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APPENDICES

APPENDIX A: The industry effect

Table A-1 presents industry effect. For the Building and Furnishing Materials industry, coefficient β_{14}^{9} in are negative in all models and significant in models $CAR_{(0,+1)}$, and $CAR_{(-1,+1)}$ with estimates of -0.02035 (P-value = 0.025) and -0.029462 (0.004) respectively. Hence, earnings of companies in this industry are less likely reacted by the market relative to the others. The coefficient β_{16}^{9} is negative and significant in models $CAR_{(0)}$ and $CAR_{(0,+1)}$ with the estimates of -0.04630 (0.005) and -0.055795 (0.022) respectively. Accordingly, this is a higher favorable reaction of the market to new investments (net negative CFI) of companies in the Building and Furnishing Materials industry than other industries. Further, the CFO and CFF of these firms are more likely negative relative to the other industries due to the significantly negative of coefficients β_{15}^{9} and β_{17}^{9}.

For the Property Development industry, coefficient β_{23}^{9} are positive and significant in model $CAR_{(-1,0)}$ and $CAR_{(-1,+1)}$ with estimated values 0.033143 (P-value = 0.016) and 0.035852 (P-value = 0.045) respectively. These results suggest that the market reacts more positively to CFO of companies in this industry than other industries. Besides, the coefficient β_{24}^{9} is positive and significant in model $CAR_{(-1,+1)}$ which indicate that the higher of the market reaction to new investments of the firms in this industry than the other industries. The results also indicate that the surprises of Earnings as well as CFO of firms in the Agribusiness industry are more likely reacted than the others.

Table A-1 Regression results of the impacts of industry on the incremental information content of cash flows beyond earnings; Model T-9:

$$
\begin{aligned}
CAR_{it} &= \beta_0^9 + \beta_1^9 D_1 + \beta_2^9 D_2 + \beta_3^9 D_3 + \beta_4^9 D_4 + \beta_5^9 D_5 \\
&+ \beta_6^9 UE_{it} + \beta_7^9 UCFO_{it} + \beta_8^9 UCFI_{it} + \beta_9^9 UCFF_{it} \\
&+ \beta_{10}^9 UE_{it} * D_1 + \beta_{11}^9 UCFO_{it} * D_1 + \beta_{12}^9 UCFI_{it} * D_1 + \beta_{13}^9 UCFF_{it} * D_1 \\
&+ \beta_{14}^9 UE_{it} * D_2 + \beta_{15}^9 UCFO_{it} * D_2 + \beta_{16}^9 UCFI_{it} * D_2 + \beta_{17}^9 UCFF_{it} * D_2 \\
&+ \beta_{18}^9 UE_{it} * D_3 + \beta_{19}^9 UCFO_{it} * D_3 + \beta_{20}^9 UCFI_{it} * D_3 + \beta_{21}^9 UCFF_{it} * D_3 \\
&+ \beta_{22}^9 UE_{it} * D_4 + \beta_{23}^9 UCFO_{it} * D_4 + \beta_{24}^9 UCFI_{it} * D_4 + \beta_{25}^9 UCFF_{it} * D_4 \\
&+ \beta_{26}^9 UE_{it} * D_5 + \beta_{27}^9 UCFO_{it} * D_5 + \beta_{28}^9 UCFI_{it} * D_5 + \beta_{29}^9 UCFF_{it} * D_5 + \varepsilon_{it}
\end{aligned}
$$

Model	$CAR_{(0)}$			$CAR_{(-1,0)}$			$CAR_{(0,+1)}$			$CAR_{(-1,+1)}$		
	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value
Intercept	-.003080	-2.217	0.027	-.002062	-1.163	0.245	-.002255	-1.101	0.271	-.001322	-0.572	0.568
D_1	.002423	0.643	0.520	-.002180	-0.454	0.650	.007725	1.391	0.164	.003282	0.524	0.600
D_2	-.006926	-1.719	0.086	-.004998	-0.972	0.331	-.014359	-2.416**	0.016	-.012097	-1.805	0.071
D_3	.001528	0.410	0.682	-.001565	-0.329	0.742	.001217	0.221	0.825	-.001767	-0.285	0.776
D_4	-.001816	-0.478	0.633	-.001117	-0.230	0.818	.003598	0.642	0.521	.004468	0.706	0.480
D_5	.003804	0.982	0.326	.001393	0.282	0.778	.002736	0.479	0.632	.000423	0.066	0.948

Coefficient, t-statistics, and P-value are presented in the first, second, and third line respectively. *** and ** denote statistically significant level of 1% and 5% respectively. All independent variables are deflated by $MVE_{(-1)}$, where, UE = unexpected earnings, UCFO = unexpected net cash flows from operating activity, UCFI = unexpected net cash flows from investing activity, UCFF = unexpected net cash flows from fi0ncing activity. D_1 = 1 if i is in Agribusiness industry, 0 otherwise; D_2 = 1 if i is in Building and furnishing materials industry, 0 otherwise; D_3 = 1 if i is in Foods and beverages industry, 0 otherwise; D_4 = 1 if i is in Property development industry, 0 otherwise; D_5 = 1 if i is in Textiles, Clothing, and Footwear industry, 0 otherwise. $MVE_{(-1}$ = market value of equity at the beginning of the period, $CAR_{(0)}$ = abnormal return of the announcement day, $CAR_{(-1,0)}$ = cumulative abnormal return of the day before and the day of an announcement (2 days inclusive), $CAR_{(0,+1)}$ = cumulative abnormal return of the day of and the day after an announcement (2 days inclusive), $CAR_{(-1,+1)}$ = cumulative abnormal return of the day before, the day of, and the day after an announcement (3 days inclusive).

Table A-1 (Continue)

Regression results of the impacts of industry on the incremental information content of cash flows beyond earnings

Model	$CAR_{(NA)}$			$CAR_{(-1,NA)}$			$CAR_{(NA,+1)}$			$CAR_{(-1,+1)}$		
	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value
UE	.015808	4.047***	0.000	.0160101	3.212***	0.001	.028367	4.925***	0.000	.028682	4.414***	0.000
UCFO	.001734	0.415	0.678	-.000135	-0.025	0.980	.016273	2.640***	0.008	.014584	2.097**	0.036
UCFI	.008934	1.248	0.212	.001352	0.148	0.882	.013913	1.318	0.188	.006378	0.535	0.592
UCFF	.002411	0.591	0.554	.003958	0.761	0.447	.018278	3.040***	0.002	.019914	2.936***	0.003
$UE*D_1$	.055165	2.816***	0.005	.040737	1.629	0.103	.070636	2.445**	0.015	.056996	1.749	0.081
$UCFO*D_1$	.014570	0.938	0.348	.053956	2.722***	0.004	.011197	0.489	0.625	.050459	1.953**	0.051
$UCFI*D_1$	.012785	0.671	0.502	.026307	1.082	0.279	.022237	0.791	0.429	.036063	1.138	0.255
$UCFF*D_1$	.014012	0.855	0.393	.033087	1.582	0.114	-.002450	-0.101	0.919	.017568	0.645	0.519
$UE*D_2$	-.003229	-0.525	0.599	-.012300	-1.568	0.117	-.020350	-2.245**	0.025	-.029462	-2.882***	0.004
$UCFO*D_2$	-.021369	-2.463**	0.014	-.008825	-0.797	0.425	-.029418	-2.300**	0.022	-.016151	-1.119	0.263
$UCFI*D_2$	-.046306	-2.811***	0.005	-.013548	-0.644	0.519	-.055795	-2.297**	0.022	-.022276	-0.813	0.416
$UCFF*D_2$	-.022527	-2.437**	0.015	-.008825	-0.748	0.455	-.022462	-1.648	0.100	-.007679	-0.499	0.618

Coefficient, t-statistics, and P-value are presented in the first, second, and third line respectively. *** and ** denote statistically significant level of 1% and 5% respectively. All independent variables are deflated by MVE_{t-1}, where, UE = unexpected earnings, UCFO = unexpected net cash flows from operating activity, UCFI = unexpected net cash flows from investing activity, UCFF = unexpected net cash flows from fi0ncing activity. D_1 = 1 if i is in Agribusiness industry, 0 otherwise; D_2 = 1 if i is in Building and furnishing materials industry, 0 otherwise; D_3 = 1 if i is in Foods and beverages industry, 0 otherwise; D_4 = 1 if i is in Property development industry, 0 otherwise; D_5 = 1 if i is in Textiles, Clothing, and Footwear industry, 0 otherwise. MVE_{t-1} = market value of equity at the beginning of the period, $CAR_{(0)}$ = abnormal return of the announcement day, $CAR_{(-1,0)}$ = cumulative abnormal return of the day before and the day of an announcement (2 days inclusive), $CAR_{(0,+1)}$ = cumulative abnormal return of the day of and the day after an announcement (2 days inclusive), $CAR_{(-1,+1)}$ = cumulative abnormal return of the day before, the day of, and the day after an announcement (3 days inclusive).

Table A-1 (Continue)

Regression results of the impacts of industry on the incremental information content of cash flows beyond earnings

Model	$CAR_{(0)}$			$CAR_{(-1,0)}$			$CAR_{(0,+1)}$			$CAR_{(-1,+1)}$		
	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value	Coefficient	T-stat.	P-value
$UE*D_3$	.003050	0.212	0.832	.013655	0.742	0.458	-.000882	-0.041	0.967	.009764	0.407	0.684
$UCFO*D_3$	.006414	0.384	0.701	.031733	1.490	0.136	.009516	0.387	0.699	.034470	1.242	0.215
$UCFI*D_3$	.0204694	0.609	0.542	.044767	1.045	0.296	-.051490	-1.040	0.299	-.027246	-0.488	0.626
$UCFF*D_3$	-.011312	-0.944	0.345	-.006352	-0.416	0.678	-.024935	-1.412	0.158	-.020125	-1.010	0.313
$UE*D_4$	-.003134	-0.406	0.685	-.003141	-0.319	0.750	-.007714	-0.678	0.498	-.008237	-0.641	0.521
$UCFO*D_4$	.0147699	1.377	0.169	.033143	2.421**	0.016	.017760	1.123	0.262	.035852	2.009**	0.045
$UCFI*D_4$	-.004828	-0.238	0.812	.040411	1.564	0.118	-.095192	-3.188***	0.001	-.053108	-1.577	0.115
$UCFF*D_4$	.011655	0.955	0.340	.028014	1.798	0.072	.015200	0.844	0.399	.031933	1.572	0.115
$UE*D_5$	.010274	0.888	0.375	.010571	0.716	0.474	.003736	0.219	0.827	.003773	0.196	0.845
$UCFO*D_5$	-.006828	-0.363	0.717	-.016401	-0.683	0.495	.015552	0.561	0.575	.006115	0.195	0.845
$UCFI*D_5$	-.015240	-0.553	0.581	-.017318	-0.492	0.623	.004815	0.118	0.906	.003001	0.065	0.948
$UCFF*D_5$	-.000843	-0.049	0.961	-.012314	-0.556	0.579	.009275	0.362	0.717	-.002037	-0.070	0.944
Adjusted R^2	0.034			0.018			0.056			0.045		
F-statistics	2.623***			1.843***			3.737***			3.195***		

Coefficient, t-statistics, and P-value are presented in the first, second, and third line respectively. *** and ** denote statistically significant level of 1% and 5% respectively. All independent variables are deflated by $MVE_{(-1)}$, where, UE = unexpected earnings, UCFO = unexpected net cash flows from operating activity, UCFI = unexpected net cash flows from investing activity, UCFF = unexpected net cash flows from fi0ncing activity. D_1 = 1 if i is in Agribusiness industry, 0 otherwise; D_2 = 1 if i is in Building and furnishing materials industry, 0 otherwise; D_3 = 1 if i is in Foods and beverages industry, 0 otherwise; D_4 = 1 if i is in Property development industry, 0 otherwise; D_5 = 1 if i is in Textiles, Clothing, and Footwear industry, 0 otherwise. $MVE_{(-1}$ = market value of equity at the beginning of the period, $CAR_{(0)}$ = abnormal return of the announcement day, $CAR_{(-1,0)}$ = cumulative abnormal return of the day before and the day of an announcement (2 days inclusive), $CAR_{(0,+1)}$ = cumulative abnormal return of the day of and the day after an announcement (2 days inclusive), $CAR_{(-1,+1)}$ = cumulative abnormal return of the day before, the day of, and the day after an announcement (3 days inclusive).

APPENDIX B: Companies Including In The Study

COMPANY	CODE
AGRIBUSINESS INDUSTRY	
ASIAN SEAFOOD COLDSTORAGE PUBLIC COMPANY LIMITIED	ASIAN
SEAFRESH INDUSTRY PUBLIC COMPANY LIMITIED	CFRESH
KIANG HAUT SEA GULL TRADING FROZEN FOOD PUBLIC COMPANY LIMITIED	CHOTI
CHIANGMAI FROZEN FOODS PUBLIC COMPANY LIMITIED	CM
CHAROEN POKPHAND FOODS PUBLIC COMPANY LIMITIED	CPF
CHUMPORN PALM OIL INDUSTRY PUBLIC COMPANY LIMITIED	CPI
THAI-DENMARK SWINE BREEDER PUBLIC COMPANY LIMITIED	D-MARK
GFPT PUBLIC COMPANY LIMITIED	GFPT
LEE FEED MILL PUBLIC COMPANY LIMITIED	LEE
PATUM RICE MILL AND GRANARY PUBLIC COMPANY LIMITIED	PRG
HORSE CORPORATION PUBLIC COMPANY LIMITIED	SH
SRITHAI FOOD & BEVERAGE PUBLIC COMPANY LIMITIED	SRI
SURAPON FOODS PUBLIC COMPANY LIMITIED	SSF
SRITRANG AGRO-INDUSTRY PUBLIC COMPANY LIMITIED	STA
THAI AGRI FOODS PUBLIC COMPANY LIMITIED	TAF
THAI RUBBER LATEX CORPORATION (THAILAND) PUBLIC COMPANY LIMITIED	T-RUBB
UNITED PALM OIL INDUSTRY PUBLIC COMPANY LIMITIED	UPOIC
BUILDING & FURNISHING MATERIALS INDUSTRY	
GENERAL ENGINEERING PUBLIC COMPANY LIMITIED	GEL
THE SIAM CEMENT PUBLIC COMPANY LIMITIED	SCC
SIAM CITY CEMENT PUBLIC COMPANY LIMITIED	SCCC
SOUTHERN CONCRETE PILE PUBLIC COMPANY LIMITIED	SCP
SAHAVIRIYA STEEL INDUSTRIES PUBLIC COMPANY LIMITIED	SSI
SIAM STEEL SERVICE CENTER PUBLIC COMPANY LIMITIED	SSSC
TIPCO ASPHALT PUBLIC COMPANY LIMITIED	TASCO
THAI-GERMAN CERAMIC INDUSTRY PUBLIC COMPANY LIMITIED	TGCI
THAILAND IRON WORKS PUBLIC COMPANY LIMITIED	TIW
TPI OPLENE PUBLIC COMPANY LIMITIED	TPIPL
THAI WIRE PRODUCTS PUBLIC COMPANY LIMITIED	TWP

COMPANY	CODE
CHEMICALS AND PLASTICS INDUSTRY	
THE AROMATICS (THAILAND) PUBLIC COMPANY LIMITIED	ATC
NATIONAL FERTILIZER PUBLIC COMPANY LIMITIED	NFC
NATIONAL PETROCHEMICAL PUBLIC COMPANY LIMITIED	NPC
THAI CARBON BLACK PUBLIC COMPANY LIMITIED	TCB
THAI POLY ACRYLIC PUBLIC COMPANY LIMITIED	TPA
THAI PLASTIC AND CHEMICAL PUBLIC COMPANY LIMITIED	TPC
UNION PLASTIC PUBLIC COMPANY LIMITIED	UP
UNIVNTURES PUBLIC COMPANY LIMITIED	UV
VINYTHAI PUBLIC COMPANY LIMITIED	VNT
YONG THAI PUBLIC COMPANY LIMITIED	YCI
COMMERCE INDUSTRY	
BIG C SUPERCENTER PUBLIC COMPANY LIMITIED	BIGC
BERLI JUCKER PUBLIC COMPANY LIMITIED	BJC
I.C.C. INTERNATIONAL PUBLIC COMPANY LIMITIED	ICC
MINOR CORPORATION PUBLIC COMPANY LIMITIED	MINOR
COMMUNICATION INDUSTRY	
ADVANCED INFO SERVICE PUBLIC COMPANY LIMITIED	ADVANC
THE INTERNATIONAL ENGINEERIGN PUBLIC COMPANY LIMITIED	IEC
JASMINE INTERNATIONAL PUBLIC COMPANY LIMITIED	JASMIN
SAMART TELCOMS PUBLIC COMPANY LIMITIED	SAMTEL
SHINAWATRA SATELLITE PUBLIC COMPANY LIMITIEDD	SATTEL
SHIN CORPORATIONS PUBLIC COMPANY LIMITIED	SHIN
THAI TELEPHONE & TELECOMMUNICATION PUBLIC COMPANY LIMITIED	TT&T
UNITED COMMUNICATION INDUSTRY PUBLIC COMPANY LIMITIED	UCOM
ELECTRICAL PRODUCTS & COMPUTER INDUSTRY	
CHAROONG THAI WIRE & CABLE PUBLIC COMPANY LIMITIED	CTW
DISTAR ELECTRIC CORPORATION PUBLIC COMPANY LIMITIED	DISTAR
FURUKAWA METAL (THAILAND) PUBLIC COMPANY LIMITIED	FMT
KCE ELECTRONICS PUBLIC COMPANY LIMITIED	KCE
METRO SYSTEMS CORPORATION PUBLIC COMPANY LIMITIED	MSC

COMPANY	CODE
ELECTRONIC COMPONENTS INDUSTRY	
CIRCUIT ELECTRONICS INDUSTRIES PUBLIC COMPANY LIMITIED	CIRKIT
DRACO PCB PUBLIC COMPANY LIMITIED	DRACO
ENERGY INDUSTRY	
THE BANGCHAK PETROLEUM PUBLIC COMPANY LIMITIED	BCP
LANNA LIGNITE PUBLIC COMPANY LIMITIED	LANNA
PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITIED	PTTEP
SIAM UNITED SERVICE PUBLIC COMPANY LIMITIED	SUSCO
ENTERTAINMENT & RECREATION INDUSTRY	
BEC WORLD PUBLIC COMPANY LIMITIED	BEC
CVD INTERTAINMENT PUBLIC COMPANY LIMITIED	CVD
GMM GRAMMY PUBLIC COMPANY LIMITIED	GRAMMY
SAFARI WORLD PUBLIC COMPANY LIMITIED	SAFARI
UNITED BROADCASTING CORPORATION PUBLIC COMPANY LIMITIED	UBC
FOODS & BEVERAGES INDUSTRY	
FOOD AND DRINKS PUBLIC COMPANY LIMITIED	F&D
HAAD THIP PUBLIC COMPANY LIMITIED	HTC
MALEE SAMPRAN PUBLIC COMPANY LIMITIED	MALEE
THE MINOR FOOD GROUP PUBLIC COMPANY LIMITIED	MFG
KUANG PEI SAN FOOD PRODUCTS PUBLIC COMPANY LIMITIED	POMPUI
S&P SYNDICATE PUBLIC COMPANY LIMITIED	S&P
S.KHONKAEN FOOD INDUSTRY PUBLIC COMPANY LIMITIED	SORKON
THE SERM SUK PUBLIC COMPANY LIMITIED	SSC
TROPICAL CANNING (THAILAND) PUBLIC COMPANY LIMITIED	TC
THAI UNION FROZEN PRODUCTS PUBLIC COMPANY LIMITIED	TUF
THAI VEGETABLE OIL PUBLIC COMPANY LIMITIED	TVO
THAI WAH FOOD PRODUCTS PUBLIC COMPANY LIMITIED	TWFP
UNIVERSAL FOOD PUBLIC COMPANY LIMITIED	UFC
HEALTH CARE SERVICES INDUSTRY	
AIKCHOL HOSPITAL PUBLIC COMPANY LIMITIED	AHC
NOTHAVEJ HOSPITAL PUBLIC COMPANY LIMITIED	NTV
VIBHAVADI MEDICAL CENTER PUBLIC COMPANY LIMITIED	VIBHA

COMPANY	CODE
HOTELS & TRAVEL SERVICES INDUSTRY	
CENTRAL PLAZA HOTEL PUBLIC COMPANY LIMITIED	CENTEL
DUSIT THANI PUBLIC COMPANY LIMITIED	DTC
LAGUNA RESORTS & HOTELS PUBLIC COMPANY LIMITIED	LRH
PACIFIC ASSETS PUBLIC COMPANY LIMITIED	PA
ROYAL GARDEN RESORT PUBLIC COMPANY LIMITIED	RGR
RAJADAMRI HOTEL PUBLIC COMPANY LIMITIED	RHC
ROYAL ORCHID HOTEL (THAILAND) PUBLIC COMPANY LIMITIED	ROH
SHANGRI-LA HOTEL PUBLIC COMPANY LIMITIED	SHANG
HOUSEHOLD GOODS INDUSTRY	
MODERNFORM GROUP PUBLIC COMPANY LIMITIED	MODERN
OCEAN GLASS PUBLIC COMPANY LIMITIED	OGC
ROCKWORTH PUBLIC COMPANY LIMITIED	ROCK
MACHINERY & EQUIPMENT INDUSTRY	
PATKOL PUBLIC COMPANY LIMITIED	PATKOL
THAI LIFT INDUSTRIES PUBLIC COMPANY LIMITIED	TLI
MINING INDUSTRY	
PADAENG INDUSTRY PUBLIC COMPANY LIMITIED	PDI
PACKAGING INDUSTRY	
ALUCON PUBLIC COMPANY LIMITIED	ALUCON
CROWN SEAL PUBLIC COMPANY LIMITIED	CSC
NEP REALTY AND INDUSTRY PUBLIC COMPANY LIMITIED	NEP
NIPPON PACK (THAILAND) PUBLIC COMPANY LIMITIED	NIPPON
THAI O.P.P. PUBLIC COMPANY LIMITIED	TOPP
THAI PACKAGING & PRINTING PUBLIC COMPANY LIMITIED	TPP
PHARMACEUTICAL PRODUCTS & COSMETICS INDUSTRY	
JACK CHIA INDUSTRIES (THAILAND) PUBLIC COMPANY LIMITIED	JCT
S & J INTERNATIONAL ENTERPRISES PUBLIC COMPANY LIMITIED	S&J

COMPANY	CODE
PRINTING & PUBLISHING INDUSTRY	
MATICHON PUBLIC COMPANY LIMITIED	MATI
NATION MULTIMEDIA GROUP PUBLIC COMPANY LIMITIED	NATION
THE POST PUBLISHING PUBLIC COMPANY LIMITIED	POST
SIAM SPORT SYNDICATE PUBLIC COMPANY LIMITIED	SSPORT
PROPERTY DEVELOPMENT INDUSTRY	
AMARIN PLAZA PUBLIC COMPANY LIMITIED	AMARIN
ASIAN PROBERTY DEVELOPMENT PUBLIC COMPANY LIMITIED	AP
CENTRAL PATTANA PUBLIC COMPANY LIMITIED	CPN
EASTERN STAR REAL ESTATE PUBLIC COMPANY LIMITIED	EASTAR
GOLDEN LAND PROBERTY DEVELOPMENT	GOLD
ITALIAN-THAI DEVELOPMENT PUBLIC COMPANY LIMITIED	ITD
LAND AND HOUSE PUBLIC COMPANY LIMITIED	LH
M.K.REAL ESTATE DEVELOPMENT PUBLIC COMPANY LIMITIED	MK
QUALITY-HOUSES PUBLIC COMPANY LIMITIED	QH
ROJANA INDUSTRIAL PARK PUBLIC COMPANY LIMITIED	ROJANA
SANSIRI PUBLIC COMPANY LIMITIED	SIRI
SINO-THAI ENGINEERING AND CONSTRUCTION PUBLIC COMPANY LIMITIED	STECON
SUPALAI PUBLIC COMPANY LIMITIED	SUPALI
SRIVARA REAL ESTATE GROUP PUBLIC COMPANY LIMITIED	S-VARA
THAI FACTORY DEVELOPMENT PUBLIC COMPANY LIMITIED	TFD
PULP & PAPER INDUSTRY	
ADVANCE AGRO PUBLIC COMPANY LIMITIED	AA
THE SIAM PULP & PAPER PUBLIC COMPANY LIMITIED	SPP
TEXTILES, CLOTHING & FOOTWEAR INDUSTRY	
BATA SHOE COMPANY OF THAILAND PUBLIC COMPANY LIMITIED	BATA
BANGKOK RUBBER PUBLIC COMPANY LIMITIED	BRC
CASTLE PEAK HOLDINGS PUBLIC COMPANY LIMITIED	CPH
PEOPLE'S GARMENT PUBLIC COMPANY LIMITIED	PG
SAHA-UNION PUBLIC COMPANY LIMITIED	SUC

COMPANY	CODE
TEXTILES, CLOTHING & FOOTWEAR INDUSTRY (Continue)	
THAI TORAY TEXTILE MILLS PUBLIC COMPANY LIMITIED	TTTM
THANULUX PUBLIC COMPANY LIMITIED	TNL
TEXTILE PRESTIGE PUBLIC COMPANY LIMITIED	TPCORP
TUNTEX (THAILAND) PUBLIC COMPANY LIMITIED	TUNTEX
UNION PIONEER PUBLIC COMPANY LIMITIED	UPF
UNION TEXTILE INDUSTRIES PUBLIC COMPANY LIMITIED	UT
THAI WACOAL PUBLIC COMPANY LIMITIED	WACOAL
TRANSPORTATION INDUSTRY	
ASIAN MARINE SERVICES PUBLIC COMPANY LIMITIED	ASIMAR
BANGKOK EXPRESSWAY PUBLIC COMPANY LIMITIED	BECL
REGIONAL CONTAINER LINES PUBLIC COMPANY LIMITIED	RCL
VEHICLES & PARTS INDUSTRY	
THAI STORAGE BATTERY PUBLIC COMPANY LIMITIED	BAT-3K
S.P. SUZUKI PUBLIC COMPANY LIMITIED	SPSU
WAREHOUSE & SILO INDUSTRY	
SAB SRI THAI WAREHOUSE PUBLIC COMPANY LIMITIED	SST
UNITED STANDARD TERMINAL PUBLIC COMPANY LIMITIED	UST
OTHERS	
C.P.L. GROUP PUBLIC COMPANY LIMITIED	CPL
CHAI WATANA TANNERY GROUP PUBLIC COMPANY LIMITIED	CWT
DTC INDUSTRIES PUBLIC COMPANY LIMITIED	DTCI

APPENDIX C: Investigation of the Assumptions of the Regression Model

This study tests all hypotheses by applying the regression model that its assumptions are follows.

1. There is no collinearity between the two explanatory variables, or no multicolloinearity.
2. The variance of each ε_i is constant, or homoscedastic; that is, $var(\varepsilon_i) = \sigma^2$
3. There is no correlation between ε_i and ε_j, or no autocorrelation; that is, $cov(\varepsilon_i, \varepsilon_j) \qquad i \neq j$
4. The mean value of the error term is zero; that is, $E(\varepsilon_i) = 0$
5. The error term follows the normal distribution with mean zero and variance σ^2; that is, $\varepsilon_i \sim N(0, \sigma^2)$

Checking for Multicollinearity

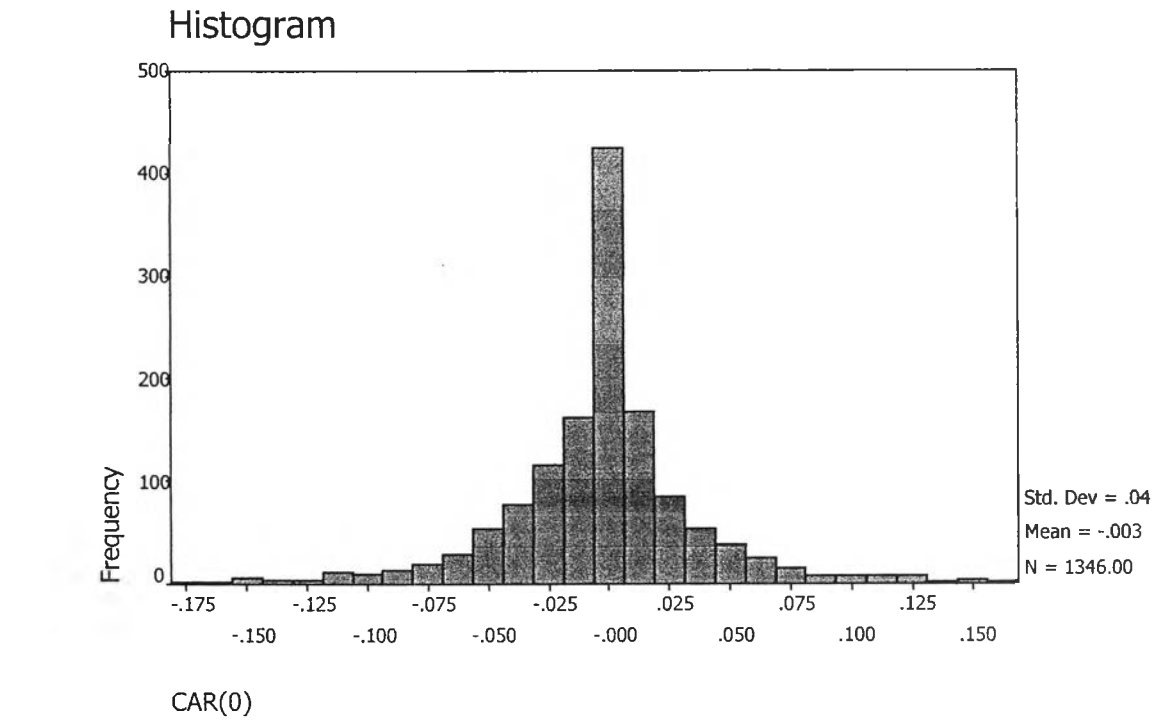
The partial correlation coefficients in Table 3 reveal that only one coefficient is higher than 0.5 that is the correlation between UCFO and UCFF. However, the VIF factors are less than 10. As a result, this reveals that the problem of multicollinearity is not severe in this study.

Checking for autocorrelation

The autocorrelation can be detected by The Durbin-Watson test. The Durbin-Watson statistics close to 2 indicates that there is no correlation between e_i and e_j. The results of the test in all models provide the Durbin-Watson statistics around 2. As a result, these reveal that there is no autocorrelation.

Checking for normality

The distribution of residuals could be approximately examined by the distribution of a dependent variable due to the fact that a residual is an error of the estimation of a dependent variable by independent variable(s). The graphical examination as well as significance test is used in the normality investigation of the independent variable as follows.



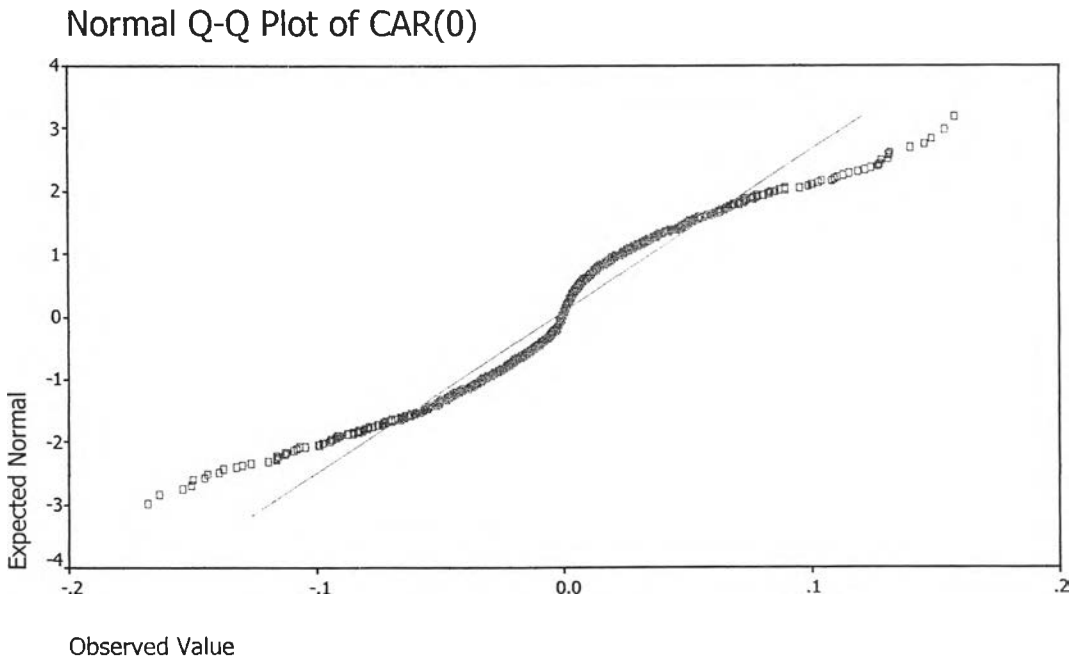
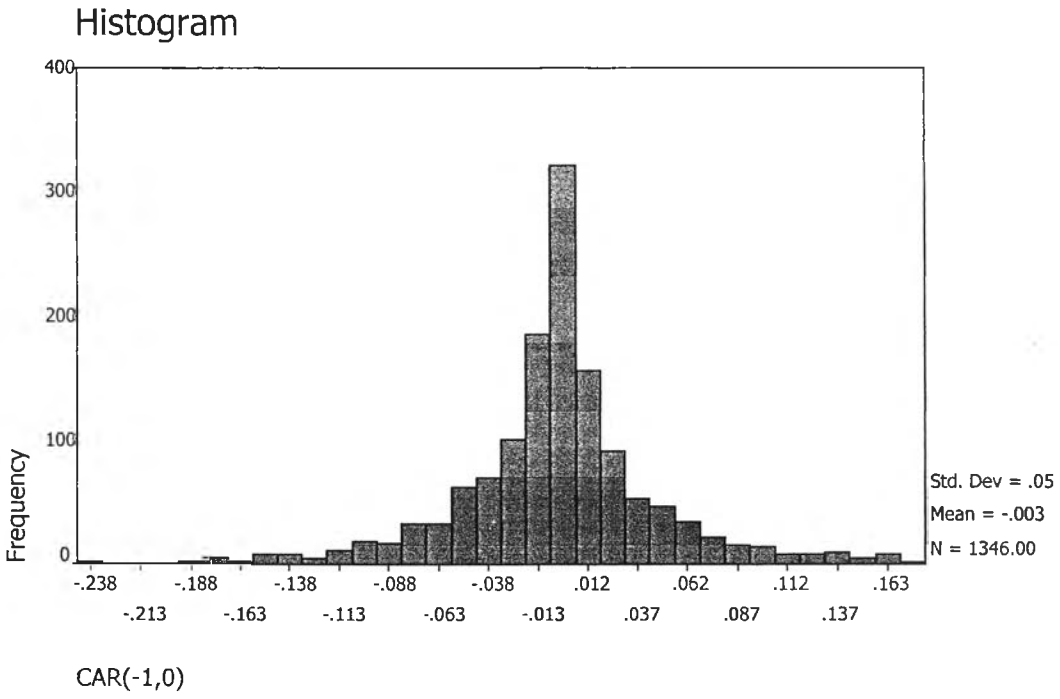


Figure 1 Histograms and normal probability plots of the dependent variable $CAR_{(0)}$



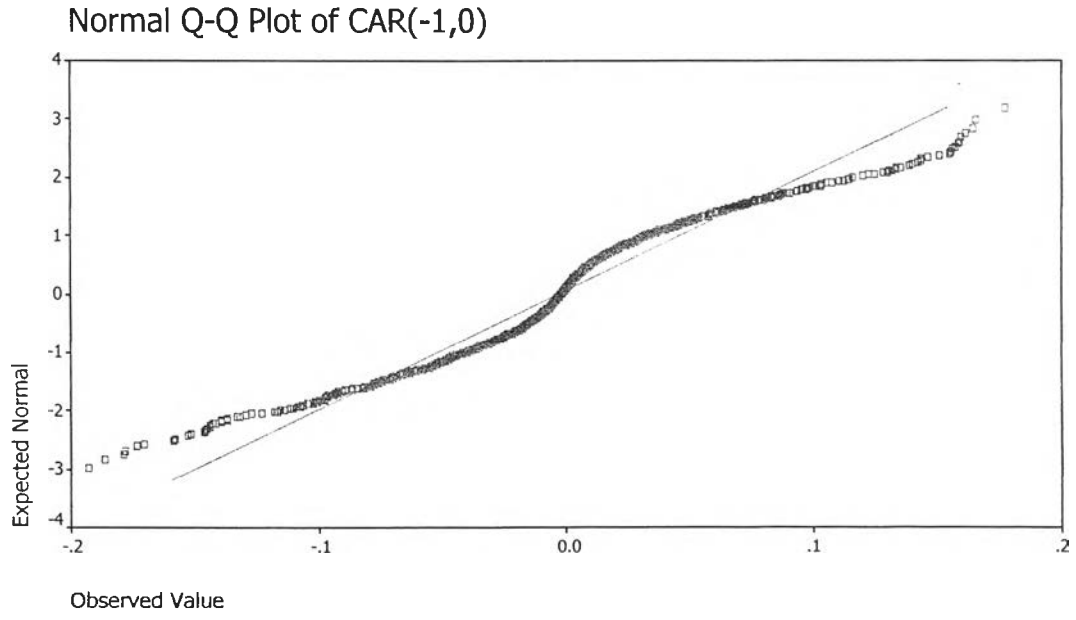
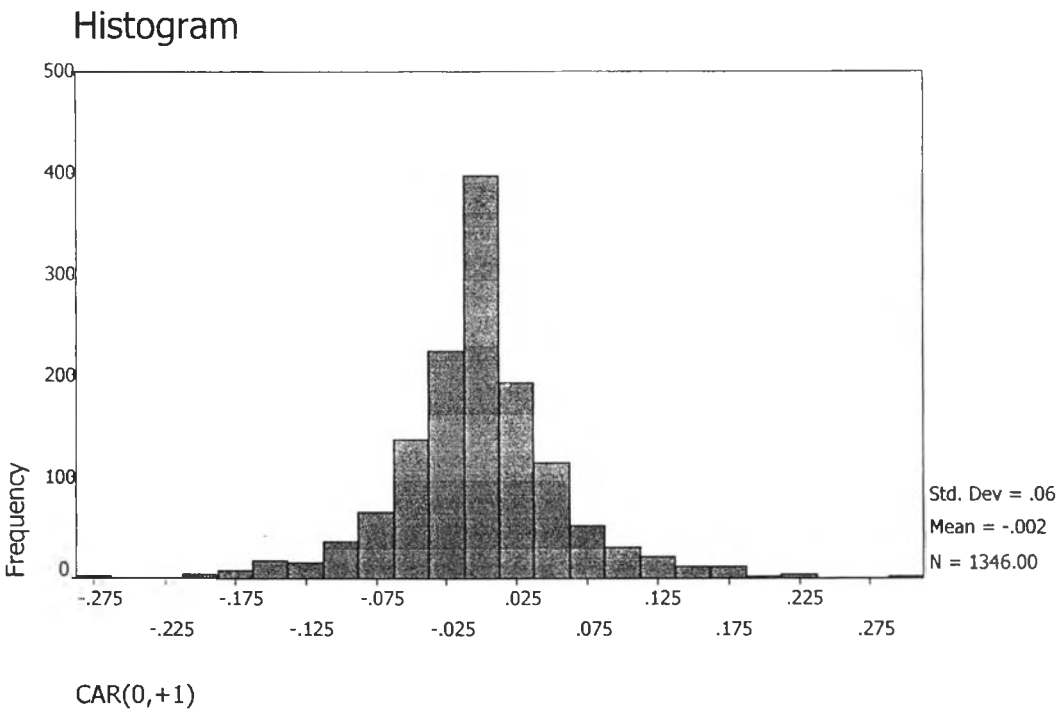


Figure 2 Histograms and normal probability plots of the dependent variable $CAR_{(-1,0)}$



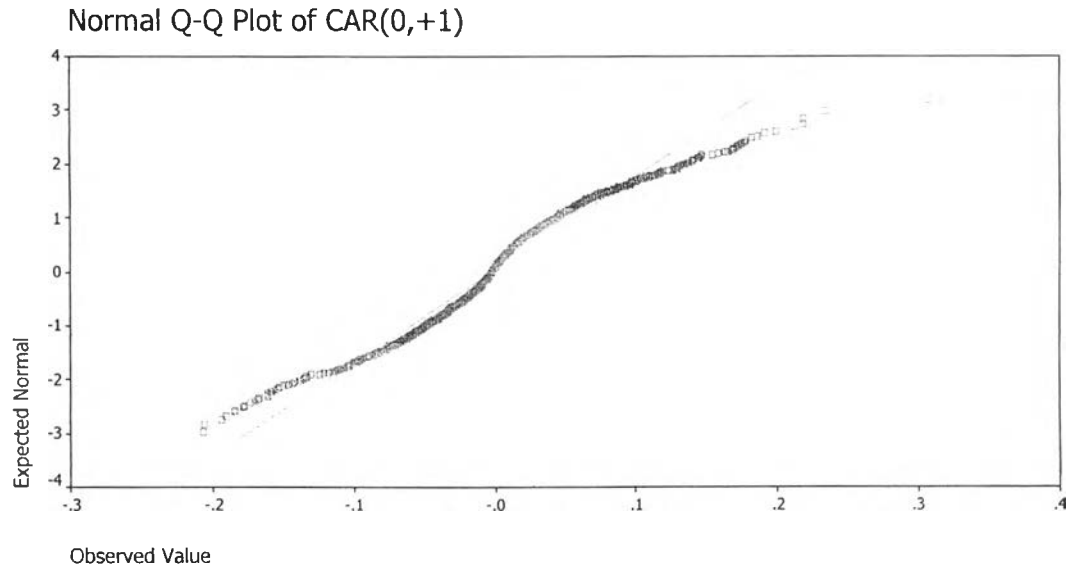


Figure 3 Histograms and normal probability plots of the dependent variable $CAR_{(0,+1)}$

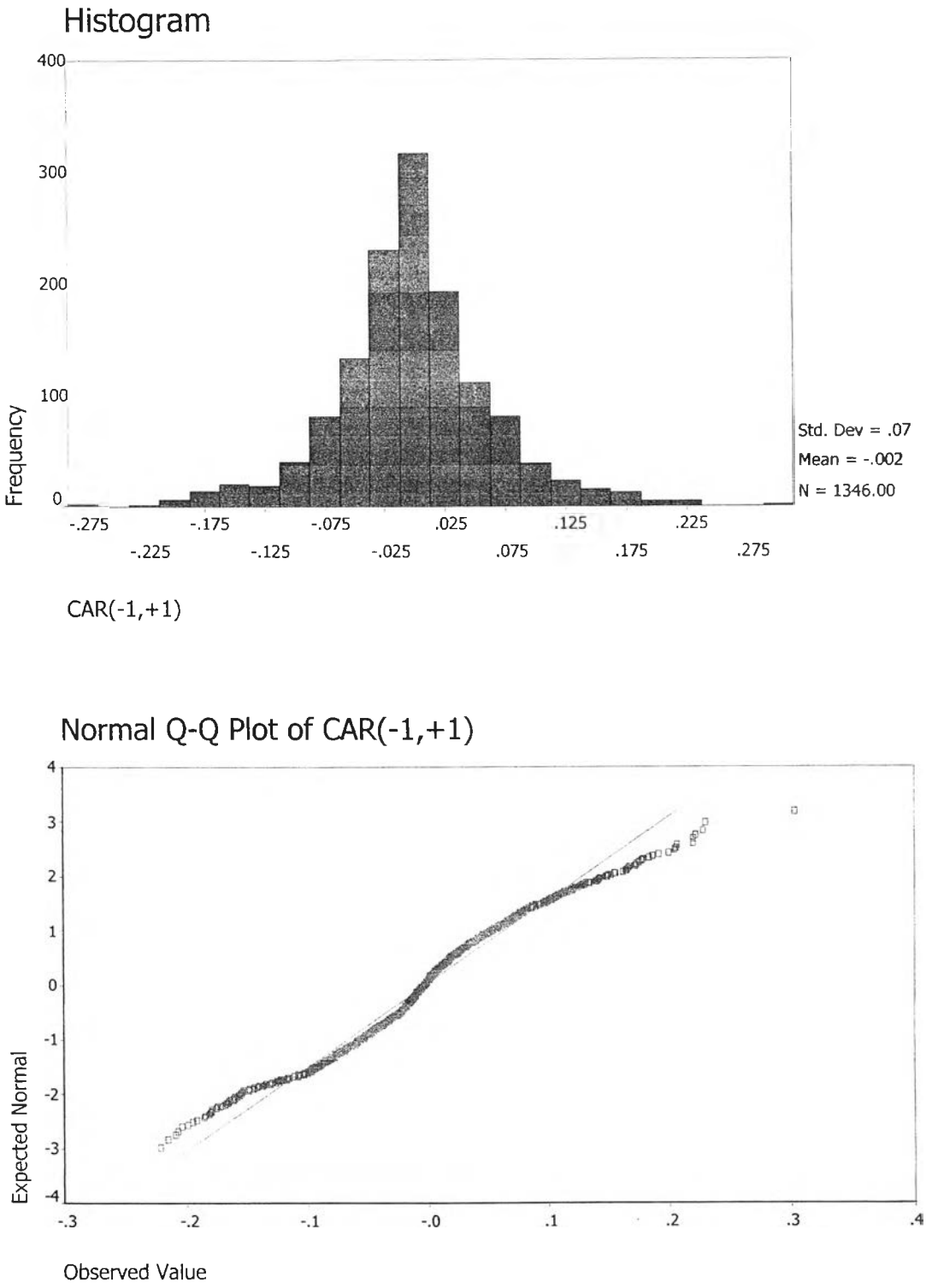


Figure 4 Histograms and normal probability plots for residuals of the dependent variable $CAR_{(-1,+1)}$

Tests of Normality Kolmogorov-Smirnov Test

	Statistic	df	Sig.
$CAR_{(0)}$	.118	346	.000
$CAR_{(-1,0)}$	.104	1346	.000
$CAR_{(0,-1)}$	.088	1346	.000
$CAR_{(-1,+1)}$	.069	1346	.000

The graphical examination (histogram and normal probability plot) by figures 1-4 presenting that the dependent variables seem to be symmetrically distributed and the normal distribution seems to fit. However, the significance test for normality (Kolmogorov-Smirnov test) produces the significant P-values of all models that are less than 0.01 that reject the normality assumption.

Investigation of Heteroscedasticity

This study uses the statistical technique by applying the Breush-Pagan-Godfrey test (Gujarati, 1995). The Breush-Pagan-Godfrey test of variance homogeniety of residuals (null hypothesis) by examining of the θ statistics, which $\theta \sim \kappa^2_{df}$. The θ statistics is calculated by $\theta = \frac{1}{2}(ESS)$. The ESS denotes the explained sum square obtained from performing the auxiliary regression model as follows[a].

$$P_i = a_0 + a_1 x_1 + a_2 x_2 + \ldots\ldots + a_n x_n + v_i$$

Where

P_i = ε_i^2/σ^2

σ^2 = $\Sigma \varepsilon_i^2/n$

ε_i = residual of firm i from the main regression

n = sample size

a_i = coefficient i

x_i = independent variable i according to the main regression, i = 1,.....,k (k = number of independent variables in the main regression)

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[a] See more details in Gujarati, 1995, pp. 377-378.

v_i = residual of the model

The results those are presented below indicate that the problem of heteroscedasticity seems to be not severe for the models T-1 and T-3 due to the less value of θ that are most less than the critical κ^2_{df}, except for model $CAR_{(-1,0)}$ and $CAR_{(-1,+1)}$ of the model T-1 . The results of Models T-2 and T-3 reject the hypothesis of homogeniety of residuals that the values of θ are higher than the critical value.

Model T-1:

	θ	df	critical κ^2_4	
			10%	5%
$CAR_{(0)}$	10.27	4	13.28	9.49
$CAR_{(-1,0)}$	4.15	4	13.28	9.49
$CAR_{(0,+1)}$	40.36	4	13.28	9.49
$CAR_{(-1,+1)}$	15.05	4	13.28	9.49

Model T-2:

	θ	df	critical κ^2_9	
			5%	10%
$CAR_{(0)}$	121.12	9	16.92	21.67
$CAR_{(-1,0)}$	87.02	9	16.92	21.67
$CAR_{(0,+1)}$	92.62	9	16.92	21.67
$CAR_{(-1,+1)}$	67.26	9	16.92	21.67

Model T-3:

	θ	df	critical κ^2_9	
			5%	10%
$CAR_{(0)}$	54.12	9	16.92	21.67
$CAR_{(-1,0)}$	21.57	9	16.92	21.67
$CAR_{(0,+1)}$	81.23	9	16.92	21.67

$CAR_{(-1,+1)}$	48.14	9	16.92	21.67

Model T-4:

	θ	df	critical κ^2_9	
			5%	10%
$CAR_{(0)}$	13.12	9	16.92	21.67
$CAR_{(-1,0)}$	18.71	9	16.92	21.67
$CAR_{(0,+1)}$	17.53	9	16.92	21.67
$CAR_{(-1,+1)}$	11.51	9	16.92	21.67

Fixing the problem in the assumptions of normality and variance homogeneity of residuals

The transforming of the dependent variable can often reduce this problem. Thus, this study has tried to transform the dependent variable by 4 methods as follows[b].

1. Log transformation

   $Y_i' = log(Y_i + c)$

   where; Y_i = dependent variable, and c = minimum value of Y_i

2. Square root transformation

   $Y_i' = \sqrt{(Y_i + c)}$

3. Reciprocal transformation

   $Y_i' = \frac{1}{Y_i + c}$

4. Arcsine transformation

   $Y_i' = arcsine(\sqrt{(Y_i + c)})$

[b] The dependent variable in this study is composed of positive and negative value. Thus, a constant is added to all observations in order to apply the transformation of data, which only works for positive data.

The results of checking for normality for transformed data indicate that the problem is more severe than the original data that are presented below. Further, the variance homogeneity problem is more severe as well. As a result, the results of this study are based on the original data.

Tests of Normality

Komogorov-Smirnov test

Log transformation

	Statistic	df	Sig.
$CAR_{(0)}$	.128	1346	.000
$CAR_{(-1,0)}$	.133	1346	.000
$CAR_{(0,-1)}$	.109	1346	.000
$CAR_{(-1,+1)}$	.114	1346	.000

Square root transformation

	Statistic	df	Sig.
$CAR_{(0)}$	.113	1346	.000
$CAR_{(-1,0)}$	.113	1346	.000
$CAR_{(0,-1)}$	.086	1346	.000
$CAR_{(-1,+1)}$	.088	1346	.000

Reciprocal transformation

	Statistic	df	Sig.
$CAR_{(0)}$	.107	1346	.000
$CAR_{(-1,0)}$	.106	1346	.000
$CAR_{(0,-1)}$	.083	1346	.000
$CAR_{(-1,+1)}$	.081	1346	.000

Arcsine transformation

	Statistic	df	Sig.
$CAR_{(0)}$	.162	1346	.000
$CAR_{(-1,0)}$	.179	1346	.000
$CAR_{(0,-1)}$	.194	1346	.000
$CAR_{(-1,+1)}$	.200	1346	.000

BIOGRAPHY

Miss Julsuchada Sirisom was born on June 2, 1973 in Maha Sarakarm, Thailand. She finished her Bachelor of Business Administration (Accounting) from Rajamangala Institute of Technology (RIT), Northeastern Campus in 1994, and Bachelor of Economics (Business Economics) from Sukhothai Thammathirat University in 1995. From 1994 to 1995, she worked as an accountant of a private company as well as progressed her master degree. In1996, she has completed her Master of Business Administration (Accounting for planning and control) from Kasetsart University, Bangkok and started a new career as a lecturer of the Department of Accounting, RIT, Northeastern Campus. In 1998, she has got the scholarship with official allowance for her absence from RIT concerning for her studying in the doctoral program in accountancy at Chulalongkorn University. In recent times, she is a lecturer at RIT, Northeastern Campus.