699	1.3426	0.1569	0.1233	0.0983	0.2352	0.2990	0.2168	0.1432	0.5455
PR	FI_0.5	0.8189	0.7731	0.7696	1.3404	0.1368	0.1065	0.0824	0.1997	0.2676	0.1931	0.1267	0.5099
PR	FI_0.6	0.8291	0.7800	0.7699	1.3387	0.1153	0.0889	0.0669	0.1652	0.2309	0.1657	0.1081	0.4650
PR	FI_0.8	0.8589	0.7999	0.7723	1.3398	0.0657	0.0497	0.0354	0.0945	0.1358	0.0964	0.0624	0.3217
PR	FI_1	0.9111	0.8332	0.7796	1.3875	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LightGBM	Base	0.8540	0.7664	0.9142	1.3416	0.2815	0.2395	0.1520	0.2728	0.4452	0.3504	0.2274	0.5206
LightGBM	PI_0.2	0.8580	0.7692	0.9180	1.3399	0.2608	0.1941	0.1251	0.2203	0.4255	0.3180	0.2049	0.4936
LightGBM	PI_0.4	0.8664	0.7745	0.9226	1.3408	0.2154	0.1603	0.1035	0.1842	0.3869	0.2894	0.1842	0.4711
LightGBM	PI_0.5	0.8723	0.7782	0.9251	1.3420	0.2016	0.1502	0.0961	0.1752	0.3696	0.2766	0.1747	0.4613
LightGBM	PI_0.6	0.8792	0.7825	0.9277	1.3436	0.1957	0.1459	0.0917	0.1759	0.3539	0.2649	0.1658	0.4525
LightGBM	PI_0.8	0.8960	0.7930	0.9334	1.3485	0.2022	0.1514	0.0901	0.1931	0.3272	0.2452	0.1499	0.4383
LightGBM	PI_1	0.9165	0.8059	0.9397	1.3561	0.2261	0.1698	0.0965	0.2267	0.3084	0.2313	0.1372	0.4304
LightGBM	FI_0.2	0.8585	0.7696	0.9184	1.3395	0.2594	0.1931	0.1243	0.2186	0.4196	0.3136	0.2022	0.4890
LightGBM	FI_0.4	0.8693	0.7767	0.9249	1.3392	0.2023	0.1503	0.0977	0.1705	0.3585	0.2679	0.1713	0.4479
LightGBM	FI_0.5	0.8777	0.7823	0.9291	1.3396	0.1738	0.1291	0.0842	0.1473	0.3210	0.2399	0.1527	0.4202
LightGBM	FI_0.6	0.8890	0.7897	0.9342	1.3406	0.1445	0.1074	0.0702	0.1240	0.2773	0.2071	0.1312	0.3843
LightGBM	FI_0.8	0.9244	0.8131	0.9482	1.3471	0.0804	0.0599	0.0391	0.0735	0.1638	0.1222	0.0766	0.2665
LightGBM	FI_1	0.9904	0.8574	0.9698	1.3903	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ETS	Base	0.6558	0.6169	0.7744	1.2669	0.2631	0.2091	0.0920	0.1731	0.4529	0.3371	0.1410	0.3349
ETS	PI_0.2	0.6574	0.6175	0.7742	1.2668	0.2424	0.1711	0.0752	0.1424	0.4395	0.3106	0.1291	0.3172
ETS	PI_0.4	0.6644	0.6214	0.7745	1.2678	0.2072	0.1449	0.0634	0.1223	0.4048	0.2866	0.1184	0.3020
ETS	PI_0.5	0.6698	0.6245	0.7749	1.2688	0.1974	0.1382	0.0602	0.1176	0.3889	0.2756	0.1136	0.2955
ETS	PI_0.6	0.6764	0.6283	0.7754	1.2701	0.1933	0.1365	0.0587	0.1167	0.3742	0.2654	0.1091	0.2898
ETS	PI_0.8	0.6927	0.6382	0.7769	1.2736	0.1987	0.1428	0.0604	0.1259	0.3486	0.2476	0.1016	0.2809
ETS	PI_1	0.7128	0.6505	0.7790	1.2783	0.2180	0.1582	0.0668	0.1462	0.3290	0.2337	0.0960	0.2757
ETS	FI_0.2	0.6568	0.6173	0.7740	1.2666	0.2397	0.1697	0.0746	0.1410	0.4333	0.3061	0.1273	0.3140
ETS	FI_0.4	0.6634	0.6212	0.7740	1.2671	0.1895	0.1334	0.0582	0.1115	0.3748	0.2655	0.1096	0.2858
ETS	FI_0.5	0.6697	0.6250	0.7741	1.2677	0.1643	0.1155	0.0501	0.0969	0.3377	0.2396	0.0986	0.2671
ETS	FI_0.6	0.6792	0.6307	0.7744	1.2689	0.1381	0.0970	0.0419	0.0818	0.2934	0.2085	0.0855	0.2431
ETS	FI_0.8	0.7145	0.6520	0.7760	1.2746	0.0791	0.0556	0.0237	0.0483	0.1753	0.1250	0.0509	0.1670
ETS	FI_1	0.7901	0.6997	0.7822	1.3011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ARIMA	Base	0.6358	0.6179	0.7847	1.2881	0.2761	0.2097	0.0997	0.1528	0.4377	0.3330	0.1261	0.3073
ARIMA	PI_0.2	0.6371	0.6179	0.7835	1.2883	0.2265	0.1712	0.0793	0.1242	0.4011	0.3054	0.1124	0.2907
ARIMA	PI_0.4	0.6437	0.6216	0.7832	1.2894	0.1919	0.1446	0.0638	0.1050	0.3680	0.2805	0.1003	0.2762
ARIMA	PI_0.5	0.6489	0.6247	0.7833	1.2903	0.1818	0.1373	0.0587	0.1000	0.3529	0.2692	0.0949	0.2699
ARIMA	PI_0.6	0.6552	0.6285	0.7836	1.2914	0.1775	0.1347	0.0560	0.0984	0.3390	0.2586	0.0901	0.2644
ARIMA	PI_0.8	0.6708	0.6386	0.7848	1.2945	0.1825	0.1394	0.0563	0.1054	0.3149	0.2404	0.0825	0.2556
ARIMA	PI_1	0.6902	0.6516	0.7868	1.2986	0.2014	0.1546	0.0637	0.1235	0.2968	0.2268	0.0782	0.2503
ARIMA	FI_0.2	0.6369	0.6177	0.7834	1.2883	0.2245	0.1698	0.0791	0.1234	0.3954	0.3012	0.1109	0.2880
ARIMA	FI_0.4	0.6440	0.6215	0.7827	1.2894	0.1768	0.1335	0.0601	0.0972	0.3409	0.2601	0.0932	0.2627
ARIMA	FI_0.5	0.6507	0.6253	0.7826	1.2905	0.1529	0.1155	0.0509	0.0845	0.3067	0.2342	0.0828	0.2458
ARIMA	FI_0.6	0.6605	0.6311	0.7827	1.2921	0.1283	0.0969	0.0417	0.0716	0.2660	0.2034	0.0709	0.2243
ARIMA	FI_0.8	0.6949	0.6523	0.7840	1.2985	0.0730	0.0553	0.0224	0.0430	0.1584	0.1214	0.0413	0.1548
ARIMA	FI_1	0.7652	0.6996	0.7886	1.3242	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table A.2: RMSSE, RMSSC and RMSSC_I results of vertical stability experiments.

		RMSSE				RMSSC				RMSSC_I			
		M4	M3	Favorita	M5	M4	M3	Favorita	M5	M4	M3	Favorita	M5
N-BEATS	Base	0.5607	0.5929	-	-	0.2341	0.2112	-	-	0.3781	0.3456	-	-
N-BEATS	Stable	0.5664	0.5900	-	-	0.1814	0.1573	-	-	0.3469	0.2948	-	-
N-BEATS	PI_0.2	0.5574	0.5921	-	-	0.2214	0.1723	-	-	0.3742	0.3202	-	-
N-BEATS	PI_0.4	0.5600	0.5945	-	-	0.1813	0.1464	-	-	0.3467	0.2984	-	-
N-BEATS	PI_0.5	0.5634	0.5968	-	-	0.1711	0.1399	-	-	0.3354	0.2892	-	-
N-BEATS	PI_0.6	0.5682	0.5999	-	-	0.1688	0.1381	-	-	0.3261	0.2813	-	-
N-BEATS	PI_0.8	0.5813	0.6083	-	-	0.1863	0.1481	-	-	0.3139	0.2698	-	-
N-BEATS	PI_1	0.5989	0.6193	-	-	0.2266	0.1739	-	-	0.3115	0.2652	-	-
N-BEATS	FI_0.2	0.5571	0.5918	-	-	0.2206	0.1708	-	-	0.3693	0.3157	-	-
N-BEATS	FI_0.4	0.5593	0.5936	-	-	0.1688	0.1341	-	-	0.3218	0.2765	-	-
N-BEATS	FI_0.5	0.5631	0.5960	-	-	0.1442	0.1161	-	-	0.2918	0.2512	-	-
N-BEATS	FI_0.6	0.5696	0.5999	-	-	0.1197	0.0976	-	-	0.2556	0.2203	-	-
N-BEATS	FI_0.8	0.5959	0.6165	-	-	0.0674	0.0563	-	-	0.1561	0.1347	-	-
N-BEATS	FI_1	0.6577	0.6584	-	-	0.0000	0.0000	-	-	0.0000	0.0000	-	-
PR	Base	0.6896	0.6886	0.5863	1.0086	0.1683	0.1527	0.1062	0.2514	0.3297	0.2543	0.1333	0.4365
PR	PI_0.2	0.6943	0.6914	0.5848	1.0035	0.1496	0.1273	0.0839	0.1975	0.3004	0.2328	0.1192	0.4116
PR	PI_0.4	0.7009	0.6955	0.5843	1.0015	0.1311	0.1086	0.0661	0.1613	0.2781	0.2136	0.1070	0.3917
PR	PI_0.5	0.7047	0.6980	0.5844	1.0018	0.1253	0.1029	0.0606	0.1529	0.2680	0.2050	0.1017	0.3839
PR	PI_0.6	0.7090	0.7009	0.5847	1.0028	0.1220	0.1000	0.0576	0.1518	0.2586	0.1973	0.0971	0.3778
PR	PI_0.8	0.7189	0.7076	0.5861	1.0074	0.1231	0.1027	0.0591	0.1702	0.2428	0.1845	0.0905	0.3708
PR	PI_1	0.7303	0.7157	0.5885	1.0151	0.1338	0.1148	0.0698	0.2105	0.2315	0.1764	0.0884	0.3717
PR	FI_0.2	0.6947	0.6917	0.5848	1.0029	0.1478	0.1262	0.0838	0.1970	0.2961	0.2295	0.1177	0.4082
PR	FI_0.4	0.7028	0.6972	0.5841	0.9988	0.1206	0.1008	0.0631	0.1501	0.2576	0.1977	0.0995	0.3734
PR	FI_0.5	0.7086	0.7012	0.5841	0.9972	0.1061	0.0878	0.0532	0.1282	0.2329	0.1778	0.0888	0.3508
PR	FI_0.6	0.7159	0.7063	0.5845	0.9960	0.0904	0.0740	0.0435	0.1068	0.2031	0.1542	0.0765	0.3221
PR	FI_0.8	0.7386	0.7218	0.5871	0.9962	0.0530	0.0424	0.0234	0.0620	0.1224	0.0919	0.0452	0.2270
PR	FI_1	0.7814	0.7497	0.5940	1.0267	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LightGBM	Base	0.7392	0.7003	0.6312	0.9871	0.2243	0.2028	0.0952	0.1796	0.3847	0.3155	0.1461	0.3550
LightGBM	PI_0.2	0.7412	0.7018	0.6324	0.9853	0.2091	0.1641	0.0778	0.1444	0.3694	0.2895	0.1326	0.3372
LightGBM	PI_0.4	0.7471	0.7058	0.6340	0.9852	0.1745	0.1366	0.0644	0.1212	0.3404	0.2671	0.1205	0.3227
LightGBM	PI_0.5	0.7515	0.7087	0.6351	0.9858	0.1645	0.1289	0.0600	0.1158	0.3281	0.2575	0.1151	0.3168
LightGBM	PI_0.6	0.7567	0.7121	0.6362	0.9869	0.1606	0.1262	0.0576	0.1157	0.3173	0.2492	0.1102	0.3118
LightGBM	PI_0.8	0.7697	0.7207	0.6389	0.9903	0.1706	0.1350	0.0584	0.1281	0.3013	0.2367	0.1022	0.3050
LightGBM	PI_1	0.7859	0.7314	0.6420	0.9955	0.2001	0.1589	0.0660	0.1536	0.2940	0.2310	0.0971	0.3031
LightGBM	FI_0.2	0.7415	0.7020	0.6325	0.9850	0.2078	0.1632	0.0774	0.1434	0.3644	0.2856	0.1309	0.3342
LightGBM	FI_0.4	0.7486	0.7070	0.6349	0.9838	0.1628	0.1275	0.0607	0.1117	0.3159	0.2477	0.1122	0.3075
LightGBM	FI_0.5	0.7546	0.7112	0.6366	0.9835	0.1405	0.1099	0.0523	0.0966	0.2855	0.2238	0.1008	0.2895
LightGBM	FI_0.6	0.7629	0.7169	0.6388	0.9836	0.1177	0.0920	0.0437	0.0815	0.2491	0.1953	0.0873	0.2662
LightGBM	FI_0.8	0.7905	0.7359	0.6453	0.9864	0.0669	0.0523	0.0246	0.0487	0.1507	0.1181	0.0522	0.1879
LightGBM	FI_1	0.8467	0.7745	0.6570	1.0139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ETS	Base	0.5713	0.5690	0.5670	0.9332	0.2025	0.1677	0.0526	0.1017	0.3931	0.2994	0.0900	0.2123
ETS	PI_0.2	0.5724	0.5695	0.5670	0.9331	0.1845	0.1384	0.0435	0.0839	0.3713	0.2788	0.0835	0.2022
ETS	PI_0.4	0.5778	0.5728	0.5673	0.9337	0.1607	0.1195	0.0374	0.0727	0.3471	0.2609	0.0778	0.1936
ETS	PI_0.5	0.5820	0.5754	0.5676	0.9343	0.1544	0.1149	0.0359	0.0701	0.3366	0.2531	0.0754	0.1901
ETS	PI_0.6	0.5871	0.5786	0.5679	0.9351	0.1523	0.1140	0.0353	0.0698	0.3272	0.2462	0.0732	0.1870
ETS	PI_0.8	0.5996	0.5867	0.5690	0.9372	0.1603	0.1220	0.0372	0.0757	0.3126	0.2356	0.0699	0.1826
ETS	PI_1	0.6150	0.5969	0.5704	0.9400	0.1834	0.1411	0.0428	0.0889	0.3050	0.2301	0.0682	0.1807
ETS	FI_0.2	0.5721	0.5694	0.5669	0.9330	0.1822	0.1370	0.0430	0.0830	0.3662	0.2750	0.0824	0.2002
ETS	FI_0.4	0.5775	0.5729	0.5671	0.9332	0.1460	0.1092	0.0341	0.0661	0.3220	0.2421	0.0722	0.1838
ETS	FI_0.5	0.5827	0.5762	0.5673	0.9335	0.1277	0.0954	0.0297	0.0577	0.2931	0.2205	0.0655	0.1727
ETS	FI_0.6	0.5903	0.5812	0.5677	0.9341	0.1085	0.0810	0.0251	0.0490	0.2575	0.1939	0.0575	0.1583
ETS	FI_0.8	0.6190	0.6000	0.5694	0.9370	0.0638	0.0477	0.0146	0.0295	0.1579	0.1192	0.0351	0.1110
ETS	FI_1	0.6837	0.6434	0.5741	0.9524	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ARIMA	Base	0.5568	0.5690	0.5732	0.9510	0.2114	0.1717	0.0644	0.0958	0.3689	0.2993	0.0855	0.2025
ARIMA	PI_0.2	0.5576	0.5690	0.5724	0.9509	0.1749	0.1413	0.0514	0.0782	0.3420	0.2775	0.0766	0.1924
ARIMA	PI_0.4	0.5626	0.5721	0.5721	0.9514	0.1508	0.1215	0.0416	0.0666	0.3183	0.2584	0.0689	0.1837
ARIMA	PI_0.5	0.5666	0.5748	0.5722	0.9519	0.1442	0.1162	0.0384	0.0635	0.3080	0.2500	0.0656	0.1800
ARIMA	PI_0.6	0.5714	0.5780	0.5724	0.9526	0.1417	0.1144	0.0367	0.0626	0.2988	0.2426	0.0628	0.1769
ARIMA	PI_0.8	0.5834	0.5864	0.5733	0.9544	0.1488	0.1209	0.0376	0.0670	0.2846	0.2310	0.0588	0.1722
ARIMA	PI_1	0.5983	0.5971	0.5748	0.9569	0.1708	0.1394	0.0440	0.0790	0.2773	0.2252	0.0576	0.1699
ARIMA	FI_0.2	0.5575	0.5689	0.5723	0.9509	0.1730	0.1399	0.0512	0.0776	0.3373	0.2738	0.0756	0.1907
ARIMA	FI_0.4	0.5629	0.5722	0.5718	0.9513	0.1379	0.1114	0.0392	0.0614	0.2954	0.2400	0.0641	0.1751
ARIMA	FI_0.5	0.5681	0.5756	0.5718	0.9518	0.1203	0.0971	0.0333	0.0535	0.2683	0.2181	0.0573	0.1647
ARIMA	FI_0.6	0.5757	0.5807	0.5719	0.9525	0.1019	0.0823	0.0274	0.0455	0.2352	0.1913	0.0494	0.1512
ARIMA	FI_0.8	0.6034	0.5999	0.5730	0.9556	0.0595	0.0481	0.0149	0.0276	0.1436	0.1170	0.0293	0.1064
ARIMA	FI_1	0.6637	0.6436	0.5767	0.9699	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table A.3: sMAPE, sMAPC and sMAPC_I results of vertical stability experiments.

		sMAPE				sMAPC				sMAPC_I			
		M4	M3	Favorita	M5	M4	M3	Favorita	M5	M4	M3	Favorita	M5
N-BEATS	Base	9.296	11.485	-	-	4.717	3.932	-	-	6.468	5.786	-	-
N-BEATS	Stable	9.279	11.390	-	-	3.336	2.820	-	-	5.270	4.705	-	-
N-BEATS	PI_0.2	9.265	11.461	-	-	3.745	3.181	-	-	5.886	5.288	-	-
N-BEATS	PI_0.4	9.324	11.484	-	-	3.050	2.649	-	-	5.386	4.850	-	-
N-BEATS	PI_0.5	9.384	11.511	-	-	2.865	2.508	-	-	5.169	4.657	-	-
N-BEATS	PI_0.6	9.464	11.553	-	-	2.808	2.451	-	-	4.976	4.485	-	-
N-BEATS	PI_0.8	9.677	11.673	-	-	2.998	2.569	-	-	4.665	4.202	-	-
N-BEATS	PI_1	9.956	11.831	-	-	3.450	2.889	-	-	4.462	4.000	-	-
N-BEATS	FI_0.2	9.261	11.454	-	-	3.732	3.158	-	-	5.806	5.212	-	-
N-BEATS	FI_0.4	9.318	11.458	-	-	2.851	2.444	-	-	4.991	4.483	-	-
N-BEATS	FI_0.5	9.390	11.478	-	-	2.429	2.095	-	-	4.489	4.029	-	-
N-BEATS	FI_0.6	9.502	11.518	-	-	2.008	1.743	-	-	3.897	3.492	-	-
N-BEATS	FI_0.8	9.919	11.703	-	-	1.119	0.977	-	-	2.339	2.082	-	-
N-BEATS	FI_1	10.806	12.219	-	-	0.000	0.000	-	-	0.000	0.000	-	-
PR	Base	10.632	12.622	103.351	54.964	3.245	3.518	29.190	17.559	5.282	4.896	36.772	26.876
PR	PI_0.2	10.713	12.638	103.255	54.579	2.743	2.880	24.303	13.857	4.817	4.407	33.580	25.222
PR	PI_0.4	10.822	12.680	103.173	54.392	2.350	2.385	20.319	11.260	4.390	3.971	30.665	23.894
PR	PI_0.5	10.886	12.712	103.196	54.374	2.221	2.222	19.011	10.650	4.192	3.777	29.261	23.366
PR	PI_0.6	10.956	12.751	103.269	54.406	2.142	2.132	18.160	10.565	4.007	3.604	27.930	22.935
PR	PI_0.8	11.116	12.851	103.566	54.629	2.118	2.154	17.694	11.810	3.679	3.317	25.568	22.392
PR	PI_1	11.302	12.981	104.084	55.087	2.244	2.388	18.739	14.375	3.418	3.128	23.677	22.273
PR	FI_0.2	10.720	12.638	103.627	54.532	2.715	2.858	24.670	13.856	4.748	4.341	33.216	24.994
PR	FI_0.4	10.860	12.685	103.530	54.162	2.177	2.217	19.386	10.504	4.064	3.661	28.954	22.720
PR	FI_0.5	10.957	12.726	103.563	53.987	1.893	1.894	16.809	8.925	3.640	3.253	26.342	21.269
PR	FI_0.6	11.080	12.783	103.673	53.812	1.594	1.565	13.911	7.361	3.144	2.786	23.174	19.446
PR	FI_0.8	11.448	12.972	104.248	53.556	0.909	0.856	8.077	4.213	1.860	1.618	14.923	13.662
PR	FI_1	12.103	13.333	105.775	54.936	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LightGBM	Base	11.125	12.653	101.341	52.207	3.566	3.478	13.216	9.992	5.450	4.887	18.787	17.961
LightGBM	PI_0.2	11.211	12.680	101.229	52.100	2.950	2.812	10.796	8.108	4.939	4.412	16.703	16.996
LightGBM	PI_0.4	11.332	12.738	101.171	52.081	2.466	2.304	8.846	6.792	4.479	3.996	14.821	16.204
LightGBM	PI_0.5	11.405	12.779	101.155	52.092	2.307	2.146	8.146	6.445	4.270	3.813	13.963	15.862
LightGBM	PI_0.6	11.487	12.827	101.149	52.116	2.223	2.072	7.686	6.466	4.077	3.648	13.163	15.554
LightGBM	PI_0.8	11.673	12.944	101.164	52.209	2.237	2.146	7.359	7.063	3.744	3.375	11.764	15.057
LightGBM	PI_1	11.889	13.089	101.222	52.398	2.440	2.417	7.697	8.259	3.496	3.190	10.659	14.796
LightGBM	FI_0.2	11.221	12.683	101.214	52.079	2.929	2.798	10.701	8.029	4.868	4.349	16.457	16.826
LightGBM	FI_0.4	11.386	12.757	101.120	51.988	2.310	2.165	8.257	6.264	4.144	3.693	13.698	15.369
LightGBM	FI_0.5	11.503	12.815	101.086	51.946	1.993	1.852	7.025	5.398	3.701	3.297	12.087	14.393
LightGBM	FI_0.6	11.652	12.892	101.067	51.907	1.663	1.533	5.768	4.523	3.187	2.838	10.274	13.138
LightGBM	FI_0.8	12.087	13.136	101.107	51.888	0.929	0.845	3.095	2.636	1.868	1.665	5.861	9.062
LightGBM	FI_1	12.827	13.610	101.323	52.690	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ETS	Base	9.984	11.344	104.820	50.866	3.916	3.210	14.192	6.450	6.995	5.011	20.956	11.689
ETS	PI_0.2	10.007	11.332	104.752	50.823	3.652	2.623	12.224	5.375	6.632	4.615	19.505	11.081
ETS	PI_0.4	10.114	11.369	104.742	50.821	3.153	2.213	10.764	4.682	6.130	4.265	18.117	10.560
ETS	PI_0.5	10.195	11.404	104.762	50.834	3.015	2.101	10.332	4.520	5.900	4.106	17.454	10.337
ETS	PI_0.6	10.291	11.449	104.799	50.858	2.960	2.077	10.072	4.488	5.686	3.958	16.817	10.138
ETS	PI_0.8	10.530	11.572	104.928	50.937	3.038	2.186	10.001	4.778	5.306	3.702	15.616	9.825
ETS	PI_1	10.823	11.735	105.120	51.059	3.292	2.432	10.328	5.460	4.996	3.500	14.373	9.646
ETS	FI_0.2	9.995	11.328	104.732	50.811	3.601	2.600	12.106	5.313	6.538	4.552	19.279	10.968
ETS	FI_0.4	10.086	11.356	104.653	50.768	2.862	2.042	9.982	4.248	5.682	3.958	17.022	10.001
ETS	FI_0.5	10.175	11.392	104.621	50.751	2.488	1.764	8.833	3.707	5.137	3.581	15.560	9.354
ETS	FI_0.6	10.312	11.451	104.600	50.737	2.101	1.480	7.612	3.131	4.485	3.128	13.820	8.524
ETS	FI_0.8	10.831	11.695	104.630	50.750	1.229	0.854	4.620	1.848	2.733	1.909	8.957	5.892
ETS	FI_1	11.949	12.303	105.123	51.212	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ARIMA	Base	9.536	11.432	103.635	51.050	3.975	3.136	12.386	5.457	6.295	4.891	15.665	10.441
ARIMA	PI_0.2	9.552	11.422	103.460	51.018	3.266	2.564	10.135	4.489	5.774	4.471	14.095	9.873
ARIMA	PI_0.4	9.644	11.461	103.366	51.017	2.780	2.163	8.294	3.832	5.305	4.097	12.704	9.380
ARIMA	PI_0.5	9.716	11.496	103.352	51.029	2.642	2.046	7.667	3.657	5.091	3.929	12.072	9.166
ARIMA	PI_0.6	9.803	11.541	103.362	51.048	2.583	1.998	7.354	3.606	4.893	3.773	11.485	8.977
ARIMA	PI_0.8	10.019	11.662	103.441	51.111	2.651	2.058	7.347	3.837	4.549	3.506	10.495	8.681
ARIMA	PI_1	10.286	11.821	103.624	51.206	2.914	2.275	7.906	4.428	4.288	3.311	9.690	8.503
ARIMA	FI_0.2	9.548	11.418	103.443	51.012	3.232	2.539	10.055	4.455	5.691	4.409	13.923	9.780
ARIMA	FI_0.4	9.643	11.450	103.298	50.990	2.547	1.993	7.805	3.535	4.912	3.798	11.887	8.915
ARIMA	FI_0.5	9.733	11.488	103.248	50.986	2.205	1.722	6.715	3.084	4.422	3.417	10.689	8.343
ARIMA	FI_0.6	9.865	11.547	103.214	50.987	1.852	1.442	5.590	2.623	3.840	2.965	9.323	7.615
ARIMA	FI_0.8	10.329	11.780	103.245	51.038	1.059	0.820	3.203	1.593	2.301	1.771	5.865	5.286
ARIMA	FI_1	11.278	12.340	103.636	51.487	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Tables A.4, A.5 and A.6 respectively show the MASE, RMSSE, and sMAPE based accuracy and stability results of horizontal stability experiments across the four experimental datasets.

Table A.4: MASE, MASC and MASC_I results of horizontal stability experiments.

		MASE				MASC				MASC_I			
		M4	M3	Favorita	M5	M4	M3	Favorita	M5	M4	M3	Favorita	M5
N-BEATS	Base	0.7264	0.6754	-	-	0.3549	0.4835	-	-	0.6014	0.6899	-	-
N-BEATS	PI_0.2	0.7269	0.6756	-	-	0.3538	0.4800	-	-	0.6002	0.6889	-	-
N-BEATS	PI_0.4	0.7291	0.6760	-	-	0.3534	0.4776	-	-	0.5993	0.6884	-	-
N-BEATS	PI_0.5	0.7307	0.6762	-	-	0.3536	0.4769	-	-	0.5990	0.6883	-	-
N-BEATS	PI_0.6	0.7325	0.6765	-	-	0.3539	0.4765	-	-	0.5988	0.6883	-	-
N-BEATS	PI_0.8	0.7365	0.6770	-	-	0.3551	0.4767	-	-	0.5988	0.6887	-	-
N-BEATS	PI_1	0.7412	0.6776	-	-	0.3570	0.4780	-	-	0.5991	0.6896	-	-
N-BEATS	FI_0.2	0.7269	0.6755	-	-	0.3537	0.4802	-	-	0.5999	0.6889	-	-
N-BEATS	FI_0.4	0.7291	0.6758	-	-	0.3529	0.4781	-	-	0.5979	0.6882	-	-
N-BEATS	FI_0.5	0.7308	0.6760	-	-	0.3526	0.4774	-	-	0.5968	0.6879	-	-
N-BEATS	FI_0.6	0.7330	0.6763	-	-	0.3523	0.4768	-	-	0.5957	0.6879	-	-
N-BEATS	FI_0.8	0.7402	0.6768	-	-	0.3522	0.4764	-	-	0.5942	0.6890	-	-
N-BEATS	FI_1	0.7542	0.6779	-	-	0.3533	0.4773	-	-	0.5979	0.6950	-	-
PR	Base	0.8029	0.7184	1.0116	1.7814	0.3409	0.4695	0.2533	0.2835	0.5874	0.6759	0.3311	0.6362
PR	PI_0.2	0.8021	0.7180	1.0112	1.7818	0.3398	0.4660	0.2154	0.2757	0.5862	0.6749	0.3158	0.6322
PR	PI_0.4	0.8014	0.7178	1.0128	1.7826	0.3394	0.4636	0.1921	0.2712	0.5853	0.6744	0.3057	0.6290
PR	PI_0.5	0.8012	0.7178	1.0143	1.7831	0.3396	0.4629	0.1880	0.2704	0.5850	0.6743	0.3026	0.6279
PR	PI_0.6	0.8009	0.7178	1.0163	1.7836	0.3399	0.4625	0.1908	0.2705	0.5848	0.6743	0.3011	0.6270
PR	PI_0.8	0.8005	0.7182	1.0216	1.7850	0.3411	0.4627	0.2122	0.2737	0.5848	0.6747	0.3033	0.6263
PR	PI_1	0.8002	0.7187	1.0289	1.7866	0.3430	0.4640	0.2485	0.2805	0.5851	0.6756	0.3136	0.6272
PR	FI_0.2	0.8020	0.7181	1.0116	1.7819	0.3397	0.4662	0.2142	0.2750	0.5859	0.6749	0.3133	0.6315
PR	FI_0.4	0.8010	0.7184	1.0152	1.7833	0.3389	0.4641	0.1829	0.2678	0.5839	0.6742	0.2930	0.6259
PR	FI_0.5	0.8005	0.7189	1.0188	1.7846	0.3386	0.4634	0.1702	0.2647	0.5828	0.6739	0.2809	0.6228
PR	FI_0.6	0.8000	0.7197	1.0241	1.7869	0.3383	0.4628	0.1597	0.2620	0.5817	0.6739	0.2670	0.6194
PR	FI_0.8	0.7995	0.7230	1.0437	1.7997	0.3382	0.4624	0.1452	0.2583	0.5802	0.6750	0.2378	0.6136
PR	FI_1	0.8017	0.7311	1.0878	1.8807	0.3393	0.4633	0.1426	0.2601	0.5839	0.6810	0.2483	0.6673
LightGBM	Base	0.7900	0.7087	1.0049	1.7788	0.3471	0.4711	0.1607	0.2852	0.6086	0.6887	0.2545	0.6923
LightGBM	PI_0.2	0.7886	0.7080	1.0044	1.7784	0.3454	0.4679	0.1513	0.2807	0.6059	0.6870	0.2499	0.6895
LightGBM	PI_0.4	0.7875	0.7076	1.0043	1.7782	0.3445	0.4664	0.1464	0.2781	0.6037	0.6859	0.2469	0.6874
LightGBM	PI_0.5	0.7870	0.7076	1.0044	1.7782	0.3444	0.4663	0.1460	0.2776	0.6028	0.6856	0.2460	0.6866
LightGBM	PI_0.6	0.7865	0.7076	1.0046	1.7783	0.3445	0.4667	0.1469	0.2777	0.6019	0.6854	0.2454	0.6861
LightGBM	PI_0.8	0.7856	0.7078	1.0054	1.7786	0.3454	0.4689	0.1526	0.2795	0.6006	0.6856	0.2460	0.6856
LightGBM	PI_1	0.7849	0.7084	1.0064	1.7792	0.3471	0.4728	0.1630	0.2834	0.5997	0.6864	0.2488	0.6862
LightGBM	FI_0.2	0.7884	0.7079	1.0045	1.7783	0.3452	0.4678	0.1513	0.2796	0.6054	0.6868	0.2494	0.6888
LightGBM	FI_0.4	0.7861	0.7073	1.0051	1.7778	0.3436	0.4655	0.1450	0.2735	0.6010	0.6846	0.2443	0.6843
LightGBM	FI_0.5	0.7847	0.7070	1.0059	1.7776	0.3428	0.4647	0.1430	0.2703	0.5983	0.6835	0.2417	0.6816
LightGBM	FI_0.6	0.7831	0.7069	1.0074	1.7776	0.3420	0.4640	0.1416	0.2671	0.5951	0.6822	0.2392	0.6785
LightGBM	FI_0.8	0.7796	0.7076	1.0130	1.7788	0.3404	0.4632	0.1408	0.2620	0.5881	0.6801	0.2364	0.6706
LightGBM	FI_1	0.7777	0.7123	1.0260	1.7939	0.3393	0.4633	0.1426	0.2601	0.5839	0.6810	0.2483	0.6673
ETS	Base	0.7494	0.6984	0.9844	1.7762	0.3680	0.4669	0.2662	0.3541	0.6231	0.6847	0.3469	0.7475
ETS	PI_0.2	0.7499	0.6986	0.9845	1.7752	0.3624	0.4659	0.2262	0.3364	0.6198	0.6843	0.3313	0.7417
ETS	PI_0.4	0.7521	0.6990	0.9885	1.7750	0.3584	0.4651	0.2024	0.3243	0.6171	0.6841	0.3230	0.7375
ETS	PI_0.5	0.7537	0.6992	0.9919	1.7753	0.3570	0.4648	0.1992	0.3205	0.6160	0.6840	0.3216	0.7361
ETS	PI_0.6	0.7555	0.6995	0.9961	1.7758	0.3561	0.4646	0.2031	0.3183	0.6150	0.6840	0.3221	0.7351
ETS	PI_0.8	0.7595	0.7000	1.0071	1.7775	0.3554	0.4642	0.2282	0.3188	0.6135	0.6839	0.3283	0.7342
ETS	PI_1	0.7642	0.7006	1.0212	1.7801	0.3566	0.4639	0.2680	0.3260	0.6125	0.6838	0.3423	0.7349
ETS	FI_0.2	0.7499	0.6985	0.9843	1.7751	0.3620	0.4658	0.2259	0.3347	0.6191	0.6843	0.3285	0.7404
ETS	FI_0.4	0.7521	0.6988	0.9875	1.7746	0.3564	0.4650	0.1948	0.3152	0.6141	0.6838	0.3092	0.7322
ETS	FI_0.5	0.7538	0.6990	0.9905	1.7746	0.3536	0.4646	0.1821	0.3050	0.6108	0.6835	0.2982	0.7273
ETS	FI_0.6	0.7560	0.6993	0.9950	1.7747	0.3507	0.4643	0.1713	0.2944	0.6070	0.6831	0.2857	0.7218
ETS	FI_0.8	0.7632	0.6998	1.0100	1.7749	0.3447	0.4637	0.1545	0.2742	0.5968	0.6822	0.2578	0.7063
ETS	FI_1	0.7772	0.7009	1.0437	1.7763	0.3393	0.4633	0.1426	0.2601	0.5839	0.6810	0.2483	0.6673
ARIMA	Base	1.3088	0.7769	1.1878	34.9025	0.7833	0.5080	0.2380	36.7432	1.1595	0.7194	0.3517	35.9053
ARIMA	PI_0.2	1.2408	0.7762	1.1864	33.2300	0.7159	0.4963	0.2139	26.6648	1.0746	0.7159	0.3436	34.1113
ARIMA	PI_0.4	1.1732	0.7761	1.1864	31.5609	0.6506	0.4866	0.1953	17.4547	0.9913	0.7135	0.3378	32.3239
ARIMA	PI_0.5	1.1396	0.7762	1.1868	30.7275	0.6196	0.4829	0.1893	15.5694	0.9499	0.7126	0.3355	31.4321
ARIMA	PI_0.6	1.1059	0.7764	1.1873	29.8949	0.5927	0.4840	0.1917	16.7844	0.9087	0.7119	0.3335	30.5415
ARIMA	PI_0.8	1.0388	0.7771	1.1887	28.2317	0.5409	0.4886	0.2018	19.5073	0.8269	0.7110	0.3306	28.7658
ARIMA	PI_1	0.9721	0.7781	1.1911	26.5722	0.4918	0.4966	0.2192	22.3173	0.7469	0.7112	0.3309	26.9994
ARIMA	FI_0.2	1.2366	0.7761	1.1860	32.4353	0.7117	0.4963	0.2140	27.2426	1.0692	0.7154	0.3421	33.2626
ARIMA	FI_0.4	1.1558	0.7754	1.1850	28.2671	0.6324	0.4859	0.1936	18.8747	0.9686	0.7109	0.3304	28.8047
ARIMA	FI_0.5	1.1119	0.7750	1.1847	25.4729	0.5896	0.4810	0.1841	15.3196	0.9137	0.7081	0.3226	25.8168
ARIMA	FI_0.6	1.0656	0.7745	1.1845	22.1510	0.5444	0.4765	0.1750	11.9738	0.8553	0.7047	0.3129	22.2637
ARIMA	FI_0.8	0.9653	0.7727	1.1851	13.6758	0.4467	0.4685	0.1577	6.0316	0.7272	0.6948	0.2849	13.1873
ARIMA	FI_1	0.8546	0.7708	1.1894	2.0631	0.3393	0.4633	0.1426	0.2601	0.5839	0.6810	0.2483	0.6673

Table A.5: RMSSE, RMSSC and RMSSC_I results of horizontal stability experiments.

		RMSSE				RMSSC				RMSSC_I			
		M4	M3	Favorita	M5	M4	M3	Favorita	M5	M4	M3	Favorita	M5
N-BEATS	Base	0.6192	0.6122	-	-	0.3284	0.4469	-	-	0.5202	0.6115	-	-
N-BEATS	PI_0.2	0.6200	0.6125	-	-	0.3275	0.4439	-	-	0.5195	0.6105	-	-
N-BEATS	PI_0.4	0.6224	0.6130	-	-	0.3272	0.4419	-	-	0.5191	0.6099	-	-
N-BEATS	PI_0.5	0.6241	0.6133	-	-	0.3274	0.4413	-	-	0.5190	0.6098	-	-
N-BEATS	PI_0.6	0.6260	0.6136	-	-	0.3276	0.4410	-	-	0.5190	0.6098	-	-
N-BEATS	PI_0.8	0.6305	0.6143	-	-	0.3287	0.4412	-	-	0.5192	0.6102	-	-
N-BEATS	PI_1	0.6355	0.6150	-	-	0.3304	0.4424	-	-	0.5197	0.6110	-	-
N-BEATS	FI_0.2	0.6200	0.6124	-	-	0.3274	0.4440	-	-	0.5192	0.6105	-	-
N-BEATS	FI_0.4	0.6223	0.6128	-	-	0.3267	0.4421	-	-	0.5180	0.6097	-	-
N-BEATS	FI_0.5	0.6241	0.6130	-	-	0.3264	0.4415	-	-	0.5173	0.6095	-	-
N-BEATS	FI_0.6	0.6264	0.6133	-	-	0.3262	0.4410	-	-	0.5165	0.6094	-	-
N-BEATS	FI_0.8	0.6330	0.6140	-	-	0.3260	0.4406	-	-	0.5155	0.6103	-	-
N-BEATS	FI_1	0.6453	0.6151	-	-	0.3269	0.4413	-	-	0.5185	0.6153	-	-
PR	Base	0.6849	0.6510	0.7235	1.2528	0.3144	0.4329	0.1798	0.2251	0.5062	0.5975	0.2228	0.4433
PR	PI_0.2	0.6842	0.6504	0.7230	1.2529	0.3135	0.4299	0.1520	0.2191	0.5055	0.5965	0.2103	0.4407
PR	PI_0.4	0.6837	0.6500	0.7241	1.2532	0.3132	0.4279	0.1346	0.2157	0.5051	0.5959	0.2028	0.4389
PR	PI_0.5	0.6834	0.6499	0.7252	1.2534	0.3134	0.4273	0.1317	0.2151	0.5050	0.5958	0.2013	0.4383
PR	PI_0.6	0.6832	0.6499	0.7267	1.2537	0.3136	0.4270	0.1334	0.2152	0.5050	0.5958	0.2015	0.4379
PR	PI_0.8	0.6829	0.6500	0.7309	1.2546	0.3147	0.4272	0.1492	0.2176	0.5052	0.5962	0.2065	0.4379
PR	PI_1	0.6827	0.6504	0.7365	1.2556	0.3164	0.4284	0.1767	0.2227	0.5057	0.5970	0.2171	0.4388
PR	FI_0.2	0.6842	0.6505	0.7233	1.2529	0.3134	0.4300	0.1515	0.2187	0.5052	0.5965	0.2085	0.4401
PR	FI_0.4	0.6834	0.6505	0.7254	1.2534	0.3127	0.4281	0.1289	0.2135	0.5040	0.5957	0.1939	0.4363
PR	FI_0.5	0.6830	0.6508	0.7278	1.2540	0.3124	0.4275	0.1198	0.2113	0.5033	0.5955	0.1859	0.4342
PR	FI_0.6	0.6826	0.6513	0.7312	1.2551	0.3122	0.4270	0.1122	0.2095	0.5025	0.5954	0.1770	0.4317
PR	FI_0.8	0.6824	0.6538	0.7435	1.2621	0.3120	0.4266	0.1017	0.2071	0.5015	0.5963	0.1582	0.4275
PR	FI_1	0.6848	0.6604	0.7709	1.3106	0.3129	0.4273	0.0998	0.2082	0.5045	0.6013	0.1633	0.4603
LightGBM	Base	0.6761	0.6433	0.7201	1.2517	0.3199	0.4345	0.1139	0.2240	0.5232	0.6078	0.1685	0.4758
LightGBM	PI_0.2	0.6752	0.6426	0.7197	1.2514	0.3183	0.4315	0.1066	0.2205	0.5215	0.6063	0.1652	0.4741
LightGBM	PI_0.4	0.6745	0.6422	0.7197	1.2513	0.3174	0.4302	0.1026	0.2185	0.5201	0.6055	0.1632	0.4730
LightGBM	PI_0.5	0.6741	0.6422	0.7198	1.2513	0.3173	0.4301	0.1022	0.2182	0.5196	0.6053	0.1628	0.4727
LightGBM	PI_0.6	0.6739	0.6422	0.7199	1.2513	0.3174	0.4305	0.1028	0.2183	0.5191	0.6052	0.1628	0.4725
LightGBM	PI_0.8	0.6734	0.6425	0.7205	1.2516	0.3182	0.4324	0.1072	0.2197	0.5185	0.6056	0.1639	0.4726
LightGBM	PI_1	0.6732	0.6432	0.7214	1.2520	0.3197	0.4358	0.1150	0.2227	0.5182	0.6067	0.1665	0.4734
LightGBM	FI_0.2	0.6750	0.6425	0.7198	1.2513	0.3181	0.4314	0.1067	0.2199	0.5210	0.6061	0.1648	0.4736
LightGBM	FI_0.4	0.6734	0.6418	0.7201	1.2509	0.3166	0.4293	0.1018	0.2159	0.5180	0.6043	0.1614	0.4706
LightGBM	FI_0.5	0.6724	0.6416	0.7207	1.2507	0.3159	0.4286	0.1002	0.2139	0.5160	0.6034	0.1598	0.4688
LightGBM	FI_0.6	0.6712	0.6414	0.7217	1.2507	0.3152	0.4280	0.0991	0.2120	0.5136	0.6024	0.1584	0.4668
LightGBM	FI_0.8	0.6686	0.6420	0.7256	1.2513	0.3138	0.4272	0.0984	0.2091	0.5081	0.6006	0.1565	0.4618
LightGBM	FI_1	0.6676	0.6457	0.7345	1.2608	0.3129	0.4273	0.0998	0.2082	0.5045	0.6013	0.1633	0.4603
ETS	Base	0.6422	0.6352	0.7003	1.2495	0.3406	0.4313	0.1979	0.2681	0.5391	0.6053	0.2435	0.5132
ETS	PI_0.2	0.6430	0.6355	0.7009	1.2487	0.3345	0.4302	0.1660	0.2556	0.5359	0.6048	0.2296	0.5084
ETS	PI_0.4	0.6454	0.6360	0.7046	1.2485	0.3298	0.4293	0.1464	0.2464	0.5333	0.6043	0.2224	0.5050
ETS	PI_0.5	0.6471	0.6363	0.7075	1.2487	0.3281	0.4289	0.1437	0.2433	0.5322	0.6042	0.2217	0.5039
ETS	PI_0.6	0.6490	0.6366	0.7111	1.2491	0.3268	0.4285	0.1465	0.2416	0.5314	0.6040	0.2230	0.5031
ETS	PI_0.8	0.6535	0.6373	0.7203	1.2504	0.3257	0.4280	0.1672	0.2420	0.5303	0.6038	0.2314	0.5028
ETS	PI_1	0.6585	0.6380	0.7318	1.2524	0.3268	0.4278	0.2005	0.2474	0.5300	0.6037	0.2460	0.5040
ETS	FI_0.2	0.6430	0.6354	0.7008	1.2486	0.3343	0.4302	0.1661	0.2547	0.5353	0.6047	0.2276	0.5074
ETS	FI_0.4	0.6453	0.6358	0.7039	1.2482	0.3286	0.4293	0.1413	0.2415	0.5306	0.6041	0.2120	0.5006
ETS	FI_0.5	0.6471	0.6360	0.7065	1.2483	0.3258	0.4289	0.1311	0.2349	0.5277	0.6038	0.2035	0.4967
ETS	FI_0.6	0.6494	0.6363	0.7101	1.2484	0.3230	0.4285	0.1223	0.2284	0.5243	0.6034	0.1942	0.4924
ETS	FI_0.8	0.6560	0.6370	0.7211	1.2488	0.3176	0.4278	0.1084	0.2164	0.5155	0.6025	0.1733	0.4817
ETS	FI_1	0.6683	0.6381	0.7434	1.2496	0.3129	0.4273	0.0998	0.2082	0.5045	0.6013	0.1633	0.4603
ARIMA	Base	1.4264	0.7078	0.8050	46.0151	0.8967	0.4765	0.1371	46.6255	1.2955	0.6440	0.2015	46.6605
ARIMA	PI_0.2	1.3235	0.7033	0.8028	41.2261	0.8141	0.4619	0.1266	34.2297	1.1813	0.6373	0.1968	41.7089
ARIMA	PI_0.4	1.2221	0.7008	0.8017	38.0755	0.7347	0.4515	0.1192	24.0289	1.0690	0.6327	0.1936	38.4506
ARIMA	PI_0.5	1.1722	0.7005	0.8015	37.2463	0.6973	0.4490	0.1174	20.8793	1.0138	0.6316	0.1928	37.5930
ARIMA	PI_0.6	1.1228	0.7008	0.8017	36.9551	0.6621	0.4489	0.1173	20.0628	0.9593	0.6313	0.1925	37.2918
ARIMA	PI_0.8	1.0257	0.7033	0.8028	37.9662	0.5974	0.4550	0.1223	25.6570	0.8527	0.6329	0.1935	38.3375
ARIMA	PI_1	0.9312	0.7078	0.8051	40.8746	0.5382	0.4665	0.1316	36.2849	0.7491	0.6371	0.1964	41.3445
ARIMA	FI_0.2	1.3162	0.7031	0.8027	40.4879	0.8075	0.4623	0.1267	34.8273	1.1732	0.6368	0.1964	40.9461
ARIMA	FI_0.4	1.1917	0.6991	0.8007	34.1779	0.7060	0.4507	0.1183	24.9892	1.0348	0.6300	0.1910	34.4229
ARIMA	FI_0.5	1.1236	0.6972	0.7999	30.4485	0.6501	0.4456	0.1146	20.6337	0.9590	0.6264	0.1879	30.5675
ARIMA	FI_0.6	1.0515	0.6954	0.7990	26.1920	0.5906	0.4411	0.1112	16.5367	0.8784	0.6225	0.1843	26.1669
ARIMA	FI_0.8	0.8942	0.6917	0.7977	15.6377	0.4599	0.4332	0.1050	8.6580	0.7021	0.6131	0.1749	15.2507
ARIMA	FI_1	0.7192	0.6887	0.7980	1.3881	0.3129	0.4273	0.0998	0.2082	0.5045	0.6013	0.1633	0.4603

Table A.6: sMAPE, sMAPC and sMAPC_I results of horizontal stability experiments.

		sMAPE				sMAPC				sMAPC_I			
		M4	M3	Favorita	M5	M4	M3	Favorita	M5	M4	M3	Favorita	M5
N-BEATS	Base	12.072	14.335	-	-	5.273	10.101	-	-	8.382	12.953	-	-
N-BEATS	PI_0.2	12.076	14.336	-	-	5.247	10.003	-	-	8.359	12.925	-	-
N-BEATS	PI_0.4	12.088	14.339	-	-	5.234	9.934	-	-	8.342	12.904	-	-
N-BEATS	PI_0.5	12.095	14.340	-	-	5.233	9.912	-	-	8.337	12.899	-	-
N-BEATS	PI_0.6	12.103	14.341	-	-	5.236	9.897	-	-	8.333	12.896	-	-
N-BEATS	PI_0.8	12.123	14.344	-	-	5.253	9.891	-	-	8.332	12.900	-	-
N-BEATS	PI_1	12.145	14.346	-	-	5.283	9.915	-	-	8.338	12.914	-	-
N-BEATS	FI_0.2	12.076	14.336	-	-	5.246	10.011	-	-	8.353	12.926	-	-
N-BEATS	FI_0.4	12.088	14.338	-	-	5.228	9.958	-	-	8.320	12.909	-	-
N-BEATS	FI_0.5	12.097	14.339	-	-	5.221	9.945	-	-	8.301	12.911	-	-
N-BEATS	FI_0.6	12.110	14.340	-	-	5.218	9.938	-	-	8.282	12.915	-	-
N-BEATS	FI_0.8	12.152	14.343	-	-	5.220	9.956	-	-	8.262	12.959	-	-
N-BEATS	FI_1	12.233	14.347	-	-	5.252	10.043	-	-	8.336	13.131	-	-
PR	Base	12.823	14.716	123.639	70.398	5.259	10.087	49.890	18.040	8.368	12.939	60.632	32.735
PR	PI_0.2	12.811	14.712	123.638	70.414	5.233	9.989	46.347	17.676	8.345	12.911	59.306	32.574
PR	PI_0.4	12.803	14.714	123.737	70.443	5.220	9.920	44.413	17.487	8.328	12.890	58.488	32.461
PR	PI_0.5	12.799	14.717	123.821	70.461	5.219	9.898	44.147	17.458	8.323	12.885	58.211	32.420
PR	PI_0.6	12.796	14.722	123.924	70.482	5.222	9.883	44.679	17.481	8.319	12.882	58.009	32.393
PR	PI_0.8	12.791	14.737	124.185	70.531	5.239	9.877	47.514	17.682	8.318	12.886	58.190	32.390
PR	PI_1	12.789	14.759	124.524	70.592	5.269	9.901	51.674	18.079	8.324	12.900	59.212	32.467
PR	FI_0.2	12.810	14.718	123.669	70.417	5.232	9.997	46.207	17.649	8.339	12.912	59.121	32.550
PR	FI_0.4	12.798	14.741	123.903	70.469	5.214	9.944	43.121	17.346	8.306	12.895	57.359	32.353
PR	FI_0.5	12.791	14.763	124.125	70.518	5.207	9.931	41.827	17.224	8.287	12.897	56.261	32.247
PR	FI_0.6	12.787	14.795	124.444	70.599	5.204	9.924	40.671	17.122	8.268	12.901	54.895	32.145
PR	FI_0.8	12.788	14.908	125.578	71.032	5.206	9.942	39.025	17.093	8.248	12.945	51.998	32.100
PR	FI_1	12.839	15.148	127.890	73.509	5.238	10.029	38.206	17.709	8.322	13.117	52.855	34.882
LightGBM	Base	12.658	14.569	124.022	70.406	5.327	10.095	40.282	18.199	8.645	13.109	52.567	34.424
LightGBM	PI_0.2	12.634	14.551	124.009	70.394	5.300	9.977	39.447	17.955	8.603	13.053	52.246	34.316
LightGBM	PI_0.4	12.613	14.543	124.017	70.390	5.289	9.923	39.073	17.822	8.567	13.017	52.064	34.234
LightGBM	PI_0.5	12.603	14.543	124.032	70.392	5.289	9.919	39.099	17.805	8.552	13.009	52.017	34.210
LightGBM	PI_0.6	12.594	14.546	124.055	70.396	5.294	9.928	39.301	17.819	8.540	13.003	52.011	34.194
LightGBM	PI_0.8	12.578	14.558	124.116	70.411	5.314	9.984	40.095	17.939	8.520	13.004	52.157	34.190
LightGBM	PI_1	12.564	14.580	124.194	70.435	5.348	10.091	41.358	18.179	8.510	13.024	52.548	34.239
LightGBM	FI_0.2	12.630	14.548	124.016	70.390	5.296	9.976	39.484	17.900	8.593	13.048	52.216	34.290
LightGBM	FI_0.4	12.591	14.534	124.067	70.380	5.272	9.901	39.000	17.600	8.523	12.993	51.919	34.135
LightGBM	FI_0.5	12.567	14.529	124.128	70.381	5.259	9.876	38.896	17.461	8.479	12.966	51.831	34.051
LightGBM	FI_0.6	12.539	14.527	124.223	70.391	5.245	9.849	38.882	17.335	8.428	12.939	51.798	33.962
LightGBM	FI_0.8	12.478	14.555	124.585	70.485	5.215	9.823	39.125	17.194	8.316	12.901	52.210	33.785
LightGBM	FI_1	12.442	14.689	125.388	71.169	5.191	9.879	39.377	17.436	8.259	12.964	54.209	34.201
ETS	Base	12.095	14.358	122.399	70.365	5.267	9.795	51.053	19.144	8.373	12.855	60.463	34.951
ETS	PI_0.2	12.099	14.359	122.279	70.331	5.242	9.790	47.310	18.734	8.355	12.853	59.149	34.816
ETS	PI_0.4	12.111	14.362	122.432	70.316	5.226	9.787	45.412	18.476	8.342	12.853	58.667	34.734
ETS	PI_0.5	12.118	14.363	122.592	70.314	5.220	9.786	45.561	18.408	8.337	12.853	58.717	34.714
ETS	PI_0.6	12.126	14.364	122.810	70.318	5.217	9.785	46.386	18.383	8.332	12.852	58.896	34.703
ETS	PI_0.8	12.146	14.367	123.341	70.339	5.219	9.783	49.168	18.467	8.325	12.852	59.552	34.712
ETS	PI_1	12.168	14.369	124.040	70.381	5.230	9.782	52.998	18.716	8.322	12.852	61.007	34.758
ETS	FI_0.2	12.099	14.359	122.263	70.326	5.240	9.790	47.280	18.699	8.352	12.853	58.884	34.790
ETS	FI_0.4	12.111	14.361	122.328	70.295	5.216	9.786	44.532	18.286	8.327	12.851	57.384	34.620
ETS	FI_0.5	12.120	14.362	122.444	70.282	5.205	9.785	43.457	18.072	8.312	12.849	56.416	34.530
ETS	FI_0.6	12.133	14.363	122.652	70.271	5.194	9.783	42.580	17.844	8.295	12.848	55.290	34.424
ETS	FI_0.8	12.175	14.366	123.476	70.257	5.171	9.781	40.360	17.384	8.254	12.843	52.834	34.124
ETS	FI_1	12.256	14.370	125.483	70.313	5.157	9.779	37.854	17.020	8.216	12.838	52.640	33.513
ARIMA	Base	12.737	14.655	115.525	66.626	4.817	8.767	29.390	15.261	7.744	11.598	40.141	27.523
ARIMA	PI_0.2	12.732	14.650	115.497	66.562	4.749	8.638	29.051	14.548	7.711	11.544	39.906	27.313
ARIMA	PI_0.4	12.730	14.646	115.493	66.533	4.704	8.548	28.766	14.041	7.688	11.509	39.776	27.193
ARIMA	PI_0.5	12.729	14.646	115.495	66.531	4.693	8.522	28.704	13.917	7.679	11.498	39.730	27.156
ARIMA	PI_0.6	12.729	14.648	115.498	66.536	4.692	8.516	28.750	13.969	7.672	11.490	39.697	27.135
ARIMA	PI_0.8	12.730	14.654	115.507	66.567	4.719	8.543	29.005	14.397	7.662	11.485	39.640	27.153
ARIMA	PI_1	12.731	14.662	115.526	66.635	4.771	8.622	29.501	15.077	7.661	11.493	39.591	27.267
ARIMA	FI_0.2	12.731	14.653	115.489	66.553	4.748	8.640	29.018	14.543	7.706	11.536	39.886	27.290
ARIMA	FI_0.4	12.725	14.654	115.469	66.493	4.689	8.531	28.591	13.910	7.661	11.473	39.622	27.070
ARIMA	FI_0.5	12.721	14.655	115.460	66.465	4.662	8.484	28.399	13.608	7.633	11.437	39.455	26.948
ARIMA	FI_0.6	12.717	14.656	115.455	66.437	4.636	8.443	28.223	13.317	7.600	11.396	39.243	26.802
ARIMA	FI_0.8	12.707	14.661	115.450	66.376	4.587	8.375	27.886	12.769	7.512	11.285	38.629	26.324
ARIMA	FI_1	12.701	14.669	115.505	66.396	4.552	8.340	27.726	12.393	7.413	11.161	37.874	25.094