



ภาคผนวก

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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ภาคผนวก ก

ข้อมูลอัตราผลตอบแทนของตลาดหลักทรัพย์เซีท50 และกองทุนรวมดัชนี (%)

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
2/7/2550	2.35996	1.92219	2.04763	2.33445	2.33262
3/7/2550	3.18833	3.85355	2.58131	3.16227	3.49065
4/7/2550	1.60602	0.69850	1.51707	1.60565	1.55731
5/7/2550	-0.31172	0.06390	-0.19465	-0.34081	-0.19377
6/7/2550	1.21680	0.87060	1.03071	1.23527	0.98476
9/7/2550	1.54972	-1.07270	1.39895	1.53452	1.55747
10/7/2550	1.98571	2.01615	1.68811	1.97309	1.58456
11/7/2550	-1.71036	-1.50013	-1.45747	-1.67302	-1.61360
12/7/2550	-0.38266	-0.64133	-0.24771	-0.37348	-0.47809
13/7/2550	1.96536	1.97125	1.83951	1.94011	2.00296
16/7/2550	-0.24195	-0.22421	-0.27698	-0.25200	-0.20004
17/7/2550	-0.22300	-0.41997	-0.02493	-0.21445	-0.23370
18/7/2550	-0.44537	-0.90334	-0.87501	-0.44012	-0.36308
19/7/2550	-0.64401	-0.82479	-0.29824	-0.61579	-0.68089
20/7/2550	0.38594	0.71125	0.37481	0.36522	0.38511
23/7/2550	1.75142	1.88998	1.50202	1.68900	1.79030
24/7/2550	2.54477	2.09028	2.17783	2.49033	2.49566
25/7/2550	0.49443	0.21517	-0.38197	0.49279	0.48333
26/7/2550	0.05484	0.20671	-0.07587	0.04175	0.08478
27/7/2550	-2.64501	-2.14800	-2.32740	-2.60291	-2.61388
31/7/2550	-0.69812	-0.69160	-0.43699	-0.66885	-0.74912
1/8/2550	-3.36125	-3.30608	-3.07831	-3.26951	-3.30436
2/8/2550	-0.43414	-0.42845	-0.43332	-0.39454	-0.43375
3/8/2550	0.93268	1.28520	1.05063	1.10711	1.07470
6/8/2550	-2.95898	-2.87343	-2.59260	-2.91645	-2.85714
7/8/2550	-0.21485	0.03109	-0.21547	-0.21568	-0.18258
8/8/2550	2.52868	2.54483	2.14686	2.49382	2.47647

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
9/8/2550	-2.61920	-2.09966	-2.39134	-2.58432	-2.54888
10/8/2550	-0.91093	-0.67602	-0.84877	-0.88998	-0.91772
14/8/2550	-1.72369	-1.74468	-1.29795	-1.58457	-1.61011
15/8/2550	-2.83107	-2.38058	-2.54177	-2.76912	-2.73164
16/8/2550	-2.99378	-2.38347	-3.00576	-2.88480	-2.82637
17/8/2550	1.06193	0.82524	1.06770	1.03622	1.02892
20/8/2550	5.05114	4.38421	4.23373	4.90782	4.45912
21/8/2550	-4.02224	-3.32917	-3.45545	-3.88660	-3.96623
22/8/2550	3.27222	2.54215	2.62248	3.22343	3.19102
23/8/2550	1.01272	1.20803	0.92054	1.00541	0.92967
24/8/2550	-0.08664	0.30353	0.11562	0.13563	0.11514
27/8/2550	0.01770	0.38229	0.01412	0.00713	-0.03021
28/8/2550	-0.22825	-0.18860	-0.24891	-0.20672	-0.21838
29/8/2550	0.72534	0.38666	0.62254	0.71112	0.70641
30/8/2550	0.00880	-0.14462	0.03835	0.03704	0.03396
31/8/2550	3.22177	2.52398	2.70381	3.21249	3.32182
3/9/2550	1.13421	1.12799	0.92565	1.11128	1.06917
4/9/2550	-1.29520	-1.15331	-1.09344	-1.27495	-1.29841
5/9/2550	0.49036	0.64126	0.56585	0.56963	0.56459
6/9/2550	-0.60359	-0.47347	-0.52797	-0.55120	-0.53616
7/9/2550	-1.14608	-0.87488	-1.01917	-1.10086	-1.09314
10/9/2550	-0.68005	-0.37550	-0.56519	-0.65086	-0.59827
11/9/2550	0.73523	0.87947	0.52915	0.72748	0.75305
12/9/2550	0.01557	-0.31812	0.05667	0.01313	-0.02469
13/9/2550	0.71937	0.58829	0.58145	0.70592	0.70391
14/9/2550	0.72454	0.21506	0.61938	0.71477	0.66126
17/9/2550	-1.40115	-0.76774	0.89288	-1.08359	-1.11985
18/9/2550	-0.04841	-0.22411	-0.02259	-0.05312	-0.05876
19/9/2550	1.54110	1.37343	1.13708	1.51505	1.54949
20/9/2550	0.55871	0.64989	0.46163	0.55008	0.57896
21/9/2550	2.43076	2.32408	1.97885	2.40185	2.46964
24/9/2550	0.69456	0.51729	0.59958	0.67794	0.67864
25/9/2550	-0.25948	-0.05998	-0.13124	-0.18445	-0.21239
26/9/2550	1.28598	1.20107	1.18273	1.25830	1.24187

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
27/9/2550	-0.18045	-0.07548	-0.09651	-0.17452	-0.21647
28/9/2550	0.32735	0.59959	0.24212	0.31774	0.34281
1/10/2550	0.94963	0.78374	0.86737	0.92995	0.93595
2/10/2550	0.02412	-0.18294	0.16514	0.02149	0.00970
3/10/2550	-0.50480	-0.54915	-0.34976	-0.50071	-0.55437
4/10/2550	-0.25691	-0.10052	-0.22099	-0.25701	-0.27740
5/10/2550	0.44225	0.38973	0.48086	0.43884	0.39815
8/10/2550	1.53541	1.53951	1.33667	1.51270	1.46236
9/10/2550	0.67985	0.67451	0.49551	0.67110	0.69970
10/10/2550	0.88667	1.59425	0.91669	0.87688	0.87678
11/10/2550	2.05020	2.00160	1.54720	2.02293	2.02690
12/10/2550	-0.14252	-0.71781	-0.28349	-0.14143	-0.07492
15/10/2550	1.54842	-0.00381	1.05224	1.53951	1.65284
16/10/2550	-0.15414	0.65187	-0.33962	-0.15431	-0.07376
17/10/2550	-1.31981	-0.68111	-1.11006	-1.30255	-1.32611
18/10/2550	-1.10893	-1.05250	-0.83365	-1.09340	-1.13297
19/10/2550	-0.01551	0.08029	-0.17203	-0.02627	0.00850
22/10/2550	-2.09571	-2.05380	-1.84964	-2.06841	-2.10641
24/10/2550	0.83183	0.89641	0.69761	0.81984	0.79453
25/10/2550	3.91427	4.16945	3.11287	3.88096	3.85086
26/10/2550	0.24346	0.09601	0.10371	0.23396	0.28453
29/10/2550	2.85257	3.17220	2.29167	2.80704	2.80087
30/10/2550	-1.19533	-0.62966	-0.82237	-1.18232	-1.19250
31/10/2550	-0.13063	-0.46901	0.07326	-0.12845	-0.17265
1/11/2550	-0.53360	-0.47916	-0.51246	-0.54033	-0.49028
2/11/2550	-1.09683	-1.09909	-0.91424	-1.10186	-1.11082
5/11/2550	-2.84955	-3.27624	-2.36070	-2.81129	-2.83436
6/11/2550	1.94090	2.01066	1.55807	1.91616	1.94014
7/11/2550	-0.84671	-0.76490	-0.67517	-0.84786	-0.80514
8/11/2550	-0.80009	-1.08938	-0.75288	-0.80707	-0.73912
9/11/2550	0.05584	-0.30352	0.17267	-1.49997	0.03995
12/11/2550	-1.64163	-1.37899	-1.46515	-0.65324	-1.59231
13/11/2550	-0.65563	-0.91829	-0.51430	0.50694	-0.65275
14/11/2550	0.50925	0.39307	0.43139	-0.86596	0.44933

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
15/11/2550	-0.86970	-0.96572	-0.69333	-0.94803	-0.81071
16/11/2550	-0.95217	-0.98770	-0.79102	-2.49807	-0.88276
19/11/2550	-2.51583	-2.19275	-2.09580	-0.02057	-2.41224
20/11/2550	-0.03298	0.13039	-0.12706	-3.07996	-0.01713
21/11/2550	-3.10453	-2.74284	-2.72134	0.39960	-3.00805
22/11/2550	0.40518	0.57834	0.12704	0.00000	0.44730
23/11/2550	2.24325	1.65883	1.95052	2.22115	2.08212
26/11/2550	1.24046	1.57897	0.95172	1.22497	1.14634
27/11/2550	-1.37105	-1.24732	-1.15184	-1.35904	-1.26605
28/11/2550	-0.40358	0.28433	-0.35215	-0.38995	-0.38232
29/11/2550	3.60692	3.35864	3.03205	3.57528	3.22804
30/11/2550	0.21245	0.70687	0.15125	0.21372	0.24550
3/12/2550	-2.20516	-1.97871	-1.80512	-2.19352	-2.18740
4/12/2550	0.32518	0.07014	0.21919	0.31464	0.31523
6/12/2550	1.61898	1.85303	1.40169	1.64849	1.61159
7/12/2550	-0.62503	-0.62326	-0.42780	-0.61928	-0.75104
11/12/2550	-0.02756	-0.43262	-0.12686	-0.01516	-0.00445
12/12/2550	-0.87236	-0.79813	-0.77050	-0.88755	-0.76744
13/12/2550	0.03272	-0.32649	-0.18476	0.05319	0.04755
14/12/2550	0.41534	-0.45015	-0.05928	-0.17114	-0.05919
17/12/2550	-2.55178	-2.82211	-2.27705	-2.55763	-2.27734
18/12/2550	-0.51303	0.18696	0.05079	0.07786	-0.03489
19/12/2550	-1.29842	-1.33321	-1.04250	-1.29041	-1.11509
20/12/2550	-2.01835	-2.00338	-1.65906	-1.98934	-1.84105
21/12/2550	3.30873	3.07936	2.71759	3.20890	3.15499
25/12/2550	4.28716	3.77860	3.66879	4.11753	3.77128
26/12/2550	-0.36434	-0.49848	-0.26763	-0.36050	-0.41726
27/12/2550	1.42871	0.98449	1.28065	1.43927	1.29875
28/12/2550	0.61576	0.53133	0.63282	0.58733	0.44694
2/1/2551	-2.19270	-1.89846	-1.61971	-1.89538	-1.66376
3/1/2551	-1.31788	-1.84957	-1.20312	-1.29714	-1.16402
4/1/2551	-1.70672	-1.61237	-1.36531	-1.68695	-1.78544
7/1/2551	-2.00709	-1.67371	-1.63432	-1.92704	-1.91935
8/1/2551	0.58837	1.09077	0.48361	0.58144	0.62901

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
9/1/2551	1.46485	1.51524	1.15359	1.45461	1.57889
10/1/2551	-3.04782	-2.82262	-2.45009	-3.01310	-3.06221
11/1/2551	-0.56875	-0.27629	-0.47769	-0.56451	-0.60847
14/1/2551	-0.67080	-0.33347	-0.68966	-0.68018	-0.64909
15/1/2551	-1.77471	-1.81763	-1.39779	-1.75358	-1.91429
16/1/2551	-0.71951	-0.28386	-0.82038	-0.66232	-0.65152
17/1/2551	2.56071	2.16171	2.26040	2.53107	2.62806
18/1/2551	-0.30708	0.10959	-0.21367	-0.30538	-0.32093
21/1/2551	-3.59306	-2.90931	-2.92255	-3.56924	-3.66959
22/1/2551	-3.52183	-3.16747	-3.32169	-3.48367	-3.47714
23/1/2551	-0.05269	-0.25876	-0.23087	-0.05179	-0.02466
24/1/2551	-1.90146	-1.41011	-1.56399	-1.88629	-1.94039
25/1/2551	5.04731	4.23045	4.27424	5.00102	5.11361
28/1/2551	-2.51749	-1.82889	-2.00774	-2.49621	-2.58149
29/1/2551	1.70730	1.85615	1.36547	1.69066	1.72259
30/1/2551	1.31933	1.25350	1.16417	1.30337	1.28993
31/1/2551	3.14807	2.36302	2.70670	3.11836	3.11919
1/2/2551	3.77665	2.53774	3.56179	3.75325	3.68569
4/2/2551	-0.14781	0.78608	0.05211	-0.15551	-0.20626
5/2/2551	-0.50024	-0.21561	-0.47123	-0.48389	-0.48971
6/2/2551	-2.04350	-1.47990	-1.69698	-1.69728	-2.04519
7/2/2551	-0.38406	-0.48590	-0.15843	-0.72572	-0.41261
8/2/2551	1.88213	1.53639	1.65031	1.86767	1.88746
11/2/2551	-0.40078	-0.02233	-0.29848	-0.41193	-0.41794
12/2/2551	1.77708	1.79342	1.72733	1.77117	1.77614
13/2/2551	1.66121	1.17409	1.36801	1.64760	1.67363
14/2/2551	0.36053	0.09896	0.33405	0.35163	0.32976
15/2/2551	-0.53719	-0.51262	-0.60291	-0.53077	-0.53172
18/2/2551	-0.37288	-0.39614	-0.26187	-0.37605	-0.37804
19/2/2551	1.58101	1.10569	1.34944	1.34948	1.59047
20/2/2551	-1.06569	-0.64278	-1.03867	-0.85013	-1.03467
22/2/2551	-0.17702	-0.08912	-0.09619	-0.18114	-0.19466
25/2/2551	1.64957	1.32430	1.42962	1.62871	1.67659
26/2/2551	-0.49869	-0.39915	-0.49506	-0.50274	-0.51062

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
27/2/2551	-0.37052	-0.53029	-0.33691	-0.37510	-0.38561
28/2/2551	1.47596	0.69183	1.25891	1.46026	1.45845
29/2/2551	0.51701	0.60894	0.46428	0.50788	0.46394
3/3/2551	-0.59248	-0.54901	-0.28824	-0.58930	-0.62226
4/3/2551	-1.70288	-1.25624	-1.23989	-1.55334	-1.58693
5/3/2551	-0.96780	-0.87269	-0.82730	-0.96239	-0.98720
6/3/2551	0.37173	0.66922	0.32807	0.38168	0.40968
7/3/2551	-0.76249	-0.60123	-0.73301	-0.75450	-0.72800
10/3/2551	-1.84910	-1.79949	-1.81237	-1.83611	-1.80102
11/3/2551	2.02846	1.67707	1.83834	2.16832	2.20086
12/3/2551	0.94601	0.43714	0.96259	0.96509	0.92765
13/3/2551	-1.73730	-1.55587	-1.51624	-1.72293	-1.74341
14/3/2551	0.47600	0.61199	0.48404	0.55223	0.55773
17/3/2551	-1.52277	-1.70440	-1.29069	-1.35689	-1.35660
18/3/2551	0.64258	1.51501	1.10889	1.18339	1.17318
19/3/2551	-0.61116	-0.50625	-0.52319	-0.59153	-0.61863
20/3/2551	-1.47375	-1.45399	-1.18521	-1.45062	-1.48873
21/3/2551	0.57356	0.50219	0.66094	0.56013	0.54593
24/3/2551	0.64656	0.77134	0.48283	0.62788	0.62563
25/3/2551	1.79116	2.16011	1.70216	1.77344	1.75694
26/3/2551	-0.43991	-0.52502	-0.30000	-0.42559	-0.50275
27/3/2551	0.66618	0.77794	0.63347	0.67922	0.70077
28/3/2551	0.35283	0.12070	0.19611	0.34660	0.34062
31/3/2551	-1.14898	-0.93720	-0.99192	-1.11164	-1.09688
1/4/2551	0.94961	0.80099	0.89691	0.97604	0.97525
2/4/2551	0.10958	0.04229	0.31445	0.16740	0.08681
3/4/2551	-0.06062	0.07159	0.26765	0.15898	0.13877
4/4/2551	-0.25106	-0.07017	-0.28618	-0.24954	-0.23157
8/4/2551	0.35642	0.84609	0.34729	0.33750	0.34359
9/4/2551	-0.07911	-0.10479	-0.08051	-0.00885	-0.03734
10/4/2551	-0.65529	-0.57458	-0.54481	-0.56140	-0.60856
11/4/2551	0.81731	0.96861	0.77514	0.83461	0.80202
16/4/2551	0.89814	1.17438	0.89397	1.06828	1.01115
17/4/2551	1.69195	1.33666	1.39627	1.65173	1.70499

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
18/4/2551	-0.10983	-0.23606	-0.04105	-0.09166	-0.09382
21/4/2551	-0.58092	-0.94778	-0.49167	-0.56841	-0.62813
22/4/2551	1.22805	1.01807	0.98584	1.27740	1.32929
23/4/2551	-1.72189	-1.39248	-1.44213	-1.68196	-1.64620
24/4/2551	-0.41313	-0.12091	-0.39573	-0.39963	-0.36588
25/4/2551	-0.31655	-0.64339	-0.25812	-0.31474	-0.36722
28/4/2551	0.73705	0.38773	0.46988	0.70948	0.74166
29/4/2551	-0.27873	-0.24877	-0.25521	-0.27513	-0.26120
30/4/2551	-0.29282	-0.18755	-0.01666	-0.01670	-0.27265
2/5/2551	1.35825	1.17184	1.29975	1.11899	1.27075
6/5/2551	0.49058	0.17041	0.40772	0.53715	0.55414
7/5/2551	0.41447	0.15218	0.31010	0.41928	0.41508
8/5/2551	0.41602	0.18778	0.21232	0.42464	0.44503
9/5/2551	-0.48741	-0.39141	-0.41908	-0.48376	-0.47983
12/5/2551	-0.70531	-0.49401	-0.55528	-0.67472	-0.68010
13/5/2551	-0.47848	-0.19645	-0.33268	-0.46935	-0.48013
14/5/2551	1.23746	0.90450	1.15706	1.22606	1.23371
15/5/2551	0.81761	0.65289	0.78004	0.80724	0.80190
16/5/2551	2.03798	1.69414	1.71460	2.02204	1.96525
20/5/2551	0.44895	0.50042	0.28209	0.43152	0.48933
21/5/2551	1.38189	1.45058	1.17849	1.37301	1.40039
22/5/2551	-1.40044	-0.52514	-1.06050	-1.39789	-1.37518
23/5/2551	-0.18169	-0.40584	0.19715	-0.17911	-0.20004
26/5/2551	-2.29028	-2.35707	-2.20511	-2.28013	-2.28849
27/5/2551	-0.21544	0.14459	-0.13876	-0.19068	-0.20165
28/5/2551	-2.94805	-2.70515	-2.64703	-2.92507	-2.95211
29/5/2551	-0.03847	0.06071	-0.29616	-0.03790	0.00721
30/5/2551	0.03514	0.29256	0.33164	0.02479	0.04596
2/6/2551	-2.92563	-2.66101	-2.80367	-2.90207	-2.88445
3/6/2551	-0.60483	-0.78719	-0.40736	-0.60437	-0.65673
4/6/2551	0.23231	-0.50112	0.21004	0.23113	0.22129
5/6/2551	0.16258	0.06365	0.13483	0.15901	0.13788
6/6/2551	1.05163	1.55260	0.90827	1.03830	1.03922
9/6/2551	-1.55676	-1.42355	-1.46538	-1.54517	-1.49630

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
10/6/2551	-1.73240	-1.36240	-1.54996	-1.70557	-1.71534
11/6/2551	0.00707	-0.00991	-0.08878	0.00462	0.02568
12/6/2551	-0.01766	-0.06514	-0.15520	-0.01539	-0.00380
13/6/2551	-1.18896	-0.89057	-1.02916	-1.17434	-1.12776
16/6/2551	0.67583	0.94503	0.63329	0.65489	0.63475
17/6/2551	-1.47579	-0.78464	-1.25231	-1.45056	-1.40675
18/6/2551	-1.57540	-1.18770	-1.38163	-1.54649	-1.58967
19/6/2551	-3.19757	-3.25270	-2.97904	-3.12801	-3.17259
20/6/2551	4.13939	3.96010	3.48613	4.03319	4.17883
23/6/2551	-0.19438	-0.10773	-0.05921	-0.19305	-0.17088
24/6/2551	-0.81363	-0.61974	-0.73802	-0.79827	-0.79618
25/6/2551	2.12325	1.87082	1.97361	2.07446	2.02812
26/6/2551	-0.56964	-0.31957	-0.55988	-0.55974	-0.56242
27/6/2551	0.19699	-0.06269	0.13564	0.19288	0.19048
30/6/2551	-0.98483	-1.05007	-0.98909	-0.99240	-0.94670
2/7/2551	-1.30977	-1.31481	-1.15256	-1.32694	-1.33668
3/7/2551	-2.63955	-3.03041	-2.32546	-2.61960	-2.62223
4/7/2551	0.17252	0.39826	0.06149	0.17592	0.17021
7/7/2551	-1.64847	-1.22454	-1.56976	-1.64649	-1.64735
8/7/2551	-1.30277	-0.85406	-1.06818	-1.29851	-1.29423
9/7/2551	-0.29441	-0.14931	-0.26478	-0.29216	-0.29347
10/7/2551	0.09386	-0.44938	0.12105	0.12096	0.09461
11/7/2551	1.42226	0.91205	1.13073	1.33827	1.39678
14/7/2551	-2.02065	-1.45266	-1.79736	-1.99642	-1.99898
15/7/2551	-3.81992	-2.63521	-3.25932	-3.78978	-3.74449
16/7/2551	-4.00433	-2.89985	-3.34768	-3.97023	-3.90004
18/7/2551	-1.01356	-1.05939	-0.74865	-1.01250	-0.97916
21/7/2551	4.19042	3.28425	3.39137	4.14200	4.01191
22/7/2551	-0.84856	-0.20605	-0.75695	-0.84276	-0.81314
23/7/2551	1.90113	1.87118	1.75645	1.88399	1.78166
24/7/2551	-0.52517	-0.64119	-0.38263	-0.52349	-0.52086
25/7/2551	-1.03739	-0.69930	-0.93016	-1.02923	-1.03391
28/7/2551	0.05605	0.15827	-0.02025	0.04612	0.05134
29/7/2551	-1.64309	-1.28093	-1.30517	-1.62607	-1.63097

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
30/7/2551	-1.34149	-0.91111	-0.92365	-1.33596	-1.34274
31/7/2551	1.30628	1.35598	1.22969	1.29631	1.30124
1/8/2551	0.36298	0.66731	0.05116	0.37969	0.38241
4/8/2551	-0.66236	-0.40541	-0.46607	-0.49914	-0.49851
5/8/2551	-1.26794	-1.66276	-1.06569	-1.26102	-1.26673
6/8/2551	1.84594	1.52024	1.37391	1.82247	1.76511
7/8/2551	5.24377	3.85868	4.23710	5.18187	5.01464
8/8/2551	-2.47025	-1.56186	-2.10615	-2.45372	-2.37844
11/8/2551	2.15546	1.85331	1.81297	2.13174	2.13308
13/8/2551	-0.26701	-0.22088	-0.03099	-0.03932	-0.05723
14/8/2551	0.56162	0.31580	0.56791	0.55152	0.56079
15/8/2551	0.38633	0.36111	0.29006	0.38160	0.37930
18/8/2551	-1.56331	-1.55301	-1.46286	-1.55868	-1.55427
19/8/2551	-0.83053	-0.71847	-0.81531	-0.72483	-0.71873
20/8/2551	-0.31661	-0.27059	-0.16869	-0.30038	-0.29790
21/8/2551	-2.41593	-2.14850	-1.95756	-2.38804	-2.40347
22/8/2551	0.95544	1.29048	0.97130	1.17543	1.19531
25/8/2551	-0.40352	-0.02785	-0.47881	-0.38786	-0.40263
26/8/2551	-1.32615	-1.14783	-1.20205	-1.28194	-1.26972
27/8/2551	1.17465	1.10963	1.05043	1.18968	1.17294
28/8/2551	1.26561	1.08710	1.01476	1.28241	1.27673
29/8/2551	0.24170	0.34980	0.17151	0.23841	0.22850
1/9/2551	-1.48377	-1.19963	-1.32946	-1.44578	-1.42627
2/9/2551	-2.66290	-1.92936	-2.00647	-2.20816	-2.22791
3/9/2551	-1.78372	-1.65779	-1.34669	-1.61842	-1.65701
4/9/2551	0.90806	0.96316	0.84016	1.00901	1.00631
5/9/2551	-1.73255	-1.49176	-1.32677	-1.71418	-1.69575
8/9/2551	3.64535	3.21426	3.09094	3.62158	3.55534
9/9/2551	-0.43858	-0.08106	-0.31909	-0.38904	-0.37746
10/9/2551	-1.37927	-1.64189	-1.18308	-1.35414	-1.33404
11/9/2551	-1.63273	-1.36876	-1.33160	-1.60415	-1.57283
12/9/2551	1.37989	1.32482	1.16499	1.34505	1.31995
15/9/2551	-2.01774	-1.93510	-1.76176	-1.96470	-1.93339
16/9/2551	-3.15773	-3.09326	-2.72657	-3.11829	-3.03308

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
17/9/2551	-3.59524	-3.35452	-3.04714	-3.56996	-3.47955
18/9/2551	-0.36366	-0.15393	-0.73609	-0.35515	-0.33789
19/9/2551	4.73294	4.39149	4.04599	4.68959	4.65447
22/9/2551	-1.84042	-1.51692	-1.64580	-1.83785	-1.80524
23/9/2551	-1.17647	-1.22044	-1.06630	-1.17364	-1.13936
24/9/2551	2.47957	2.14724	2.00459	2.46063	2.48983
25/9/2551	0.25204	0.43554	0.12282	0.26106	0.25782
26/9/2551	-0.52338	-0.18304	-0.36016	-0.49824	-0.49500
29/9/2551	-3.37277	-2.95544	-2.88537	-3.35957	-3.33544
30/9/2551	-0.79416	-0.71081	-0.74278	-0.79096	-0.79328
1/10/2551	-0.48654	-0.54871	-0.27510	-0.49868	-0.51242
2/10/2551	0.79480	0.93625	0.47454	0.47436	0.82918
3/10/2551	-1.31900	-0.72469	-1.28289	-0.97504	-1.26507
6/10/2551	-7.28122	-5.02686	-6.47960	-7.25524	-7.16777
7/10/2551	-4.05578	-2.84050	-4.18120	-4.01757	-3.89432
8/10/2551	-7.28401	-4.85581	-7.03320	-7.16406	-7.02033
9/10/2551	2.20774	1.88756	1.61162	2.19229	2.16980
10/10/2551	-10.62216	-8.27830	-9.72953	-10.41334	-10.04883
13/10/2551	7.07032	4.83359	5.39668	6.93179	6.71928
14/10/2551	5.63393	4.38870	5.22724	5.54210	5.16102
15/10/2551	-4.78788	-3.81060	-3.90295	-4.76433	-4.75842
16/10/2551	-0.54017	-0.73362	-0.73383	-0.56081	-0.51263
17/10/2551	-1.58130	-1.13459	-1.33107	-1.60091	-1.60411
20/10/2551	1.58537	1.08023	1.11450	1.55401	1.54378
21/10/2551	0.49520	0.47497	0.30788	0.51051	0.53621
22/10/2551	-3.40750	-2.32734	-2.83405	-3.40607	-3.35383
24/10/2551	-7.74178	-5.48521	-6.97062	-7.64292	-7.57669
27/10/2551	-11.80630	-8.32126	-10.41992	-11.54264	-11.58723
28/10/2551	3.93282	2.94467	2.86314	3.88441	3.80979
29/10/2551	-4.46768	-2.88305	-3.47869	-4.32759	-4.43534
30/10/2551	7.74206	4.67287	6.23839	7.52534	7.55847
31/10/2551	2.56811	2.43463	2.06037	2.54525	2.48888
3/11/2551	9.32608	6.68579	7.78404	9.23324	8.95634
4/11/2551	1.99246	0.90933	1.87516	1.96696	1.91208

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
5/11/2551	-0.00932	0.63048	-0.12613	0.04372	0.00327
6/11/2551	1.57167	0.67294	1.22223	1.55207	1.47540
7/11/2551	0.17431	0.53957	0.18186	0.16953	0.13701
10/11/2551	-1.93235	-1.18277	-1.67599	-1.92283	-1.80770
11/11/2551	-3.55486	-2.28524	-3.01410	-3.52815	-3.38525
12/11/2551	-1.82358	-1.34795	-1.59373	-1.82721	-1.74429
13/11/2551	-0.45039	-0.17613	-0.54660	-0.43727	-0.42655
14/11/2551	-1.04356	-0.59179	-0.81648	-1.03746	-1.07007
17/11/2551	1.36826	1.05061	1.05352	1.34420	1.35161
18/11/2551	-3.89136	-2.64995	-3.26300	-3.85981	-3.87103
19/11/2551	-3.06238	-1.96340	-2.70825	-3.02495	-3.02289
20/11/2551	-4.16622	-2.68058	-3.70912	-4.14753	-4.10049
21/11/2551	1.22050	0.79402	0.98852	1.22664	1.18214
24/11/2551	-3.41335	-1.91349	-2.83791	-3.39172	-3.31377
25/11/2551	1.96877	2.07319	1.60885	1.98506	1.94407
26/11/2551	1.43512	0.06518	0.93404	1.42202	1.39872
27/11/2551	-1.57891	-1.41908	-1.24954	-1.55115	-1.52101
28/11/2551	3.67530	2.18876	3.04686	3.64955	3.56109
1/12/2551	-3.20552	-2.23657	-2.77197	-3.19086	-3.15537
2/12/2551	-1.07066	-1.08422	-0.90032	-1.08139	-1.07896
3/12/2551	1.83983	1.31342	1.47883	1.83208	1.79960
4/12/2551	0.00000	-0.00589	-0.00497	0.00156	-0.01731
8/12/2551	5.20356	3.43564	4.63815	5.15853	5.00221
9/12/2551	3.88728	2.33247	3.12775	3.85791	3.68837
11/12/2551	0.35876	0.91751	0.18898	0.35146	0.26506
12/12/2551	-0.03341	-0.13351	0.05061	-0.03559	-0.03349
15/12/2551	3.18829	1.61527	2.96586	3.14748	3.06059
16/12/2551	2.10519	1.18622	1.86000	2.08906	1.95528
17/12/2551	0.22204	0.51792	0.23675	0.20828	0.21477
18/12/2551	1.41474	1.07754	1.39964	1.39556	1.36787
19/12/2551	-1.47302	-0.86194	-1.05250	-1.50281	-1.47824
22/12/2551	-3.35751	-1.90422	-2.91425	-3.33257	-3.28751
23/12/2551	1.47160	0.81128	1.44137	1.45252	1.31394
24/12/2551	-0.36499	-0.25351	-0.28329	-0.38997	-0.36443

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
25/12/2551	1.33238	1.05662	1.34280	1.28931	1.25185
26/12/2551	0.38710	0.37991	0.41612	0.37149	0.29171
29/12/2551	-0.03824	0.41686	0.02181	0.11022	0.11330
30/12/2551	0.88628	0.11042	0.75011	0.87126	0.76011
5/1/2552	7.48301	3.97595	6.57519	7.42053	6.83799
6/1/2552	-1.29362	-0.63239	-1.21441	-1.28575	-1.28352
7/1/2552	-2.66881	-2.12172	-2.24694	-2.66091	-2.66876
8/1/2552	0.45292	0.16255	0.45215	0.44125	0.44420
9/1/2552	-1.59939	-0.68161	-1.35243	-1.59997	-1.61285
12/1/2552	-1.83282	-0.83072	-1.26061	-1.83072	-1.85742
13/1/2552	-4.96720	-3.13703	-4.35670	-4.92452	-4.97895
14/1/2552	1.65931	1.17319	1.32812	1.63737	1.66215
15/1/2552	-3.57458	-2.49056	-3.11155	-3.55338	-3.57672
16/1/2552	2.45785	1.38055	2.08300	2.42973	2.45485
19/1/2552	-0.01322	0.05816	0.08072	-0.03242	-0.02117
20/1/2552	-0.58493	-0.05483	-0.58925	-0.59780	-0.59649
21/1/2552	-0.63823	-0.92499	-0.48456	-0.62551	-0.63735
22/1/2552	1.92366	1.36777	1.62609	1.91830	1.93146
21/1/2552	-0.63823	-0.92499	-0.48456	-0.62551	-0.63735
22/1/2552	1.92366	1.36777	1.62609	1.91830	1.93146
23/1/2552	-1.29324	-0.59108	-1.04517	-1.28701	-1.30064
26/1/2552	0.86792	0.73087	0.68012	0.89378	0.88621
27/1/2552	2.11980	1.31585	1.93934	2.10217	2.11421
28/1/2552	0.88778	0.40815	0.88649	0.87589	0.87920
29/1/2552	-3.52629	-1.73000	-2.93843	-3.50317	-3.52376
30/1/2552	0.69654	0.32088	0.60727	0.69325	0.68904
2/2/2552	-2.67795	-1.79181	-2.31864	-2.67802	-2.68806
3/2/2552	0.70399	0.82972	0.73650	0.69587	0.69962
4/2/2552	0.63521	0.62733	0.58625	0.64088	0.64269
5/2/2552	0.09685	-0.30352	0.07651	0.09402	0.08562
6/2/2552	3.18631	1.97015	2.52518	3.15253	3.17953
10/2/2552	-0.41711	-0.26742	-0.32679	-0.41945	-0.44565
11/2/2552	0.24028	0.18307	0.13423	0.24663	0.24291
12/2/2552	-0.99443	-0.31279	-0.45927	-0.67035	-0.67330

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
13/2/2552	1.43301	1.40605	1.12367	1.41794	1.43938
16/2/2552	0.17740	-0.11909	0.07641	0.16876	0.15976
17/2/2552	-2.29249	-1.36159	-1.72767	-2.25869	-2.25367
18/2/2552	0.25044	0.46948	0.23085	0.25505	0.24039
19/2/2552	0.59496	0.38135	0.44957	0.59268	0.59165
20/2/2552	-1.76780	-1.26599	-1.58961	-1.75365	-1.75060
23/2/2552	0.04657	0.06828	-0.01792	0.06930	0.04605
24/2/2552	-0.90770	-0.58489	-0.93887	-0.88055	-0.88695
25/2/2552	0.90595	0.57635	0.59716	0.91262	0.91453
26/2/2552	-0.50876	0.07041	-0.47669	-0.42109	-0.43011
27/2/2552	0.12701	0.03247	0.01582	0.12346	0.12444
2/3/2552	-3.78530	-2.11992	-3.58046	-3.72323	-3.72133
3/3/2552	-1.00264	-0.52294	-0.77783	-0.94215	-0.94785
4/3/2552	1.28964	0.98581	1.23020	1.28102	1.26410
5/3/2552	-0.12109	0.51506	0.13762	0.27145	0.26106
6/3/2552	0.63046	0.45877	0.55671	0.63070	0.62162
9/3/2552	-2.15146	-1.10843	-1.87630	-2.08963	-2.12851
10/3/2552	1.89974	0.75495	1.64542	1.94116	1.93647
11/3/2552	-0.84240	-0.56225	-0.60153	-0.77362	-0.77266
12/3/2552	0.14275	0.43012	0.29441	0.32008	0.31847
13/3/2552	2.71191	1.57291	2.34834	2.67545	2.67176
16/3/2552	0.00339	0.15744	-0.01593	0.00713	-0.00894
17/3/2552	-0.84284	-0.71815	-0.56460	-0.81815	-0.82221
18/3/2552	1.06506	0.41752	0.92726	1.07209	1.05610
19/3/2552	0.37155	0.35099	0.38791	0.36400	0.36559
20/3/2552	0.57208	0.01830	0.46551	0.56952	0.56328
23/3/2552	2.29539	1.10396	1.99060	2.24545	2.23341
24/3/2552	-0.04579	0.07130	-0.05954	-0.04547	-0.04667
25/3/2552	-0.25198	-0.07338	-0.27363	-0.24122	-0.24208
26/3/2552	0.66599	0.37994	0.57531	0.65493	0.64307
27/3/2552	0.36501	0.38168	0.39821	0.41868	0.40473
30/3/2552	-2.97117	-1.65823	-2.51567	-2.85292	-2.84401
31/3/2552	0.46518	0.17506	0.40912	0.47280	0.46257
1/4/2552	-0.40973	-0.21121	-0.20596	-0.41035	-0.41299

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
2/4/2552	3.56223	1.90921	3.19006	3.61276	3.58586
3/4/2552	0.87850	-0.02952	0.68916	0.85236	0.85010
7/4/2552	-0.88365	-0.52624	-0.66501	-0.80074	-0.81253
8/4/2552	0.30041	0.17493	0.25431	0.33916	0.32870
9/4/2552	0.12882	-0.28151	0.27318	0.12845	0.12222
10/4/2552	2.46374	1.23960	2.45405	2.73442	2.69743
16/4/2552	-0.42377	-0.37844	0.16672	-0.08149	-0.11061
17/4/2552	1.02453	0.16310	0.80903	1.09841	1.07923
20/4/2552	2.50257	0.84046	2.14429	2.40456	2.37904
21/4/2552	-0.14308	0.43548	0.22302	-0.01779	-0.03354
22/4/2552	-1.50296	-0.24688	-1.34536	-1.45638	-1.45703
23/4/2552	1.19162	0.49186	1.44649	1.33605	1.30834
24/4/2552	1.80155	0.77195	1.81139	1.75749	1.71073
27/4/2552	0.17126	0.32757	0.26247	0.16383	0.15734
28/4/2552	-0.49190	-0.08188	-0.51557	-0.48820	-0.48070
29/4/2552	2.51989	1.21896	2.42447	2.50693	2.44353
30/4/2552	1.96695	1.77606	1.76698	1.98049	1.94918
4/5/2552	3.44569	2.62307	2.91760	3.45076	3.36588
6/5/2552	3.67377	1.64039	3.50335	3.63151	3.49900
7/5/2552	0.80658	-0.01811	1.06192	0.80273	0.76147
11/5/2552	1.55758	0.87146	1.49112	1.66709	1.62921
12/5/2552	1.69914	0.39794	1.72496	1.69329	1.62103
13/5/2552	1.62427	0.38036	1.38188	1.61997	1.55851
14/5/2552	-5.15322	-3.04821	-4.79717	-5.10064	-5.07833
15/5/2552	1.81107	1.58847	1.44071	1.80125	1.77161
18/5/2552	1.21573	0.37615	1.13337	1.20913	1.16374
19/5/2552	3.47858	1.79115	2.97326	3.45323	3.41276
20/5/2552	0.86428	0.49676	0.83493	0.83501	0.82933
21/5/2552	-2.73502	-1.89654	-2.18557	-2.72060	-2.71153
22/5/2552	0.95523	0.72223	0.26896	0.97804	0.95465
25/5/2552	-0.88785	-0.99299	0.06534	-0.91054	-0.90689
26/5/2552	-1.52031	-0.74131	-1.43137	-1.49815	-1.47590
27/5/2552	2.69252	1.79262	2.38307	2.68514	2.63486
28/5/2552	-0.07339	0.19515	-0.01703	-0.07158	-0.08131

DATE	Rm	Ri(B-LTF)	Ri(SCBSET)	Ri(KSET50)	Ri(KSET50LTF)
29/5/2552	0.89150	0.43262	0.95538	0.88912	0.88712
1/6/2552	4.15704	3.14021	3.59137	4.14121	4.09510
2/6/2552	-1.14239	-0.75211	-1.06823	-1.17712	-1.14959
3/6/2552	1.54322	1.14036	1.39908	1.56959	1.49706
4/6/2552	2.18002	1.65793	2.01935	2.17465	2.12575
5/6/2552	2.00193	1.84262	1.86959	1.97390	1.96125
8/6/2552	-0.87996	-0.63325	-0.74192	-0.90505	-0.88273
9/6/2552	1.41765	1.08461	1.38163	1.39996	1.36901
10/6/2552	3.25397	2.61184	2.76907	3.26791	3.22624
11/6/2552	0.61697	0.77475	0.43800	0.63660	0.62133
12/6/2552	0.27351	0.10971	0.26617	0.27267	0.26913
15/6/2552	-2.82220	-1.79105	-2.61709	-2.83470	-2.78869
16/6/2552	-2.65517	-2.08947	-2.52726	-2.62811	-2.60094
17/6/2552	-2.10673	-1.81478	-1.70798	-2.11162	-2.08257
18/6/2552	-3.02145	-1.77389	-2.76001	-3.00541	-2.95529
19/6/2552	3.72303	2.62140	3.35741	3.69683	3.61225
22/6/2552	-1.34366	-0.68915	-1.22673	-1.37412	-1.35364
23/6/2552	-2.34334	-1.50205	-2.18275	-2.36197	-2.30219
24/6/2552	2.35300	1.37938	2.06426	2.35889	2.29565
25/6/2552	1.74573	1.31718	1.61379	1.76504	1.73209
26/6/2552	1.07089	0.91774	0.90661	1.10239	1.06382
29/6/2552	1.05954	0.62591	0.89214	1.04579	1.01573
30/6/2552	-0.83644	-0.47728	-0.70552	-0.82106	-0.80587

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ภาคผนวก ข

ผลการทดสอบความนิ่งของข้อมูลด้วยวิธียูนิทรูท ณ ระดับ Level

SET50 index (Without intercept and Without trend)

Null Hypothesis: SET50 has a unit root
 Exogenous: None
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-21.01078	0.0000
Test critical values:		
1% level	-2.569700	
5% level	-1.941472	
10% level	-1.616264	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(SET50)
 Method: Least Squares
 Date: 09/02/09 Time: 16:07
 Sample (adjusted): 2 490
 Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SET50(-1)	-0.948857	0.045160	-21.01078	0.0000

R-squared	0.474957	Mean dependent var	-0.006537
Adjusted R-squared	0.474957	S.D. dependent var	2.984958
S.E. of regression	2.162895	Akaike info criterion	4.382815
Sum squared resid	2282.920	Schwarz criterion	4.391388
Log likelihood	-1070.598	Hannan-Quinn criter.	4.386182
Durbin-Watson stat	2.011727		

SET50 index (With intercept)

Null Hypothesis: SET50 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-20.99343	0.0000
Test critical values: 1% level	-3.443496	
5% level	-2.867231	
10% level	-2.569863	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(SET50)
 Method: Least Squares
 Date: 09/02/09 Time: 16:04
 Sample (adjusted): 2 490
 Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SET50(-1)	-0.949017	0.045205	-20.99343	0.0000
C	-0.030110	0.097907	-0.307541	0.7586
R-squared	0.475059	Mean dependent var		-0.006537
Adjusted R-squared	0.473981	S.D. dependent var		2.984958
S.E. of regression	2.164904	Akaike info criterion		4.386711
Sum squared resid	2282.477	Schwarz criterion		4.403858
Log likelihood	-1070.551	Hannan-Quinn criter.		4.393446
F-statistic	440.7239	Durbin-Watson stat		2.011767
Prob(F-statistic)	0.000000			

SET50 index (With intercept and With trend)

Null Hypothesis: SET50 has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-20.98165	0.0000
Test critical values: 1% level	-3.976935	
5% level	-3.419038	
10% level	-3.132074	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(SET50)
 Method: Least Squares
 Date: 09/02/09 Time: 16:12

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Sample (adjusted): 2 490

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SET50(-1)	-0.949428	0.045250	-20.98165	0.0000
C	-0.109385	0.196309	-0.557209	0.5776
@TREND(1)	0.000324	0.000694	0.466031	0.6414
R-squared	0.475294	Mean dependent var		-0.006537
Adjusted R-squared	0.473135	S.D. dependent var		2.984958
S.E. of regression	2.166646	Akaike info criterion		4.390354
Sum squared resid	2281.457	Schwarz criterion		4.416074
Log likelihood	-1070.442	Hannan-Quinn criter.		4.400456
F-statistic	220.1163	Durbin-Watson stat		2.011764
Prob(F-statistic)	0.000000			

B-LTF (Without intercept and Without trend)

Null Hypothesis: B_LTF has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-21.07684	0.0000
Test critical values:		
1% level	-2.569700	
5% level	-1.941472	
10% level	-1.616264	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(B_LTF)

Method: Least Squares

Date: 09/02/09 Time: 16:16

Sample (adjusted): 2 490

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
B_LTF(-1)	-0.951769	0.045157	-21.07684	0.0000
R-squared	0.476524	Mean dependent var		-0.004907
Adjusted R-squared	0.476524	S.D. dependent var		2.295515
S.E. of regression	1.660844	Akaike info criterion		3.854571
Sum squared resid	1346.100	Schwarz criterion		3.863145
Log likelihood	-941.4427	Hannan-Quinn criter.		3.857939
Durbin-Watson stat	2.005320			

B-LTF (With intercept)

Null Hypothesis: B_LTF has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-21.05743	0.0000
Test critical values: 1% level	-3.443496	
5% level	-2.867231	
10% level	-2.569863	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(B_LTF)
 Method: Least Squares
 Date: 09/02/09 Time: 16:17
 Sample (adjusted): 2 490
 Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
B_LTF(-1)	-0.951846	0.045202	-21.05743	0.0000
C	-0.016921	0.075181	-0.225069	0.8220
R-squared	0.476578	Mean dependent var		-0.004907
Adjusted R-squared	0.475503	S.D. dependent var		2.295515
S.E. of regression	1.662461	Akaike info criterion		3.858557
Sum squared resid	1345.960	Schwarz criterion		3.875704
Log likelihood	-941.4172	Hannan-Quinn criter.		3.865292
F-statistic	443.4155	Durbin-Watson stat		2.005365
Prob(F-statistic)	0.000000			

B-LTF (With intercept and With trend)

Null Hypothesis: B_LTF has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-21.03705	0.0000
Test critical values: 1% level	-3.976935	
5% level	-3.419038	
10% level	-3.132074	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(B_LTF)
 Method: Least Squares

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Date: 09/02/09 Time: 16:19

Sample (adjusted): 2 490

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
B_LTF(-1)	-0.951884	0.045248	-21.03705	0.0000
C	-0.039510	0.150744	-0.262098	0.7934
@TREND(1)	9.22E-05	0.000533	0.172941	0.8628
R-squared	0.476610	Mean dependent var		-0.004907
Adjusted R-squared	0.474456	S.D. dependent var		2.295515
S.E. of regression	1.664120	Akaike info criterion		3.862586
Sum squared resid	1345.877	Schwarz criterion		3.888306
Log likelihood	-941.4022	Hannan-Quinn criter.		3.872688
F-statistic	221.2811	Durbin-Watson stat		2.005408
Prob(F-statistic)	0.000000			

SCBSET (Without intercept and Without trend)

Null Hypothesis: SCBSET has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-20.46154	0.0000
Test critical values:		
1% level	-2.569700	
5% level	-1.941472	
10% level	-1.616264	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(SCBSET)

Method: Least Squares

Date: 09/02/09 Time: 16:21

Sample (adjusted): 2 490

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCBSET(-1)	-0.922468	0.045083	-20.46154	0.0000
R-squared	0.461767	Mean dependent var		-0.005630
Adjusted R-squared	0.461767	S.D. dependent var		2.553866
S.E. of regression	1.873628	Akaike info criterion		4.095673
Sum squared resid	1713.115	Schwarz criterion		4.104247
Log likelihood	-1000.392	Hannan-Quinn criter.		4.099041
Durbin-Watson stat	2.017498			

SCBSET (With intercept)

Null Hypothesis: SCBSET has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-20.44386	0.0000
Test critical values: 1% level	-3.443496	
5% level	-2.867231	
10% level	-2.569863	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(SCBSET)
 Method: Least Squares
 Date: 09/02/09 Time: 16:24
 Sample (adjusted): 2 490
 Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCBSET(-1)	-0.922593	0.045128	-20.44386	0.0000
C	-0.023212	0.084813	-0.273687	0.7844
R-squared	0.461850	Mean dependent var		-0.005630
Adjusted R-squared	0.460745	S.D. dependent var		2.553866
S.E. of regression	1.875406	Akaike info criterion		4.099609
Sum squared resid	1712.852	Schwarz criterion		4.116756
Log likelihood	-1000.355	Hannan-Quinn criter.		4.106344
F-statistic	417.9516	Durbin-Watson stat		2.017532
Prob(F-statistic)	0.000000			

SCBSET (With intercept and With trend)

Null Hypothesis: SCBSET has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-20.43631	0.0000
Test critical values: 1% level	-3.976935	
5% level	-3.419038	
10% level	-3.132074	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(SCBSET)
 Method: Least Squares
 Date: 09/02/09 Time: 16:27
 Sample (adjusted): 2 490

(ต่อ)

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SCBSET(-1)	-0.923181	0.045174	-20.43631	0.0000
C	-0.103588	0.170057	-0.609136	0.5427
@TREND(1)	0.000328	0.000601	0.545428	0.5857
R-squared	0.462179	Mean dependent var		-0.005630
Adjusted R-squared	0.459966	S.D. dependent var		2.553866
S.E. of regression	1.876761	Akaike info criterion		4.103088
Sum squared resid	1711.804	Schwarz criterion		4.128808
Log likelihood	-1000.205	Hannan-Quinn criter.		4.113190
F-statistic	208.8231	Durbin-Watson stat		2.017473
Prob(F-statistic)	0.000000			

KSET50 (Without intercept and Without trend)

Null Hypothesis: KSET50 has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-20.99779	0.0000
Test critical values:		
1% level	-2.569700	
5% level	-1.941472	
10% level	-1.616264	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(KSET50)

Method: Least Squares

Date: 09/02/09 Time: 16:30

Sample (adjusted): 2 490

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KSET50(-1)	-0.948232	0.045159	-20.99779	0.0000
R-squared	0.474649	Mean dependent var		-0.006453
Adjusted R-squared	0.474649	S.D. dependent var		2.943240
S.E. of regression	2.133292	Akaike info criterion		4.355253
Sum squared resid	2220.857	Schwarz criterion		4.363826
Log likelihood	-1063.859	Hannan-Quinn criter.		4.358620
Durbin-Watson stat	2.012399			

KSET50 (With intercept)

Null Hypothesis: KSET50 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-20.97728	0.0000
Test critical values: 1% level	-3.443496	
5% level	-2.867231	
10% level	-2.569863	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(KSET50)
 Method: Least Squares
 Date: 09/02/09 Time: 16:31
 Sample (adjusted): 2 490
 Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KSET50(-1)	-0.948262	0.045204	-20.97728	0.0000
C	-0.015155	0.096568	-0.156936	0.8754
R-squared	0.474676	Mean dependent var		-0.006453
Adjusted R-squared	0.473597	S.D. dependent var		2.943240
S.E. of regression	2.135428	Akaike info criterion		4.359292
Sum squared resid	2220.745	Schwarz criterion		4.376439
Log likelihood	-1063.847	Hannan-Quinn criter.		4.366027
F-statistic	440.0462	Durbin-Watson stat		2.012433
Prob(F-statistic)	0.000000			

KSET50 (With intercept and With trend)

Null Hypothesis: KSET50 has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-20.96663	0.0000
Test critical values: 1% level	-3.976935	
5% level	-3.419038	
10% level	-3.132074	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(KSET50)
 Method: Least Squares
 Date: 09/02/09 Time: 16:33

(ต่อ)

Sample (adjusted): 2 490

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KSET50(-1)	-0.948724	0.045249	-20.96663	0.0000
C	-0.097633	0.193621	-0.504245	0.6143
@TREND(1)	0.000337	0.000685	0.491589	0.6232
R-squared	0.474937	Mean dependent var		-0.006453
Adjusted R-squared	0.472776	S.D. dependent var		2.943240
S.E. of regression	2.137092	Akaike info criterion		4.362885
Sum squared resid	2219.641	Schwarz criterion		4.388605
Log likelihood	-1063.725	Hannan-Quinn criter.		4.372987
F-statistic	219.8013	Durbin-Watson stat		2.012416
Prob(F-statistic)	0.000000			

KSET50LTF (Without intercept and Without trend)

Null Hypothesis: KSET50LTF has a unit root

Exogenous: None

Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-21.05904	0.0000
Test critical values:		
1% level	-2.569700	
5% level	-1.941472	
10% level	-1.616264	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(KSET50LTF)

Method: Least Squares

Date: 09/02/09 Time: 16:35

Sample (adjusted): 2 490

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KSET50LTF(-1)	-0.951105	0.045164	-21.05904	0.0000
R-squared	0.476102	Mean dependent var		-0.006418
Adjusted R-squared	0.476102	S.D. dependent var		2.908088
S.E. of regression	2.104897	Akaike info criterion		4.328453
Sum squared resid	2162.129	Schwarz criterion		4.337027
Log likelihood	-1057.307	Hannan-Quinn criter.		4.331821
Durbin-Watson stat	2.011356			

KSET50LTF (With intercept)

Null Hypothesis: KSET50LTF has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-21.03999	0.0000
Test critical values: 1% level	-3.443496	
5% level	-2.867231	
10% level	-2.569863	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(KSET50LTF)
 Method: Least Squares
 Date: 09/02/09 Time: 16:37
 Sample (adjusted): 2 490
 Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KSET50LTF(-1)	-0.951195	0.045209	-21.03999	0.0000
C	-0.023012	0.095282	-0.241514	0.8093
R-squared	0.476165	Mean dependent var		-0.006418
Adjusted R-squared	0.475089	S.D. dependent var		2.908088
S.E. of regression	2.106931	Akaike info criterion		4.332424
Sum squared resid	2161.870	Schwarz criterion		4.349570
Log likelihood	-1057.278	Hannan-Quinn criter.		4.339158
F-statistic	442.6813	Durbin-Watson stat		2.011397
Prob(F-statistic)	0.000000			

KSET50LTF (With intercept and With trend)

Null Hypothesis: KSET50LTF has a unit root
 Exogenous: Constant, Linear Trend
 Lag Length: 0 (Automatic based on SIC, MAXLAG=17)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-21.02763	0.0000
Test critical values: 1% level	-3.976935	
5% level	-3.419038	
10% level	-3.132074	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(KSET50LTF)
 Method: Least Squares
 Date: 09/02/09 Time: 16:37
 Sample (adjusted): 2 490

(ต่อ)

Included observations: 489 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
KSET50LTF(-1)	-0.951580	0.045254	-21.02763	0.0000
C	-0.098065	0.191046	-0.513307	0.6080
@TREND(1)	0.000306	0.000676	0.453372	0.6505
R-squared	0.476386	Mean dependent var		-0.006418
Adjusted R-squared	0.474231	S.D. dependent var		2.908088
S.E. of regression	2.108652	Akaike info criterion		4.336091
Sum squared resid	2160.957	Schwarz criterion		4.361811
Log likelihood	-1057.174	Hannan-Quinn criter.		4.346193
F-statistic	221.0823	Durbin-Watson stat		2.011400
Prob(F-statistic)	0.000000			

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ภาคผนวก ก

ผลการหาเส้นพรมแดนเชิงเส้นกลุ่มและประมาณค่าประสิทธิภาพผลตอบแทนของกองทุนรวมดัชนี

B-LTF

Output from the program FRONTIER (Version 4.1c)

instruction file = terminal

data file = b-ltf.dta

Error Components Frontier (see B&C 1992)

The model is a production function

The dependent variable is not logged

the final mle estimates are :

	coefficient	standard-error	t-ratio
beta 0	0.29533348E+00	0.59116559E-01	0.49957827E+01
beta 1	0.74924373E+00	0.84604051E-02	0.88558847E+02
sigma-squared	0.24211095E+00	0.37504153E-01	0.64555770E+01
gamma	0.54427512E+00	0.13628824E+00	0.39935590E+01

mu is restricted to be zero

eta is restricted to be zero

log likelihood function = -0.24244806E+03

LR test of the one-sided error = 0.30723995E+01

with number of restrictions = 1 [note that this statistic has a mixed chi-square distribution]

number of cross-sections = 490

number of time periods = 1

total number of observations = 490

technical efficiency estimates :

firm	eff.-est.								
1	8.90354980E-01	38	2.11208280E-01	75	2.97378250E-01	112	-5.11502400E-01	149	1.00000000E+00
2	9.71305750E-01	39	4.11370510E-01	76	1.00000000E+00	113	1.00000000E+00	150	1.00000000E+00
3	6.95429290E-01	40	-1.1865369E+00	77	1.00000000E+00	114	-2.17859270E-01	151	-4.2624231E+01
4	-2.1582228E+00	41	6.23049510E-01	78	1.48304660E-01	115	4.14157520E-02	152	8.63390160E-01
5	7.68992330E-01	42	-4.08778380E-02	79	1.00000000E+00	116	1.00000000E+00	153	1.00000000E+00
6	7.98457850E-01	43	9.12518010E-01	80	7.82296950E-01	117	1.00000000E+00	154	8.97962030E-01
7	9.12540160E-01	44	8.26258540E-01	81	9.72437120E-01	118	1.00000000E+00	155	8.13052940E-01
8	1.00000000E+00	45	1.00000000E+00	82	3.86924680E-01	119	1.00000000E+00	156	4.32047370E-01
9	-4.4326005E+01	46	6.98467610E-01	83	9.57874670E-01	120	9.47363000E-01	157	1.00000000E+00
10	9.09311810E-01	47	1.00000000E+00	84	1.00000000E+00	121	9.57068660E-01	158	-1.7971563E+01
11	-1.4496253E+00	48	1.00000000E+00	85	-1.0149218E+00	122	-1.4237330E+01	159	8.03697520E-01
12	-1.7354834E+00	49	1.00000000E+00	86	1.00000000E+00	123	7.85651850E-01	160	1.00000000E+00
13	1.00000000E+00	50	7.76540550E-01	87	1.00000000E+00	124	6.73095620E-01	161	-5.64134390E-01
14	1.00000000E+00	51	-2.40664850E-01	88	1.00000000E+00	125	1.00000000E+00	162	8.41600650E-01
15	7.04923840E-01	52	6.96871090E-01	89	9.13139440E-01	126	1.00000000E+00	163	1.00000000E+00
16	9.07286340E-01	53	5.46549560E-01	90	1.00000000E+00	127	1.00000000E+00	164	-1.8787568E+01
17	9.00391830E-01	54	1.00000000E+00	91	1.00000000E+00	128	1.00000000E+00	165	7.03057180E-01
18	5.25879070E-01	55	-2.62288850E-01	92	-1.48416960E-01	129	8.10190760E-01	166	6.91147910E-01
19	3.35626960E-01	56	8.54161200E-01	93	1.00000000E+00	130	8.75649250E-01	167	1.00000000E+00
20	1.00000000E+00	57	7.07609590E-01	94	1.00000000E+00	131	1.00000000E+00	168	1.00000000E+00
21	1.00000000E+00	58	9.24545360E-01	95	6.10857340E-01	132	1.00000000E+00	169	1.00000000E+00
22	1.00000000E+00	59	6.71952510E-01	96	1.00000000E+00	133	1.00000000E+00	170	6.90128880E-01
23	1.00000000E+00	60	-1.2887428E+00	97	1.00000000E+00	134	1.00000000E+00	171	1.00000000E+00
24	8.51248310E-01	61	8.35242720E-01	98	1.00000000E+00	135	1.00000000E+00	172	1.00000000E+00
25	1.00000000E+00	62	-5.61805200E-01	99	1.64910730E-01	136	9.06852590E-01	173	8.75777660E-01
26	-6.18190970E-01	63	6.59066420E-01	100	1.00000000E+00	137	-1.8658678E+00	174	6.43500200E-01
27	9.36210470E-01	64	7.54908810E-01	101	6.66641820E-01	138	1.00000000E+00	175	1.00000000E+00
28	1.00000000E+00	65	-5.84211620E-02	102	8.61798120E-01	139	1.00000000E+00	176	6.87642190E-01
29	1.00000000E+00	66	1.00000000E+00	103	8.85872180E-01	140	-3.22361590E-01	177	1.00000000E+00
30	1.00000000E+00	67	-1.3493982E+00	104	1.00000000E+00	141	1.00000000E+00	178	8.67945970E-01
31	1.00000000E+00	68	6.00347620E-01	105	1.00000000E+00	142	9.58769720E-01	179	1.00000000E+00
32	1.00000000E+00	69	8.76812150E-01	106	9.53643490E-01	143	1.00000000E+00	180	1.00000000E+00
33	7.63219490E-01	70	7.22105360E-01	107	6.62951200E-01	144	9.05273210E-01	181	6.59743750E-01
34	9.64185270E-01	71	8.84432660E-01	108	1.00000000E+00	145	8.42931750E-01	182	7.47099120E-01
35	1.00000000E+00	72	9.09668590E-01	109	4.02625410E-01	146	8.99980570E-01	183	9.25984820E-01
36	9.11900800E-01	73	-1.6861798E+00	110	9.06548000E-01	147	8.82938090E-01	184	1.00000000E+00
37	8.40604230E-01	74	4.53948290E-01	111	1.00000000E+00	148	3.83494360E-01	185	7.49728350E-01

technical efficiency estimates :

firm	eff.-est.								
186	4.43082930E-01	257	1.00000000E+00	294	1.00000000E+00	331	9.28556470E-01	368	8.06382290E-01
187	1.00000000E+00	258	1.00000000E+00	295	1.00000000E+00	332	9.49240200E-01	369	5.86308150E-01
188	7.59383160E-01	259	9.33476720E-01	296	1.00000000E+00	333	7.24153030E-01	370	3.67694000E-01
189	2.62265060E-01	260	1.00000000E+00	297	8.52244490E-01	334	5.10054570E-01	371	5.00616100E-01
190	5.85791830E-02	261	9.02066260E-01	298	1.00000000E+00	335	6.90161880E-01	372	8.22384320E-01
191	-1.1920005E+00	262	1.00000000E+00	299	1.00000000E+00	336	5.89890340E-01	373	1.00000000E+00
192	7.35290130E-01	263	1.00000000E+00	300	1.00000000E+00	337	1.00000000E+00	374	1.00000000E+00
193	-1.86878460E-01	264	3.01991900E-01	301	-9.2744027E+00	338	1.00000000E+00	375	4.90890030E-01
194	1.00000000E+00	265	1.00000000E+00	302	9.69140690E-01	339	1.00000000E+00	376	1.00000000E+00
195	7.97335970E-01	266	1.00000000E+00	303	1.00000000E+00	340	1.00000000E+00	377	1.00000000E+00
196	8.34844500E-01	267	8.58576960E-01	304	1.00000000E+00	341	1.00000000E+00	378	1.00000000E+00
197	8.41569910E-01	268	6.87969790E-01	305	9.08645660E-01	342	8.03498990E-01	379	8.12986230E-01
198	-4.79236130E-01	269	1.00000000E+00	306	5.75639680E-01	343	1.00000000E+00	380	1.00000000E+00
199	1.00000000E+00	270	1.00000000E+00	307	1.00000000E+00	344	1.00000000E+00	381	7.95656560E-01
200	8.02471700E-01	271	8.62783610E-01	308	1.00000000E+00	345	1.00000000E+00	382	1.31588270E-01
201	1.00000000E+00	272	9.31874140E-01	309	1.00000000E+00	346	7.48772550E-01	383	1.00000000E+00
202	1.00000000E+00	273	1.00000000E+00	310	1.00000000E+00	347	1.00000000E+00	384	1.00000000E+00
203	-6.0957642E+00	274	8.91516590E-01	311	7.90295090E-01	348	9.17349560E-01	385	8.33687550E-01
204	6.23817760E-01	275	-1.8629414E+00	312	1.00000000E+00	349	4.80540150E-01	386	1.00000000E+00
205	-2.2195051E+00	276	5.82653290E-01	313	1.00000000E+00	350	1.00000000E+00	387	7.41360120E-01
206	-2.3933227E+00	277	5.77761700E-01	314	1.00000000E+00	351	8.41118850E-01	388	8.09799810E-01
207	8.27711860E-01	278	1.00000000E+00	315	1.00000000E+00	352	1.00000000E+00	389	6.33121610E-01
208	5.01685220E-01	279	1.00000000E+00	316	8.93156090E-01	353	1.00000000E+00	390	1.00000000E+00
209	4.77250460E-01	280	-3.7579806E+00	317	1.00000000E+00	354	8.29024770E-01	391	5.94095300E-01
210	4.97415380E-01	281	1.00000000E+00	318	9.21699790E-01	355	9.11817570E-02	392	1.00000000E+00
245	2.43532930E-01	282	8.52187350E-01	319	9.50610910E-01	356	8.95662890E-01	393	7.64018550E-01
246	1.00000000E+00	283	1.00000000E+00	320	1.00000000E+00	357	8.46747270E-01	394	7.05838330E-01
247	1.00000000E+00	284	1.00000000E+00	321	1.00000000E+00	358	7.52040790E-01	395	-8.70918520E-02
248	1.00000000E+00	285	8.22084970E-01	322	1.00000000E+00	359	-1.09896450E-01	396	8.44396270E-01
249	5.27013050E-01	286	8.15132800E-01	323	7.97918270E-01	360	7.81065540E-01	397	1.00000000E+00
250	1.00000000E+00	287	5.32375330E-01	324	6.41993520E-01	361	7.83052980E-01	398	4.40789420E-01
251	1.00000000E+00	288	1.00000000E+00	325	1.00000000E+00	362	5.99703500E-01	399	1.00000000E+00
252	-2.3046903E+00	289	1.00000000E+00	326	1.00000000E+00	363	8.06912500E-01	400	8.62396990E-01
253	-2.67000220E-01	290	1.00000000E+00	327	1.00000000E+00	364	1.00000000E+00	401	1.81571540E-01
254	7.68488370E-01	291	7.97039550E-01	328	9.17559590E-01	365	1.00000000E+00	402	1.00000000E+00
255	1.00000000E+00	292	1.00000000E+00	329	1.00000000E+00	366	7.38478070E-01	403	5.89585170E-01
256	1.00000000E+00	293	9.46238510E-01	330	8.72827110E-01	367	-1.0935474E+01	404	6.14113590E-01

technical efficiency estimates :

firm	eff.-est.								
405	1.0000000E+00	423	6.32514270E-01	441	5.26464520E-01	459	6.10138830E-01	477	7.46337770E-01
406	2.20927090E-01	424	5.70049300E-01	442	6.65916140E-01	460	7.90080120E-01	478	4.08879630E-01
407	1.0000000E+00	425	4.27482130E-01	443	1.81952750E-01	461	6.66845060E-01	479	1.0000000E+00
408	6.94038800E-01	426	7.47499730E-01	444	1.0000000E+00	462	1.0000000E+00	480	1.0000000E+00
409	1.0000000E+00	427	8.76723940E-02	445	6.54535020E-01	463	7.38063070E-01	481	1.0000000E+00
410	2.69011750E-01	428	-1.2120664E+00	446	7.01809060E-01	464	1.0000000E+00	482	1.0000000E+00
411	1.0000000E+00	429	6.17945230E-01	447	4.90635080E-01	465	1.0000000E+00	483	8.96242160E-01
412	1.0000000E+00	430	5.82493070E-01	448	1.0000000E+00	466	8.52840000E-01	484	1.0000000E+00
413	7.93013440E-01	431	1.0000000E+00	449	7.55002210E-01	467	1.48137940E-01	485	1.0000000E+00
414	2.89755190E-01	432	4.99960160E-01	450	8.90252700E-01	468	6.42627970E-01	486	8.04161810E-01
415	6.47452150E-01	433	1.0000000E+00	451	9.11344780E-01	469	9.23916010E-01	487	8.35300750E-01
416	1.0000000E+00	434	8.04135710E-01	452	7.48415180E-01	470	1.0000000E+00	488	7.85295050E-01
417	6.88951540E-01	435	4.29281030E-01	453	4.30870260E-01	471	8.13084420E-01	489	7.06172920E-01
418	1.0000000E+00	436	1.0000000E+00	454	7.48863180E-01	472	8.65336260E-01	490	1.0000000E+00
419	5.27394970E-01	437	4.58917190E-01	455	5.91685380E-01	473	8.96142510E-01		
420	8.12754420E-01	438	-2.27204600E-02	456	5.89856790E-01	474	1.0000000E+00		
421	2.41141510E-01	439	7.64521440E-01	457	1.0000000E+00	475	8.08235900E-01		
422	1.0000000E+00	440	1.0000000E+00	458	8.73691860E-01	476	9.18928560E-01		

mean efficiency = 0.34624932E+00

SCBSET

Output from the program FRONTIER (Version 4.1c)

instruction file = terminal

data file = scbset.dta

Error Components Frontier (see B&C 1992)

The model is a production function

The dependent variable is not logged

the final mle estimates are :

	coefficient	standard-error	t-ratio
beta 0	0.11918154E+00	0.17690775E-01	0.67369319E+01
beta 1	0.86390288E+00	0.35518766E-02	0.24322435E+03
sigma-squared	0.40339301E-01	0.48682229E-02	0.82862478E+01

gamma 0.53960141E+00 0.97067979E-01 0.55590052E+01

mu is restricted to be zero

eta is restricted to be zero

log likelihood function = 0.19555929E+03

LR test of the one-sided error = 0.64975219E+01

with number of restrictions = 1 [note that this statistic has a mixed chi-square distribution]

number of cross-sections = 490

number of time periods = 1

total number of observations = 490

technical efficiency estimates :

firm eff.-est.

1	9.50988850E-01	24	9.35505480E-01	47	1.00000000E+00	70	8.04898560E-01	93	1.00000000E+00
2	9.40856020E-01	25	1.00000000E+00	48	1.00000000E+00	71	9.16397100E-01	94	1.00000000E+00
3	9.48322580E-01	26	1.00000000E+00	49	1.00000000E+00	72	8.98100840E-01	95	8.02035100E-01
4	1.00000000E+00	27	9.48120360E-01	50	8.10365560E-01	73	1.00000000E+00	96	1.00000000E+00
5	9.02408160E-01	28	1.00000000E+00	51	2.70800620E-01	74	8.47557880E-01	97	1.00000000E+00
6	9.36478230E-01	29	1.00000000E+00	52	8.37634070E-01	75	1.00000000E+00	98	1.00000000E+00
7	9.36608530E-01	30	1.00000000E+00	53	8.52228910E-01	76	1.00000000E+00	99	-5.47198810E-01
8	1.00000000E+00	31	1.00000000E+00	54	1.00000000E+00	77	1.00000000E+00	100	1.00000000E+00
9	1.00000000E+00	32	1.00000000E+00	55	-3.30430020E-01	78	-5.48933270E-01	101	5.90435400E-01
10	9.58375660E-01	33	9.28545500E-01	56	-8.76471020E-01	79	1.00000000E+00	102	9.49091730E-01
11	1.00000000E+00	34	9.66041450E-01	57	8.09944910E-01	80	8.63484930E-01	103	8.75430360E-01
12	1.00000000E+00	35	1.00000000E+00	58	9.32948850E-01	81	9.38905600E-01	104	1.00000000E+00
13	1.00000000E+00	36	9.37648010E-01	59	8.49324170E-01	82	5.65178110E-01	105	1.00000000E+00
14	1.00000000E+00	37	9.03304900E-01	60	1.00000000E+00	83	9.34278470E-01	106	9.58265390E-01
15	7.85277330E-01	38	-5.19239360E-01	61	9.26904110E-01	84	1.00000000E+00	107	6.10785530E-01
16	9.31742970E-01	39	1.92639650E-01	62	1.00000000E+00	85	-9.7123084E+00	108	1.00000000E+00
17	9.50698850E-01	40	1.00000000E+00	63	7.00325770E-01	86	1.00000000E+00	109	6.81726230E-01
18	7.76879510E-01	41	8.53319180E-01	64	8.98047430E-01	87	1.00000000E+00	110	9.29255260E-01
19	1.01597610E-01	42	2.12068580E-01	65	4.63285590E-01	88	1.00000000E+00	111	1.00000000E+00
20	1.00000000E+00	43	9.54022810E-01	66	1.00000000E+00	89	9.17672520E-01	112	-4.88785820E-01
21	1.00000000E+00	44	8.86413920E-01	67	1.00000000E+00	90	1.00000000E+00	113	1.00000000E+00
22	1.00000000E+00	45	1.00000000E+00	68	8.32409470E-01	91	1.00000000E+00	114	-2.72425900E-01
23	1.00000000E+00	46	8.60867270E-01	69	9.27106910E-01	92	5.28952340E-01	115	3.92209180E-01

technical efficiency estimates :

firm	eff.-est.								
116	1.0000000E+00	154	9.59412730E-01	192	7.71266010E-01	230	8.94620180E-01	268	5.12836060E-01
117	1.0000000E+00	155	9.16901960E-01	193	-1.1977664E+00	231	1.0000000E+00	269	1.0000000E+00
118	1.0000000E+00	156	7.63063090E-01	194	1.0000000E+00	232	1.0000000E+00	270	1.0000000E+00
119	1.0000000E+00	157	1.0000000E+00	195	8.90295650E-01	233	-1.08867900E-01	271	8.88469790E-01
120	9.47420410E-01	158	1.0000000E+00	196	9.10522470E-01	234	-5.03499990E-01	272	9.51420730E-01
121	9.68963120E-01	159	9.23909830E-01	197	9.18669620E-01	235	1.0000000E+00	273	1.0000000E+00
122	1.0000000E+00	160	1.0000000E+00	198	-2.8697208E+00	236	8.64601910E-01	274	9.37823270E-01
123	9.29113350E-01	161	1.0000000E+00	199	1.0000000E+00	237	1.0000000E+00	275	1.0000000E+00
124	8.71644340E-01	162	9.30737780E-01	200	8.88238360E-01	238	1.0000000E+00	276	8.55290790E-01
125	1.0000000E+00	163	1.0000000E+00	201	1.0000000E+00	239	1.0000000E+00	277	7.31920140E-01
126	1.0000000E+00	164	1.0000000E+00	202	1.0000000E+00	240	9.62885620E-01	278	1.0000000E+00
127	1.0000000E+00	165	9.18997910E-01	203	1.0000000E+00	241	1.0000000E+00	279	1.0000000E+00
128	1.0000000E+00	166	8.17329910E-01	204	7.78651900E-01	242	1.0000000E+00	280	1.0000000E+00
129	8.15942150E-01	167	1.0000000E+00	205	1.0000000E+00	243	9.61072190E-01	281	1.0000000E+00
130	8.95080120E-01	168	1.0000000E+00	206	1.0000000E+00	244	1.0000000E+00	282	9.20755020E-01
131	1.0000000E+00	169	1.0000000E+00	207	9.39276430E-01	245	5.90384810E-01	283	1.0000000E+00
132	1.0000000E+00	170	7.58611960E-01	208	7.92064160E-01	246	1.0000000E+00	284	1.0000000E+00
133	1.0000000E+00	171	1.0000000E+00	209	7.42686720E-01	247	1.0000000E+00	285	9.13008690E-01
134	1.0000000E+00	172	1.0000000E+00	210	6.67560360E-01	248	1.0000000E+00	286	8.90207530E-01
135	1.0000000E+00	173	9.53644340E-01	211	1.0000000E+00	249	4.91833320E-01	287	6.35985100E-01
136	9.59039370E-01	174	9.19954570E-01	212	1.0000000E+00	250	1.0000000E+00	288	1.0000000E+00
137	1.0000000E+00	175	1.0000000E+00	213	1.0000000E+00	251	1.0000000E+00	289	1.0000000E+00
138	1.0000000E+00	176	8.30928010E-01	214	9.27364340E-01	252	1.0000000E+00	290	1.0000000E+00
139	1.0000000E+00	177	1.0000000E+00	215	8.91614200E-01	253	5.12974430E-01	291	8.96328070E-01
140	-1.3794361E+00	178	9.49923030E-01	216	9.35006210E-01	254	8.96071700E-01	292	1.0000000E+00
141	1.0000000E+00	179	1.0000000E+00	217	7.18054750E-01	255	1.0000000E+00	293	9.61386880E-01
142	9.69685910E-01	180	1.0000000E+00	218	9.14180100E-01	256	1.0000000E+00	294	1.0000000E+00
143	1.0000000E+00	181	8.83753340E-01	219	1.0000000E+00	257	1.0000000E+00	295	1.0000000E+00
144	9.09447940E-01	182	8.05038960E-01	220	1.0000000E+00	258	1.0000000E+00	296	1.0000000E+00
145	9.19335810E-01	183	9.56024350E-01	221	1.0000000E+00	259	9.47896260E-01	297	9.11362310E-01
146	9.60554930E-01	184	1.0000000E+00	222	1.0000000E+00	260	1.0000000E+00	298	1.0000000E+00
147	9.84277790E-01	185	8.65929750E-01	223	1.0000000E+00	261	9.54084580E-01	299	1.0000000E+00
148	1.0000000E+00	186	6.60229190E-01	224	-1.4564117E+00	262	1.0000000E+00	300	1.0000000E+00
149	1.0000000E+00	187	1.0000000E+00	225	6.45924630E-01	263	1.0000000E+00	301	1.0000000E+00
150	1.0000000E+00	188	9.05450420E-01	226	1.0000000E+00	264	2.26077370E-01	302	9.71213840E-01
151	1.0000000E+00	189	7.05152050E-01	227	1.0000000E+00	265	1.0000000E+00	303	1.0000000E+00
152	9.41799570E-01	190	2.37374190E-01	228	6.69806900E-01	266	1.0000000E+00	304	1.0000000E+00
153	1.0000000E+00	191	1.0000000E+00	229	5.76941590E-01	267	9.33068740E-01	305	9.31344660E-01

technical efficiency estimates :

firm	eff.-est.								
306	5.87553500E-01	344	1.00000000E+00	382	2.07463370E-01	420	9.56668730E-01	458	9.10990390E-01
307	1.00000000E+00	345	1.00000000E+00	383	1.00000000E+00	421	6.86650040E-02	459	9.25287440E-01
308	1.00000000E+00	346	8.90300770E-01	384	1.00000000E+00	422	1.00000000E+00	460	9.62325170E-01
309	1.00000000E+00	347	1.00000000E+00	385	9.33229970E-01	423	8.97782280E-01	461	9.00387460E-01
310	1.00000000E+00	348	9.24231620E-01	386	1.00000000E+00	424	7.93196400E-01	462	1.00000000E+00
311	7.67716420E-01	349	8.29118290E-01	387	8.50359590E-01	425	8.09713030E-01	463	6.14021160E-01
312	1.00000000E+00	350	1.00000000E+00	388	9.57908310E-01	426	9.49526760E-01	464	1.00000000E+00
313	1.00000000E+00	351	9.53990700E-01	389	9.09938180E-01	427	-4.32711690E-01	465	1.00000000E+00
314	1.00000000E+00	352	1.00000000E+00	390	1.00000000E+00	428	1.00000000E+00	466	9.61819110E-01
315	1.00000000E+00	353	1.00000000E+00	391	8.52029480E-01	429	8.44142860E-01	467	-7.20311820E-01
316	8.87906480E-01	354	9.15270140E-01	392	1.00000000E+00	430	7.98798330E-01	468	9.23288150E-01
317	1.00000000E+00	355	7.99338810E-02	393	8.92612630E-01	431	1.00000000E+00	469	9.70839060E-01
318	9.28030660E-01	356	9.83654830E-01	394	8.53029240E-01	432	7.96178030E-01	470	1.00000000E+00
319	9.90552730E-01	357	9.43735710E-01	395	4.56369680E-01	433	1.00000000E+00	471	9.37160210E-01
320	1.00000000E+00	358	6.53398110E-01	396	9.32361280E-01	434	9.74608550E-01	472	9.61719070E-01
321	1.00000000E+00	359	2.37598890E-02	397	1.00000000E+00	435	8.51874300E-01	473	9.58942070E-01
322	1.00000000E+00	360	9.77643040E-01	398	5.98175490E-01	436	1.00000000E+00	474	1.00000000E+00
323	8.60752740E-01	361	9.49839310E-01	399	1.00000000E+00	437	7.10262650E-01	475	9.45750700E-01
324	7.28816200E-01	362	6.90340380E-01	400	8.92288950E-01	438	6.87345980E-01	476	9.58739930E-01
325	1.00000000E+00	363	9.48214570E-01	401	5.13591890E-01	439	9.77579330E-01	477	7.86878750E-01
326	1.00000000E+00	364	1.00000000E+00	402	1.00000000E+00	440	1.00000000E+00	478	7.18339610E-01
327	1.00000000E+00	365	1.00000000E+00	403	6.89419450E-01	441	8.68325130E-01	479	1.00000000E+00
328	8.99690190E-01	366	9.49168650E-01	404	7.97444660E-01	442	9.50293930E-01	480	1.00000000E+00
329	1.00000000E+00	367	1.00000000E+00	405	1.00000000E+00	443	1.00000000E+00	481	1.00000000E+00
330	9.54828480E-01	368	9.47094460E-01	406	2.08765170E-01	444	1.00000000E+00	482	1.00000000E+00
331	9.29981070E-01	369	8.06691850E-01	407	1.00000000E+00	445	9.63104220E-01	483	9.77296940E-01
332	9.73596350E-01	370	-8.94461510E-02	408	8.05607440E-01	446	9.65171260E-01	484	1.00000000E+00
333	9.60093580E-01	371	8.72578070E-01	409	1.00000000E+00	447	6.97558700E-01	485	1.00000000E+00
334	-3.28241400E-01	372	9.87608970E-01	410	3.94541990E-01	448	1.00000000E+00	486	9.53668280E-01
335	8.95420000E-01	373	1.00000000E+00	411	1.00000000E+00	449	9.74169610E-01	487	9.49252380E-01
336	6.30193900E-01	374	1.00000000E+00	412	1.00000000E+00	450	9.50038580E-01	488	8.91187520E-01
337	1.00000000E+00	375	8.18900980E-01	413	9.34743010E-01	451	9.59147040E-01	489	8.88807100E-01
338	1.00000000E+00	376	1.00000000E+00	414	-3.1198828E+00	452	9.84815230E-01	490	1.00000000E+00
339	1.00000000E+00	377	1.00000000E+00	415	8.42009850E-01	453	9.42820440E-01		
340	1.00000000E+00	378	1.00000000E+00	416	1.00000000E+00	454	9.48848080E-01		
341	1.00000000E+00	379	해 □ □ □ □	417	9.39197260E-01	455	9.63395660E-01		
342	8.83427040E-01	380	1.00000000E+00	418	1.00000000E+00	456	9.24802960E-01		
343	1.00000000E+00	381	9.46325100E-01	419	7.09267970E-01	457	1.00000000E+00		

mean efficiency = 0.82832156E+00

KSET50

Output from the program FRONTIER (Version 4.1c)

instruction file = terminal

data file = kset50.dta

Error Components Frontier (see B&C 1992)

The model is a production function

The dependent variable is not logged

the final mle estimates are :

	coefficient	standard-error	t-ratio
beta 0	0.20394641E+00	0.11733107E-01	0.17382132E+02
beta 1	0.98046258E+00	0.50186551E-02	0.19536361E+03
sigma-squared	0.11810714E+00	0.83336158E-02	0.14172376E+02
gamma	0.85127888E+00	0.15002463E-01	0.56742608E+02

mu is restricted to be zero

eta is restricted to be zero

log likelihood function = -0.19606832E+02

LR test of the one-sided error = 0.11673167E+03

with number of restrictions = 1 [note that this statistic has a mixed chi-square distribution]

number of cross-sections = 490

number of time periods = 1

total number of observations = 490

technical efficiency estimates :

firm	eff.-est.
1	9.28458100E-01
2	9.48695430E-01
3	9.02229840E-01
4	1.00000000E+00
5	8.80158560E-01
6	8.93545670E-01
7	9.17821570E-01
8	1.00000000E+00
9	1.00000000E+00
10	9.13332130E-01
11	1.00000000E+00
12	1.00000000E+00
13	1.00000000E+00
14	1.00000000E+00
15	6.54029140E-01
16	8.89874200E-01
17	9.27389350E-01
18	7.27262750E-01
19	2.21130920E-01
20	1.00000000E+00
21	1.00000000E+00
22	1.00000000E+00
23	1.00000000E+00
24	9.09560170E-01
25	1.00000000E+00
26	1.00000000E+00
27	9.31496210E-01
28	1.00000000E+00
29	1.00000000E+00
30	1.00000000E+00
31	1.00000000E+00
32	1.00000000E+00
33	8.42505830E-01
34	9.56757710E-01
35	1.00000000E+00
36	9.46245700E-01
37	8.45375720E-01
38	2.22030300E-01
39	9.83190050E-02
40	1.00000000E+00

technical efficiency estimates :

firm	eff.-est.								
41	7.89166220E-01	78	-6.01340380E-02	115	-8.96688900E-02	152	9.12625250E-01	189	4.93768710E-01
42	1.74726050E-01	79	1.00000000E+00	116	1.00000000E+00	153	1.00000000E+00	190	3.54951450E-01
43	9.52104830E-01	80	8.13442140E-01	117	1.00000000E+00	154	9.09979810E-01	191	1.00000000E+00
44	8.53030830E-01	81	9.58703860E-01	118	1.00000000E+00	155	9.01148890E-01	192	6.37380240E-01
45	1.00000000E+00	82	5.57254680E-01	119	1.00000000E+00	156	6.51790210E-01	193	-2.10579000E-01
46	7.91347660E-01	83	9.37848430E-01	120	9.37248900E-01	157	1.00000000E+00	194	1.00000000E+00
47	1.00000000E+00	84	1.00000000E+00	121	9.42537550E-01	158	1.00000000E+00	195	8.28332150E-01
48	1.00000000E+00	85	-1.5452538E+00	122	1.00000000E+00	159	8.03122350E-01	196	9.05249270E-01
49	1.00000000E+00	86	1.00000000E+00	123	8.94336420E-01	160	1.00000000E+00	197	8.93970100E-01
50	7.95939010E-01	87	1.00000000E+00	124	7.47872440E-01	161	-5.5064744E+00	198	-8.99536450E-01
51	1.13714450E-01	88	1.00000000E+00	125	1.00000000E+00	162	8.97996730E-01	199	1.00000000E+00
52	7.88235700E-01	89	9.12364920E-01	126	1.00000000E+00	163	1.00000000E+00	200	8.93048470E-01
53	7.92068110E-01	90	1.00000000E+00	127	1.00000000E+00	164	1.00000000E+00	201	1.00000000E+00
54	1.00000000E+00	91	1.00000000E+00	128	1.00000000E+00	165	8.88140730E-01	202	1.00000000E+00
55	-2.56104720E-01	92	-4.7879194E+00	129	7.56624040E-01	166	7.29481820E-01	203	1.00000000E+00
56	8.89009570E-01	93	1.00000000E+00	130	8.89354880E-01	167	1.00000000E+00	204	7.82534900E-01
57	7.45308090E-01	94	1.00000000E+00	131	1.00000000E+00	168	1.00000000E+00	205	1.00000000E+00
58	9.29904670E-01	95	-8.99594590E-01	132	1.00000000E+00	169	1.00000000E+00	206	1.00000000E+00
59	7.79761960E-01	96	1.00000000E+00	133	1.00000000E+00	170	6.79536320E-01	207	7.68529750E-01
60	1.00000000E+00	97	1.00000000E+00	134	1.00000000E+00	171	1.00000000E+00	208	7.66850490E-01
61	8.67168700E-01	98	2.10502220E-01	135	1.00000000E+00	172	1.00000000E+00	209	6.97177530E-01
62	-6.0711090E+00	99	-1.5131234E+01	136	9.33608670E-01	173	9.51868830E-01	210	7.01812950E-01
63	6.28502570E-01	100	7.19966940E-02	137	1.00000000E+00	174	8.49676620E-01	211	1.00000000E+00
64	8.29404160E-01	101	1.48708380E-01	138	1.00000000E+00	175	1.00000000E+00	212	1.00000000E+00
65	1.46244300E-01	102	9.25355220E-01	139	1.00000000E+00	176	7.84561650E-01	213	1.00000000E+00
66	1.00000000E+00	103	8.68033770E-01	140	-2.67430660E-01	177	1.00000000E+00	214	8.69527860E-01
67	1.00000000E+00	104	1.00000000E+00	141	1.00000000E+00	178	9.51782070E-01	215	8.11689230E-01
68	7.02637140E-01	105	1.00000000E+00	142	9.68602890E-01	179	1.00000000E+00	216	9.19103580E-01
69	8.89840170E-01	106	9.54723380E-01	143	1.00000000E+00	180	1.00000000E+00	217	6.91828180E-01
70	7.81666190E-01	107	5.40346450E-01	144	9.02833590E-01	181	7.46360860E-01	218	8.83492170E-01
71	8.24682400E-01	108	1.00000000E+00	145	8.75317250E-01	182	7.65078630E-01	219	1.00000000E+00
72	9.16496470E-01	109	6.25805900E-01	146	9.47285910E-01	183	9.07073180E-01	220	-6.5025006E+00
73	-2.0206976E+00	110	9.12348720E-01	147	9.58322530E-01	184	1.00000000E+00	221	1.00000000E+00
74	8.95682040E-01	111	1.00000000E+00	148	-2.3842760E+00	185	7.93680620E-01	222	1.00000000E+00
75	-2.6890009E+00	112	-4.83155480E-02	149	1.00000000E+00	186	6.49942510E-01	223	1.00000000E+00
76	1.00000000E+00	113	1.00000000E+00	150	1.00000000E+00	187	1.00000000E+00	224	-1.61382450E-01
77	1.00000000E+00	114	2.38219160E-01	151	1.00000000E+00	188	8.53866020E-01	225	1.64503480E-01

technical efficiency estimates :

firm	eff.-est.								
411	1.0000000E+00	427	-2.15308390E-01	443	-1.0026571E+00	459	8.69486270E-01	475	8.82939030E-01
412	1.0000000E+00	428	1.0000000E+00	444	1.0000000E+00	460	9.53738270E-01	476	9.56251880E-01
413	8.75690840E-01	429	7.76313590E-01	445	9.20092880E-01	461	8.08842610E-01	477	7.85480620E-01
414	3.24233630E-01	430	7.20233930E-01	446	8.99163380E-01	462	1.0000000E+00	478	5.97430220E-01
415	7.74913840E-01	431	1.0000000E+00	447	4.74126270E-01	463	8.52837630E-01	479	1.0000000E+00
416	1.0000000E+00	432	7.23532290E-01	448	1.0000000E+00	464	1.0000000E+00	480	1.0000000E+00
417	9.28408220E-01	433	1.0000000E+00	449	9.36124900E-01	465	1.0000000E+00	481	1.0000000E+00
418	1.0000000E+00	434	9.65245760E-01	450	9.24031480E-01	466	9.41726900E-01	482	1.0000000E+00
419	6.93765590E-01	435	8.13452640E-01	451	9.57819870E-01	467	-4.59884700E-01	483	9.57195670E-01
420	9.36224820E-01	436	1.0000000E+00	452	9.54072820E-01	468	8.29784990E-01	484	1.0000000E+00
421	8.09153340E-02	437	6.66853580E-01	453	8.13589010E-01	469	9.63846940E-01	485	1.0000000E+00
422	1.0000000E+00	438	4.19974400E-01	454	9.30551690E-01	470	1.0000000E+00	486	9.35468740E-01
423	8.59165450E-01	439	9.73512560E-01	455	9.05853440E-01	471	9.07117770E-01	487	9.15864170E-01
424	6.60187490E-01	440	1.0000000E+00	456	9.02016260E-01	472	9.27274560E-01	488	8.71018410E-01
425	7.54875950E-01	441	8.83805580E-01	457	1.0000000E+00	473	9.14192890E-01	489	8.48324060E-01
426	9.20062600E-01	442	9.14886170E-01	458	9.10519260E-01	474	1.0000000E+00	490	1.0000000E+00

mean efficiency = 0.70484032E+00

KSET50LTF

Output from the program FRONTIER (Version 4.1c)

instruction file = terminal

data file = kset50lft.dta

Error Components Frontier (see B&C 1992)

The model is a production function

The dependent variable is not logged

the final mle estimates are :

	coefficient	standard-error	t-ratio
beta 0	0.70708969E-02	0.63181590E-01	0.11191388E+00
beta 1	0.97216012E+00	0.19791324E-02	0.49120518E+03
sigma-squared	0.89782684E-02	0.55500220E-03	0.16176996E+02
gamma	0.23332989E-04	0.86805957E-02	0.26879479E-02

mu is restricted to be zero

eta is restricted to be zero



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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ภาคผนวก ง

ผลการวิเคราะห์การถดถอยอย่างง่ายโดยวิธีกำลังสองน้อยที่สุด

B-LTF

Dependent Variable: B_LTF
 Method: Least Squares
 Date: 09/03/09 Time: 12:04
 Sample: 1 490
 Included observations: 490

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.006184	0.018023	0.343134	0.7316
SET50	0.745550	0.008329	89.51363	0.0000
R-squared	0.942593	Mean dependent var		-0.013570
Adjusted R-squared	0.942475	S.D. dependent var		1.663300
S.E. of regression	0.398931	Akaike info criterion		1.004017
Sum squared resid	77.66328	Schwarz criterion		1.021137
Log likelihood	-243.9843	Hannan-Quinn criter.		1.010741
F-statistic	8012.689	Durbin-Watson stat		1.960713
Prob(F-statistic)	0.000000			

SCBSET

Dependent Variable: SCBSET
 Method: Least Squares
 Date: 09/03/09 Time: 12:15
 Sample (adjusted): 2 490
 Included observations: 489 after adjustments
 Convergence achieved after 7 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002386	0.007973	0.299226	0.7649
SET50	0.862813	0.003429	251.6433	0.0000
AR(1)	0.071343	0.045280	1.575575	0.1158
R-squared	0.992441	Mean dependent var		-0.024687
Adjusted R-squared	0.992410	S.D. dependent var		1.879135
S.E. of regression	0.163716	Akaike info criterion		-0.775254
Sum squared resid	13.02618	Schwarz criterion		-0.749534
Log likelihood	192.5496	Hannan-Quinn criter.		-0.765152
F-statistic	31902.83	Durbin-Watson stat		2.011602
Prob(F-statistic)	0.000000			
Inverted AR Roots	.07			

KSET50

Dependent Variable: KSET50

Method: Least Squares

Date: 09/03/09 Time: 12:53

Sample (adjusted): 2 490

Included observations: 489 after adjustments

Convergence achieved after 3 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.015228	0.006128	2.484988	0.0133
SET50	0.983142	0.003821	257.3025	0.0000
AR(1)	-0.631569	0.035189	-17.94804	0.0000
R-squared	0.989334	Mean dependent var		-0.015630
Adjusted R-squared	0.989290	S.D. dependent var		2.136106
S.E. of regression	0.221064	Akaike info criterion		-0.174614
Sum squared resid	23.75044	Schwarz criterion		-0.148894
Log likelihood	45.69318	Hannan-Quinn criter.		-0.164512
F-statistic	22539.42	Durbin-Watson stat		2.143361
Prob(F-statistic)	0.000000			
Inverted AR Roots	-0.63			

KSET50LTF

Dependent Variable: KSET50LTF

Method: Least Squares

Date: 09/03/09 Time: 12:36

Sample (adjusted): 2 490

Included observations: 489 after adjustments

Convergence achieved after 4 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.006639	0.004607	1.440919	0.1503
SET50	0.972275	0.001988	489.1111	0.0000
AR(1)	0.068370	0.045285	1.509773	0.1318
R-squared	0.997980	Mean dependent var		-0.023863
Adjusted R-squared	0.997972	S.D. dependent var		2.107288
S.E. of regression	0.094910	Akaike info criterion		-1.865668
Sum squared resid	4.377805	Schwarz criterion		-1.839948
Log likelihood	459.1558	Hannan-Quinn criter.		-1.855566
F-statistic	120043.7	Durbin-Watson stat		1.966616
Prob(F-statistic)	0.000000			
Inverted AR Roots	.07			

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ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
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