Appendix A : Listing of Bond Rating Announcements

a) Upgrade

Upgrade Rating type	Company code	Prior rating	New Rating	Announcement date	Sector
Small	AHB	AA1 (bg)	AAA (bg)	15/08/02	finance
	AIC	AA1 (bg)	AAA (bg)	15/08/02	technology
	AKN-1	A3	A2	16/11/00	technology
	CIMB-2	A2	A1	06/06/06	finance
	CMS	BBB3	BBB2	14/08/00	industrial products
	GAM-1	A2	A1	12/01/00	construction
	GAM-2	A1	AA3	23/01/03	construction
	HLBK-1	A1	AA3	16/12/02	finance
	HLBK-2	AA3	AA2	06/02/06	finance
	HLBK-3	AA2	AA1	05/11/09	finance
	HUBL	A3	A2	26/10/04	trading/ services
	IOI-2	A1	AA3	12/12/02	plantation
	IOI-3	AA3	AA2	26/04/06	plantation
	IP	A3 (bg)	A2 (bg)	14/01/00	trading/ services
	LBA	A2	A1	20/10/03	industrial products
	LING	A3	A2	28/03/05	industrial products
	LMC	A2	A1	26/05/04	industrial products
	MPU-1	BBB1	A3	10/09/03	trading/ services
	PBK-1	AA2	AA1	11/08/00	finance
	PBK-2	AA1	AAA	07/05/02	finance
	RHBC	A2 (s)	A1 (s)	25/10/02	finance
	RP	A3 (bg)	A2 (bg)	14/01/00	trading/ services
	SA-1	BB1	BBB3	03/05/00	industrial products
	SPSB	A2	A1	07/05/03	properties
	STAR	AA3	AA2	14/08/02	trading/ services
	TNL-2	A1 (bg)	AA3 (bg)	21/11/01	trading/ services
	VSI-1	A3	A2	20/05/02	industrial products
Big	AMM	AA3 (bg)	AAA (bg)	15/08/02	finance
	APH-3	B2	BB3	22/12/06	properties
	CHH-1	B1	BB2	03/05/00	properties
	IOI-1	A3	A1	11/04/00	plantation
	KTN-1	BB3	BBB3	28/12/01	trading/ services
	MPR	A1	AAA (bg)	11/09/07	trading/ services
	MPU-2	A3	A1	10/05/07	trading/ services
	NVMC	AA3	AA1	19/08/02	trading/ services
	PLUS	A2 (s)	AAA	23/04/02	trading/ services
	SA-2	BBB3	BBB1	15/03/01	industrial products
	SCITY	A2	AA1 (bg)	16/07/07	properties
	TNL-1	A3 (bg)	A1 (bg)	02/02/01	trading/ services

b) Upgrade

Downgrade Rating type	Company code	Prior rating	New Rating	Announcement date	Sector
Small	ACSM	AAA (bg)	AA1 (bg)	24/04/09	finance
	APH-2	B1	B2	10/01/03	properties
	CIMB-1	AA2 (bg)	AA3 (bg)	10/11/07	finance
	GUP-3	C2 (s)	C3 (s)	26/08/05	hotel
	GUP-4	C3 (s)	D	24/04/07	hotel
	ICB-1	A1	A2	29/04/05	tecnology - mesdaq
	ICB-2	A2	A3	27/01/06	tecnology - mesdaq
	KGMB-1	A2	A3	27/09/05	trading/ services
	KRBN-1	BB2 (s)	BB3 (s)	04/10/00	properties
	KRBN-2	BB3 (s)	B1 (s)	28/02/03	properties
	KTN-3	BB3	C1	10/12/03	trading/ services
	MAA-2	BBB2	BBB3	23/10/09	finance
	MIEC	AA3	A1	02/05/06	industrial products
	SBG	A1	A2	27/06/08	consumer products
	SCI-1	A3 (bg)	BBB1 (bg)	07/01/00	industrial products
	SCI-2	BBB1 (bg)	BBB2 (bg)	26/09/01	industrial products
	VSI-3	A3	BBB1	05/02/04	industrial products
	VSI-4	BBB1	BBB2	25/02/05	industrial products
Big	CHH-2	BB2	B2	30/04/02	properties
	CHH-3	B2	D	16/01/03	properties
	FMRB	A2	BBB1	22/10/07	technology
	GUP-1	BB3 (s)	B2 (s)	25/04/03	hotel
	GUP-2	B2 (s)	C2 (s)	19/04/04	hotel
	KIC	A2	BBB1	10/12/03	consumer products
	KRBN-3	B1 (s)	C1 (s)	27/04/04	properties
	KRBN-4	C1 (s)	D	12/04/05	properties
	KTN-2	BBB3	BB3	10/01/03	trading/ services
	KTN-4	C1	D	24/01/07	trading/ services
	SBC-1	A3 (bg)	BBB2	30/08/02	construction
	SMI	BB2	D	22/12/00	properties

Appendix 2 : Calculation of ARit and CARit for bond upgrade announcements (small)

2a) bond upgrade announcements (small)

day	AHB			AIC			AKN-1			CIMB-2		
	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$
t-5	0.776018	0.390626	0.776018	0.274834	0.168337	0.274834	0.752168	0.335991	0.752168	-1.096639	-0.809790	-1.096639
t-4	0.009513	0.004788	0.785531	-0.116577	-0.071404	0.158257	-1.329553	-0.593907	-0.577385	1.046770	0.772965	-0.049869
t-3	0.770038	0.387616	1.555569	0.273337	0.167420	0.431594	0.704426	0.314665	0.127041	1.194935	0.882375	1.145066
t-2	1.536824	0.773595	3.092393	-0.409691	-0.250937	0.021903	-3.381447	-1.510481	-3.254406	0.700904	0.517567	1.845970
t-1	-1.543296	-0.776853	1.549097	-0.117445	-0.071935	-0.095542	1.117834	0.499333	-2.136572	-1.839578	-1.358397	0.006392
t0	0.965978	0.486247	2.515075	-0.732998	-0.448964	-0.828539	1.911066	0.853667	-0.225506	-0.826346	-0.610198	-0.819954
t+1	-0.310985	-0.156541	2.204090	-0.232925	-0.142668	-1.061465	-3.004902	-1.342280	-3.230408	-0.630968	-0.465925	-1.450922
t+2	0.906851	0.456484	3.110941	-0.069003	-0.042264	-1.130467	-1.305226	-0.583040	-4.535634	-0.872215	-0.644068	-2.323137
t+3	-0.189786	-0.095533	2.921155	0.089253	0.054668	-1.041215	0.173201	0.077368	-4.362433	1.035443	0.764601	-1.287694
t+4	6.660460	3.352692	9.581615	0.530726	0.325072	-0.510489	-0.637670	-0.284845	-5.000103	1.420708	1.049091	0.133014
t+5	3.124369	1.572721	12.705984	-0.023092	-0.014144	-0.533581	-1.525167	-0.681287	-6.525270	1.762206	1.301263	1.895220
		CAR $_{Nn}$	1.155089		CAR $_{Nn}$	-0.048507		CAR $_{Nn}$	-0.593206		CAR $_{Nn}$	0.172293
		t-value	0.581440		t-value	-0.029711		t-value	-0.264983		t-value	0.127226
σ	1.986601			1.632642			2.238655			1.354227		
α	-0.130120			0.072794			-0.043184			0.065388		
β	1.282055			0.465415			1.052587			1.272673		
R^2	0.206961			0.048454			0.272297			0.157813		
AdjustedR^2	0.198869			0.038744			0.264871			0.149219		
Observation	100			100			100			100		

2a) bond upgrade announcements (small) (Cont'd)

day	CMS			GAM-1			GAM-2			HLBK-1		
	AR it	t-stat	CAR it	AR it	t-stat	CAR it	AR it	t-stat	CAR it	AR it	t-stat	CAR it
t-5	0.520288	0.179357	0.520288	4.604768	2.853384	4.604768	-0.385661	-0.254063	-0.385661	-3.950364	-2.641112	-3.950364
t-4	-1.552894	-0.535325	-1.032606	2.200268	1.363415	6.805036	-1.859479	-1.224976	-2.245140	-4.024564	-2.690720	-7.974928
t-3	1.795957	0.619115	0.763351	0.521347	0.323057	7.326383	1.472149	0.969814	-0.772990	0.109243	0.073037	-7.865685
t-2	-1.166955	-0.402281	-0.403605	1.266917	0.785056	8.593300	0.096460	0.063545	-0.676530	-0.301604	-0.201645	-8.167289
t-1	-2.977287	-1.026352	-3.380892	2.846103	1.763612	11.439403	-0.364984	-0.240442	-1.041514	0.357749	0.239182	-7.809540
t0	-1.088763	-0.375326	-4.469655	-2.293667	-1.421290	9.145736	1.042961	0.687076	0.001446	-5.029720	-3.362741	-12.839260
t+1	0.247699	0.085389	-4.221956	-5.153702	-3.193535	3.992034	-1.461643	-0.962892	-1.460196	0.747094	0.499488	-12.092166
t+2	-1.850920	-0.638062	-6.072876	-0.925208	-0.573313	3.066826	-2.008872	-1.323393	-3.469068	-1.916892	-1.281585	-14.009058
t+3	0.300316	0.103527	-5.772560	-1.286892	-0.797433	1.779934	1.407266	0.927071	-2.061802	-1.615720	-1.080229	-15.624778
t+4	0.690959	0.238192	-5.081601	0.739779	0.458410	2.519713	1.793199	1.181313	-0.268603	-2.168991	-1.450132	-17.793770
t+5	0.515967	0.177868	-4.565633	-2.251109	-1.394919	0.268604	0.888579	0.585373	0.619977	1.708736	1.142417	-16.085034
		CAR Nn	-0.415058		CAR Nn	0.024419		CAR Nn	0.056362		CAR Nn	-1.462276
		t-value	-0.143082		t-value	0.015131		t-value	0.037130		t-value	-0.977640
σ	2.900844			1.613792			1.517971			1.49572		
α	0.154076			0.093542			0.072032			0.015504		
β	1.018525			0.825171			1.087422			1.136338		
R²	0.208224			0.372615			0.299464			0.254161		
AdjustedR²	0.200144			0.366213			0.292316			0.24655		
Observation	100			100			100			100		

2a) bond upgrade announcements (small) (Cont'd)

day	HLBK-2			HLBK-3			HUBL			IOI-2		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	0.501349	0.460502	0.501349	-1.379705	-1.070613	-1.379705	0.015731	0.010664	0.015731	-3.254457	-1.786645	-3.254457
t-4	-0.282440	-0.259428	0.218910	-0.120908	-0.093821	-1.500613	0.270174	0.183146	0.285905	1.443170	0.792278	-1.811286
t-3	0.632048	0.580552	0.850957	1.184440	0.919092	-0.316173	-0.426473	-0.289098	-0.140568	1.895716	1.040718	0.084430
t-2	-1.028182	-0.944412	-0.177225	1.608348	1.248034	1.292175	-0.358057	-0.242720	-0.498625	-0.183362	-0.100663	-0.098932
t-1	-0.648520	-0.595682	-0.825744	1.539391	1.194525	2.831566	-1.362879	-0.923870	-1.861504	-3.950722	-2.168884	-4.049655
t0	-1.107977	-1.017706	-1.933721	0.930276	0.721868	3.761842	0.378548	0.256611	-1.482956	0.990178	0.543592	-3.059476
t+1	-0.253467	-0.232816	-2.187188	0.912706	0.708234	4.674548	-1.588854	-1.077054	-3.071810	-0.612964	-0.336508	-3.672440
t+2	0.668138	0.613702	-1.519049	1.253272	0.972504	5.927819	0.695669	0.471581	-2.376141	1.311583	0.720039	-2.360857
t+3	-0.145438	-0.133588	-1.664487	0.891782	0.691998	6.819601	0.180963	0.122671	-2.195178	-0.241917	-0.132809	-2.602774
t+4	0.103959	0.095489	-1.560528	-0.051380	-0.039869	6.768221	1.401090	0.949773	-0.794088	1.669992	0.916799	-0.932782
t+5	0.758022	0.696263	-0.802507	-0.858326	-0.666037	5.909895	0.409603	0.277662	-0.384485	-1.119132	-0.614386	-2.051914
	CAR_{Nn}	t-value		CAR_{Nn}	t-value		CAR_{Nn}	t-value		CAR_{Nn}	t-value	
	-0.072955	-0.067011		0.537263	0.416901		-0.034953	-0.023694		-0.186538	-0.102406	
σ	1.088701			1.288706			1.475185			1.821546		
α	-0.064670			0.197983			-0.019776			0.068858		
β	1.130127			0.474544			0.688953			1.098663		
R^2	0.126824			0.057782			0.067637			0.173832		
AdjustedR^2	0.117914			0.048168			0.058123			0.165401		
Observation	100			100			100			100		

2a) bond upgrade announcements (small) (Cont'd)

day	IOI-3			IP			LBA			LING		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	-0.297117	-0.182832	-0.297117	-1.712971	-0.825017	-1.712971	0.347717	0.266397	0.347717	-2.343415	-0.851465	-2.343415
t-4	1.310037	0.806135	1.012920	-1.008173	-0.485566	-2.721143	0.497841	0.381411	0.845558	2.291162	0.832479	-0.052253
t-3	1.830277	1.126267	2.843197	-1.101290	-0.530414	-3.822433	-1.031207	-0.790039	-0.185649	-1.393890	-0.506461	-1.446142
t-2	1.574995	0.969178	4.418192	-1.727664	-0.832094	-5.550097	-0.591941	-0.453504	-0.777589	-0.251027	-0.091209	-1.697169
t-1	-0.871785	-0.536455	3.546407	-1.390190	-0.669556	-6.940287	0.804268	0.616174	0.026678	-0.223379	-0.081164	-1.920548
t0	-0.287653	-0.177008	3.258755	-4.368270	-2.103887	-11.308556	-0.054803	-0.041986	-0.028125	-0.439373	-0.159643	-2.359921
t+1	2.372794	1.460106	5.631548	1.022679	0.492552	-10.285877	-1.451937	-1.112374	-1.480062	0.739705	0.268767	-1.620217
t+2	-2.419965	-1.489133	3.211584	-0.014764	-0.007111	-10.300641	-1.107129	-0.848205	-2.587191	0.859123	0.312157	-0.761094
t+3	4.409233	2.713235	7.620816	-0.467585	-0.225203	-10.768226	0.060592	0.046422	-2.526598	1.348698	0.490041	0.587604
t+4	2.808549	1.728250	10.429366	7.408291	3.568051	-3.359935	0.084991	0.065114	-2.441607	3.896343	1.415712	4.483946
t+5	0.544307	0.334941	10.973673	0.410884	0.197894	-2.949051	-0.235335	-0.180298	-2.676942	-3.037546	-1.103673	1.446401
		CAR_{Nn}	0.997607		CAR_{Nn}	-0.268096		CAR_{Nn}	-0.243358		CAR_{Nn}	0.131491
		t-value	0.613880		t-value	-0.129123		t-value	-0.186444		t-value	0.047776
σ	1.625083			2.076285			1.30526			2.752215		
α	0.029139			-0.173743			0.011263			0.010854		
β	1.757253			1.272931			0.850396			1.857798		
R^2	0.158642			0.462082			0.176307			0.124919		
AdjustedR^2	0.150056			0.456593			0.167902			0.11599		
Observation	100			100			100			100		

2a) bond upgrade announcements (small) (Cont'd)

day	LMC			MPU-1			PBK-1			PBK-2		
	AR it	t-stat	CAR it	AR it	t-stat	CAR it	AR it	t-stat	CAR it	AR it	t-stat	CAR it
t-5	-0.971836	-0.370653	-0.971836	1.538903	0.798539	1.538903	-1.067803	-0.571094	-1.067803	0.636951	0.503867	0.636951
t-4	-0.600171	-0.228902	-1.572006	-0.324104	-0.168178	1.214799	-1.764469	-0.943693	-2.832272	-1.755776	-1.388926	-1.118826
t-3	4.594662	1.752379	3.022655	-1.021258	-0.529932	0.193541	1.526145	0.816230	-1.306127	1.622830	1.283757	0.504004
t-2	3.106052	1.184631	6.128707	-0.042577	-0.022093	0.150964	0.758303	0.405564	-0.547824	-0.621019	-0.491264	-0.117015
t-1	-0.023377	-0.008916	6.105330	1.025724	0.532249	1.176688	1.187284	0.634997	0.639460	1.100925	0.870899	0.983910
t0	-0.732689	-0.279444	5.372641	0.420054	0.217967	1.596742	1.373415	0.734545	2.012875	1.187825	0.939642	2.171735
t+1	-4.394669	-1.676103	0.977972	-0.213290	-0.110677	1.383452	2.224497	1.189730	4.237372	-0.051869	-0.041031	2.119866
t+2	3.803593	1.450670	4.781565	0.696687	0.361512	2.080139	2.477929	1.325274	6.715301	0.498289	0.394177	2.618154
t+3	-1.963897	-0.749019	2.817669	-4.337263	-2.250611	-2.257124	0.314028	0.167952	7.029329	0.694237	0.549184	3.312392
t+4	0.681654	0.259979	3.499323	1.262955	0.655349	-0.994169	-1.039516	-0.555966	5.989813	-0.371858	-0.294163	2.940533
t+5	0.204313	0.077924	3.703636	0.244630	0.126939	-0.749539	-0.903864	-0.483415	5.085949	0.589149	0.466053	3.529682
		CAR Nn	0.336694		CAR Nn	-0.068140		CAR Nn	0.462359		CAR Nn	0.320880
		t-value	0.128413		t-value	-0.035358		t-value	0.247284		t-value	0.253836
σ	2.621957			1.927149			1.869749			1.264125		
α	-0.208134			-0.126864			-0.101877			0.085499		
β	0.881109			2.052386			0.842100			1.008556		
R²	0.082739			0.305047			0.309627			0.269579		
AdjustedR²	0.073379			0.297956			0.302582			0.262126		
Observation	100			100			100			100		

2a) bond upgrade announcements (small) (Cont'd)

day	RHBC			RP			SA-1			SPSB		
	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$
t-5	3.911079	2.278385	3.911079	-3.239133	-1.411978	-3.239133	-0.066755	-0.024987	-0.066755	-0.496059	-0.328739	-0.496059
t-4	-3.819158	-2.224836	0.091922	2.986206	1.301724	-0.252927	0.344928	0.129110	0.278173	1.130060	0.748894	0.634002
t-3	1.149707	0.669757	1.241629	2.628081	1.145613	2.375153	-0.597574	-0.223678	-0.319401	0.098019	0.064958	0.732021
t-2	0.336291	0.195905	1.577919	-4.768808	-2.078782	-2.393655	0.470161	0.175986	0.150760	-1.467090	-0.972245	-0.735069
t-1	-0.198397	-0.115575	1.379523	4.381865	1.910109	1.988210	-0.283059	-0.105952	-0.132299	-2.337507	-1.549073	-3.072577
t0	-0.536209	-0.312367	0.843313	-3.533518	-1.540304	-1.545307	-0.500512	-0.187346	-0.632811	-1.910226	-1.265912	-4.982802
t+1	-0.071348	-0.041564	0.771965	2.228247	0.971321	0.682940	-0.297006	-0.111172	-0.929817	2.238990	1.483785	-2.743813
t+2	-1.742848	-1.015289	-0.970883	3.997833	1.742705	4.680772	-1.864697	-0.697973	-2.794514	-1.737044	-1.151144	-4.480857
t+3	-1.473241	-0.858231	-2.444124	-2.702967	-1.178257	1.977805	-0.468160	-0.175237	-3.262674	-1.463438	-0.969825	-5.944295
t+4	1.191976	0.694381	-1.252148	-1.874013	-0.816906	0.103792	-0.442820	-0.165751	-3.705494	-0.677914	-0.449255	-6.622209
t+5	-0.065401	-0.038099	-1.317549	-1.872454	-0.816226	-1.768662	-0.537643	-0.201245	-4.243137	1.003370	0.664936	-5.618839
		CAR $_{Nn}$	-0.119777		CAR $_{Nn}$	-0.160787		CAR $_{Nn}$	-0.385740		CAR $_{Nn}$	-0.510804
		t-value	-0.069776		t-value	-0.070089		t-value	-0.144386		t-value	-0.338511
σ	1.716602			2.294039			2.671589			1.508972		
α	0.027939			0.118725			0.094925			-0.089866		
β	1.525911			0.946021			0.863238			0.950394		
R^2	0.383593			0.27988			0.178416			0.206315		
AdjustedR^2	0.377304			0.272532			0.170032			0.198216		
Observation	100			100			100			100		

2a) bond upgrade announcements (small) (Cont'd)

day	STAR			TNL-2			VSI-1		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	0.493354	0.250762	0.493354	-1.941326	-0.326105	-1.941326	-0.570161	-0.358400	-0.570161
t-4	0.679232	0.345240	1.172586	-4.252216	-0.714290	-6.193543	-0.119566	-0.075159	-0.689728
t-3	0.693125	0.352302	1.865711	0.305660	0.051345	-5.887883	-0.810751	-0.509633	-1.500479
t-2	-0.117372	-0.059658	1.748339	0.093358	0.015682	-5.794525	-0.712186	-0.447676	-2.212664
t-1	-1.425772	-0.724692	0.322568	-1.237897	-0.207943	-7.032422	1.493686	0.938922	-0.718978
t0	-0.098985	-0.050312	0.223583	-4.190678	-0.703953	-11.223100	0.055819	0.035087	-0.663159
t+1	-0.493051	-0.250608	-0.269469	-0.262885	-0.044160	-11.485985	0.028027	0.017618	-0.635132
t+2	-1.107708	-0.563026	-1.377176	1.883613	0.316410	-9.602371	-1.329363	-0.835630	-1.964495
t+3	-0.813311	-0.413390	-2.190488	-2.027091	-0.340512	-11.629463	-1.576683	-0.991094	-3.541178
t+4	1.083520	0.550732	-1.106967	-0.275106	-0.046213	-11.904569	1.143265	0.718649	-2.397914
t+5	0.354935	0.180406	-0.752032	2.528327	0.424710	-9.376242	0.144794	0.091017	-2.253119
	CAR_{Nn} t-value		-0.068367 -0.034749	CAR_{Nn} t-value		-0.852386 -0.143184	CAR_{Nn} t-value		-0.204829 -0.128754

	STAR	TNL-2	VSI-1
σ	1.967418	5.953068	1.590852
α	0.017051	-0.152513	0.152512
β	0.854033	1.009409	0.497843
R^2	0.10555	0.046077	0.055284
AdjustedR^2	0.096423	0.036343	0.045644
Observation	100	100	100

2a) bond upgrade announcements (small) (Cont'd)

day	Total upgrade (small) (n = 27)				
	AAR $_t$	σ	t-stat	CAR $_{Nn}$	CAAR $_{Nn}$
t-5	-0.3111	1.8627	-0.8679	-0.3111	-0.3111
t-4	-0.3230	1.8009	-0.9319	-0.6341	-0.3171
t-3	0.6896	1.2984	2.7598	0.0555	0.0185
t-2	-0.2067	1.5205	-0.7063	-0.1512	-0.0378
t-1	-0.1830	1.7347	-0.5482	-0.3342	-0.0668
t0	-0.6843	1.7933	-1.9828	-1.0185	-0.1697
t+1	-0.2861	1.7692	-0.8402	-1.3046	-0.1864
t+2	-0.0452	1.7285	-0.1358	-1.3497	-0.1687
t+3	-0.3655	1.5941	-1.1914	-1.7152	-0.1906
t+4	1.0012	2.1352	2.4366	-0.7140	-0.0714
t+5	0.1023	1.3478	0.3946	-0.6116	-0.0556

2b) bond upgrade announcements (big)

day	AMM			APH-3			CHH-1			IOI-1		
	AR it	t-stat	CAR it	AR it	t-stat	CAR it	AR it	t-stat	CAR it	AR it	t-stat	CAR it
t-5	1.239926	0.848458	1.239926	0.181358	0.230512	0.181358	-2.836648	-0.568099	-2.836648	0.137530	0.069790	0.137530
t-4	-0.042415	-0.029023	1.197511	0.185670	0.235992	0.367027	0.849373	0.170105	-1.987275	1.503436	0.762920	1.640966
t-3	-0.058622	-0.040114	1.138889	-0.572931	-0.728214	-0.205904	3.667855	0.734567	1.680581	-0.245011	-0.124331	1.395955
t-2	-0.478723	-0.327581	0.660167	2.879551	3.660003	2.673648	3.283277	0.657546	4.963858	1.559873	0.791559	2.955827
t-1	-0.043706	-0.029907	0.616461	-0.024853	-0.031589	2.648795	-0.873225	-0.174882	4.090633	-0.608359	-0.308713	2.347468
t0	-0.363369	-0.248647	0.253092	0.986682	1.254105	3.635477	-0.957581	-0.191776	3.133052	-2.103637	-1.067493	0.243831
t+1	-0.215602	-0.147533	0.037489	0.562332	0.714742	4.197809	2.118924	0.424360	5.251977	-0.807143	-0.409586	-0.563312
t+2	0.028401	0.019434	0.065891	0.916640	1.165080	5.114449	1.040734	0.208429	6.292710	0.831192	0.421790	0.267881
t+3	3.438839	2.353134	3.504730	-0.161089	-0.204749	4.953360	-3.269528	-0.654793	3.023182	-0.622030	-0.315650	-0.354149
t+4	-0.933368	-0.638687	2.571361	1.369189	1.740283	6.322549	1.042772	0.208837	4.065954	0.967851	0.491137	0.613702
t+5	-0.538182	-0.368268	2.033179	-0.546220	-0.694264	5.776329	-1.103328	-0.220965	2.962625	2.322065	1.178335	2.935767
		CAR Nn	0.184834		CAR Nn	0.525121		CAR Nn	0.269330		CAR Nn	0.266888
		t-value	0.126479		t-value	0.667446		t-value	0.053939		t-value	0.135433
σ	1.461387			0.786762			4.993224			1.970633		
α	-0.022758			0.014898			0.355422			-0.028731		
β	0.692784			0.282004			2.375895			1.114198		
R^2	0.123438			0.029464			0.320156			0.346301		
AdjustedR^2	0.114494			0.019561			0.313218			0.339631		
Observation	100			100			100			100		

2b) bond upgrade announcements (big) (Cont'd)

day	KTN-1			MPR			MPU-2			NVMC		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	0.758742	0.382471	0.758742	-1.640310	-0.353216	-1.640310	0.804848	0.355897	0.804848	-1.112712	-0.619582	-1.112712
t-4	-2.317501	-1.168220	-1.558760	-7.115654	-1.532251	-8.755964	-1.689528	-0.747094	-0.884679	-1.934580	-1.077215	-3.047292
t-3	2.152863	1.085228	0.594104	0.296253	0.063794	-8.459711	-0.386805	-0.171042	-1.271484	-0.253899	-0.141376	-3.301191
t-2	-2.059713	-1.038272	-1.465609	-0.586180	-0.126225	-9.045891	-0.350464	-0.154972	-1.621949	4.841852	2.696045	1.540661
t-1	-1.214441	-0.612182	-2.680050	2.146750	0.462271	-6.899141	0.815161	0.360457	-0.806787	0.987489	0.549855	2.528150
t0	0.931044	0.469326	-1.749006	0.465658	0.100273	-6.433483	-0.685075	-0.302934	-1.491862	-2.485676	-1.384077	0.042474
t+1	0.760057	0.383134	-0.988949	-4.734005	-1.019398	-11.167488	0.845903	0.374051	-0.645959	-0.460280	-0.256293	-0.417806
t+2	6.097448	3.073637	5.108499	-4.682078	-1.008216	-15.849566	-2.885075	-1.275755	-3.531034	-2.818607	-1.569460	-3.236412
t+3	-2.453003	-1.236524	2.655496	10.898371	2.346803	-4.951194	1.807613	0.799311	-1.723420	0.018544	0.010326	-3.217868
t+4	-1.246784	-0.628486	1.408712	-10.490203	-2.258910	-15.441397	-1.466569	-0.648504	-3.189989	0.708592	0.394559	-2.509276
t+5	-0.736855	-0.371438	0.671857	1.486543	0.320105	-13.954854	1.562544	0.690943	-1.627445	-0.678423	-0.377760	-3.187699
	CAR_{Nn}	t-value		CAR_{Nn}	t-value		CAR_{Nn}	t-value		CAR_{Nn}	t-value	
	0.061078	0.030789		-1.268623	-0.273179		-0.147950	-0.065422		-0.289791	-0.161362	
σ	1.983789			4.643923			2.261465			1.795909		
α	-0.273050			0.289478			0.196026			0.124970		
β	1.929053			2.226553			1.384508			1.343880		
R^2	0.593527			0.215469			0.319359			0.257367		
AdjustedR^2	0.58938			0.207463			0.312414			0.249789		
Observation	100			100			100			100		

2b) bond upgrade announcements (big) (Cont'd)

day	PLUS			SA-2			SCITY			TNL-1		
	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$
t-5	-0.516473	-0.483285	-0.516473	1.297786	0.185086	1.297786	-1.032868	-0.942397	-1.032868	4.509769	1.879463	4.509769
t-4	-0.583496	-0.546001	-1.099969	-0.456180	-0.065059	0.841606	-0.107315	-0.097915	-1.140183	-1.780754	-0.742136	2.729015
t-3	0.056102	0.052497	-1.043866	-1.046244	-0.149212	-0.204638	0.273858	0.249870	-0.866325	-1.948137	-0.811893	0.780878
t-2	1.900382	1.778265	0.856516	0.812108	0.115820	0.607470	-0.393917	-0.359413	-1.260242	-6.130130	-2.554754	-5.349252
t-1	1.025689	0.959779	1.882205	0.020609	0.002939	0.628079	0.289774	0.264392	-0.970468	1.763960	0.735137	-3.585292
t0	-1.294598	-1.211409	0.587606	1.483175	0.211526	2.111254	1.167854	1.065559	0.197386	-1.966059	-0.819362	-5.551350
t+1	1.256403	1.175667	1.844009	-0.152873	-0.021802	1.958381	-0.349514	-0.318899	-0.152128	-3.434851	-1.431487	-8.986202
t+2	1.473949	1.379234	3.317958	2.181885	0.311173	4.140266	-0.028645	-0.026136	-0.180773	0.283194	0.118022	-8.703008
t+3	2.299137	2.151396	5.617095	1.821005	0.259706	5.961270	1.164872	1.062837	0.984098	-6.331528	-2.638687	-15.034536
t+4	-1.431495	-1.339509	4.185599	0.254891	0.036352	6.216161	-0.326824	-0.298197	0.657274	2.208961	0.920593	-12.825575
t+5	0.542388	0.507534	4.727987	-0.791041	-0.112816	5.425120	-0.595566	-0.543398	0.061708	2.033783	0.847587	-10.791792
		CAR $_{Nn}$	0.429817		CAR $_{Nn}$	0.493193		CAR $_{Nn}$	0.005510		CAR $_{Nn}$	-0.981072
		t-value	0.402197		t-value	0.070338		t-value	0.005118		t-value	-0.408865
σ	1.068672			7.011798			1.096002			2.399499		
α	0.285306			-0.619753			-0.131275			-0.433508		
β	0.549092			0.906246			1.060221			1.393577		
R^2	0.148019			0.018773			0.522022			0.324985		
AdjustedR^2	0.139325			0.008761			0.517144			0.318097		
Observation	100			100			100			100		

2b) bond upgrade announcements (big) (Cont'd)

Total upgrade (big) (n = 12)

day	AAR $_t$	σ	t-stat	CAR $_{Nn}$	CAAR $_{Nn}$
t-5	0.1492	1.8353	0.2817	0.1492	0.1492
t-4	-1.1241	2.2710	-1.7146	-0.9748	-0.4874
t-3	0.1613	1.4941	0.3739	-0.8136	-0.2712
t-2	0.4398	2.8075	0.5427	-0.3737	-0.0934
t-1	0.3571	1.1209	1.1035	-0.0167	-0.0033
t0	-0.4018	1.3634	-1.0209	-0.4185	-0.0697
t+1	-0.3842	1.8549	-0.7176	-0.8027	-0.1147
t+2	0.2033	2.6653	0.2642	-0.5994	-0.0749
t+3	0.7176	4.1727	0.5957	0.1182	0.0131
t+4	-0.7786	3.6155	-0.7460	-0.6604	-0.0660
t+5	0.2465	1.2173	0.7014	-0.4139	-0.0376

Total upgrade (n = 39)

day	AAR $_t$	σ	t-stat	CAR $_{Nn}$	CAAR $_{Nn}$
t-5	-0.1695	1.8489	-0.5724	-0.1695	-0.1695
t-4	-0.5695	1.9420	-1.8313	-0.7389	-0.3695
t-3	0.5271	1.3519	2.4347	-0.2119	-0.0706
t-2	-0.0078	1.9966	-0.0243	-0.2197	-0.0549
t-1	-0.0168	1.5628	-0.0673	-0.2365	-0.0473
t0	-0.5974	1.6706	-2.2332	-0.8339	-0.1390
t+1	-0.3163	1.7957	-1.0999	-1.1501	-0.1643
t+2	0.0313	2.0611	0.0948	-1.1189	-0.1399
t+3	-0.0322	2.6468	-0.0761	-1.1511	-0.1279
t+4	0.4536	2.6227	1.0801	-0.6975	-0.0698
t+5	0.1467	1.3083	0.7002	-0.5508	-0.0501

2c) bond downgrade announcements (small)

day	ACSM			APH-2			CIMB-1			GUP-3		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	-1.082826	-0.532958	-1.082826	0.441572	0.063007	0.441572	-1.105020	-0.404634	-1.105020	-0.148167	-0.084141	-0.148167
t-4	-2.925348	-1.439833	-4.008174	-0.455192	-0.064950	-0.013620	3.984606	1.459076	2.879587	-2.383333	-1.353443	-2.531499
t-3	3.107473	1.529474	-0.900700	0.480723	0.068593	0.467103	-2.508322	-0.918493	0.371265	-0.320212	-0.181842	-2.851712
t-2	0.911420	0.448594	0.010720	0.954386	0.136180	1.421489	1.433216	0.524813	1.804481	0.715444	0.406285	-2.136268
t-1	1.478404	0.727659	1.489124	-1.596043	-0.227736	-0.174553	-3.209733	-1.175334	-1.405252	-0.865471	-0.491483	-3.001739
t0	5.677257	2.794301	7.166381	0.402840	0.057480	0.228287	0.465257	0.170367	-0.939995	0.319184	0.181258	-2.682555
t+1	-2.607475	-1.283379	4.558906	2.587523	0.369209	2.815810	0.208592	0.076382	-0.731403	0.092644	0.052611	-2.589911
t+2	-7.450277	-3.666968	-2.891371	1.958171	0.279408	4.773981	0.236940	0.086762	-0.494464	0.343419	0.195020	-2.246492
t+3	5.763627	2.836812	2.872257	-2.040853	-0.291205	2.733129	-1.385465	-0.507327	-1.879929	-0.751421	-0.426716	-2.997912
t+4	-1.343952	-0.661482	1.528305	0.848964	0.121137	3.582093	0.152748	0.055933	-1.727181	-0.768839	-0.436607	-3.766751
t+5	0.192033	0.094517	1.720338	-1.769918	-0.252546	1.812175	-1.288200	-0.471711	-3.015381	0.035894	0.020383	-3.730857
		CAR_{Nn}	0.156394		CAR_{Nn}	0.164743		CAR_{Nn}	-0.274126		CAR_{Nn}	-0.339169
		t-value	0.076976		t-value	0.023507		t-value	-0.100379		t-value	-0.192607
σ	2.031727			7.008297			2.730911			1.76094		
α	0.163528			-0.700135			0.042681			-0.114642		
β	0.743095			1.529542			1.572326			1.278897		
R^2	0.12814			0.032714			0.282998			0.153908		
AdjustedR^2	0.119243			0.022844			0.275681			0.145274		
Observation	100			100			100			100		

2c) bond downgrade announcements (small) (Cont'ed)

day	GUP-4			ICB-1			ICB-2			KGMB-1		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	-5.440021	-2.418230	-5.440021	-2.608527	-2.066070	-2.608527	-1.285249	-1.185313	-1.285249	1.118689	0.990237	1.118689
t-4	-0.671876	-0.298666	-6.111896	0.663649	0.525640	-1.944877	-0.555843	-0.512623	-1.841092	-0.953094	-0.843656	0.165595
t-3	0.257004	0.114245	-5.854893	-0.058989	-0.046722	-2.003866	0.463565	0.427520	-1.377527	-1.883443	-1.667180	-1.717848
t-2	2.092207	0.930040	-3.762685	1.914007	1.515979	-0.089859	-0.308812	-0.284800	-1.686339	0.194449	0.172122	-1.523399
t-1	0.430805	0.191504	-3.331881	-3.067720	-2.429771	-3.157579	0.601854	0.555056	-1.084486	0.518818	0.459245	-1.004581
t0	0.224321	0.099717	-3.107560	-0.596481	-0.472440	-3.754061	-1.041618	-0.960625	-2.126103	-0.319452	-0.282772	-1.324033
t+1	-0.029640	-0.013176	-3.137199	0.442240	0.350274	-3.311821	-0.747889	-0.689736	-2.873993	0.475227	0.420660	-0.848806
t+2	-3.086066	-1.371836	-6.223266	2.523257	1.998533	-0.788564	-1.125723	-1.038191	-3.999716	0.071720	0.063485	-0.777086
t+3	2.006542	0.891960	-4.216723	-1.047857	-0.829950	-1.836421	-0.224523	-0.207065	-4.224239	-1.350128	-1.195102	-2.127214
t+4	0.718269	0.319289	-3.498454	1.241625	0.983423	-0.594796	0.693116	0.639222	-3.531124	-2.505945	-2.218204	-4.633159
t+5	-1.775092	-0.789074	-5.273546	0.907000	0.718384	0.312204	-0.164410	-0.151626	-3.695533	0.112921	0.099955	-4.520238
	CAR_{Nn}	-0.479413		CAR_{Nn}	0.028382		CAR_{Nn}	-0.335958		CAR_{Nn}	-0.410931	
	t-value	-0.213112		t-value	0.022480		t-value	-0.309835		t-value	-0.363746	
σ	2.249588			1.262555			1.084312			1.129718		
α	0.196970			0.006811			-0.057048			-0.034587		
β	1.440062			1.011328			1.191176			1.271274		
R^2	0.341138			0.146534			0.142698			0.275776		
AdjustedR^2	0.334415			0.137825			0.13395			0.268385		
Observation	100			100			100			100		

2c) bond downgrade announcements (small) (Cont'ed)

day	KRBN-1			KRBN-2			KTN-3			MAA-2		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	0.839650	0.385211	0.839650	0.078905	0.042320	0.078905	-3.261194	-1.198910	-3.261194	0.505533	0.486296	0.505533
t-4	0.945296	0.433680	1.784946	1.038688	0.557087	1.117593	-0.930011	-0.341899	-4.191205	0.025100	0.024145	0.530633
t-3	2.024500	0.928793	3.809446	-0.922580	-0.494814	0.195013	1.262380	0.464088	-2.928825	1.154082	1.110167	1.684714
t-2	1.336932	0.613353	5.146379	-1.039134	-0.557327	-0.844121	-0.701718	-0.257972	-3.630543	-0.180721	-0.173845	1.503993
t-1	-1.286506	-0.590218	3.859873	-1.641477	-0.880386	-2.485598	-1.924591	-0.707536	-5.555133	0.245860	0.236505	1.749853
t0	0.804404	0.369042	4.664277	1.441669	0.773221	-1.043929	-0.871873	-0.320526	-6.427007	-0.904728	-0.870301	0.845125
t+1	0.259917	0.119244	4.924194	-0.379929	-0.203770	-1.423858	-1.070606	-0.393586	-7.497612	0.123264	0.118573	0.968389
t+2	-0.873914	-0.400931	4.050280	-1.226167	-0.657640	-2.650025	-0.966804	-0.355425	-8.464416	1.121311	1.078643	2.089700
t+3	-0.728845	-0.334377	3.321435	0.053987	0.028955	-2.596039	-0.615552	-0.226295	-9.079968	-0.619909	-0.596321	1.469791
t+4	0.666566	0.305805	3.988001	0.934463	0.501188	-1.661576	1.075789	0.395492	-8.004179	0.136419	0.131228	1.606210
t+5	-5.614545	-2.575820	-1.626544	-0.559004	-0.299815	-2.220579	0.564546	0.207544	-7.439633	-0.810653	-0.779806	0.795557
		CAR_{Nn} t-value	-0.147868 -0.067838		CAR_{Nn} t-value	-0.201871 -0.108271		CAR_{Nn} t-value	-0.676330 -0.248639		CAR_{Nn} t-value	0.072323 0.069571
σ	2.179712			1.864497			2.720131			1.039557		
α	-0.125714			0.037353			-0.106926			-0.060797		
β	1.310925			0.917324			1.282626			1.074180		
R^2	0.406319			0.15612			0.102213			0.339002		
Adjusted R^2	0.400261			0.147509			0.093051			0.332257		
Observation	100			100			100			100		

2c) bond downgrade announcements (small) (Cont'ed)

day	MIEC			SBG			SCI-1			SCI-2		
	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$
t-5	1.493268	0.923236	1.493268	-0.779316	-0.283720	-0.779316	1.085825	0.419220	1.085825	-1.093475	-0.282257	-1.093475
t-4	-0.864161	-0.534281	0.629107	7.439464	2.708427	6.660148	0.088925	0.034332	1.174750	-6.676383	-1.723363	-7.769858
t-3	-0.208322	-0.128798	0.420785	-1.085443	-0.395169	5.574704	0.810591	0.312957	1.985340	2.504259	0.646420	-5.265599
t-2	2.341750	1.447822	2.762535	-3.367391	-1.225940	2.207313	1.267430	0.489335	3.252771	5.107149	1.318300	-0.158450
t-1	-2.398141	-1.482687	0.364394	7.452393	2.713134	9.659707	-0.908325	-0.350690	2.344446	-4.465720	-1.152729	-4.624170
t0	4.437403	2.743491	4.801796	-3.097361	-1.127632	6.562346	1.656221	0.639441	4.000667	2.067196	0.533602	-2.556973
t+1	2.788118	1.723796	7.589914	-0.501672	-0.182640	6.060674	1.510439	0.583157	5.511106	1.414895	0.365224	-1.142078
t+2	0.602889	0.372746	8.192804	-3.375714	-1.228970	2.684960	-4.463575	-1.723318	1.047531	-4.311131	-1.112825	-5.453210
t+3	-1.243412	-0.768758	6.949392	-3.622269	-1.318731	-0.937309	-3.312463	-1.278891	-2.264932	0.460375	0.118836	-4.992835
t+4	-0.786248	-0.486110	6.163143	1.242988	0.452525	0.305679	-0.275438	-0.106342	-2.540370	0.673731	0.173909	-4.319104
t+5	-0.843312	-0.521391	5.319831	-4.830898	-1.758747	-4.525219	0.431548	0.166614	-2.108822	7.983329	2.060723	3.664225
	CAR $_{Nn}$		CAR $_{it}$	CAR $_{Nn}$		CAR $_{it}$	CAR $_{Nn}$		CAR $_{it}$	CAR $_{Nn}$		CAR $_{it}$
	t-value			t-value			t-value			t-value		
	0.483621			-0.411384			-0.191711			0.333111		
	0.299006			-0.149769			-0.074017			0.085985		
σ	1.617429			2.746784			2.590106			3.874043		
α	0.033269			0.104897			-0.252709			0.027944		
β	1.605309			0.788259			1.138511			2.159298		
R^2	0.131582			0.148717			0.329579			0.371538		
AdjustedR^2	0.122721			0.140031			0.322738			0.365125		
Observation	100			100			100			100		

2c) bond downgrade announcements (small) (Cont'ed)

day	VSI-3			VSI-4			Total downgrade (small) (n = 18)				
	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AAR $_t$	σ	t-stat	CAR $_{Nn}$	CAAR $_{Nn}$
t-5	-0.526512	-0.499316	-0.526512	0.260721	0.271302	0.260721	-0.6392	1.6950	-1.6000	-0.6392	-0.6392
t-4	0.373724	0.354420	-0.152788	0.114766	0.119424	0.375487	-0.0967	2.7480	-0.1493	-0.7360	-0.3680
t-3	0.288749	0.273834	0.135961	0.524953	0.546258	0.900439	0.3273	1.3858	1.0019	-0.4087	-0.1362
t-2	0.405864	0.384899	0.541824	0.280279	0.291654	1.180718	0.7420	1.6786	1.8755	0.3334	0.0833
t-1	1.751534	1.661061	2.293358	-0.447758	-0.465930	0.732960	-0.5184	2.5234	-0.8717	-0.1851	-0.0370
t0	0.279919	0.265460	2.573277	0.533555	0.555209	1.266515	0.6377	1.9430	1.3923	0.4526	0.0754
t+1	3.991439	3.785267	6.564716	-1.090663	-1.134927	0.175852	0.4148	1.5318	1.1489	0.8674	0.1239
t+2	-1.687303	-1.600148	4.877413	0.587613	0.611461	0.763465	-1.1734	2.4700	-2.0155	-0.3060	-0.0383
t+3	0.003858	0.003659	4.881271	-0.908848	-0.945733	-0.145383	-0.5313	1.9686	-1.1450	-0.8373	-0.0930
t+4	0.485333	0.460264	5.366604	0.732544	0.762275	0.587162	0.2179	0.9736	0.9495	-0.6194	-0.0619
t+5	-1.002583	-0.950796	4.364021	0.864176	0.899249	1.451338	-0.4204	2.6687	-0.6683	-1.0398	-0.0945

	VSI-3	VSI-4
CAR $_{Nn}$	0.396729	0.131940
t-value	0.376237	0.137295

	VSI-3	VSI-4
σ	1.054467	0.960998
α	0.060232	0.128376
β	1.042458	0.727206
R^2	0.372554	0.153521
AdjustedR^2	0.366151	0.144883
Observation	100	100

2d) bond downgrade announcements (big)

day	CHH-2			CHH-3			FMRB			GUP-1		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	-2.448376	-1.046277	-2.448376	-0.000030	-0.000017	-0.000030	1.722669	0.376605	1.722669	-0.475885	-0.400991	-0.475885
t-4	-2.004675	-0.856668	-4.453051	-0.942287	-0.530351	-0.942317	-4.152829	-0.907880	-2.430160	0.299238	0.252144	-0.176647
t-3	1.184748	0.506284	-3.268303	-0.083394	-0.046937	-1.025712	-1.383528	-0.302463	-3.813688	-0.382815	-0.322568	-0.559462
t-2	-2.855911	-1.220431	-6.124214	-2.579652	-1.451915	-3.605363	-1.969331	-0.430530	-5.783020	0.716586	0.603810	0.157124
t-1	-0.543249	-0.232149	-6.667463	-0.605027	-0.340529	-4.210390	-2.720876	-0.594830	-8.503896	0.356904	0.300735	0.514027
t0	-0.415892	-0.177725	-7.083355	-0.043412	-0.024434	-4.253802	-4.229486	-0.924638	-12.733382	-0.244201	-0.205769	0.269827
t+1	0.520288	0.222337	-6.563067	-0.406440	-0.228758	-4.660242	4.299769	0.940003	-8.433614	0.069387	0.058467	0.339214
t+2	-0.555531	-0.237398	-7.118598	0.654172	0.368190	-4.006070	-2.735793	-0.598091	-11.169407	1.305555	1.100088	1.644769
t+3	-0.031936	-0.013647	-7.150534	-1.448480	-0.815253	-5.454550	-1.764549	-0.385761	-12.933956	-0.775132	-0.653142	0.869637
t+4	-3.430621	-1.466025	-10.581155	1.111612	0.625653	-4.342938	-3.821306	-0.835403	-16.755262	-1.395340	-1.175743	-0.525703
t+5	0.112513	0.048081	-10.468642	0.362727	0.204155	-3.980211	-1.648183	-0.360321	-18.403445	0.232271	0.195716	-0.293432
		CAR_{Nn}	-0.951695		CAR_{Nn}	-0.361837		CAR_{Nn}	-1.673040		CAR_{Nn}	-0.026676
		t-value	-0.406693		t-value	-0.203654		t-value	-0.365755		t-value	-0.022477

	CHH-2	CHH-3	FMRB	GUP-1
σ	2.340084	1.776724	4.574207	1.186773
α	-0.028180	-0.177134	0.526693	-0.036325
β	1.086015	0.764682	1.847055	1.274335

2d) bond downgrade announcements (big) (Cont'd)

day	GUP-2			KIC			KRBN-3			KRBN-4		
	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}	AR_{it}	t-stat	CAR_{it}
t-5	0.062863	0.036648	0.062863	-0.334011	-0.238540	-0.334011	0.664547	0.373331	0.664547	2.613426	2.070972	2.613426
t-4	0.080575	0.046974	0.143438	0.157197	0.112265	-0.176814	0.932368	0.523788	1.596915	0.061294	0.048572	2.674720
t-3	1.411579	0.822928	1.555017	0.513772	0.366919	0.336958	0.463448	0.260357	2.060363	1.015286	0.804549	3.690006
t-2	-0.216286	-0.126091	1.338731	1.191285	0.850775	1.528243	0.810711	0.455444	2.871074	-0.277587	-0.219970	3.412419
t-1	1.090428	0.635702	2.429159	0.037876	0.027050	1.566119	-0.862709	-0.484655	2.008365	1.193231	0.945559	4.605650
t0	-0.091699	-0.053459	2.337460	-0.906226	-0.647196	0.659893	0.497879	0.279700	2.506244	-0.457743	-0.362732	4.147907
t+1	-0.555024	-0.323570	1.782436	-10.915601	-7.795549	-10.255708	0.107841	0.060583	2.614084	-0.005658	-0.004483	4.142250
t+2	-0.186871	-0.108943	1.595565	-3.702976	-2.644539	-13.958684	1.460057	0.820235	4.074142	-2.220491	-1.759597	1.921758
t+3	-0.804283	-0.468884	0.791282	0.633495	0.452420	-13.325189	-2.066328	-1.160827	2.007814	0.391224	0.310020	2.312983
t+4	-1.355860	-0.790445	-0.564579	3.358239	2.398340	-9.966950	0.396300	0.222634	2.404114	-0.001331	-0.001055	2.311652
t+5	0.827298	0.482301	0.262719	-1.293628	-0.923865	-11.260578	-1.983914	-1.114528	0.420200	-2.047674	-1.622650	0.263977
		CAR_{Nn}	0.023884		CAR_{Nn}	-1.023689		CAR_{Nn}	0.038200		CAR_{Nn}	0.023998
		t-value	0.013924		t-value	-0.731084		t-value	0.021460		t-value	0.019017

	GUP-2	KIC	KRBN-3	KRBN-4
σ	1.715313	1.400235	1.780048	1.261932
α	-0.153822	-0.025860	-0.328716	-0.030005
β	1.092592	1.221413	0.816887	1.061523

2d) bond downgrade announcements (big) (Cont'd)

day	KTN-2			KTN-4			SBC-1			SMI		
	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$	AR $_{it}$	t-stat	CAR $_{it}$
t-5	-0.487248	-0.295261	-0.487248	-0.412571	-0.380493	-0.412571	-0.109926	-0.055959	-0.109926	1.110556	0.611204	1.110556
t-4	4.345290	2.633145	3.858042	0.412943	0.380836	0.000372	0.133838	0.068131	0.023912	-0.291629	-0.160501	0.818926
t-3	-0.000905	-0.000548	3.857137	5.204281	4.799642	5.204653	-0.152780	-0.077774	-0.128868	2.101193	1.156409	2.920119
t-2	0.794818	0.481641	4.651955	1.042290	0.961251	6.246942	-3.706430	-1.886784	-3.835298	-3.422179	-1.883425	-0.502060
t-1	-0.999013	-0.605379	3.652942	5.666815	5.226213	11.913757	1.485071	0.755986	-2.350227	-1.590085	-0.875116	-2.092144
t0	0.416354	0.252301	4.069296	-2.405014	-2.218021	9.508743	2.247502	1.144106	-0.102725	1.189234	0.654505	-0.902910
t+1	-1.540212	-0.933333	2.529084	0.308211	0.284247	9.816954	-0.457164	-0.232723	-0.559890	2.138565	1.176977	1.235655
t+2	1.189306	0.720692	3.718390	-2.435041	-2.245714	7.381913	0.813638	0.414188	0.253748	-1.986958	-1.093539	-0.751303
t+3	-0.064997	-0.039387	3.653393	-0.433154	-0.399476	6.948758	-1.826198	-0.929639	-1.572450	-1.828546	-1.006356	-2.579849
t+4	0.712015	0.431465	4.365408	-2.628193	-2.423848	4.320565	1.933790	0.984409	0.361340	-9.195533	-5.060838	-11.775383
t+5	-0.328715	-0.199194	4.036693	1.191943	1.099268	5.512508	0.197572	0.100576	0.558913	-8.608925	-4.737994	-20.384308
		CAR $_{Nn}$	0.366972		CAR $_{Nn}$	0.501137		CAR $_{Nn}$	0.050810		CAR $_{Nn}$	-1.853119
		t-value	0.222377		t-value	0.462173		t-value	0.025865		t-value	-1.019879

	KTN-2	KTN-4	SBC-1	SMI
σ	1.650228	1.084306	1.964417	1.816998
α	-0.161692	-0.081845	0.113217	-0.185706
β	1.068082	0.791175	1.201084	0.316025

day	Total downgrade (small) (n = 18)				
	AAR t	σ	t-stat	CAR Nn	CAAR Nn
t-5	-0.6392	1.6950	-1.6000	-0.6392	-0.6392
t-4	-0.0967	2.7480	-0.1493	-0.7360	-0.3680
t-3	0.3273	1.3858	1.0019	-0.4087	-0.1362
t-2	0.7420	1.6786	1.8755	0.3334	0.0833
t-1	-0.5184	2.5234	-0.8717	-0.1851	-0.0370
t0	0.6377	1.9430	1.3923	0.4526	0.0754
t+1	0.4148	1.5318	1.1489	0.8674	0.1239
t+2	-1.1734	2.4700	-2.0155	-0.3060	-0.0383
t+3	-0.5313	1.9686	-1.1450	-0.8373	-0.0930
t+4	0.2179	0.9736	0.9495	-0.6194	-0.0619
t+5	-0.4204	2.6687	-0.6683	-1.0398	-0.0945

day	Total downgrade (n = 30)				
	AAR t	σ	t-stat	CAR Nn	CAAR Nn
t-5	-0.3200	1.5730	-1.1143	-0.3200	-0.3200
t-4	-0.0903	2.4369	-0.2030	-0.4103	-0.2052
t-3	0.5261	1.4910	1.9325	0.1157	0.0386
t-2	0.0962	1.9054	0.2764	0.2119	0.0530
t-1	-0.2274	2.3615	-0.5275	-0.0155	-0.0031
t0	0.2345	1.8749	0.6851	0.2190	0.0365
t+1	0.0343	2.5229	0.0746	0.2533	0.0362
t+2	-0.9841	2.2229	-2.4248	-0.7307	-0.0913
t+3	-0.6527	1.6352	-2.1864	-1.3835	-0.1537
t+4	-0.3465	2.2573	-0.8407	-1.7299	-0.1730
t+5	-0.6851	2.6228	-1.4308	-2.4151	-0.2196