

XG + select λ by msMAPE

Data Set:	Labour				
Base Forecast Method:	xg				
Best L1 Lambda:	31.6227766016838				
Best L2 Lambda:	10000				
level1:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.9479355	135.7864	116.1991	0.6172507	0.009390358
L1	0.9102403	130.8823	111.6538	0.5927052	0.009015392
L2	0.8565214	124.6215	105.1324	0.5579815	0.008477626
MinT	4.3837216	616.0741	539.7980	2.8821079	0.042735128
Bottom-Up	0.9102403	130.8823	111.6538	0.5927052	0.009015392
OLS	0.9158414	135.1538	112.8668	0.5977193	0.009055904

level2:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.474929	33.67673	20.12153	0.7774041	0.001636383
L1	1.484873	33.35617	20.05477	0.7822685	0.001631846
L2	1.480162	32.65205	19.71545	0.7734616	0.001602702
MinT	8.116020	107.54511	75.05653	4.1024544	0.005957659
Bottom-Up	1.484873	33.35617	20.05477	0.7822685	0.001631846
OLS	2.708283	32.87737	22.04824	1.3363981	0.001782303

level3:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.726231	18.87514	11.27230	0.8367995	0.0009179120
L1	1.767061	19.11264	11.44973	0.8570663	0.0009330971
L2	1.751791	18.76472	11.30372	0.8480570	0.0009202895
MinT	8.303146	56.36157	38.53457	3.7989419	0.0030602334
Bottom-Up	1.767061	19.11264	11.44973	0.8570663	0.0009330971
OLS	2.880892	18.50400	12.23948	1.2953890	0.0009909257

level4:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	3.604640	15.71633	9.236361	1.055784	0.0007554998
L1	3.537393	15.15379	9.013141	1.036662	0.0007379048
L2	3.564433	15.06269	8.989570	1.037531	0.0007353443
MinT	11.803082	33.11218	21.534982	3.015051	0.0017136648
Bottom-Up	3.537393	15.15379	9.013141	1.036662	0.0007379048
OLS	5.247278	15.13079	9.537792	1.316040	0.0007768283

overall:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	2.731852	27.34353	13.21214	0.9475501	0.001076211
L1	2.706294	26.72021	13.04751	0.9427561	0.001063380
L2	2.715585	26.01153	12.83126	0.9388700	0.001044823
MinT	10.172997	99.19974	42.91093	3.3853760	0.003406972
Bottom-Up	2.706294	26.72021	13.04751	0.9427561	0.001063380
OLS	4.150689	27.06860	13.86480	1.3004984	0.001123292

XG + select λ by RMSE

Data Set:	Labour				
Base Forecast Method:	xg				
Best L1 Lambda:	31.6227766016838				
Best L2 Lambda:	10000				
level1:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.9479355	135.7864	116.1991	0.6172507	0.009390358
L1	0.9102403	130.8823	111.6538	0.5927052	0.009015392
L2	0.8565214	124.6215	105.1324	0.5579815	0.008477626
MinT	4.3837216	616.0741	539.7980	2.8821079	0.042735128
Bottom-Up	0.9102403	130.8823	111.6538	0.5927052	0.009015392
OLS	0.9158414	135.1538	112.8668	0.5977193	0.009055904

level2:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.474929	33.67673	20.12153	0.7774041	0.001636383
L1	1.484873	33.35617	20.05477	0.7822685	0.001631846
L2	1.480162	32.65205	19.71545	0.7734616	0.001602702
MinT	8.116020	107.54511	75.05653	4.1024544	0.005957659
Bottom-Up	1.484873	33.35617	20.05477	0.7822685	0.001631846
OLS	2.708283	32.87737	22.04824	1.3363981	0.001782303

level3:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.726231	18.87514	11.27230	0.8367995	0.0009179120
L1	1.767061	19.11264	11.44973	0.8570663	0.0009330971
L2	1.751791	18.76472	11.30372	0.8480570	0.0009202895
MinT	8.303146	56.36157	38.53457	3.7989419	0.0030602334
Bottom-Up	1.767061	19.11264	11.44973	0.8570663	0.0009330971
OLS	2.880892	18.50400	12.23948	1.2953890	0.0009909257

level4:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	3.604640	15.71633	9.236361	1.055784	0.0007554998
L1	3.537393	15.15379	9.013141	1.036662	0.0007379048
L2	3.564433	15.06269	8.989570	1.037531	0.0007353443
MinT	11.803082	33.11218	21.534982	3.015051	0.0017136648
Bottom-Up	3.537393	15.15379	9.013141	1.036662	0.0007379048
OLS	5.247278	15.13079	9.537792	1.316040	0.0007768283

overall:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	2.731852	27.34353	13.21214	0.9475501	0.001076211
L1	2.706294	26.72021	13.04751	0.9427561	0.001063380
L2	2.715585	26.01153	12.83126	0.9388700	0.001044823
MinT	10.172997	99.19974	42.91093	3.3853760	0.003406972
Bottom-Up	2.706294	26.72021	13.04751	0.9427561	0.001063380
OLS	4.150689	27.06860	13.86480	1.3004984	0.001123292

XG + select λ by MASE

Data Set:	Labour				
Base Forecast Method:	xg				
Best L1 Lambda:	31.6227766016838				
Best L2 Lambda:	10000				
level1:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.9479355	135.7864	116.1991	0.6172507	0.009390358
L1	0.9102403	130.8823	111.6538	0.5927052	0.009015392
L2	0.8565214	124.6215	105.1324	0.5579815	0.008477626
MinT	4.3837216	616.0741	539.7980	2.8821079	0.042735128
Bottom-Up	0.9102403	130.8823	111.6538	0.5927052	0.009015392
OLS	0.9158414	135.1538	112.8668	0.5977193	0.009055904

level2:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.474929	33.67673	20.12153	0.7774041	0.001636383
L1	1.484873	33.35617	20.05477	0.7822685	0.001631846
L2	1.480162	32.65205	19.71545	0.7734616	0.001602702
MinT	8.116020	107.54511	75.05653	4.1024544	0.005957659
Bottom-Up	1.484873	33.35617	20.05477	0.7822685	0.001631846
OLS	2.708283	32.87737	22.04824	1.3363981	0.001782303

level3:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.726231	18.87514	11.27230	0.8367995	0.0009179120
L1	1.767061	19.11264	11.44973	0.8570663	0.0009330971
L2	1.751791	18.76472	11.30372	0.8480570	0.0009202895
MinT	8.303146	56.36157	38.53457	3.7989419	0.0030602334
Bottom-Up	1.767061	19.11264	11.44973	0.8570663	0.0009330971
OLS	2.880892	18.50400	12.23948	1.2953890	0.0009909257

level4:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	3.604640	15.71633	9.236361	1.055784	0.0007554998
L1	3.537393	15.15379	9.013141	1.036662	0.0007379048
L2	3.564433	15.06269	8.989570	1.037531	0.0007353443
MinT	11.803082	33.11218	21.534982	3.015051	0.0017136648
Bottom-Up	3.537393	15.15379	9.013141	1.036662	0.0007379048
OLS	5.247278	15.13079	9.537792	1.316040	0.0007768283

overall:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	2.731852	27.34353	13.21214	0.9475501	0.001076211
L1	2.706294	26.72021	13.04751	0.9427561	0.001063380
L2	2.715585	26.01153	12.83126	0.9388700	0.001044823
MinT	10.172997	99.19974	42.91093	3.3853760	0.003406972
Bottom-Up	2.706294	26.72021	13.04751	0.9427561	0.001063380
OLS	4.150689	27.06860	13.86480	1.3004984	0.001123292

XG + select λ by SMAPE

Data Set:	Labour				
Base Forecast Method:	xg				
Best L1 Lambda:	31.6227766016838				
Best L2 Lambda:	31622.7766016838				
level1:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.9479355	135.7864	116.1991	0.6172507	0.009390358
L1	0.9102403	130.8823	111.6538	0.5927052	0.009015392
L2	0.8837598	127.7861	108.4522	0.5756031	0.008750605
MinT	4.3837216	616.0741	539.7980	2.8821079	0.042735128
Bottom-Up	0.9102403	130.8823	111.6538	0.5927052	0.009015392
OLS	0.9158414	135.1538	112.8668	0.5977193	0.009055904

level2:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.474929	33.67673	20.12153	0.7774041	0.001636383
L1	1.484873	33.35617	20.05477	0.7822685	0.001631846
L2	1.463832	33.00729	19.85453	0.7705929	0.001614831
MinT	8.116020	107.54511	75.05653	4.1024544	0.005957659
Bottom-Up	1.484873	33.35617	20.05477	0.7822685	0.001631846
OLS	2.708283	32.87737	22.04824	1.3363981	0.001782303

level3:					
	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.726231	18.87514	11.27230	0.8367995	0.0009179120
L1	1.767061	19.11264	11.44973	0.8570663	0.0009330971
L2	1.744729	18.94496	11.36004	0.8471761	0.0009254002
MinT	8.303146	56.36157	38.53457	3.7989419	0.0030602334
Bottom-Up	1.767061	19.11264	11.44973	0.8570663	0.0009330971
OLS	2.880892	18.50400	12.23948	1.2953890	0.0009909257

Ets + select  $\lambda$  by RMSE

Data Set: Labour  
Base Forecast Method: ets  
Best L1 Lambda: 1.25892541179417  
Best L2 Lambda: 3162.27766016838  
level1:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.7366896	108.2487	90.19259	0.4794640	0.007273129
L1	0.7428002	108.7809	91.18820	0.4839110	0.007337669
L2	0.7216017	106.3074	88.49724	0.4699350	0.007126558
MinT	0.8526916	123.4278	103.89027	0.5539339	0.008424025
Bottom-Up	0.7428002	108.7809	91.18820	0.4839110	0.007337669
OLS	0.7199930	106.3327	88.12128	0.4686253	0.007108752

level2:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.337990	26.08806	16.19408	0.6951245	0.001312544
L1	1.270172	26.48862	16.15987	0.6626358	0.001310588
L2	1.293678	26.30754	16.09528	0.6725603	0.001305253
MinT	1.452039	30.03909	18.59099	0.7660198	0.001510727
Bottom-Up	1.270172	26.48862	16.15987	0.6626358	0.001310588
OLS	1.593667	26.16201	16.59923	0.8094704	0.001344616

level3:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.581466	15.31469	9.483413	0.7560126	0.0007694529
L1	1.502242	15.19703	9.297672	0.7221990	0.0007552628
L2	1.523440	15.12654	9.267032	0.7296058	0.0007526741
MinT	1.676546	16.89684	10.388789	0.8076287	0.0008454768
Bottom-Up	1.502242	15.19703	9.297672	0.7221990	0.0007552628
OLS	1.791454	15.04743	9.444505	0.8356072	0.0007660311

level4:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	3.382912	13.37720	8.213321	0.9816725	0.0006697470
L1	3.262113	12.64463	7.819606	0.9377768	0.0006392155
L2	3.267991	12.63030	7.814887	0.9397886	0.0006386680
MinT	3.528958	13.46368	8.353572	1.0137920	0.0006832112
Bottom-Up	3.262113	12.64463	7.819606	0.9377768	0.0006392155
OLS	3.603293	12.65035	7.911854	0.9971485	0.0006456700

overall:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	2.543811	22.31090	11.12818	0.8693014	0.0009038005
L1	2.444345	22.04076	10.86767	0.8306849	0.0008835345
L2	2.456522	21.81659	10.80015	0.8350411	0.0008780482
MinT	2.670533	24.69363	12.03777	0.9130789	0.0009807057
Bottom-Up	2.444345	22.04076	10.86767	0.8306849	0.0008835345
OLS	2.762070	21.90559	10.96854	0.9161905	0.0008909406

ETS + select  $\lambda$  by msMAPE

Data Set: Labour  
Base Forecast Method: ets  
Best L1 Lambda: 1.25892541179417  
Best L2 Lambda: 3162.27766016838  
level1:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.7366896	108.2487	90.19259	0.4794640	0.007273129
L1	0.7428002	108.7809	91.18820	0.4839110	0.007337669
L2	0.7216017	106.3074	88.49724	0.4699350	0.007126558
MinT	0.8526916	123.4278	103.89027	0.5539339	0.008424025
Bottom-Up	0.7428002	108.7809	91.18820	0.4839110	0.007337669
OLS	0.7199930	106.3327	88.12128	0.4686253	0.007108752

level2:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.337990	26.08806	16.19408	0.6951245	0.001312544
L1	1.270172	26.48862	16.15987	0.6626358	0.001310588
L2	1.293678	26.30754	16.09528	0.6725603	0.001305253
MinT	1.452039	30.03909	18.59099	0.7660198	0.001510727
Bottom-Up	1.270172	26.48862	16.15987	0.6626358	0.001310588
OLS	1.593667	26.16201	16.59923	0.8094704	0.001344616

level3:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.581466	15.31469	9.483413	0.7560126	0.0007694529
L1	1.502242	15.19703	9.297672	0.7221990	0.0007552628
L2	1.523440	15.12654	9.267032	0.7296058	0.0007526741
MinT	1.676546	16.89684	10.388789	0.8076287	0.0008454768
Bottom-Up	1.502242	15.19703	9.297672	0.7221990	0.0007552628
OLS	1.791454	15.04743	9.444505	0.8356072	0.0007660311

level4:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	3.382912	13.37720	8.213321	0.9816725	0.0006697470
L1	3.262113	12.64463	7.819606	0.9377768	0.0006392155
L2	3.267991	12.63030	7.814887	0.9397886	0.0006386680
MinT	3.528958	13.46368	8.353572	1.0137920	0.0006832112
Bottom-Up	3.262113	12.64463	7.819606	0.9377768	0.0006392155
OLS	3.603293	12.65035	7.911854	0.9971485	0.0006456700

overall:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	2.543811	22.31090	11.12818	0.8693014	0.0009038005
L1	2.444345	22.04076	10.86767	0.8306849	0.0008835345
L2	2.456522	21.81659	10.80015	0.8350411	0.0008780482
MinT	2.670533	24.69363	12.03777	0.9130789	0.0009807057
Bottom-Up	2.444345	22.04076	10.86767	0.8306849	0.0008835345
OLS	2.762070	21.90559	10.96854	0.9161905	0.0008909406

ETS + select  $\lambda$  by MASE

Data Set: Labour  
Base Forecast Method: ets  
Best L1 Lambda: 1.25892541179417  
Best L2 Lambda: 10000  
level1:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.7366896	108.2487	90.19259	0.4794640	0.007273129
L1	0.7428002	108.7809	91.18820	0.4839110	0.007337669
L2	0.7329763	107.6002	89.94427	0.4774403	0.007239848
MinT	0.8526916	123.4278	103.89027	0.5539339	0.008424025
Bottom-Up	0.7428002	108.7809	91.18820	0.4839110	0.007337669
OLS	0.7199930	106.3327	88.12128	0.4686253	0.007108752

level2:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.337990	26.08806	16.19408	0.6951245	0.001312544
L1	1.270172	26.48862	16.15987	0.6626358	0.001310588
L2	1.275069	26.40674	16.11884	0.6644881	0.001307231
MinT	1.452039	30.03909	18.59099	0.7660198	0.001510727
Bottom-Up	1.270172	26.48862	16.15987	0.6626358	0.001310588
OLS	1.593667	26.16201	16.59923	0.8094704	0.001344616

level3:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.581466	15.31469	9.483413	0.7560126	0.0007694529
L1	1.502242	15.19703	9.297672	0.7221990	0.0007552628
L2	1.506798	15.16471	9.278785	0.7235351	0.0007536949
MinT	1.676546	16.89684	10.388789	0.8076287	0.0008454768
Bottom-Up	1.502242	15.19703	9.297672	0.7221990	0.0007552628
OLS	1.791454	15.04743	9.444505	0.8356072	0.0007660311

level4:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	3.382912	13.37720	8.213321	0.9816725	0.0006697470
L1	3.262113	12.64463	7.819606	0.9377768	0.0006392155
L2	3.258190	12.63766	7.815575	0.9376551	0.0006388223
MinT	3.528958	13.46368	8.353572	1.0137920	0.0006832112
Bottom-Up	3.262113	12.64463	7.819606	0.9377768	0.0006392155
OLS	3.603293	12.65035	7.911854	0.9971485	0.0006456700

overall:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	2.543811	22.31090	11.12818	0.8693014	0.0009038005
L1	2.444345	22.04076	10.86767	0.8306849	0.0008835345
L2	2.443936	21.93212	10.83253	0.8311381	0.0008806864
MinT	2.670533	24.69363	12.03777	0.9130789	0.0009807057
Bottom-Up	2.444345	22.04076	10.86767	0.8306849	0.0008835345
OLS	2.762070	21.90559	10.96854	0.9161905	0.0008909406

ETS + select  $\lambda$  by SMAPE

Data Set: Labour  
Base Forecast Method: ets  
Best L1 Lambda: 1.25892541179417  
Best L2 Lambda: 31622.7766016838  
level1:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.7366896	108.2487	90.19259	0.4794640	0.007273129
L1	0.7428002	108.7809	91.18820	0.4839110	0.007337669
L2	0.7393094	108.3709	90.74719	0.4816133	0.007302913
MinT	0.8526916	123.4278	103.89027	0.5539339	0.008424025
Bottom-Up	0.7428002	108.7809	91.18820	0.4839110	0.007337669
OLS	0.7199930	106.3327	88.12128	0.4686253	0.007108752

level2:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.337990	26.08806	16.19408	0.6951245	0.001312544
L1	1.270172	26.48862	16.15987	0.6626358	0.001310588
L2	1.270607	26.46033	16.14271	0.6626429	0.001309192
MinT	1.452039	30.03909	18.59099	0.7660198	0.001510727
Bottom-Up	1.270172	26.48862	16.15987	0.6626358	0.001310588
OLS	1.593667	26.16201	16.59923	0.8094704	0.001344616

level3:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.581466	15.31469	9.483413	0.7560126	0.0007694529
L1	1.502242	15.19703	9.297672	0.7221990	0.0007552628
L2	1.502756	15.18582	9.290154	0.7222490	0.0007546431
MinT	1.676546	16.89684	10.388789	0.8076287	0.0008454768
Bottom-Up	1.502242	15.19703	9.297672	0.7221990	0.0007552628
OLS	1.791454	15.04743	9.444505	0.8356072	0.0007660311

level4:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	3.382912	13.37720	8.213321	0.9816725	0.0006697470
L1	3.262113	12.64463	7.819606	0.9377768	0.0006392155
L2	3.259301	12.64216	7.817864	0.9375147	0.0006390535
MinT	3.528958	13.46368	8.353572	1.0137920	0.0006832112
Bottom-Up	3.262113	12.64463	7.819606	0.9377768	0.0006392155
OLS	3.603293	12.65035	7.911854	0.9971485	0.0006456700

overall:

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	2.543811	22.31090	11.12818	0.8693014	0.0009038005
L1	2.444345	22.04076	10.86767	0.8306849	0.0008835345
L2	2.442910	22.00260	10.85444	0.8305125	0.0008824640
MinT	2.670533	24.69363	12.03777	0.9130789	0.0009807057
Bottom-Up	2.444345	22.04076	10.86767	0.8306849	0.0008835345
OLS	2.762070	21.90559	10.96854	0.9161905	0.0008909406

ARIMA + select λ by all 4 methods

Data Set: Labour  
Base Forecast Method: arima  
Best L1 Lambda: 0.3  
Best L2 Lambda: 12000

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	0.6868634	102.1016	84.16711	0.4471413	0.006776232
L1	0.6808237	101.3879	83.43065	0.4432843	0.006719197
L2	0.6728127	100.1063	82.63547	0.4383800	0.006644390
MinT	0.7194580	106.7141	88.07828	0.4683653	0.007102385
Bottom-Up	0.6833140	101.5307	83.94149	0.4452751	0.006749633
OLS	0.6851555	101.6946	83.96335	0.4461286	0.006761504

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.289001	25.57961	15.77884	0.6738338	0.001278388
L1	1.277525	25.46170	15.69750	0.6686530	0.001271962
L2	1.270268	25.44914	15.64708	0.6641488	0.001268488
MinT	1.461402	26.44309	16.55472	0.7557199	0.001342763
Bottom-Up	1.269369	25.53866	15.69873	0.6638679	0.001272994
OLS	1.445760	25.64177	16.05264	0.7449586	0.001300491

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	1.544316	14.94746	9.265750	0.7449085	0.0007515991
L1	1.543133	14.95073	9.242817	0.7452516	0.0007497159
L2	1.541279	15.10894	9.289999	0.7442257	0.0007544260
MinT	1.715888	15.43079	9.684655	0.8169268	0.0007865005
Bottom-Up	1.541354	15.14583	9.306890	0.7443240	0.0007559896
OLS	1.685619	14.95408	9.388000	0.8002121	0.0007615292

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	3.267957	12.67247	7.933397	0.9505420	0.0006470452
L1	3.257568	12.74633	7.936549	0.9484934	0.0006476994
L2	3.250841	12.79270	7.914734	0.9457806	0.0006468442
MinT	3.438562	12.90493	8.066495	0.9868379	0.0006585694
Bottom-Up	3.253194	12.80141	7.918393	0.9459228	0.0006473298
OLS	3.445519	12.76321	7.988944	0.9800800	0.0006518496

	SMAPE	RMSE	MAE	MASE	msMAPE
Hollyman	2.461097	21.39320	10.74594	0.8451525	0.0008725328
L1	2.453216	21.34723	10.71693	0.8433039	0.0008704689
L2	2.447760	21.28557	10.69690	0.8407748	0.0008695109
MinT	2.629805	22.08794	11.11576	0.8976099	0.0009035565
Bottom-Up	2.449160	21.40587	10.73386	0.8409637	0.0008727012
OLS	2.622417	21.44932	10.84629	0.8872237	0.0008808612