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## **APPENDICES**

# ศูนย์วิทยทรัพยากร จุฬาลงกรณ์มหาวิทยาลัย

## APPENDIX A

This appendix reports the empirical results of the relation between stock return and last interest rate changes in order to investigate the lagged effect of interest rate movement on stock return, on the impact of growth options, and on the country effect. Interest rate variables at month  $t$  in equation (1) – (4) are replaced with interest rate variables at month  $t-1$ ,  $t-2$ , and  $t-3$  respectively. Specifically, the following regressions are estimated

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \gamma_{i,I} \Delta I(-1)_{t-1} + \varepsilon_{i,t} \quad (5)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \gamma_{i,r} \Delta r(-1)_{t-1} + \gamma_{i,\pi} \Delta \pi(-1)_{t-1} + \varepsilon_{i,t} \quad (6)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + s_i SMB_t + h_i HML_t + \gamma_{i,I} \Delta I(-1)_{t-1} + \varepsilon_{i,t} \quad (7)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + s_i SMB_t + h_i HML_t + \gamma_{i,r} \Delta r(-1)_{t-1} + \gamma_{i,\pi} \Delta \pi(-1)_{t-1} + \varepsilon_{i,t} \quad (8)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \gamma_{i,I} \Delta I(-2)_{t-2} + \varepsilon_{i,t} \quad (9)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \gamma_{i,r} \Delta r(-2)_{t-2} + \gamma_{i,\pi} \Delta \pi(-2)_{t-2} + \varepsilon_{i,t} \quad (10)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + s_i SMB_t + h_i HML_t + \gamma_{i,I} \Delta I(-2)_{t-2} + \varepsilon_{i,t} \quad (11)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + s_i SMB_t + h_i HML_t + \gamma_{i,r} \Delta r(-2)_{t-2} + \gamma_{i,\pi} \Delta \pi(-2)_{t-2} + \varepsilon_{i,t} \quad (12)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \gamma_{i,I} \Delta I(-3)_{t-3} + \varepsilon_{i,t} \quad (13)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \gamma_{i,r} \Delta r(-3)_{t-3} + \gamma_{i,\pi} \Delta \pi(-3)_{t-3} + \varepsilon_{i,t} \quad (14)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + s_i SMB_t + h_i HML_t + \gamma_{i,I} \Delta I(-3)_{t-3} + \varepsilon_{i,t} \quad (15)$$

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + s_i SMB_t + h_i HML_t + \gamma_{i,r} \Delta r(-3)_{t-3} + \gamma_{i,\pi} \Delta \pi(-3)_{t-3} + \varepsilon_{i,t} \quad (16)$$

Where  $\Delta I(-1)$  is the last one-month nominal interest rate change.  $\Delta \pi(-1)$  is the last one-month inflation rate change.  $\Delta r(-1)$  is the one-month real rate change.  $\Delta I(-2)$  is the last two-month nominal interest rate change.  $\Delta \pi(-2)$  is the last two-month inflation rate change.  $\Delta r(-2)$  is the two-month real rate change.  $\Delta I(-3)$  is the last three-month nominal interest rate change.  $\Delta \pi(-3)$  is the last three-month inflation rate change.  $\Delta r(-3)$  is the three-month real rate change.

**Table A.1: The Estimated Relationship between Stock Return and Last One-Month Interest Rate Change**

The table reports the interest rate coefficients in equation (5) – (8). Panel A reports the interest rate coefficients of the last one-month nominal interest rate, real rate, and inflation rate changes when market return is the control variable as presented in equation (5) and (6). Panel B reports the interest rate coefficients of the last one-month nominal interest rate, real rate, and inflation rate changes when three-factor model is the control variables as presented in equation (7) and (8).

**Panel A: The market model**

	Country						
	Hong Kong	Indonesia	Malaysia	Philippines	Singapore	Taiwan	Thai
<b>Nominal Interest Rate</b>							
Portfolio 1	14.9326 (1.93)	10.2618 (1.47)	-43.7199** (-2.33)	-0.8542 (-0.23)	-12.6462 (-0.81)	-24.1567 (-0.69)	-6.3989 (-0.71)
Portfolio 2	4.6625 (0.82)	8.3231 (1.22)	-18.4664 (-1.54)	-5.8722 (-1.16)	7.5563 (0.77)	-13.0458 (-0.65)	13.9589** (2.05)
Portfolio 3	-4.2156 (-0.93)	-2.0630 (-0.31)	2.9050 (0.32)	4.3385 (1.53)	-6.7499 (-0.60)	-11.5213 (-1.04)	11.0817** (2.02)
Portfolio 4	0.4351 (0.08)	-8.4723 (-1.42)	27.6427** (2.06)	0.9675 (0.21)	20.3617** (2.05)	9.8725 (0.50)	-8.3875 (-1.45)
Portfolio 5	-15.8146** (-2.04)	-8.0496 (-0.86)	31.6385 (1.70)	1.4203 (0.32)	-8.5220 (-0.65)	38.8513 (1.12)	-10.2542 (-0.95)
<b>Real Interest Rate</b>							
Portfolio 1	5.2748 (0.84)	0.2651 (0.07)	-39.6250** (-2.13)	-0.7051 (-0.19)	-12.0009 (-0.77)	-22.1744 (-0.76)	-6.3782 (-0.71)
Portfolio 2	4.2624 (0.95)	8.4856** (2.52)	-15.5677 (-1.31)	-5.4435 (-1.10)	7.3918 (0.75)	-19.1246 (-1.14)	11.6408 (1.77)
Portfolio 3	-4.1481 (-1.17)	1.8989 (0.56)	4.9305 (0.55)	4.3881 (1.54)	-7.6751 (-0.73)	-3.5120 (-0.38)	11.0130** (2.02)
Portfolio 4	1.9943 (0.46)	4.1801 (1.32)	24.7133 (1.86)	0.7455 (0.16)	20.3418** (2.05)	11.5067 (0.69)	-8.0631 (-1.40)
Portfolio 5	-7.3834 (-1.19)	-14.8296** (-3.57)	25.5489 (1.39)	1.0149 (0.23)	-8.0577 (-0.63)	33.3043 (1.15)	-8.2125 (-0.78)
<b>Inflation Rate</b>							
Portfolio 1	5.4581 (0.84)	0.4482 (0.13)	-38.6560** (-2.08)	-0.0175 (0.00)	-11.8798 (-0.76)	-22.6443 (-0.77)	-5.8892 (-0.67)
Portfolio 2	4.3525 (0.93)	8.3873** (2.70)	-15.9859 (-1.35)	-3.6691 (-0.72)	7.6749 (0.78)	-19.1592 (-1.14)	12.8674** (1.98)
Portfolio 3	-4.1917 (-1.14)	2.3533 (0.75)	4.3632 (0.49)	3.9874 (1.37)	-5.5172 (-0.52)	-3.2645 (-0.35)	10.8069** (2.00)
Portfolio 4	1.8708 (0.42)	3.7107 (1.27)	23.9660 (1.81)	-0.5925 (-0.12)	19.6708** (1.98)	11.6538 (0.70)	-8.0224 (-1.41)
Portfolio 5	-7.4898 (-1.16)	-14.8995** (-3.87)	26.3127 (1.44)	0.2916 (0.06)	-9.9487 (-0.78)	33.4143 (1.15)	-9.7627 (-0.94)

**Panel B: The three-factor model**

	Country						
	Hong Kong	Indonesia	Malaysia	Philippines	Singapore	Taiwan	Thai
<b>Nominal Interest Rate</b>							
Portfolio 1	0.3363 (0.07)	2.2684 (0.35)	-7.6899 (-0.95)	0.8072 (0.31)	-7.5205 (-0.85)	1.7914 (0.16)	-14.0935** (-3.35)
Portfolio 2	-1.1912 (-0.22)	-0.6694 (-0.11)	-1.1530 (-0.14)	-1.9469 (-0.42)	5.0574 (0.55)	-1.0620 (-0.09)	7.9197 (1.86)
Portfolio 3	-6.6187 (-1.44)	-8.8711 (-1.38)	0.3801 (0.05)	5.6829 (1.89)	-9.7601 (-0.88)	-12.8197 (-1.17)	11.9129** (2.13)
Portfolio 4	8.2726 (1.78)	-5.0025 (-0.88)	6.8316 (0.75)	-5.7026 (-1.48)	19.0195** (2.49)	-0.4226 (-0.04)	-4.5712 (-0.94)
Portfolio 5	-0.7990 (-0.21)	12.2746** (2.13)	1.6313 (0.17)	1.1594 (0.30)	-6.7963 (-0.89)	12.5130 (0.89)	-1.1678 (-0.24)
<b>Real Interest Rate</b>							
Portfolio 1	-0.9526 (-0.27)	-6.3683 (-1.78)	-7.3855 (-0.92)	0.6892 (0.26)	-7.3011 (-0.83)	2.2401 (0.25)	-12.8378** (-3.12)
Portfolio 2	1.9019 (0.47)	4.0185 (1.14)	-0.4815 (-0.06)	-1.9266 (-0.41)	4.9981 (0.54)	-8.5650 (-0.92)	6.6660 (1.61)
Portfolio 3	-5.0291 (-1.43)	-1.3427 (-0.37)	1.2843 (0.17)	5.8487 (1.94)	-10.2258 (-0.97)	-4.2453 (-0.47)	11.6907** (2.10)
Portfolio 4	5.1657 (1.46)	8.2346** (2.64)	6.9172 (0.77)	-5.6122 (-1.45)	19.0471** (2.48)	3.1077 (0.34)	-4.8038 (-1.00)
Portfolio 5	-1.0859 (-0.37)	-4.5420 (-1.51)	-0.3344 (-0.04)	1.0009 (0.26)	-6.5183 (-0.87)	7.4625 (0.64)	-0.7152 (-0.15)
<b>Inflation Rate</b>							
Portfolio 1	-0.9495 (-0.26)	-5.9701 (-1.79)	-7.2813 (-0.92)	0.4268 (0.16)	-8.0608 (-0.91)	1.9623 (0.22)	-13.3473** (-3.28)
Portfolio 2	1.9313 (0.46)	4.0646 (1.24)	-0.9897 (-0.13)	-0.9889 (-0.21)	4.9074 (0.53)	-8.5208 (-0.91)	7.3015 (1.78)
Portfolio 3	-5.0908 (-1.40)	-0.8135 (-0.24)	1.3851 (0.18)	5.4461 (1.78)	-8.2653 (-0.78)	-4.0007 (-0.44)	11.5200** (2.10)
Portfolio 4	5.1335 (1.40)	7.6744** (2.65)	6.4138 (0.72)	-6.0008 (-1.52)	18.8751** (2.45)	3.1975 (0.35)	-4.3896 (-0.93)
Portfolio 5	-1.0244 (-0.34)	-4.9554 (-1.77)	0.4721 (0.05)	1.1169 (0.29)	-7.4563 (-0.99)	7.3616 (0.62)	-1.0846 (-0.23)

\*\* Significant at the 95% confidence level, t-statistics is shown in the parenthesis.

**Table A.2: The Estimated Relationship between Stock Return and Last Two-Month Interest Rate Change**

The table reports the interest rate coefficients in equation (9) – (12). Panel A reports the interest rate coefficients of the last two-month nominal interest rate, real rate, and inflation rate changes when market return is the control variable as presented in equation (9) and (10). Panel B reports the interest rate coefficients of the last two-month nominal interest rate, real rate, and inflation rate changes when three-factor model is the control variables as presented in equation (11) and (12).

**Panel A: The market model**

	Country						
	Hong Kong	Indonesia	Malaysia	Philippines	Singapore	Taiwan	Thai
<b>Nominal Interest Rate</b>							
Portfolio 1	2.6155 (0.33)	-5.8072 (-0.81)	2.2306 (0.12)	-2.2047 (-0.63)	34.2907** (2.28)	31.0695 (0.86)	-20.7548** (-2.38)
Portfolio 2	0.2389 (0.04)	5.0145 (0.75)	-10.7321 (-0.93)	8.5928 (1.69)	-23.0389** (-2.43)	28.8811 (1.43)	-13.9234** (-2.01)
Portfolio 3	1.7687 (0.39)	-6.1476 (-0.99)	-2.0324 (-0.23)	-3.0118 (-1.05)	5.1058 (0.46)	-15.2160 (-1.34)	-4.9446 (-0.87)
Portfolio 4	-0.9389 (-0.17)	-2.3119 (-0.39)	-4.3805 (-0.33)	-1.3286 (-0.28)	-8.3277 (-0.84)	-27.7257 (-1.38)	9.2558 (1.59)
Portfolio 5	-3.6843 (-0.46)	9.2523 (1.00)	14.9144 (0.82)	-2.0478 (-0.46)	-8.0299 (-0.61)	-17.0089 (-0.48)	30.3670** (2.93)
<b>Real Interest Rate</b>							
Portfolio 1	1.7139 (0.27)	-5.5069 (-1.51)	-1.3578 (-0.07)	-2.1241 (-0.60)	34.0050** (2.25)	49.2261 (1.66)	-21.2920** (-2.48)
Portfolio 2	1.0594 (0.24)	-4.0928 (-1.18)	-12.5720 (-1.10)	8.3173 (1.65)	-22.9261** (-2.41)	34.2970** (2.05)	-13.0740 (-1.91)
Portfolio 3	0.7115 (0.20)	-2.7138 (-0.83)	-2.7600 (-0.33)	-2.9729 (-1.04)	5.3761 (0.50)	-16.2258 (-1.76)	-4.1121 (-0.73)
Portfolio 4	-0.6140 (-0.14)	-2.5090 (-0.82)	-1.4911 (-0.11)	-1.1937 (-0.25)	-8.0799 (-0.81)	-29.9788 (-1.79)	8.9732 (1.55)
Portfolio 5	-2.8708 (-0.45)	14.8225** (3.27)	18.1810 (1.01)	-2.0266 (-0.45)	-8.3751 (-0.64)	-37.3185 (-1.26)	29.5049** (2.86)
<b>Inflation Rate</b>							
Portfolio 1	1.7742 (0.27)	-4.6578 (-1.38)	-2.4095 (-0.13)	-1.9343 (-0.54)	33.7516** (2.22)	50.1481 (1.67)	-20.3638** (-2.40)
Portfolio 2	1.2001 (0.26)	-3.8695 (-1.21)	-12.6230 (-1.10)	6.9664 (1.35)	-22.5589** (-2.36)	34.4506** (2.04)	-13.4038** (-1.98)
Portfolio 3	0.6367 (0.17)	-2.4682 (-0.81)	-1.8833 (-0.23)	-2.5465 (-0.87)	3.5257 (0.33)	-16.6681 (-1.80)	-4.1236 (-0.74)
Portfolio 4	-0.5206 (-0.11)	-2.5161 (-0.89)	-0.6413 (-0.05)	-0.8579 (-0.17)	-7.6446 (-0.77)	-30.0975 (-1.78)	8.8642 (1.55)
Portfolio 5	-3.0904 (-0.47)	13.5116** (3.22)	17.5571 (0.98)	-1.6277 (-0.35)	-7.0738 (-0.54)	-37.8332 (-1.26)	29.0270** (2.85)

**Panel B: The three-factor model**

	Country						
	Hong Kong	Indonesia	Malaysia	Philippines	Singapore	Taiwan	Thai
<b>Nominal Interest Rate</b>							
Portfolio 1	2.7944 (0.62)	-4.2725 (-0.71)	16.9852** (2.25)	-3.6269 (-1.45)	22.5456** (2.64)	5.1491 (0.47)	-3.3027 (-0.71)
Portfolio 2	0.4717 (0.09)	6.0339 (1.02)	-6.6421 (-0.88)	5.3661 (1.17)	-28.9972** (-3.38)	15.6926 (1.41)	-2.1194 (-0.47)
Portfolio 3	2.0780 (0.47)	-4.5470 (-0.78)	-7.1615 (-1.02)	-4.1051 (-1.38)	1.9873 (0.18)	-12.8927 (-1.15)	-5.8750 (-0.98)
Portfolio 4	-1.0343 (-0.22)	-4.6785 (-0.88)	-11.4987 (-1.33)	4.2682 (1.11)	-1.5350 (-0.19)	-13.9064 (-1.28)	2.2341 (0.44)
Portfolio 5	-4.3098 (-1.17)	7.4641 (1.32)	8.3170 (0.94)	-1.9024 (-0.50)	5.9993 (0.78)	5.9575 (0.42)	9.0629 (1.81)
<b>Real Interest Rate</b>							
Portfolio 1	1.7190 (0.48)	-1.9254 (-0.61)	16.2751** (2.18)	-3.2840 (-1.31)	22.3634** (2.62)	4.4835 (0.49)	-4.0013 (-0.88)
Portfolio 2	1.0189 (0.25)	-1.2545 (-0.40)	-6.3963 (-0.85)	4.5805 (1.00)	-28.9247** (-3.37)	12.3606 (1.31)	-1.0184 (-0.23)
Portfolio 3	0.6212 (0.18)	-0.3364 (-0.11)	-6.8636 (-1.01)	-4.0394 (-1.34)	2.5899 (0.25)	-13.9523 (-1.54)	-5.0202 (-0.84)
Portfolio 4	-0.6031 (-0.16)	-5.2682 (-1.91)	-10.4498 (-1.23)	4.8149 (1.24)	-1.3892 (-0.17)	-9.0751 (-0.98)	1.8159 (0.36)
Portfolio 5	-2.7560 (-0.95)	8.7846** (3.09)	7.4346 (0.89)	-2.0720 (-0.54)	5.3607 (0.70)	6.1832 (0.51)	8.2240 (1.65)
<b>Inflation Rate</b>							
Portfolio 1	1.7509 (0.47)	-1.4618 (-0.50)	15.9631** (2.13)	-2.7471 (-1.06)	22.9894** (2.68)	4.8754 (0.53)	-3.4724 (-0.78)
Portfolio 2	1.1381 (0.27)	-1.3418 (-0.46)	-6.2066 (-0.83)	3.1829 (0.67)	-28.4319** (-3.30)	12.2740 (1.29)	-1.6718 (-0.38)
Portfolio 3	0.5173 (0.14)	-0.3363 (-0.12)	-6.1867 (-0.91)	-3.7656 (-1.20)	0.6806 (0.06)	-14.4380 (-1.57)	-5.0017 (-0.85)
Portfolio 4	-0.4923 (-0.13)	-4.9985** (-1.96)	-9.9658 (-1.17)	5.5163 (1.38)	-1.3626 (-0.17)	-9.0600 (-0.97)	1.9038 (0.38)
Portfolio 5	-2.9140 (-0.97)	8.1383** (3.10)	6.3960 (0.77)	-2.1864 (-0.55)	6.1246 (0.80)	6.3485 (0.52)	8.2421 (1.67)

\*\* Significant at the 95% confidence level, t-statistics is shown in the parenthesis.

**Table A.3: The Estimated Relationship between Stock Return and Last Three-Month Interest Rate Change**

The table reports the interest rate coefficients in equation (13) – (16). Panel A reports the interest rate coefficients of the last three-month nominal interest rate, real rate, and inflation rate changes when market return is the control variable as presented in equation (13) and (14). Panel B reports the interest rate coefficients of the last three-month nominal interest rate, real rate, and inflation rate changes when three-factor model is the control variables as presented in equation (15) and (16).

**Panel A: The market model**

	Country						
	Hong Kong	Indonesia	Malaysia	Philippines	Singapore	Taiwan	Thai
<b>Nominal Interest Rate</b>							
Portfolio 1	16.6457** (2.21)	-14.3965** (-2.17)	-11.3996 (-0.61)	4.3430 (1.27)	-3.6284 (-0.23)	-0.7608 (-0.02)	-12.2729 (-1.38)
Portfolio 2	-4.9011 (-0.88)	-2.1967 (-0.33)	-10.4427 (-0.92)	-14.8685** (-3.05)	4.1680 (0.41)	7.5153 (0.36)	-4.8247 (-0.69)
Portfolio 3	5.5653 (1.25)	3.1318 (0.51)	-5.0347 (-0.59)	3.2474 (1.14)	1.2383 (0.11)	-14.4050 (-1.26)	1.0927 (0.19)
Portfolio 4	-11.8637** (-2.18)	0.9639 (0.17)	-5.3327 (-0.41)	-3.1988 (-0.68)	-6.4025 (-0.64)	-6.3406 (-0.31)	2.0079 (0.34)
Portfolio 5	-5.4462 (-0.68)	12.4975 (1.37)	32.2097 (1.83)	10.4769** (2.47)	4.6246 (0.34)	13.9910 (0.39)	13.9970 (1.28)
<b>Real Interest Rate</b>							
Portfolio 1	13.4698** (2.30)	-8.1444** (-2.32)	-13.1689 (-0.70)	4.5706 (1.33)	-4.6661 (-0.29)	-10.0754 (-0.33)	-12.3360 (-1.41)
Portfolio 2	-3.5004 (-0.79)	-2.4469 (-0.69)	-10.0200 (-0.89)	-14.5456** (-3.02)	4.7081 (0.47)	-2.2622 (-0.13)	-5.0764 (-0.74)
Portfolio 3	6.2951 (1.84)	0.2983 (0.09)	-4.5341 (-0.53)	3.4170 (1.20)	1.1005 (0.10)	-5.7539 (-0.60)	0.4317 (0.08)
Portfolio 4	-9.2202** (-2.18)	1.8789 (0.61)	-4.7654 (-0.37)	-3.9534 (-0.88)	-6.4637 (-0.64)	-3.3802 (-0.19)	1.8164 (0.31)
Portfolio 5	-7.0443 (-1.11)	8.4142 (1.76)	32.4884 (1.86)	10.5114** (2.46)	5.3212 (0.39)	21.4717 (0.71)	15.1643 (1.40)
<b>Inflation Rate</b>							
Portfolio 1	14.2718** (2.35)	-7.3871** (-2.28)	-12.9790 (-0.70)	5.0217 (1.42)	-4.6593 (-0.29)	-10.6858 (-0.35)	-13.1404 (-1.52)
Portfolio 2	-3.7671 (-0.82)	-2.1985 (-0.67)	-10.2507 (-0.91)	-13.0379** (-2.65)	3.9829 (0.39)	-2.4054 (-0.14)	-4.0288 (-0.59)
Portfolio 3	6.7261 (1.90)	-0.0370 (-0.01)	-4.6623 (-0.55)	3.8678 (1.32)	1.7209 (0.15)	-5.5517 (-0.57)	0.4221 (0.08)
Portfolio 4	-9.8212** (-2.24)	1.5195 (0.53)	-4.8653 (-0.38)	-6.3667 (-1.39)	-6.4377 (-0.63)	-3.2929 (-0.19)	2.0272 (0.35)
Portfolio 5	-7.4096 (-1.13)	8.1030 (1.83)	32.7574 (1.88)	10.5150** (2.40)	5.3932 (0.40)	21.9357 (0.72)	14.7200 (1.38)

**Panel B: The three-factor model**

	Country						
	Hong Kong	Indonesia	Malaysia	Philippines	Singapore	Taiwan	Thai
<b>Nominal Interest Rate</b>							
Portfolio 1	8.7181** (1.99)	-11.0723 (-1.92)	11.7844 (1.54)	6.6705** (2.92)	-6.0349 (-0.66)	7.5895 (0.68)	-3.3915 (-0.80)
Portfolio 2	-8.2688 (-1.64)	0.2948 (0.05)	-0.2159 (-0.03)	-12.3316** (-2.93)	6.9349 (0.73)	10.4327 (0.92)	-2.6036 (-0.57)
Portfolio 3	4.2232 (0.97)	7.2246 (1.25)	-7.4835 (-1.07)	3.3949 (1.17)	4.0581 (0.36)	-13.6602 (-1.21)	1.6242 (0.27)
Portfolio 4	-8.0217 (-1.72)	-4.0966 (-0.76)	-18.5432** (-2.24)	-6.2163 (-1.72)	-6.3483 (-0.79)	-5.5059 (-0.50)	0.8548 (0.17)
Portfolio 5	3.3492 (0.91)	7.6495 (1.33)	14.4582 (1.68)	8.4825** (2.41)	1.3902 (0.18)	1.1439 (0.08)	3.5161 (0.68)
<b>Real Interest Rate</b>							
Portfolio 1	6.2411 (1.81)	-4.0583 (-1.31)	11.5415 (1.52)	6.6474** (2.91)	-6.5137 (-0.71)	2.6253 (0.28)	-3.1095 (-0.78)
Portfolio 2	-6.8179 (-1.73)	1.2379 (0.38)	1.3057 (0.18)	-12.2390** (-2.92)	7.3114 (0.77)	2.9158 (0.30)	-3.1422 (-0.73)
Portfolio 3	4.9302 (1.46)	3.3163 (1.09)	-6.5145 (-0.94)	3.5612 (1.23)	4.1295 (0.37)	-4.8734 (-0.51)	0.9485 (0.16)
Portfolio 4	-5.7555 (-1.57)	-0.8653 (-0.30)	-19.1057** (-2.33)	-6.7277** (-2.00)	-6.6543 (-0.83)	-4.7849 (-0.51)	0.6876 (0.13)
Portfolio 5	1.4020 (0.48)	0.3694 (0.12)	12.7730 (1.50)	8.7581** (2.51)	1.7271 (0.22)	4.1172 (0.33)	4.6156 (0.89)
<b>Inflation Rate</b>							
Portfolio 1	6.6092 (1.84)	-3.5464 (-1.23)	11.6883 (1.54)	6.2529** (2.67)	-6.8895 (-0.75)	2.4319 (0.26)	-4.0399 (-1.03)
Portfolio 2	-7.2857 (-1.79)	1.2725 (0.42)	0.9783 (0.13)	-11.2515** (-2.62)	6.8768 (0.72)	2.9586 (0.30)	-2.0453 (-0.48)
Portfolio 3	5.2760 (1.50)	2.7910 (0.99)	-6.7584 (-0.98)	4.1137 (1.39)	5.1166 (0.46)	-4.6661 (-0.48)	0.9169 (0.15)
Portfolio 4	-6.1485 (-1.62)	-1.0406 (-0.39)	-19.1406** (-2.34)	-8.7939** (-2.56)	-6.5775 (-0.81)	-4.8065 (-0.50)	0.8658 (0.17)
Portfolio 5	1.5490 (0.51)	0.5235 (0.18)	13.2324 (1.56)	9.6789** (2.72)	1.4737 (0.18)	4.0820 (0.33)	4.3026 (0.85)

\*\* Significant at the 95% confidence level, t-statistics is shown in the parenthesis.

## BIOGRAPHY

Mr.Pongsak Pojtanaditee was born on August 28, 1980 at Pranakorn district, Bangkok and graduated from high school at Borvorniwet School in 1997. Upon completion of the bachelor degree of Economics from Thummasat University in 2001, I entered the Master of Science in Finance Program at Chulalongkorn University in 2002.

